2016
SANTA PAULA BASIN ANNUAL REPORT

United Water Conservation District
Professional Paper 2017-02
September 2017

PREPARED FOR:

SANTA PAULA BASIN TECHNICAL ADVISORY COMMITTEE

Cover photo: Fields and hillside homes in the City of Santa Paula, viewed from South Mountain Road near the eastern boundary of Santa Paula basin.

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(UWCD PROFESSIONAL PAPER 2017-02)

FOREWORD

In March 1996, the Superior Court of the State of California for the County of Ventura entered a stipulated judgment to establish pumping allocations and establish a management plan for the Santa Paula groundwater basin (*United Water Conservation District vs. City of San Buenaventura,* original March 7, 1996, amended August 24, 2010 [hereinafter "Judgment"]). Members of the Santa Paula Basin Pumpers Association (SPBPA) and the City of San Buenaventura exercise rights to pump groundwater from the basin for reasonable and beneficial uses. United Water Conservation District (UWCD) does not produce groundwater from the basin, but the basin is located within its boundaries and the UWCD is authorized to engage in groundwater management and replenishment activities and to commence actions to protect the water supplies which are of common benefit to the lands within the UWCD or its inhabitants.

The Judgment provides for the creation of a Santa Paula Basin Technical Advisory Committee (TAC) with equal representation from UWCD, the SPBPA, and the City of San Buenaventura. The TAC is charged with establishing a program to "monitor conditions in the basin, including but not necessarily limited to verification of future pumping amounts, measurements of groundwater levels, estimates of inflow to and outflow from the basin, increases and decreases in groundwater storage, and analyses of groundwater quality." The Judgment also allows for the development of a management plan for the operation of the basin and empowers the TAC to determine the safe yield of the basin.

The Judgment requires annual reports summarizing results of the monitoring program, and further specifically provides that "United Water Conservation District shall have the primary responsibility for collecting, collating, and verifying the data required under the monitoring program, and shall present the results thereof in annual reports to the Technical Advisory Committee." The UWCD submits the draft annual reports to the TAC members for review, comment, and approval. The primary groundwater management objective in the Santa Paula basin is to ensure that production from the basin does not exceed the long-term sustainable yield of suitable-quality groundwater for current and anticipated future uses (i.e., municipal, domestic, agricultural, and industrial). The TAC's specialty studies and annual monitoring reports provide data and analysis intended to support this objective.

In 2010 the Judgment was amended to join various pumpers that were not previously included as parties to the settlement, and to clarify certain provisions pertaining to shortage conditions, the responsibilities of the SPBPA and groundwater production by its members, and water-rights transfer procedures. Also in 2010, a Santa Paula Basin TAC Working Group was established consisting of

technical experts from the UWCD, the SPBPA, and the City of San Buenaventura. Since its formation, the Working Group has completed a series of specialty studies and plans to continue to conduct future studies to better understand the factors that affect safe yield in the Santa Paula basin, and anticipates completing both a revised safe-yield study and an evaluation of basin-yield enhancement options in 2017.

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INTRODUCTION

This is the twentieth annual report presenting key climatic, hydrologic, and hydrogeologic data to support management of groundwater resources in the Santa Paula basin. Major geographic features in and near the Santa Paula basin are shown on Figure 1. Data for calendar-year (CY) and water-year (WY) 2016 (the reporting period) are included in this report. This annual report provides the TAC—which consists of representatives from United Water Conservation District (UWCD or United), the City of San Buenaventura (Ventura), and the Santa Paula Basin Pumpers Association (SPBPA)—with monitoring results and other data to be used for management of the basin in accordance with the 1996 Santa Paula basin stipulated judgment by the Superior Court of the State of California for the County of Ventura (*United Water Conservation District vs. City of San Buenaventura,* original March 7, 1996, amended August 24, 2010 [hereinafter "Judgment"]). This report summarizes annual precipitation, streamflow, surface water quality, production well installations and destructions, groundwater extractions and pumping allocations, groundwater levels, change in groundwater storage, and groundwater quality data reported to United for the Santa Paula basin during the reporting period. Sources of the monitoring data and methods of their collection are unchanged from those described in the 2015 Santa Paula Basin Annual Report (United, 2017); refer to that document for details.

DATA SUMMARY AND EVALUATION

Key hydrologic indicators for Santa Paula basin during the reporting period are summarized and compared to long-term averages in Table 1, below. More detailed information regarding conditions in Santa Paula basin during the reporting period are provided in the following subsections.

Table 1. Key Hydrologic Indicators in Santa Paula Basin

Hydrologic Indicator	2016	Average During Period of Record	Median During Period of Record	Period of Record
Water-Year[a] Precipitation at Santa Paula-UWCD[b] (inches)	9.63	17.16	14.84	1890 through 2016
Calendar-Year Precipitation at Santa Paula-UWCD[b] (inches)	14.06	17.00	15.48	1890 through 2016
Water-Year Discharge in Santa Clara River at Freeman Diversion[b] (AF/yr)	5,825	208,681	117,639	1956 through 2016
Water-Year Discharge in Santa Paula Creek at Mupu Bridge[b] (AF/yr)	1,502	18,032	8,017	1928 through 2016
Reported Calendar-Year Groundwater Extractions in Santa Paula Basin (AF/yr)	25,363	25,762	26,008	1980 through 2016
Groundwater Level Index (ft msl)	164.17	181.20	181.85	1983 through 2016
Change in Groundwater Storage from Previous Year (AF)	-70 to -700	Not applicable	Not applicable	2015 to 2016

Notes:

[a] A water year (WY) is defined as the period from October 1 of the previous year through September 30 of the year indicated. For example, WY 2015 includes the period from 10/1/2014 through 9/30/2015.

[b] Locations and identification numbers for rain and stream gages are indicated on Figure 1.

PRECIPITATION

Annual precipitation at Saticoy and Santa Paula throughout the period of record is shown on Figures 2 and 3; monthly precipitation at these locations during CY and WY 2016 is shown on Figure 4. Appendix A (Table A-1) includes a tabulation of monthly precipitation at Santa Paula-UWCD during the period of record. It should be noted that CY (and WY) 2016 was the fifth year that drought conditions occurred throughout most of California, including the Santa Paula basin.

SURFACE WATER FLOWS

Annual discharge in the Santa Clara River (at Freeman Diversion) and Santa Paula Creek (near Santa Paula) throughout the period of record is shown on Figures 5 and 6; daily streamflow at these locations during CY and WY 2016 is shown on Figure 7. Appendix A (Tables A-2 and A-3) provides annual total discharges in the Santa Clara River and Santa Paula Creek during the period of record. Not surprisingly after five years of drought, annual discharge in the Santa Clara River at Freeman Diversion during WY 2016 was the lowest on record, and annual discharge in Santa Paula Creek near Santa Paula was well below average.

SURFACE WATER QUALITY

Minimum, maximum, and average concentrations of selected major water quality constituents (chloride, nitrate, total dissolved solids [TDS], and sulfate) detected in eight surface water samples collected by United from the Santa Clara River at Freeman Diversion during CY 2016 are summarized in Table 2, below. Concentrations of these constituents detected throughout the period of record are shown on Figure 8. Table 2 indicates that average concentrations of nitrate, chloride, TDS, and sulfate detected in the Santa Clara River during CY 2016 were higher than long-term average concentrations, likely a result of low precipitation and streamflow during the extended period of drought conditions.

Table 2. Summary of Major Surface Water Quality Parameters in Santa Clara River at Freeman Diversion, CY 2016

Statistic	Concentration, milligrams per liter (mg/L)			
	Chloride	Nitrate[a]	TDS	Sulfate
Minimum	70	4.7	1,000	460
Maximum	102	12.2	1,820	940
Average	90	8.0	1,540	760
Long-Term Average[b]	64	6.0	1,130	530

Notes:

[a] As nitrate

[b] Includes reported data in UWCD's database from the entire period of record, beginning in CY 1925 for chloride, TDS, and sulfate; beginning in CY 1936 for nitrate.

Minimum, maximum, and average concentrations of selected major water quality constituents (chloride, nitrate, TDS, and sulfate) detected in four quarterly surface water samples collected by United from Santa Paula Creek just downstream from the Harvard Boulevard bridge in Santa Paula

during CY 2016 are summarized in Table 3, below. Concentrations of these constituents detected throughout the period of record are shown on Figure 9. Table 3 indicates that average concentrations of nitrate, chloride, TDS, and sulfate detected in Santa Paula Creek during CY 2016 were higher than long-term average concentrations, similar to trends in the Santa Clara River, likely also a result of low precipitation and streamflow during the recent drought.

Table 3. Summary of Major Surface Water Quality Parameters in Santa Paula Creek at Harvard Blvd. Bridge in Santa Paula, CY 2016

Statistic	Concentration (mg/L)			
	Chloride	Nitrate[a]	TDS	Sulfate
Minimum	80	8.2	1,060	448
Maximum	175	131	3,440	1,660
Average	115	45	1,890	865
Long-Term Average[b]	43	9.6	820	360

Notes:

[a] As nitrate

[b] Includes reported data in UWCD's database from the entire period of record: CY 1980 to present for hardness, sulfate and chloride; CY 1981 to present for nitrate.

PRODUCTION WELL INSTALLATIONS AND DESTRUCTIONS

Two production wells were installed and none were destroyed within the Santa Paula basin during CY 2016, as listed in Table 4, below. The new production wells were replacement or back-up wells for existing production wells.

Table 4. Production Well Installations and Destructions During CY 2016

Production Wells Destroyed	Production Wells Drilled
None	03N21W19M02S, J M Sharp (replacement for 03N21W19M01S, which will be used solely for monitoring)
	03N21W29K04S, The Nature Conservancy (back-up for 03N21W29K02S)

GROUNDWATER EXTRACTIONS

Annual groundwater extractions (pumping) reported for Santa Paula basin wells throughout the period of record are summarized in Table 5, below, and illustrated on Figure 10.

Table 5. Historical Santa Paula Basin Groundwater Extractions

Calendar Year	Groundwater Extractions (AF)	Calendar Year	Groundwater Extractions (AF)	Calendar Year	Groundwater Extractions (AF)
1980	26,820	1993	26,998	2006	24,830
1981	27,545	1994	26,244	2007	28,077
1982	22,925	1995	25,042	2008	26,686
1983	16,710	1996	26,008	2009	25,820
1984	29,455	1997	28,961	2010	23,115
1985	26,533	1998	21,622	2011	24,202
1986	21,617	1999	27,700	2012	25,824
1987	24,852	2000	26,798	2013	26,485
1988	25,370	2001	22,530	2014	27,437
1989	29,362	2002	27,259	2015	25,856
1990	33,453	2003	22,280	2016	25,363
1991	27,056	2004	27,306		
1992	24,355	2005	24,700		
				Average	***25,762***
				Median	***26,008***

Note: The groundwater extractions shown on this table are based on semi-annual groundwater production statements submitted to UWCD's Finance Department.

Reported groundwater extractions from the Santa Paula basin during CY 2016 by the City of San Buenaventura, members of the SPBPA, and other pumpers are summarized in Table 6, below. The Judgment governs groundwater production on a seven-year rolling average, which allows parties to produce more or less than their allocation in any particular year so long as their rolling seven-year average does not exceed their allocation. Appendix C summarizes groundwater extractions for the

past seven years (CYs 2010 through 2016), as well as Individual Party Allocations (IPAs) for the SPBPA (with transfers, de minimis parties, non parties) and the City of San Buenaventura.

Table 6. Summary of Groundwater Extractions During CY 2016

Pumper	Extractions (AF)
City of San Buenaventura[a]	3,156
SPBPA Pumpers with Individual Party Allocations (adjusted by SPBPA)[b]	22,170
SPBPA Pumpers with Individual Party Allocations (reported to UWCD)[c]	22,170
Non-stipulated Parties[b]	22
De Minimis Pumpers[b]	15
Total extractions (adjusted by SPBPA[b] / reported to UWCD[c])	25,363 / 25,363

Notes:

[a] Includes pumping from well 02N/22W-03E01S (Appendix C, Table C-5)

[b] From Appendix C compiled by SPBPA

[c] From UWCD Finance Department records

Reported groundwater extractions during CY 2016, together with estimated imports and exports, are summarized by use and source in Table 7 and graphically illustrated Figure 11. The distribution of groundwater extractions across the basin during CY 2016 is shown on Figure 12.

Table 7. Summary of Groundwater Extractions, Imports, and Exports in Santa Paula Basin, CY 2016

Description	Volume (AF)
Reported groundwater extractions from wells in the Santa Paula basin stipulated area	25,363
Estimated groundwater imports from Fillmore basin (assume 60% of total pumpage from Teague #6 and 100% from FICO #12)	+2,200
Estimated groundwater imports from Oxnard Forebay basin (assume 67% of total pumpage from Alta #3 and Alta #11)	+720
Estimated water exports to Mound basin via the FICO distribution system	-950
Estimated net groundwater use in Santa Paula basin (sum of extractions plus imports, less exports)	**= 27,300***

** Does not include potential imports/exports by Ventura to/from other supply sources. Specific volumes of groundwater exported from Ventura's wells in Santa Paula basin, and imported from other sources to the Santa Paula basin, are variable and undetermined. However, the net import or export of water by Ventura to/from Santa Paula basin can be assumed to be relatively small compared to the overall water budget.*

GROUNDWATER LEVELS

Groundwater elevations were monitored during the reporting period at selected wells in and adjacent to the Santa Paula basin, as shown on Figure 13. Groundwater elevation hydrographs for selected wells are provided in Appendix B. Two hydrographs are included for each well at different scales, as follows:

- The first hydrograph for each well is scaled with a consistent vertical axis range of -60 to 380 feet so that, for most wells, the relationships between static groundwater levels, top and bottom of well screens, and reference points (RPs) at different wells in the basin can be visually compared. The information provided in these hydrographs displays the relationship between the (static) water level variations and the production zones of wells in the basin.

- The second hydrograph for each well is scaled to allow easier comparison of the magnitude of the static groundwater level changes in the wells. The vertical axis range of 80 feet captures the range of water levels on an expanded scale for visual inspection of groundwater level trends and comparison between wells. These plots include annotations regarding the RP and depth of the screen (which is indicated in parentheses to the right of the well number) at each well.

Groundwater elevation contours for spring and fall of CY 2016 in Santa Paula basin are shown on Figures 14 and 15. The contours were interpolated using groundwater elevation data obtained from wells in the Santa Paula basin and in the adjacent, hydraulically-connected Fillmore, Mound, and Oxnard Forebay basins (note that the contours are closer together, representing a steeper hydraulic gradient, near the west and southwest margins of the basin—this is a result of lower horizontal hydraulic conductivity of the aquifers in the vicinity of faults in this area). The contours represent lines of equal groundwater elevation (total hydraulic head), and generally define the water table (in unconfined portions of the aquifer) or potentiometric surface (in confined portions of the aquifer). Most of the groundwater elevations used for contouring were measured at long-screened wells with total depths greater than 100 feet. The screened interval contoured at UWCD's cluster monitor well sites SP-1 and SP-2 are 370 to 390 feet, and 290 to 310 feet, respectively. Groundwater elevations measured at shallow versus deep wells are not contoured independently in this annual report.

Groundwater levels in the majority of wells throughout the basin show a seasonal variation in the range of 10 to 20 feet (see Appendix B for hydrographs and transducer data from key index wells). Longer-term groundwater level trends have been summarized in Santa Paula basin through the use of a "groundwater level index" (GLI). The GLI is calculated as the average of spring-high groundwater elevations measured each year at nine key wells selected for their relatively long record and their geographic distribution across the basin. The GLIs for 1983 through 2016 are shown on Figure 16, together with the cumulative departure from average precipitation over the same period at Santa Paula-UWCD. The 2016 GLI is 164.17 feet above mean sea level (ft msl), which is below the previous record low GLI of 171.60 ft msl, set in WY 1991 during the previous major drought in California. The average GLI since 1983, when it was first calculated, is 181.20 ft msl, which is approximately 17 feet higher than the 2016 GLI.

CHANGE IN GROUNDWATER STORAGE

Geostatistical analysis of year-over-year changes in spring-high groundwater elevations within the Santa Paula basin from 2015 (UWCD, 2017) to 2016 (Figure 17) indicates that, on average, groundwater levels declined by 5.41 ft across the basin during this period. This is slightly smaller than the calculated decline in GLI over the same period (2015 to 2016) of 7.03 feet. More data points are used for the geostatistical analysis than for the GLI calculation; therefore, the geostatistical analysis likely is more representative of basin-wide groundwater-elevation and storage changes from year to year. The magnitude of the decline was calculated using only data from the wells where groundwater levels were measured both in 2015 and 2016, including wells in and adjacent to Santa Paula basin. The geostatistical analysis used the Kriging method to interpolate the estimated groundwater elevation changes across the area of the unconsolidated alluvial deposits in Santa Paula basin. Areas outside of the basin were "blanked," eliminating them from the analysis. The area of the unconsolidated alluvial deposits within Santa Paula basin is approximately 13,000 acres, and the average storage coefficient for the aquifer, which is mostly confined, is estimated to be in the range from 0.001 to 0.01. Based on these known data and estimated parameters, the calculated change in groundwater storage within the area of the unconsolidated alluvial deposits between spring 2015 and

spring 2016 is a decrease of 70 to 700 AF, which may be within the margin of error for the method of analysis.

GROUNDWATER QUALITY

Concentrations of selected water-quality constituents (nitrate, chloride, sulfate, and TDS) detected in 64 groundwater samples obtained during CY 2016 and reported to United are summarized in Table 8, below, together with California primary maximum contaminant levels (MCLs), secondary MCL ranges (MCLRs), and water quality objectives specified by the California Regional Water Quality Control Board, Los Angeles region (1994). Maps showing the maximum reported concentrations of these constituents during CY 2016 are provided on Figures 18 through 21. As noted in past annual reports, concentrations of chloride, TDS, and sulfate generally increase from east to west in the basin, with two notable exceptions. One is the shallow-screened (50 to 70 ft bgs) well in UWCD's monitoring well cluster SP-2, in Santa Paula at Teague Park, where solute concentrations are commonly the highest detected in the basin. The other is a shallow (100 ft bgs) well located southwest (and hydraulically downgradient) of the City of Santa Paula Water Recycling Facility percolation ponds. Analytical results from these wells reflect the typical lower quality of shallow groundwater in the basin compared to the more widely used deeper aquifers.

Reported concentrations of hardness, alkalinity, iron, and manganese for 112 groundwater samples obtained during CY 2016 and reported to United are summarized in Table 9, together with the secondary MCLs for iron and manganese, and the micro-irrigation plugging hazard criteria developed by Pitts and Peterson (undated) and the University of California (2015). Iron and manganese occur naturally in groundwater, and any elevated concentrations detected in the Santa Paula basin are thought to be a result of local geochemical conditions rather than man-made sources (e.g. mining or industry).

Table 8. Summary of Chloride, Nitrate, TDS, and Sulfate in Groundwater in the Santa Paula Basin, CY 2016

Statistic	Concentration (mg/L)			
	Chloride	**Nitrate[a]**	**TDS**	**Sulfate**
Minimum	36.0	ND	860	350
Maximum	306	55.0	3,640	1,820
Average	72.2	9.0	1,350	600
Long-Term Average[b]	69.9	10.3	1,310	540
Primary MCL	none	45	none	none
Secondary MCLR-"Recommended"	250	none	500	250
Secondary MCLR-"Upper"	500	none	1,000	500
Water Quality Objectives East/West of Peck Rd.	100/110	45/45	1,200/2,000	600/800

Notes:

ND = not detected
MCL = Maximum Contaminant Level
MCLR = Maximum Contaminant Level Range

[a] As NO_3.

[b] Includes reported data in UWCD's database from the entire period of record: CY 1903 to present for chloride, TDS, and sulfate; CY 1923 to present for nitrate.

Table 9. Summary of Hardness, Alkalinity, Iron, and Manganese in Groundwater in the Santa Paula Basin, CY 2016

Statistic		Concentration (mg/L)			
		Hardness[a]	**Alkalinity[a]**	**Iron**	**Manganese**
Minimum		390	130	ND	ND
Maximum		1,230	380	4.66	0.79
Average		690	260	0.12	0.28
Long-Term Average[b]		650	270	0.15	0.24
Secondary MCL		NA	NA	0.3	0.05
Pitts and Peterson Plugging Hazard Potential	Moderate	150-300	100-200	0.1 - 1.0	0.1 - 1.0
	Severe	>300	>200	>1.0	>1.0
Univ. of Calif. Clogging Potential	Moderate	NA	100	0.2 - 1.5	0.1 - 1.5
	Severe	NA	NA	>1.5	>1.5

Notes:

ND = not detected

NA = not applicable or not reported

> = greater than the value shown

[a] As calcium carbonate ($CaCO_3$).

[b] Includes reported data in UWCD's database from the entire period of record: CY 1929 to present for hardness and alkalinity; CY 1937 to present for iron and manganese.

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Pitts, Donald J., and Peterson, Kevin, undated, Maintaining a Plug-Free Micro-Irrigation System, Cachuma Resource Conservation District.

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United Water Conservation District, 2017, 2015 Santa Paula Basin Annual Report, United Water Conservation District Professional Paper 2017-01, March.

University of California, 2015, Maintenance of Microirrigation Systems, Division of Agriculture and Natural Resources webpage edited by Lawrence J. Schwankl, Ph.D. (http://micromaintain.ucanr.edu/Prediction/Source/Groundwater/Assessing_Water_Quality_II-50a/)

FIGURES

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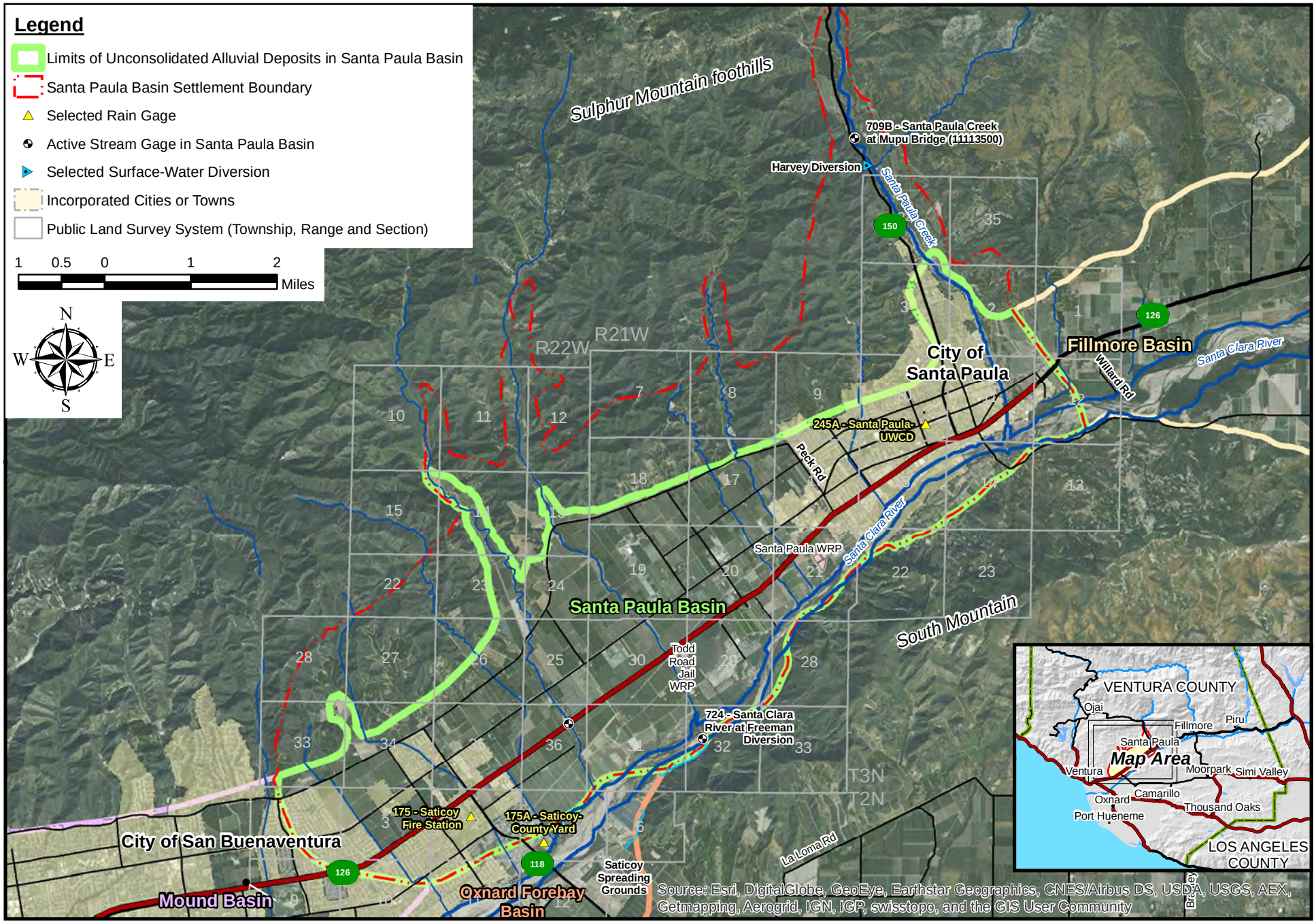

Figure 1. Santa Paula Basin Location Map

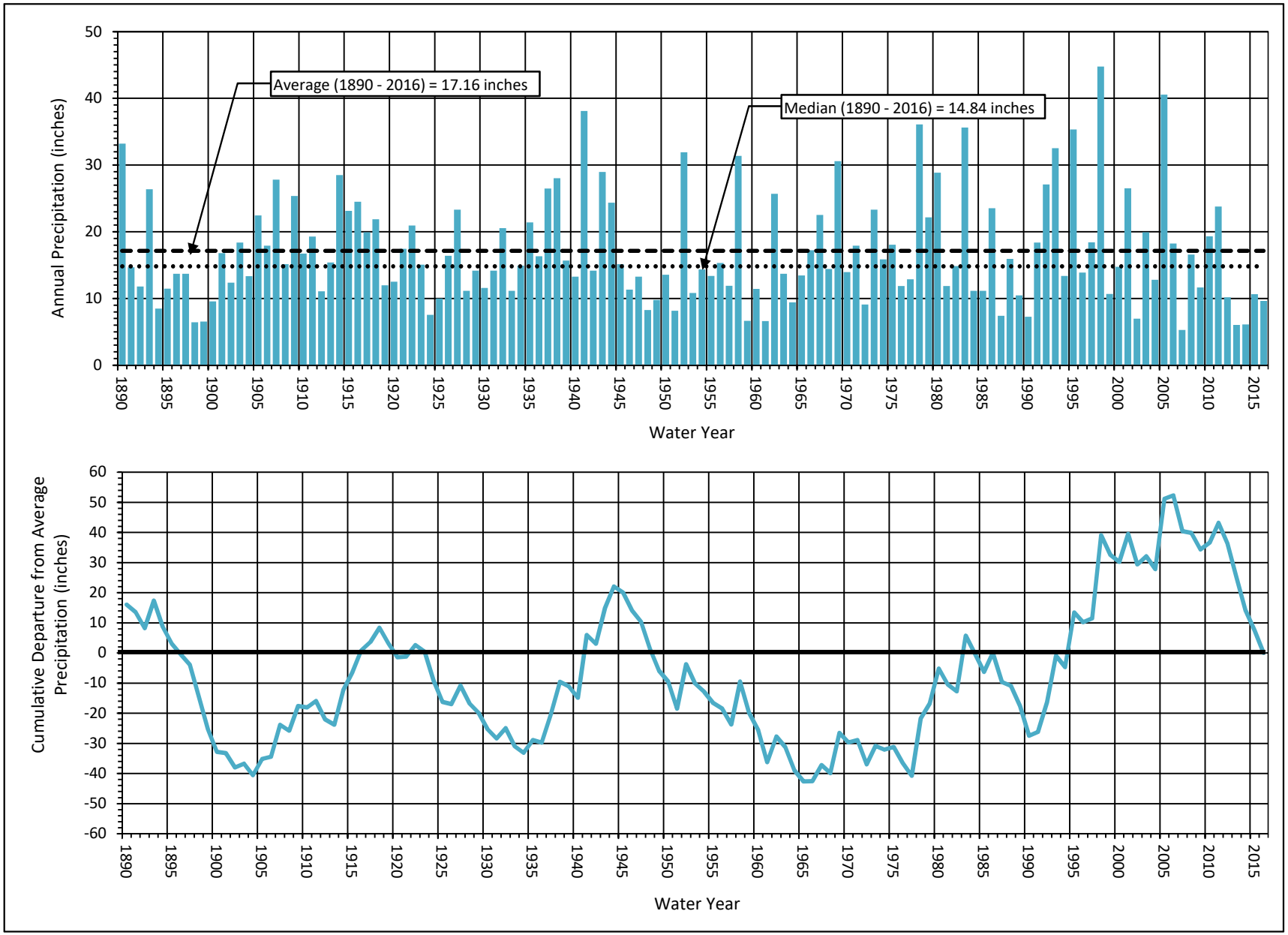

Figure 2. Annual Precipitation at Santa Paula and Departure from Average, WYs 1890 through 2016

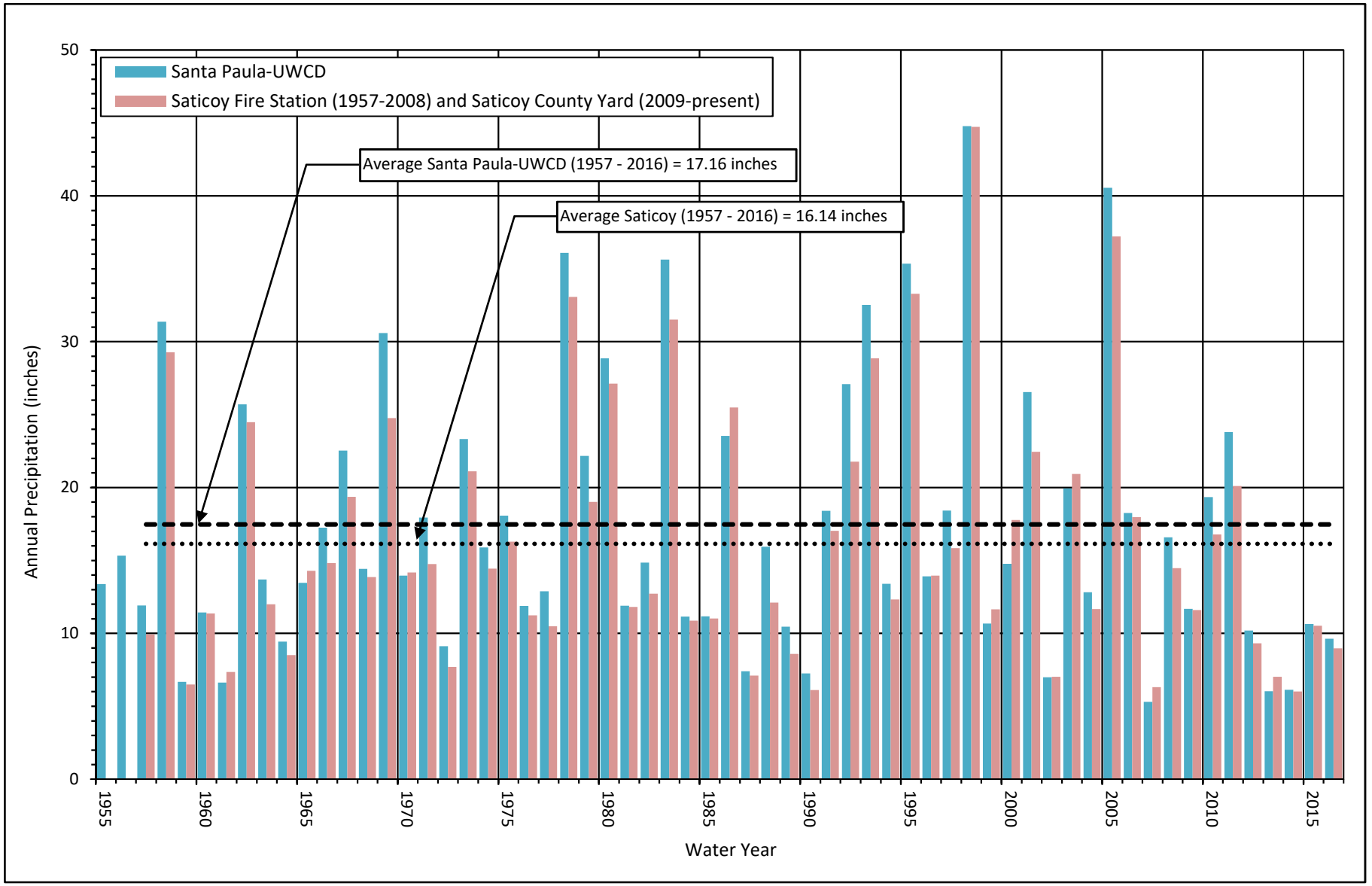

Figure 3. Annual Precipitation at Saticoy and Santa Paula, WYs 1955 through 2016

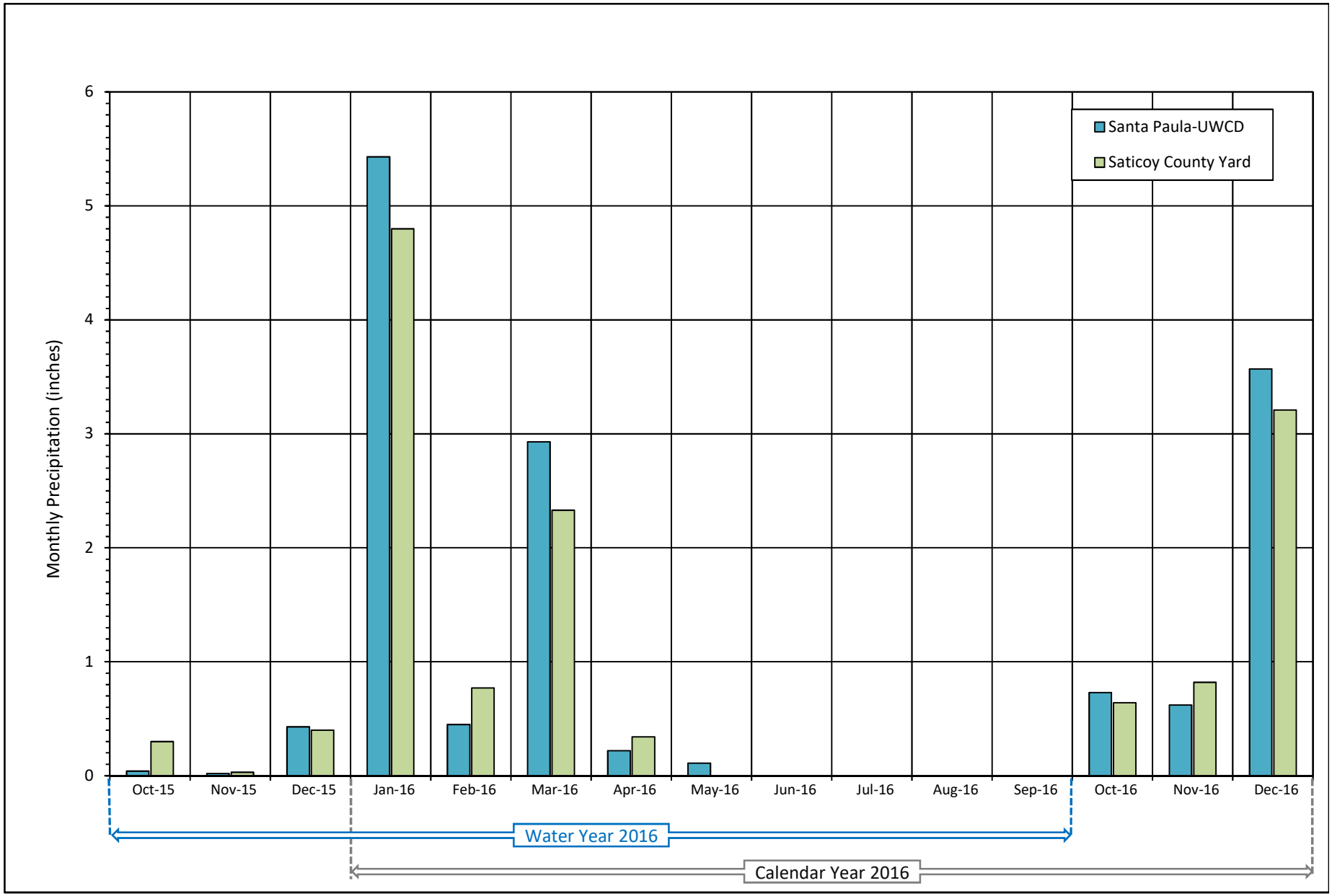

Figure 4. Monthly Precipitation in Santa Paula Basin, WY and CY 2016

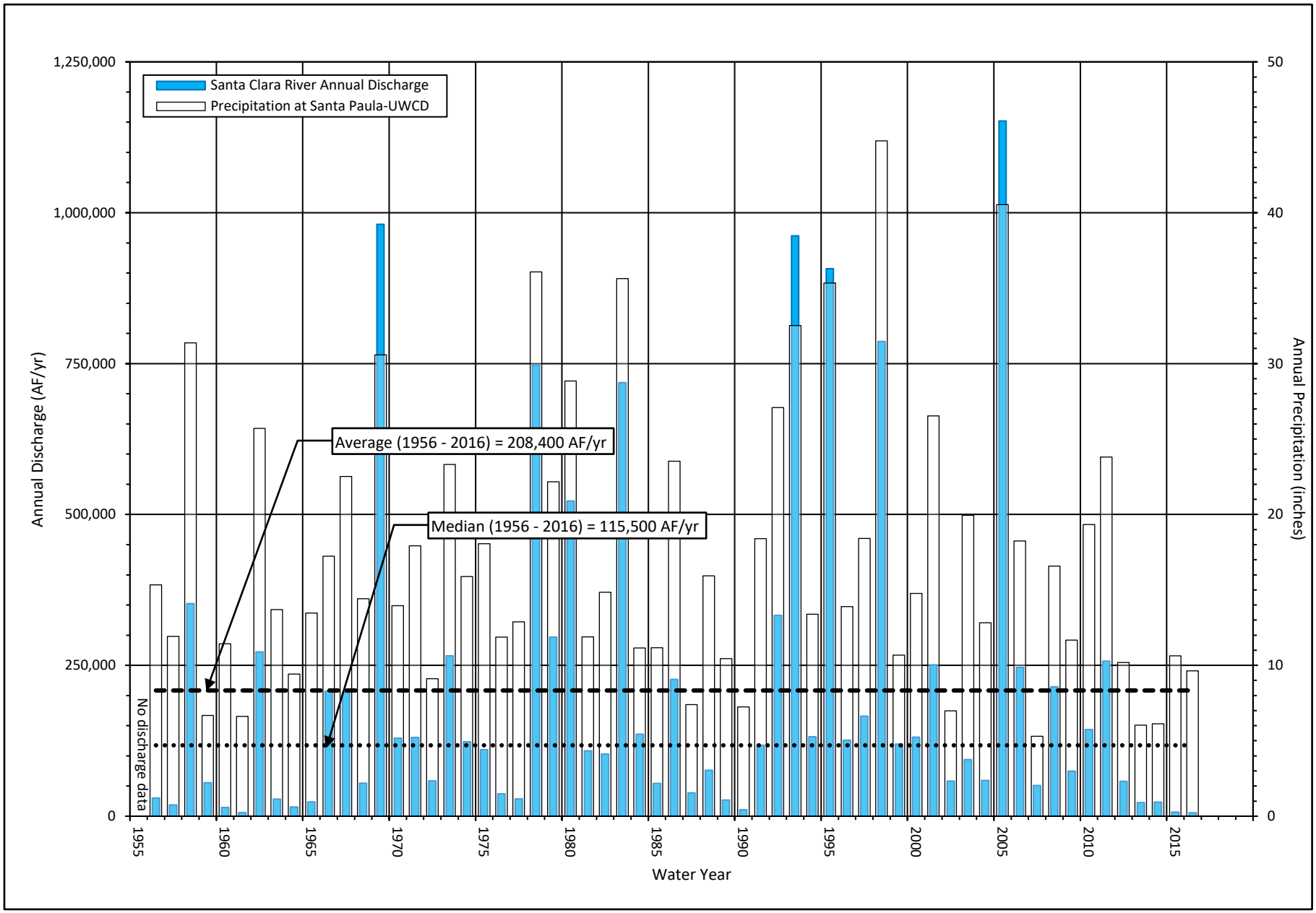

Figure 5. Annual Discharge of Santa Clara River at the Freeman Diversion, WYs 1956 through 2016

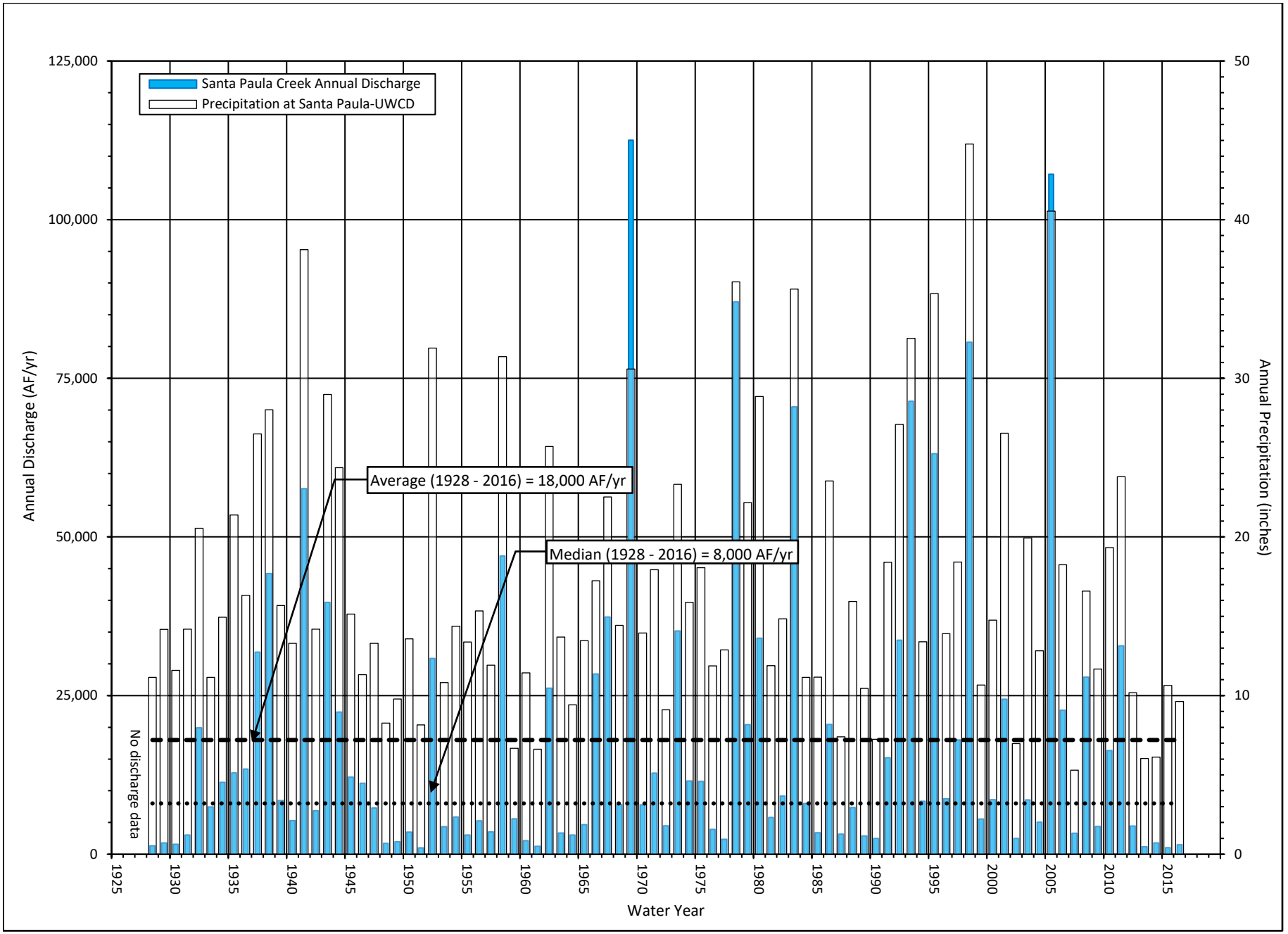

Figure 6. Annual Discharge of Santa Paula Creek Near Santa Paula, WYs 1928 through 2016

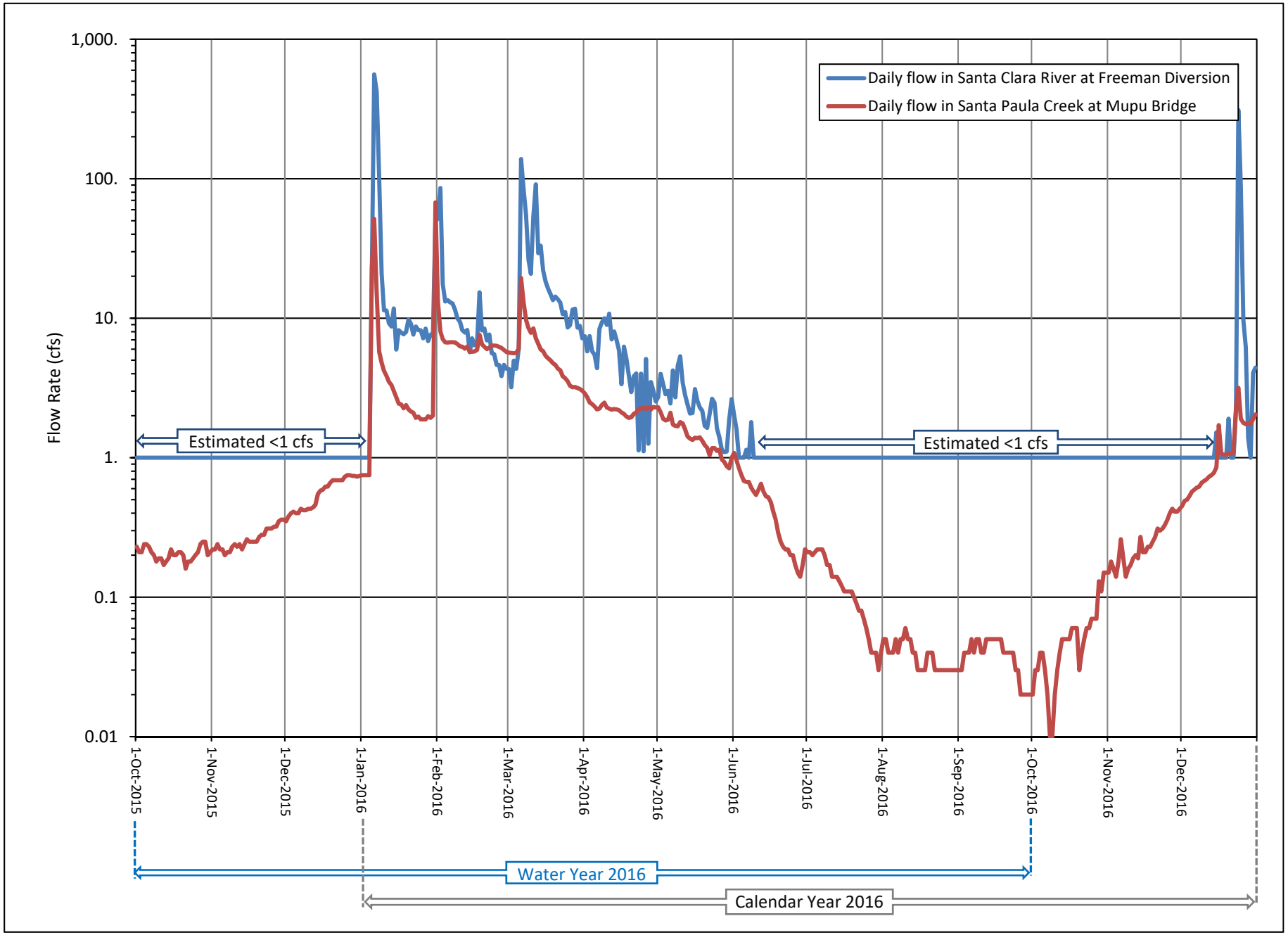

Figure 7. Daily Streamflow in Santa Paula Creek and Santa Clara River, WY and CY 2016

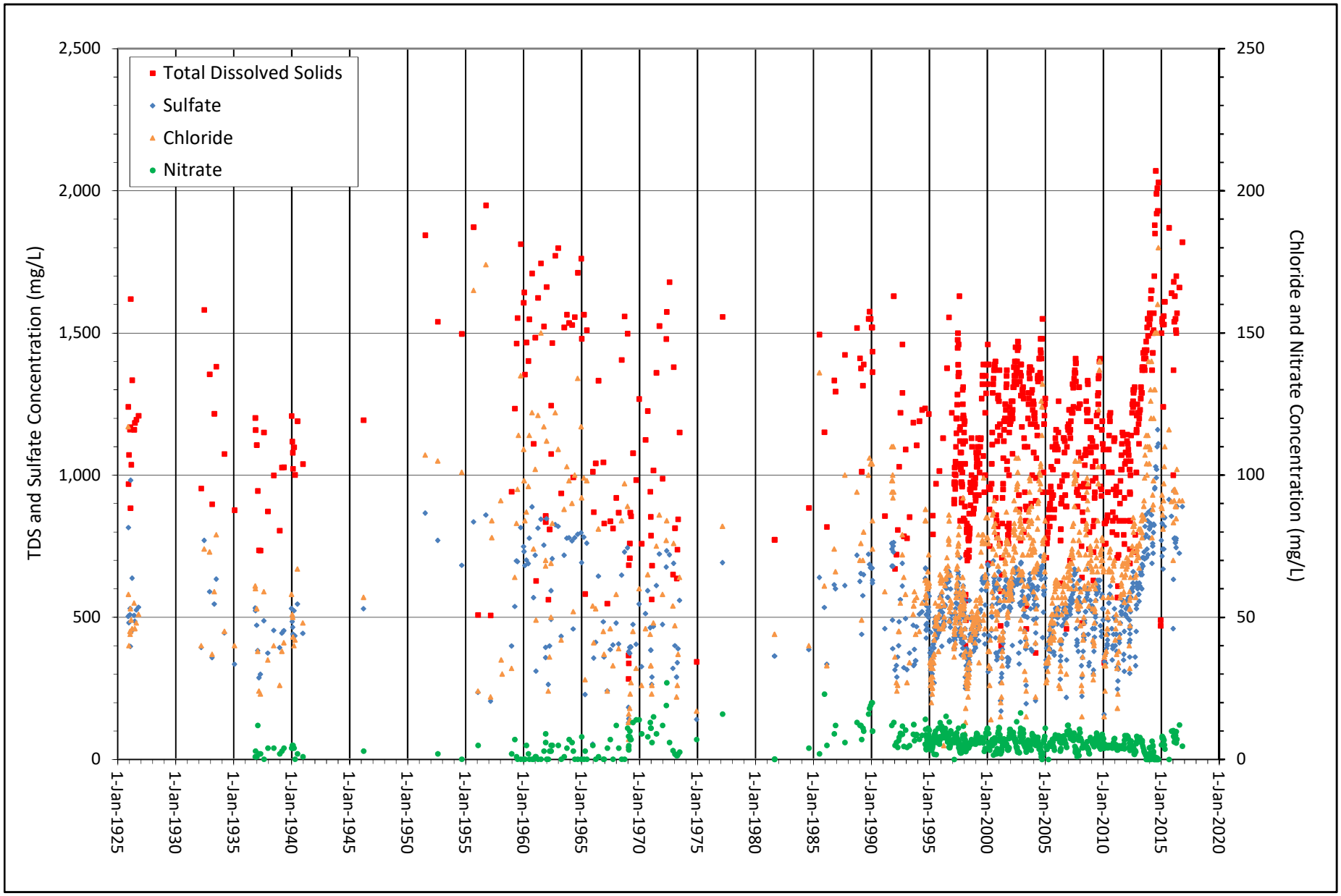

Figure 8. Concentrations of Selected Major Surface Water Quality Parameters in the Santa Clara River at Freeman Diversion, CYs 1925 through 2016

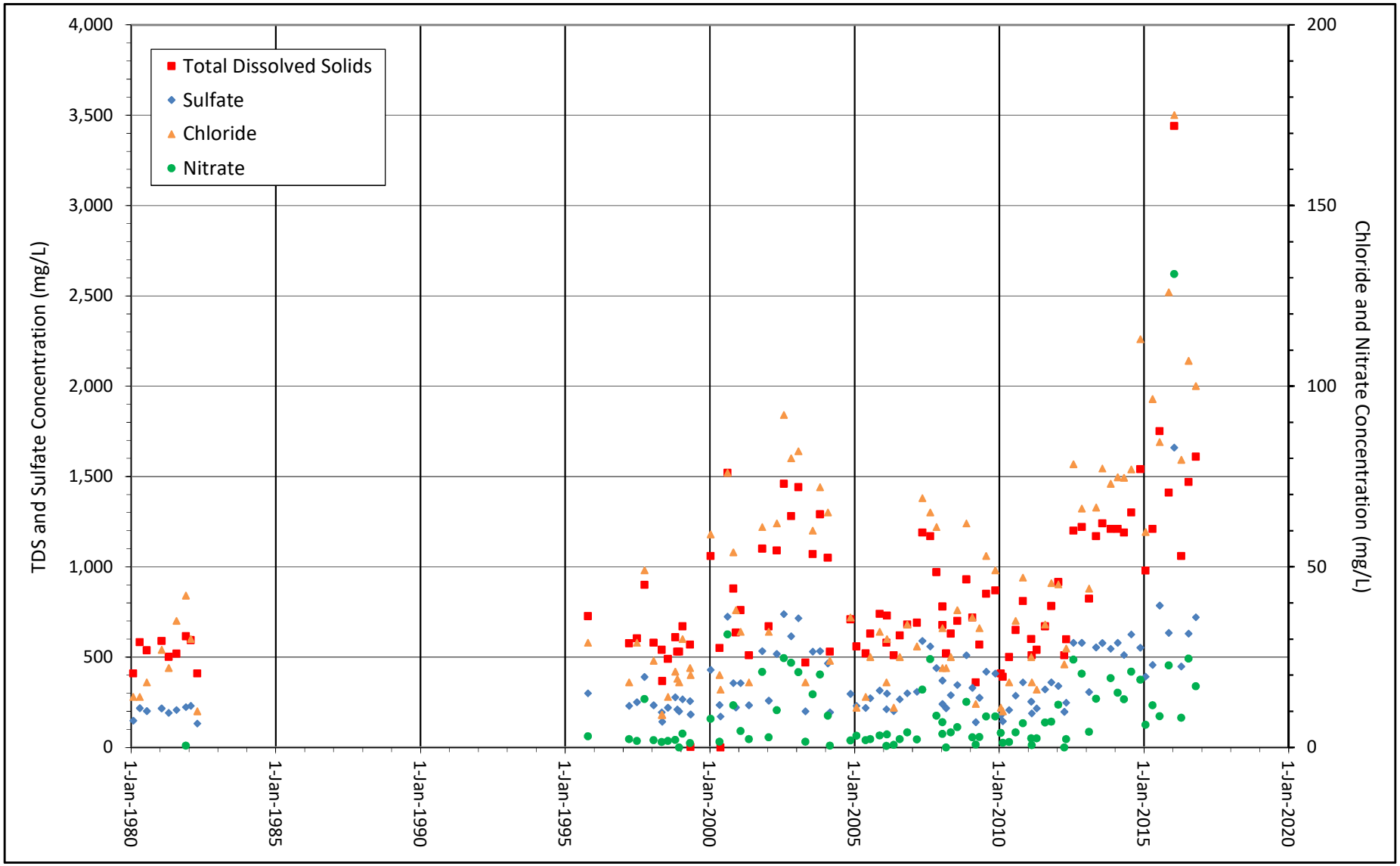

Figure 9. Concentrations of Selected Major Surface Water Quality Parameters in Santa Paula Creek Near Santa Paula, CYs 1980 through 2016

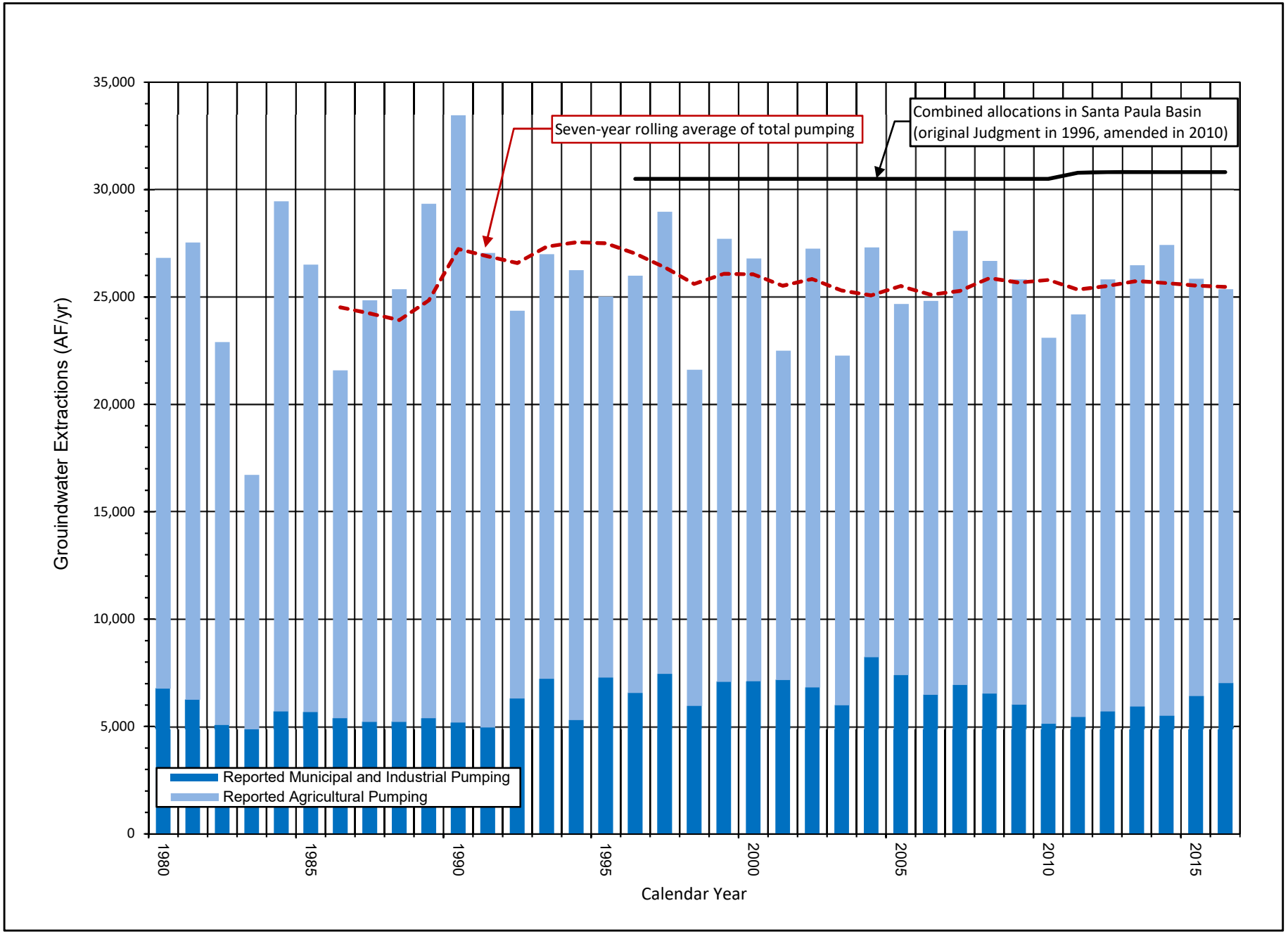

Figure 10. Historical Annual Groundwater Extractions from Santa Paula Basin, CYs 1980 through 2016

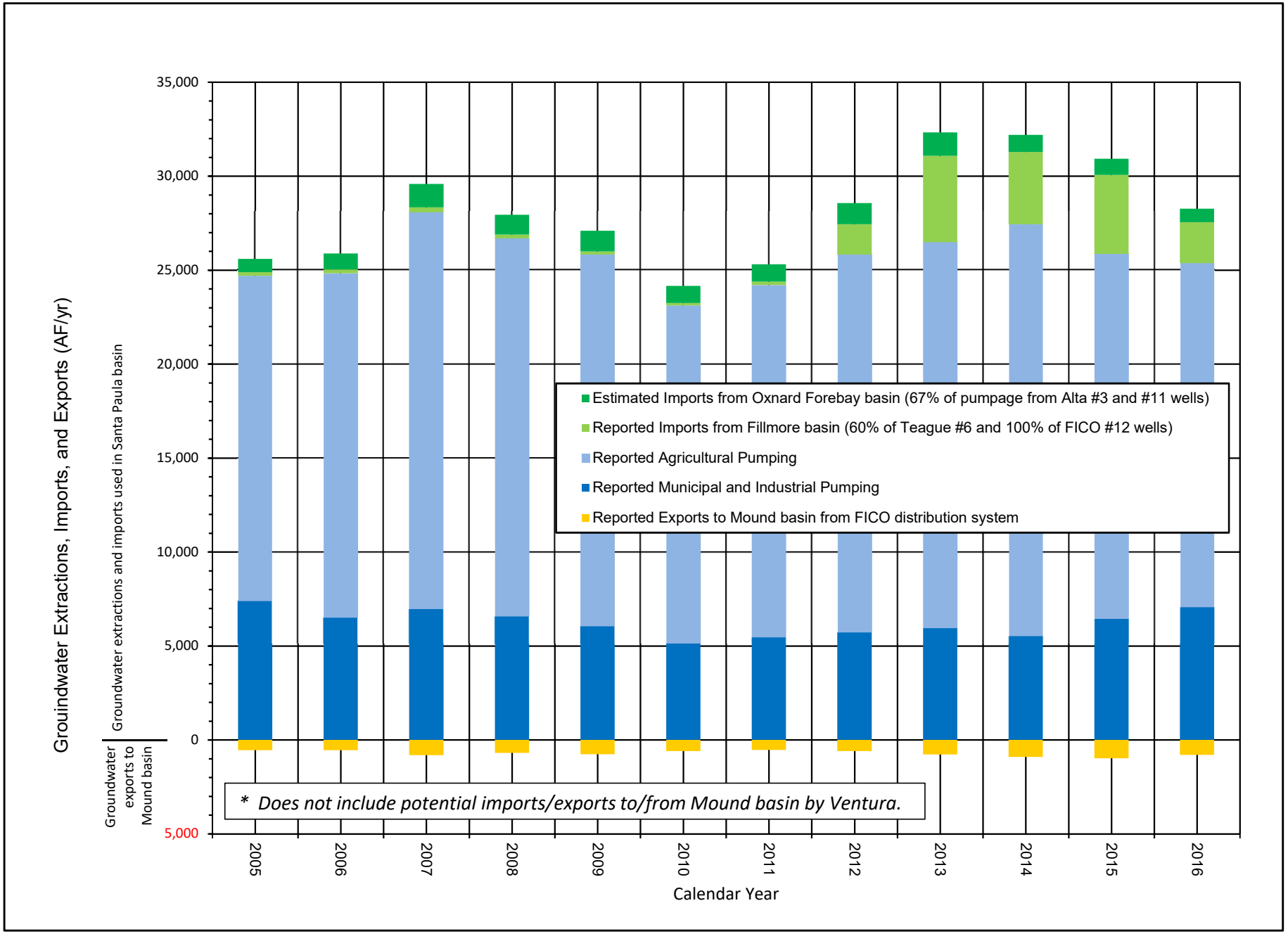

Figure 11. Annual Groundwater Extractions, Imports, and Exports from Santa Paula Basin, CYs 2005 through 2016

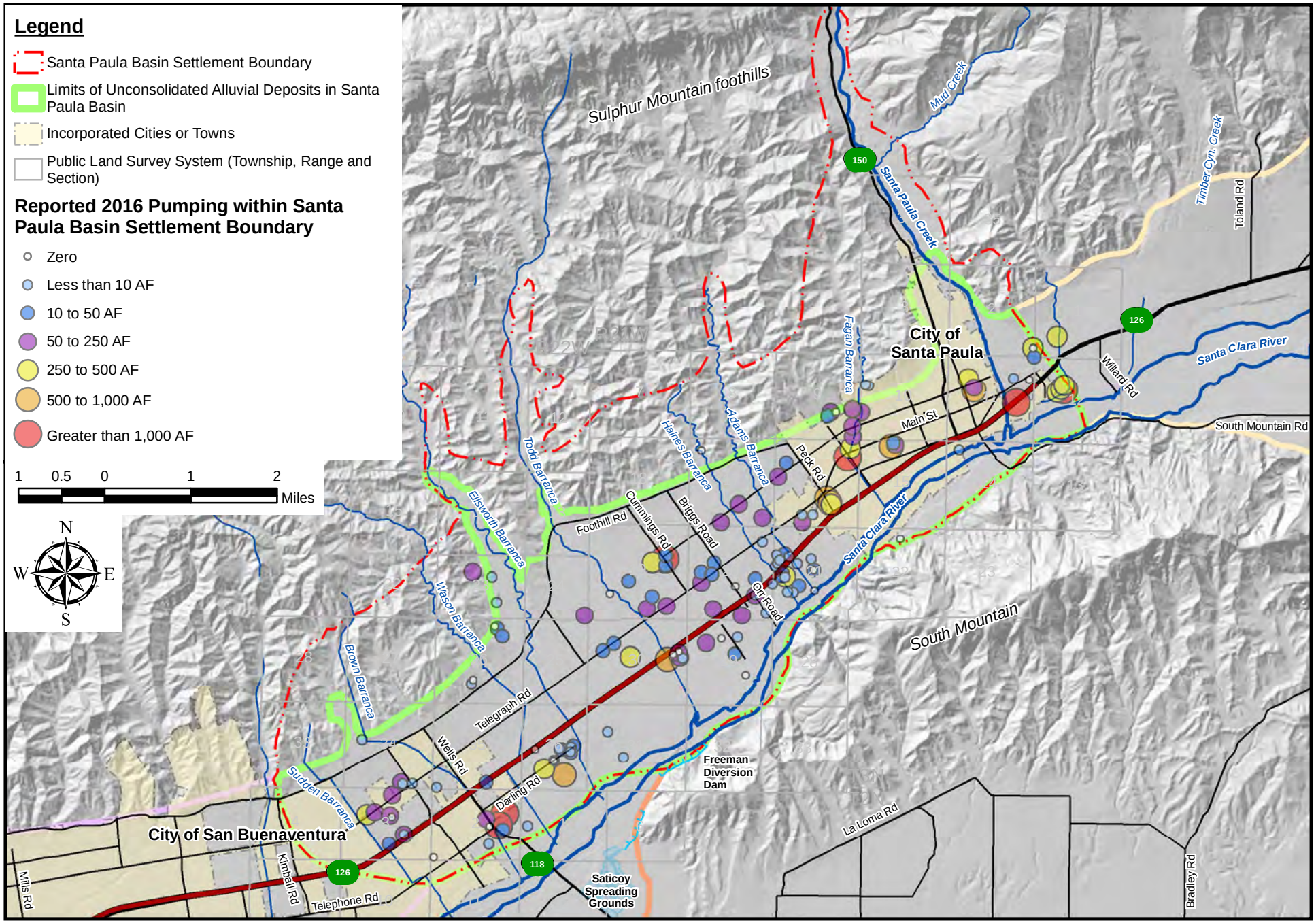

Figure 12. Santa Paula Basin Groundwater Extractions by Well, CY 2016

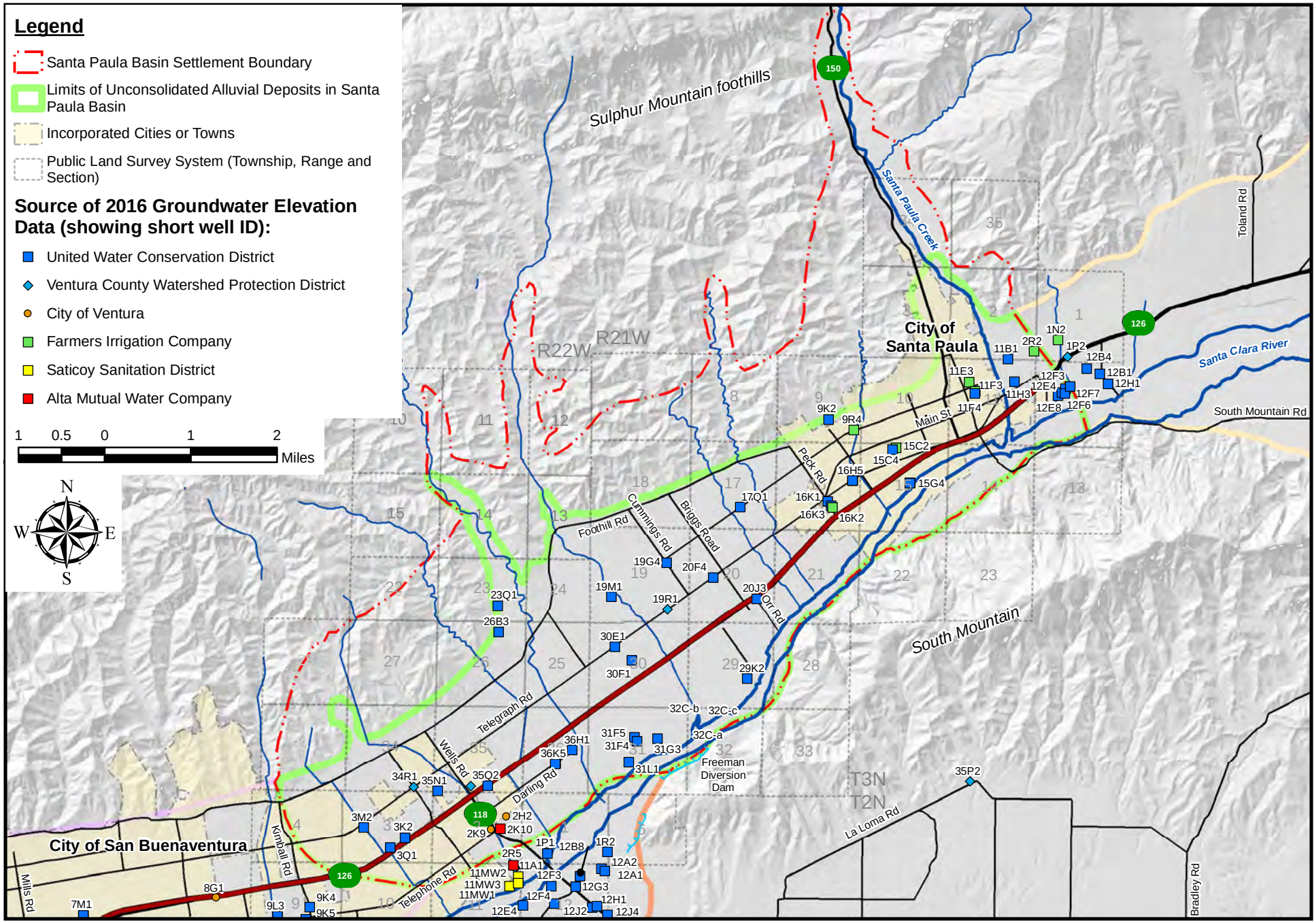

Figure 13. Locations of Wells used to Monitor Groundwater Levels in and Adjacent to Santa Paula Basin, CY 2016

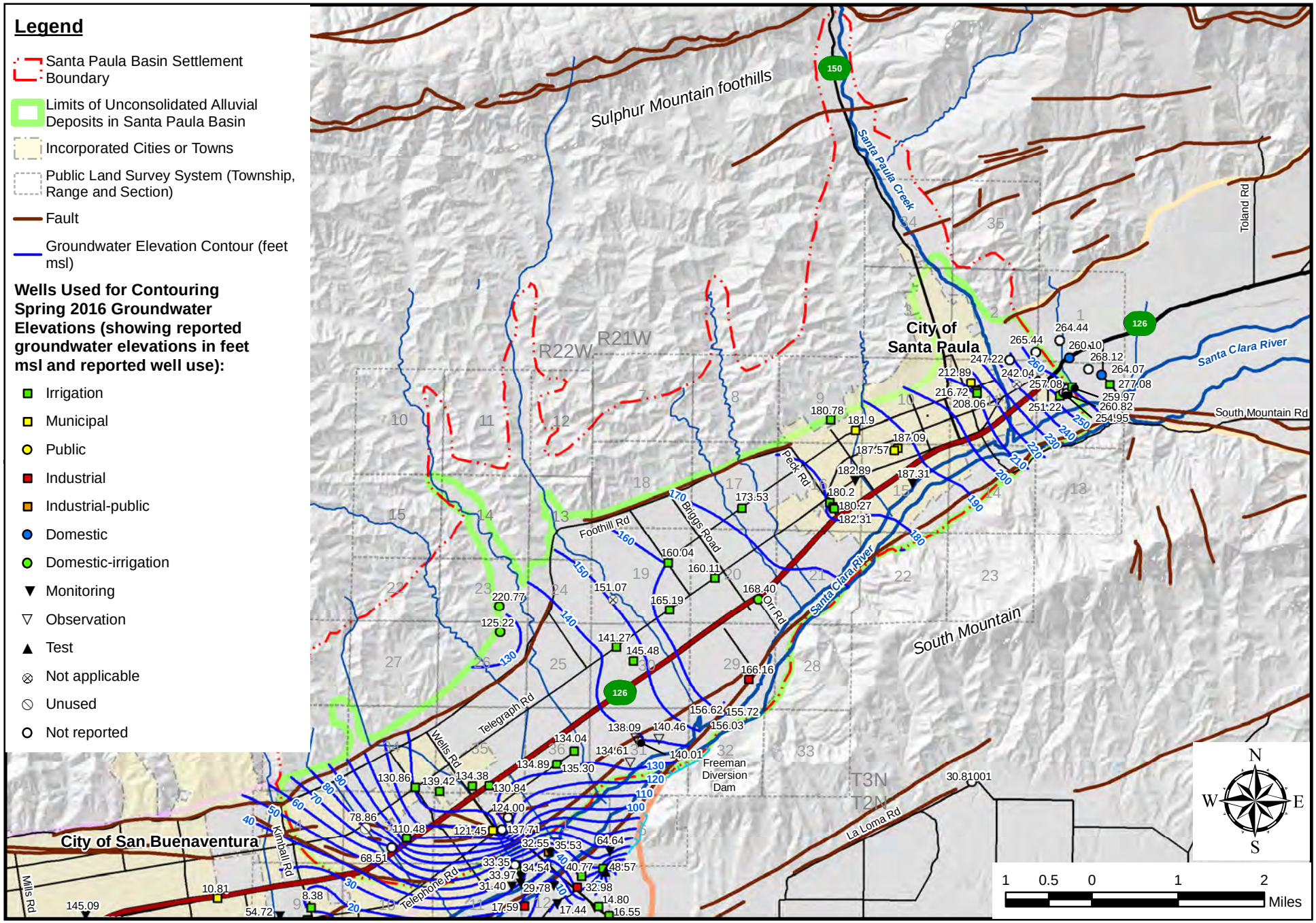

Figure 14. Santa Paula Basin Groundwater Elevation Contours, Spring 2016

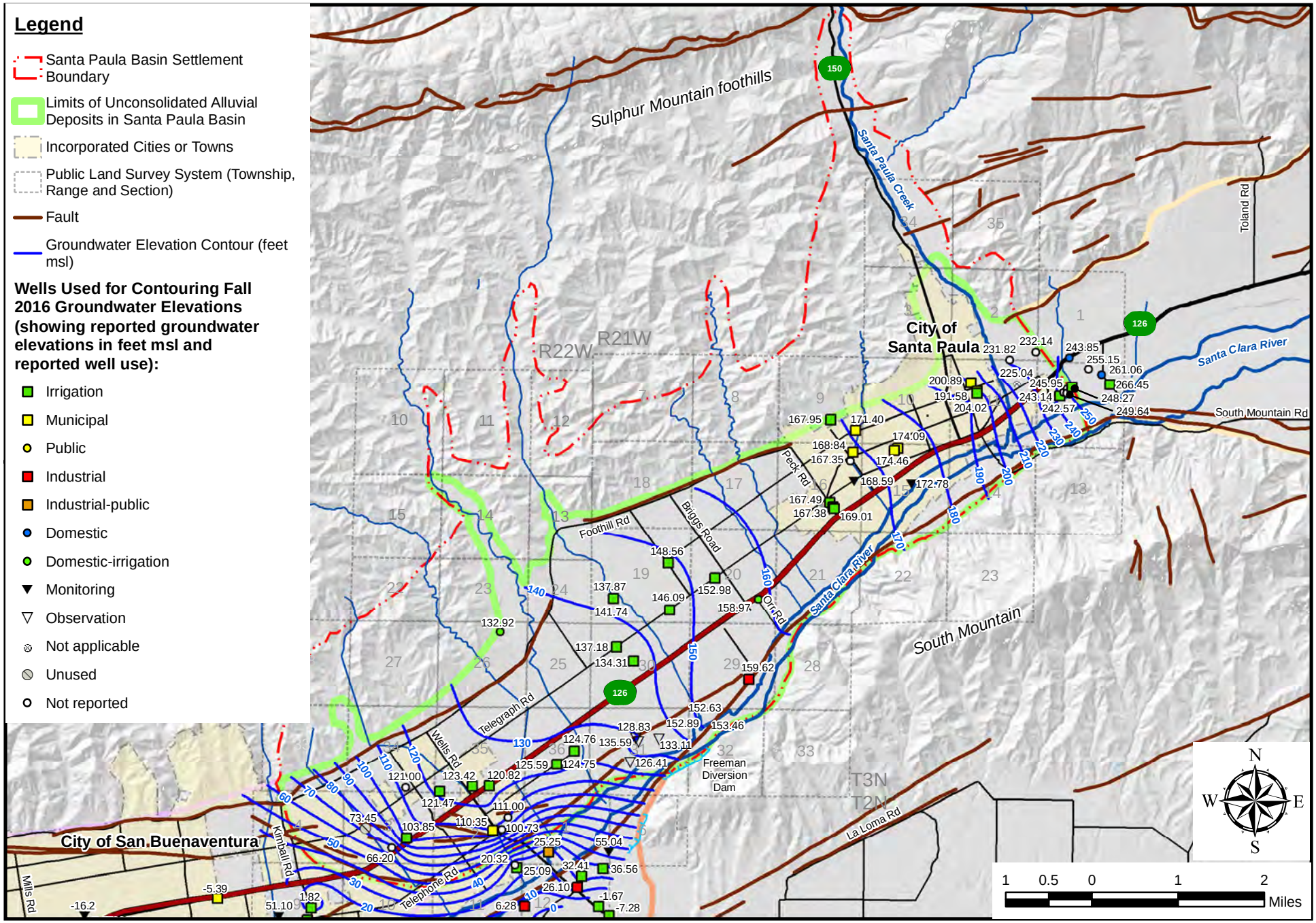

Figure 15. Santa Paula Basin Groundwater Elevation Contours, Fall 2016

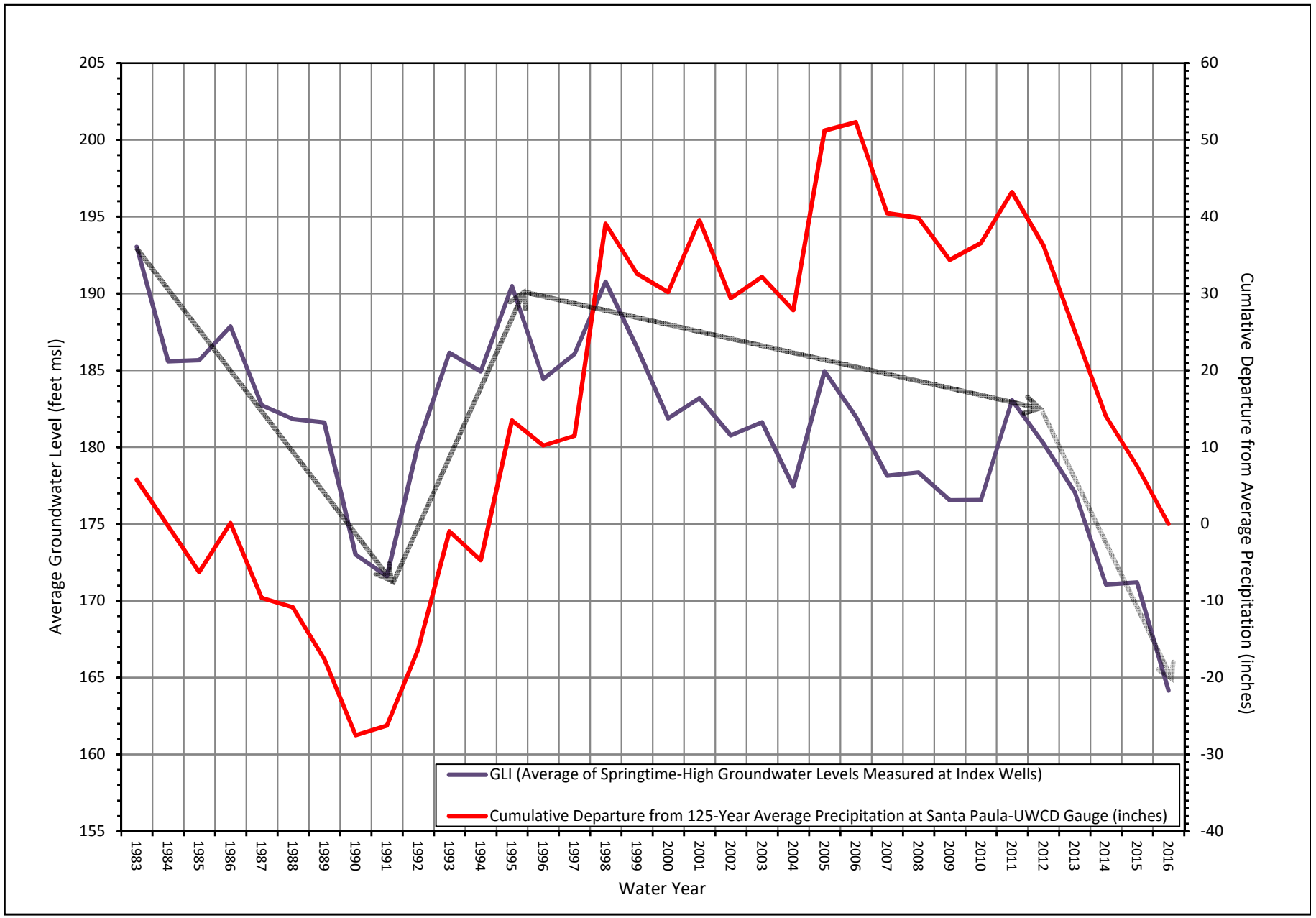

Figure 16. Groundwater Level Index and Cumulative Departure from Average Precipitation in Santa Paula Basin, WYs 1983 through 2016

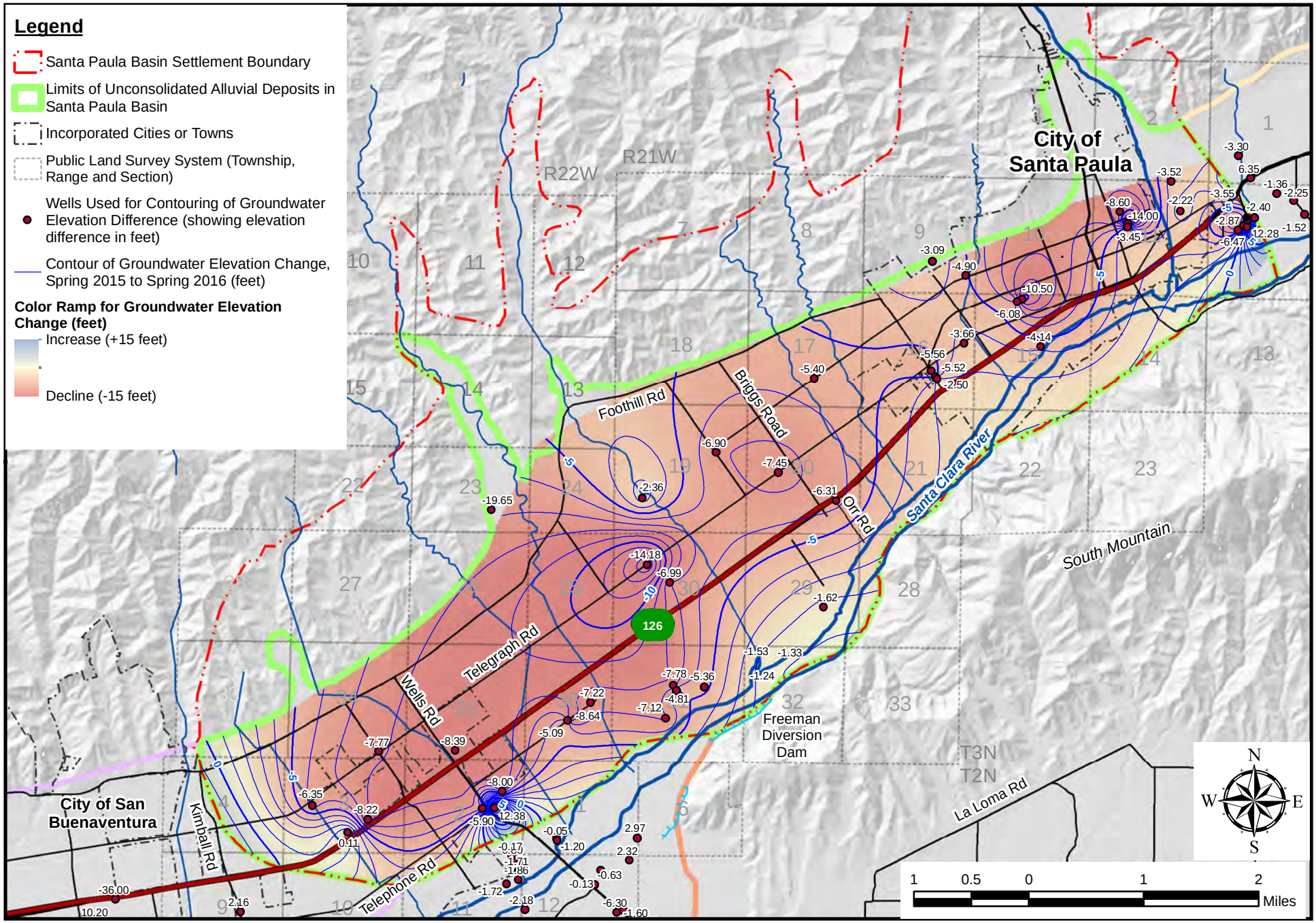

Figure 17. Change in Groundwater Elevation in Unconsolidated Alluvial Deposits of Santa Paula Basin, Spring 2015 to Spring 2016

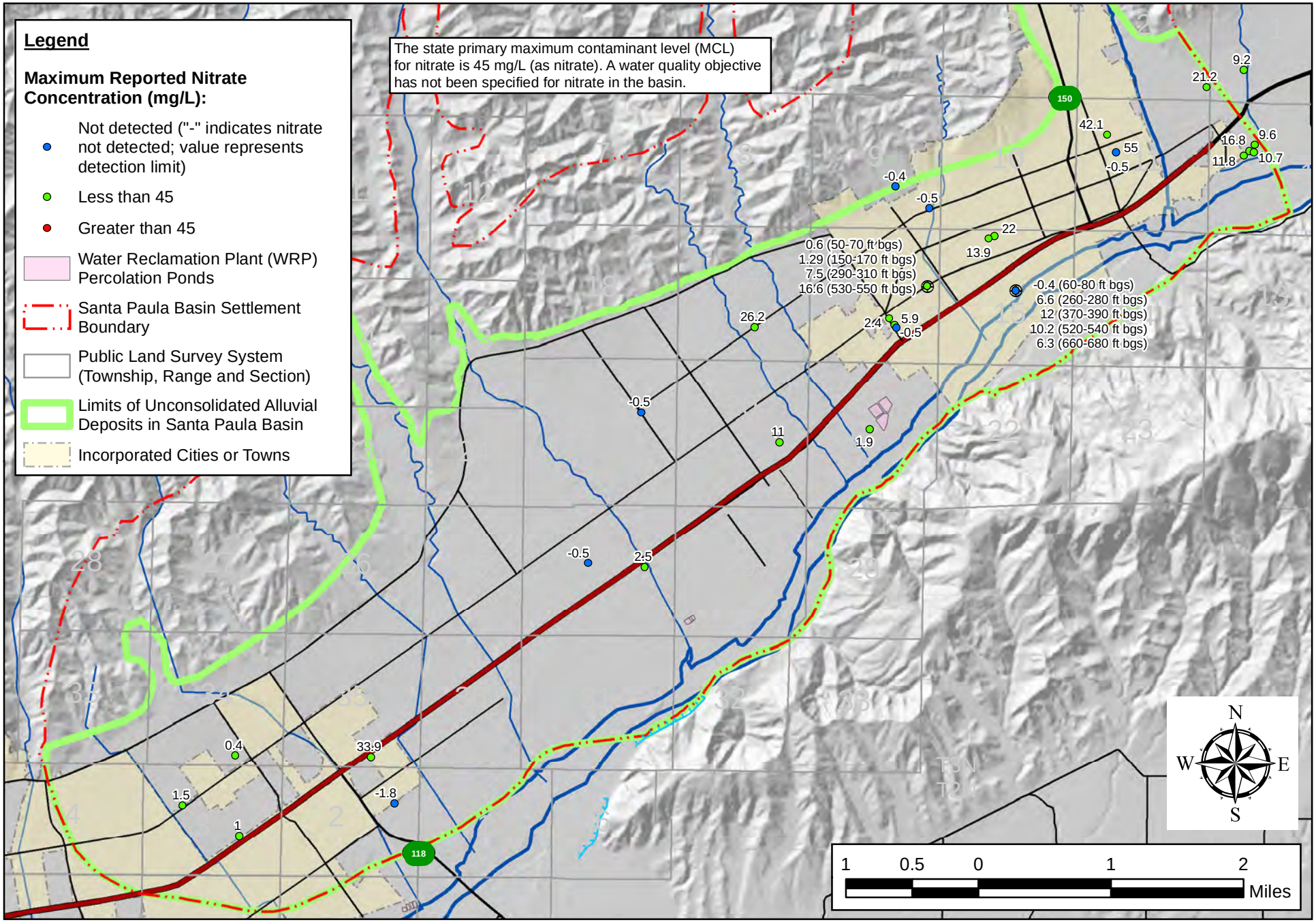

Figure 18. Maximum Reported Nitrate Concentrations in Groundwater, CY 2016

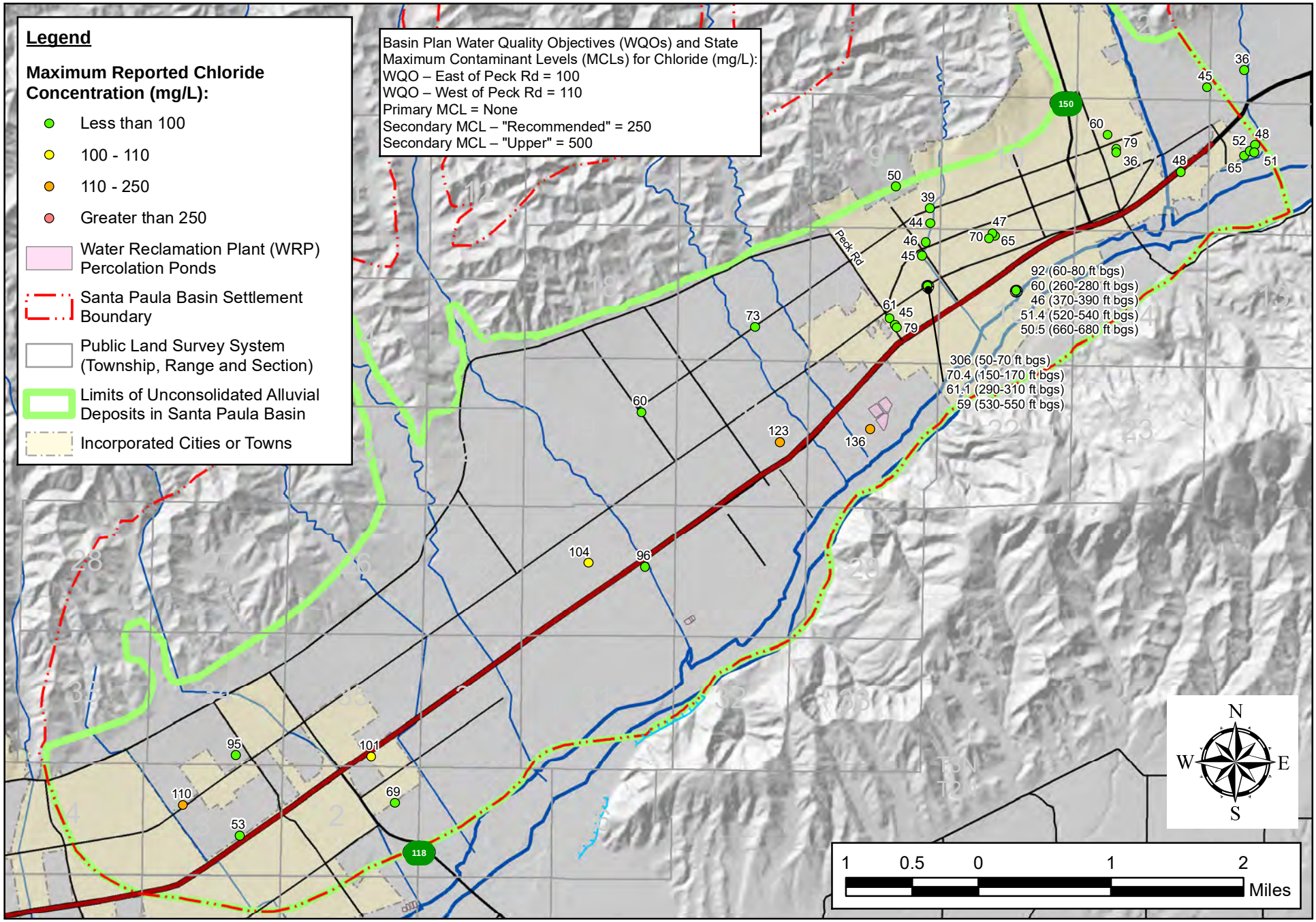

Figure 19. Maximum Reported Chloride Concentrations in Groundwater, CY 2016

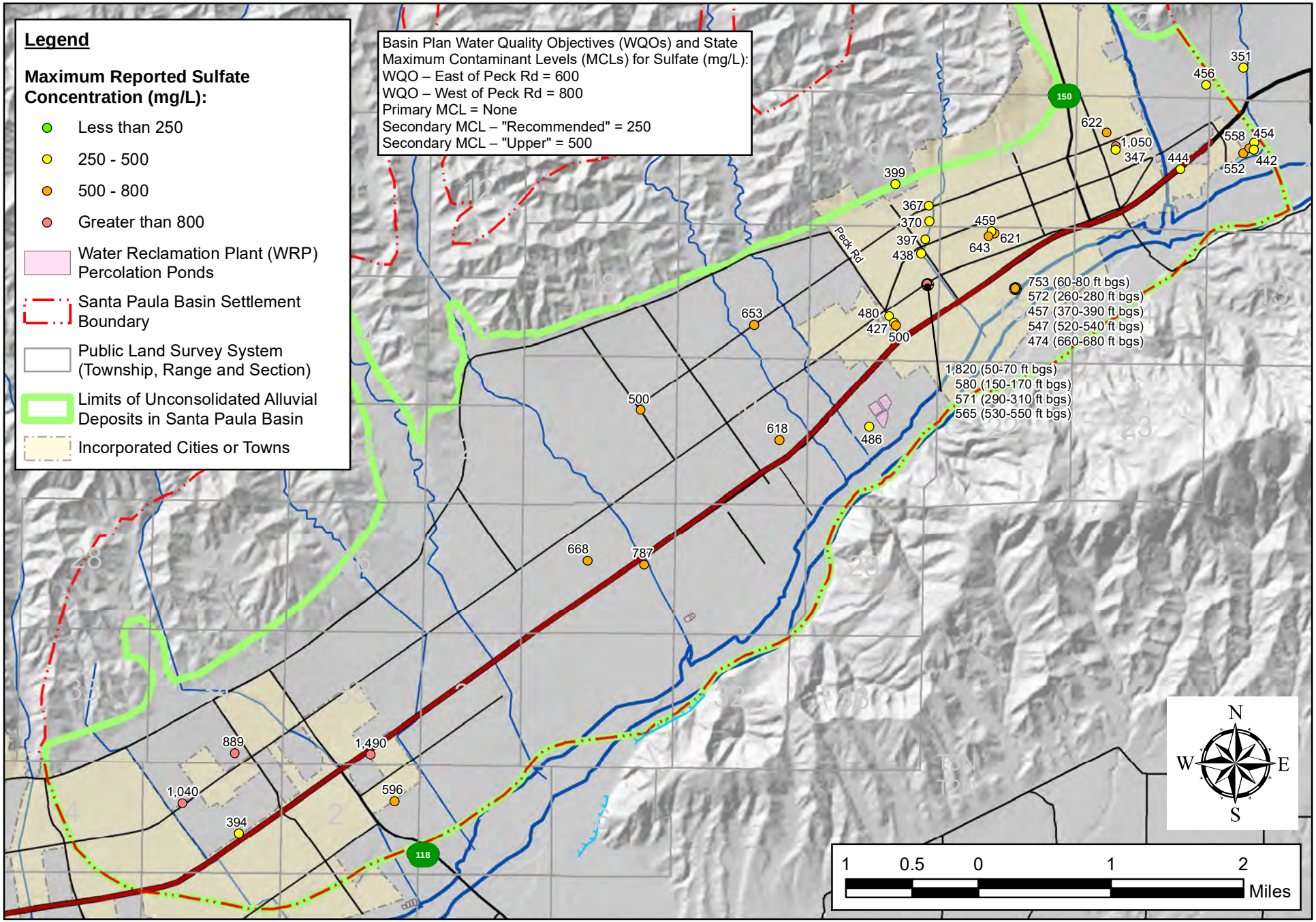

Figure 20. Maximum Reported Sulfate Concentrations in Groundwater, CY 2016

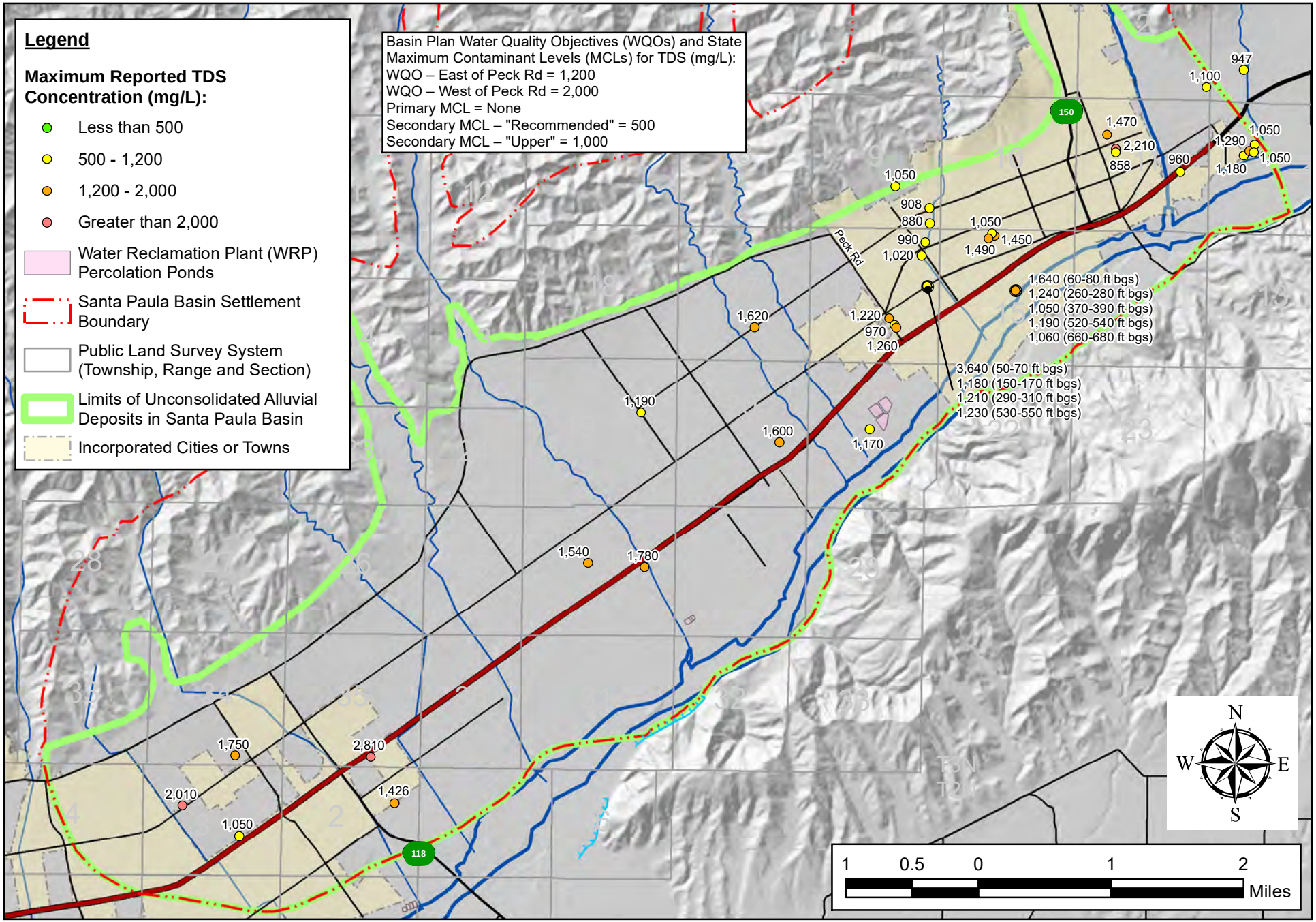

Figure 21. Maximum Reported Total Dissolved Solids (TDS) Concentrations in Groundwater, CY 2016

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APPENDIX A - Historical Precipitation and Streamflow Tables

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APPENDIX A - Table A-1. Santa Paula - UWCD Historical Precipitation

WATER YEAR (WY)	MONTHLY PRECIPITATION (inches)												WY PRECIPITATION (inches)	CUMULATIVE DEPARTURE (inches)	CALENDAR YEAR PRECIPITATION (inches)
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1890	6.30	1.81	16.55	5.40	2.00	0.47	0.05	0.00	0.00	0.00	0.00	0.62	33.20	16.04	11.46
1891	0.00	0.34	2.58	0.48	8.73	1.40	0.82	0.13	0.00	0.00	0.00	0.19	14.67	13.55	13.27
1892	0.00	0.00	1.52	0.70	3.99	3.24	0.54	1.80	0.00	0.00	0.00	0.00	11.79	8.19	24.31
1893	0.56	7.30	6.18	2.30	2.81	6.81	0.40	0.00	0.00	0.00	0.00	0.00	26.36	17.39	17.03
1894	0.87	0.20	3.64	1.04	0.55	0.42	0.23	0.46	0.00	0.10	0.00	0.98	8.49	8.72	5.05
1895	0.14	0.18	0.95	5.42	0.00	4.77	0.00	0.00	0.00	0.00	0.00	0.00	11.46	3.02	10.19
1896	0.00	0.00	0.00	5.03	4.98	3.24	0.00	0.00	0.00	0.00	0.00	0.45	13.70	-0.43	13.70
1897	0.00	0.00	0.00	5.03	4.98	3.24	0.00	0.00	0.00	0.00	0.00	0.45	13.70	-3.89	14.87
1898	1.17	0.00	0.00	0.92	0.70	1.55	0.00	1.22	0.00	0.00	0.00	0.86	6.42	-14.63	5.59
1899	0.08	0.00	0.26	3.44	0.00	2.41	0.35	0.00	0.00	0.00	0.00	0.00	6.54	-25.25	10.87
1900	1.84	1.17	1.66	1.67	0.00	1.36	0.38	1.49	0.00	0.00	0.00	0.00	9.57	-32.84	9.61
1901	0.00	4.71	0.00	4.57	4.34	0.42	0.91	1.14	0.00	0.00	0.00	0.71	16.80	-33.19	14.87
1902	2.24	0.54	0.00	1.30	4.49	3.31	0.50	0.00	0.00	0.00	0.00	0.00	12.38	-37.97	15.38
1903	0.00	4.75	1.03	1.66	1.98	6.23	2.65	0.10	0.00	0.00	0.00	0.00	18.40	-36.73	12.62
1904	0.00	0.00	0.00	0.31	3.83	5.94	1.46	0.00	0.00	0.00	0.00	1.82	13.36	-40.53	15.92
1905	0.38	0.00	2.18	2.54	8.02	5.50	0.67	3.15	0.00	0.00	0.00	0.00	22.44	-35.24	21.38
1906	0.00	1.50	0.00	3.35	3.60	9.03	0.40	0.05	0.00	0.00	0.00	0.00	17.93	-34.47	22.68
1907	0.00	0.00	6.25	13.23	1.95	6.22	0.18	0.00	0.00	0.00	0.00	0.00	27.83	-23.80	24.88
1908	2.72	0.00	0.58	5.73	4.56	0.05	0.94	0.00	0.00	0.00	0.00	0.55	15.13	-25.83	15.48
1909	0.15	2.40	1.10	10.88	5.94	4.88	0.00	0.00	0.00	0.00	0.00	0.00	25.35	-17.64	30.46
1910	0.13	1.36	7.27	2.82	0.00	2.36	0.00	0.00	0.00	0.00	0.00	2.78	16.72	-18.07	9.23
1911	0.62	0.33	0.32	9.54	2.88	5.53	0.00	0.00	0.00	0.00	0.00	0.07	19.29	-15.94	19.23
1912	0.00	0.00	1.21	0.18	0.00	7.17	1.67	0.84	0.00	0.00	0.00	0.00	11.07	-22.03	10.53
1913	0.56	0.11	0.00	3.79	9.51	0.00	0.47	0.00	0.47	0.00	0.50	0.00	15.41	-23.78	20.16
1914	0.00	3.09	2.33	12.73	8.40	0.66	0.76	0.51	0.00	0.00	0.00	0.00	28.48	-12.45	27.67
1915	0.15	0.13	4.33	5.38	9.30	0.98	1.16	1.69	0.00	0.00	0.00	0.00	23.12	-6.49	21.79
1916	0.00	0.68	2.60	18.17	1.07	0.53	0.00	0.00	0.00	0.00	0.00	1.44	24.49	0.84	30.00
1917	2.36	0.00	6.43	3.24	7.24	0.12	0.37	0.19	0.00	0.00	0.00	0.00	19.95	3.63	11.46
1918	0.00	0.30	0.00	0.26	13.00	6.28	0.00	0.00	0.00	0.26	0.00	1.78	21.88	8.36	25.76
1919	0.00	3.01	1.17	1.33	1.89	2.65	0.00	0.22	0.00	0.00	0.00	1.71	11.98	3.18	10.43
1920	0.33	0.12	2.18	0.41	2.93	5.74	0.82	0.00	0.00	0.00	0.00	0.00	12.53	-1.45	13.39
1921	0.30	1.86	1.33	6.60	1.02	1.99	0.23	3.95	0.00	0.00	0.00	0.17	17.45	-1.16	24.96
1922	0.34	0.00	10.66	4.55	3.43	1.49	0.00	0.46	0.00	0.00	0.00	0.00	20.93	2.61	19.00
1923	0.43	1.63	7.01	1.86	1.03	0.00	2.97	0.00	0.00	0.00	0.00	0.14	15.07	0.53	6.76
1924	0.72	0.00	0.04	1.94	0.18	3.46	1.23	0.00	0.00	0.00	0.00	0.00	7.57	-9.06	10.03
1925	1.02	1.12	1.08	0.31	1.25	2.25	2.02	0.88	0.08	0.00	0.00	0.00	10.01	-16.21	10.72
1926	0.81	0.89	2.23	2.04	4.42	0.12	5.72	0.16	0.02	0.00	0.00	0.00	16.41	-16.96	19.38
1927	0.13	5.49	1.28	1.89	10.66	2.34	1.53	0.00	0.00	0.00	0.00	0.00	23.32	-10.79	22.17
1928	1.84	1.27	2.64	0.00	2.27	2.25	0.29	0.59	0.00	0.00	0.00	0.00	11.15	-16.80	10.79
1929	0.06	2.04	3.29	2.47	2.10	1.51	1.89	0.00	0.12	0.00	0.00	0.69	14.17	-19.79	8.78
1930	0.00	0.00	0.00	6.58	0.92	3.14	0.17	0.76	0.00	0.00	0.00	0.02	11.59	-25.36	14.29
1931	0.02	2.68	0.00	3.94	4.09	0.00	2.00	1.25	0.00	0.00	0.21	0.00	14.19	-28.33	25.40
1932	0.05	3.13	10.73	5.78	0.09	0.54	0.02	0.05	0.00	0.00	0.00	0.15	20.54	-24.94	7.77
1933	0.24	0.00	0.90	8.84	0.00	0.23	0.32	0.13	0.40	0.00	0.09	0.00	11.15	-30.95	17.31
1934	0.44	0.00	6.86	3.19	3.85	0.00	0.00	0.00	0.00	0.52	0.00	0.08	14.94	-33.17	17.18
1935	1.62	3.16	4.76	3.97	0.82	3.31	3.50	0.00	0.00	0.00	0.25	0.00	21.39	-28.94	15.08
1936	0.37	1.12	1.74	0.17	10.32	1.91	0.69	0.00	0.00	0.00	0.00	0.00	16.32	-29.77	23.60
1937	4.16	0.00	6.35	3.24	7.93	4.48	0.12	0.21	0.00	0.00	0.00	0.00	26.49	-20.44	20.90
1938	0.00	0.00	4.92	0.87	9.49	11.17	1.23	0.09	0.00	0.00	0.00	0.25	28.02	-9.58	30.09
1939	0.00	0.00	6.99	2.95	1.33	2.29	0.53	0.00	0.00	0.00	0.00	1.59	15.68	-11.06	10.22
1940	0.00	0.31	1.22	3.57	5.24	0.73	2.22	0.00	0.00	0.00	0.00	0.00	13.29	-14.93	21.02
1941	1.80	0.15	7.31	5.97	10.52	8.70	3.66	0.00	0.00	0.00	0.00	0.00	38.11	6.03	36.80
1942	1.01	0.44	6.50	0.47	0.54	1.91	3.32	0.00	0.00	0.00	0.00	0.00	14.19	3.06	8.50
1943	1.07	0.19	1.00	16.53	2.96	6.42	0.81	0.00	0.00	0.00	0.00	0.00	28.98	14.88	34.96
1944	0.14	0.20	7.90	1.44	10.02	3.49	1.18	0.00	0.00	0.00	0.00	0.00	24.37	22.09	20.28
1945	0.00	3.13	1.02	0.02	5.69	5.27	0.00	0.00	0.00	0.00	0.00	0.00	15.13	20.07	16.79
1946	1.00	0.26	4.55	0.25	1.45	3.59	0.22	0.00	0.00	0.00	0.00	0.00	11.32	14.23	16.83
1947	0.45	7.21	3.66	0.46	0.29	0.62	0.08	0.06	0.03	0.00	0.43	0.00	13.29	10.36	3.30
1948	0.05	0.00	1.28	0.00	1.22	3.83	1.79	0.06	0.04	0.00	0.00	0.00	8.27	1.47	10.18
1949	0.00	0.00	3.24	2.39	1.43	1.54	0.07	1.06	0.06	0.00	0.00	0.00	9.79	-5.90	12.06
1950	0.00	1.18	4.33	3.17	2.59	0.93	1.11	0.00	0.00	0.02	0.00	0.24	13.57	-9.48	9.61
1951	0.45	0.94	0.16	2.53	1.32	0.86	1.89	0.00	0.00	0.00	0.00	0.00	8.15	-18.49	14.92

APPENDIX A - Table A-1. Santa Paula - UWCD Historical Precipitation

WATER YEAR (WY)	MONTHLY PRECIPITATION (inches)												WY PRECIPITATION (inches)	CUMULATIVE DEPARTURE (inches)	CALENDAR YEAR PRECIPITATION (inches)
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1952	0.88	2.47	4.97	12.29	0.10	9.52	1.68	0.00	0.00	0.00	0.00	0.00	31.91	-3.74	31.27
1953	0.00	3.38	4.30	1.33	0.00	0.55	1.26	0.00	0.00	0.00	0.00	0.00	10.82	-10.08	5.34
1954	0.00	2.13	0.07	4.85	3.38	3.56	0.38	0.00	0.00	0.00	0.00	0.00	14.37	-12.86	14.21
1955	0.00	0.93	1.11	5.25	1.56	0.33	2.24	1.94	0.00	0.00	0.02	0.00	13.38	-16.64	15.84
1956	0.00	1.38	3.12	6.98	0.72	0.00	2.18	0.95	0.00	0.00	0.00	0.00	15.33	-18.47	11.09
1957	0.01	0.00	0.25	5.75	1.88	2.07	1.17	0.62	0.16	0.00	0.00	0.00	11.91	-23.72	19.05
1958	2.48	0.53	4.39	2.82	7.27	8.14	5.48	0.00	0.00	0.00	0.00	0.26	31.37	-9.51	24.09
1959	0.05	0.07	0.00	2.07	3.91	0.00	0.55	0.00	0.00	0.00	0.00	0.02	6.67	-19.99	8.03
1960	0.09	0.00	1.39	3.95	2.80	0.50	2.70	0.00	0.00	0.00	0.00	0.00	11.43	-25.72	14.75
1961	0.00	4.27	0.53	1.24	0.00	0.49	0.02	0.00	0.00	0.00	0.03	0.04	6.62	-36.26	6.45
1962	0.00	3.57	1.06	2.46	17.26	1.27	0.00	0.07	0.01	0.00	0.00	0.00	25.70	-27.72	21.42
1963	0.31	0.00	0.04	0.69	8.04	0.00	2.47	0.11	0.49	0.00	0.17	1.37	13.69	-31.18	17.18
1964	0.46	3.30	0.08	2.68	0.00	2.00	0.76	0.02	0.11	0.00	0.01	0.00	9.42	-38.92	12.09
1965	0.66	1.30	4.55	0.54	0.07	1.08	4.94	0.00	0.01	0.02	0.11	0.18	13.46	-42.62	21.51
1966	0.00	9.60	4.96	1.52	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.09	17.24	-42.54	12.76
1967	0.20	3.62	6.26	4.58	0.24	2.24	5.02	0.04	0.00	0.00	0.00	0.32	22.52	-37.17	20.04
1968	0.00	6.39	1.21	0.99	1.24	3.47	0.90	0.03	0.00	0.00	0.19	0.00	14.42	-39.91	9.78
1969	0.80	0.68	1.48	17.95	7.75	0.85	0.96	0.01	0.00	0.09	0.00	0.01	30.58	-26.49	29.49
1970	0.00	1.79	0.08	2.34	3.70	6.04	0.00	0.00	0.00	0.00	0.00	0.00	13.95	-29.70	26.49
1971	0.02	7.09	7.30	1.01	0.71	0.69	0.59	0.51	0.00	0.00	0.00	0.01	17.93	-28.93	12.09
1972	0.11	0.43	8.03	0.12	0.26	0.00	0.08	0.04	0.04	0.00	0.00	0.00	9.11	-36.97	6.35
1973	0.31	4.57	0.93	5.89	9.00	2.61	0.00	0.01	0.00	0.00	0.00	0.00	23.32	-30.81	20.81
1974	0.24	1.95	1.11	9.52	0.06	2.93	0.07	0.00	0.00	0.00	0.00	0.00	15.88	-32.09	20.67
1975	1.03	0.10	6.96	0.00	3.86	4.59	1.46	0.00	0.00	0.00	0.00	0.06	18.06	-31.19	10.22
1976	0.18	0.00	0.07	0.00	5.33	1.39	0.72	0.02	0.10	0.01	0.00	4.05	11.87	-36.47	12.49
1977	0.00	0.22	0.65	6.74	0.21	2.04	0.00	2.03	0.00	0.00	0.99	0.00	12.88	-40.75	16.72
1978	0.03	0.15	4.53	8.11	8.54	11.57	2.25	0.00	0.00	0.00	0.00	0.90	36.08	-21.83	35.90
1979	0.18	2.03	2.32	6.37	3.97	7.17	0.00	0.02	0.02	0.00	0.00	0.09	22.17	-16.82	20.74
1980	0.46	0.83	1.81	8.32	12.95	3.82	0.41	0.23	0.00	0.00	0.00	0.02	28.85	-5.13	27.02
1981	0.00	0.00	1.27	2.26	1.58	6.07	0.68	0.02	0.00	0.00	0.00	0.00	11.88	-10.40	13.87
1982	0.50	2.20	0.56	2.55	0.58	5.66	1.93	0.00	0.00	0.00	0.00	0.86	14.84	-12.72	19.22
1983	0.53	4.53	2.58	9.52	5.35	6.76	4.27	0.10	0.00	0.00	0.97	1.02	35.63	5.75	38.31
1984	2.96	3.36	4.00	0.00	0.00	0.37	0.09	0.00	0.00	0.00	0.04	0.33	11.15	-0.26	7.84
1985	0.22	2.86	3.93	1.84	1.06	1.18	0.00	0.01	0.00	0.02	0.00	0.04	11.16	-6.25	8.91
1986	0.43	3.62	0.71	3.60	8.72	4.59	1.21	0.00	0.00	0.00	0.00	0.65	23.53	0.12	20.74
1987	0.03	1.64	0.30	1.85	1.02	2.16	0.21	0.02	0.05	0.09	0.00	0.03	7.40	-9.64	12.73
1988	1.48	1.18	4.64	2.63	2.07	0.67	3.22	0.00	0.04	0.00	0.00	0.00	15.93	-10.87	13.98
1989	0	1.08	4.27	0.49	3.50	0.80	0.04	0.22	0.00	0.00	0.00	0.05	10.45	-17.58	5.90
1990	0.27	0.43	0.10	2.74	2.49	0.00	0.44	0.74	0.00	0.00	0.04	0.00	7.25	-27.48	7.03
1991	0.00	0.52	0.06	1.18	2.87	13.64	0.04	0.00	0.03	0.00	0.01	0.05	18.40	-26.24	22.49
1992	0.40	0.17	4.10	2.48	12.51	7.02	0.04	0.01	0.00	0.36	0.00	0.00	27.09	-16.31	29.10
1993	1.65	0.00	5.03	10.62	10.66	3.77	0.00	0.14	0.65	0.00	0.00	0.00	32.52	-0.95	28.59
1994	0.28	0.79	1.68	0.60	6.29	2.98	0.31	0.35	0.00	0.00	0.00	0.11	13.39	-4.71	13.85
1995	0.98	1.05	1.18	19.87	1.34	9.02	0.47	1.04	0.37	0.02	0.00	0.00	35.34	13.47	34.32
1996	0.00	0.15	2.04	1.04	7.85	2.04	0.50	0.28	0.00	0.00	0.00	0.00	13.90	10.21	23.11
1997	2.47	2.57	6.36	6.67	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.12	18.41	11.46	16.10
1998	0.00	2.31	6.78	2.79	20.13	3.87	2.03	6.04	0.01	0.00	0.00	0.81	44.77	39.07	37.13
1999	0.00	0.83	0.62	2.44	1.02	2.65	2.56	0.00	0.38	0.00	0.00	0.17	10.67	32.59	9.98
2000	0.00	0.76	0	1.92	6.76	2.56	2.61	0.00	0.00	0.00	0.00	0.15	14.76	30.19	15.48
2001	1.47	0.00	0.01	7.02	9.21	7.10	1.73	0.00	0.00	0.00	0.00	0.00	26.54	39.57	30.06
2002	0.27	3.21	1.52	1.02	0.38	0.37	0.07	0.09	0.00	0.00	0.00	0.05	6.98	29.39	10.48
2003	0.00	5.22	3.28	0.00	4.75	3.53	1.77	1.30	0.09	0.00	0.00	0.00	19.94	32.17	16.02
2004	0.00	2.73	1.85	0.64	6.78	0.49	0.33	0.00	0.00	0.00	0.00	0.00	12.82	27.83	18.63
2005	4.74	0.03	5.62	15.85	10.56	2.53	0.80	0.25	0.00	0.00	0.00	0.16	40.54	51.22	32.37
2006	1.00	0.70	0.52	3.41	3.58	4.00	3.87	1.17	0.00	0.00	0.00	0.00	18.25	52.31	17.29
2007	0.27	0.10	0.89	2.04	0.79	0.07	0.84	0.00	0.00	0.00	0.00	0.30	5.30	40.45	7.90
2008	0.26	0.15	3.45	10.78	1.85	0.00	0.05	0.04	0.00	0.00	0.00	0.00	16.58	39.87	17.43
2009	0.10	2.34	2.27	0.81	5.45	0.57	0.12	0.00	0.01	0.00	0.00	0.00	11.67	34.38	13.07
2010	2.66	0.00	3.45	7.29	3.51	0.41	1.87	0.13	0.00	0.01	0.00	0.00	19.33	36.56	26.01
2011	2.11	1.07	9.61	0.30	3.64	6.03	0.00	0.89	0.14	0.00	0.00	0.01	23.80	43.20	14.62
2012	1.58	1.87	0.16	1.35	0.03	2.93	2.20	0.00	0.00	0.00	0.05	0.01	10.18	36.22	10.22
2013	0.00	1.60	2.05	1.25	0.09	0.90	0.02	0.11	0.00	0.01	0.00	0.00	6.03	25.09	3.28

APPENDIX A - Table A-1. Santa Paula - UWCD Historical Precipitation

WATER YEAR (WY)	MONTHLY PRECIPITATION (inches)												WY PRECIPITATION (inches)	CUMULATIVE DEPARTURE (inches)	CALENDAR YEAR PRECIPITATION (inches)
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
2014	0.02	0.56	0.32	0.00	3.32	1.83	0.03	0.03	0.00	0.00	0.01	0.00	6.12	14.06	9.83
2015	0.00	0.85	3.76	1.63	0.63	0.62	0.21	0.37	0.10	1.63	0.00	0.83	10.63	7.53	6.51
2016	0.04	0.02	0.43	5.43	0.45	2.93	0.22	0.11	0.00	0.00	0.00	0.00	9.63	0.00	14.06
2017	0.73	0.62	3.57	---	---	---	---	---	---	---	---	---	---	---	---
AVERAGE:	0.59	1.46	2.76	3.88	3.85	2.93	1.02	0.34	0.03	0.02	0.03	0.24	17.16	---	17.00
MEDIAN:	0.18	0.78	1.71	2.53	2.81	2.25	0.50	0.01	0.00	0.00	0.00	0.00	14.84	---	15.48

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APPENDIX A - Table A-2. Santa Clara River at Freeman Diversion Historical Annual Streamflow

WATER YEAR	ACRE-FEET	WATER YEAR	ACRE-FEET	WATER YEAR	ACRE-FEET	WATER YEAR	ACRE-FEET
1956	30,140	**1972**	58,807	**1988**	76,426	**2004**	59,397
1957	18,668	**1973**	265,962	**1989**	26,610	**2005**	1,153,883
1958	352,671	**1974**	123,279	**1990**	10,787	**2006**	246,950
1959	55,462	**1975**	110,294	**1991**	117,639	**2007**	51,065
1960	14,557	**1976**	37,116	**1992**	333,441	**2008**	214,847
1961	6,209	**1977**	28,818	**1993**	963,059	**2009**	74,645
1962	272,542	**1978**	748,780	**1994**	131,823	**2010**	143,938
1963	28,495	**1979**	297,212	**1995**	908,663	**2011**	257,205
1964	15,345	**1980**	523,154	**1996**	125,982	**2012**	57,761
1965	23,696	**1981**	108,357	**1997**	166,052	**2013**	22,696
1966	207,602	**1982**	103,255	**1998**	788,007	**2014**	23,213
1967	205,577	**1983**	719,692	**1999**	119,559	**2015**	6,670
1968	54,656	**1984**	136,205	**2000**	130,933	**2016**	5,825
1969	982,425	**1985**	54,431	**2001**	251,235		
1970	129,540	**1986**	226,857	**2002**	58,072		
1971	130,717	**1987**	38,796	**2003**	93,844		
						AVERAGE	208,681
						MEDIAN	117,639

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APPENDIX A - Table A-3. Santa Paula Creek Historical Annual Streamflow

WATER YEAR	ACRE-FEET	WATER YEAR	ACRE-FEET	WATER YEAR	ACRE-FEET	WATER YEAR	ACRE-FEET
1928	1,332	**1951**	992	**1974**	11,552	**1997**	18,015
1929	1,801	**1952**	30,882	**1975**	11,506	**1998**	80,799
1930	1,554	**1953**	4,340	**1976**	3,906	**1999**	5,562
1931	3,014	**1954**	5,861	**1977**	2,361	**2000**	8,609
1932	19,958	**1955**	3,012	**1978**	87,150	**2001**	24,461
1933	7,485	**1956**	5,257	**1979**	20,453	**2002**	2,513
1934	11,353	**1957**	3,527	**1980**	34,108	**2003**	8,563
1935	12,830	**1958**	47,074	**1981**	5,818	**2004**	5,054
1936	13,444	**1959**	5,593	**1982**	9,177	**2005**	107,309
1937	31,909	**1960**	2,123	**1983**	70,594	**2006**	22,708
1938	44,310	**1961**	1,254	**1984**	8,017	**2007**	3,305
1939	8,465	**1962**	26,203	**1985**	3,394	**2008**	27,945
1940	5,297	**1963**	3,340	**1986**	20,486	**2009**	4,393
1941	57,682	**1964**	3,026	**1987**	3,179	**2010**	16,342
1942	6,882	**1965**	4,665	**1988**	7,361	**2011**	32,887
1943	39,739	**1966**	28,458	**1989**	2,893	**2012**	4,465
1944	22,425	**1967**	37,423	**1990**	2,485	**2013**	1,168
1945	12,172	**1968**	7,866	**1991**	15,214	**2014**	1,788
1946	11,194	**1969**	112,696	**1992**	33,768	**2015**	1,028
1947	7,295	**1970**	7,779	**1993**	71,474	**2016**	1,502
1948	1,715	**1971**	12,795	**1994**	8,351		
1949	1,965	**1972**	4,492	**1995**	63,209		
1950	3,492	**1973**	35,236	**1996**	8,752		
						AVERAGE	18,032
						MEDIAN	8,017

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APPENDIX B - Groundwater Elevation Hydrographs and Map of Index Well Locations

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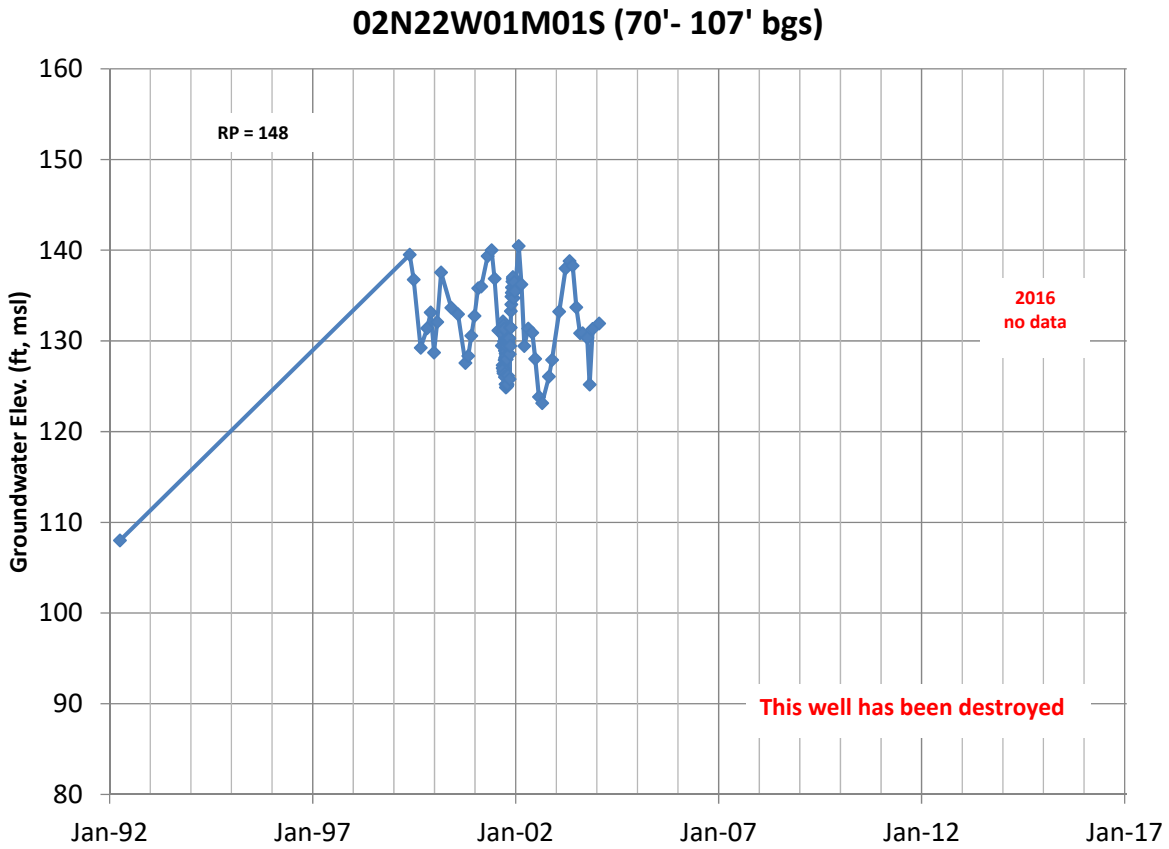

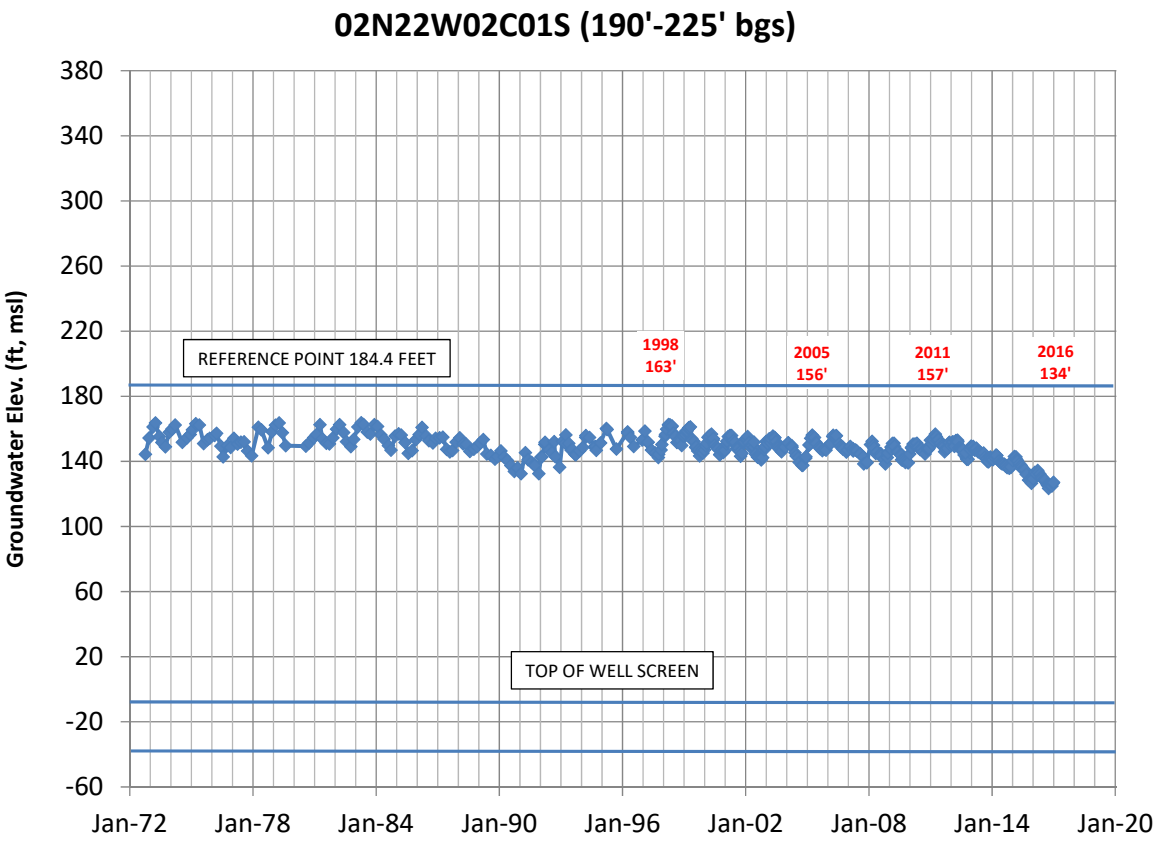
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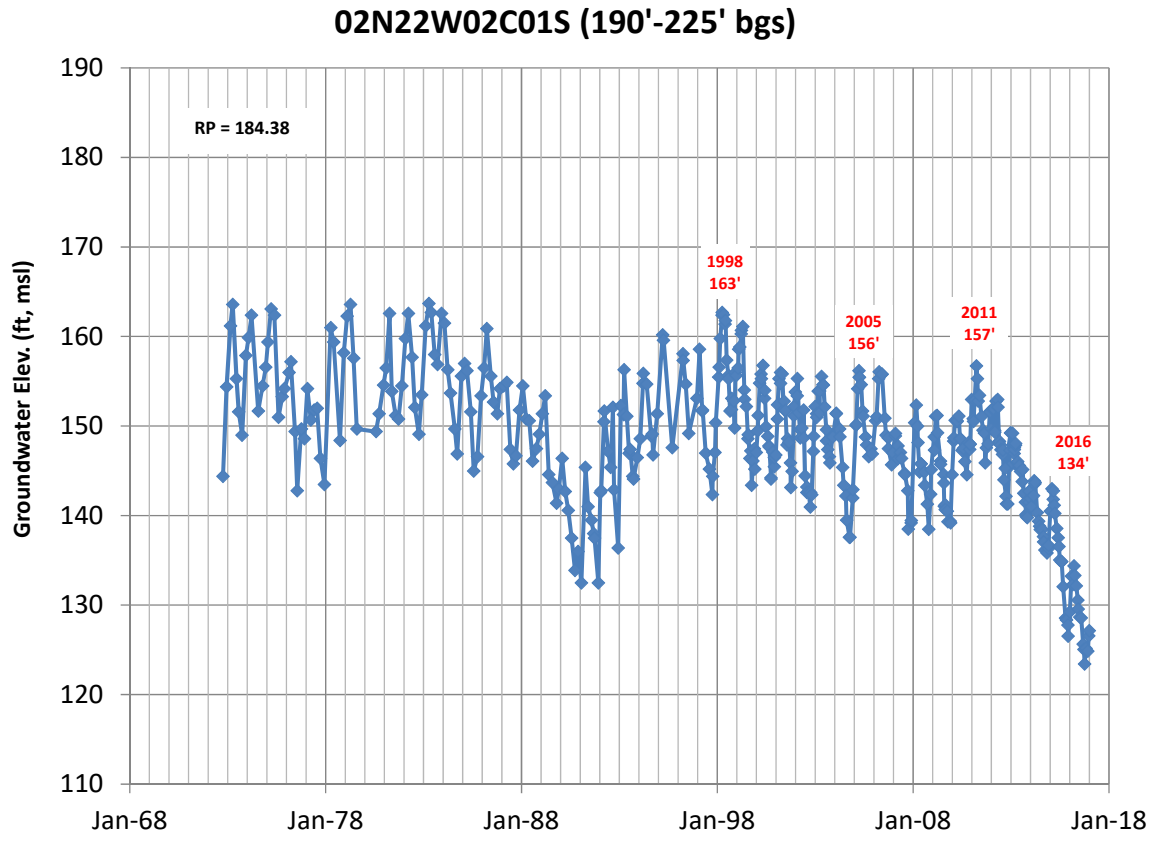
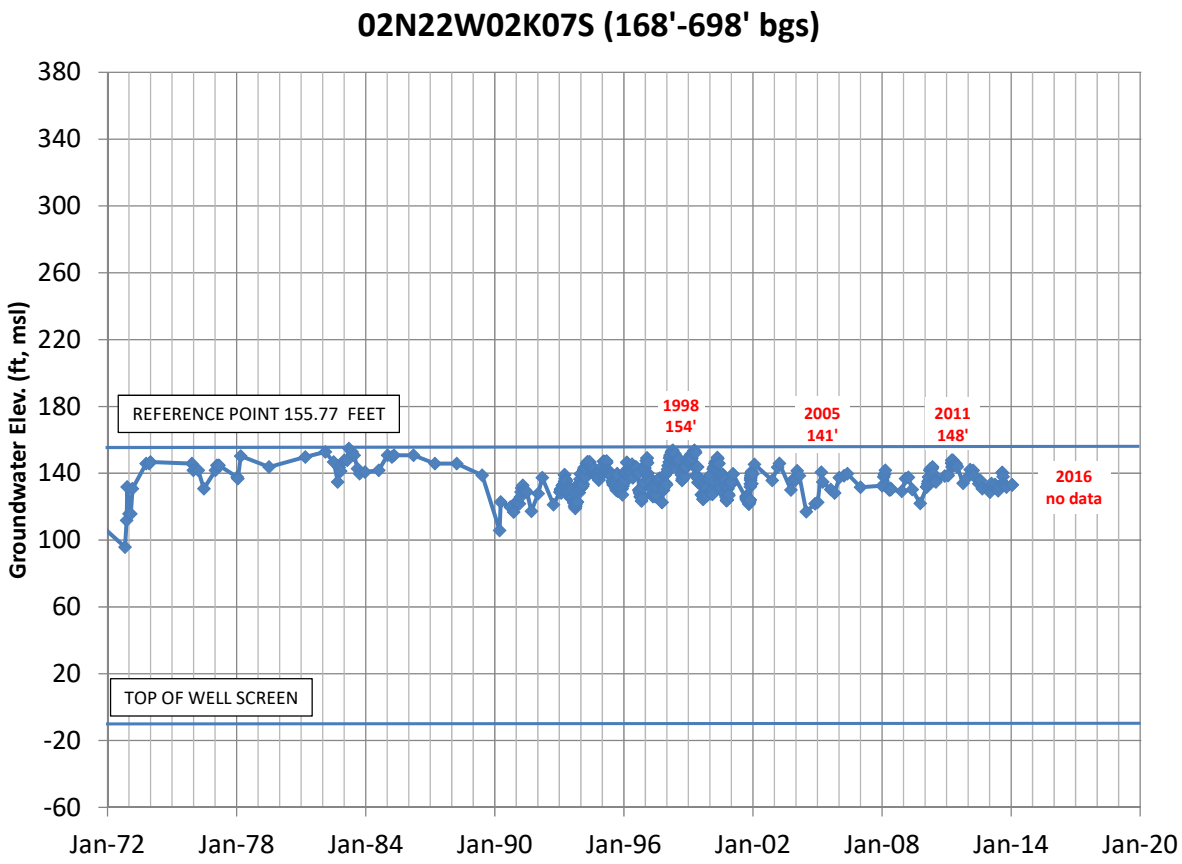
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 184.4 FEET
TOP OF WELL SCREEN
1998
163'
2005
156'
2011
157'
2016
134'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


02N22W02C01S (190'-225' bgs)
Groundwater Elev. (ft, msl)
190
180
170
160
150
140
130
120
110
RP = 184.38
1998
163'
2005
156'
2011
157'
2016
134'
Jan-68
Jan-78
Jan-88
Jan-98
Jan-08
Jan-18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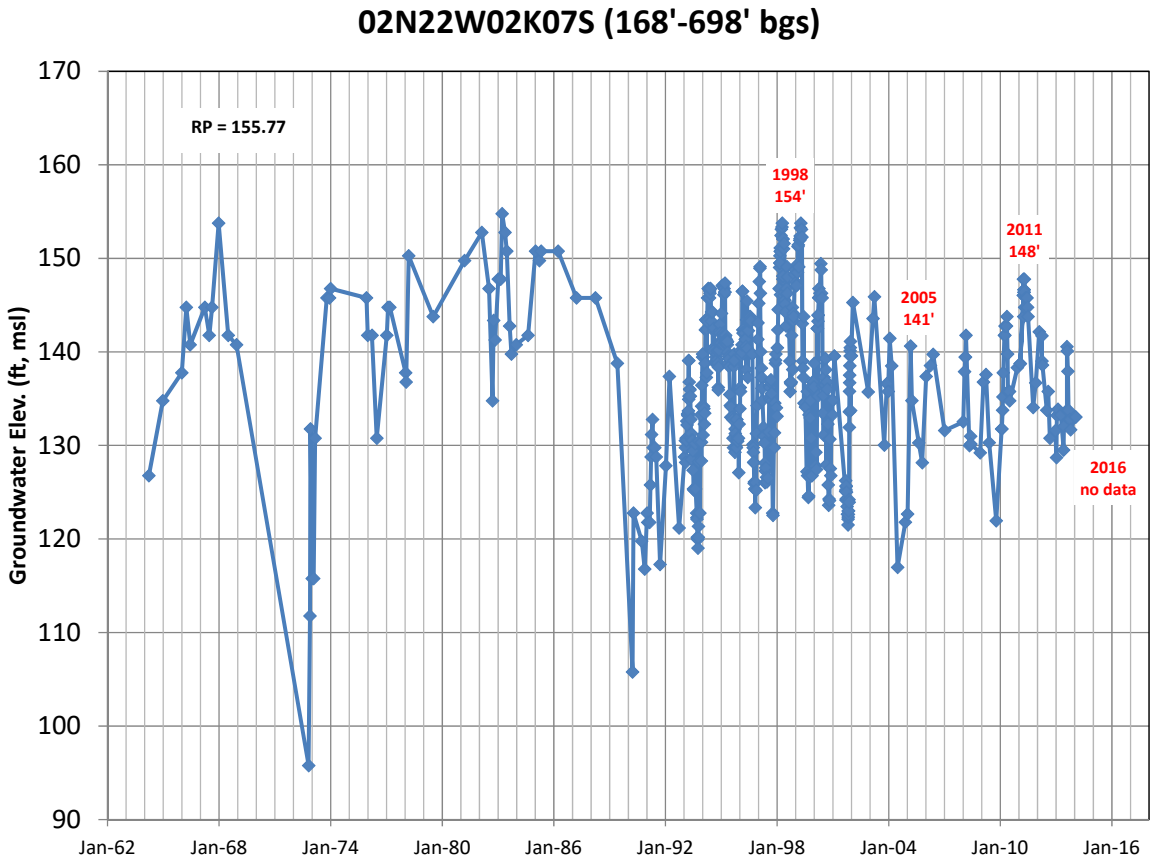
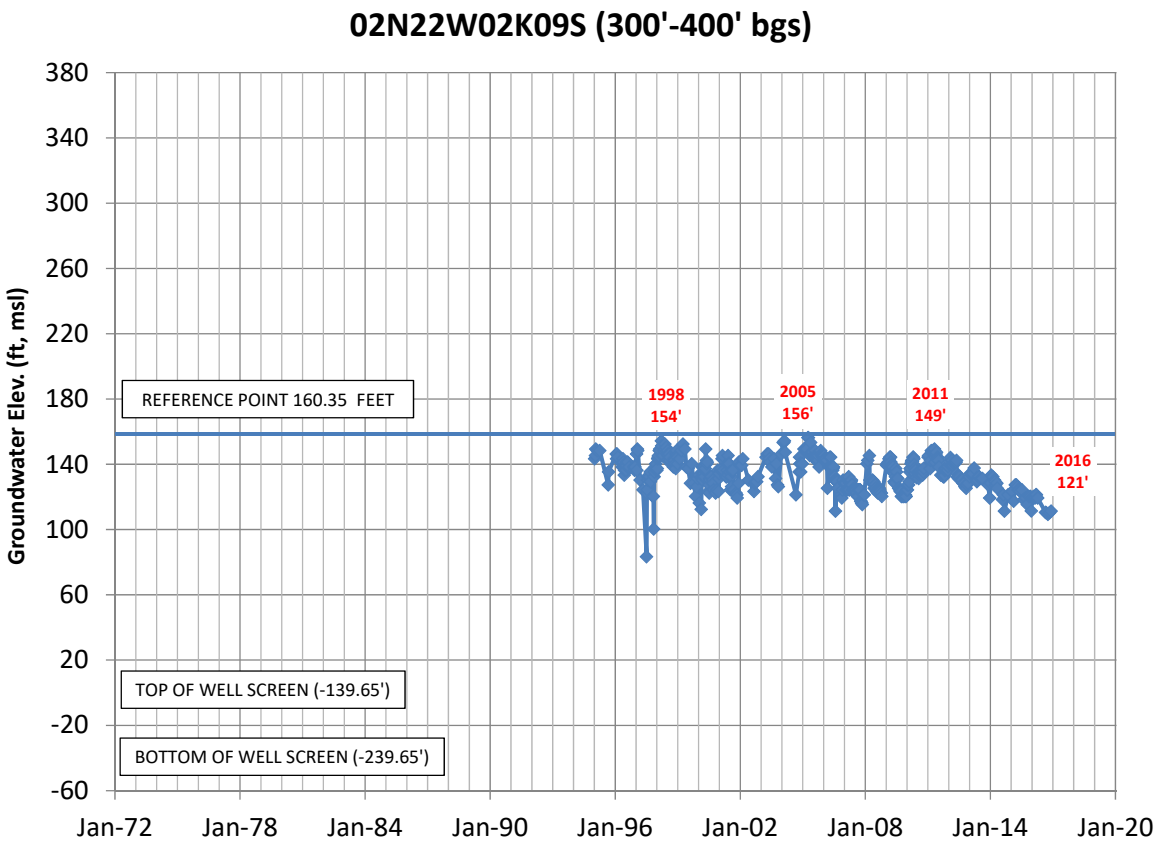
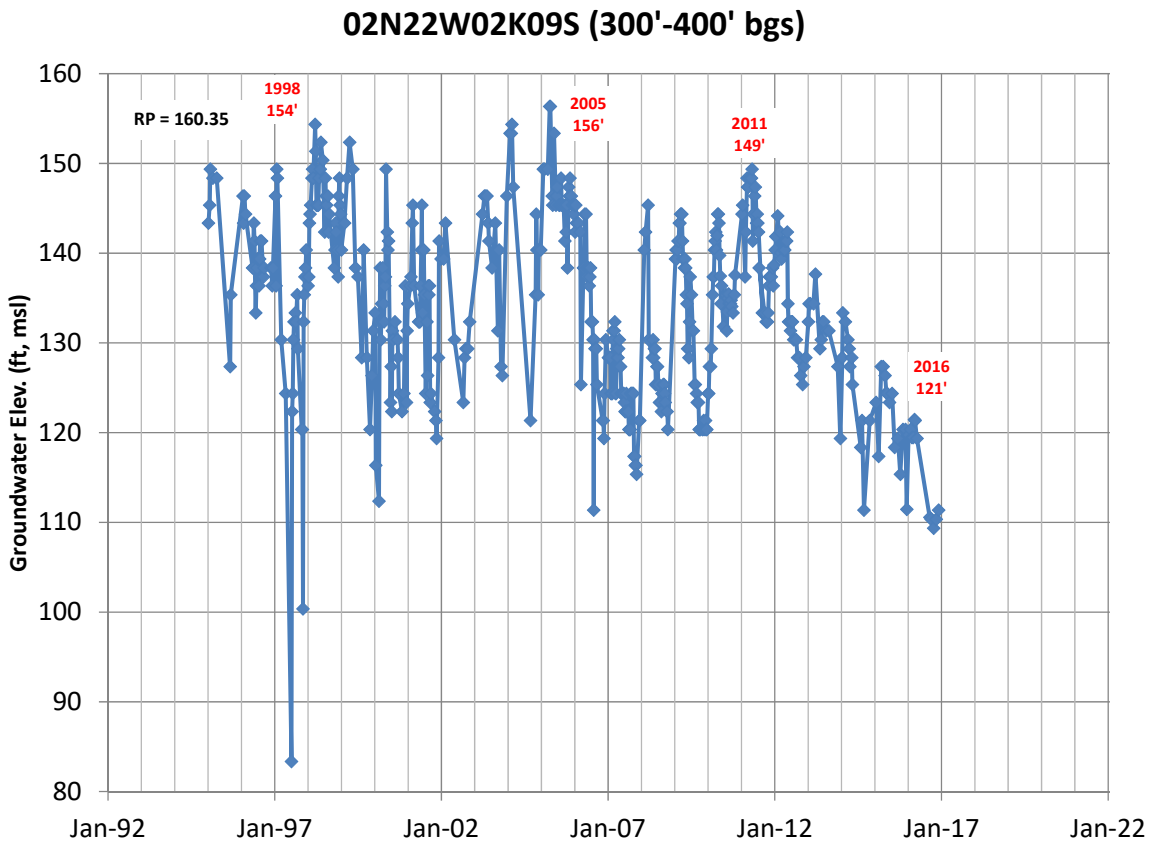
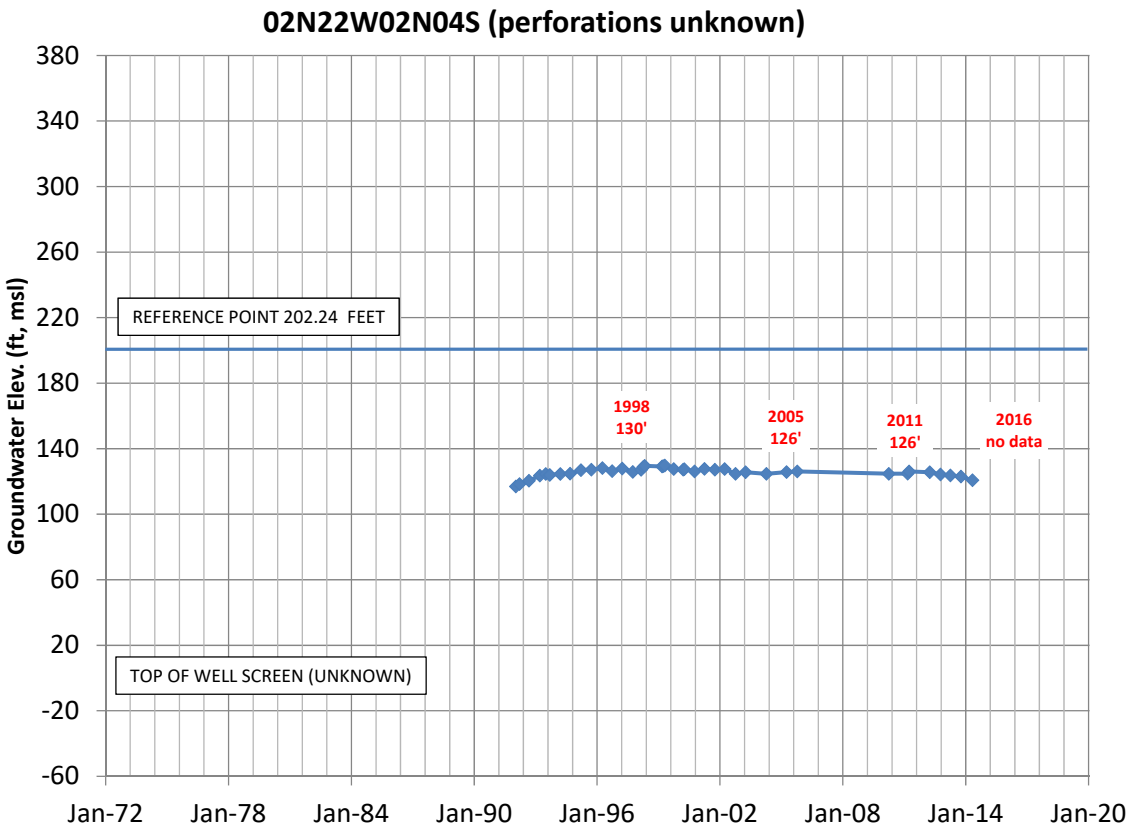
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 155.77 FEET
TOP OF WELL SCREEN
1998
154'
2005
141'
2011
148'
2016
no data


02N22W02K07S (168'-698' bgs)
Groundwater Elev. (ft, msl)
170
160
150
140
130
120
110
100
90
Jan-62
Jan-68
Jan-74
Jan-80
Jan-86
Jan-92
Jan-98
Jan-04
Jan-10
Jan-16
RP = 155.77
1998
154'
2005
141'
2011
148'
2016
no data


02N22W02K09S (300'-400' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 160.35 FEET
TOP OF WELL SCREEN (-139.65')
BOTTOM OF WELL SCREEN (-239.65')
1998
154'
2005
156'
2011
149'
2016
121'


02N22W02K09S (300'-400' bgs)
Groundwater Elev. (ft, msl)
160
150
140
130
120
110
100
90
80
Jan-92
Jan-97
Jan-02
Jan-07
Jan-12
Jan-17
Jan-22
RP = 160.35
1998
154'
2005
156'
2011
149'
2016
121'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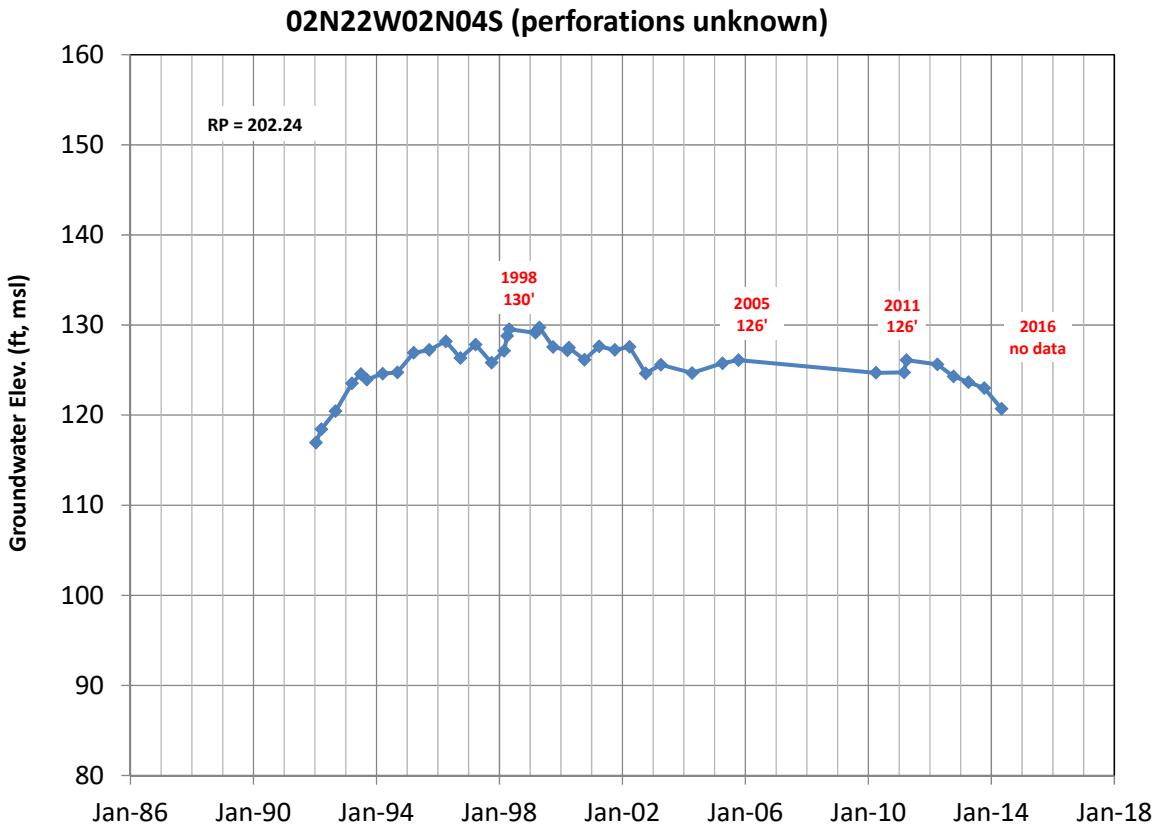
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 202.24 FEET
TOP OF WELL SCREEN (UNKNOWN)
1998
130'
2005
126'
2011
126'
2016
no data
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20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Groundwater Elev. (ft, msl)
160
150
140
130
120
110
100
90
80
RP = 202.24
1998
130'
2005
126'
2011
126'
2016
no data
Jan-86
Jan-90
Jan-94
Jan-98
Jan-02
Jan-06
Jan-10
Jan-14
Jan-18

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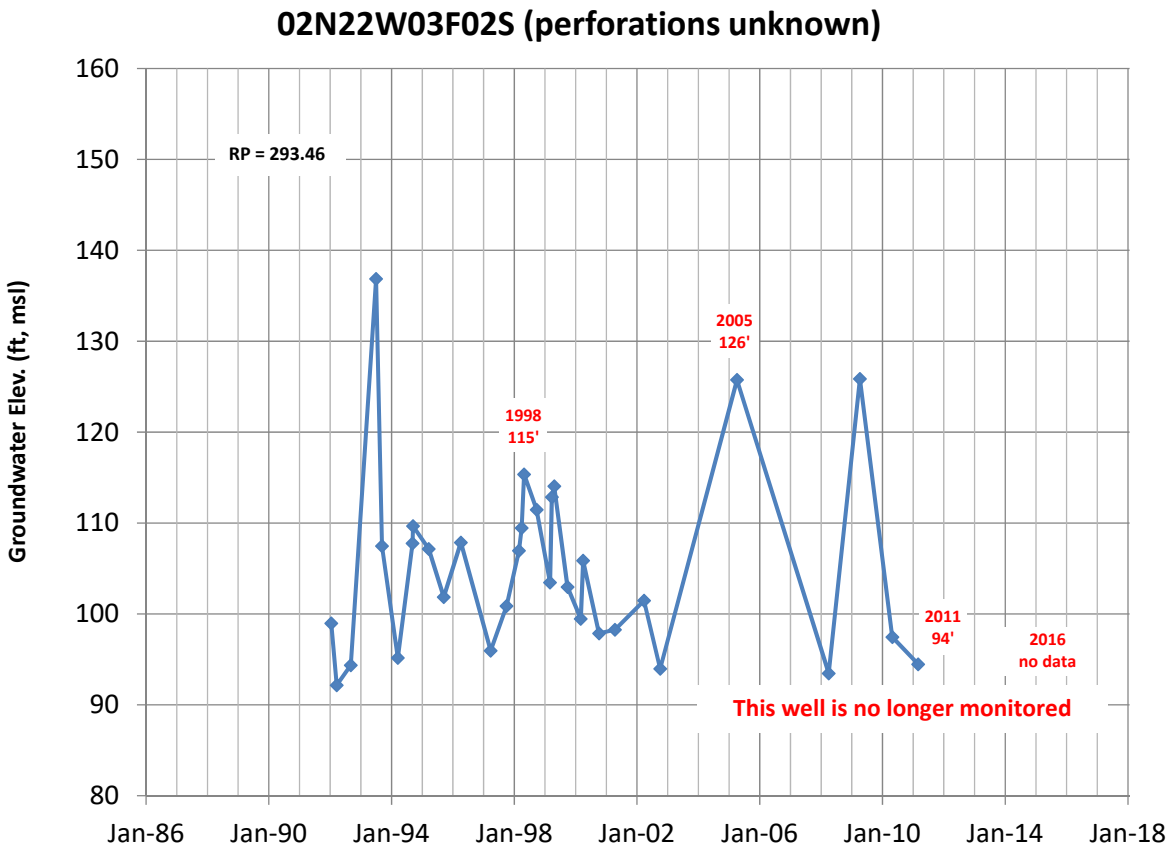

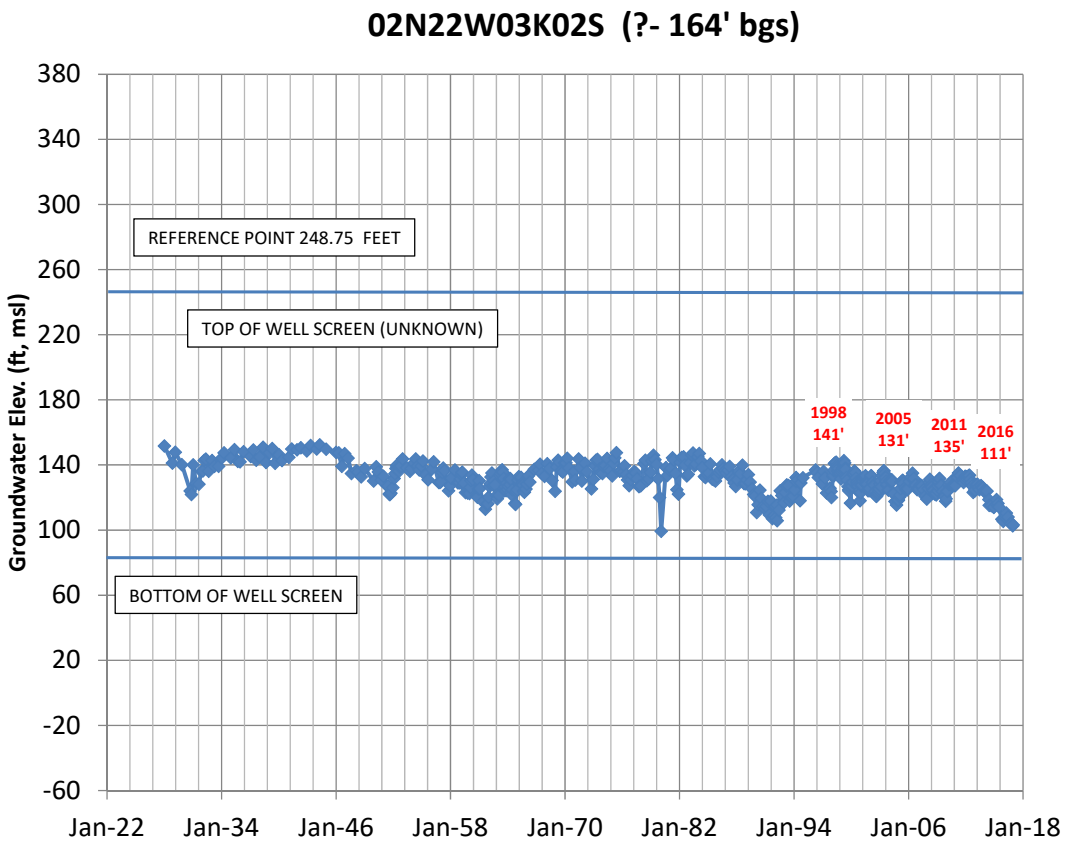
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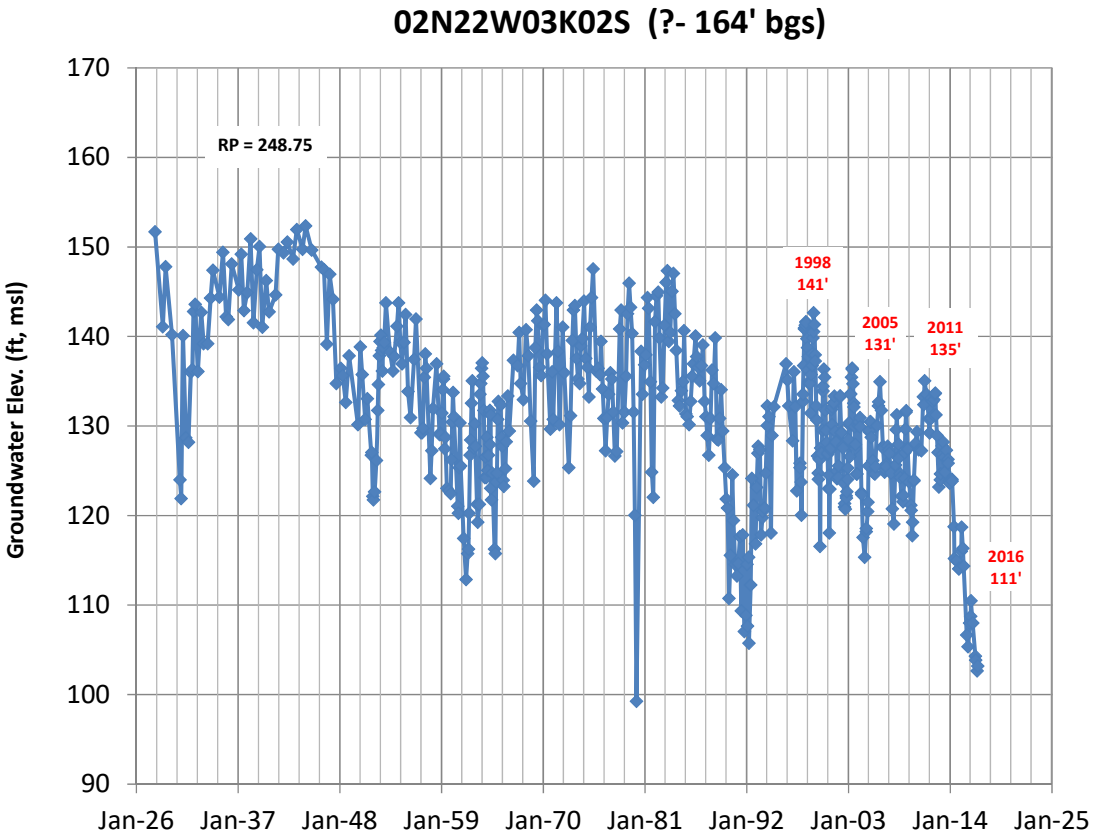
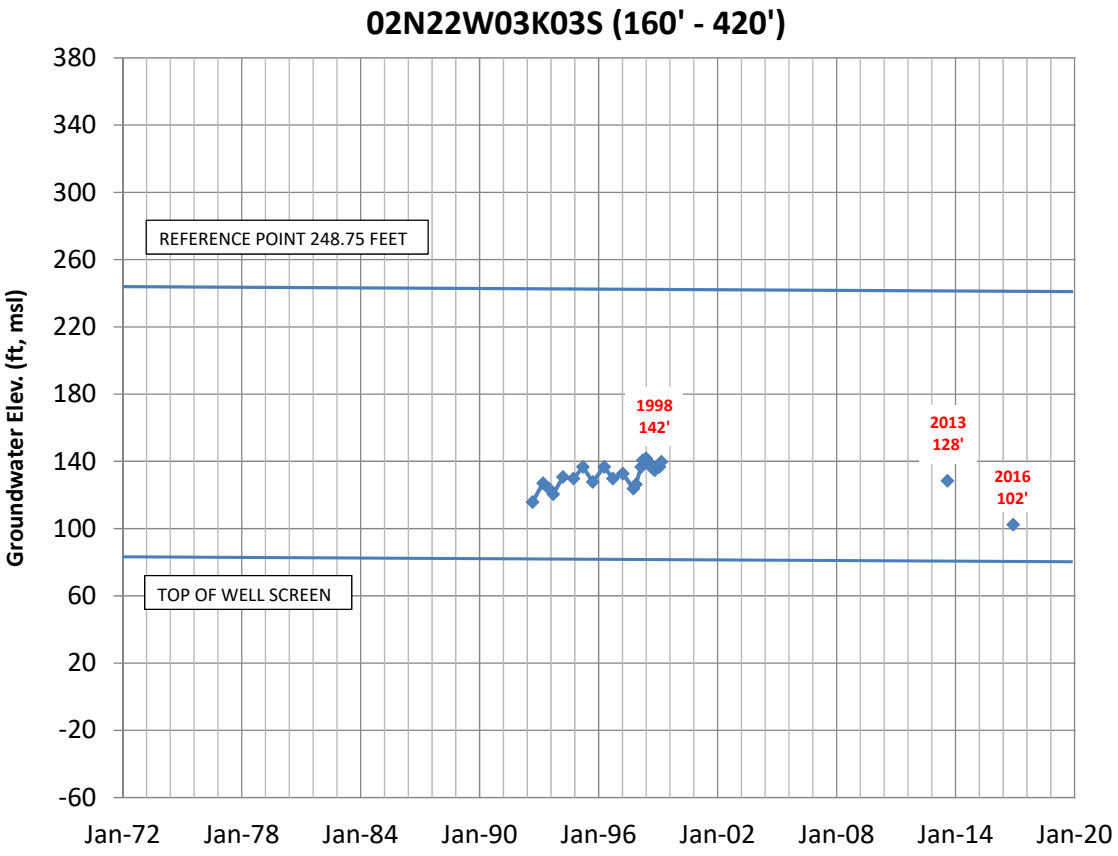
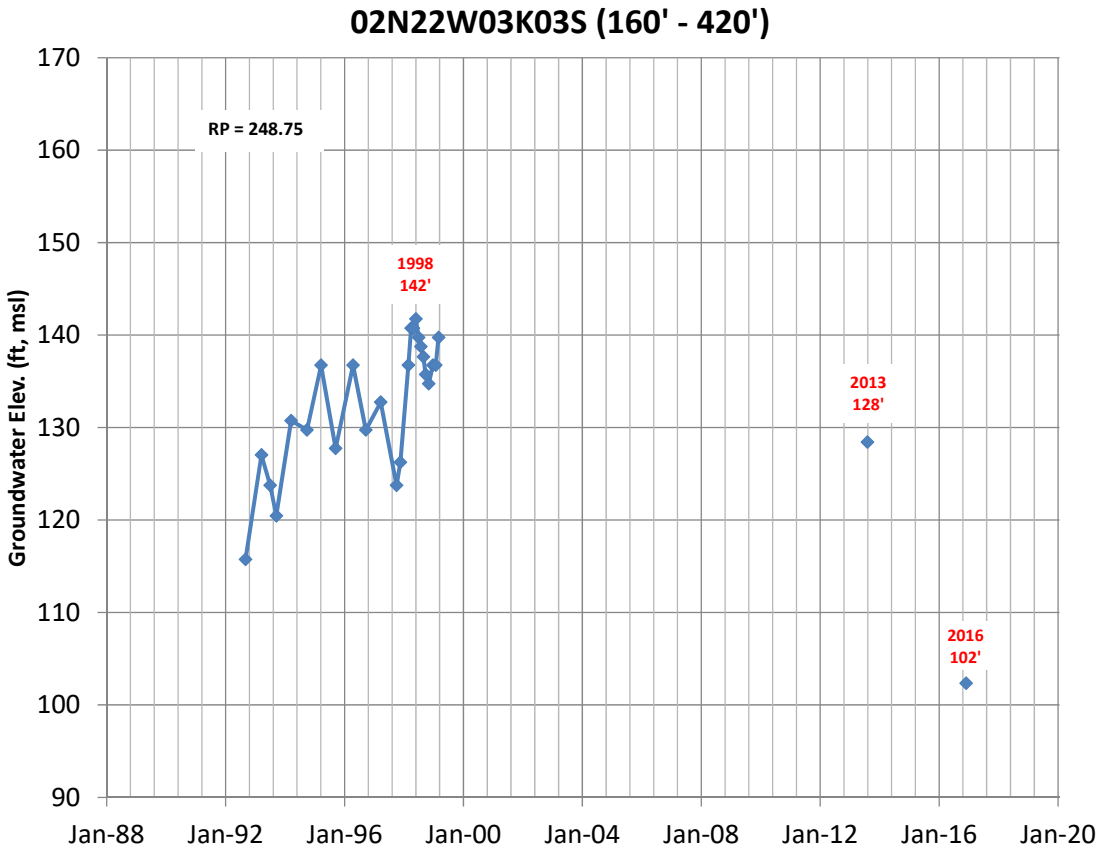
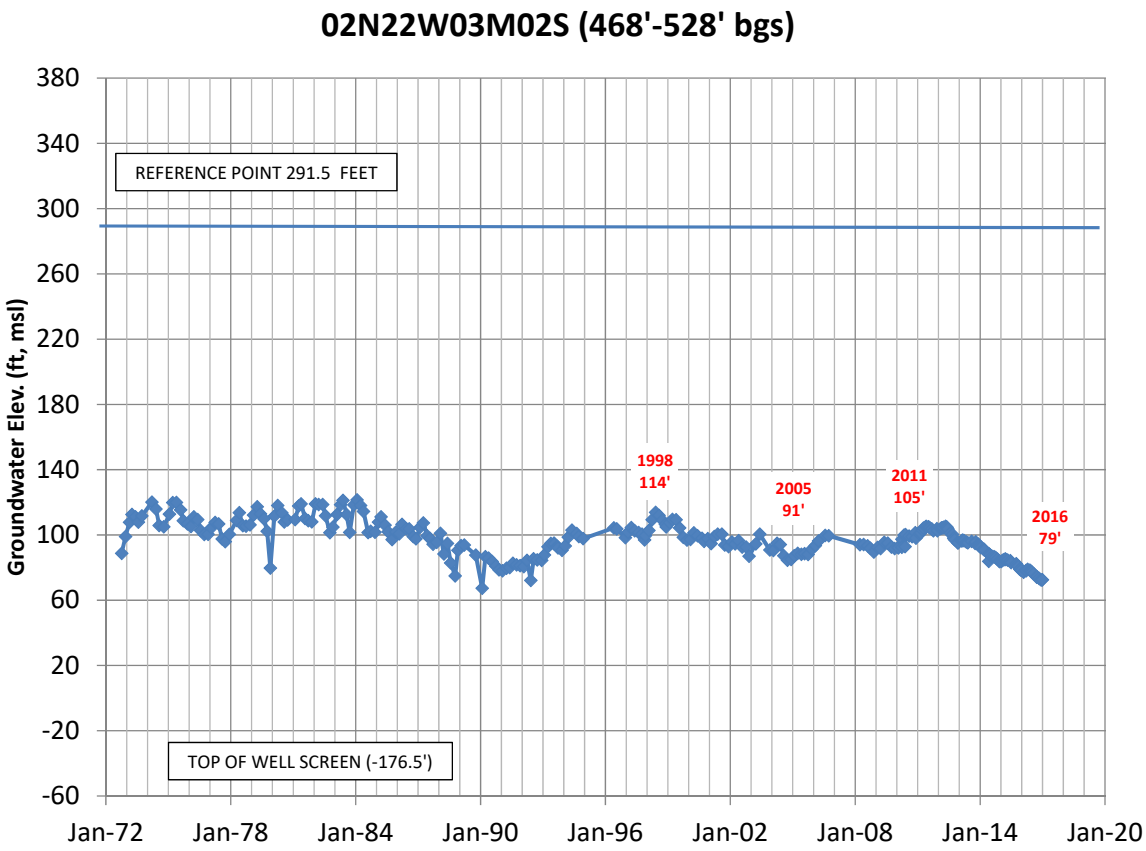
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 248.75 FEET
TOP OF WELL SCREEN (UNKNOWN)
BOTTOM OF WELL SCREEN
1998
141'
2005
131'
2011
135'
2016
111'
Jan-22
Jan-34
Jan-46
Jan-58
Jan-70
Jan-82
Jan-94
Jan-06
Jan-18


02N22W03K02S (?- 164' bgs)
Groundwater Elev. (ft, msl)
170
160
150
140
130
120
110
100
90
RP = 248.75
1998
141'
2005
131'
2011
135'
2016
111'
Jan-26
Jan-37
Jan-48
Jan-59
Jan-70
Jan-81
Jan-92
Jan-03
Jan-14
Jan-25


02N22W03K03S (160' - 420')
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 248.75 FEET
TOP OF WELL SCREEN
1998
142'
2013
128'
2016
102'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


02N22W03K03S (160' - 420')
Groundwater Elev. (ft, msl)
170
160
150
140
130
120
110
100
90
RP = 248.75
1998
142'
2013
128'
2016
102'
Jan-88
Jan-92
Jan-96
Jan-00
Jan-04
Jan-08
Jan-12
Jan-16
Jan-20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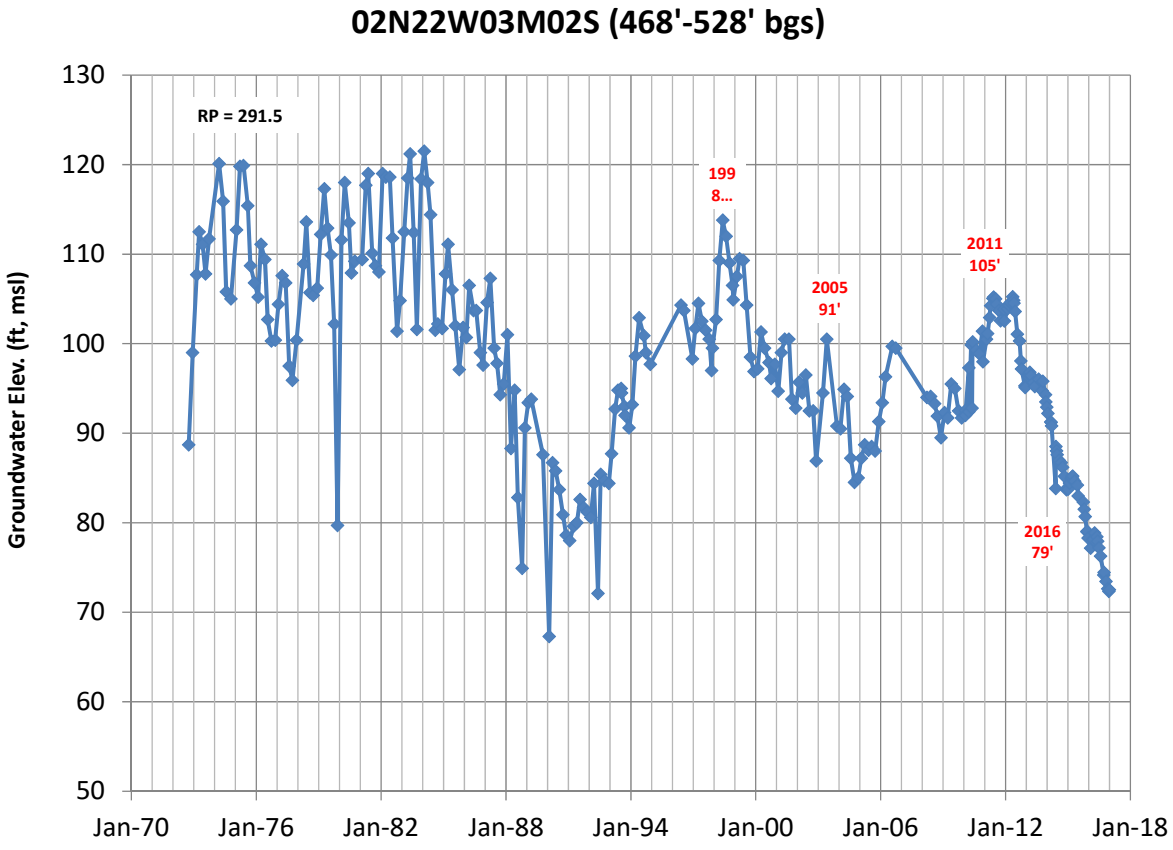
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 291.5 FEET
TOP OF WELL SCREEN (-176.5')
1998
114'
2005
91'
2011
105'
2016
79'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


02N22W03M02S (468'-528' bgs)
Groundwater Elev. (ft, msl)
130
120
110
100
90
80
70
60
50
RP = 291.5
199
8...
2005
91'
2011
105'
2016
79'
Jan-70
Jan-76
Jan-82
Jan-88
Jan-94
Jan-00
Jan-06
Jan-12
Jan-18

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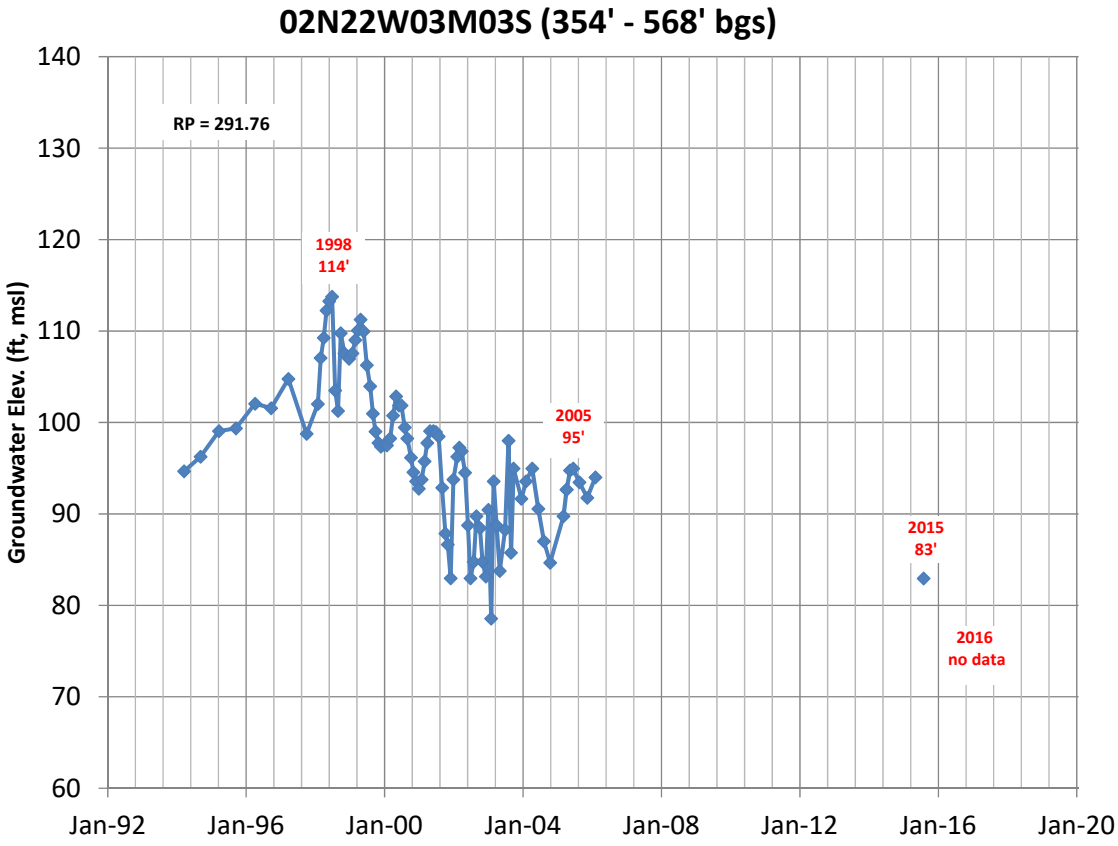

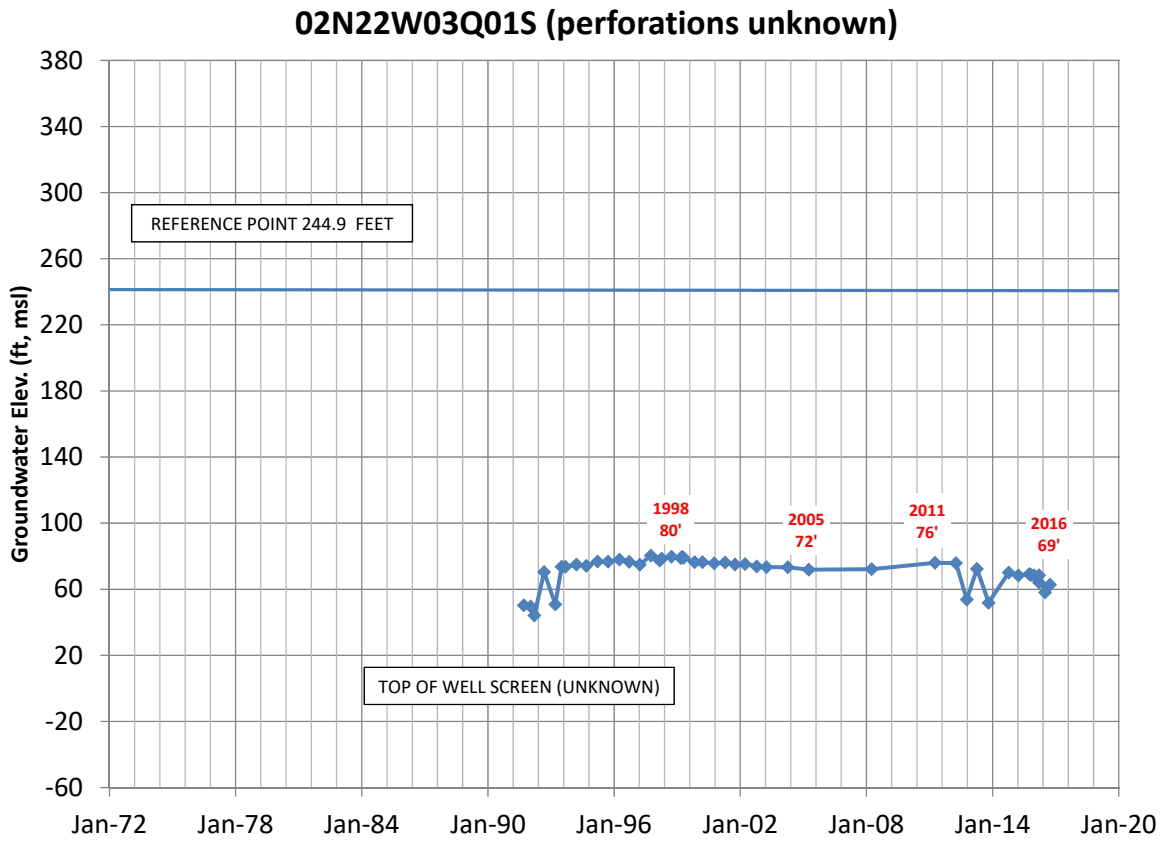
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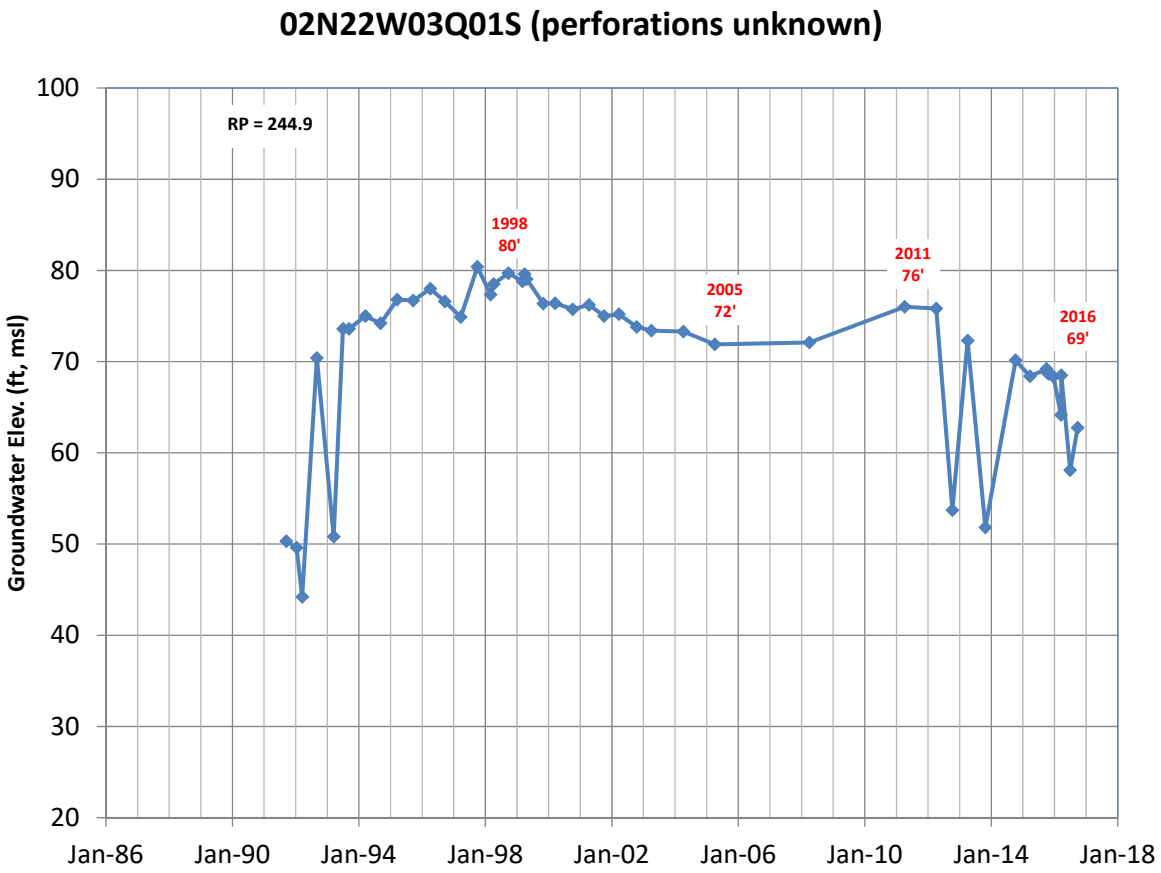
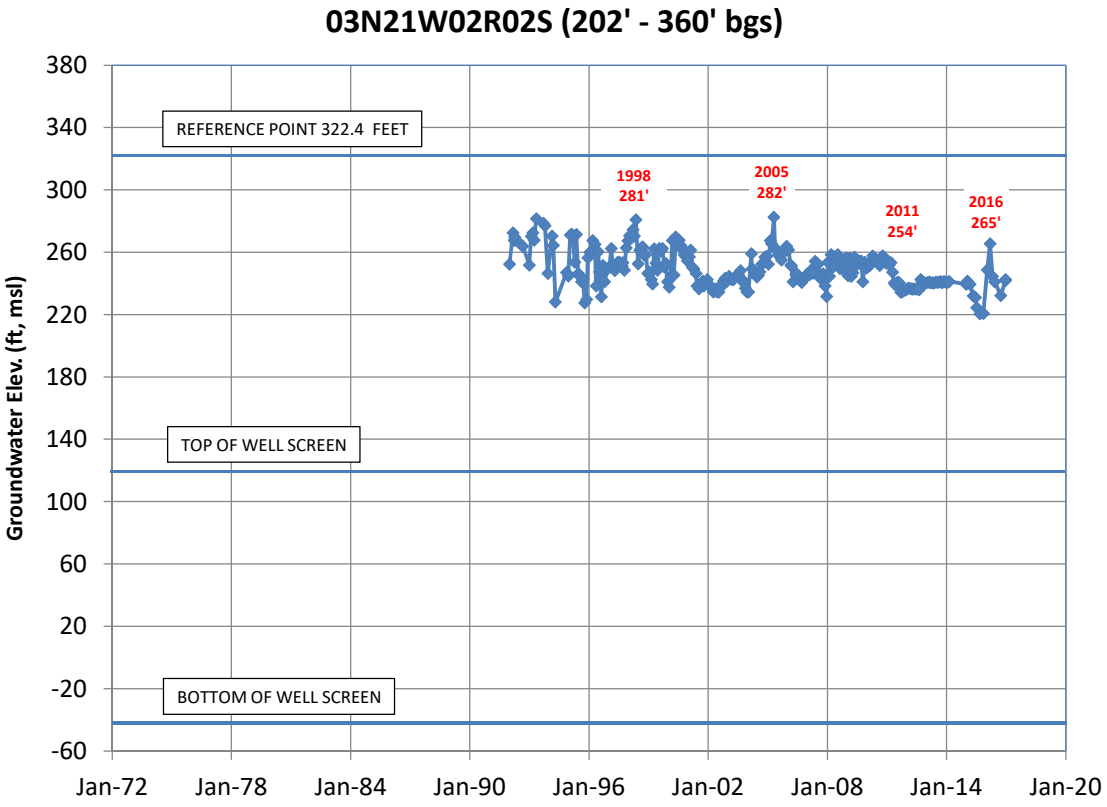
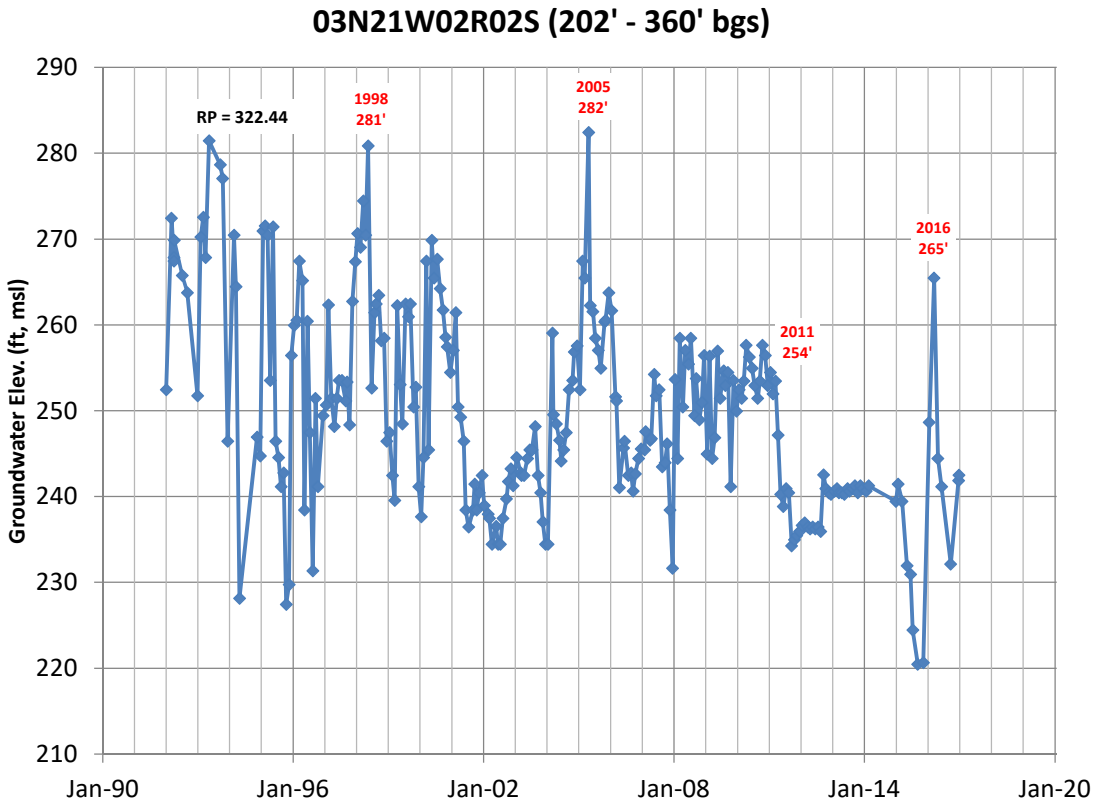
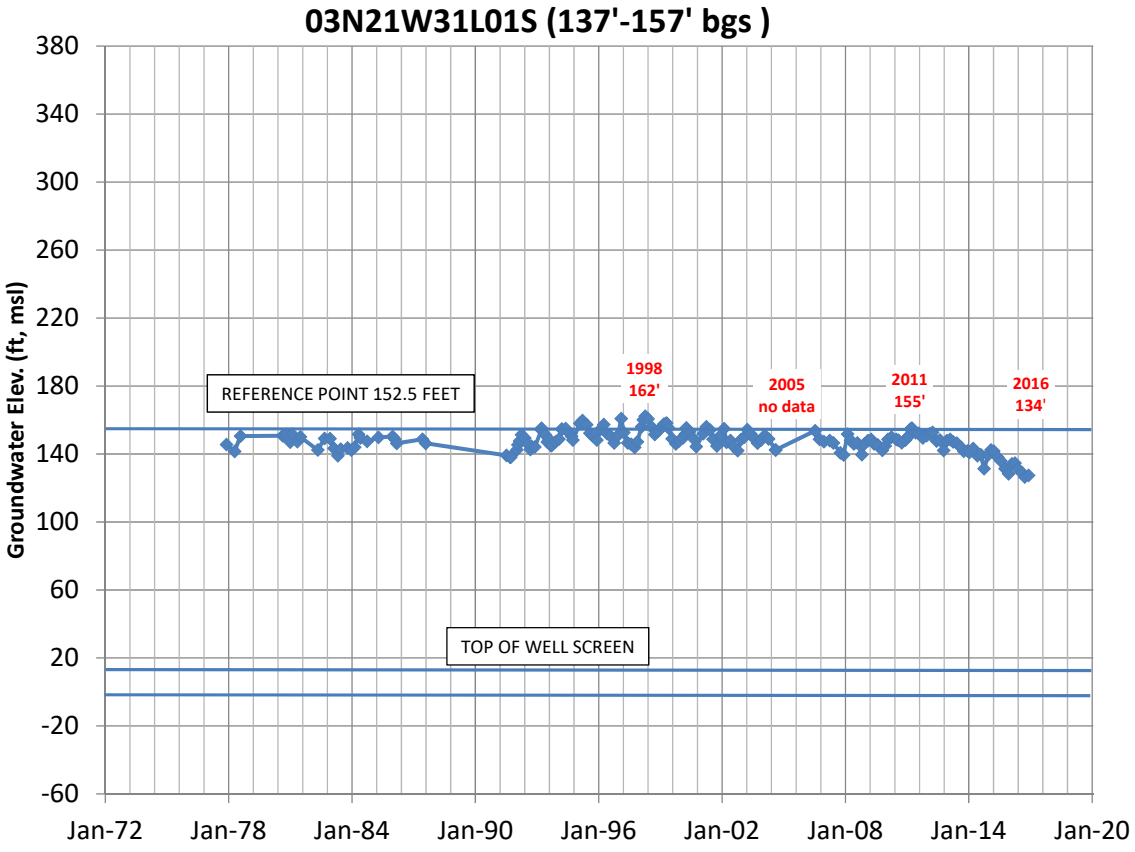
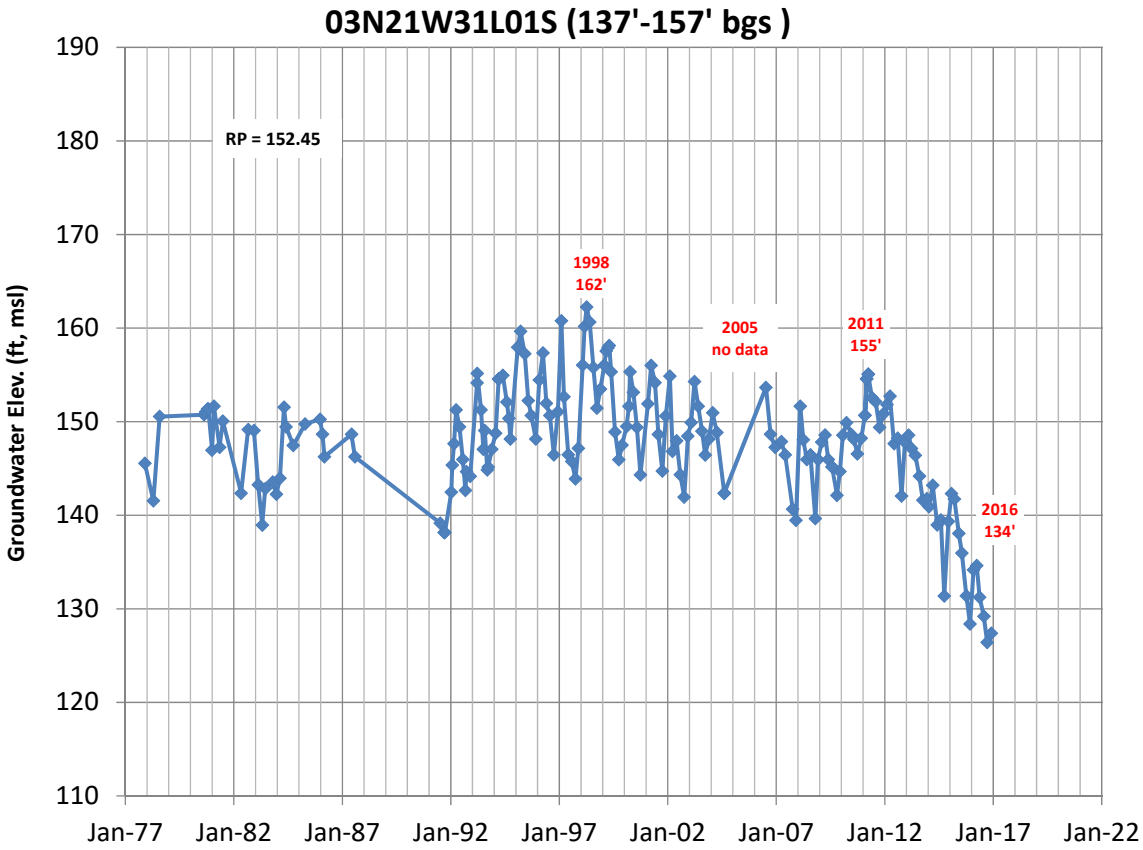
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 244.9 FEET
TOP OF WELL SCREEN (UNKNOWN)
1998
80'
2005
72'
2011
76'
2016
69'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

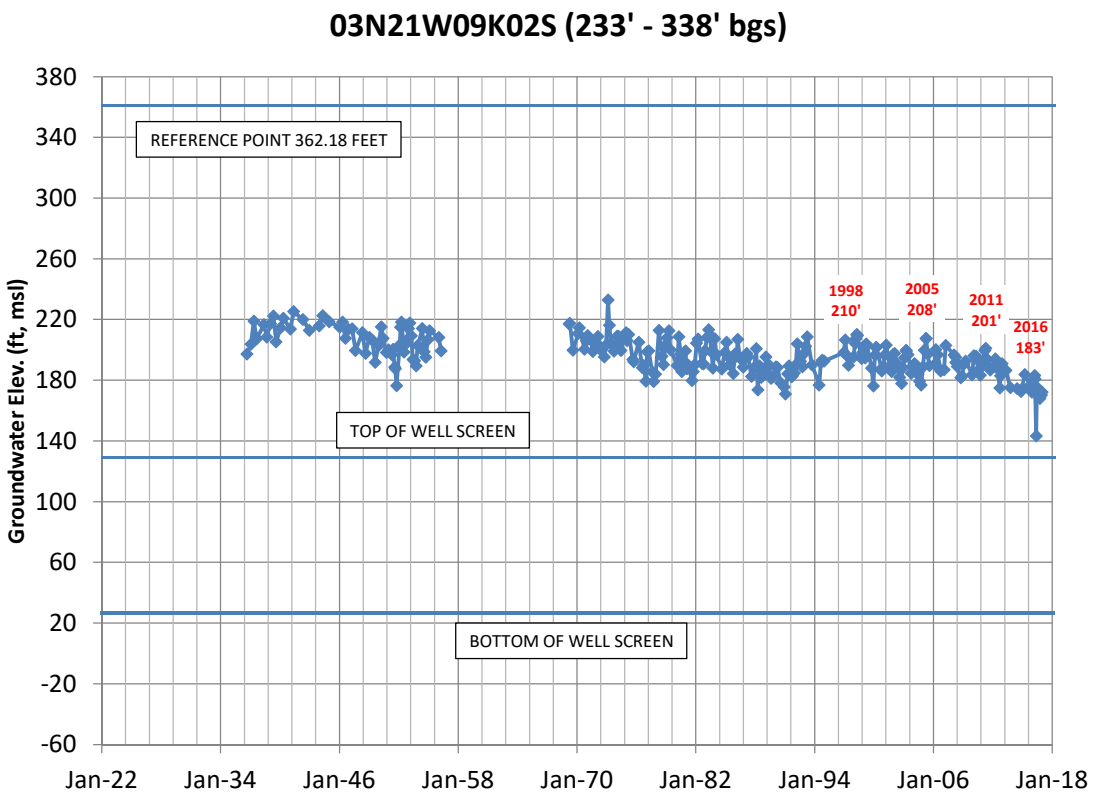

02N22W03Q01S (perforations unknown)
Groundwater Elev. (ft, msl)
100
90
80
70
60
50
40
30
20
RP = 244.9
1998
80'
2005
72'
2011
76'
2016
69'
Jan-86
Jan-90
Jan-94
Jan-98
Jan-02
Jan-06
Jan-10
Jan-14
Jan-18

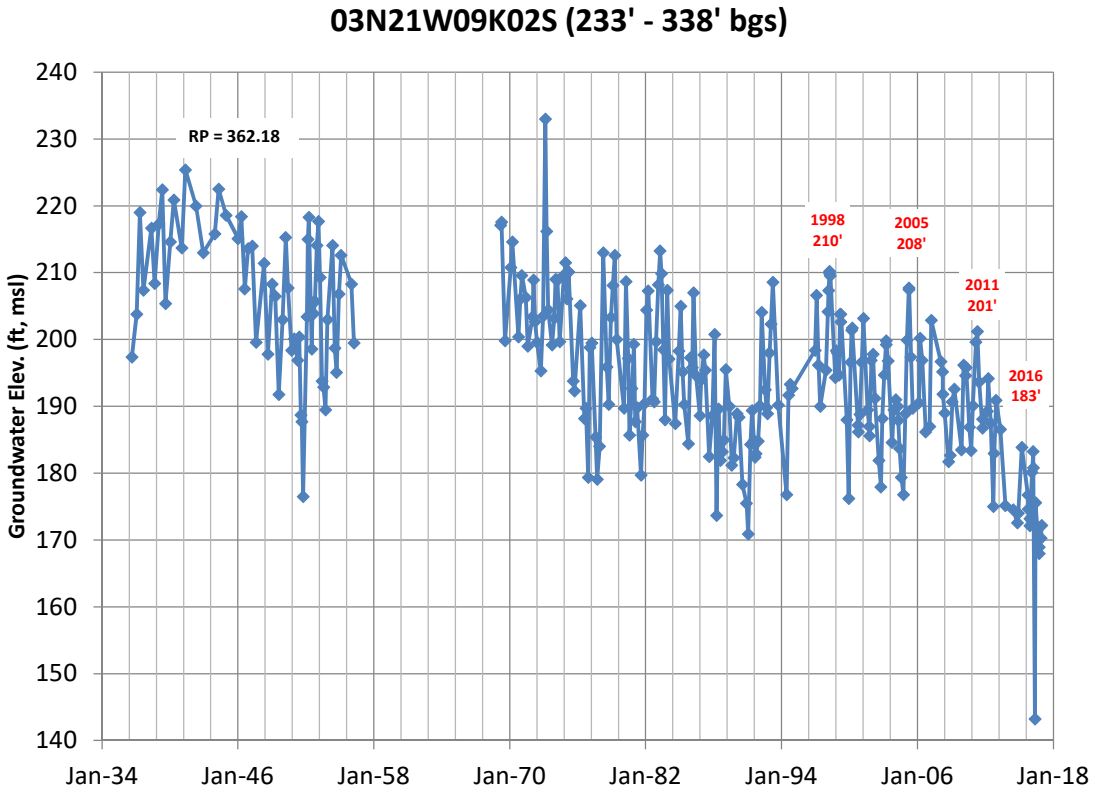

03N21W02R02S (202' - 360' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 322.4 FEET
TOP OF WELL SCREEN
BOTTOM OF WELL SCREEN
1998
281'
2005
282'
2011
254'
2016
265'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

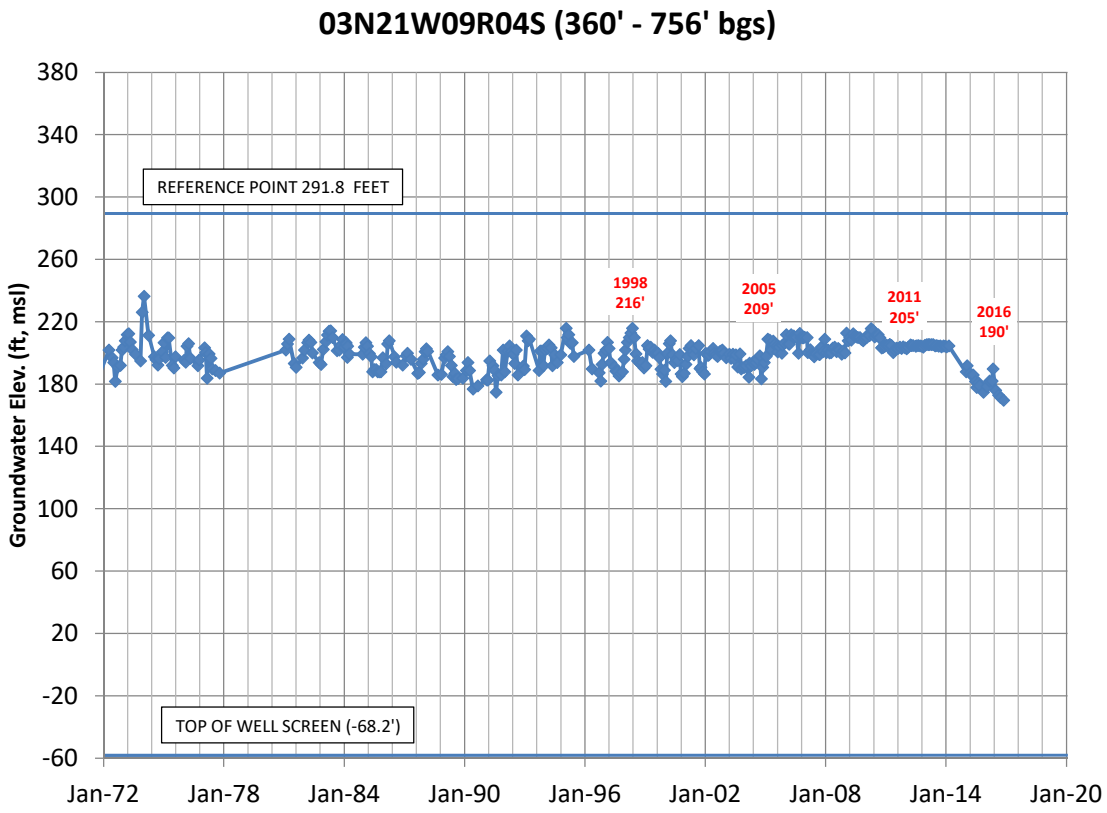

03N21W02R02S (202' - 360' bgs)
Groundwater Elev. (ft, msl)
290
280
270
260
250
240
230
220
210
RP = 322.44
1998
281'
2005
282'
2011
254'
2016
265'
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

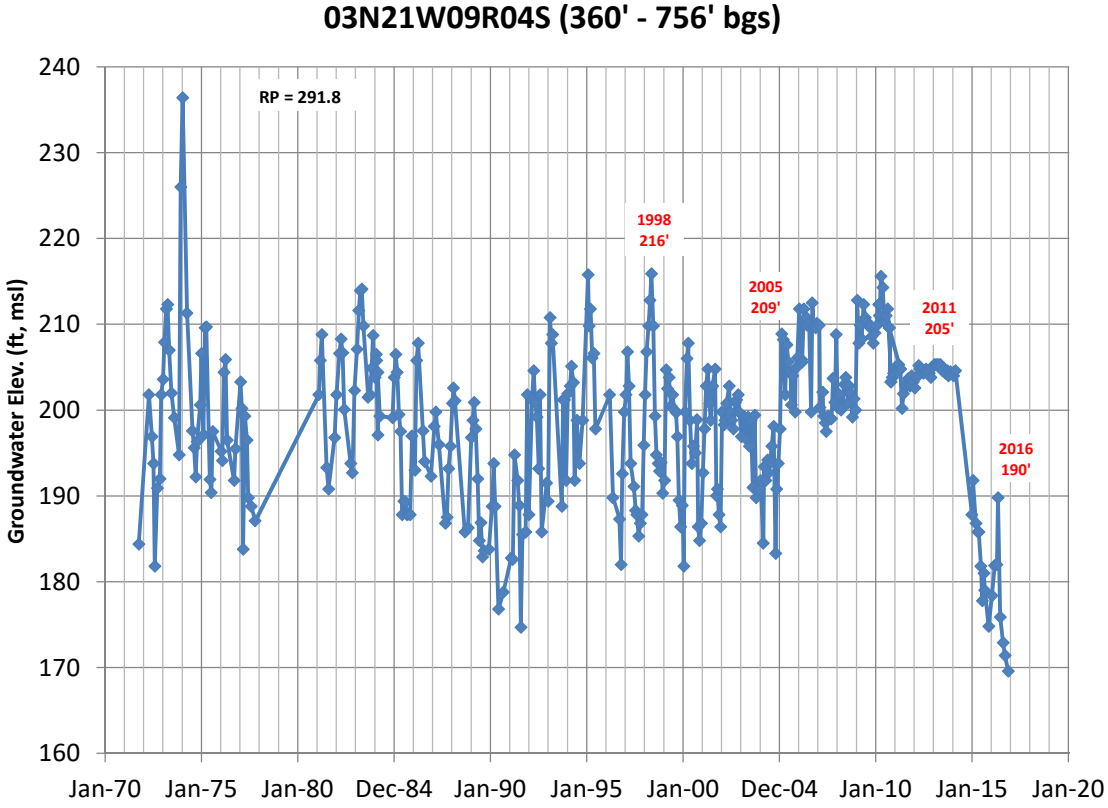

03N21W31L01S (137'-157' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 152.5 FEET
TOP OF WELL SCREEN
1998
162'
2005
no data
2011
155'
2016
134'

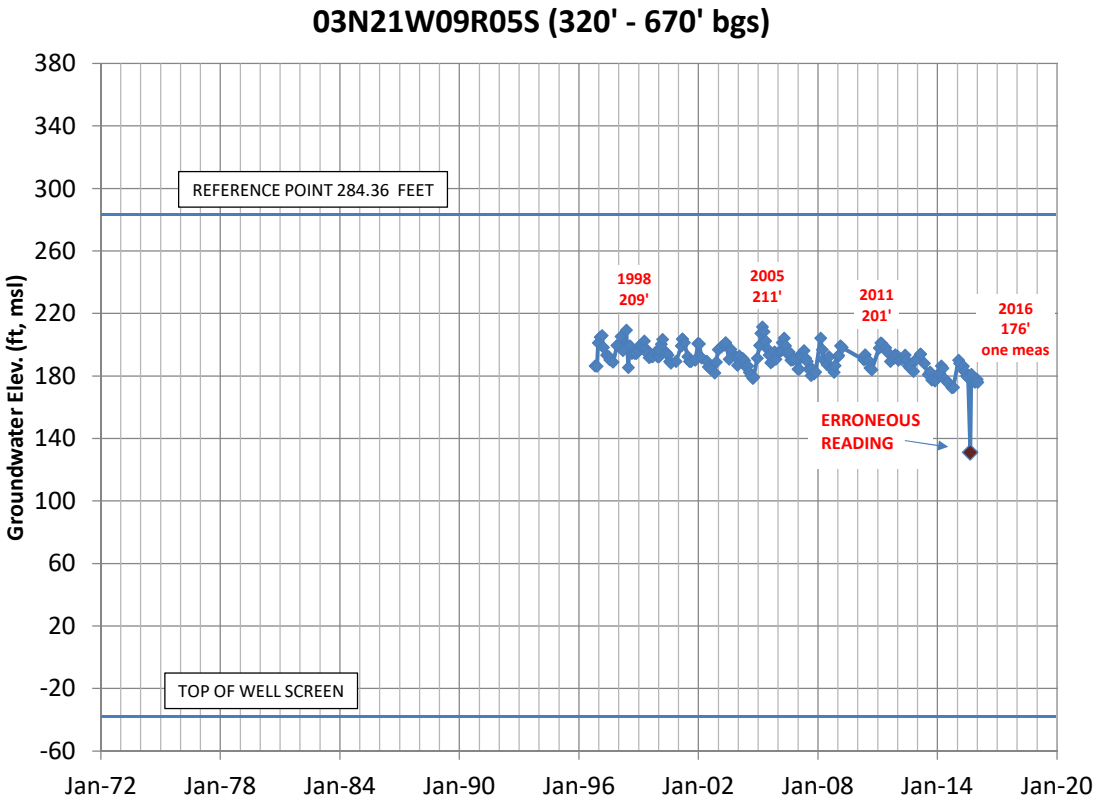

03N21W31L01S (137'-157' bgs)
Groundwater Elev. (ft, msl)
190
180
170
160
150
140
130
120
110
Jan-77
Jan-82
Jan-87
Jan-92
Jan-97
Jan-02
Jan-07
Jan-12
Jan-17
Jan-22
RP = 152.45
1998
162'
2005
no data
2011
155'
2016
134'

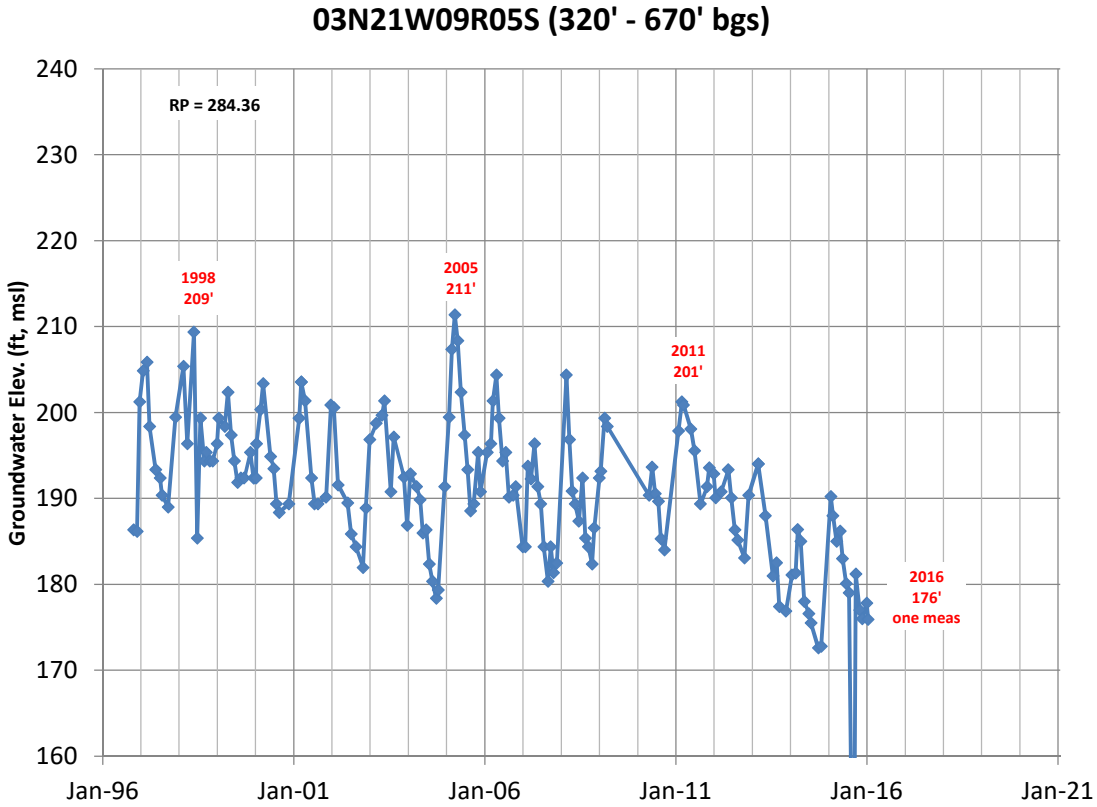

03N21W09K02S (233' - 338' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 362.18 FEET
TOP OF WELL SCREEN
BOTTOM OF WELL SCREEN
1998
210'
2005
208'
2011
201'
2016
183'
Jan-22
Jan-34
Jan-46
Jan-58
Jan-70
Jan-82
Jan-94
Jan-06
Jan-18

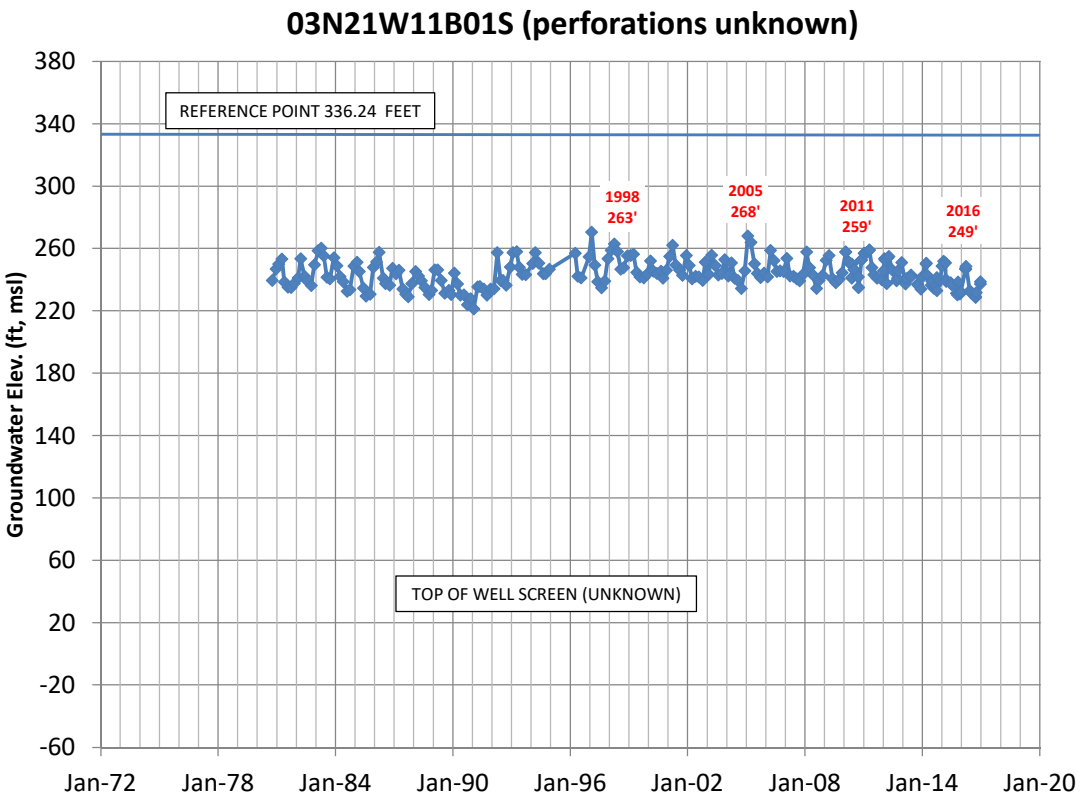

03N21W09K02S (233' - 338' bgs)
Groundwater Elev. (ft, msl)
240
230
220
210
200
190
180
170
160
150
140
RP = 362.18
1998
210'
2005
208'
2011
201'
2016
183'
Jan-34
Jan-46
Jan-58
Jan-70
Jan-82
Jan-94
Jan-06
Jan-18

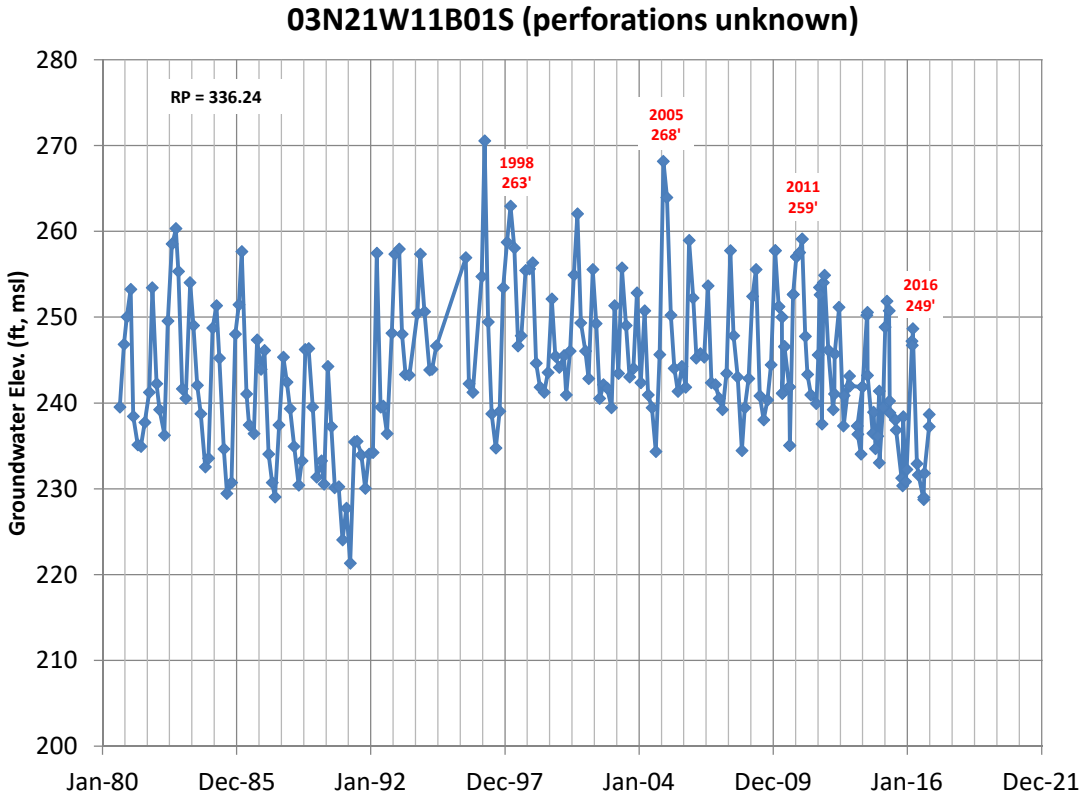

03N21W09R04S (360' - 756' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 291.8 FEET
TOP OF WELL SCREEN (-68.2')
1998
216'
2005
209'
2011
205'
2016
190'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

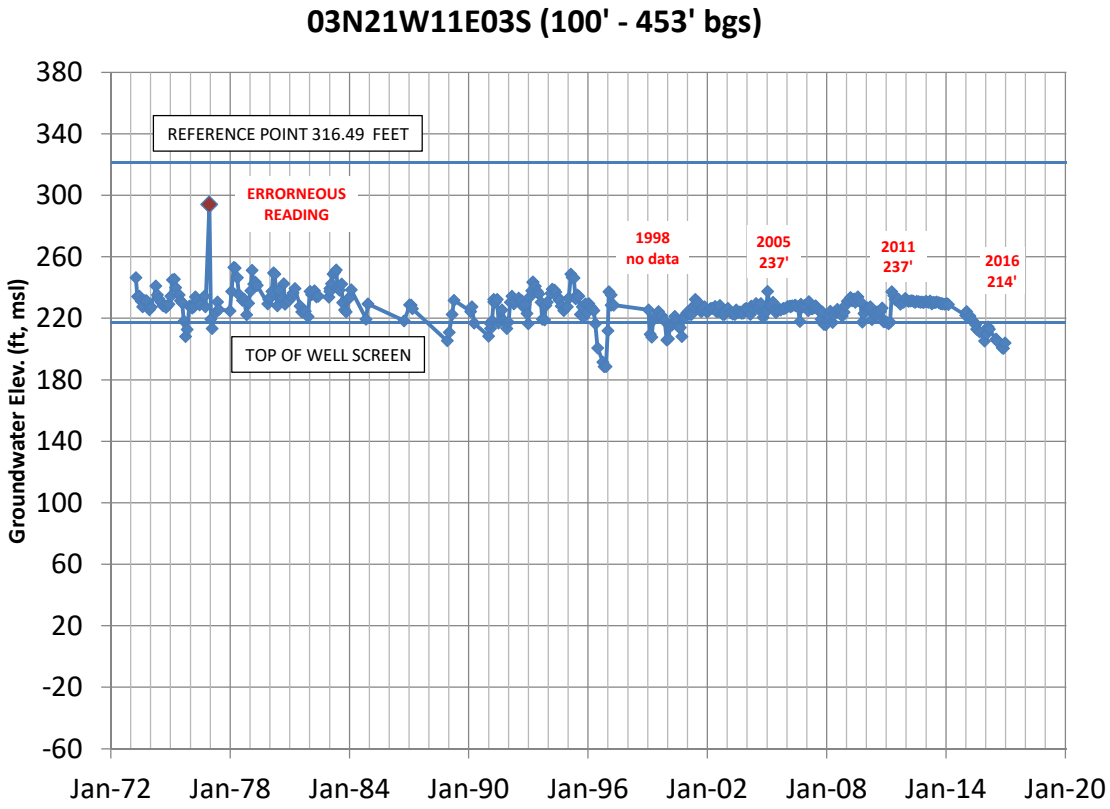

03N21W09R04S (360' - 756' bgs)
Groundwater Elev. (ft, msl)
240
230
220
210
200
190
180
170
160
RP = 291.8
1998
216'
2005
209'
2011
205'
2016
190'
Jan-70
Jan-75
Jan-80
Dec-84
Jan-90
Jan-95
Jan-00
Dec-04
Jan-10
Jan-15
Jan-20

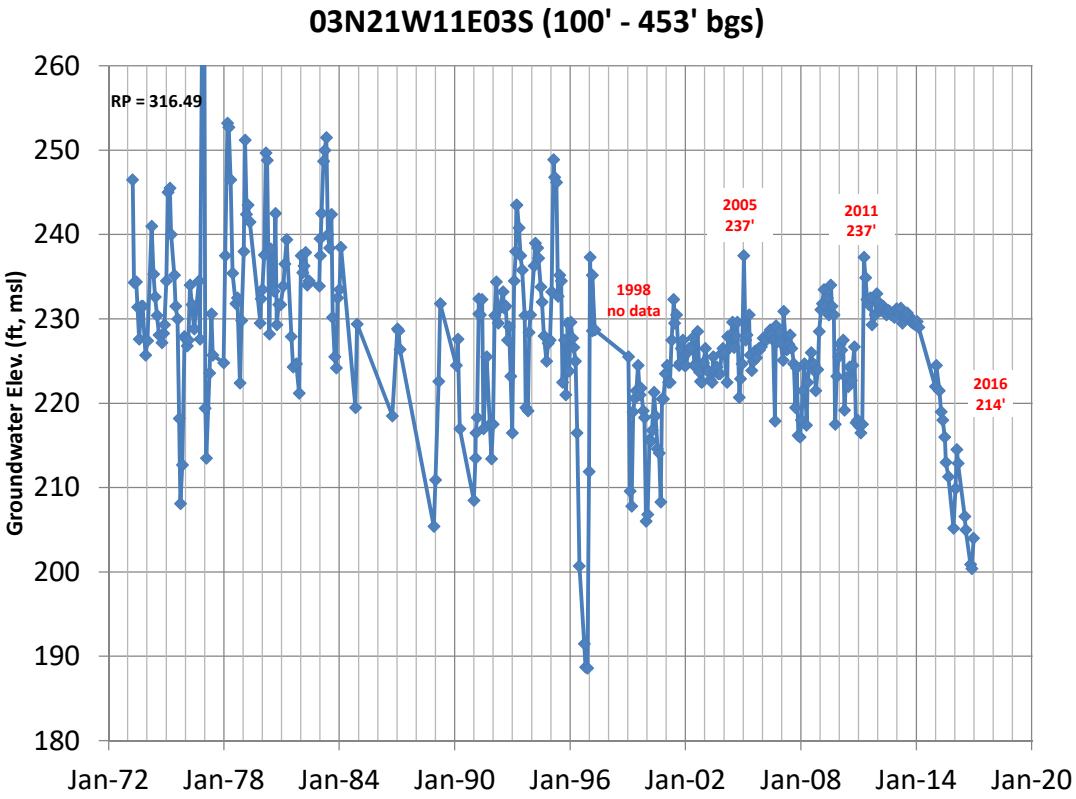

03N21W09R05S (320' - 670' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 284.36 FEET
TOP OF WELL SCREEN
1998
209'
2005
211'
2011
201'
2016
176'
one meas
ERRONEOUS
READING
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


03N21W09R05S (320' - 670' bgs)
Groundwater Elev. (ft, msl)
240
230
220
210
200
190
180
170
160
RP = 284.36
1998
209'
2005
211'
2011
201'
2016
176'
one meas
Jan-96
Jan-01
Jan-06
Jan-11
Jan-16
Jan-21

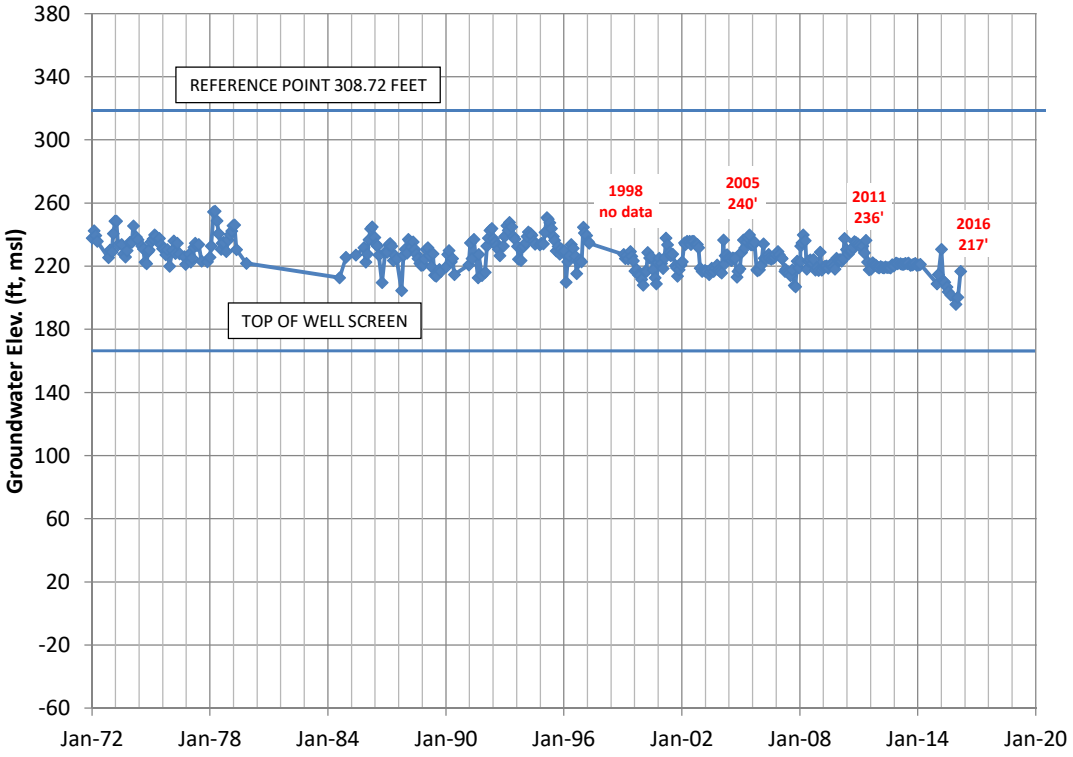

03N21W11B01S (perforations unknown)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 336.24 FEET
TOP OF WELL SCREEN (UNKNOWN)
1998
263'
2005
268'
2011
259'
2016
249'


03N21W11B01S (perforations unknown)
Groundwater Elev. (ft, msl)
280
270
260
250
240
230
220
210
200
Jan-80
Dec-85
Jan-92
Dec-97
Jan-04
Dec-09
Jan-16
Dec-21
RP = 336.24
1998
263'
2005
268'
2011
259'
2016
249'

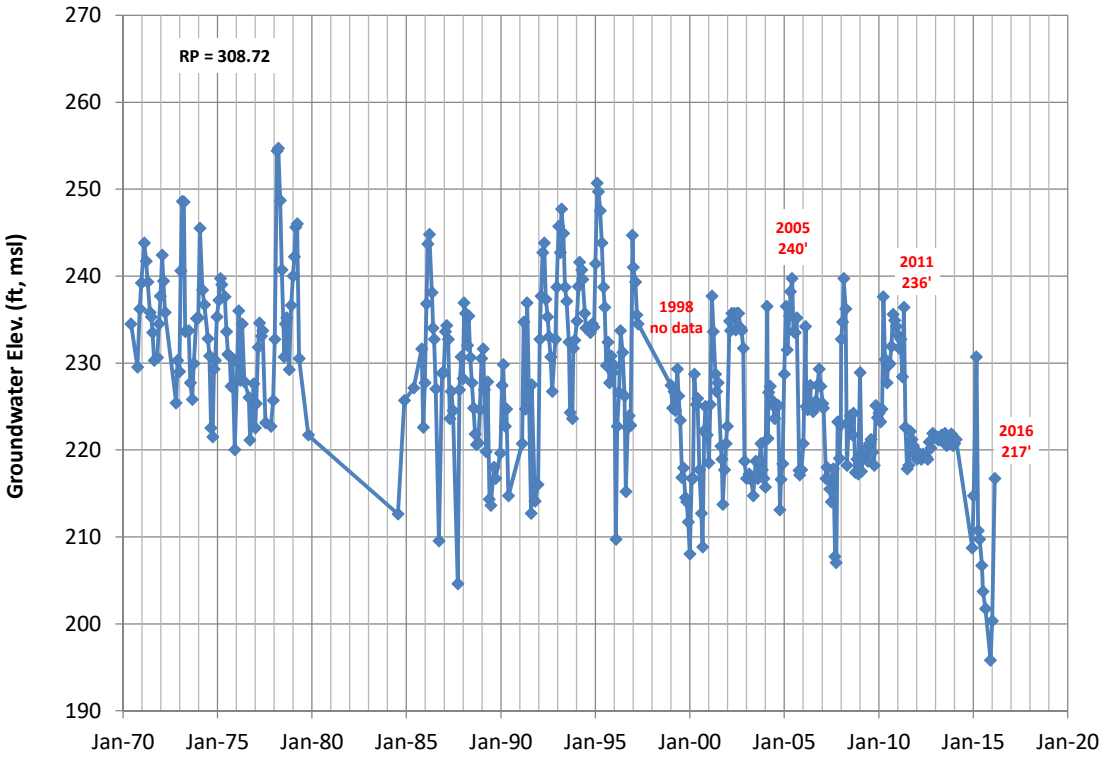

03N21W11E03S (100' - 453' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 316.49 FEET
TOP OF WELL SCREEN
ERRORNEOUS READING
1998 no data
2005 237'
2011 237'
2016 214'

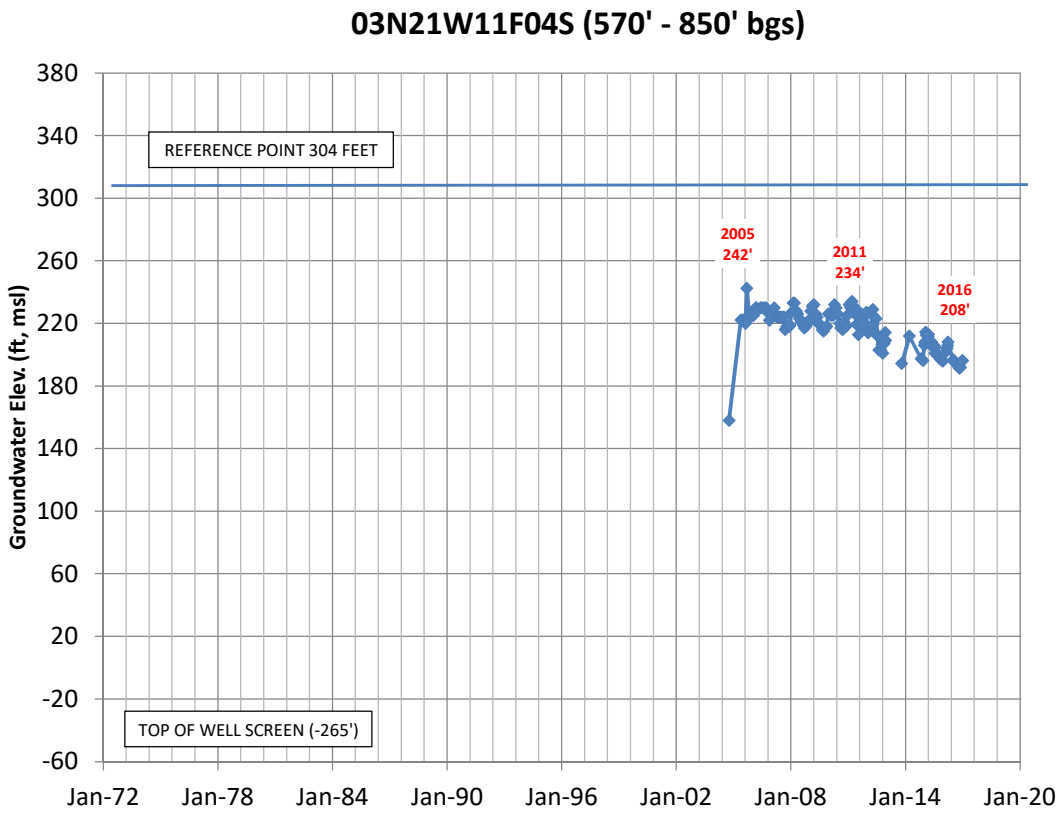

03N21W11E03S (100' - 453' bgs)
Groundwater Elev. (ft, msl)
260
250
240
230
220
210
200
190
180
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
RP = 316.49
1998 no data
2005 237'
2011 237'
2016 214'

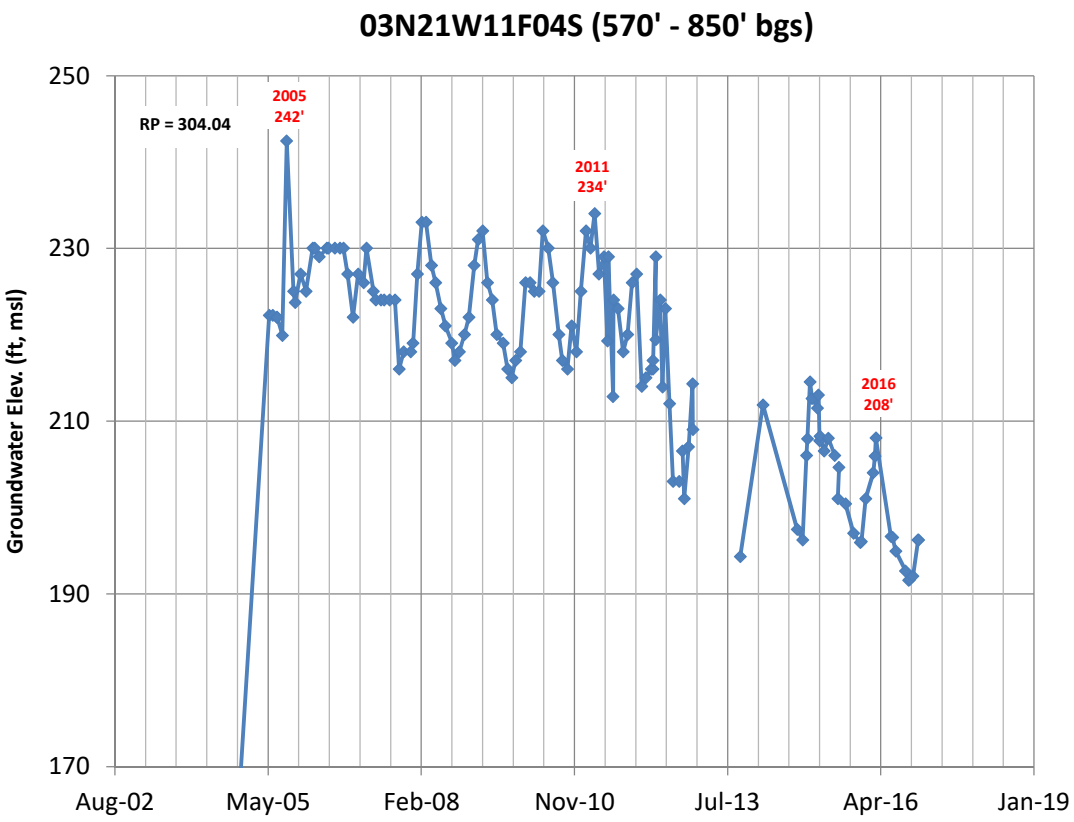
03N21W11F03S (153' -518' bgs)

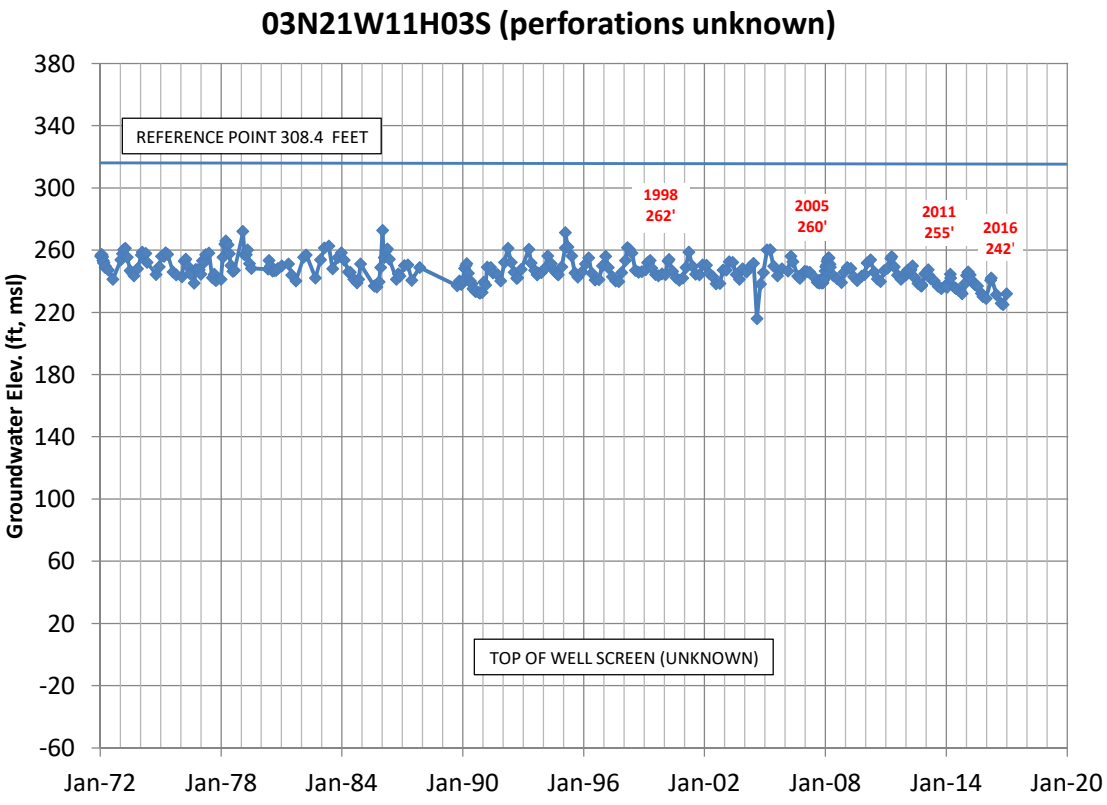


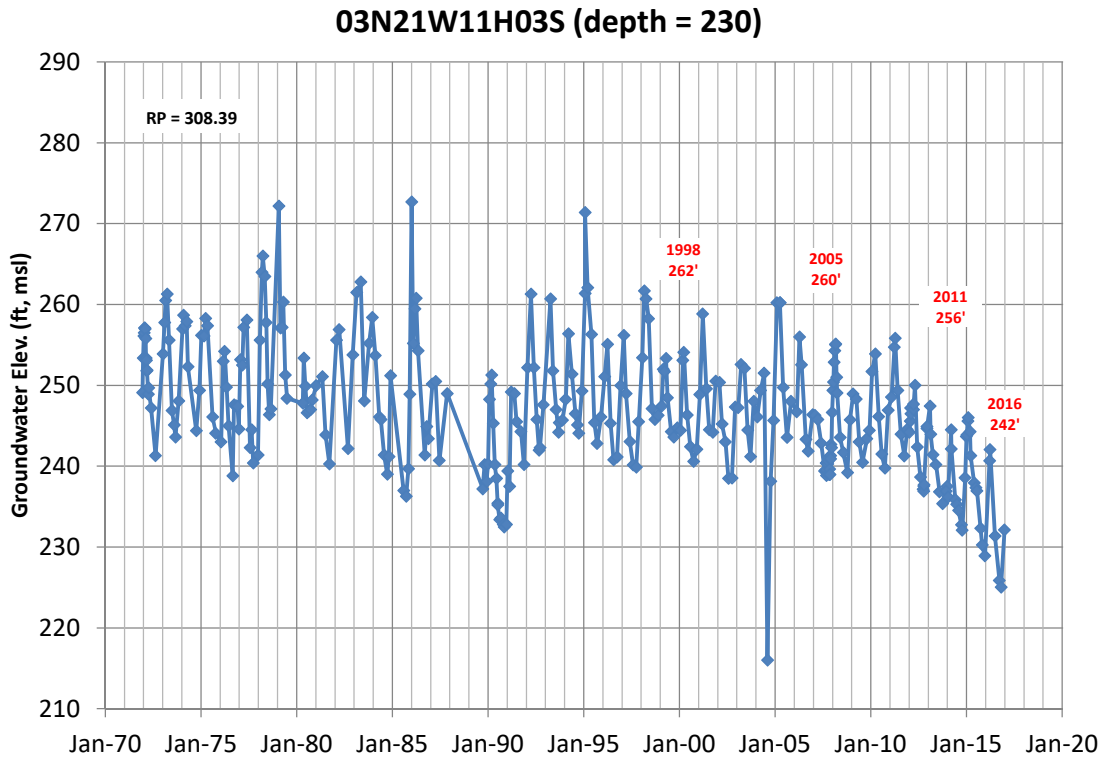
03N21W11F03S (153' -518' bgs)



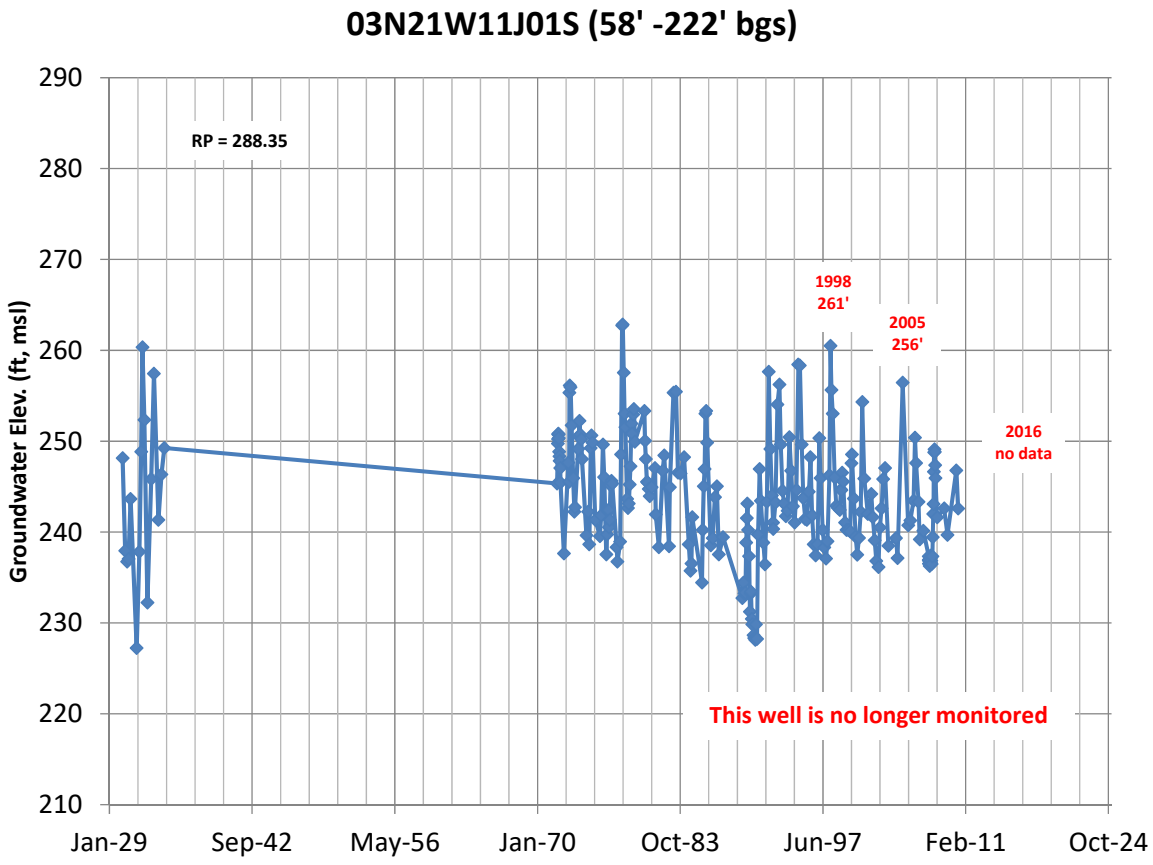

03N21W11F04S (570' - 850' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 304 FEET
TOP OF WELL SCREEN (-265')
2005
242'
2011
234'
2016
208'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

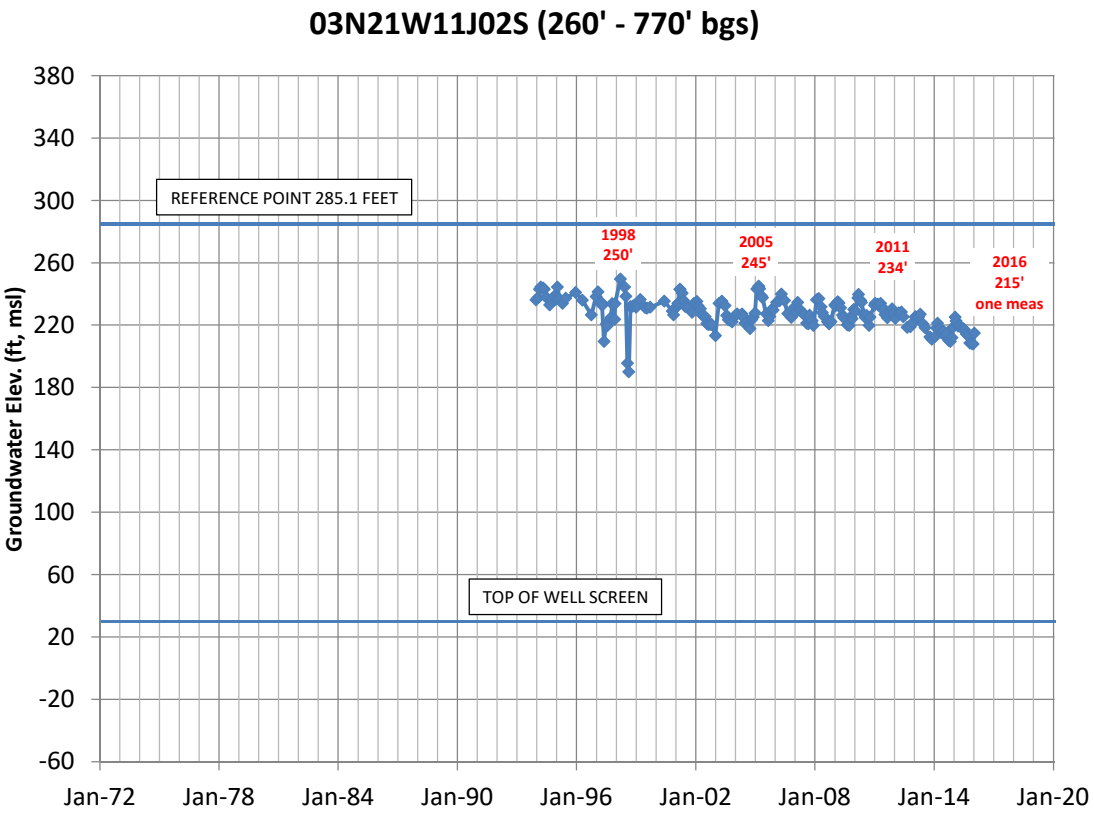

03N21W11F04S (570' - 850' bgs)
Groundwater Elev. (ft, msl)
250
230
210
190
170
RP = 304.04
2005
242'
2011
234'
2016
208'
Aug-02
May-05
Feb-08
Nov-10
Jul-13
Apr-16
Jan-19

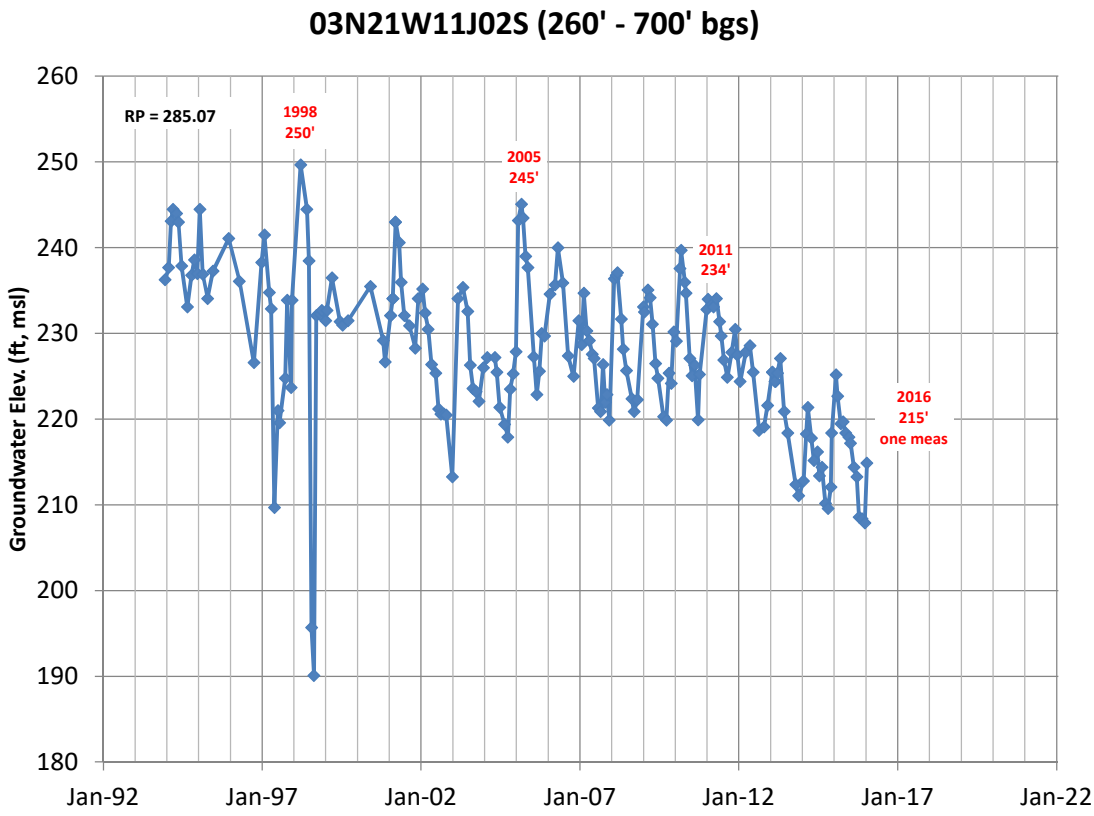

03N21W11H03S (perforations unknown)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 308.4 FEET
TOP OF WELL SCREEN (UNKNOWN)
1998
262'
2005
260'
2011
255'
2016
242'

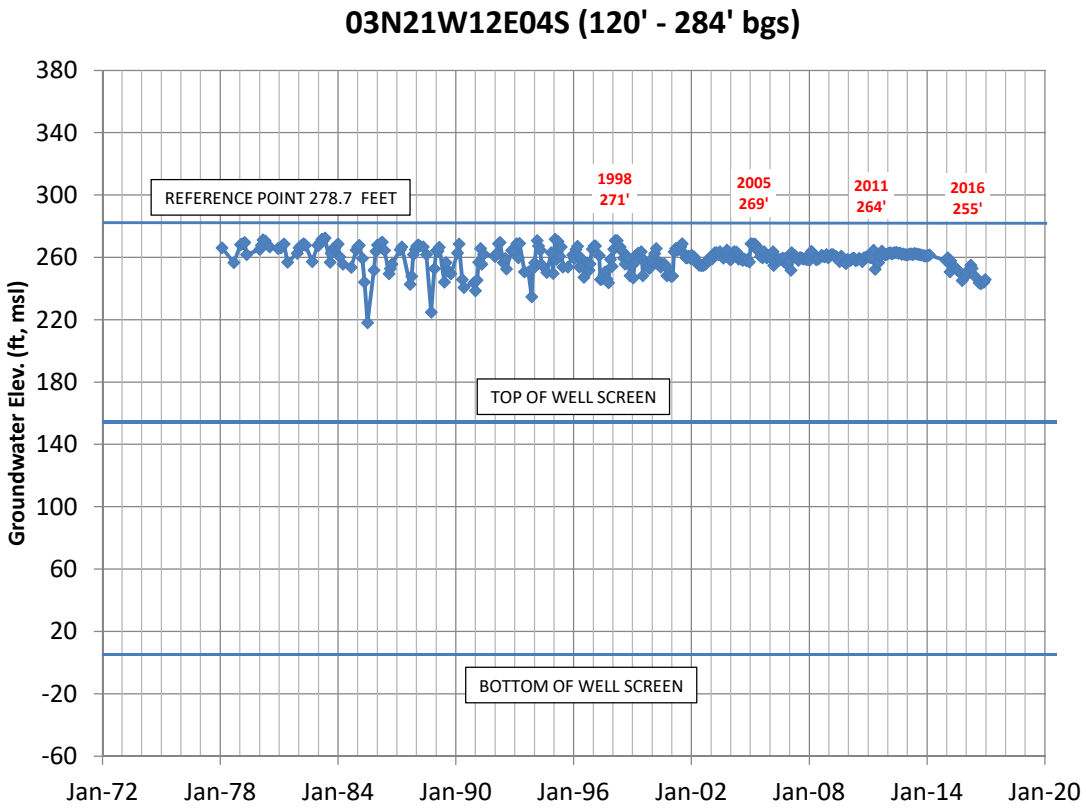

03N21W11H03S (depth = 230)
Groundwater Elev. (ft, msl)
290
280
270
260
250
240
230
220
210
Jan-70
Jan-75
Jan-80
Jan-85
Jan-90
Jan-95
Jan-00
Jan-05
Jan-10
Jan-15
Jan-20
RP = 308.39
1998
262'
2005
260'
2011
256'
2016
242'

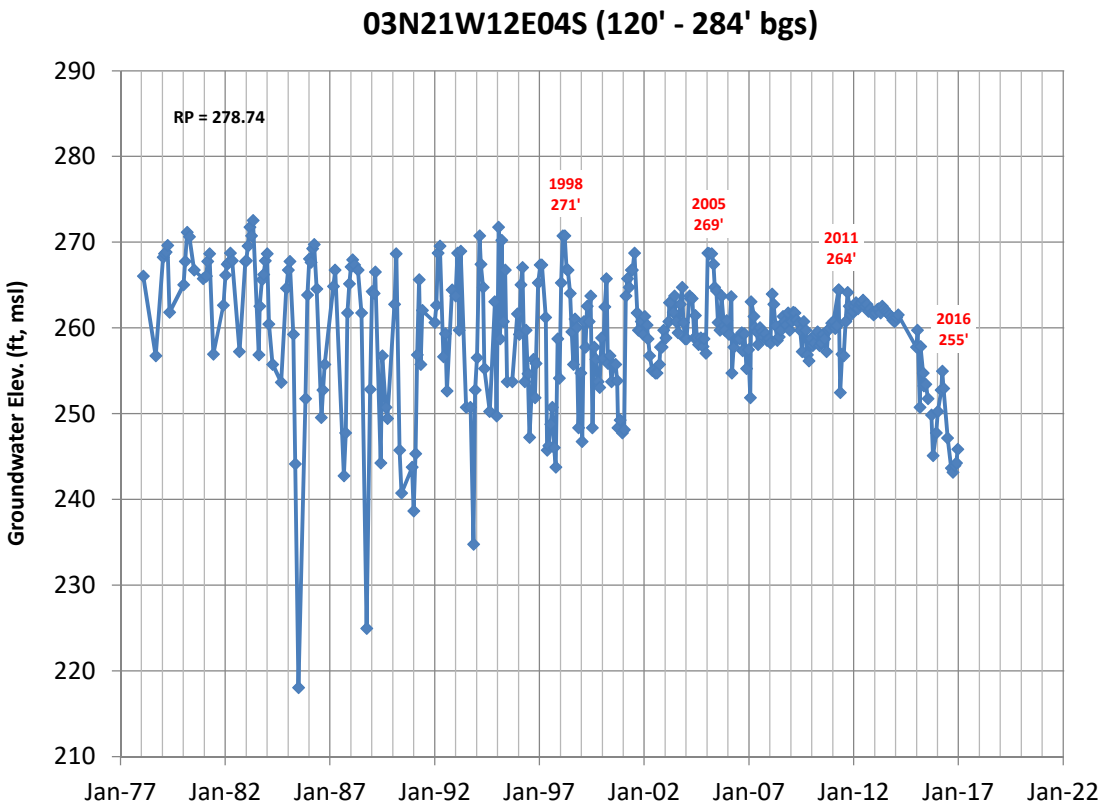
Intentionally Left Blank

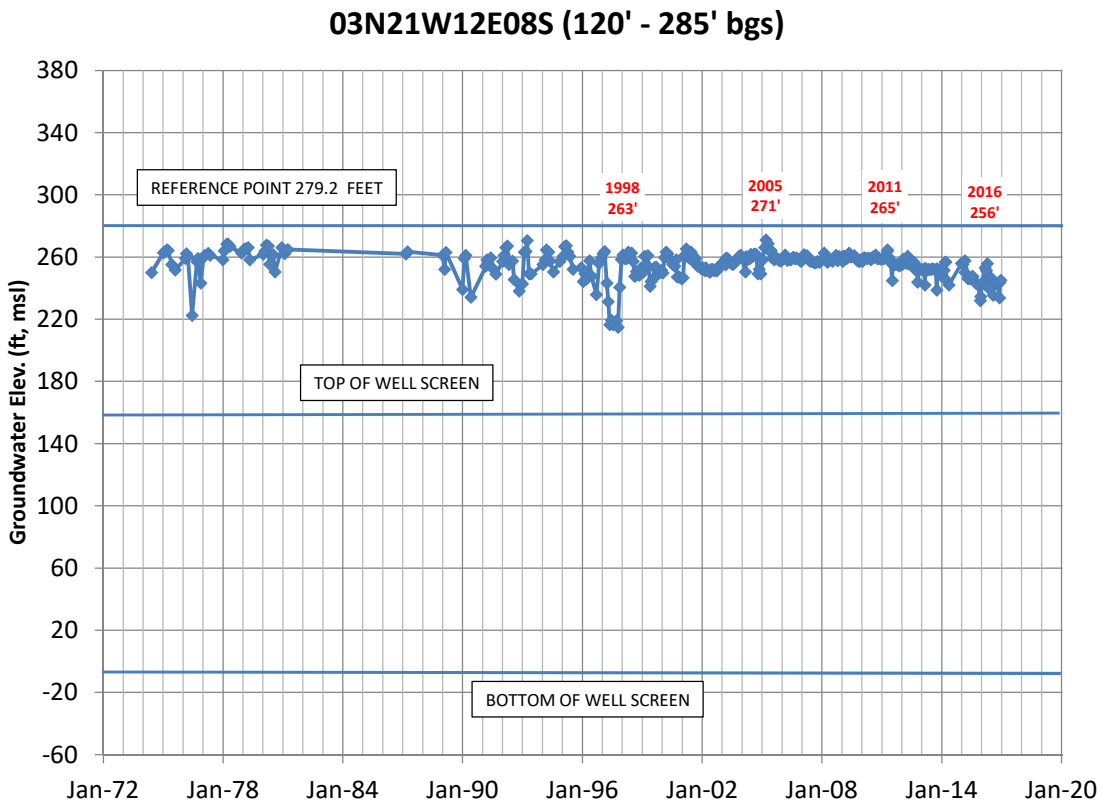


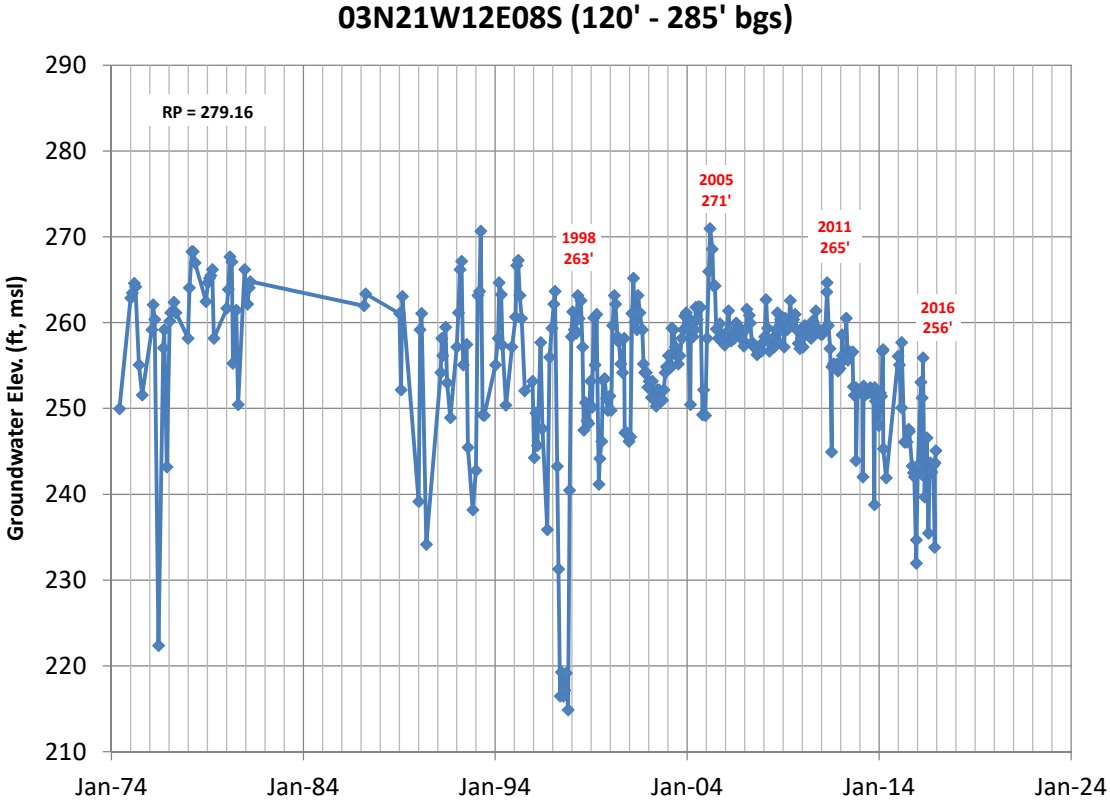

03N21W11J02S (260' - 770' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 285.1 FEET
TOP OF WELL SCREEN
1998
250'
2005
245'
2011
234'
2016
215'
one meas

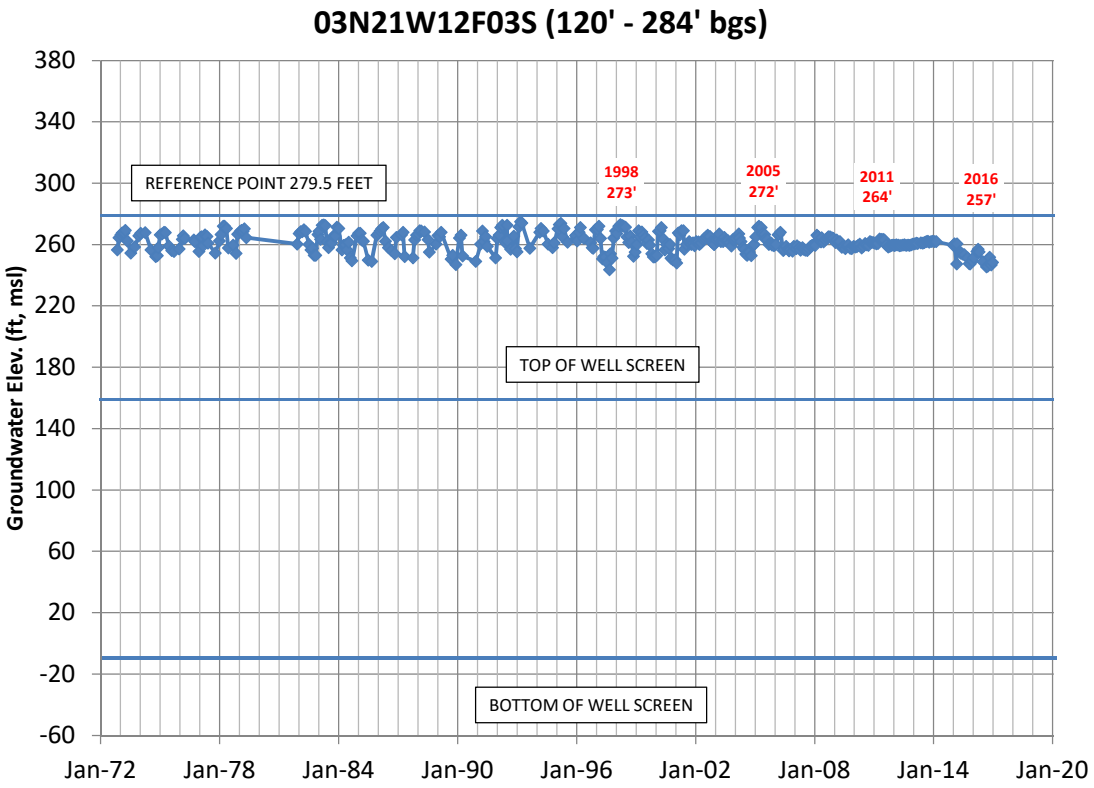

03N21W11J02S (260' - 700' bgs)
Groundwater Elev. (ft, msl)
260
250
240
230
220
210
200
190
180
Jan-92
Jan-97
Jan-02
Jan-07
Jan-12
Jan-17
Jan-22
RP = 285.07
1998
250'
2005
245'
2011
234'
2016
215'
one meas

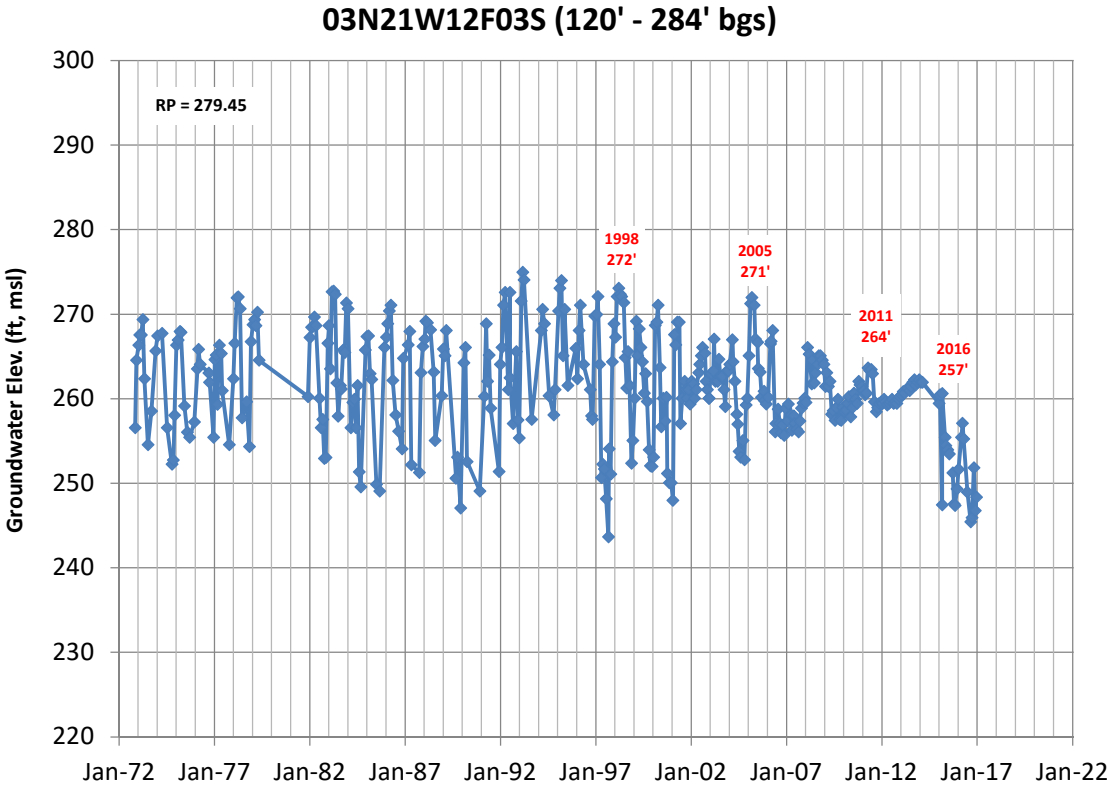

03N21W12E04S (120' - 284' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 278.7 FEET
TOP OF WELL SCREEN
BOTTOM OF WELL SCREEN
1998
271'
2005
269'
2011
264'
2016
255'

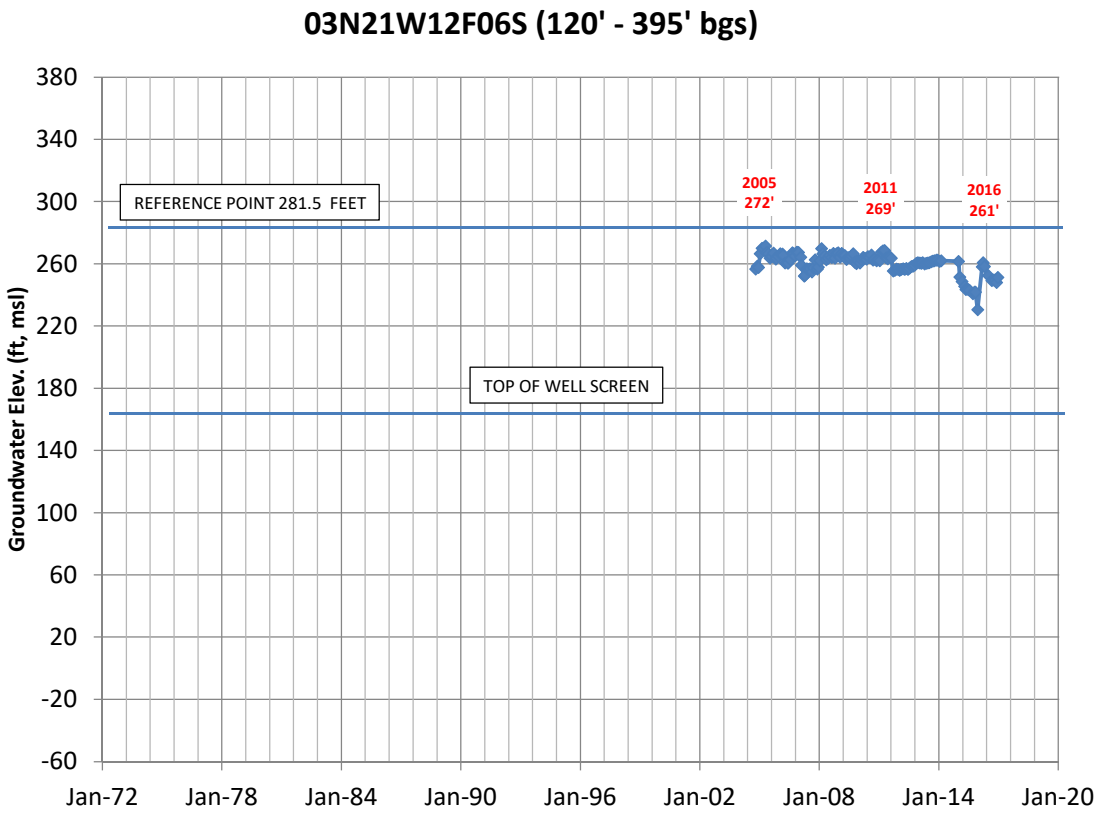

03N21W12E04S (120' - 284' bgs)
Groundwater Elev. (ft, msl)
290
280
270
260
250
240
230
220
210
Jan-77
Jan-82
Jan-87
Jan-92
Jan-97
Jan-02
Jan-07
Jan-12
Jan-17
Jan-22
RP = 278.74
1998
271'
2005
269'
2011
264'
2016
255'

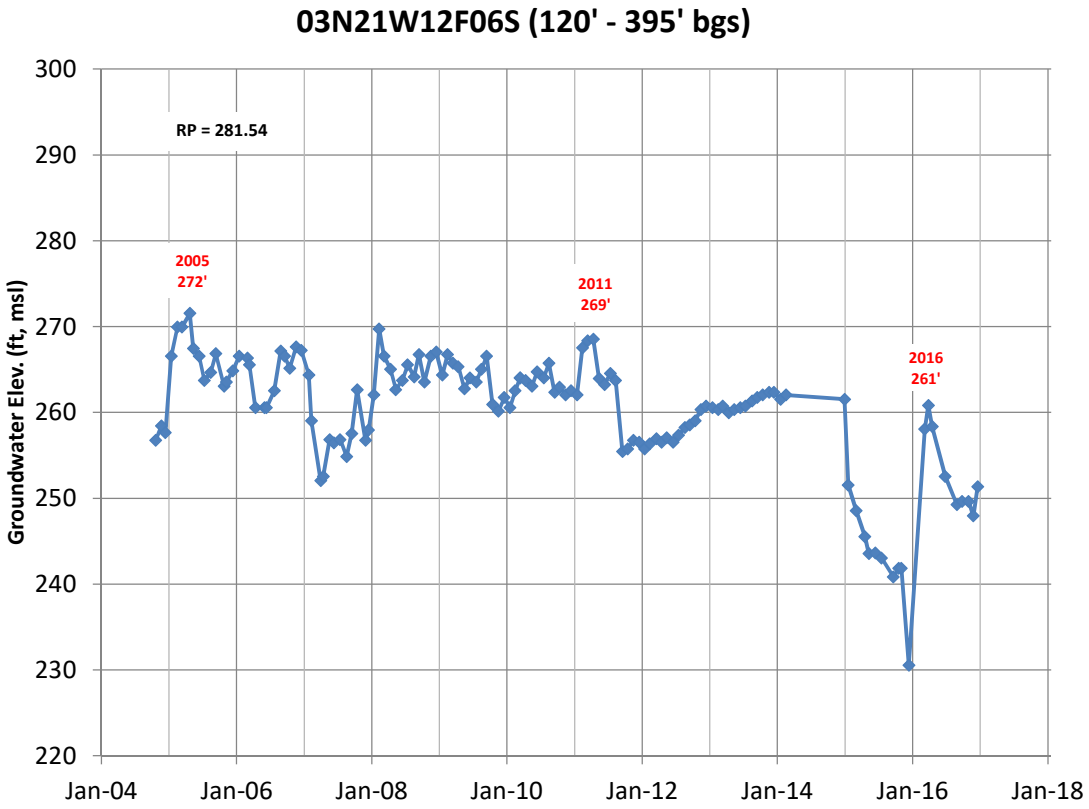

03N21W12E08S (120' - 285' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 279.2 FEET
TOP OF WELL SCREEN
BOTTOM OF WELL SCREEN
1998
263'
2005
271'
2011
265'
2016
256'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

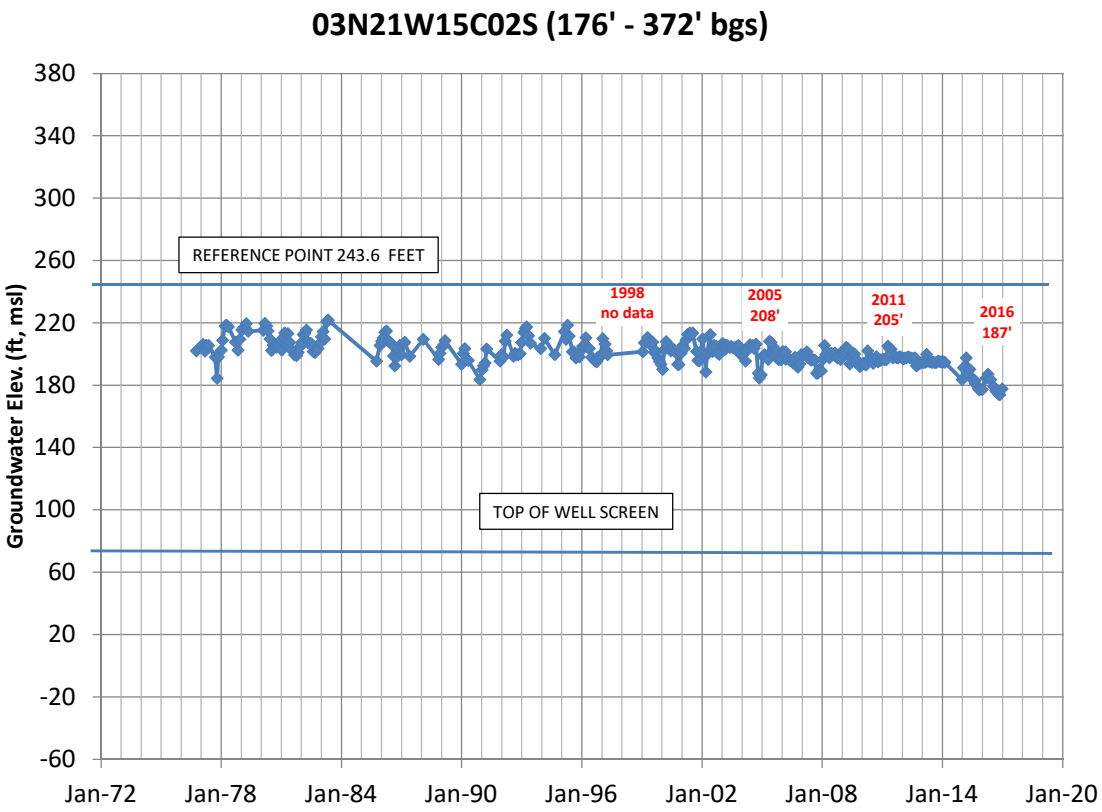

03N21W12E08S (120' - 285' bgs)
Groundwater Elev. (ft, msl)
290
280
270
260
250
240
230
220
210
RP = 279.16
1998
263'
2005
271'
2011
265'
2016
256'
Jan-74
Jan-84
Jan-94
Jan-04
Jan-14
Jan-24

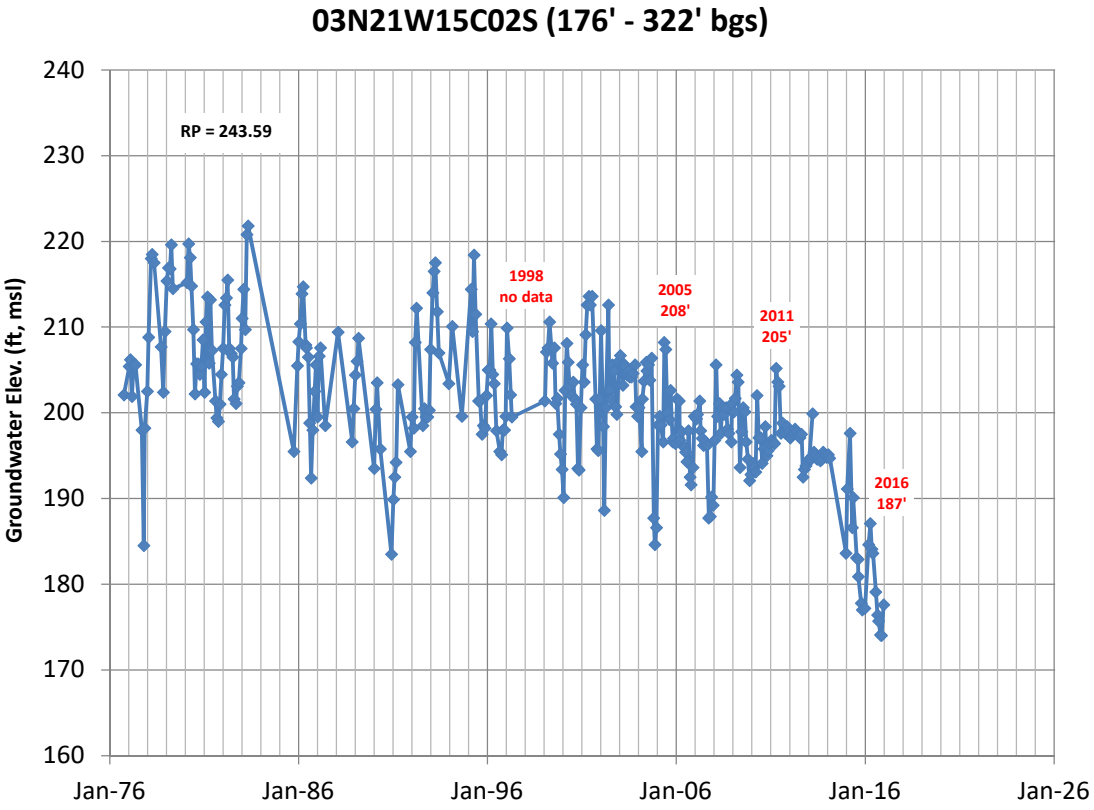

03N21W12F03S (120' - 284' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 279.5 FEET
TOP OF WELL SCREEN
BOTTOM OF WELL SCREEN
1998
273'
2005
272'
2011
264'
2016
257'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


03N21W12F03S (120' - 284' bgs)
Groundwater Elev. (ft, msl)
300
290
280
270
260
250
240
230
220
RP = 279.45
1998
272'
2005
271'
2011
264'
2016
257'
Jan-72
Jan-77
Jan-82
Jan-87
Jan-92
Jan-97
Jan-02
Jan-07
Jan-12
Jan-17
Jan-22

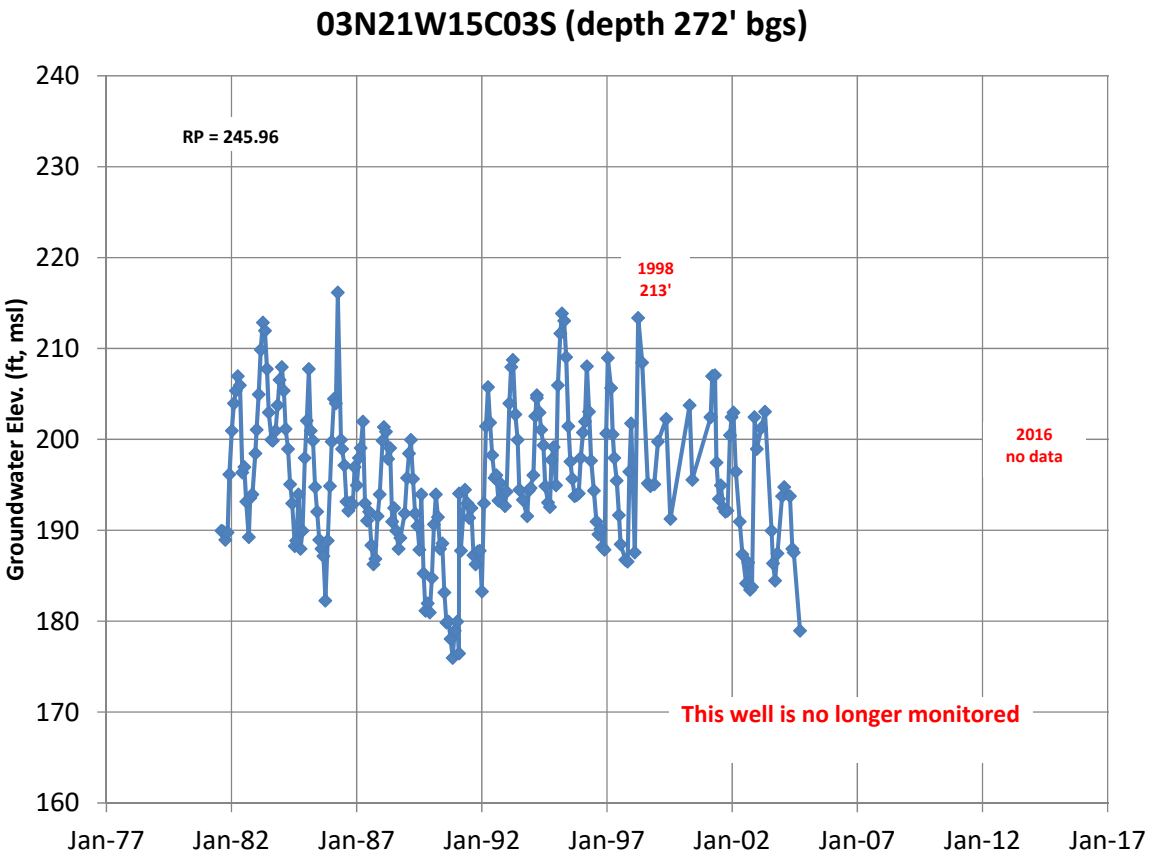

03N21W12F06S (120' - 395' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 281.5 FEET
TOP OF WELL SCREEN
2005
272'
2011
269'
2016
261'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

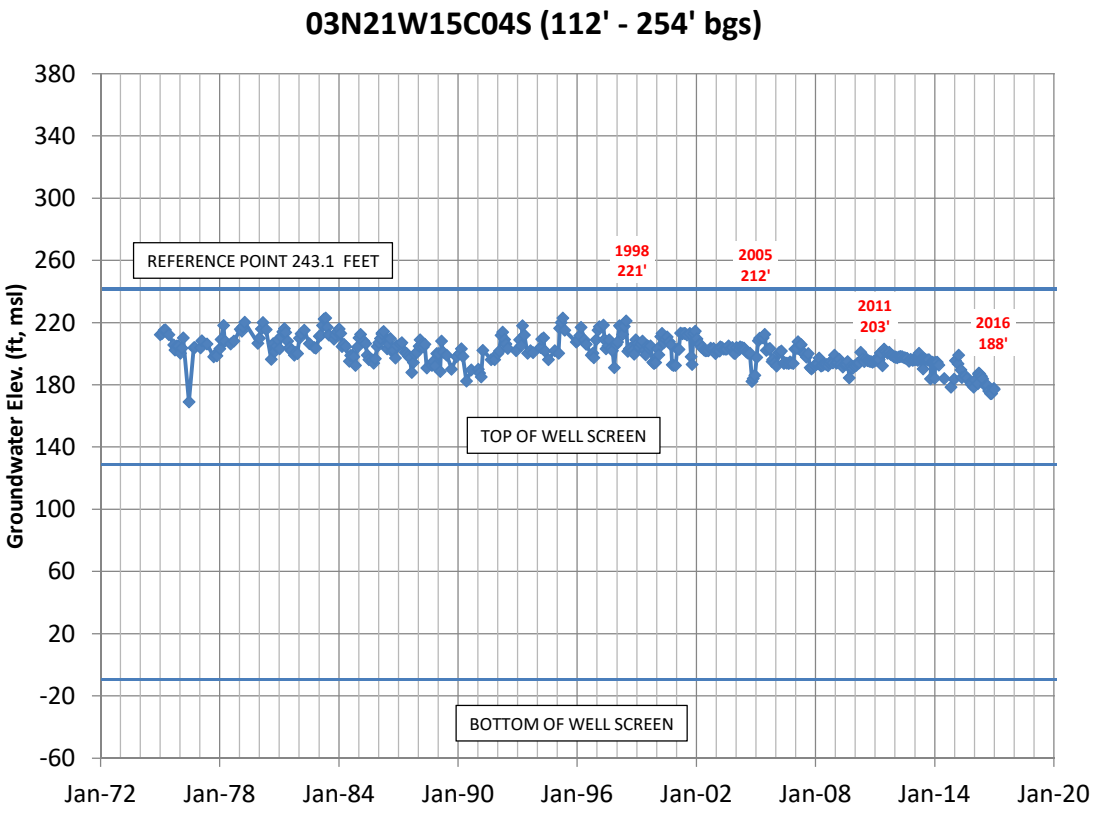

03N21W12F06S (120' - 395' bgs)
Groundwater Elev. (ft, msl)
300
290
280
270
260
250
240
230
220
RP = 281.54
2005
272'
2011
269'
2016
261'
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
Jan-16
Jan-18

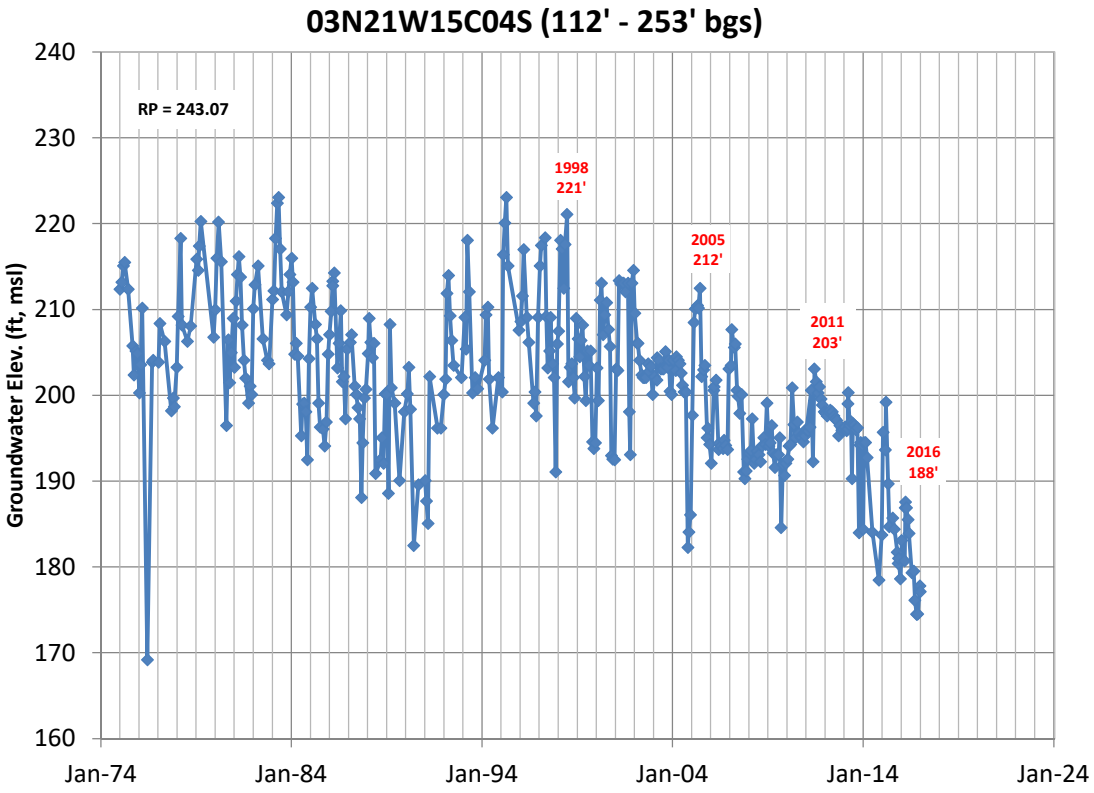

03N21W15C02S (176' - 372' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 243.6 FEET
TOP OF WELL SCREEN
1998
no data
2005
208'
2011
205'
2016
187'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

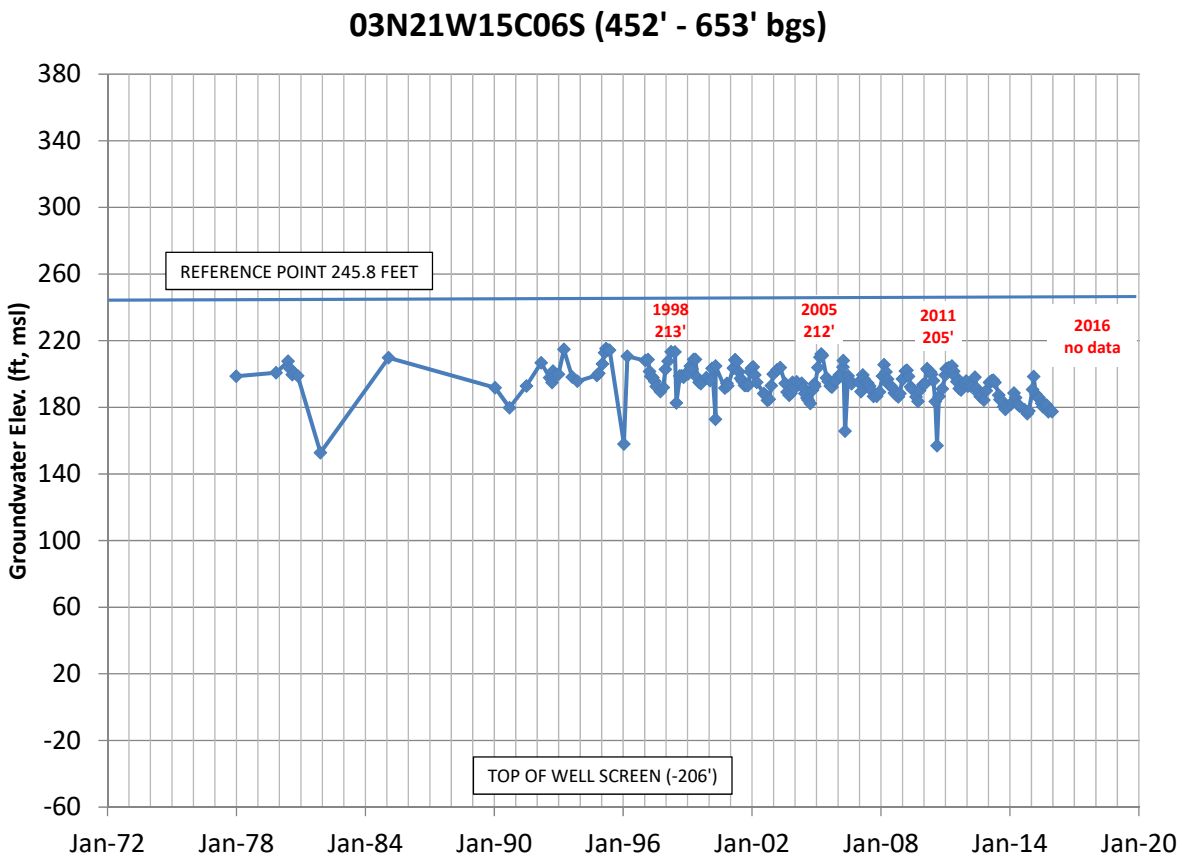

03N21W15C02S (176' - 322' bgs)
Groundwater Elev. (ft, msl)
240
230
220
210
200
190
180
170
160
RP = 243.59
1998
no data
2005
208'
2011
205'
2016
187'
Jan-76
Jan-86
Jan-96
Jan-06
Jan-16
Jan-26

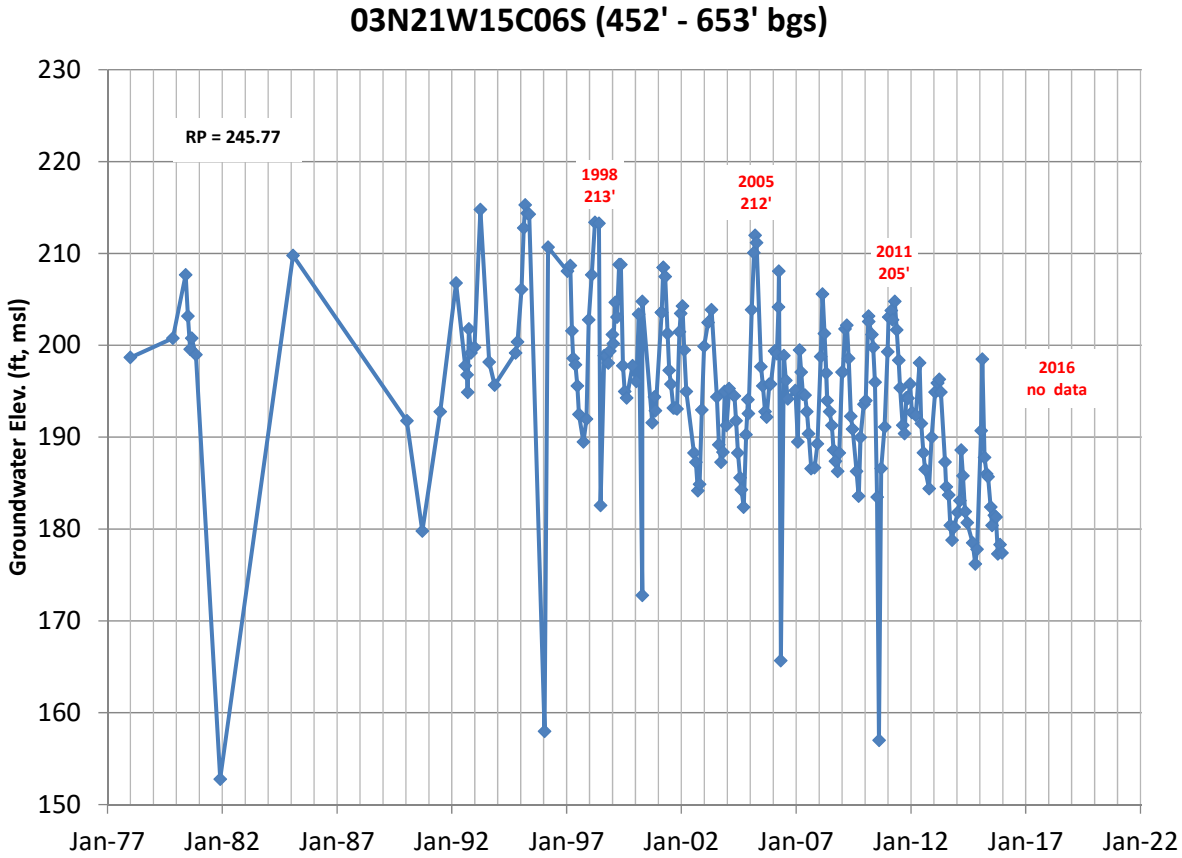
Intentionally Left Blank

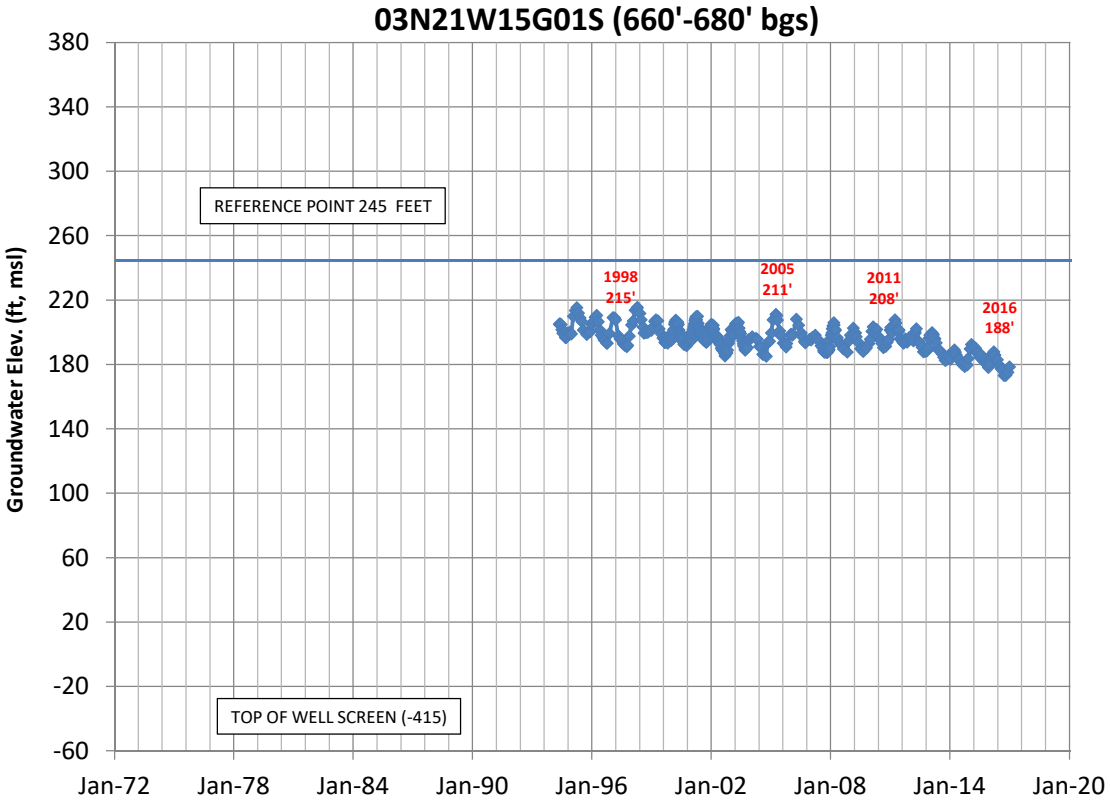


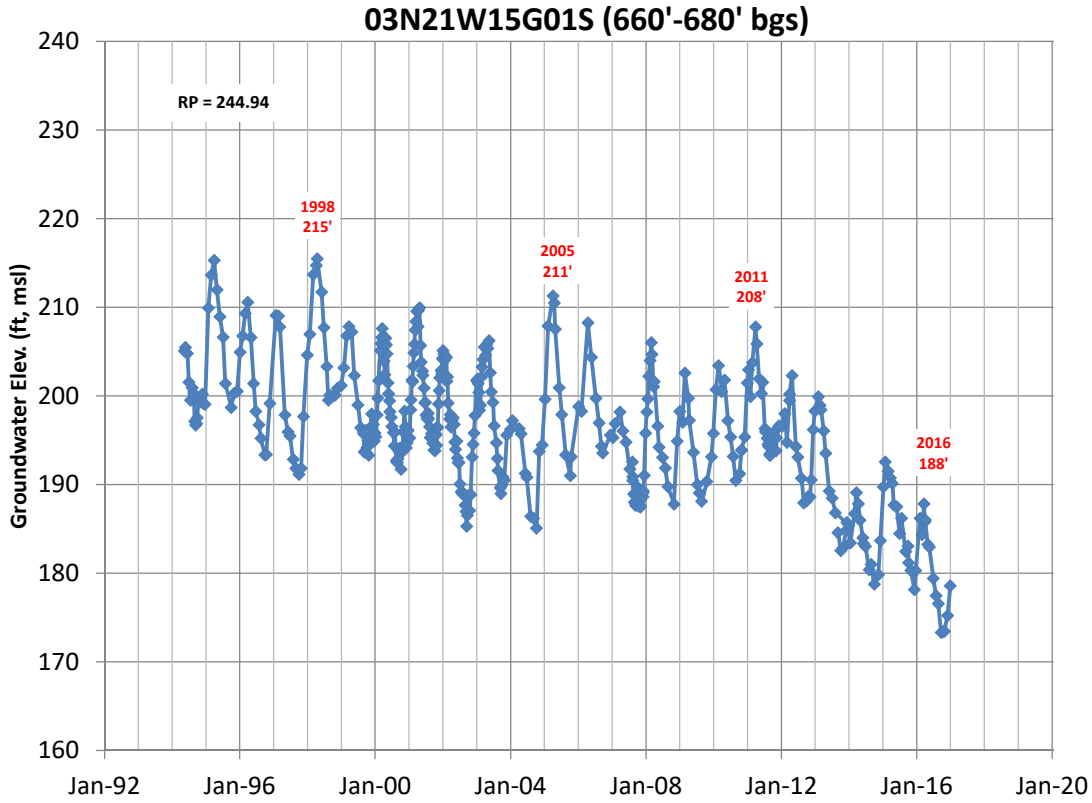

03N21W15C04S (112' - 254' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 243.1 FEET
TOP OF WELL SCREEN
BOTTOM OF WELL SCREEN
1998
221'
2005
212'
2011
203'
2016
188'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

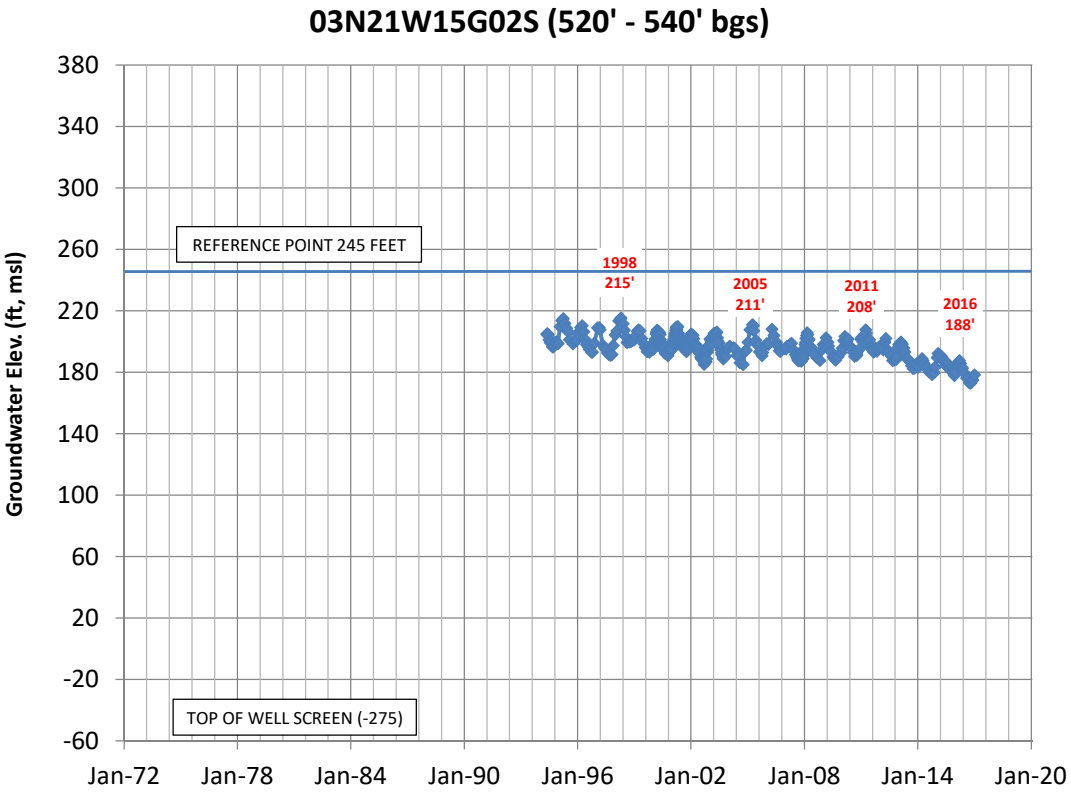

03N21W15C04S (112' - 253' bgs)
Groundwater Elev. (ft, msl)
240
230
220
210
200
190
180
170
160
RP = 243.07
1998
221'
2005
212'
2011
203'
2016
188'
Jan-74
Jan-84
Jan-94
Jan-04
Jan-14
Jan-24

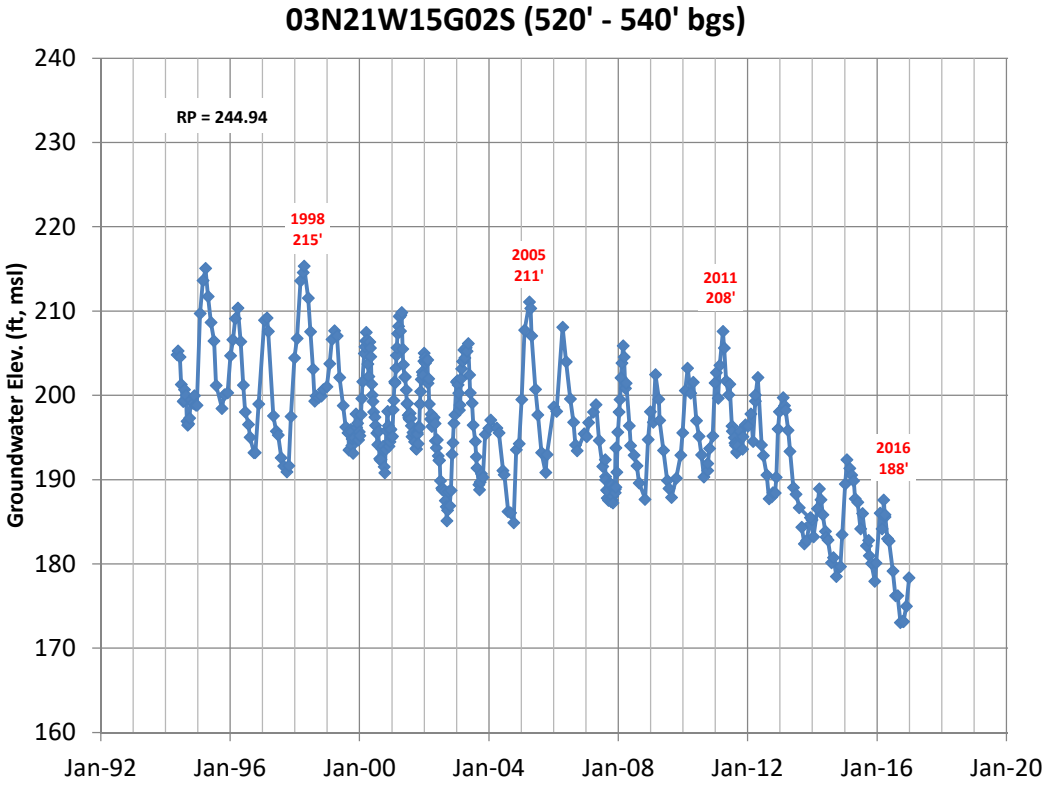

03N21W15C06S (452' - 653' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 245.8 FEET
1998
213'
2005
212'
2011
205'
2016
no data
TOP OF WELL SCREEN (-206')

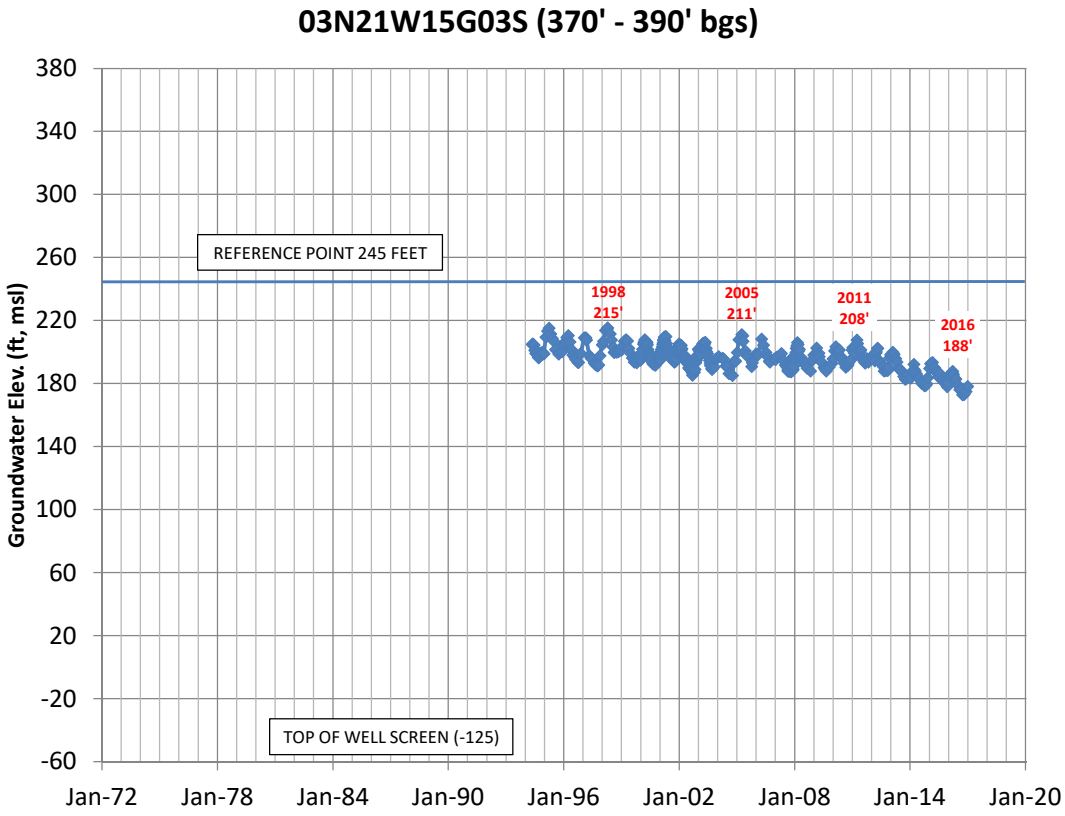

03N21W15C06S (452' - 653' bgs)
Groundwater Elev. (ft, msl)
230
220
210
200
190
180
170
160
150
Jan-77
Jan-82
Jan-87
Jan-92
Jan-97
Jan-02
Jan-07
Jan-12
Jan-17
Jan-22
RP = 245.77
1998
213'
2005
212'
2011
205'
2016
no data

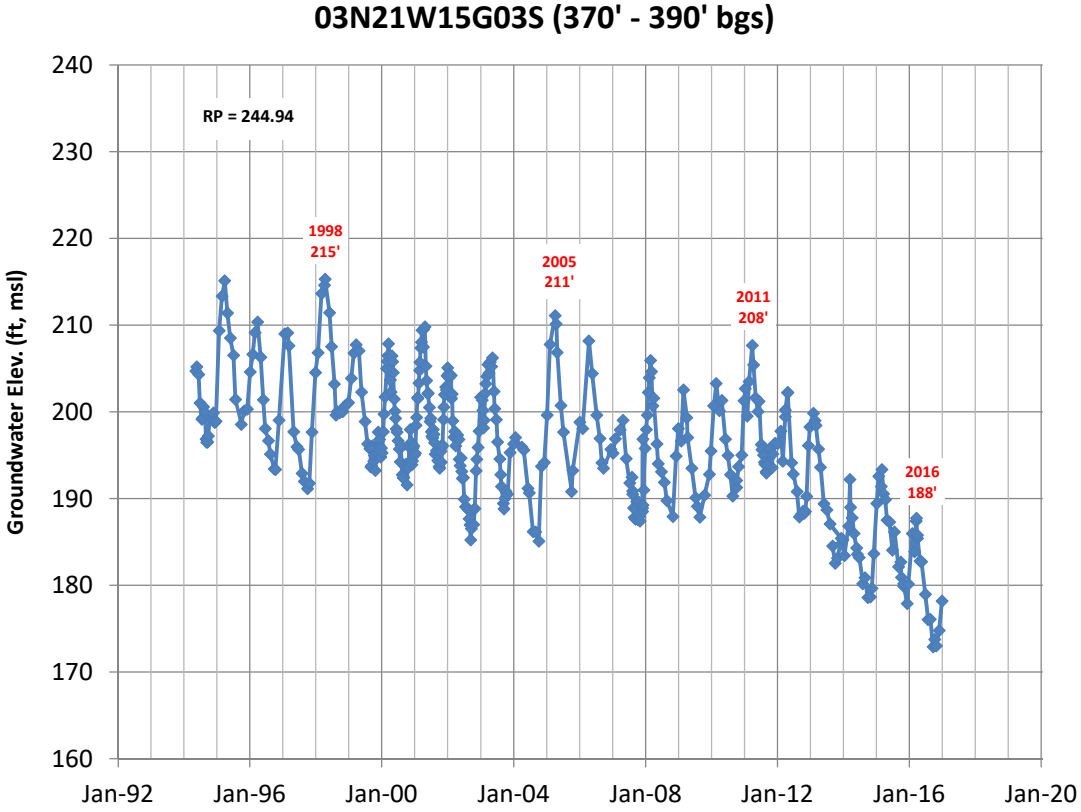

03N21W15G01S (660'-680' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 245 FEET
TOP OF WELL SCREEN (-415)
1998
215'
2005
211'
2011
208'
2016
188'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

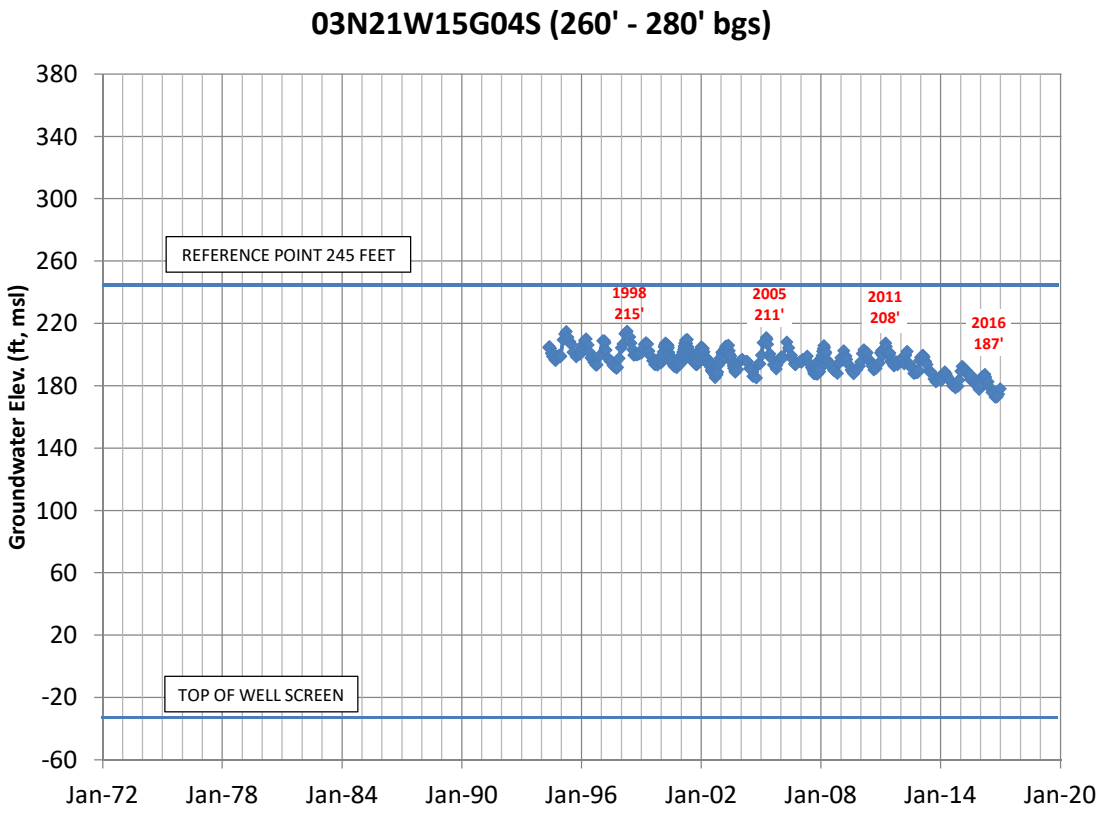

03N21W15G01S (660'-680' bgs)
Groundwater Elev. (ft, msl)
240
230
220
210
200
190
180
170
160
RP = 244.94
1998
215'
2005
211'
2011
208'
2016
188'
Jan-92
Jan-96
Jan-00
Jan-04
Jan-08
Jan-12
Jan-16
Jan-20

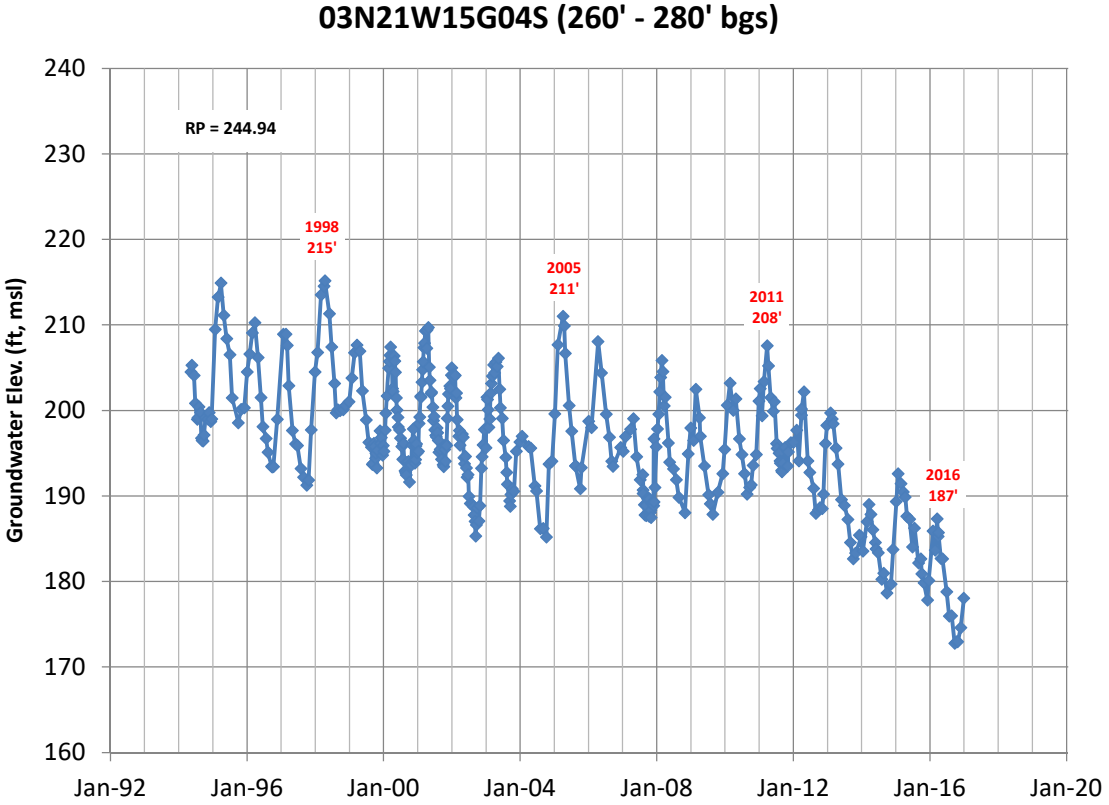

03N21W15G02S (520' - 540' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 245 FEET
TOP OF WELL SCREEN (-275)
1998
215'
2005
211'
2011
208'
2016
188'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

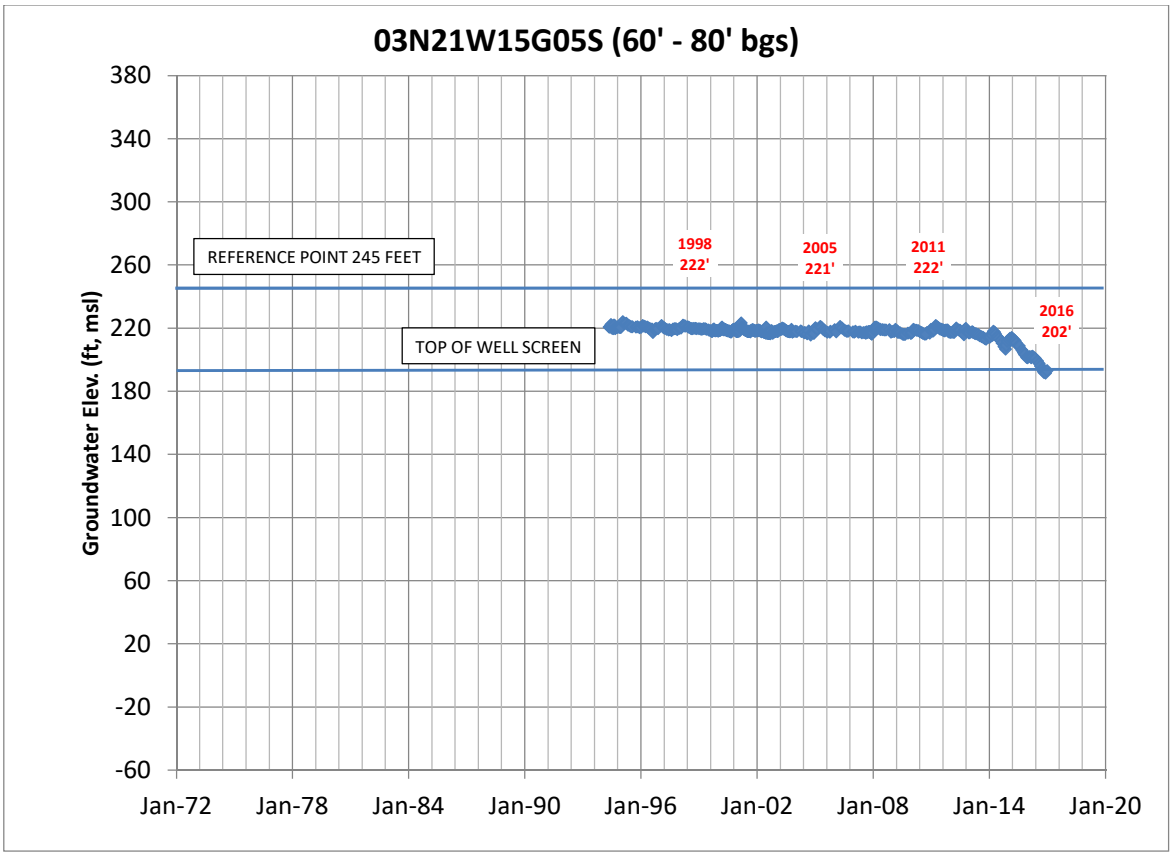

03N21W15G02S (520' - 540' bgs)
Groundwater Elev. (ft, msl)
240
230
220
210
200
190
180
170
160
RP = 244.94
1998
215'
2005
211'
2011
208'
2016
188'
Jan-92
Jan-96
Jan-00
Jan-04
Jan-08
Jan-12
Jan-16
Jan-20

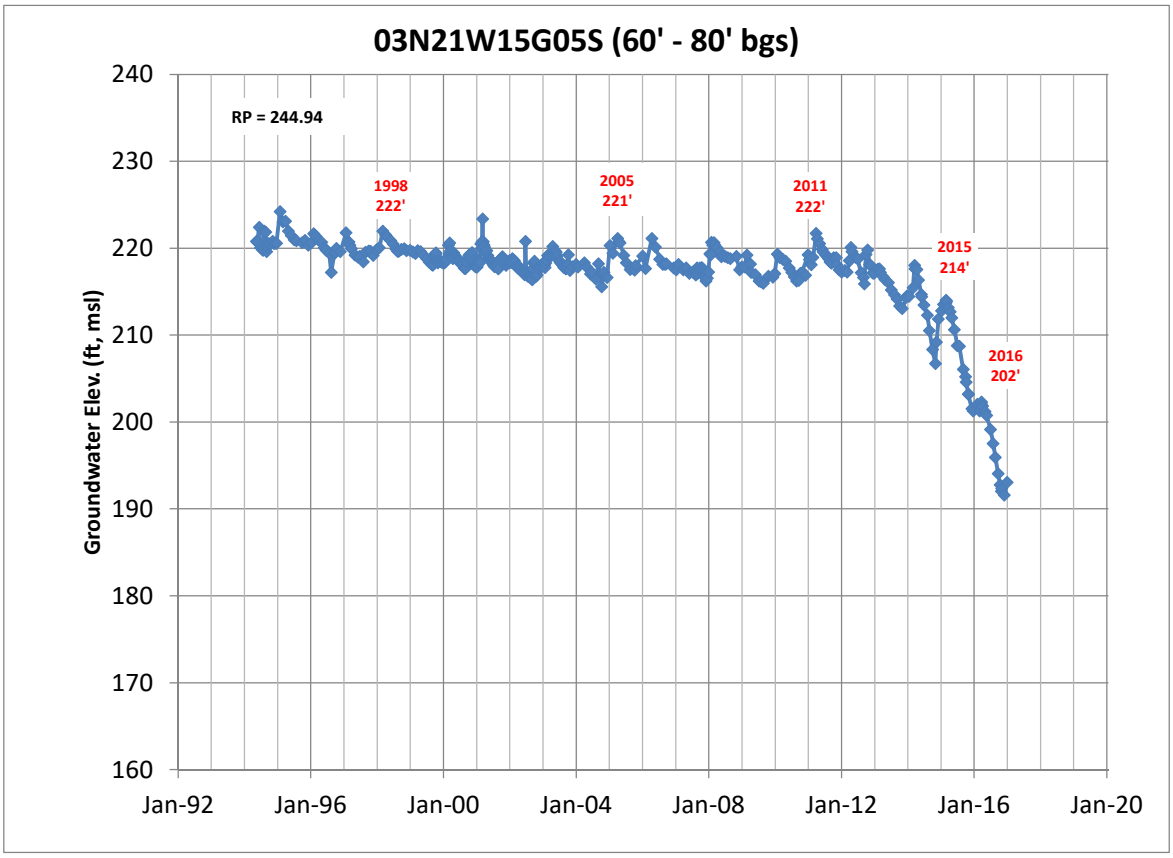

03N21W15G03S (370' - 390' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 245 FEET
TOP OF WELL SCREEN (-125)
1998
215'
2005
211'
2011
208'
2016
188'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

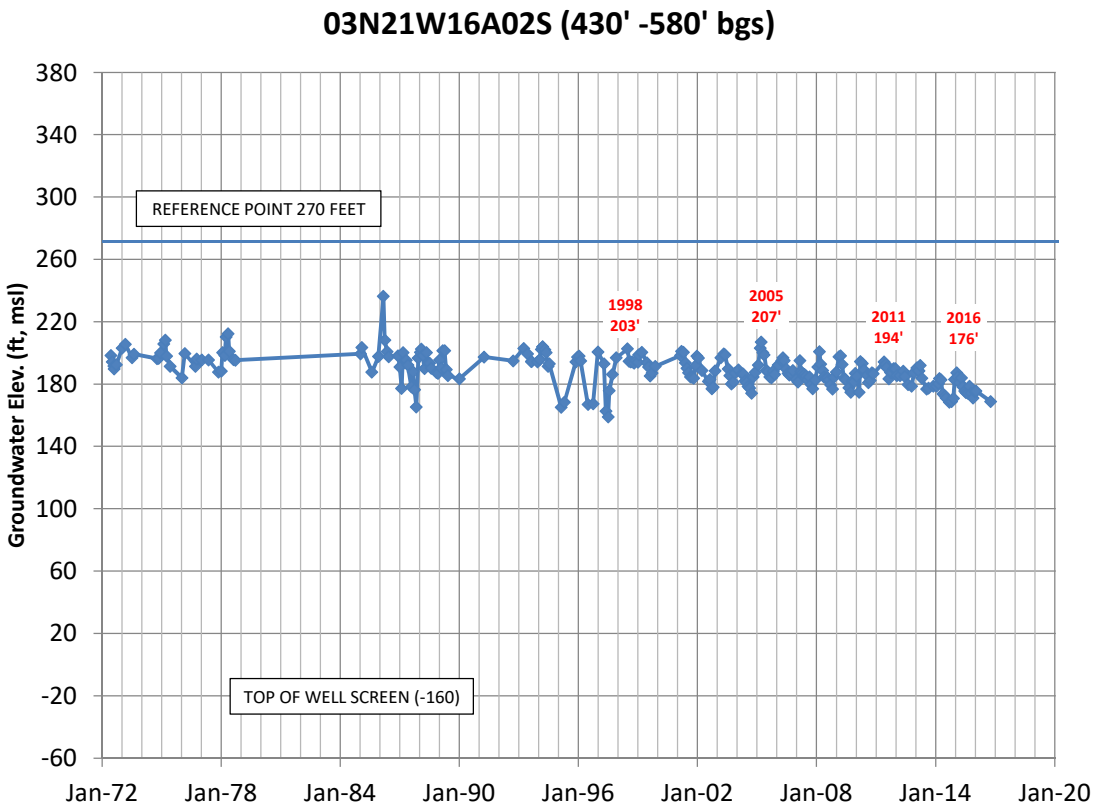

03N21W15G03S (370' - 390' bgs)
Groundwater Elev. (ft, msl)
240
230
220
210
200
190
180
170
160
RP = 244.94
1998
215'
2005
211'
2011
208'
2016
188'
Jan-92
Jan-96
Jan-00
Jan-04
Jan-08
Jan-12
Jan-16
Jan-20

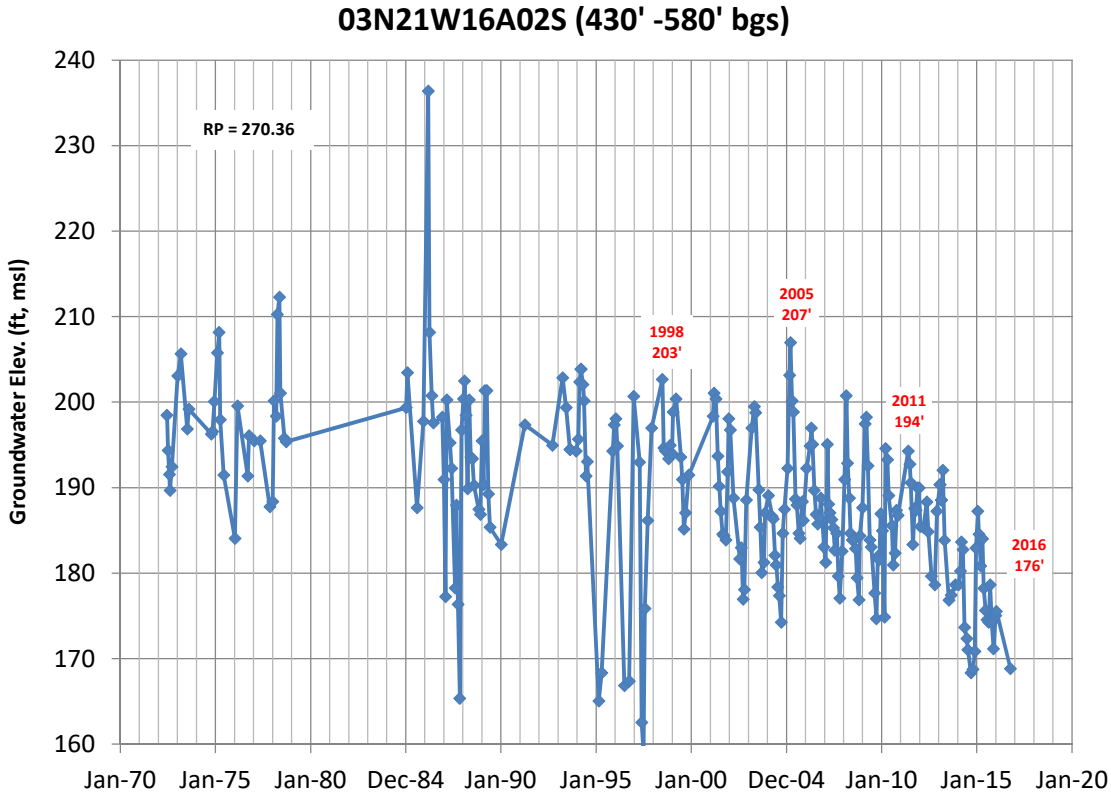

03N21W15G04S (260' - 280' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 245 FEET
TOP OF WELL SCREEN
1998
215'
2005
211'
2011
208'
2016
187'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

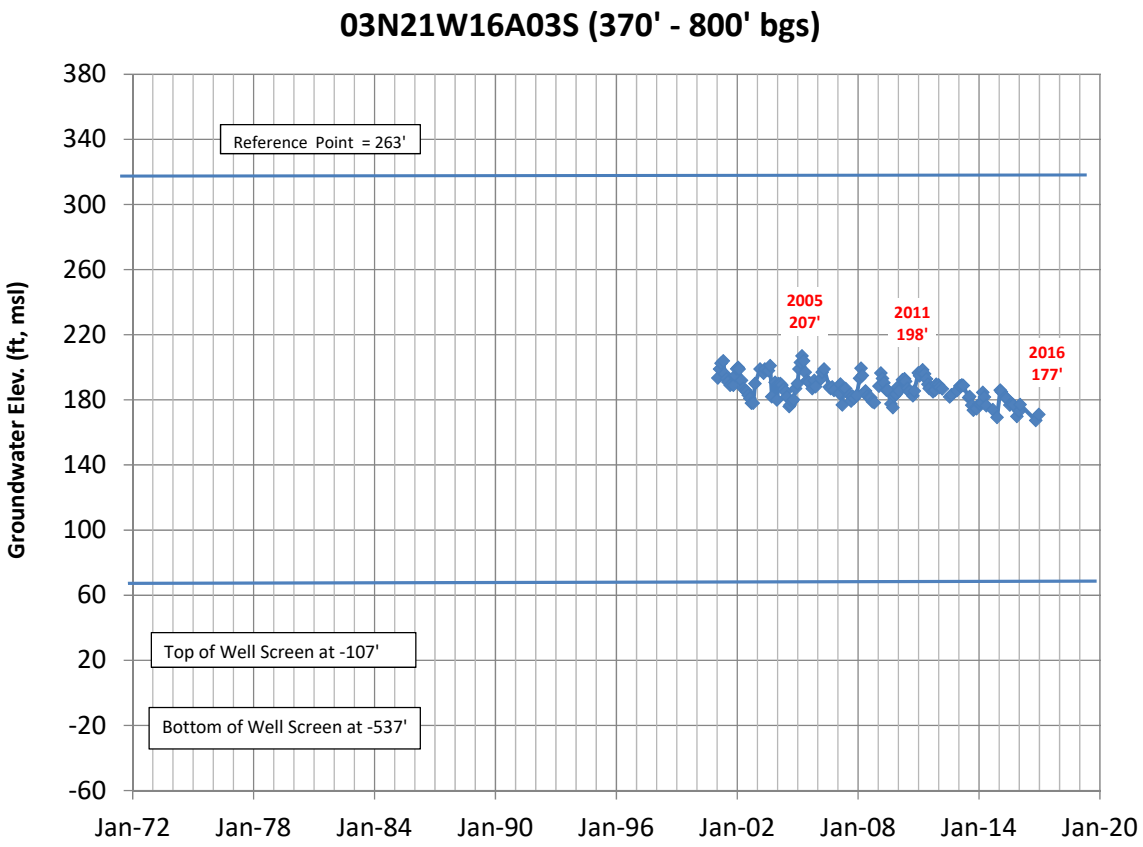

03N21W15G04S (260' - 280' bgs)
Groundwater Elev. (ft, msl)
240
230
220
210
200
190
180
170
160
RP = 244.94
1998
215'
2005
211'
2011
208'
2016
187'
Jan-92
Jan-96
Jan-00
Jan-04
Jan-08
Jan-12
Jan-16
Jan-20

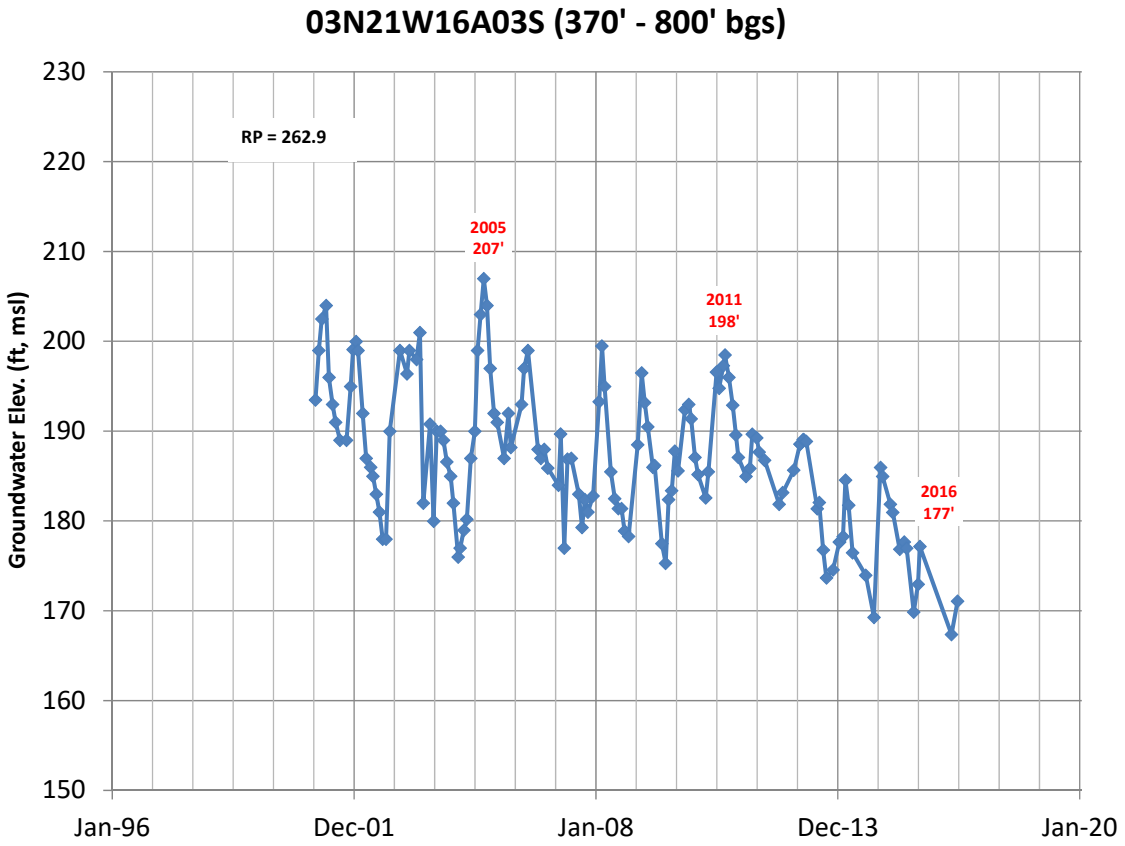

03N21W15G05S (60' - 80' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 245 FEET
TOP OF WELL SCREEN
1998
222'
2005
221'
2011
222'
2016
202'


03N21W15G05S (60' - 80' bgs)
Groundwater Elev. (ft, msl)
240
230
220
210
200
190
180
170
160
Jan-92
Jan-96
Jan-00
Jan-04
Jan-08
Jan-12
Jan-16
Jan-20
RP = 244.94
1998
222'
2005
221'
2011
222'
2015
214'
2016
202'


03N21W16A02S (430' -580' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 270 FEET
TOP OF WELL SCREEN (-160)
1998
203'
2005
207'
2011
194'
2016
176'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


03N21W16A02S (430' -580' bgs)
Groundwater Elev. (ft, msl)
240
230
220
210
200
190
180
170
160
RP = 270.36
1998
203'
2005
207'
2011
194'
2016
176'
Jan-70
Jan-75
Jan-80
Dec-84
Jan-90
Jan-95
Jan-00
Dec-04
Jan-10
Jan-15
Jan-20


03N21W16A03S (370' - 800' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Reference Point = 263'
Top of Well Screen at -107'
Bottom of Well Screen at -537'
2005
207'
2011
198'
2016
177'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


03N21W16A03S (370' - 800' bgs)
Groundwater Elev. (ft, msl)
230
220
210
200
190
180
170
160
150
RP = 262.9
2005
207'
2011
198'
2016
177'
Jan-96
Dec-01
Jan-08
Dec-13
Jan-20

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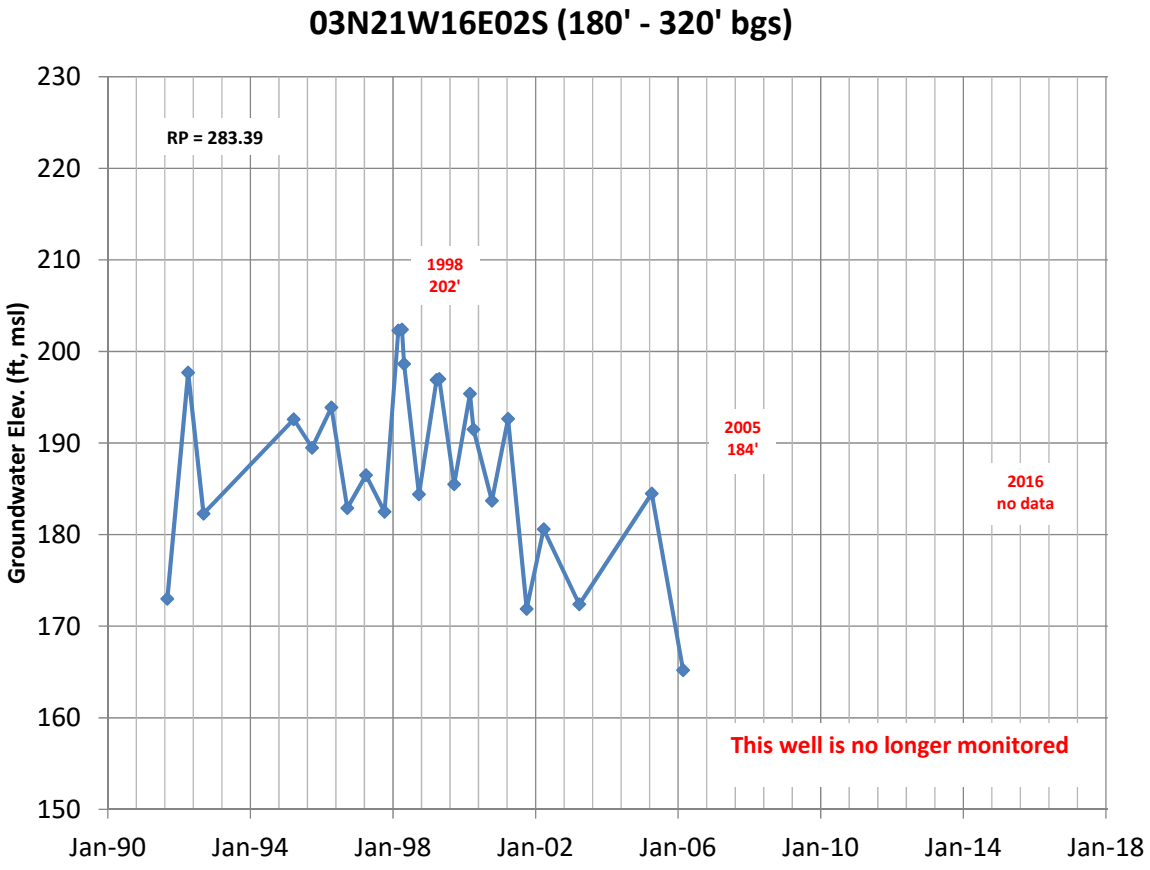

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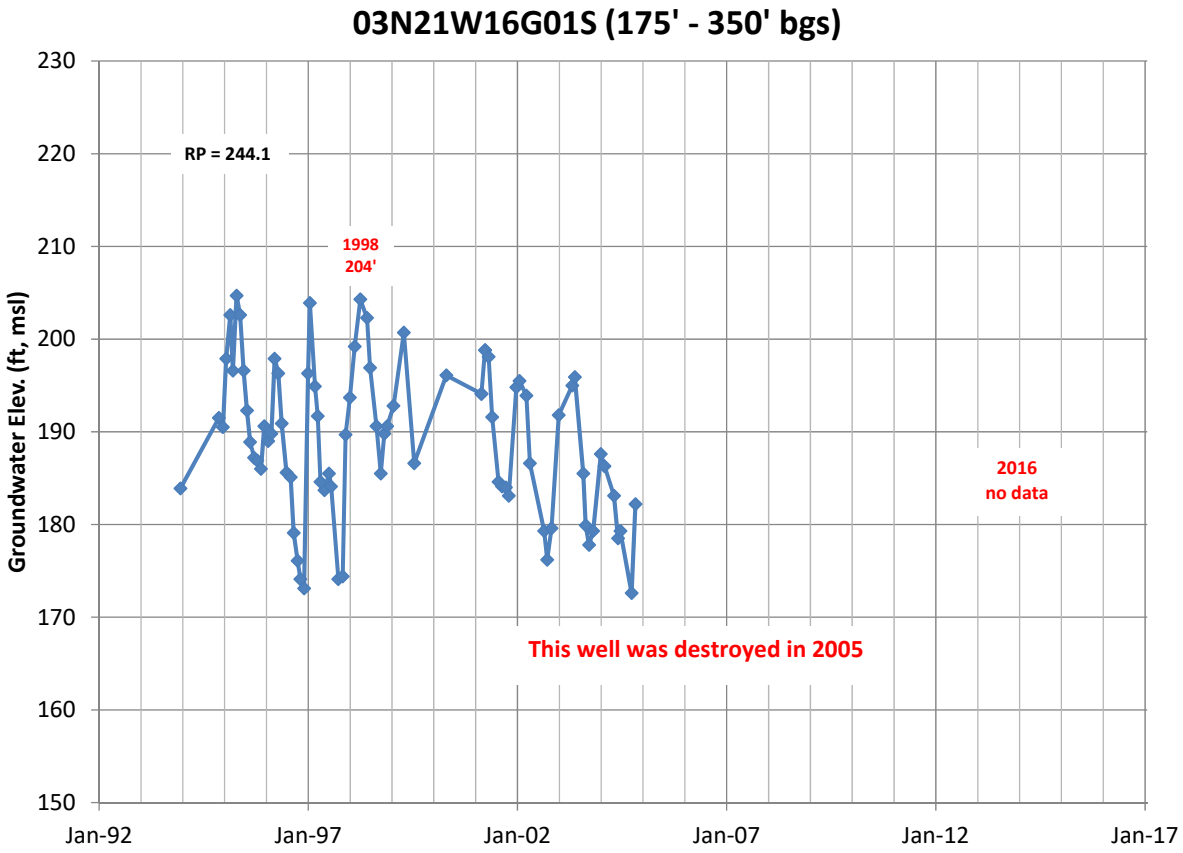
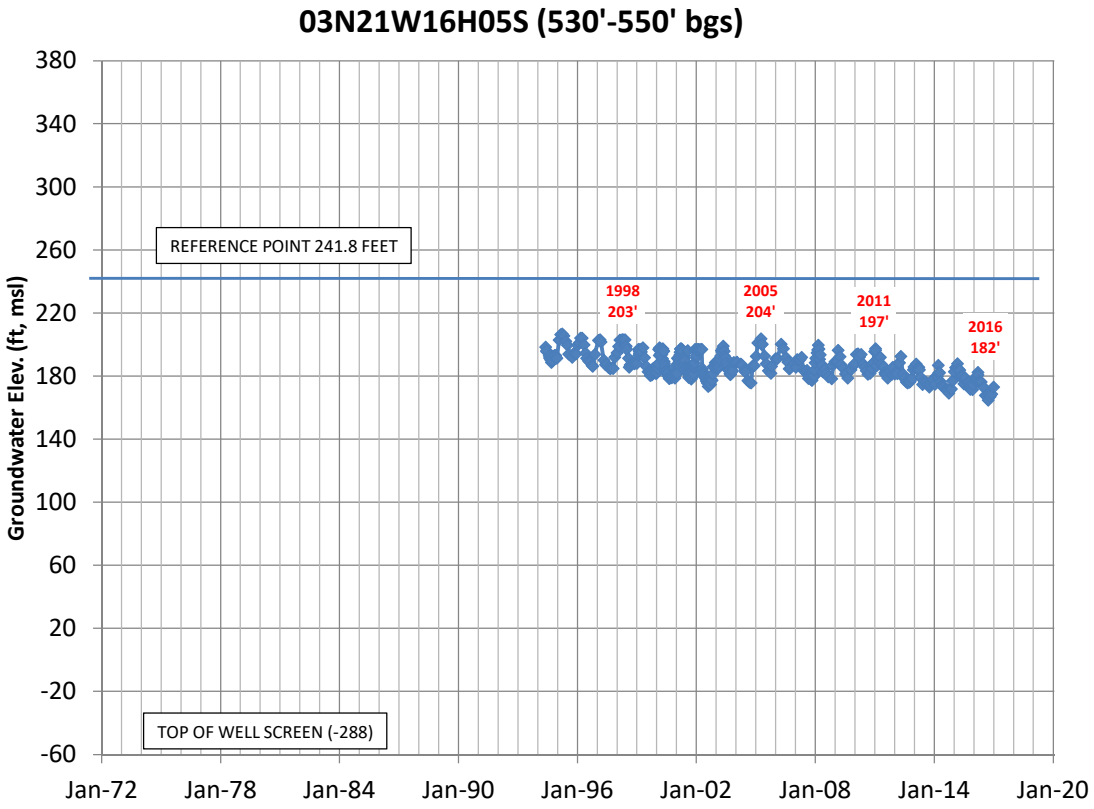
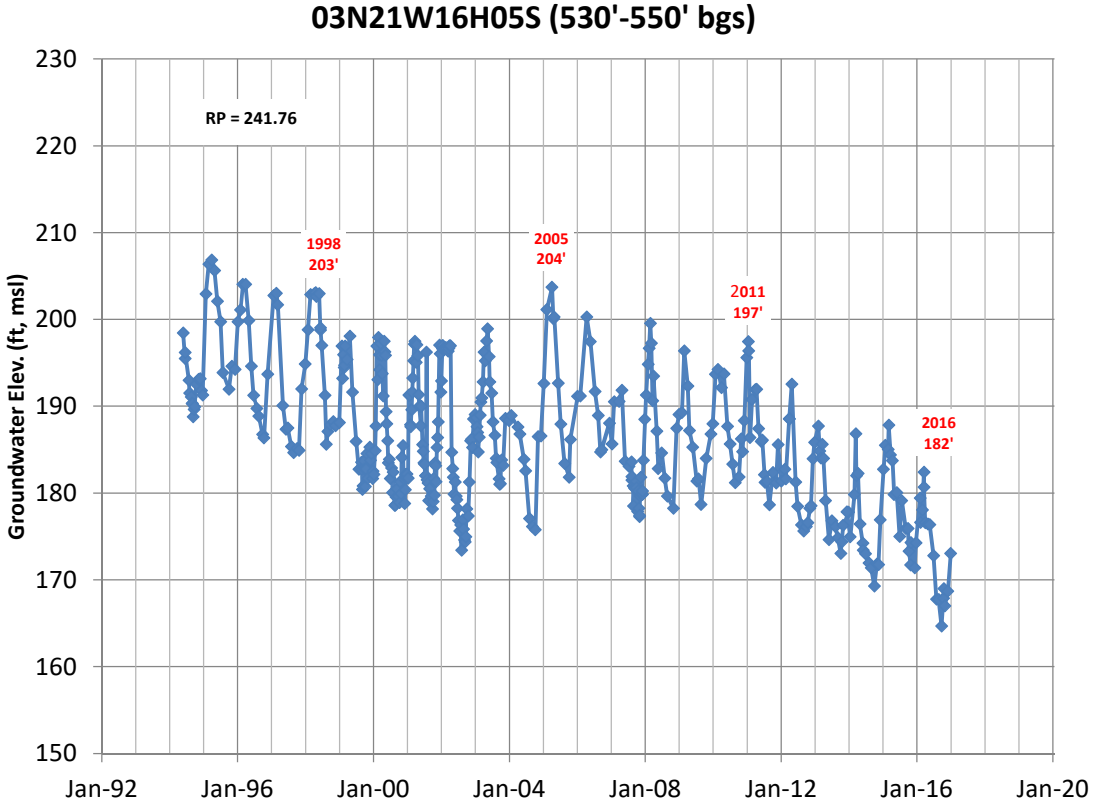
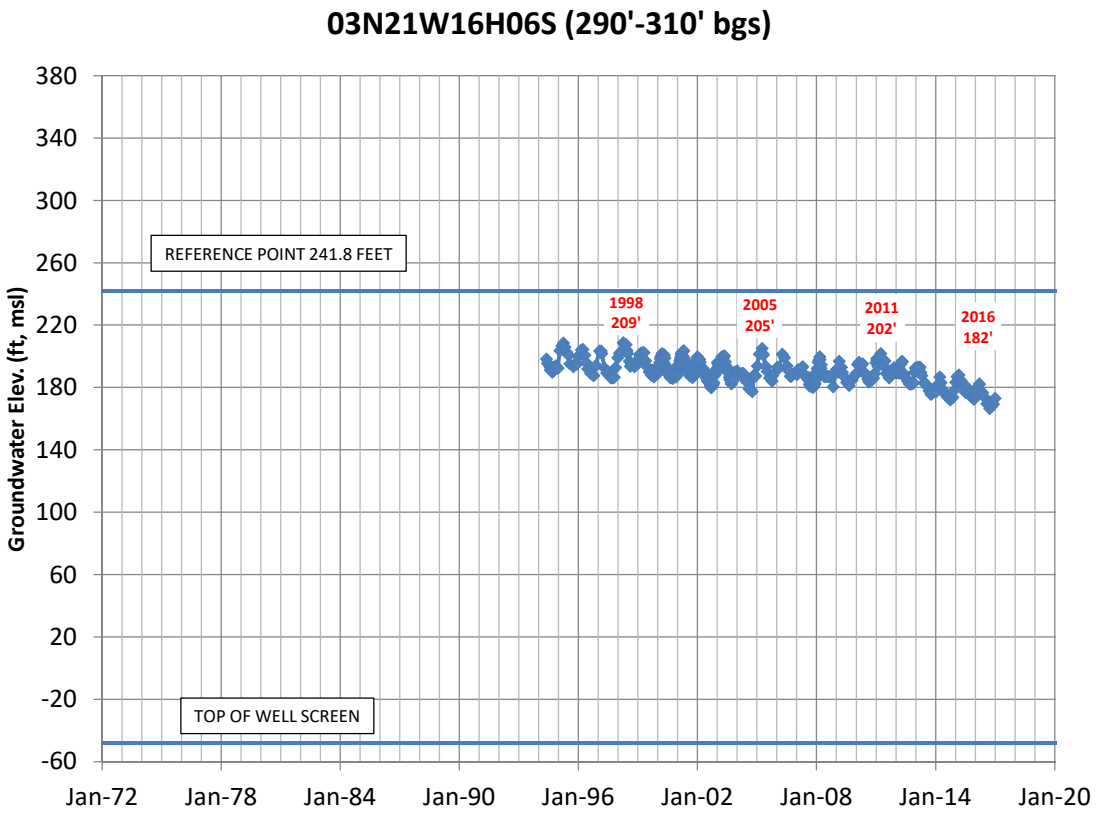
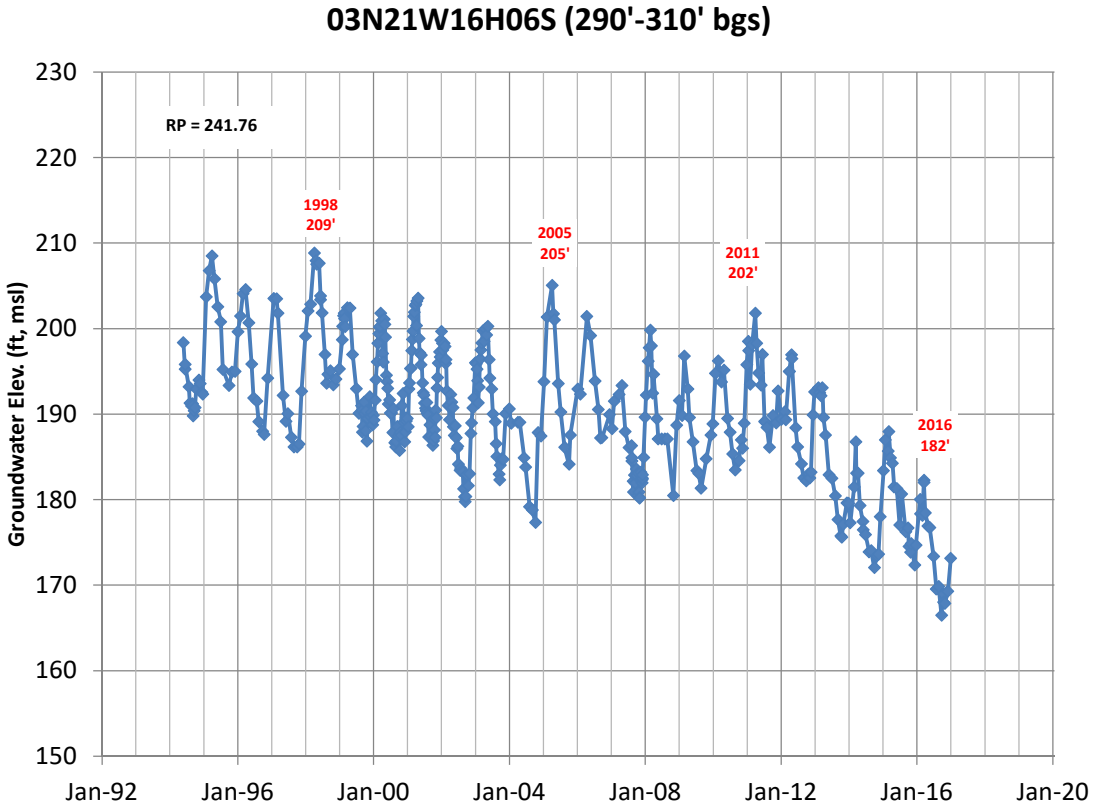
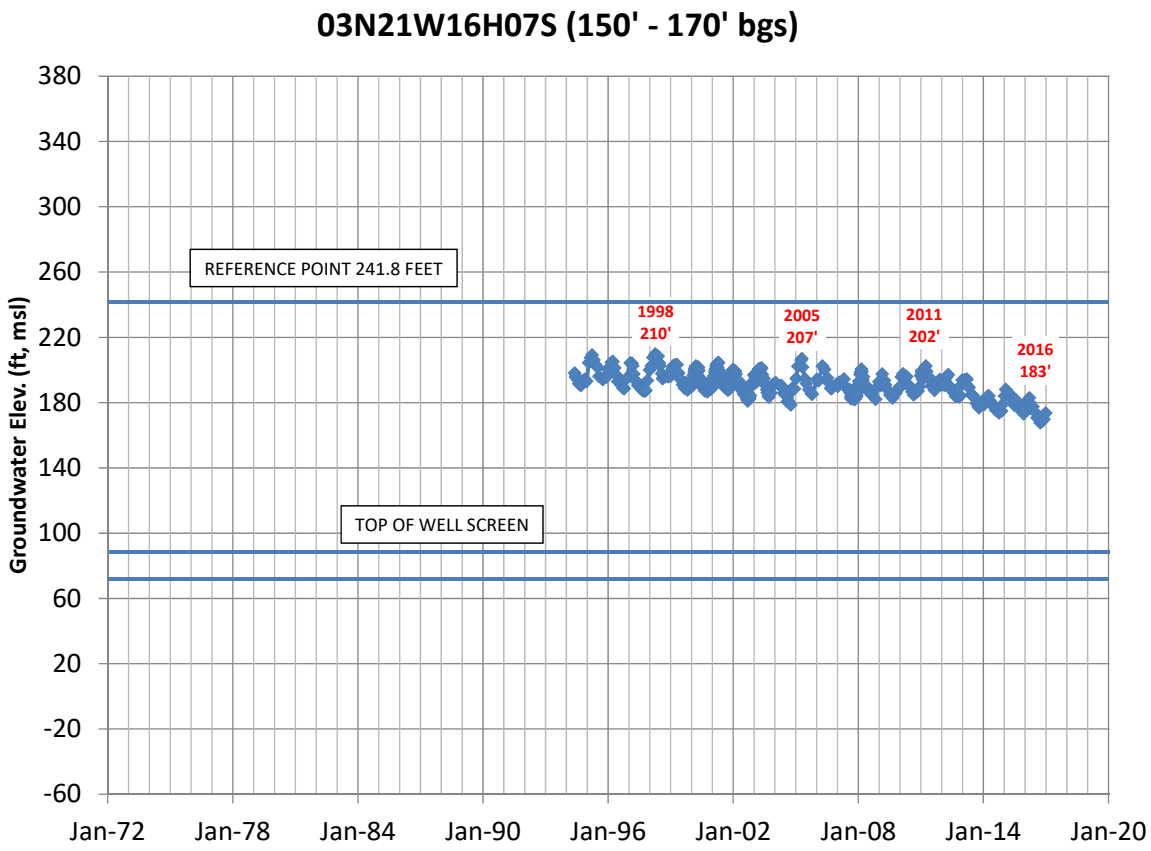


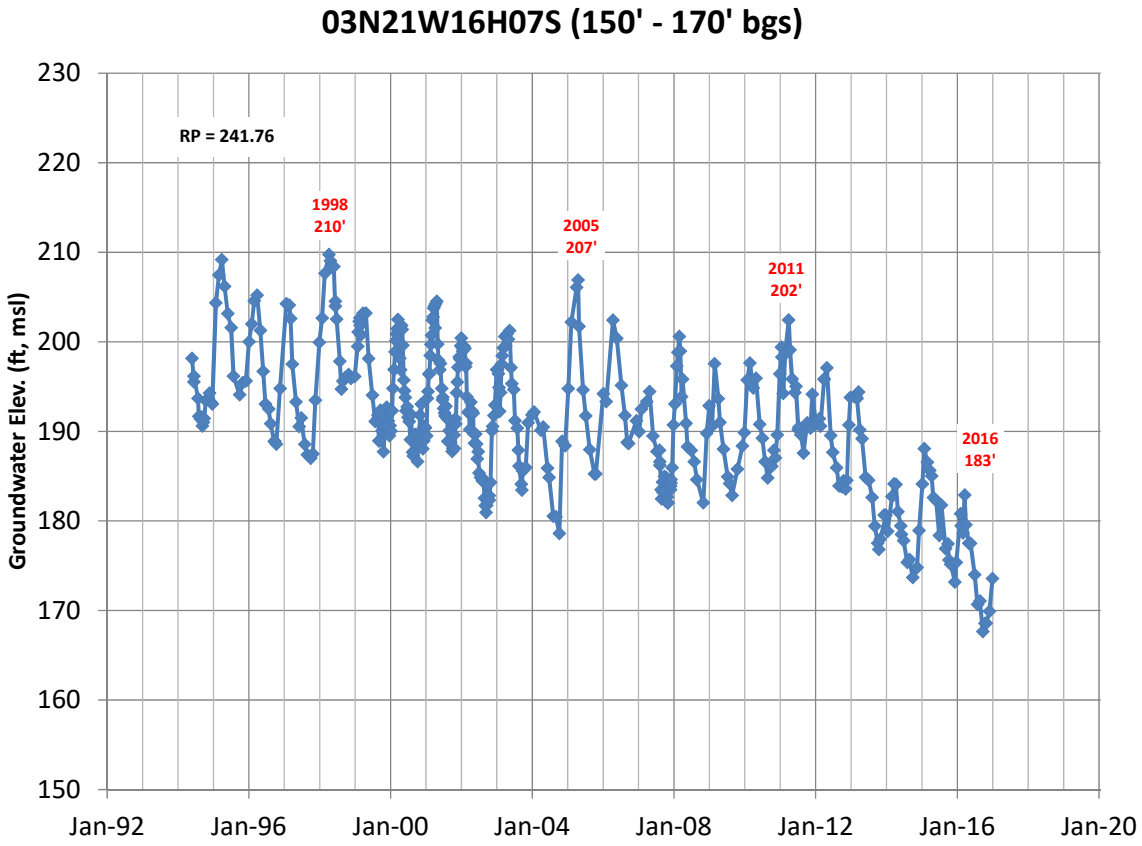

03N21W16H05S (530'-550' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 241.8 FEET
TOP OF WELL SCREEN (-288)
1998
203'
2005
204'
2011
197'
2016
182'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

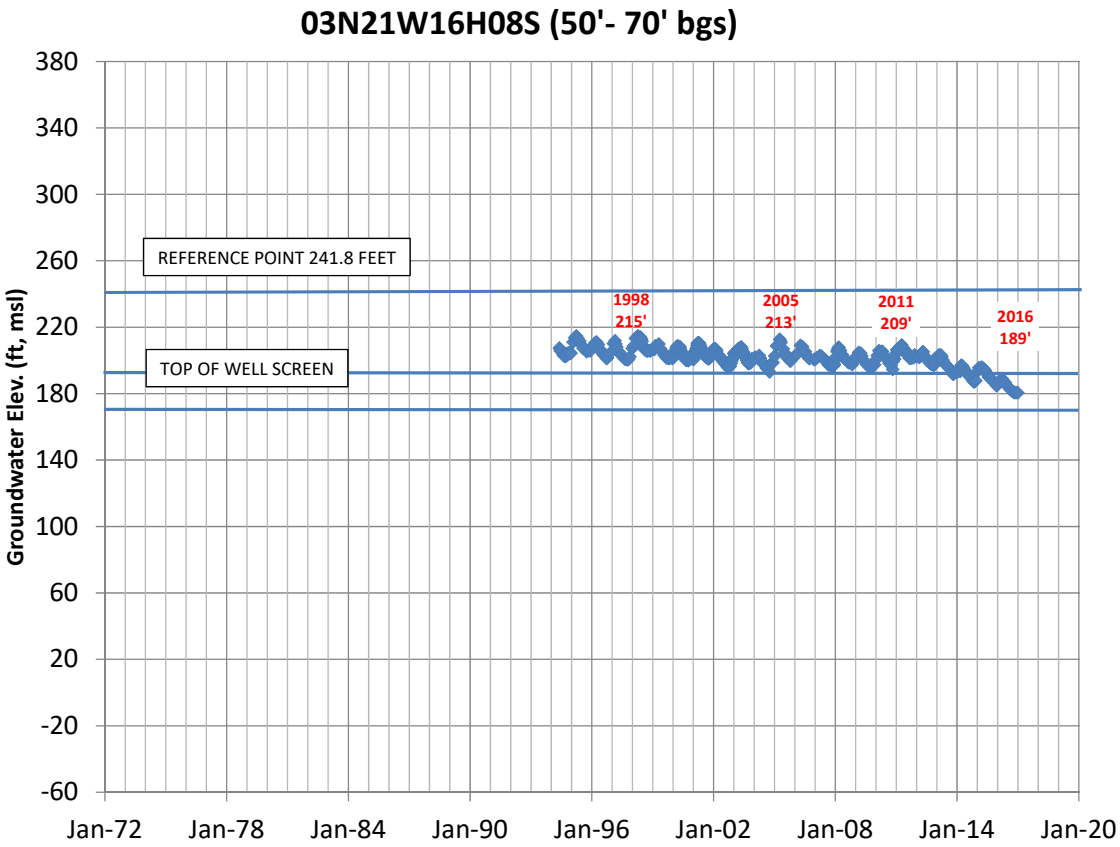

03N21W16H05S (530'-550' bgs)
Groundwater Elev. (ft, msl)
230
220
210
200
190
180
170
160
150
RP = 241.76
1998
203'
2005
204'
2011
197'
2016
182'
Jan-92
Jan-96
Jan-00
Jan-04
Jan-08
Jan-12
Jan-16
Jan-20

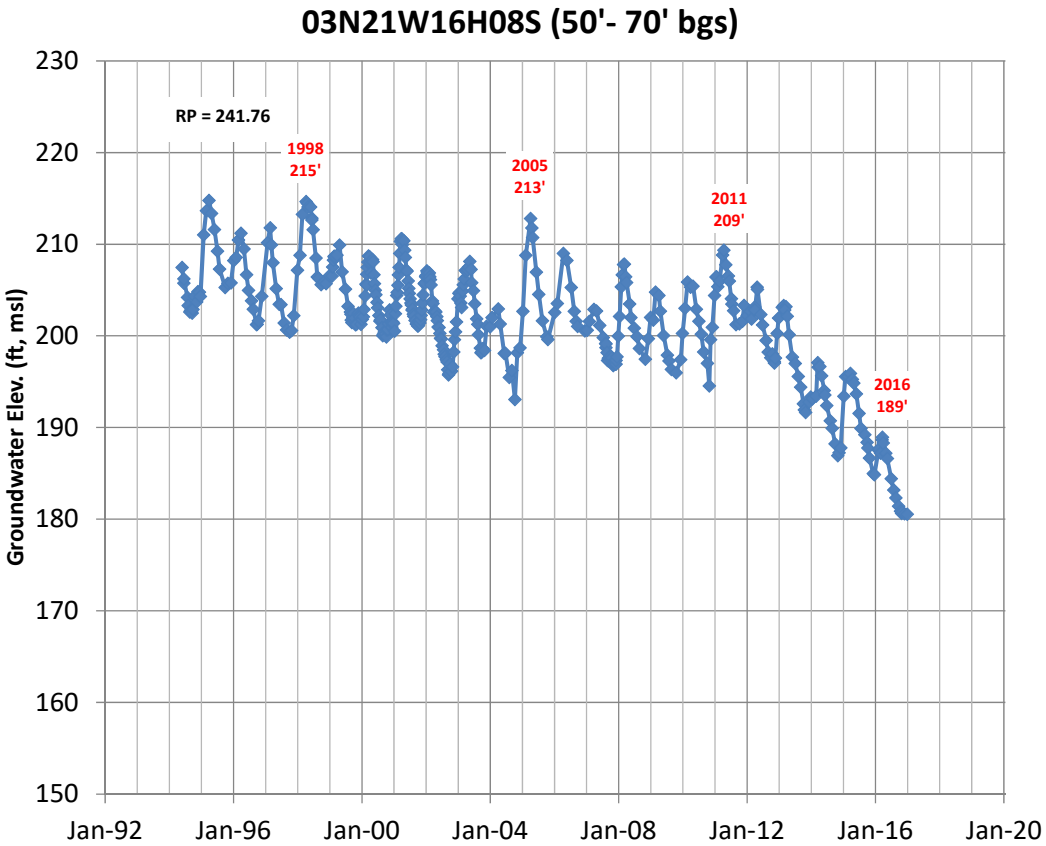

03N21W16H06S (290'-310' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 241.8 FEET
TOP OF WELL SCREEN
1998
209'
2005
205'
2011
202'
2016
182'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

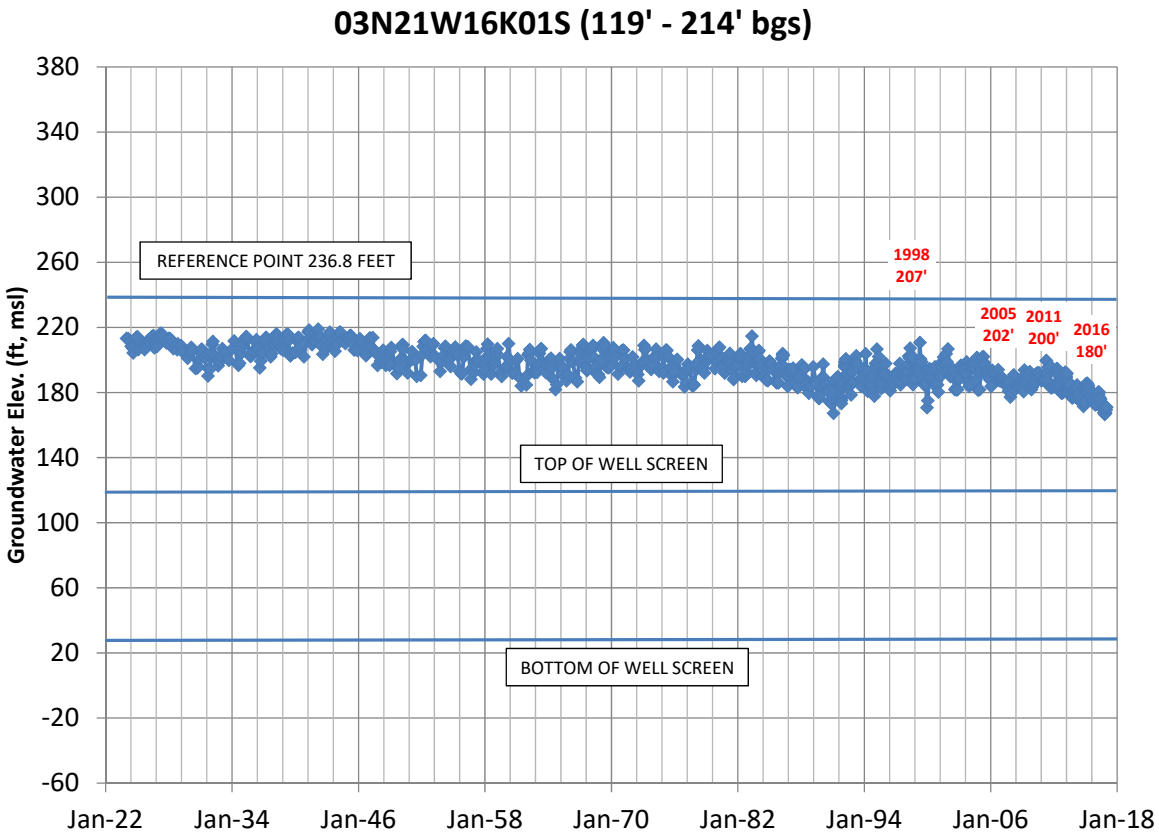

03N21W16H06S (290'-310' bgs)
Groundwater Elev. (ft, msl)
230
220
210
200
190
180
170
160
150
RP = 241.76
1998
209'
2005
205'
2011
202'
2016
182'
Jan-92
Jan-96
Jan-00
Jan-04
Jan-08
Jan-12
Jan-16
Jan-20

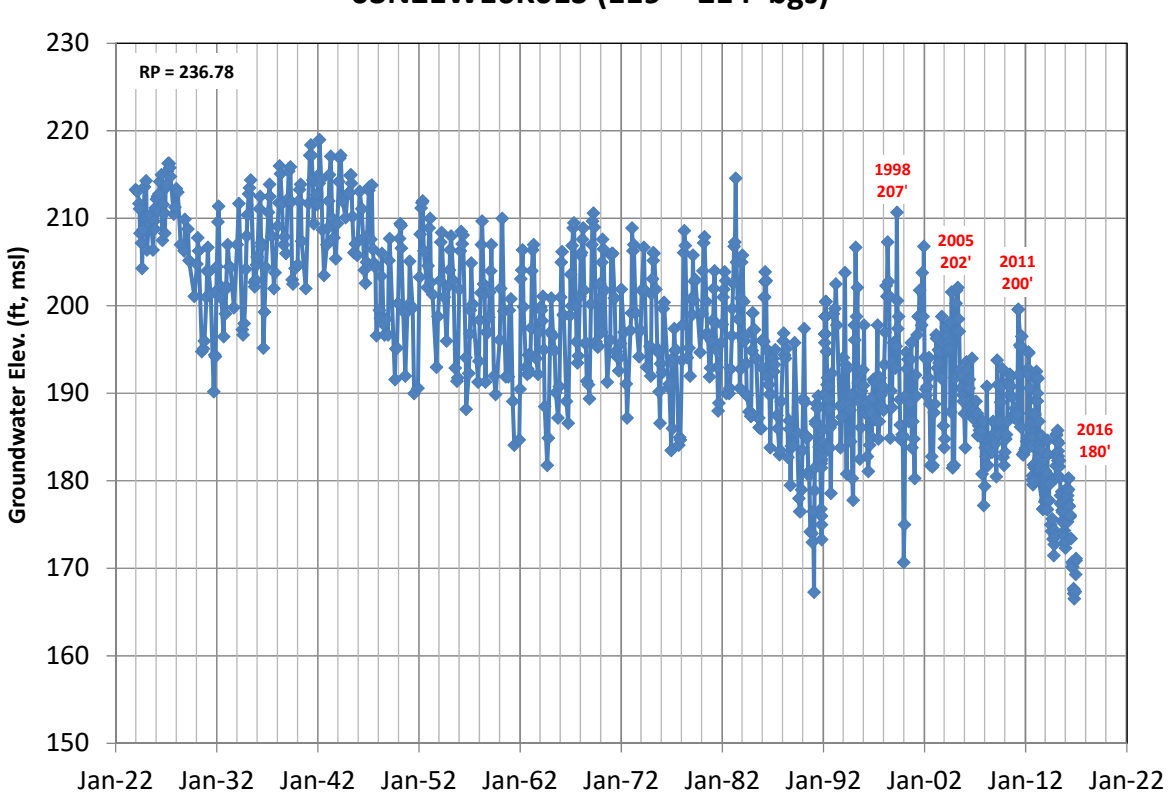

03N21W16H07S (150' - 170' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 241.8 FEET
TOP OF WELL SCREEN
1998
210'
2005
207'
2011
202'
2016
183'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

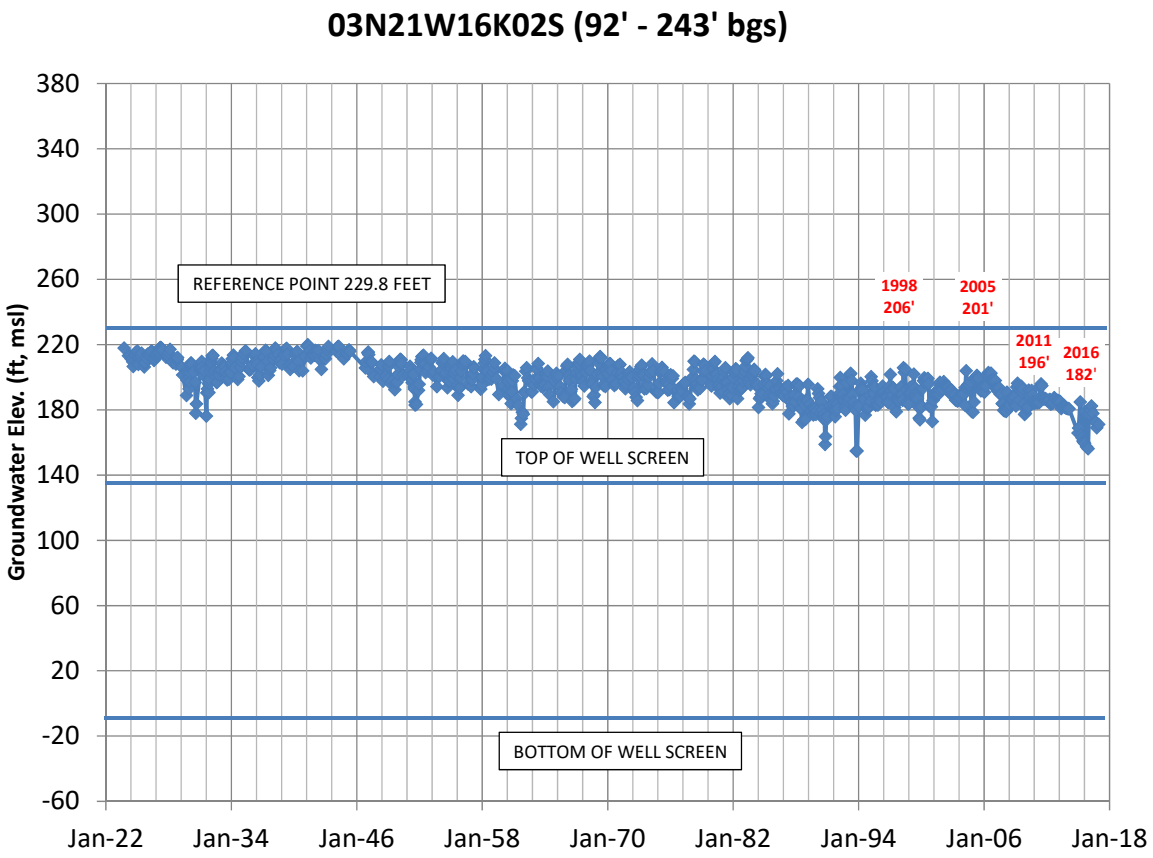

03N21W16H07S (150' - 170' bgs)
Groundwater Elev. (ft, msl)
230
220
210
200
190
180
170
160
150
RP = 241.76
1998
210'
2005
207'
2011
202'
2016
183'
Jan-92
Jan-96
Jan-00
Jan-04
Jan-08
Jan-12
Jan-16
Jan-20

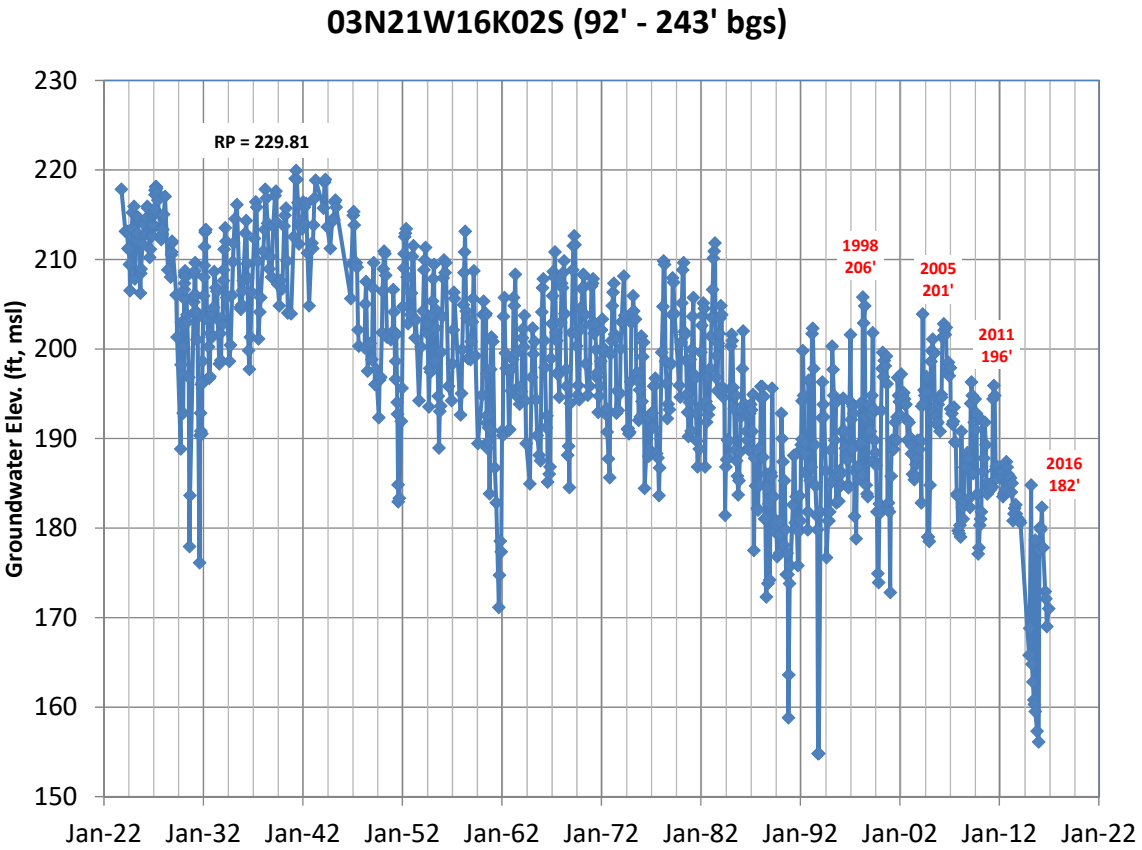

03N21W16H08S (50'- 70' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 241.8 FEET
TOP OF WELL SCREEN
1998
215'
2005
213'
2011
209'
2016
189'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

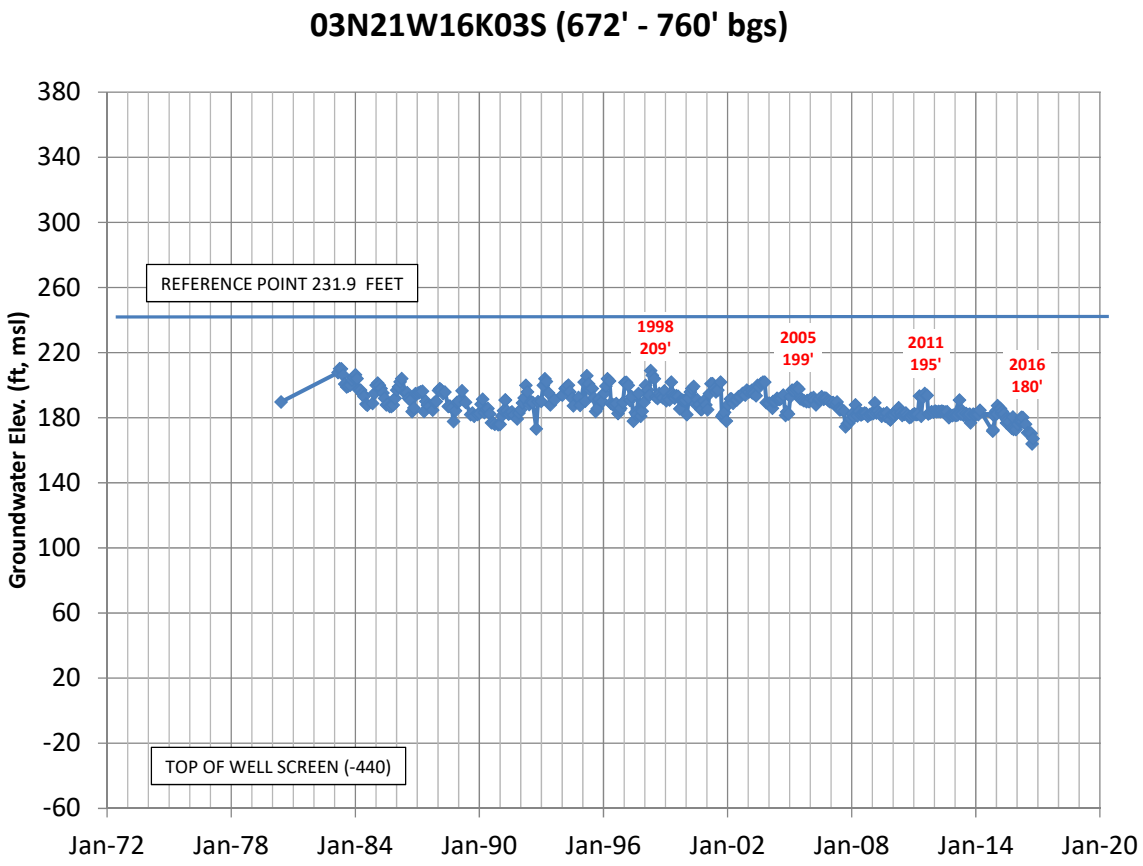

03N21W16H08S (50'- 70' bgs)
Groundwater Elev. (ft, msl)
230
220
210
200
190
180
170
160
150
RP = 241.76
1998
215'
2005
213'
2011
209'
2016
189'
Jan-92
Jan-96
Jan-00
Jan-04
Jan-08
Jan-12
Jan-16
Jan-20

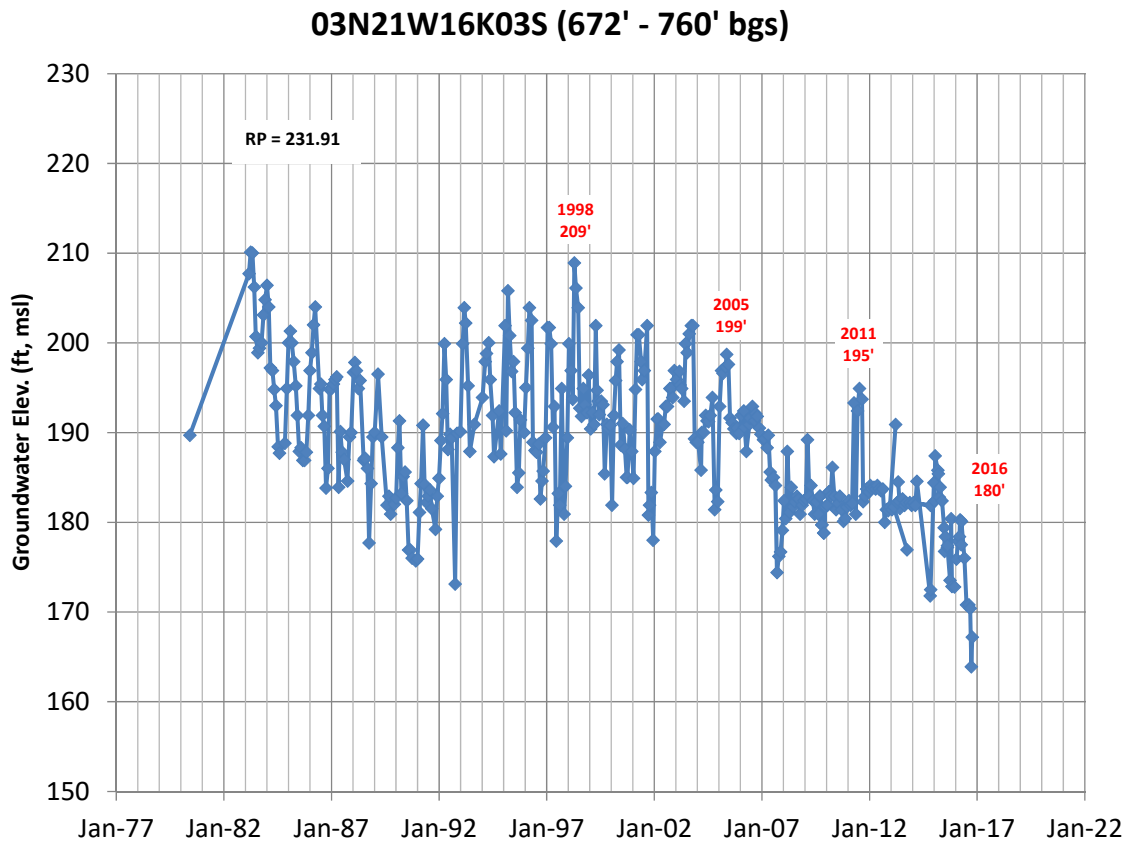

03N21W16K01S (119' - 214' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 236.8 FEET
TOP OF WELL SCREEN
BOTTOM OF WELL SCREEN
1998
207'
2005
202'
2011
200'
2016
180'
Jan-22
Jan-34
Jan-46
Jan-58
Jan-70
Jan-82
Jan-94
Jan-06
Jan-18

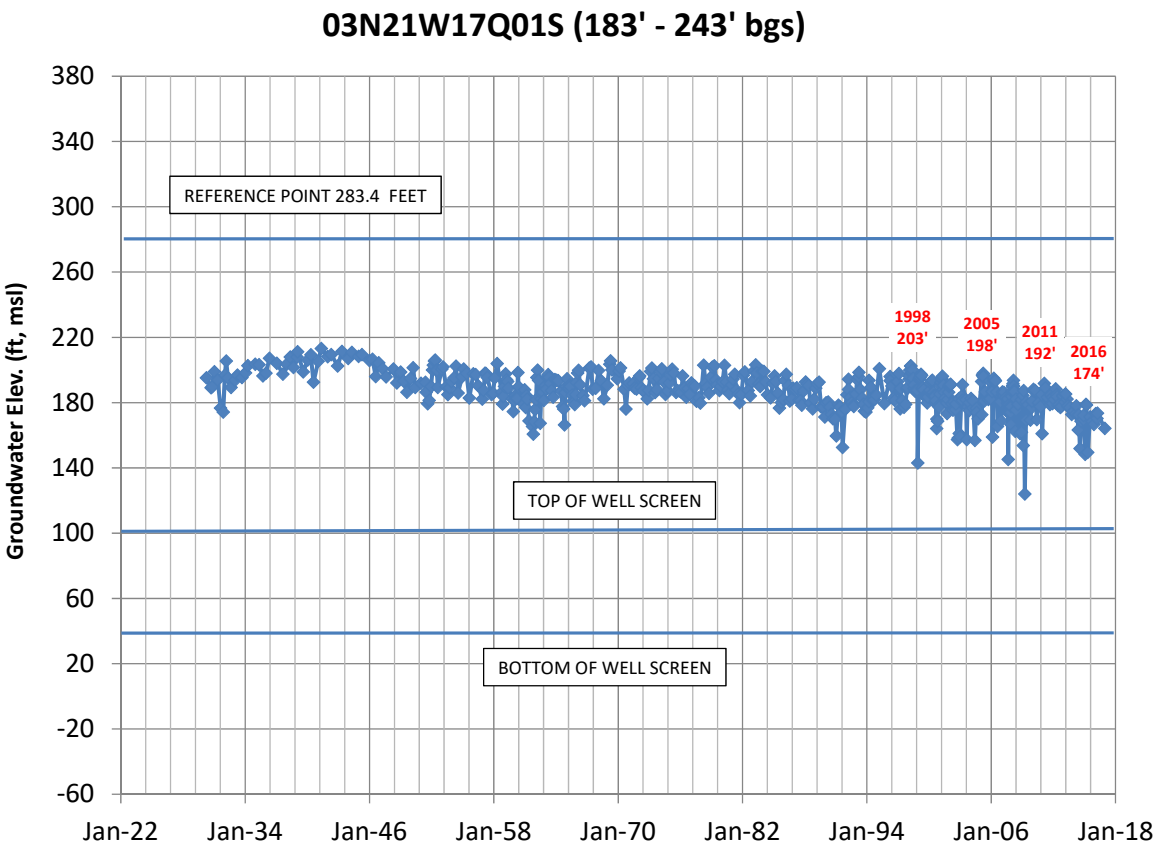

03N21W16K01S (119' - 214' bgs)
Groundwater Elev. (ft, msl)
230
220
210
200
190
180
170
160
150
RP = 236.78
1998
207'
2005
202'
2011
200'
2016
180'
Jan-22
Jan-32
Jan-42
Jan-52
Jan-62
Jan-72
Jan-82
Jan-92
Jan-02
Jan-12
Jan-22

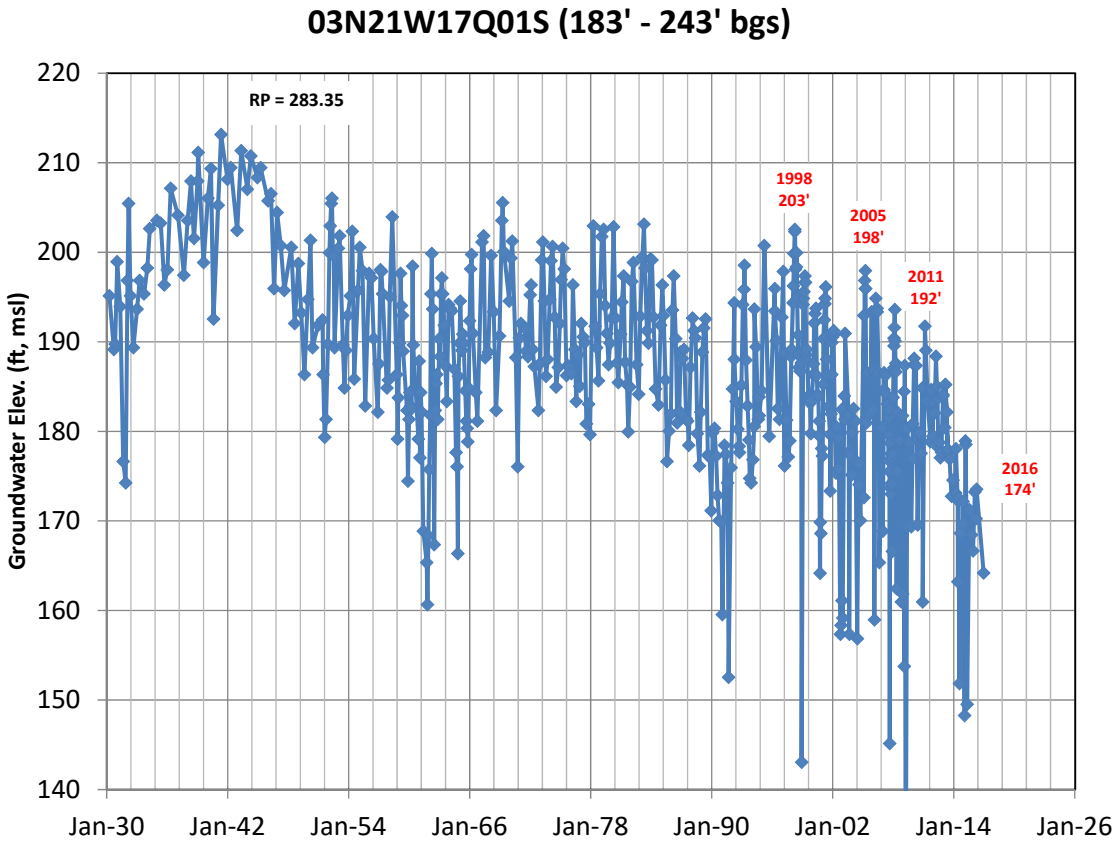

03N21W16K02S (92' - 243' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-22
Jan-34
Jan-46
Jan-58
Jan-70
Jan-82
Jan-94
Jan-06
Jan-18
REFERENCE POINT 229.8 FEET
TOP OF WELL SCREEN
BOTTOM OF WELL SCREEN
1998
206'
2005
201'
2011
196'
2016
182'


03N21W16K02S (92' - 243' bgs)
Groundwater Elev. (ft, msl)
230
220
210
200
190
180
170
160
150
Jan-22
Jan-32
Jan-42
Jan-52
Jan-62
Jan-72
Jan-82
Jan-92
Jan-02
Jan-12
Jan-22
RP = 229.81
1998
206'
2005
201'
2011
196'
2016
182'


03N21W16K03S (672' - 760' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 231.9 FEET
TOP OF WELL SCREEN (-440)
1998
209'
2005
199'
2011
195'
2016
180'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


03N21W16K03S (672' - 760' bgs)
Groundwater Elev. (ft, msl)
230
220
210
200
190
180
170
160
150
RP = 231.91
1998
209'
2005
199'
2011
195'
2016
180'
Jan-77
Jan-82
Jan-87
Jan-92
Jan-97
Jan-02
Jan-07
Jan-12
Jan-17
Jan-22


03N21W17Q01S (183' - 243' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 283.4 FEET
TOP OF WELL SCREEN
BOTTOM OF WELL SCREEN
1998
203'
2005
198'
2011
192'
2016
174'
Jan-22
Jan-34
Jan-46
Jan-58
Jan-70
Jan-82
Jan-94
Jan-06
Jan-18


03N21W17Q01S (183' - 243' bgs)
Groundwater Elev. (ft, msl)
220
210
200
190
180
170
160
150
140
RP = 283.35
1998
203'
2005
198'
2011
192'
2016
174'
Jan-30
Jan-42
Jan-54
Jan-66
Jan-78
Jan-90
Jan-02
Jan-14
Jan-26

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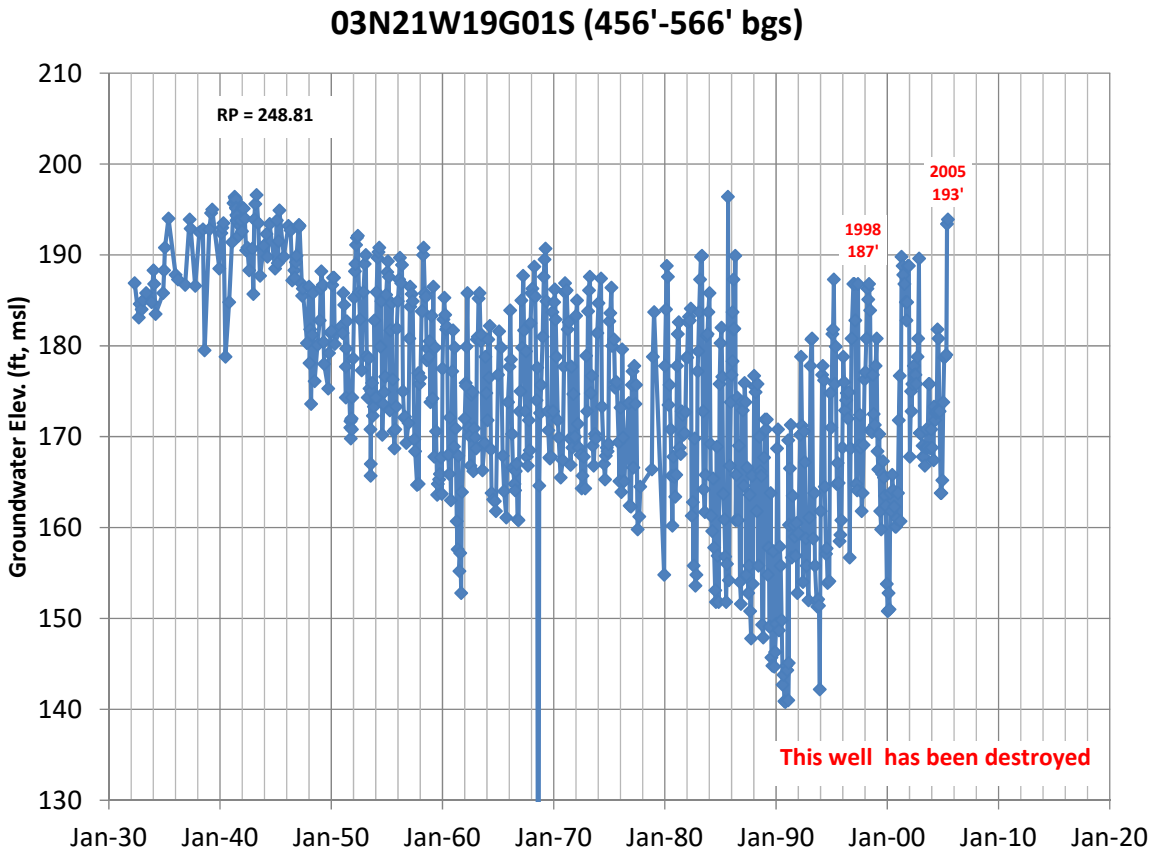
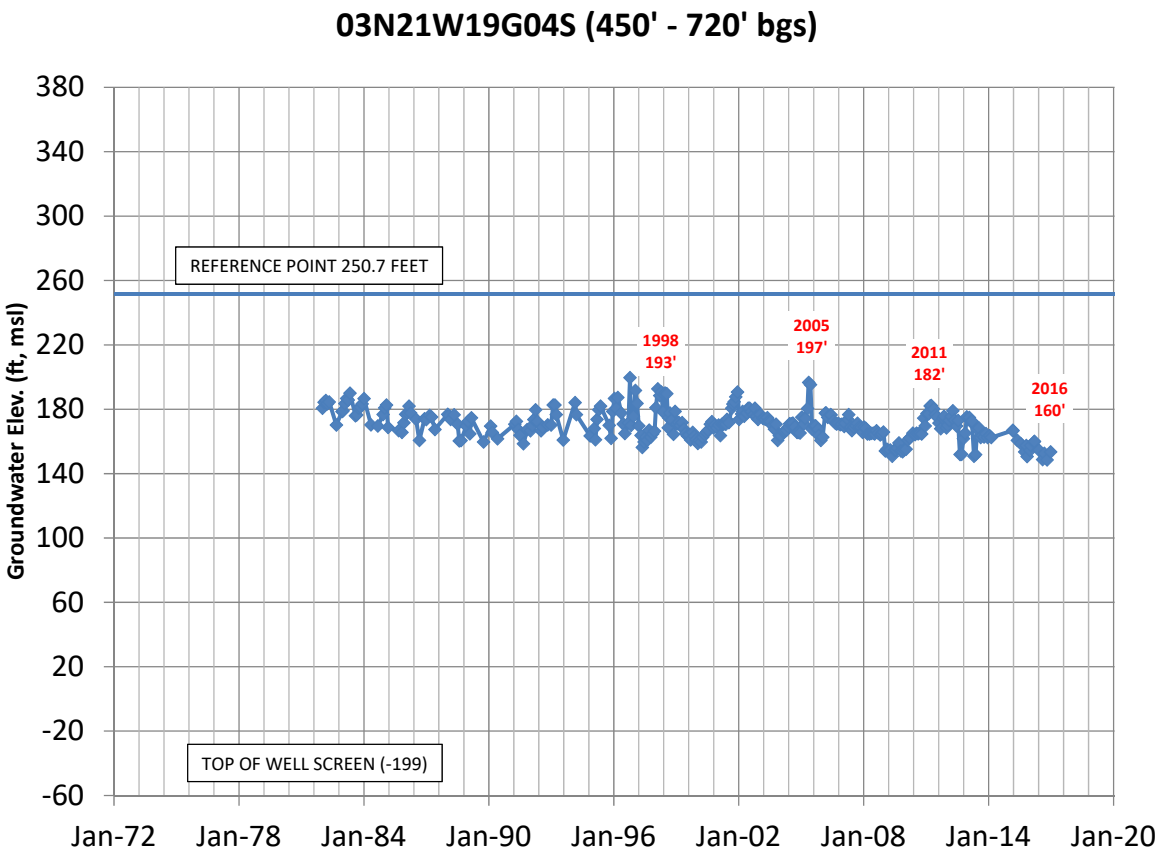
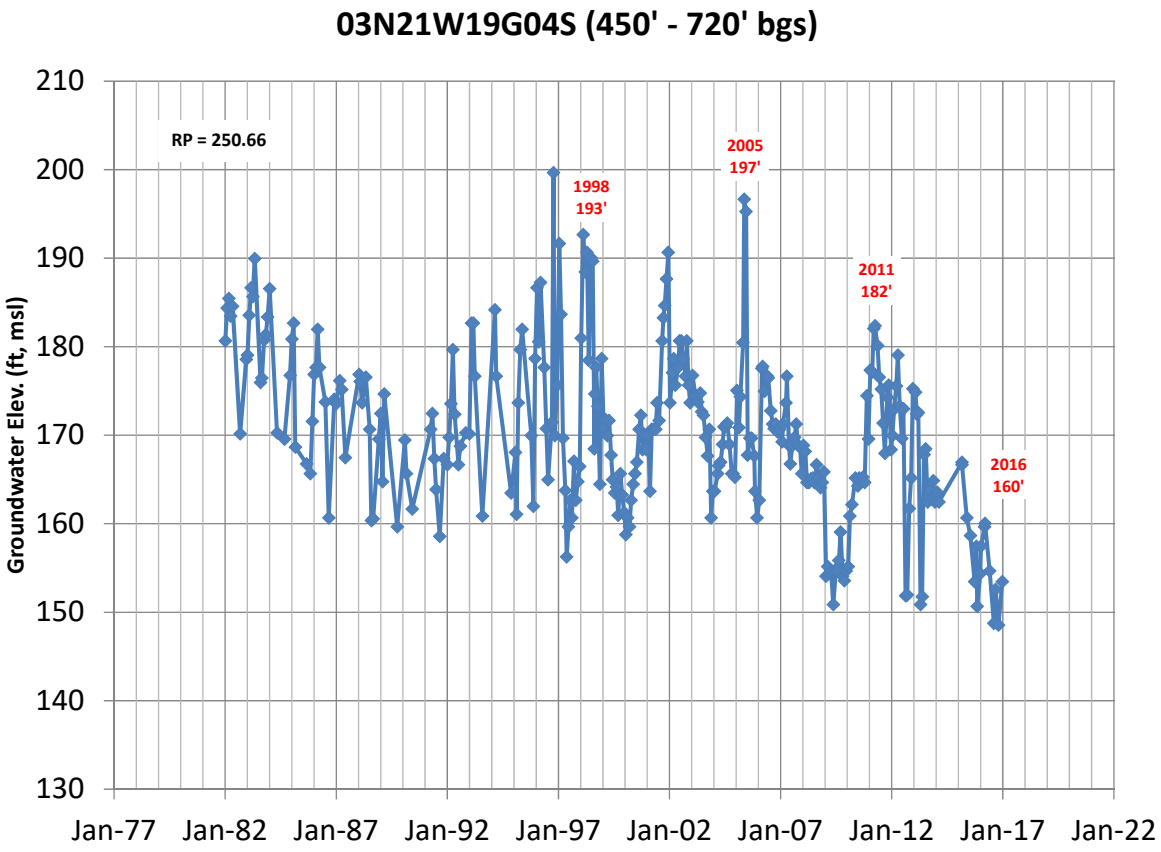



03N21W19G04S (450' - 720' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 250.7 FEET
TOP OF WELL SCREEN (-199)
1998
193'
2005
197'
2011
182'
2016
160'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


03N21W19G04S (450' - 720' bgs)
Groundwater Elev. (ft, msl)
210
200
190
180
170
160
150
140
130
RP = 250.66
1998
193'
2005
197'
2011
182'
2016
160'
Jan-77
Jan-82
Jan-87
Jan-92
Jan-97
Jan-02
Jan-07
Jan-12
Jan-17
Jan-22

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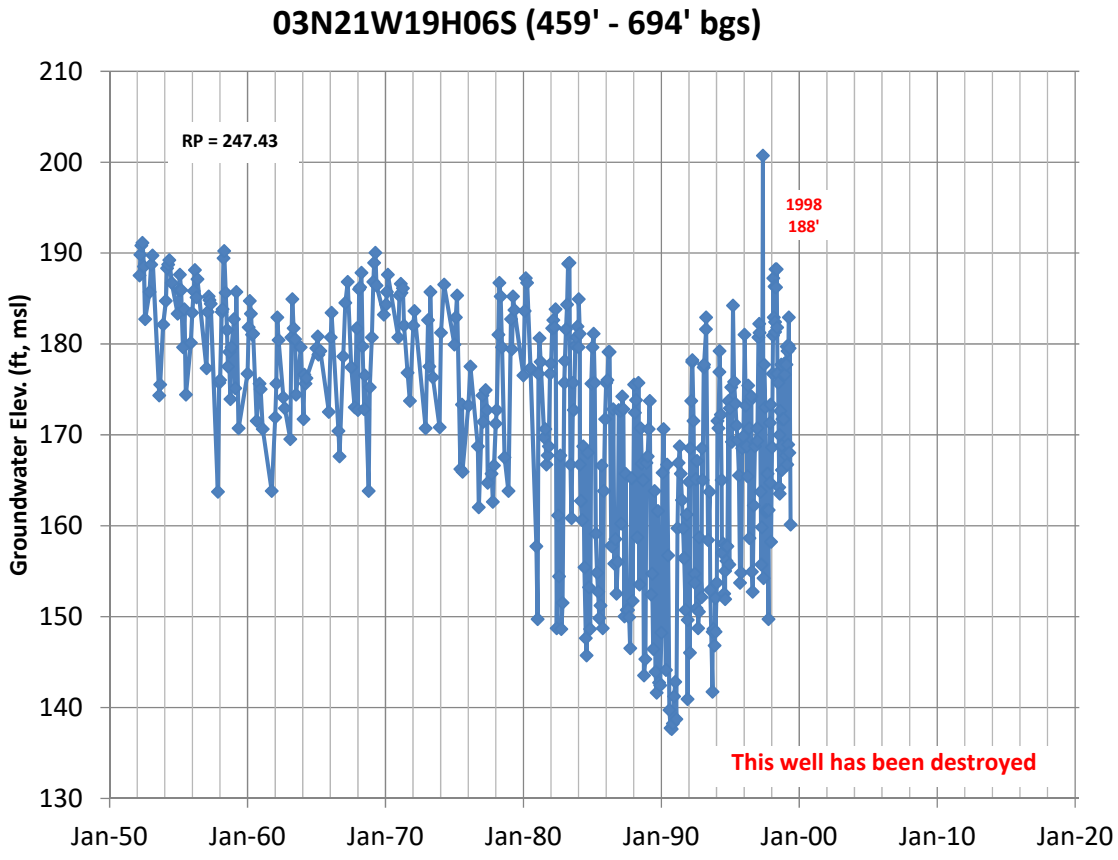
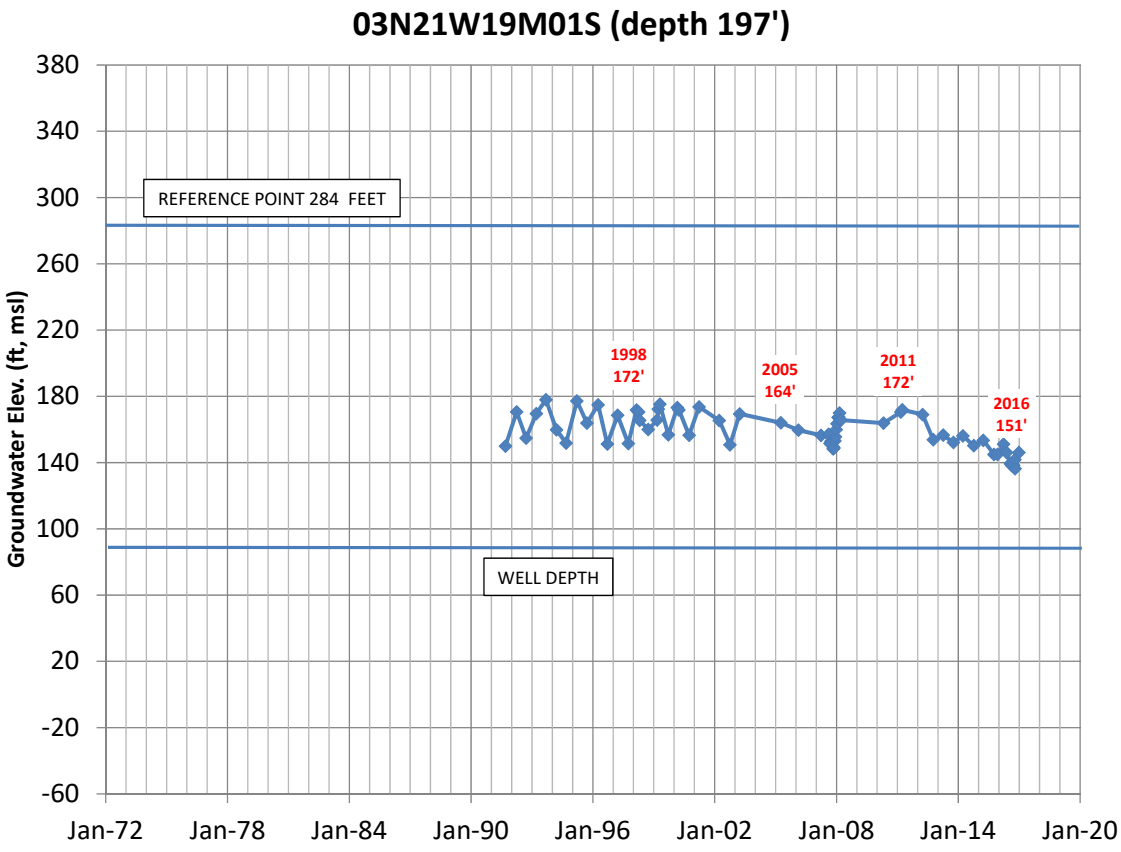
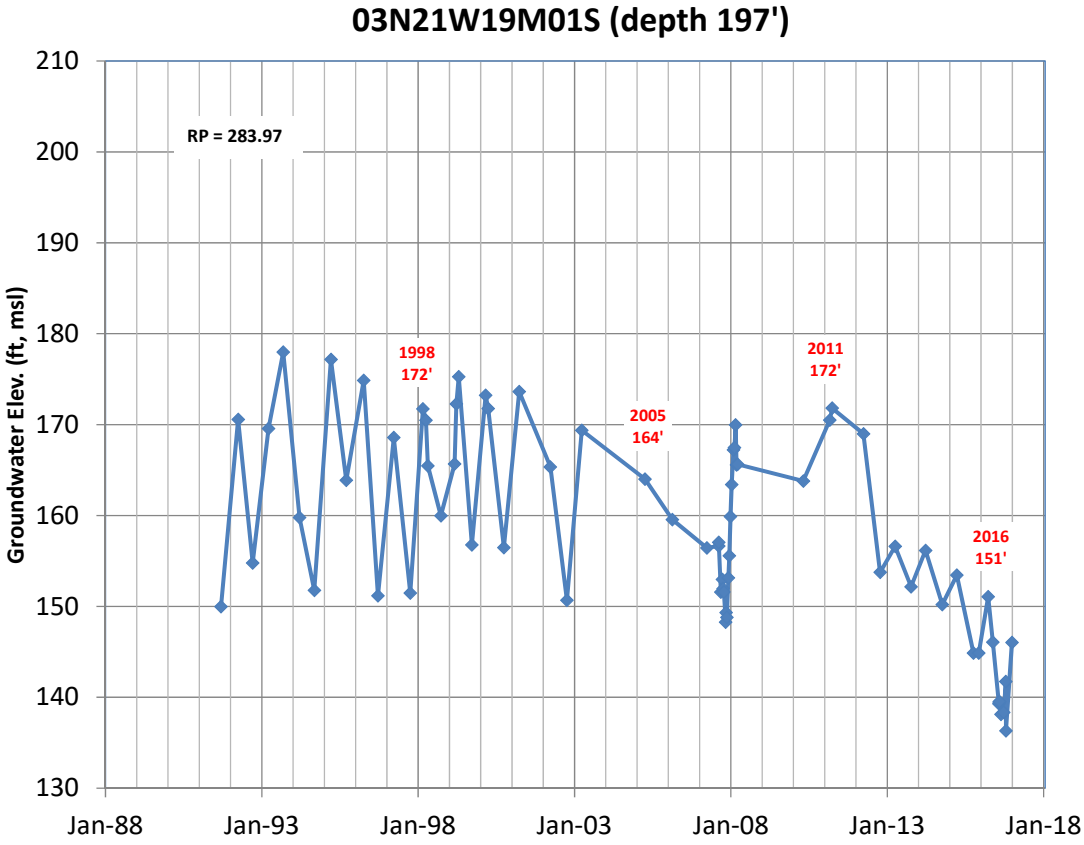
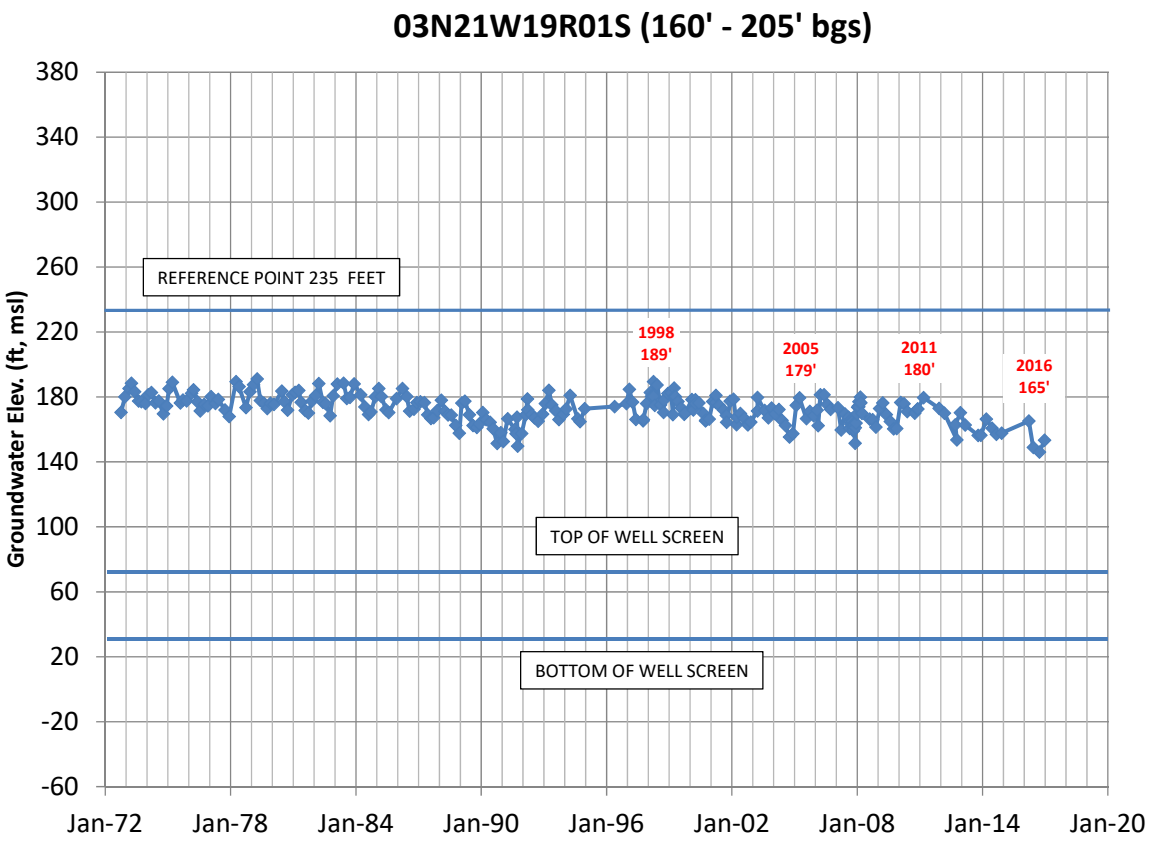
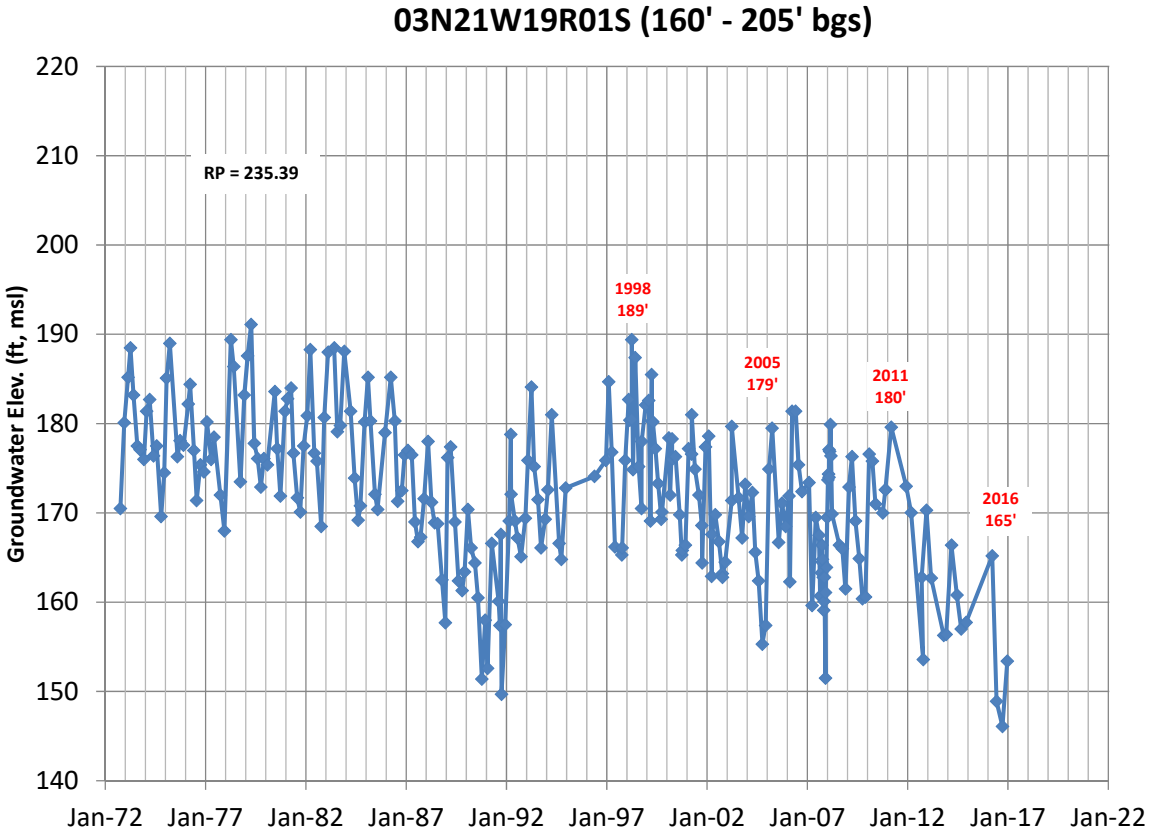
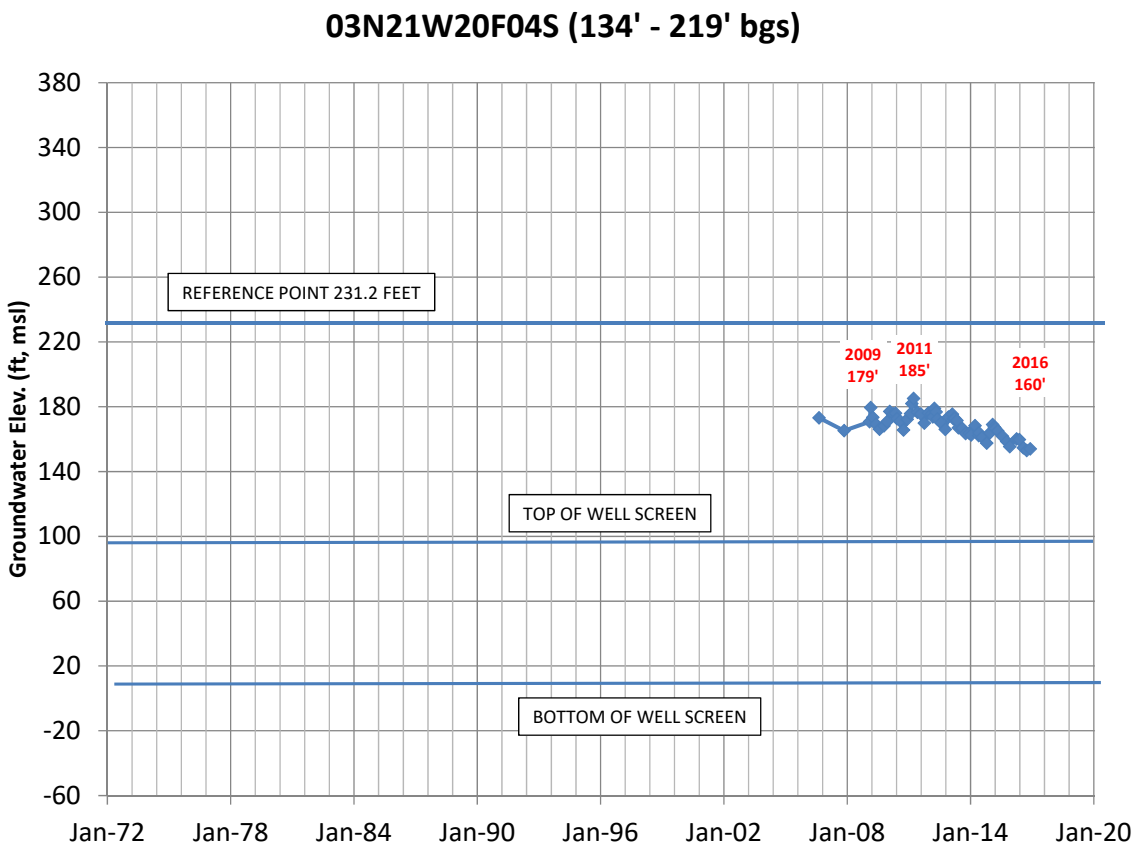


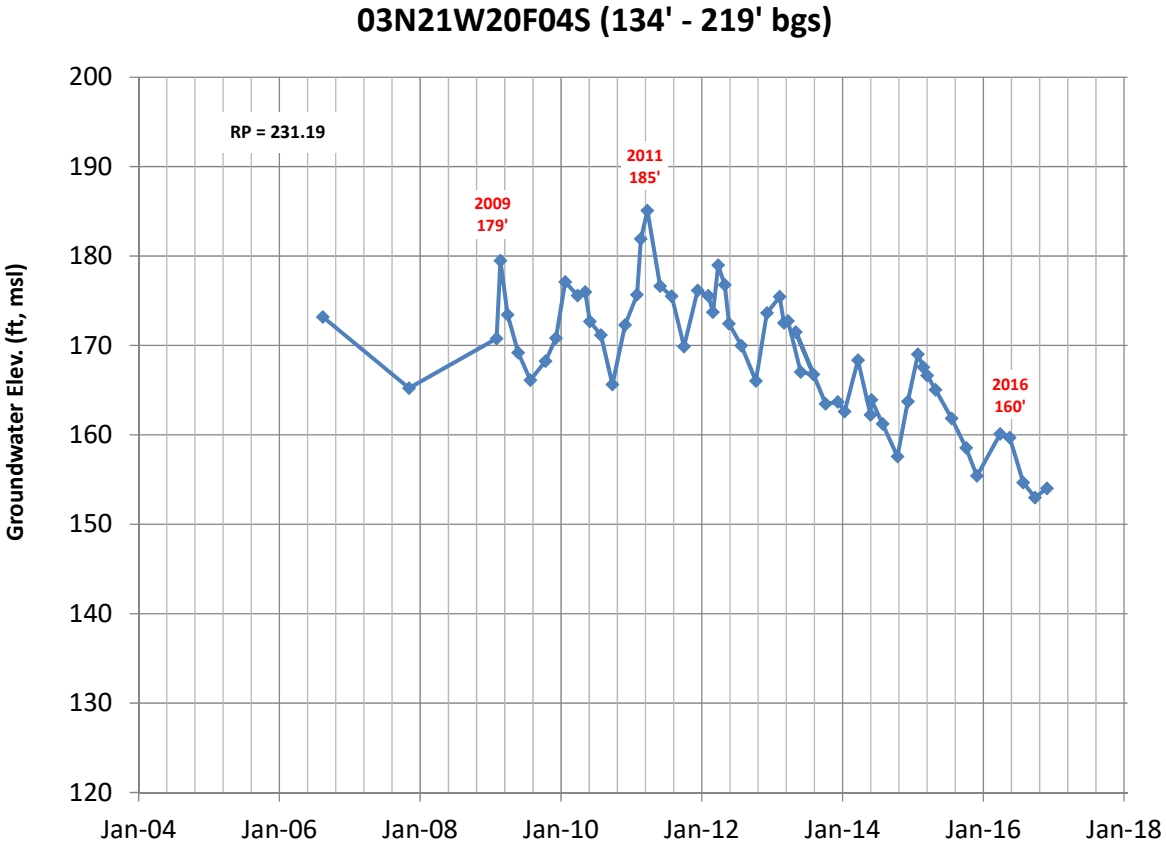

03N21W19M01S (depth 197')
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 284 FEET
WELL DEPTH
1998
172'
2005
164'
2011
172'
2016
151'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

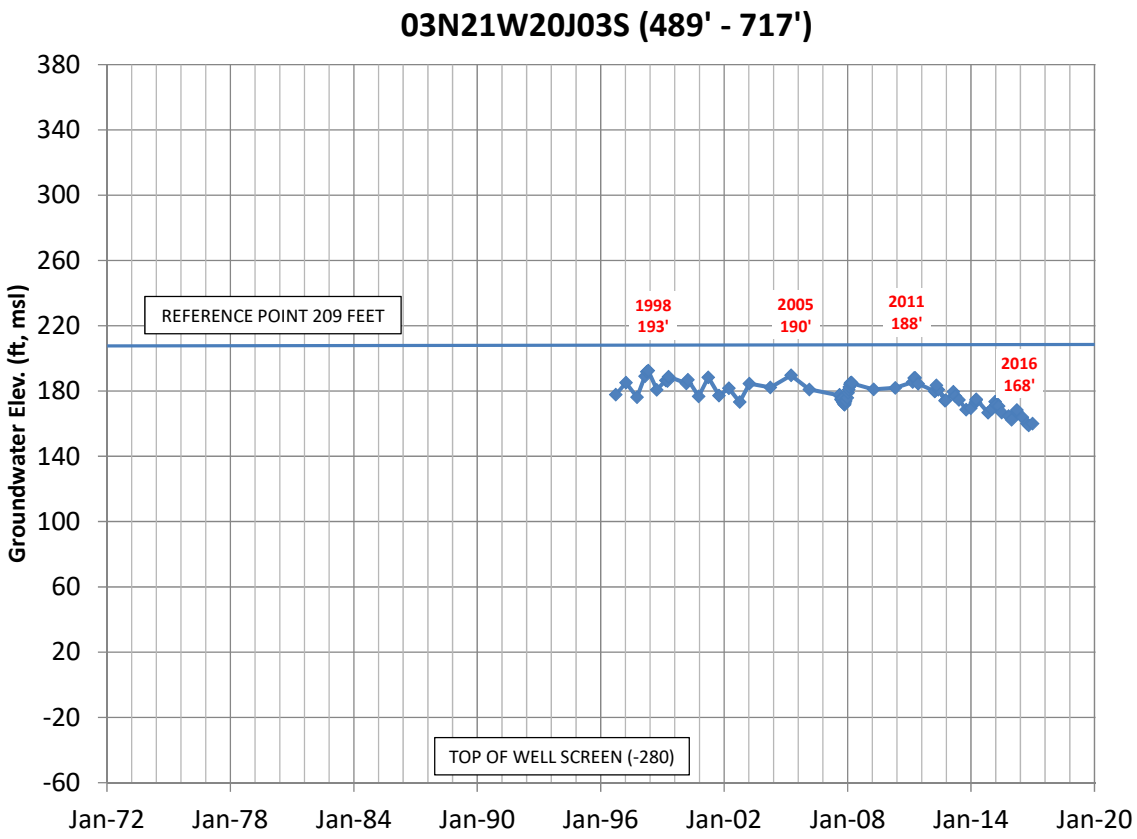

03N21W19M01S (depth 197')
Groundwater Elev. (ft, msl)
210
200
190
180
170
160
150
140
130
RP = 283.97
1998
172'
2005
164'
2011
172'
2016
151'
Jan-88
Jan-93
Jan-98
Jan-03
Jan-08
Jan-13
Jan-18

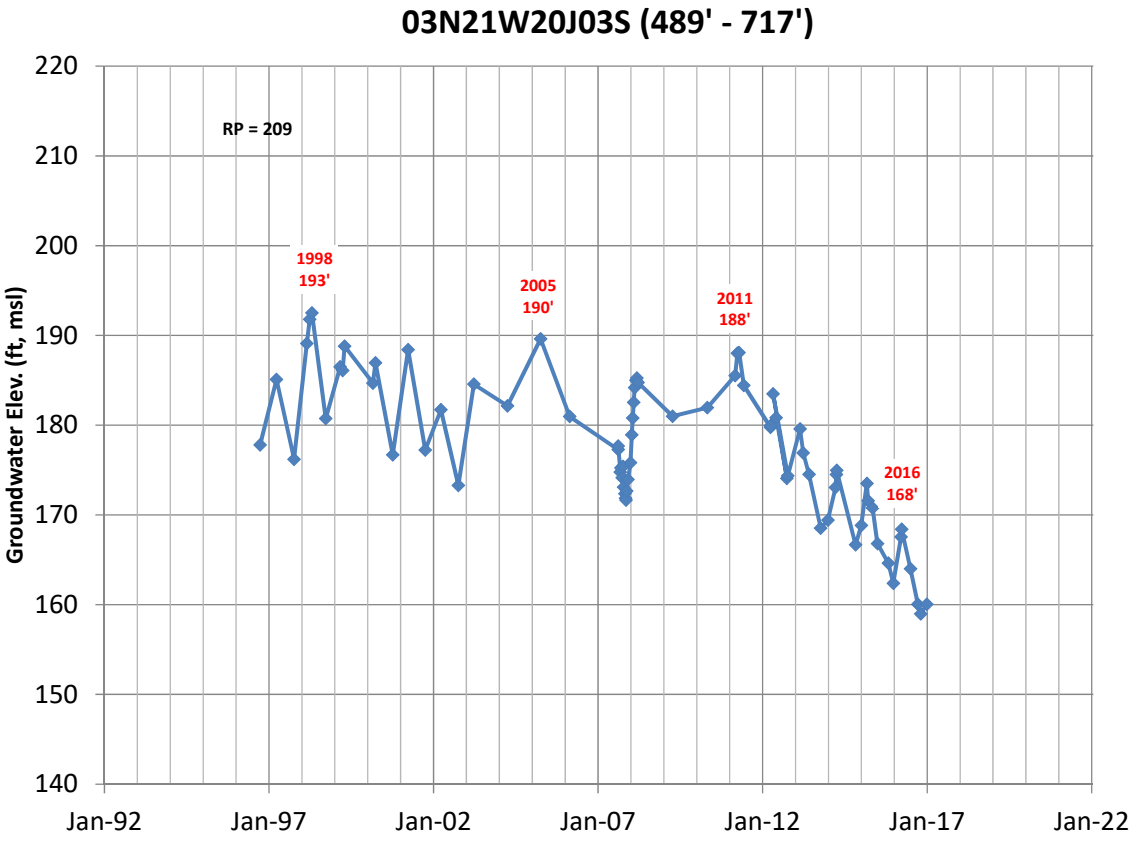

03N21W19R01S (160' - 205' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 235 FEET
TOP OF WELL SCREEN
BOTTOM OF WELL SCREEN
1998
189'
2005
179'
2011
180'
2016
165'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


03N21W19R01S (160' - 205' bgs)
Groundwater Elev. (ft, msl)
220
210
200
190
180
170
160
150
140
RP = 235.39
1998
189'
2005
179'
2011
180'
2016
165'
Jan-72
Jan-77
Jan-82
Jan-87
Jan-92
Jan-97
Jan-02
Jan-07
Jan-12
Jan-17
Jan-22


03N21W20F04S (134' - 219' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 231.2 FEET
TOP OF WELL SCREEN
BOTTOM OF WELL SCREEN
2009
179'
2011
185'
2016
160'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


03N21W20F04S (134' - 219' bgs)
Groundwater Elev. (ft, msl)
200
190
180
170
160
150
140
130
120
RP = 231.19
2009
179'
2011
185'
2016
160'
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
Jan-16
Jan-18


03N21W20J03S (489' - 717')
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 209 FEET
TOP OF WELL SCREEN (-280)
1998
193'
2005
190'
2011
188'
2016
168'


03N21W20J03S (489' - 717')
Groundwater Elev. (ft, msl)
220
210
200
190
180
170
160
150
140
Jan-92
Jan-97
Jan-02
Jan-07
Jan-12
Jan-17
Jan-22
RP = 209
1998
193'
2005
190'
2011
188'
2016
168'

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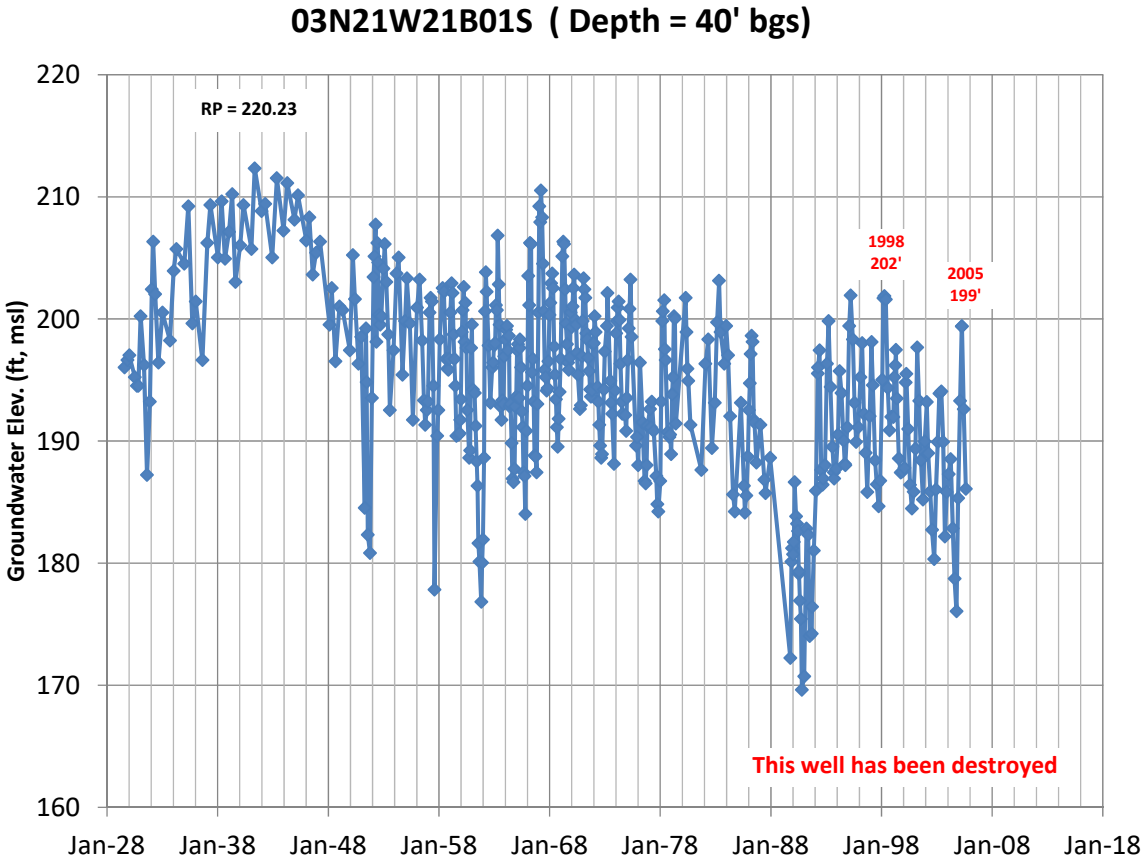
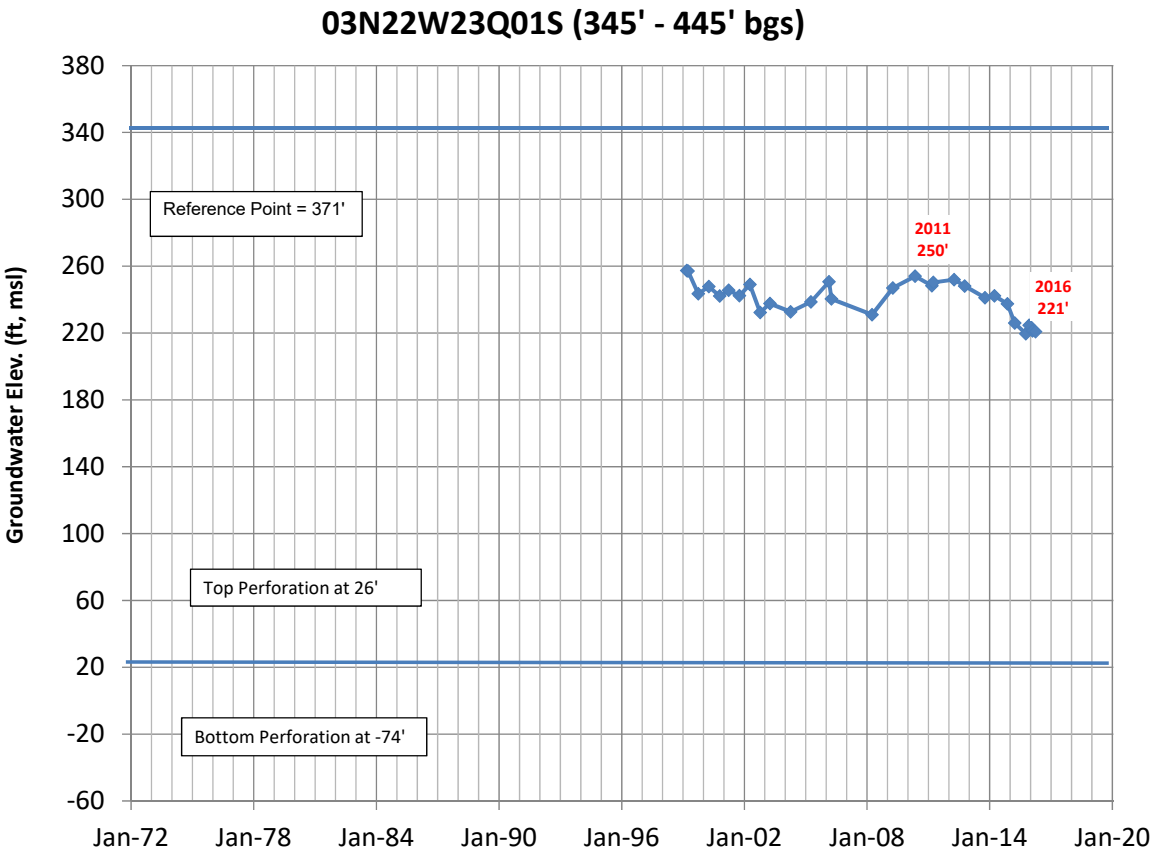
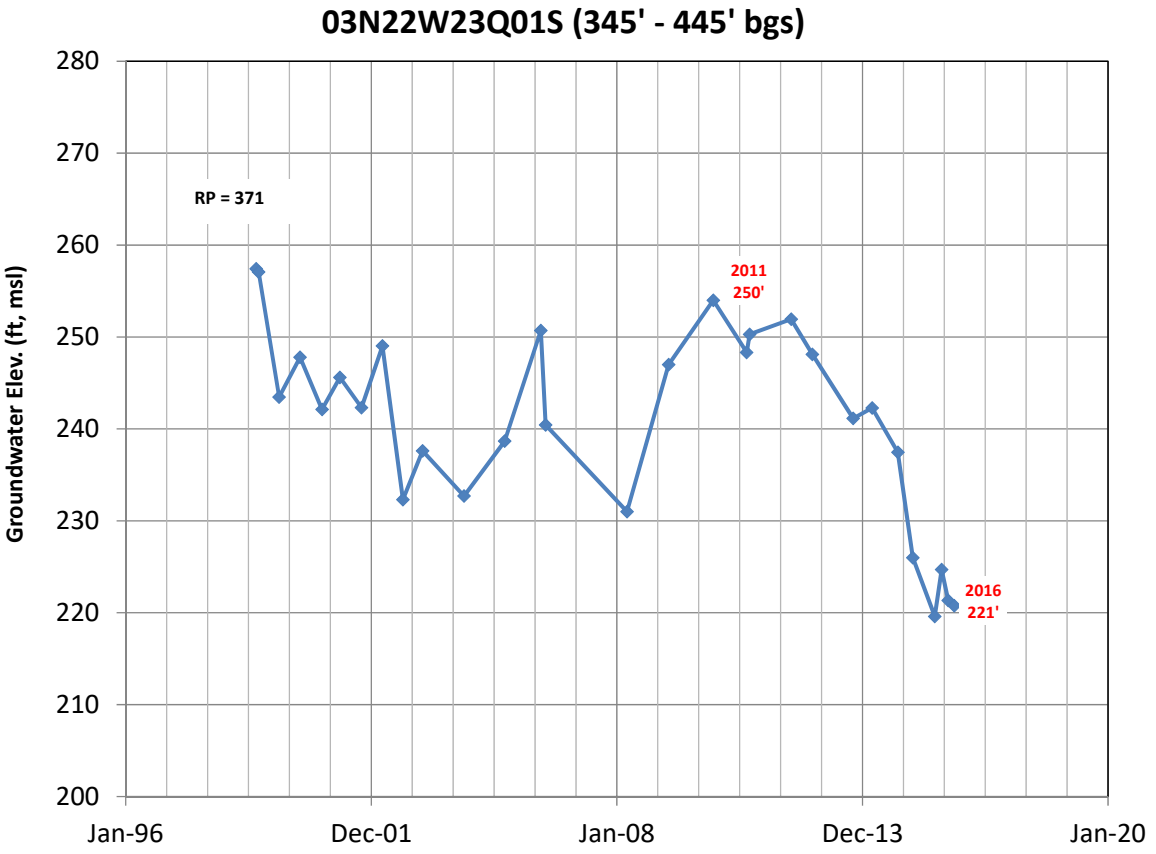
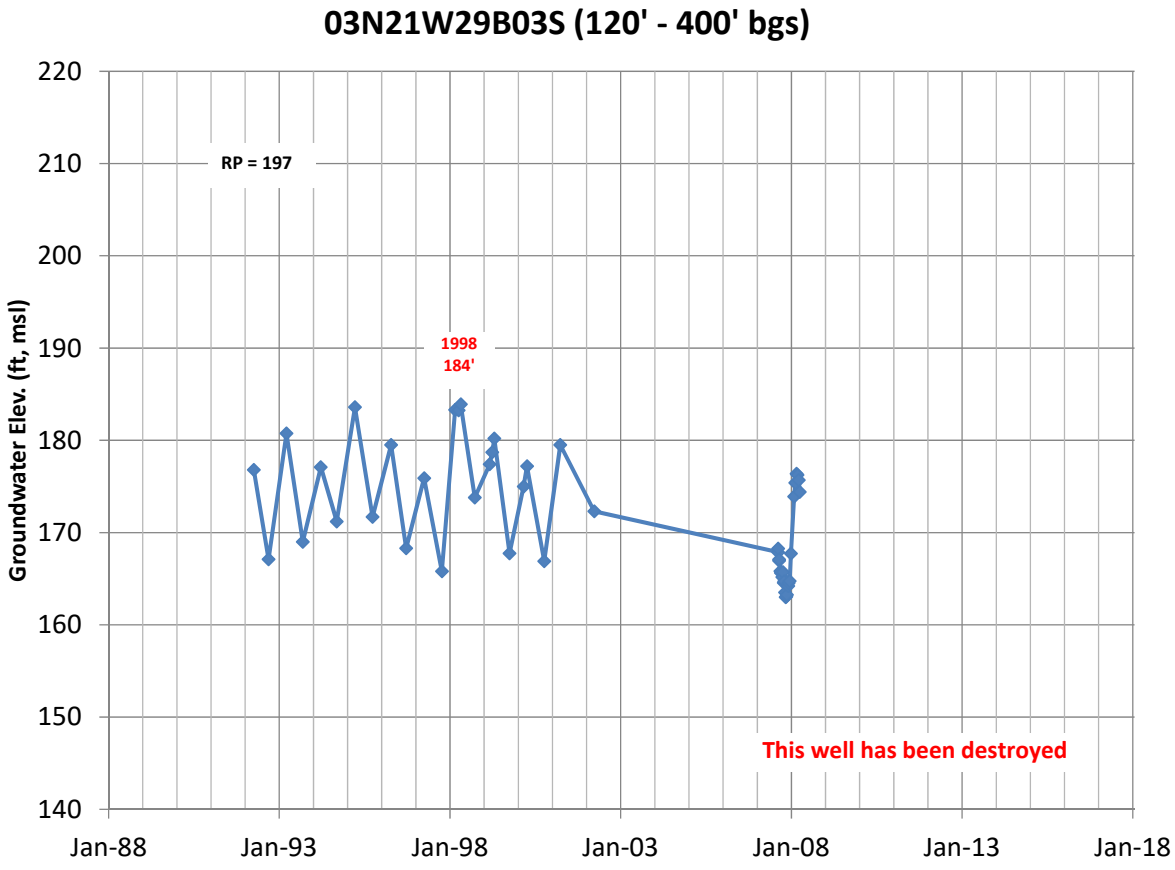
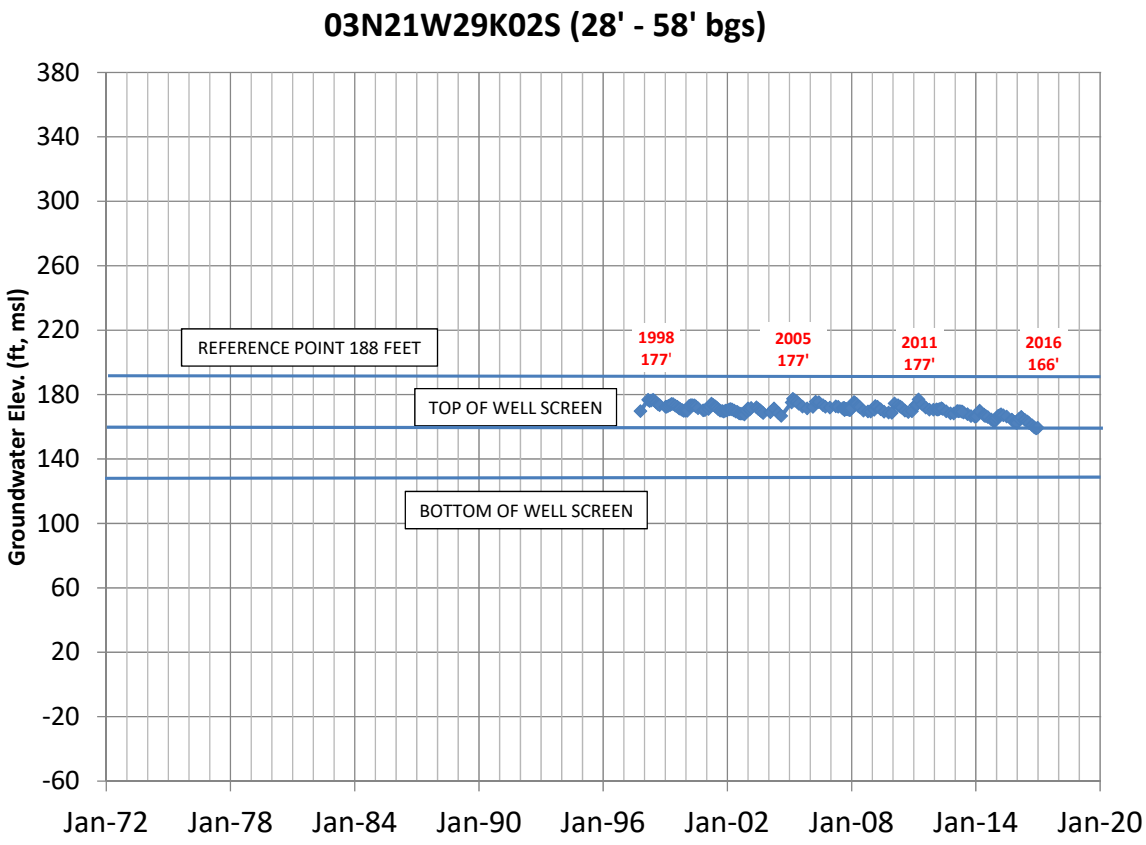


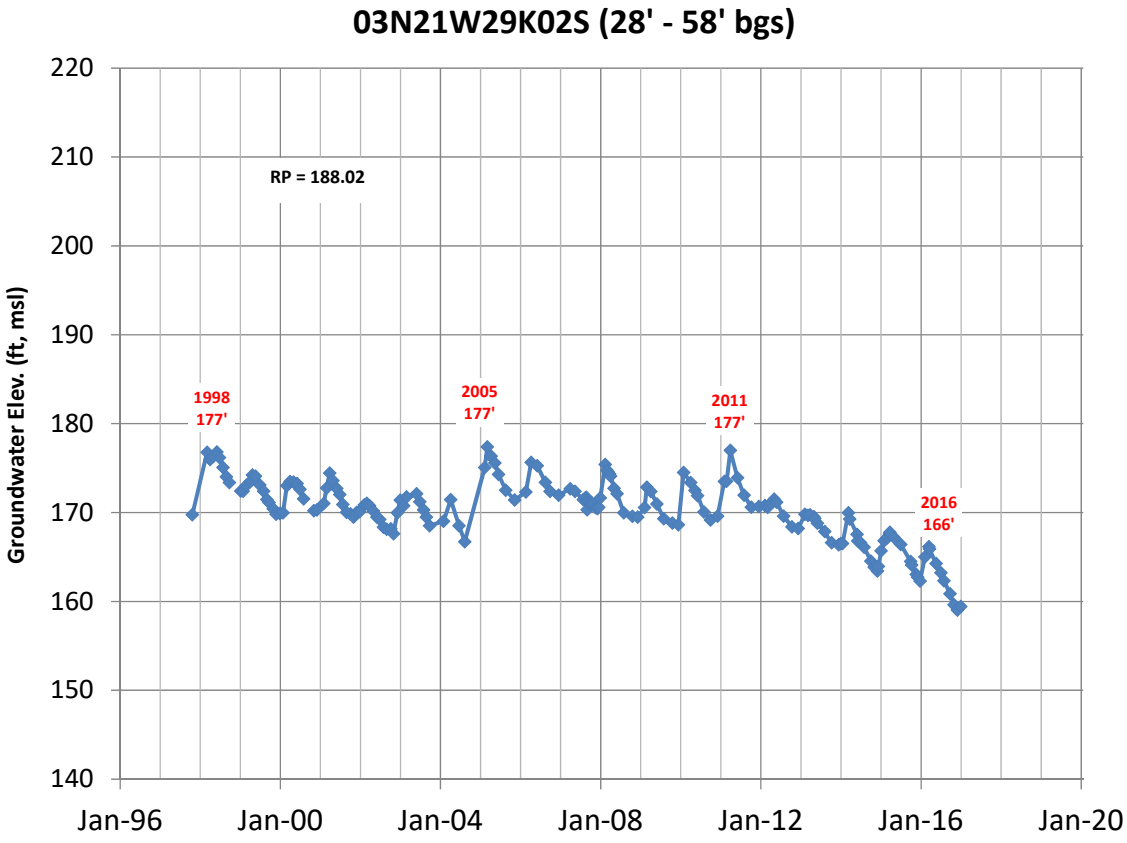

03N22W23Q01S (345' - 445' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Reference Point = 371'
Top Perforation at 26'
Bottom Perforation at -74'
2011
250'
2016
221'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


03N22W23Q01S (345' - 445' bgs)
Groundwater Elev. (ft, msl)
280
270
260
250
240
230
220
210
200
RP = 371
2011
250'
2016
221'
Jan-96
Dec-01
Jan-08
Dec-13
Jan-20

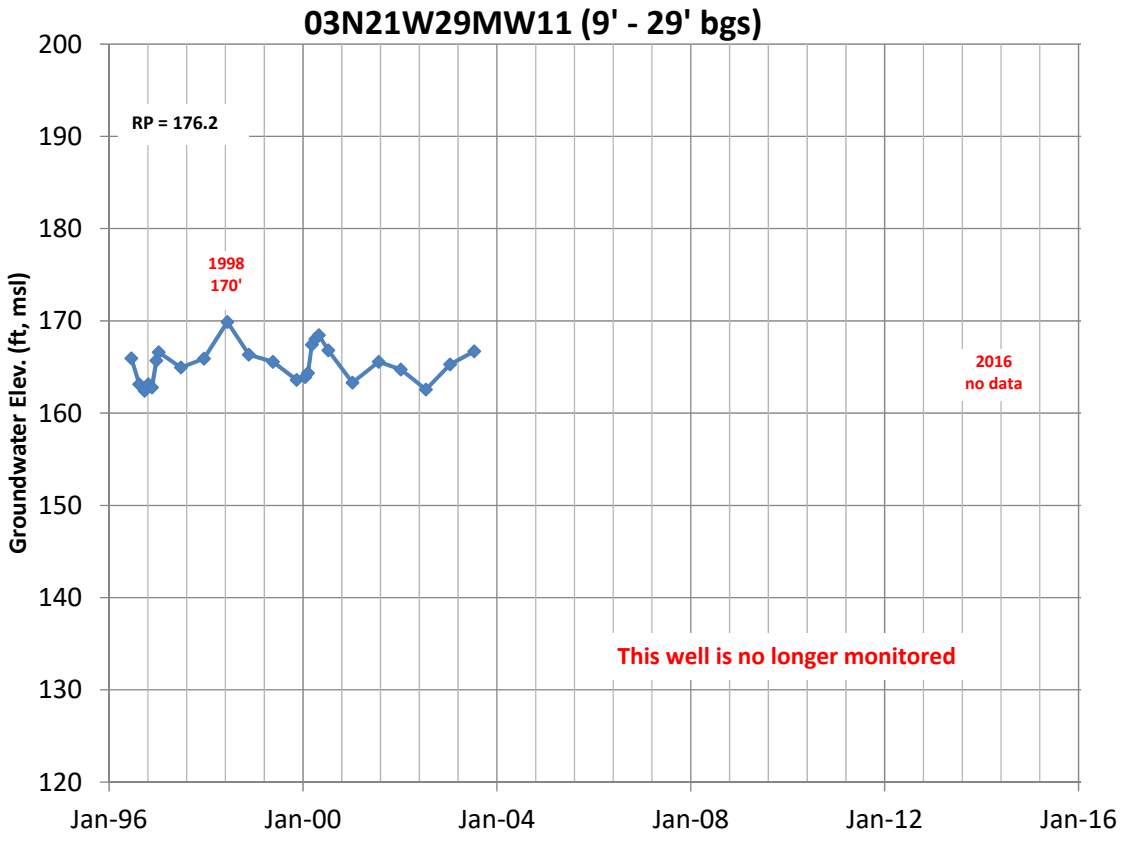
Intentionally Left Blank




03N21W29K02S (28' - 58' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 188 FEET
TOP OF WELL SCREEN
BOTTOM OF WELL SCREEN
1998
177'
2005
177'
2011
177'
2016
166'


03N21W29K02S (28' - 58' bgs)
Groundwater Elev. (ft, msl)
220
210
200
190
180
170
160
150
140
Jan-96
Jan-00
Jan-04
Jan-08
Jan-12
Jan-16
Jan-20
RP = 188.02
1998
177'
2005
177'
2011
177'
2016
166'

Intentionally Left Blank



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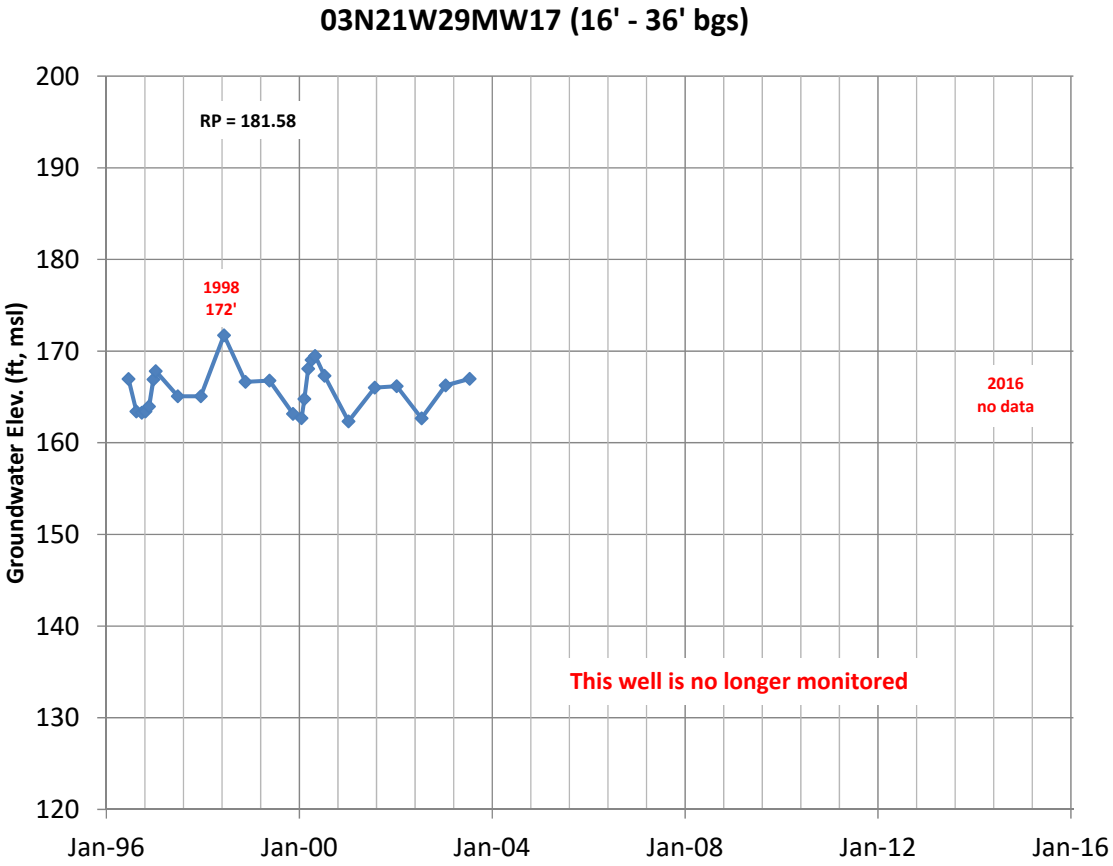

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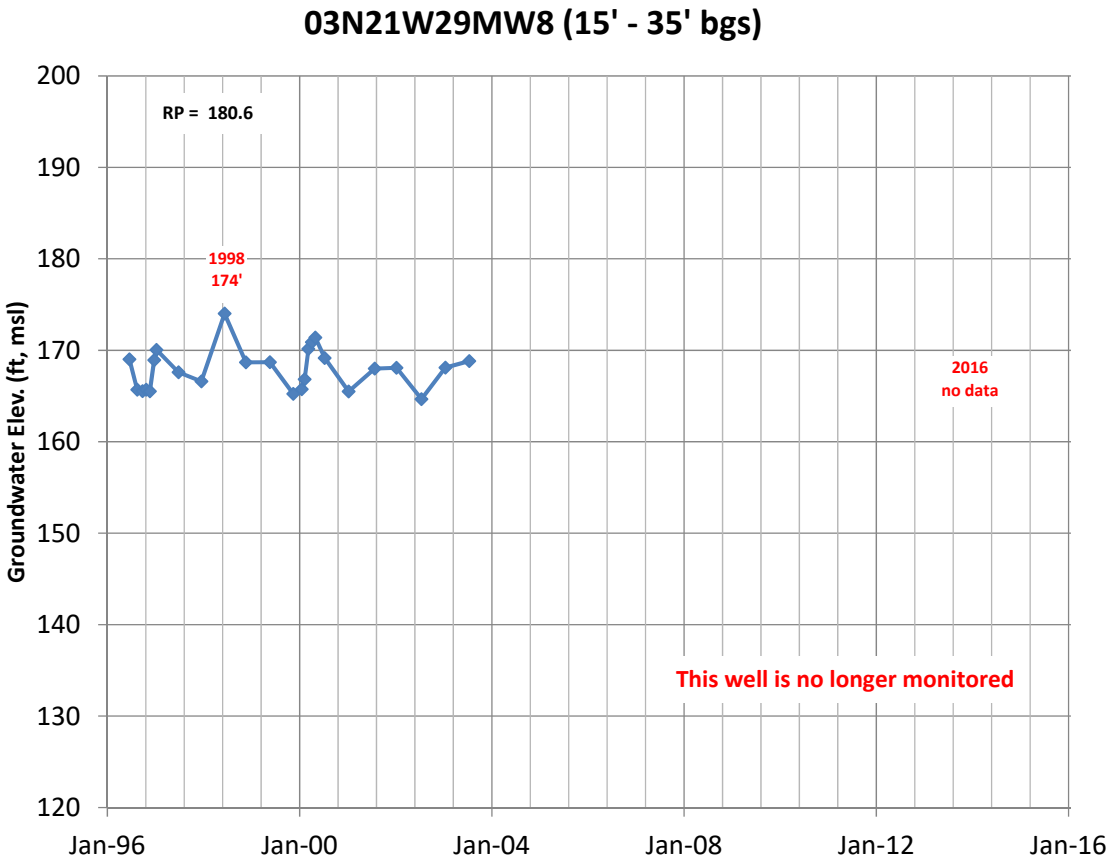
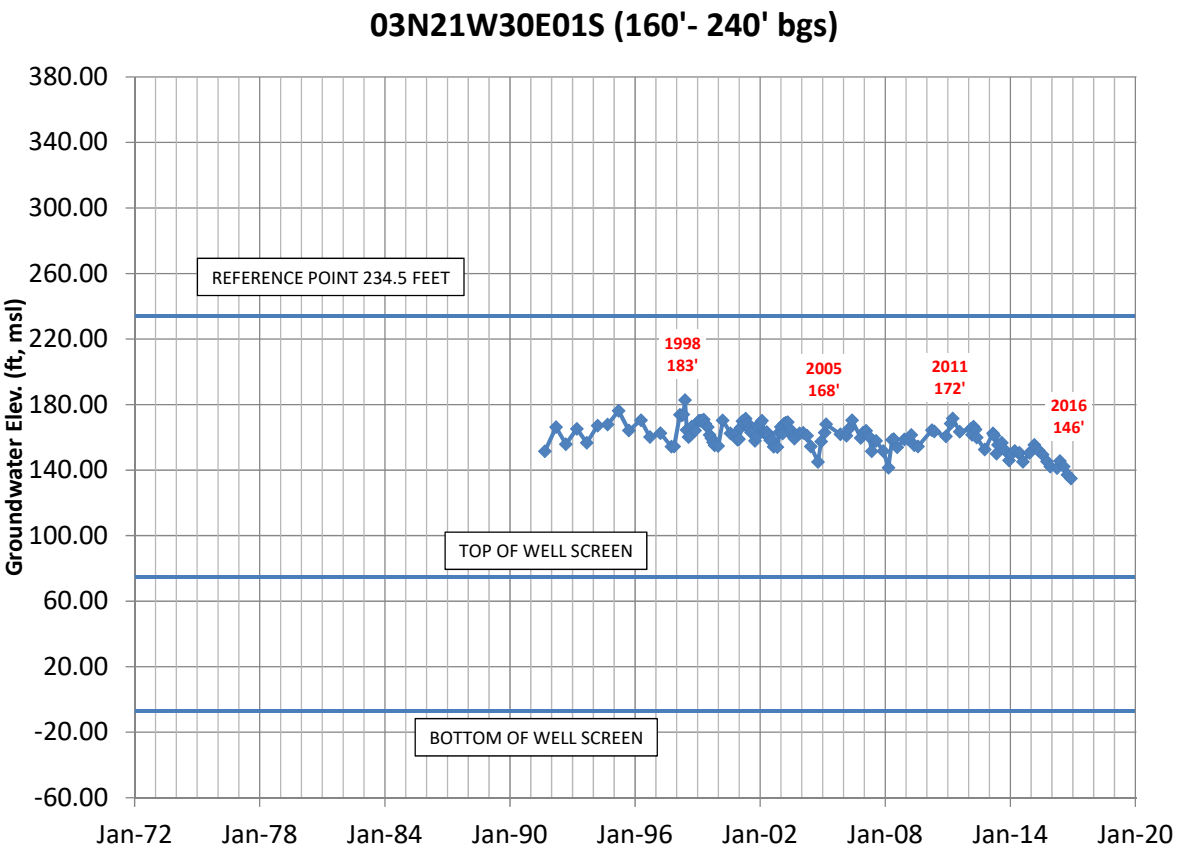
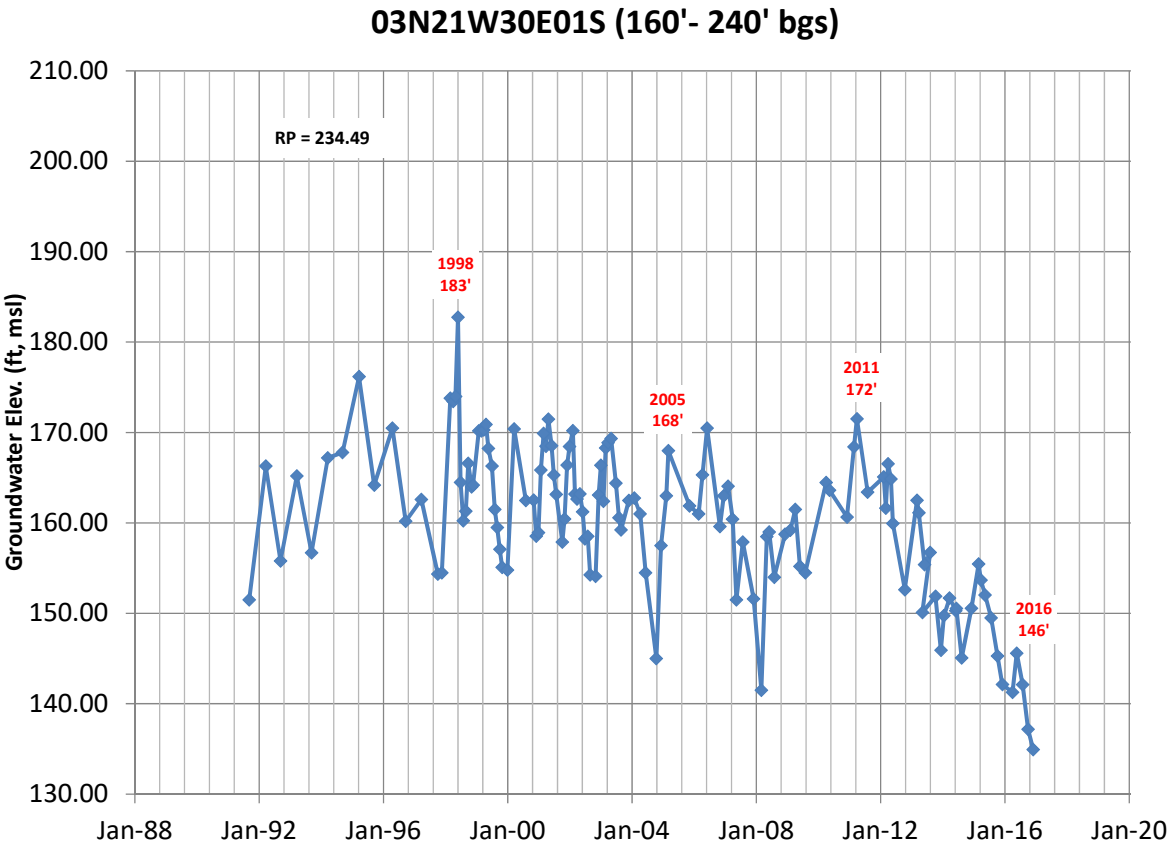
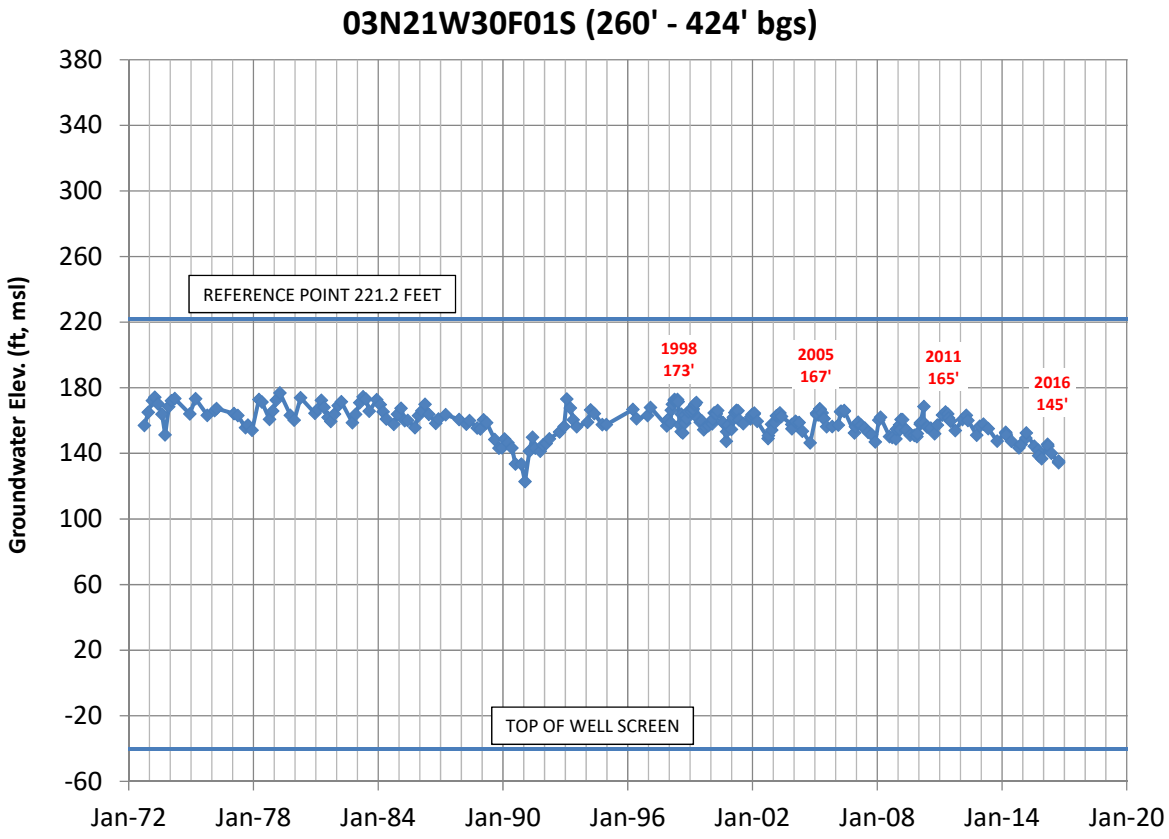
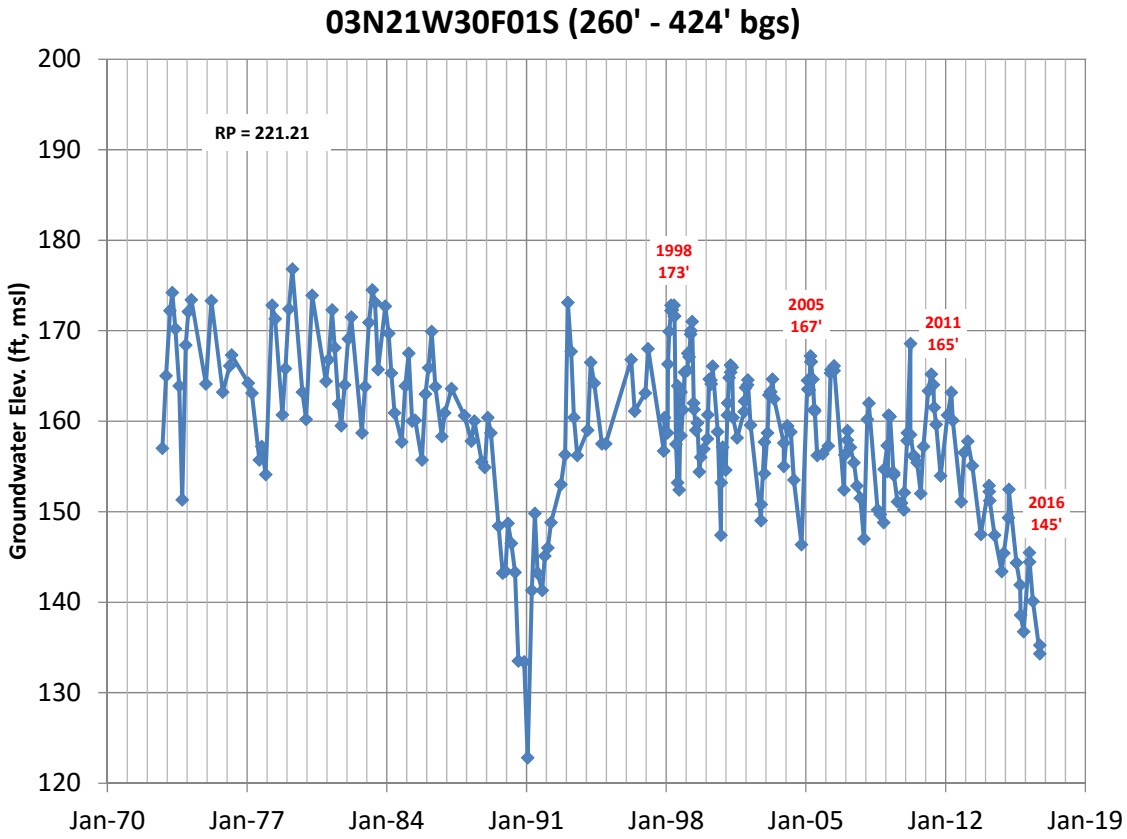
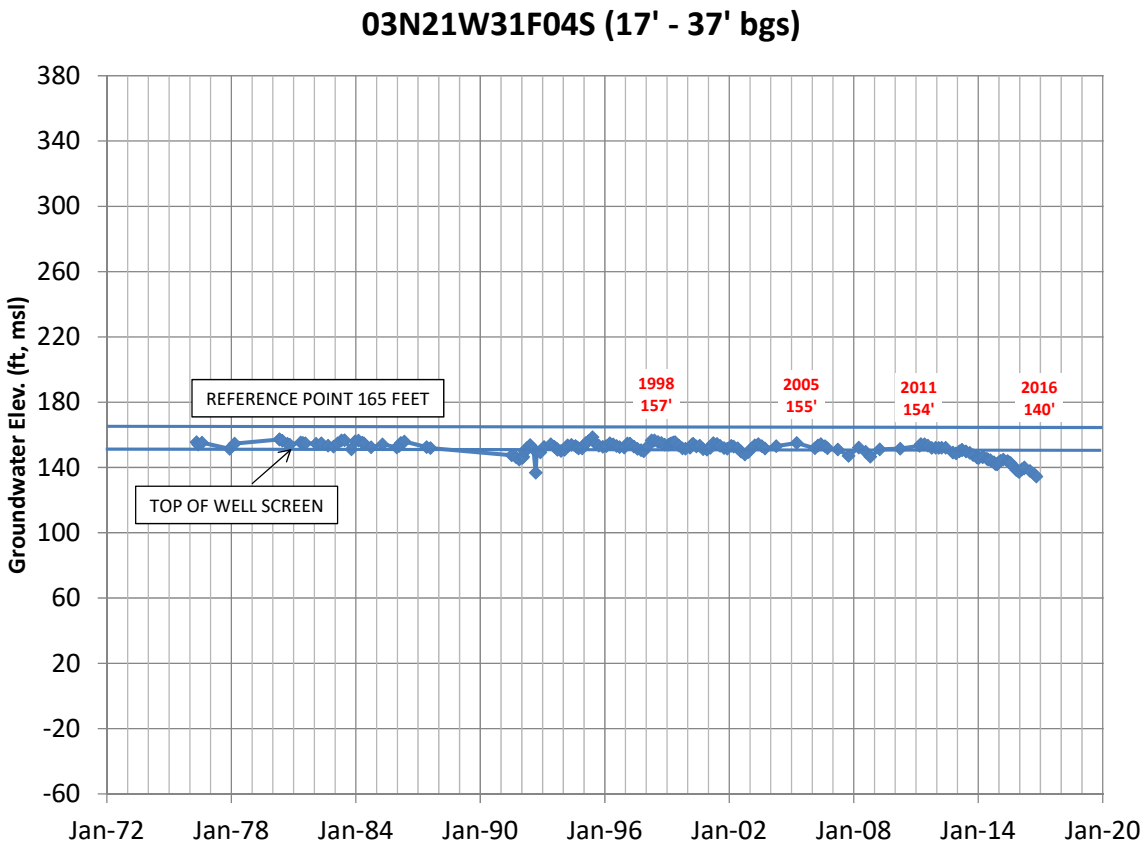


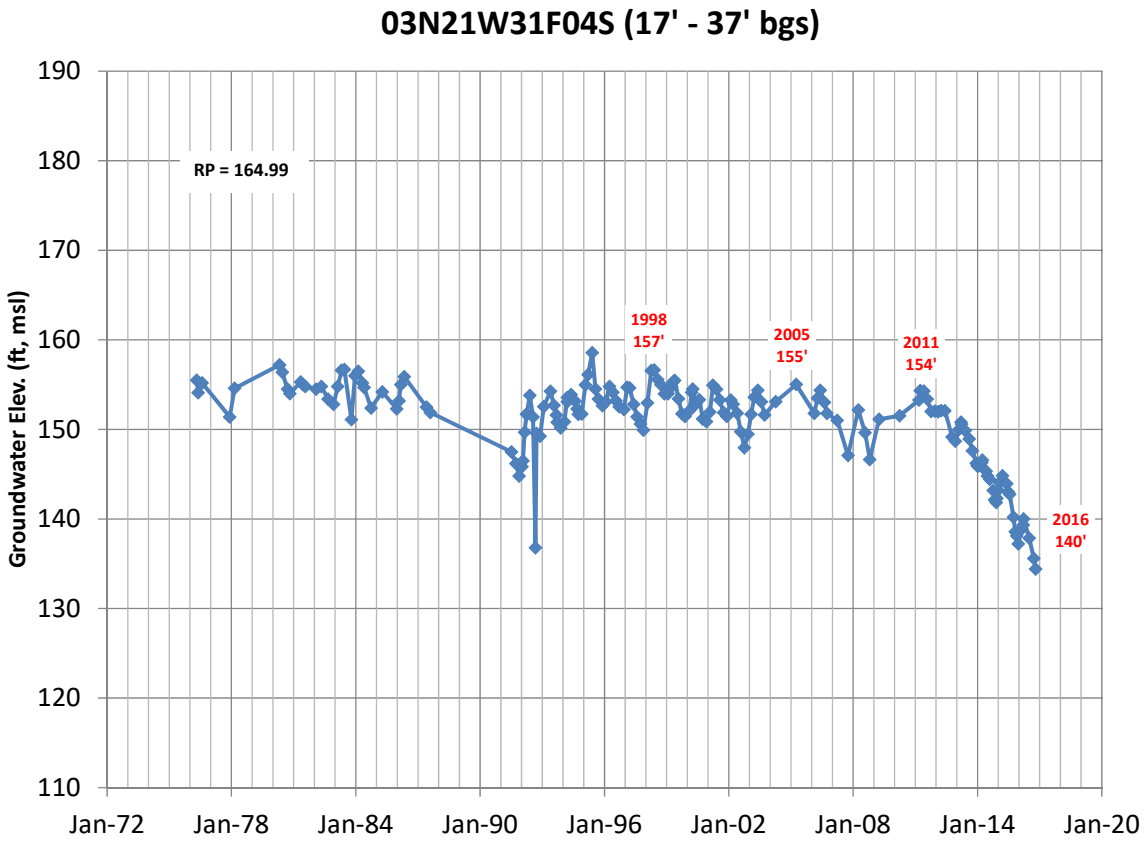

03N21W30E01S (160'- 240' bgs)
Groundwater Elev. (ft, msl)
380.00
340.00
300.00
260.00
220.00
180.00
140.00
100.00
60.00
20.00
-20.00
-60.00
REFERENCE POINT 234.5 FEET
TOP OF WELL SCREEN
BOTTOM OF WELL SCREEN
1998
183'
2005
168'
2011
172'
2016
146'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


03N21W30E01S (160'- 240' bgs)
Groundwater Elev. (ft, msl)
210.00
200.00
190.00
180.00
170.00
160.00
150.00
140.00
130.00
RP = 234.49
1998
183'
2005
168'
2011
172'
2016
146'
Jan-88
Jan-92
Jan-96
Jan-00
Jan-04
Jan-08
Jan-12
Jan-16
Jan-20


03N21W30F01S (260' - 424' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 221.2 FEET
TOP OF WELL SCREEN
1998
173'
2005
167'
2011
165'
2016
145'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20


03N21W30F01S (260' - 424' bgs)
Groundwater Elev. (ft, msl)
200
190
180
170
160
150
140
130
120
RP = 221.21
1998
173'
2005
167'
2011
165'
2016
145'
Jan-70
Jan-77
Jan-84
Jan-91
Jan-98
Jan-05
Jan-12
Jan-19


03N21W31F04S (17' - 37' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 165 FEET
TOP OF WELL SCREEN
1998
157'
2005
155'
2011
154'
2016
140'


03N21W31F04S (17' - 37' bgs)
Groundwater Elev. (ft, msl)
190
180
170
160
150
140
130
120
110
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
RP = 164.99
1998
157'
2005
155'
2011
154'
2016
140'

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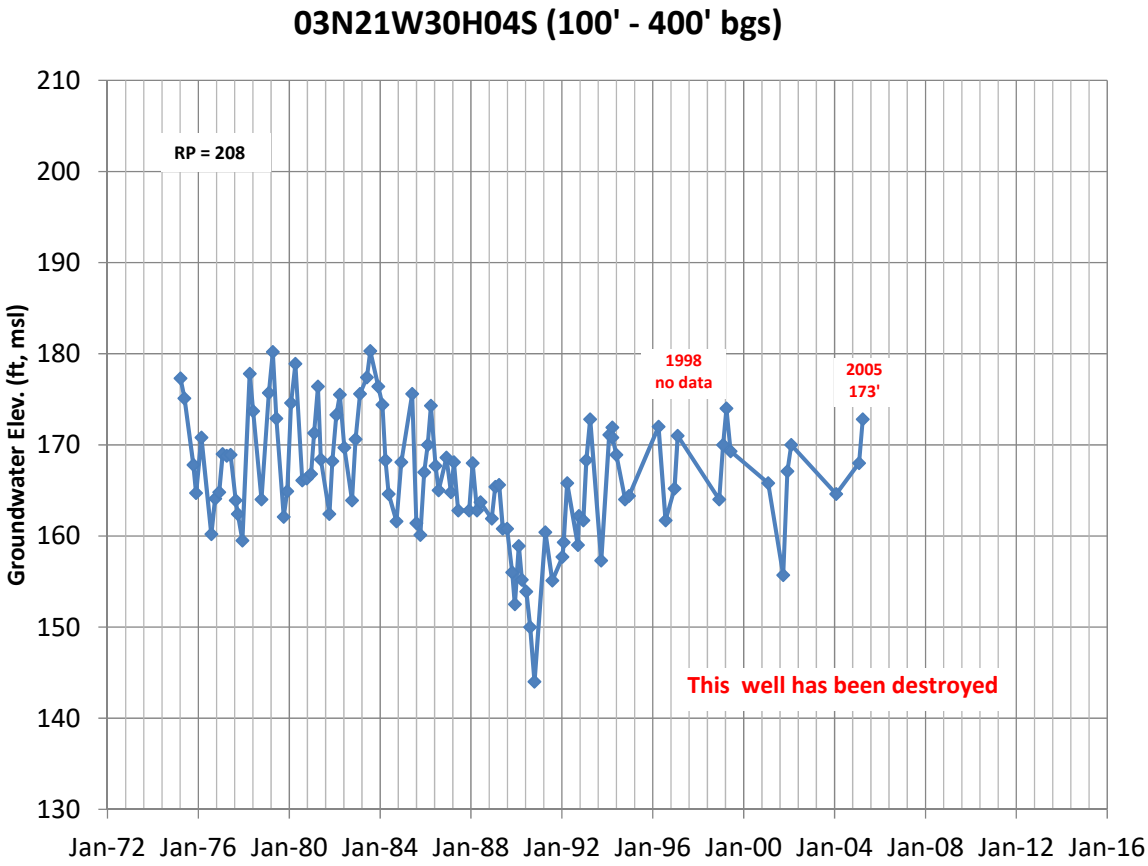

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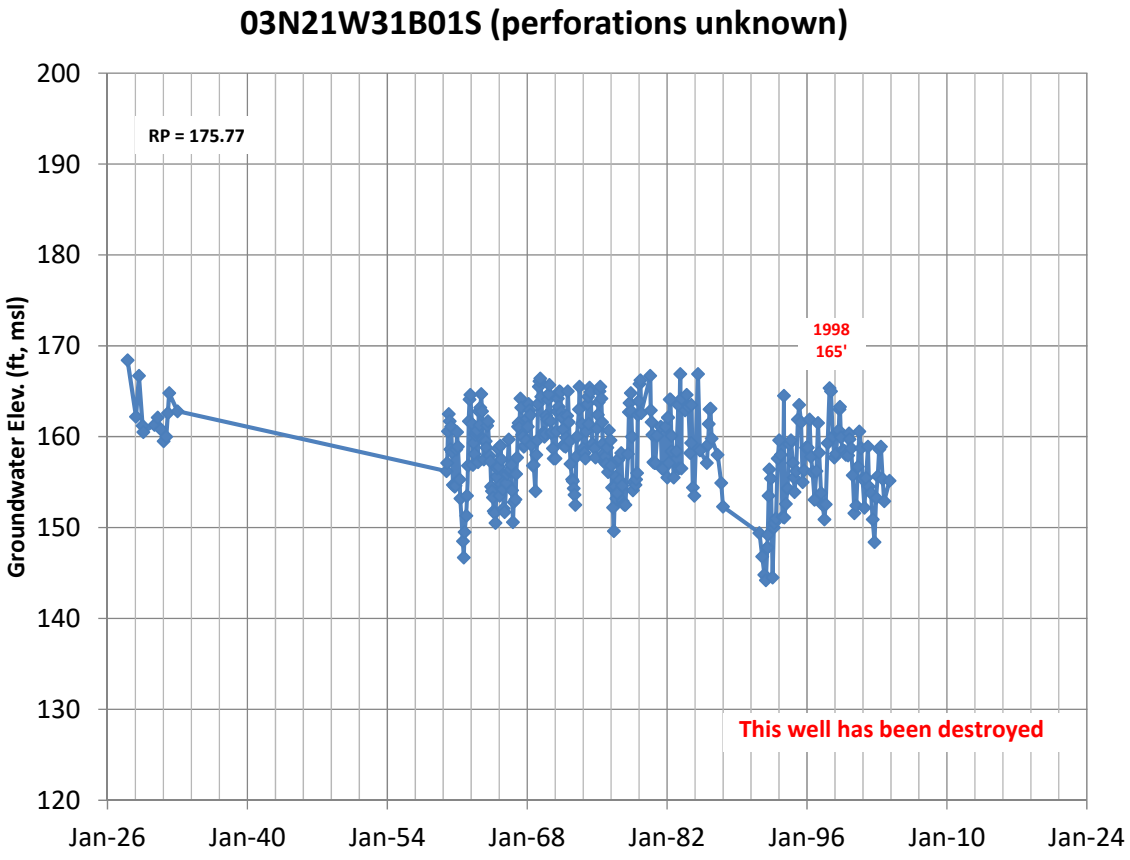
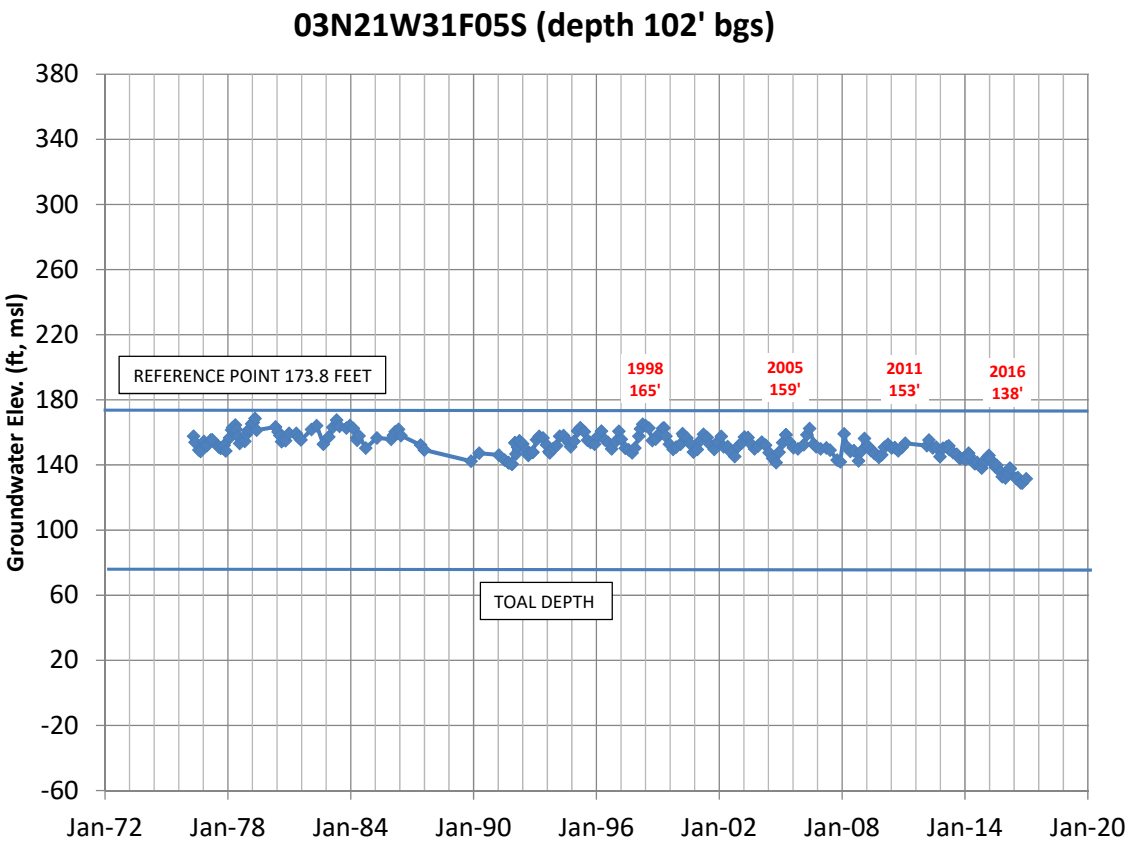
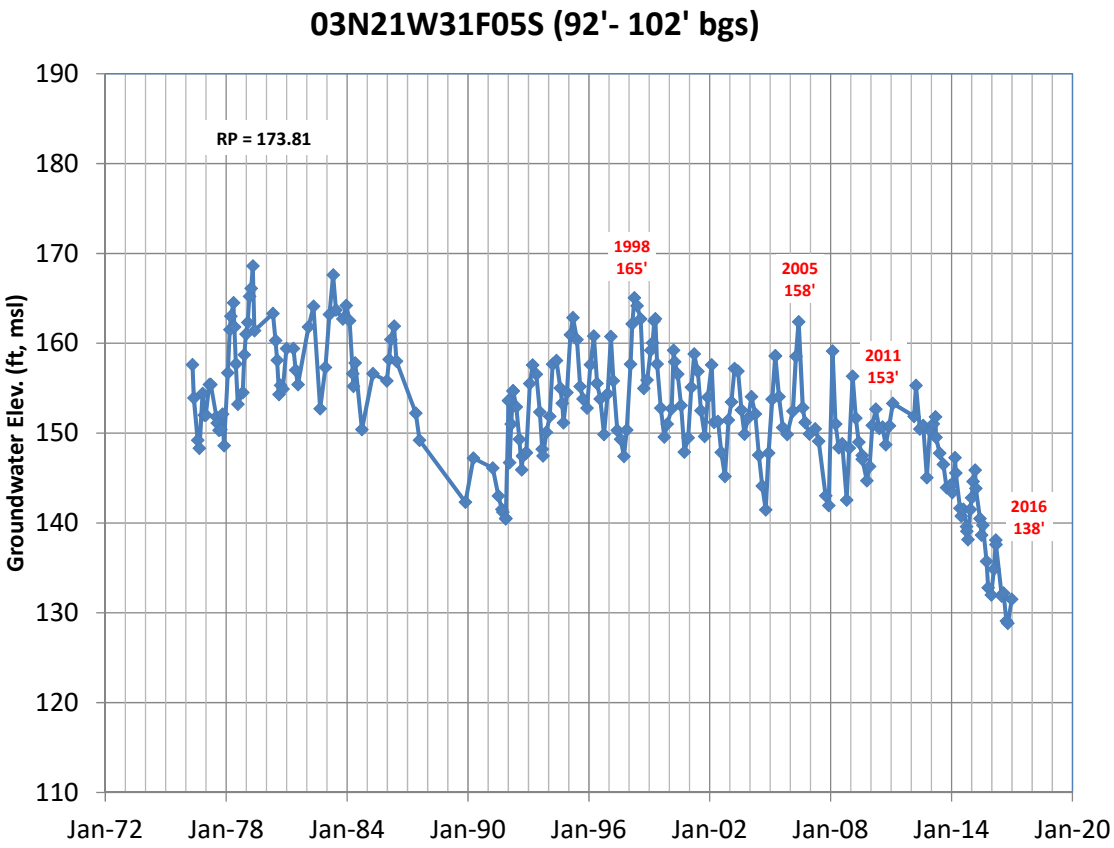
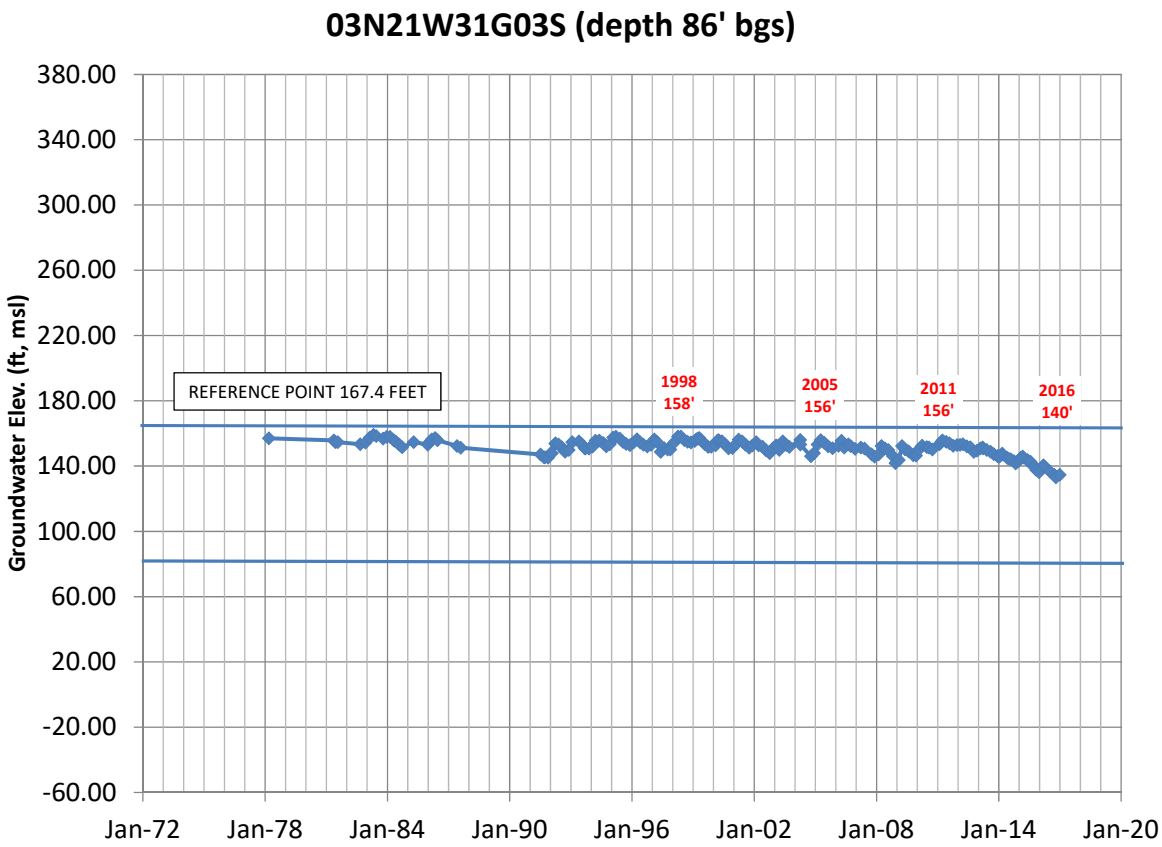
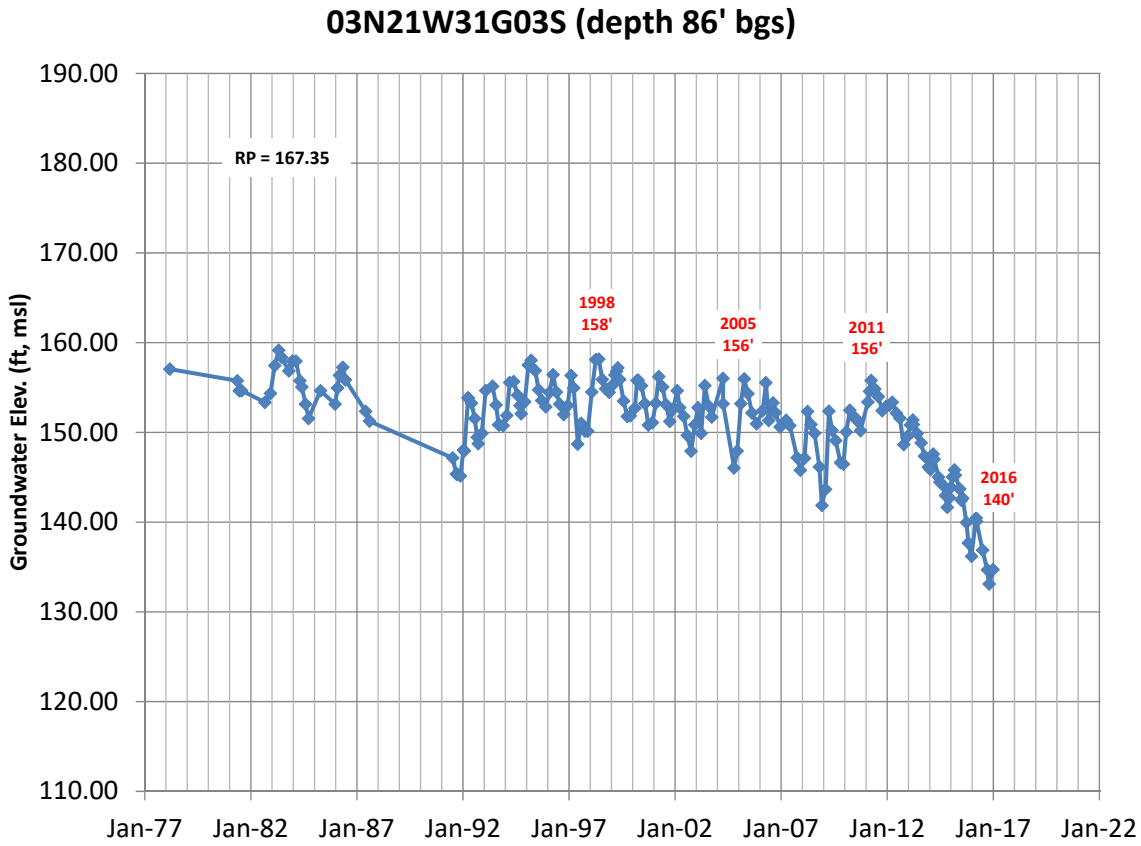


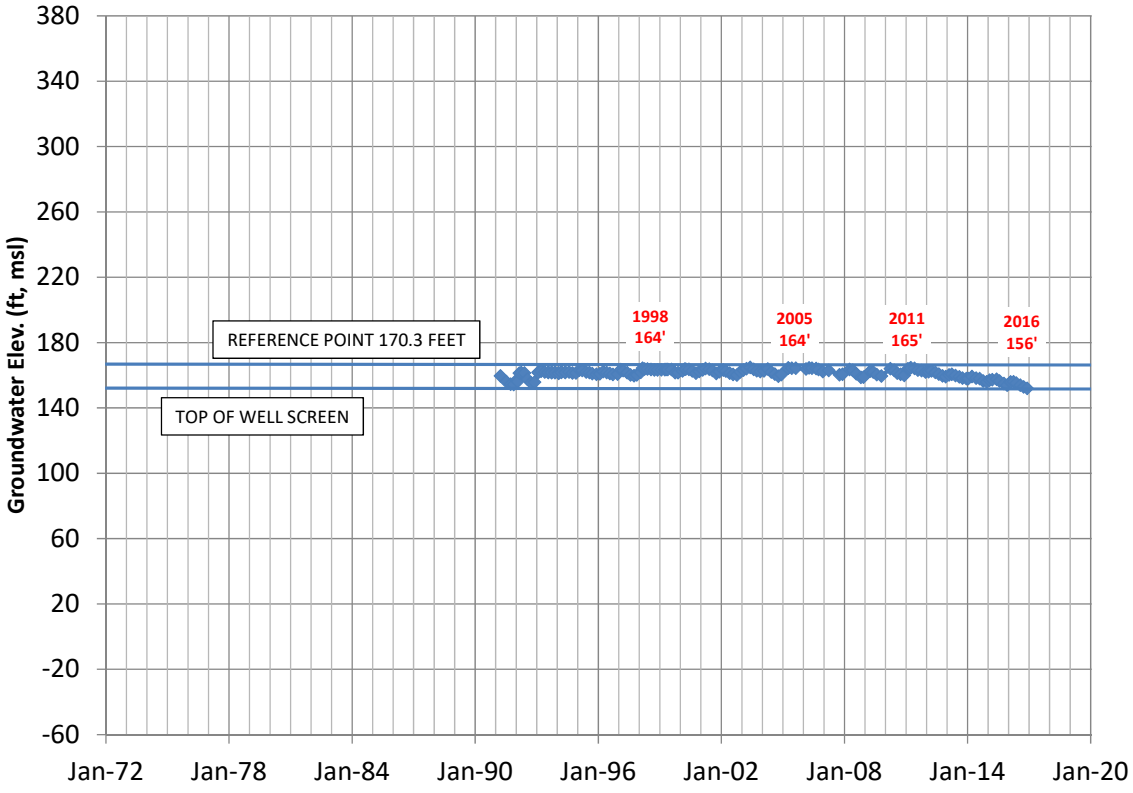

03N21W31F05S (depth 102' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 173.8 FEET
TOAL DEPTH
1998
165'
2005
159'
2011
153'
2016
138'


03N21W31F05S (92'- 102' bgs)
Groundwater Elev. (ft, msl)
190
180
170
160
150
140
130
120
110
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
RP = 173.81
1998
165'
2005
158'
2011
153'
2016
138'

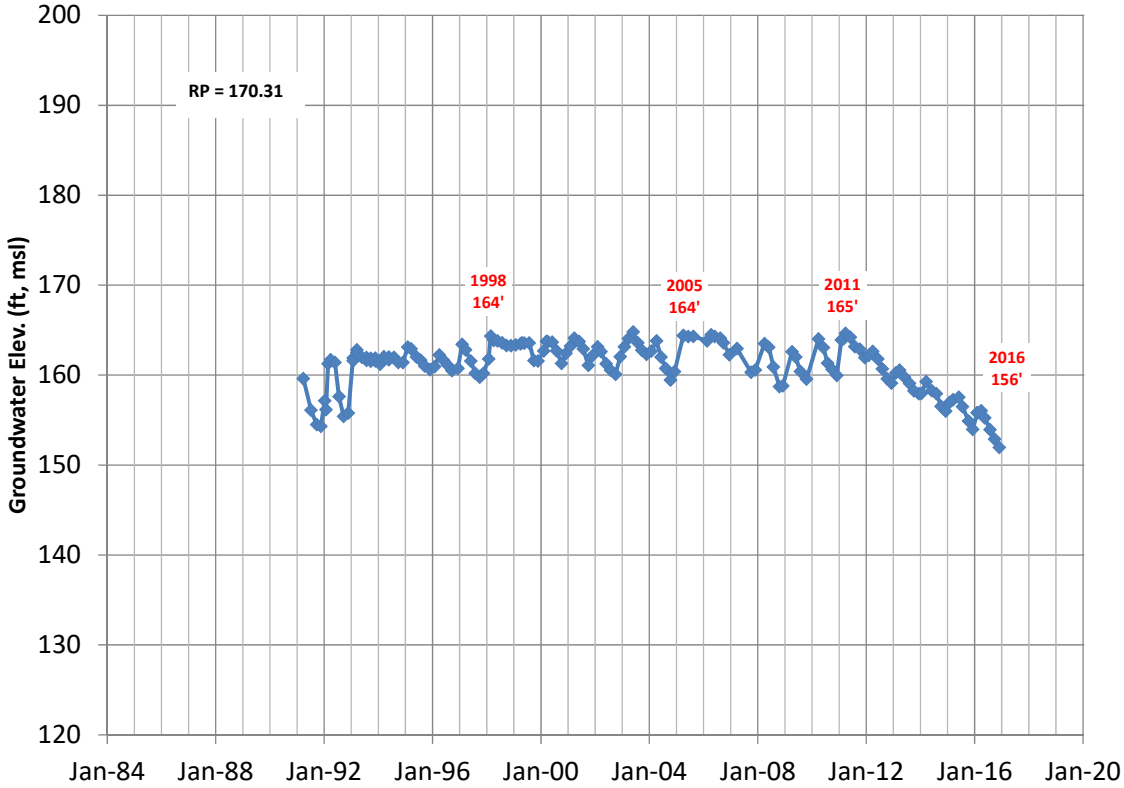

03N21W31G03S (depth 86' bgs)
Groundwater Elev. (ft, msl)
380.00
340.00
300.00
260.00
220.00
180.00
140.00
100.00
60.00
20.00
-20.00
-60.00
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 167.4 FEET
1998
158'
2005
156'
2011
156'
2016
140'


03N21W31G03S (depth 86' bgs)
Groundwater Elev. (ft, msl)
190.00
180.00
170.00
160.00
150.00
140.00
130.00
120.00
110.00
Jan-77
Jan-82
Jan-87
Jan-92
Jan-97
Jan-02
Jan-07
Jan-12
Jan-17
Jan-22
RP = 167.35
1998
158'
2005
156'
2011
156'
2016
140'

03N21W32C01S (12' - 32' bgs)



03N21W32C01S (12' - 32' bgs)



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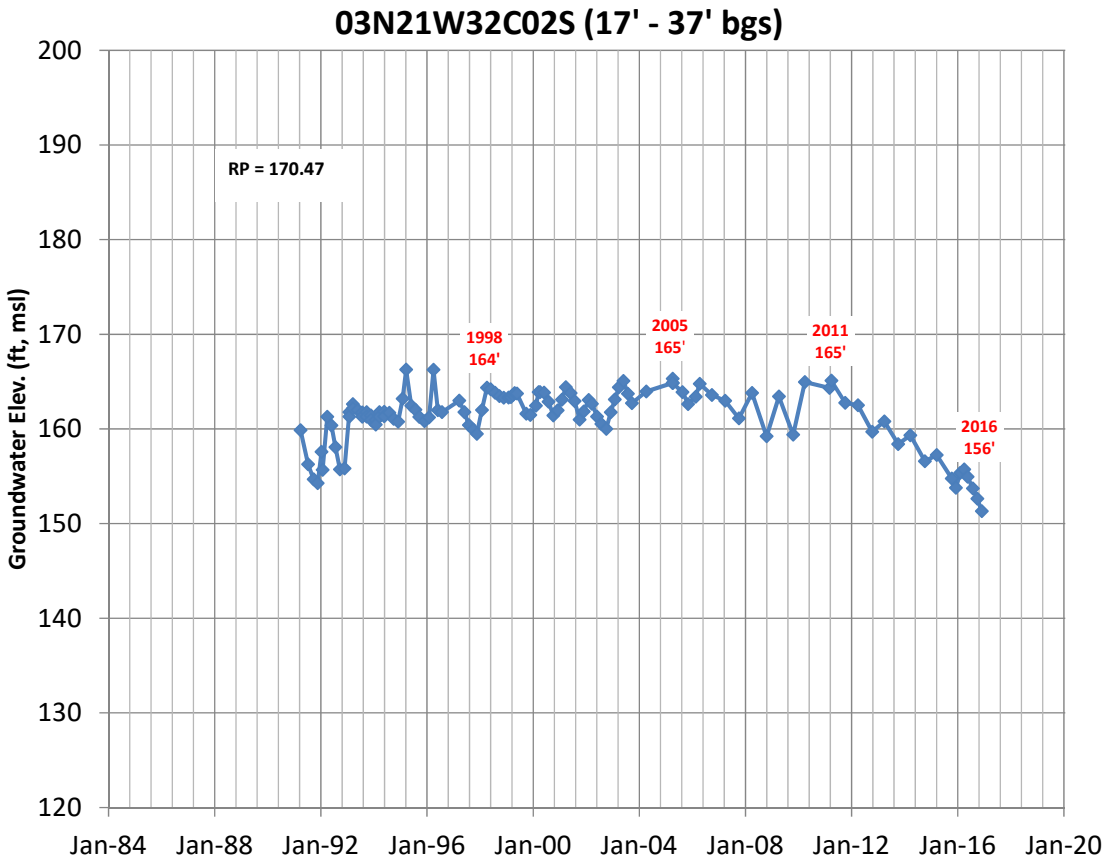

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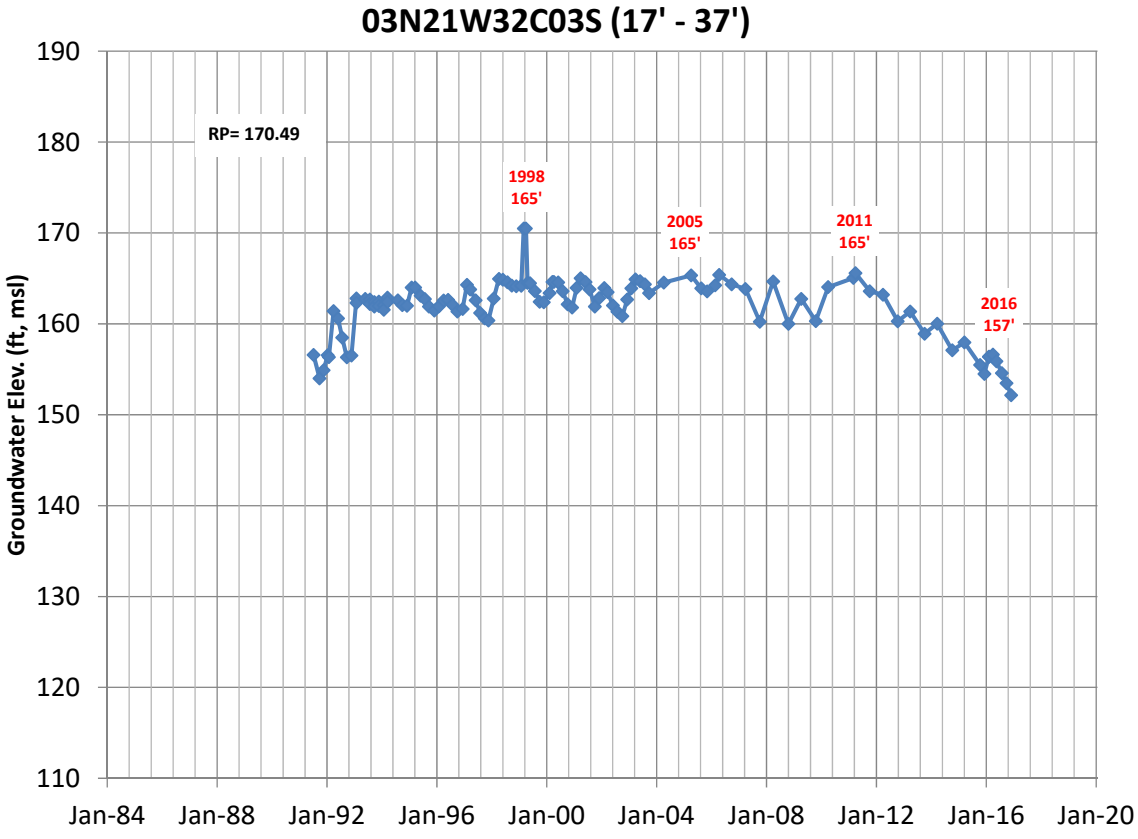

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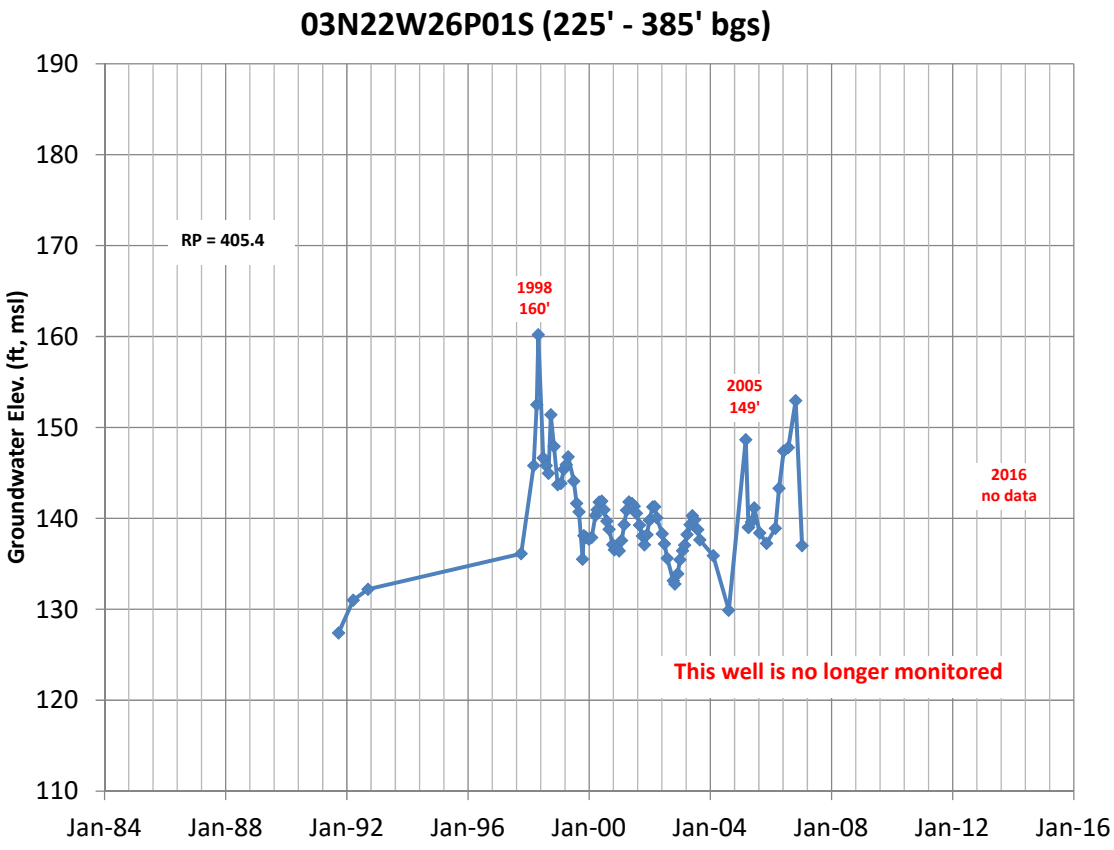
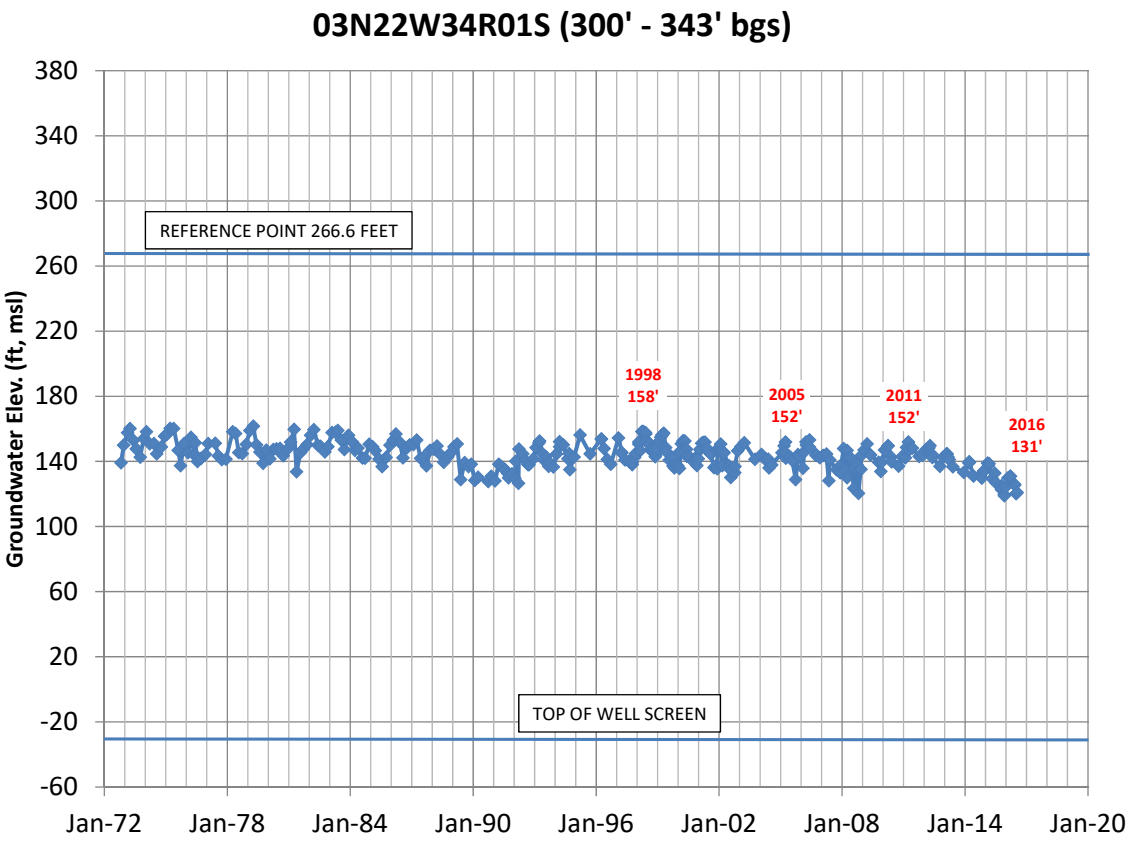
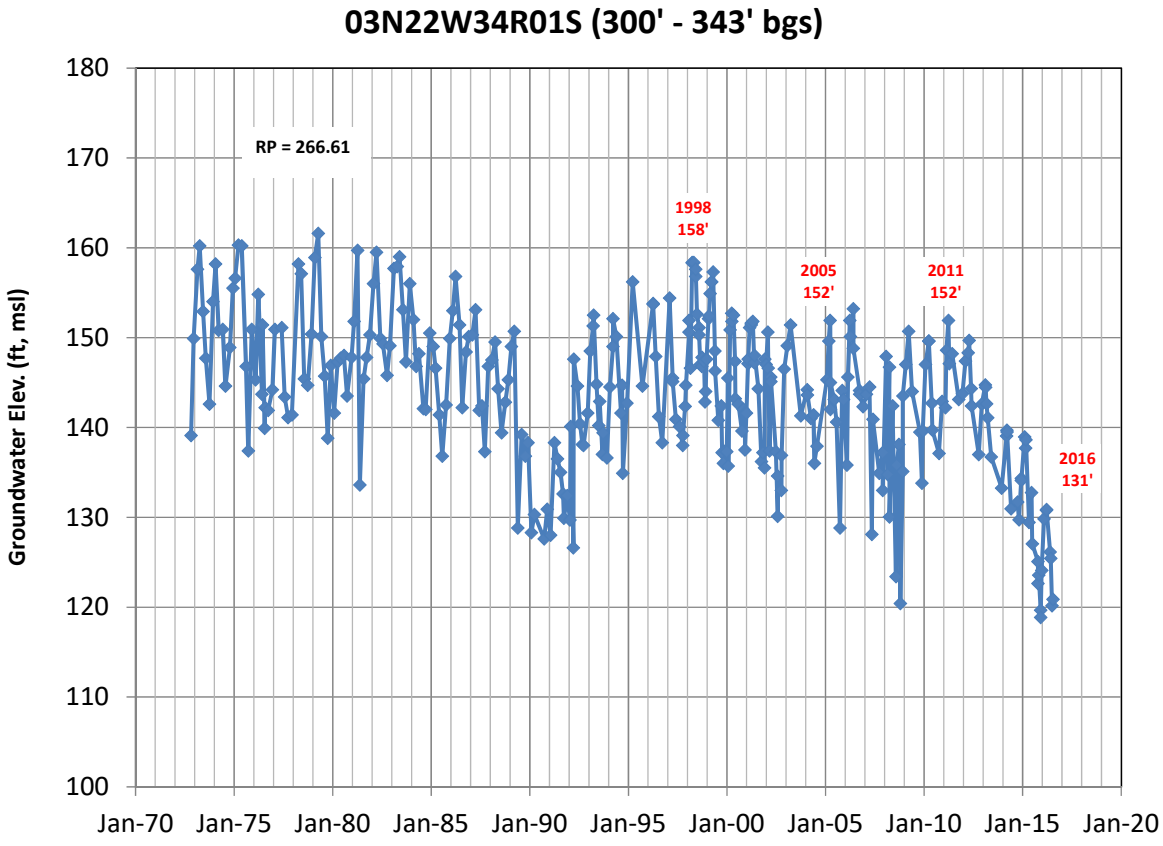
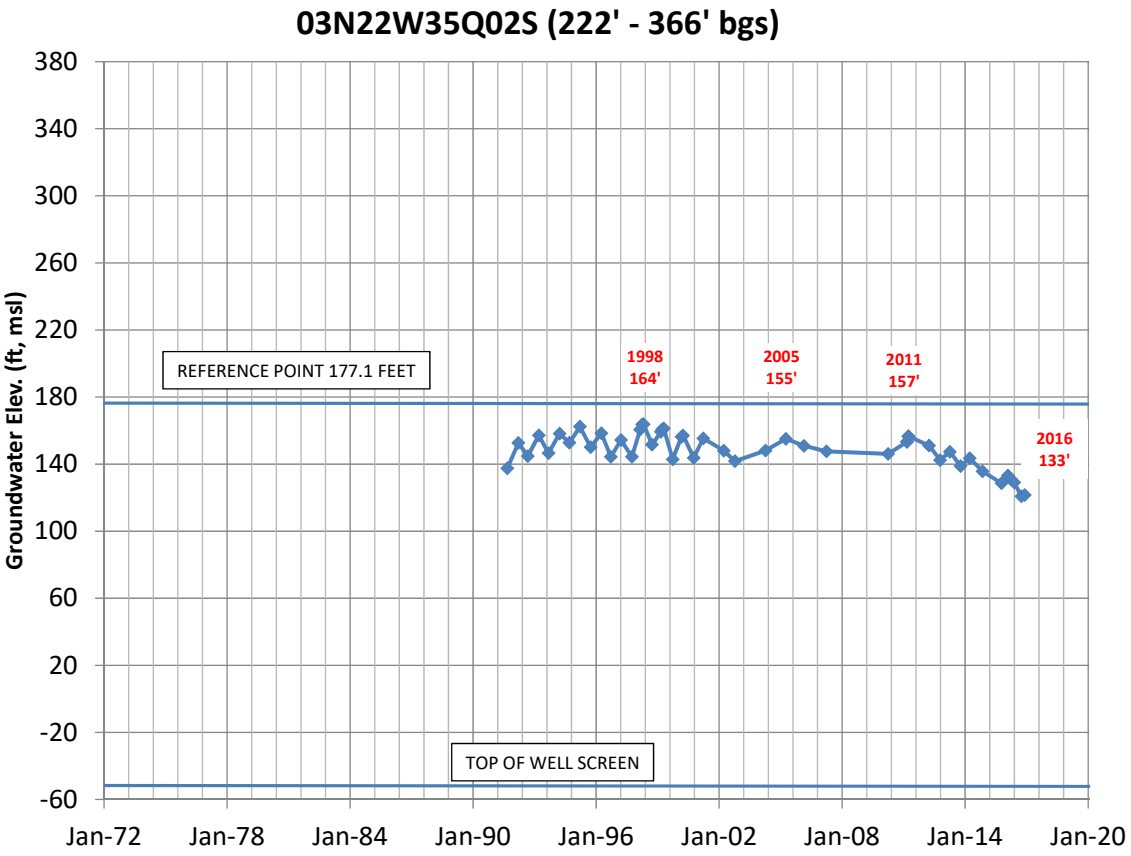
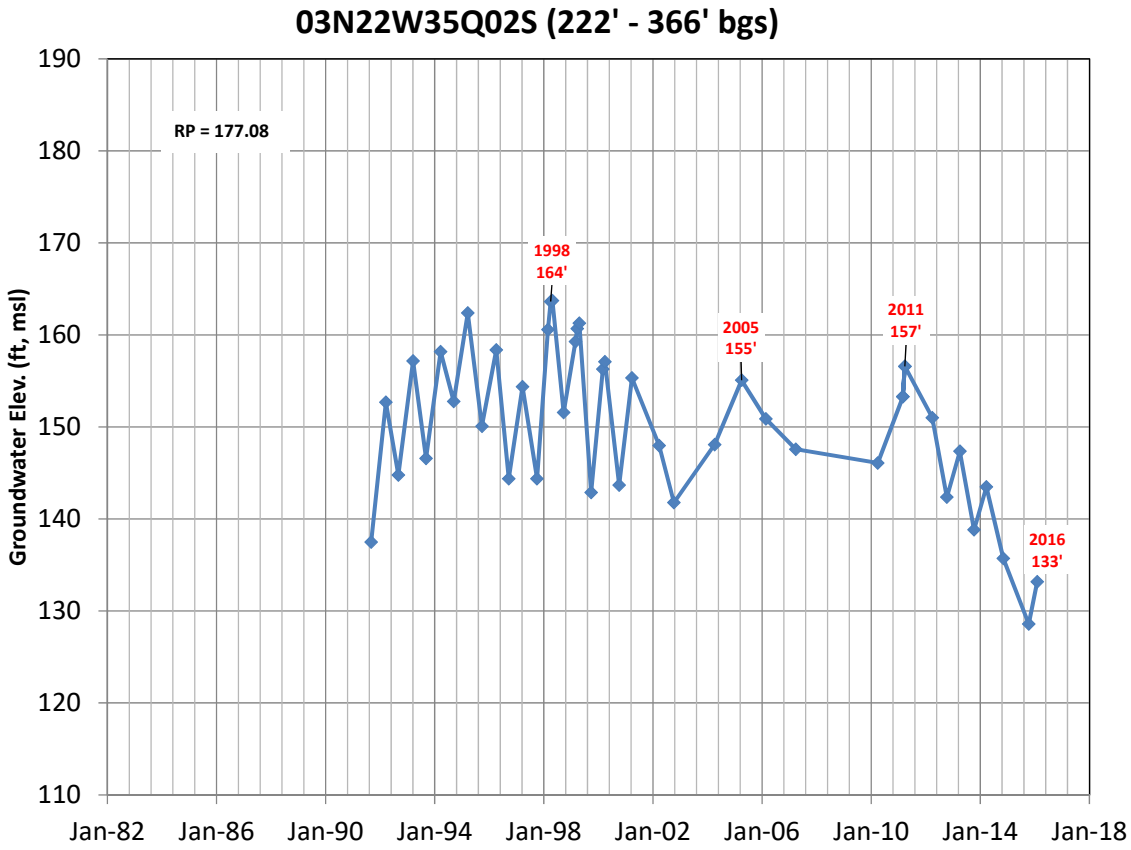
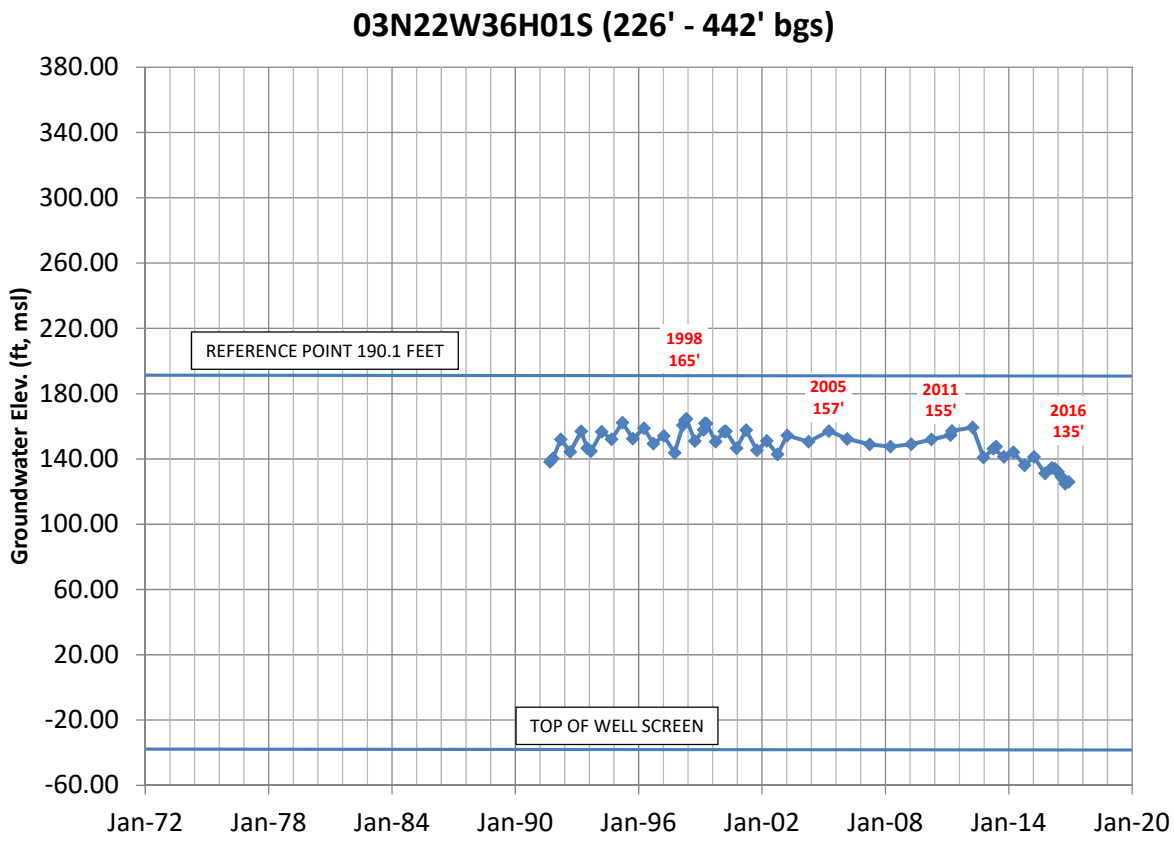


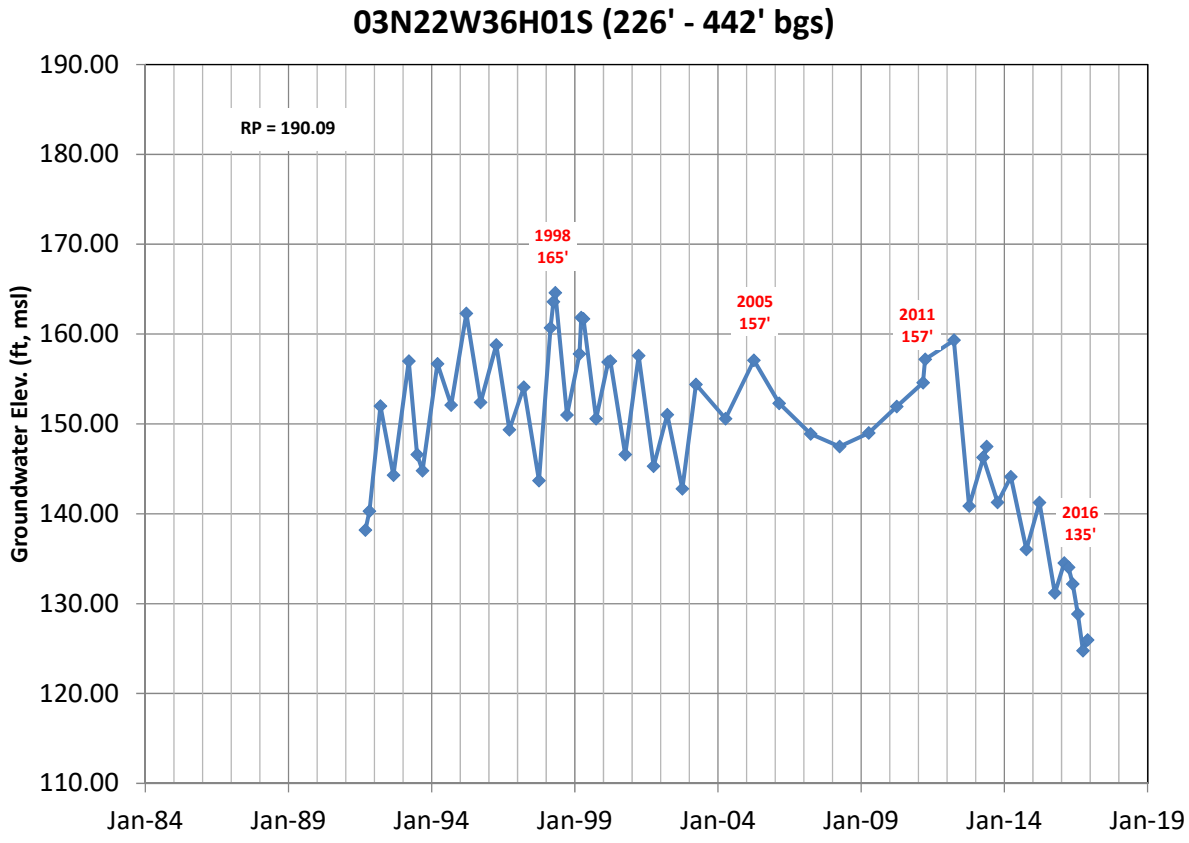

03N22W34R01S (300' - 343' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 266.6 FEET
TOP OF WELL SCREEN
1998
158'
2005
152'
2011
152'
2016
131'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

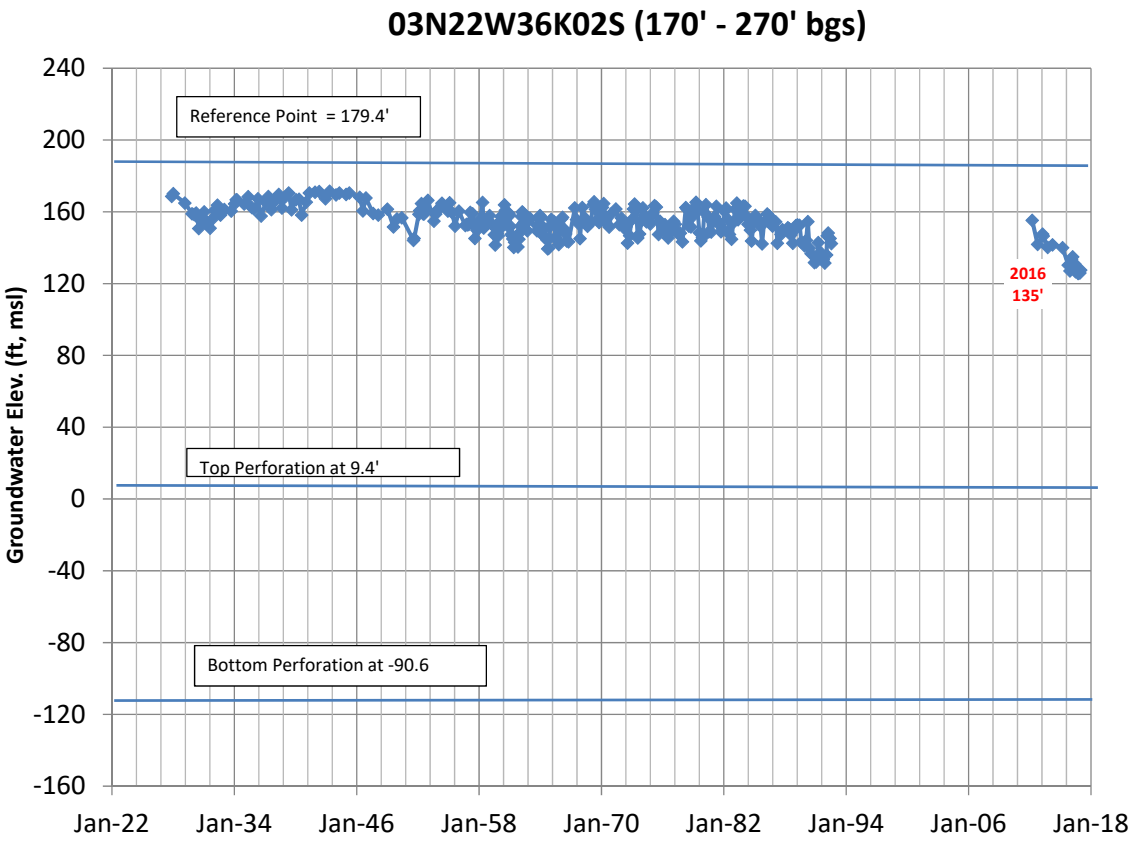

03N22W34R01S (300' - 343' bgs)
Groundwater Elev. (ft, msl)
180
170
160
150
140
130
120
110
100
RP = 266.61
1998
158'
2005
152'
2011
152'
2016
131'
Jan-70
Jan-75
Jan-80
Jan-85
Jan-90
Jan-95
Jan-00
Jan-05
Jan-10
Jan-15
Jan-20

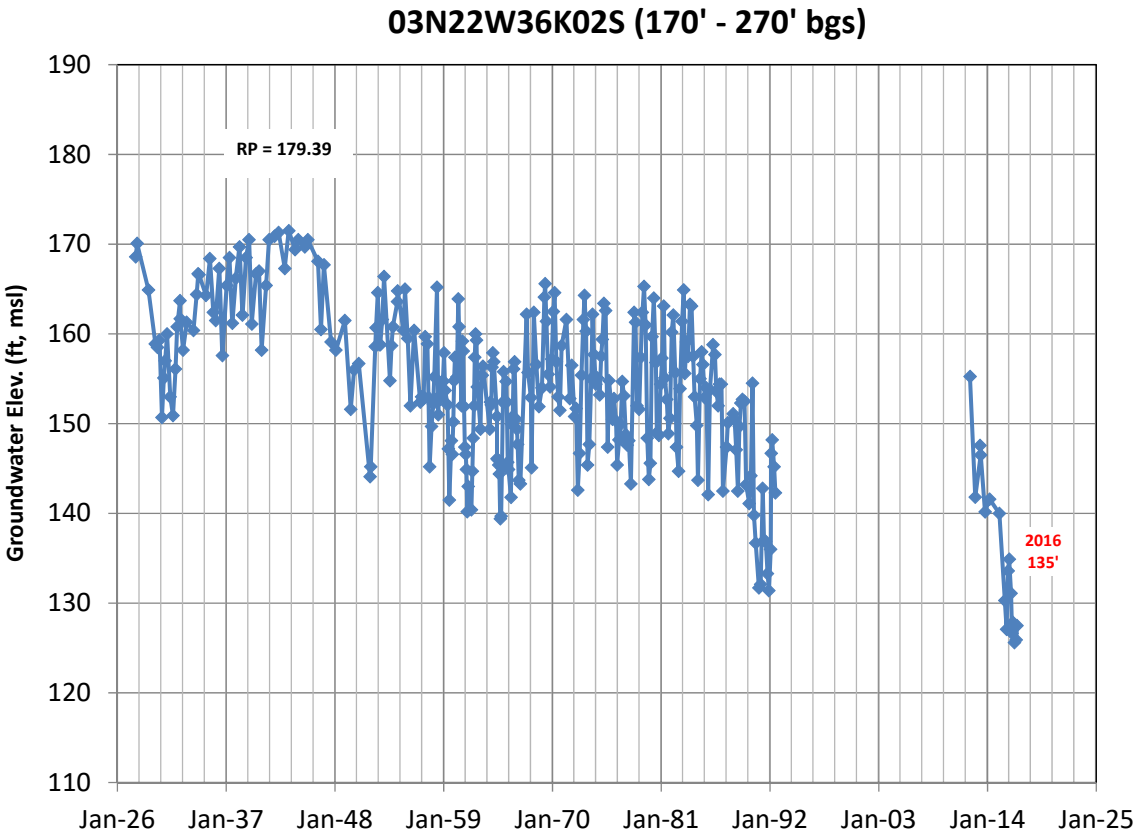

03N22W35Q02S (222' - 366' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
REFERENCE POINT 177.1 FEET
TOP OF WELL SCREEN
1998
164'
2005
155'
2011
157'
2016
133'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

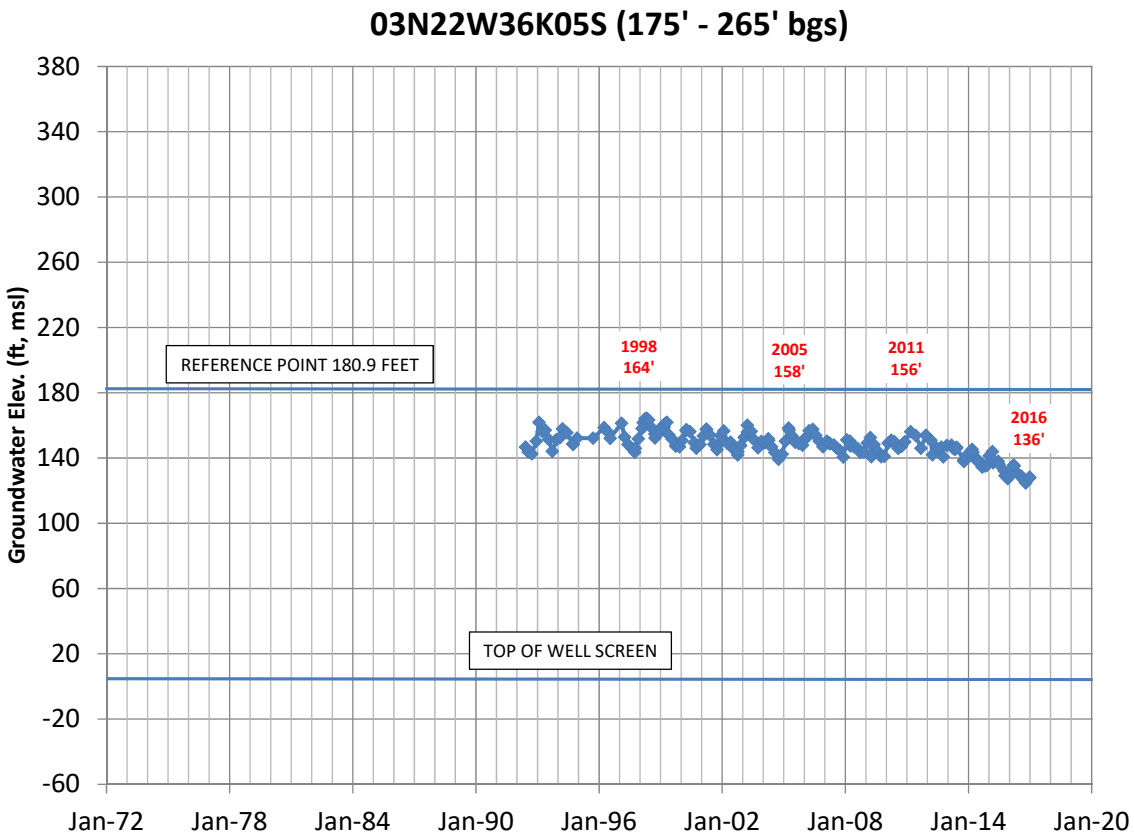

03N22W35Q02S (222' - 366' bgs)
Groundwater Elev. (ft, msl)
190
180
170
160
150
140
130
120
110
RP = 177.08
1998
164'
2005
155'
2011
157'
2016
133'
Jan-82
Jan-86
Jan-90
Jan-94
Jan-98
Jan-02
Jan-06
Jan-10
Jan-14
Jan-18

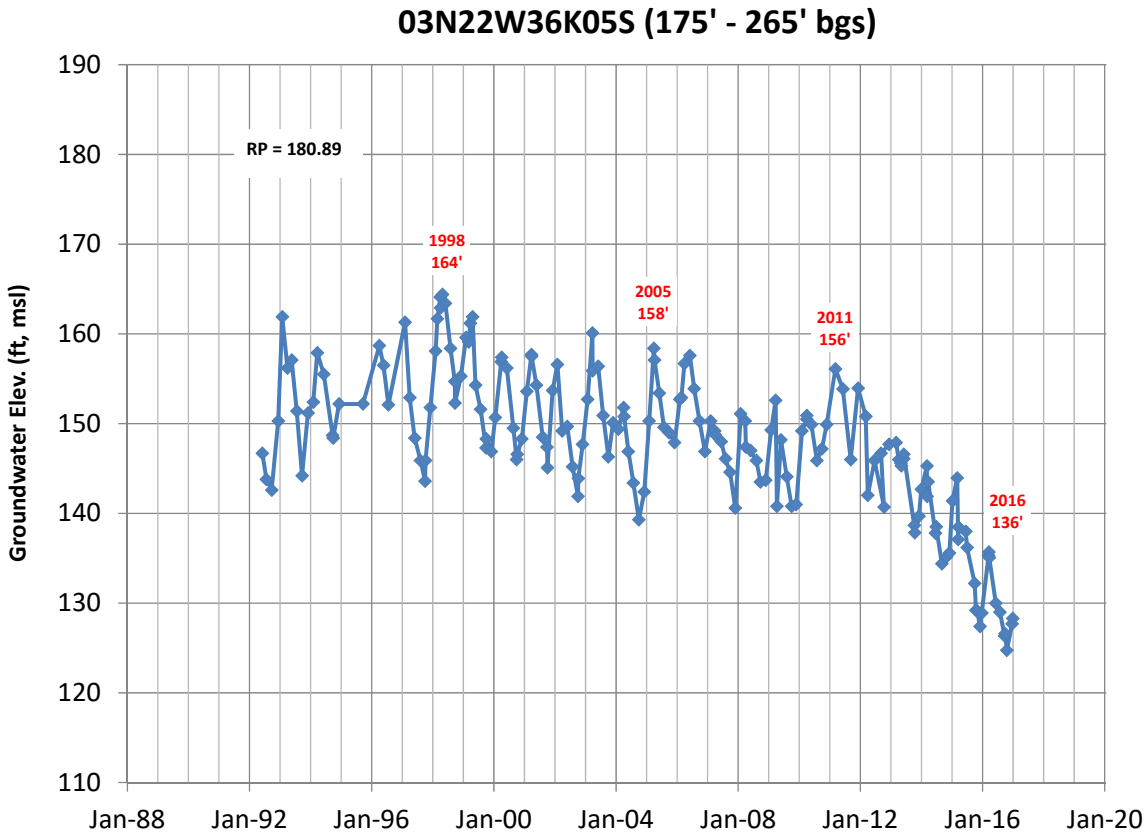

03N22W36H01S (226' - 442' bgs)
Groundwater Elev. (ft, msl)
380.00
340.00
300.00
260.00
220.00
180.00
140.00
100.00
60.00
20.00
-20.00
-60.00
REFERENCE POINT 190.1 FEET
TOP OF WELL SCREEN
1998
165'
2005
157'
2011
155'
2016
135'
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20

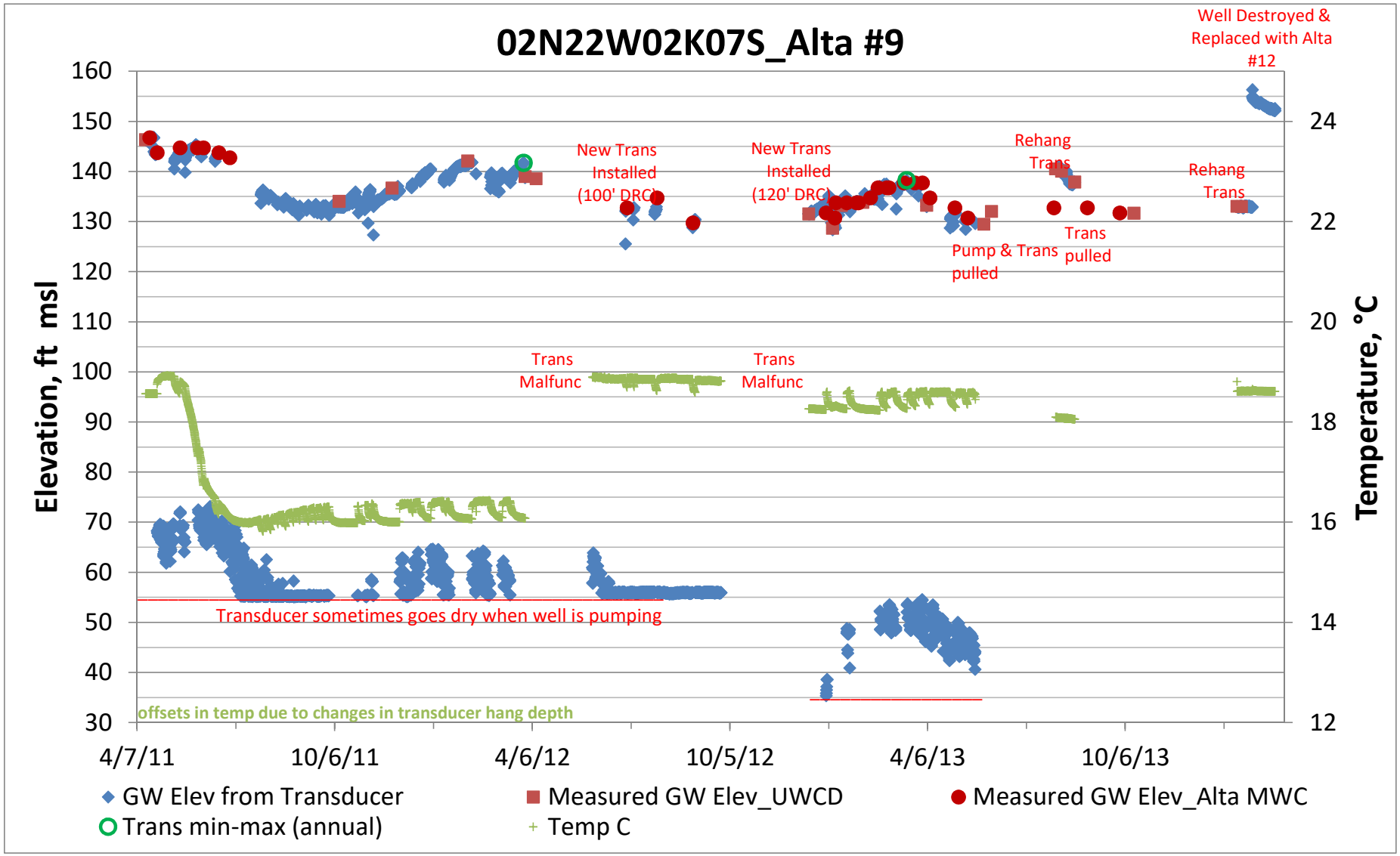

03N22W36H01S (226' - 442' bgs)
Groundwater Elev. (ft, msl)
190.00
180.00
170.00
160.00
150.00
140.00
130.00
120.00
110.00
RP = 190.09
1998
165'
2005
157'
2011
157'
2016
135'
Jan-84
Jan-89
Jan-94
Jan-99
Jan-04
Jan-09
Jan-14
Jan-19

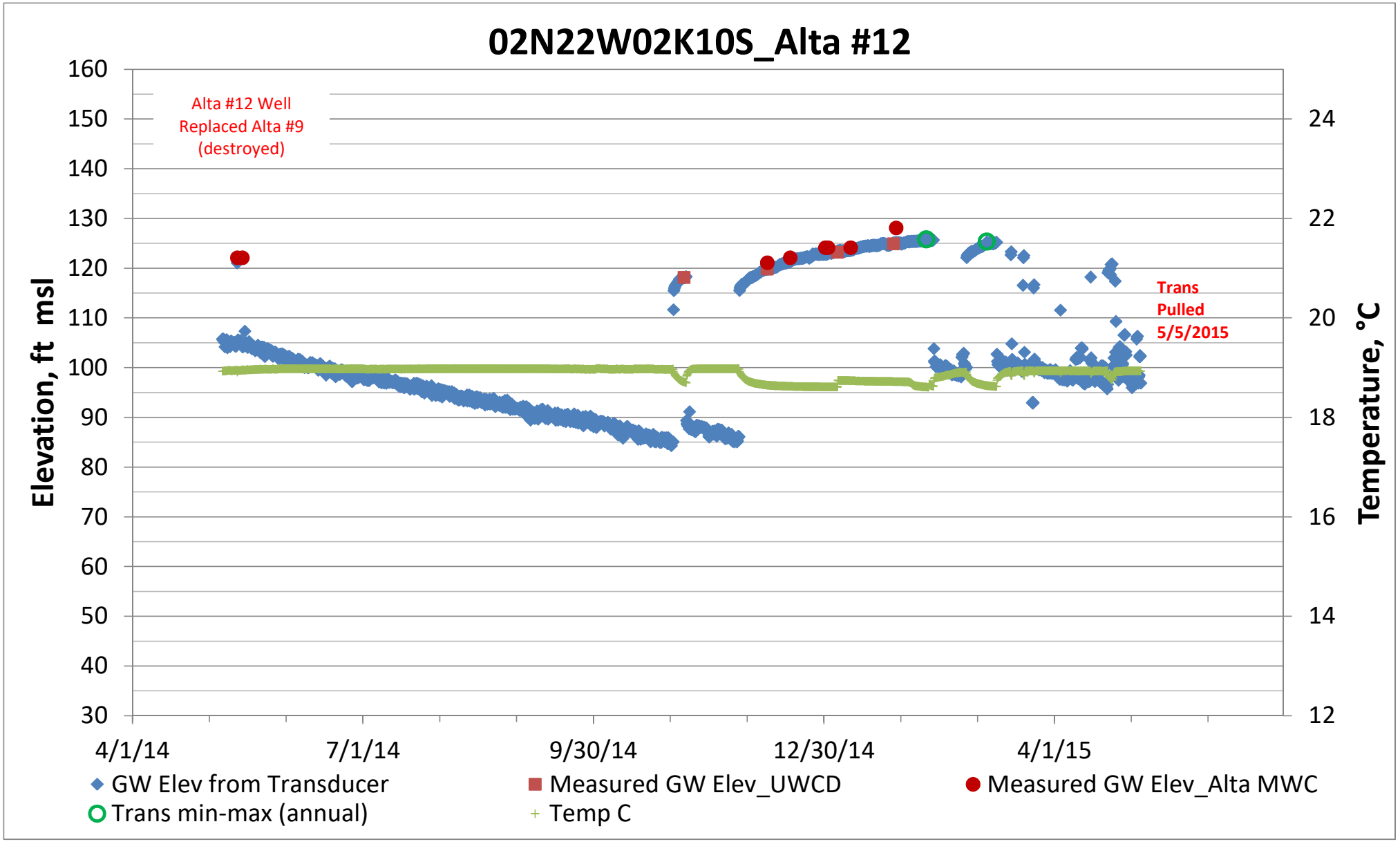

03N22W36K02S (170' - 270' bgs)
Groundwater Elev. (ft, msl)
240
200
160
120
80
40
0
-40
-80
-120
-160
Reference Point = 179.4'
Top Perforation at 9.4'
Bottom Perforation at -90.6
2016
135'
Jan-22
Jan-34
Jan-46
Jan-58
Jan-70
Jan-82
Jan-94
Jan-06
Jan-18

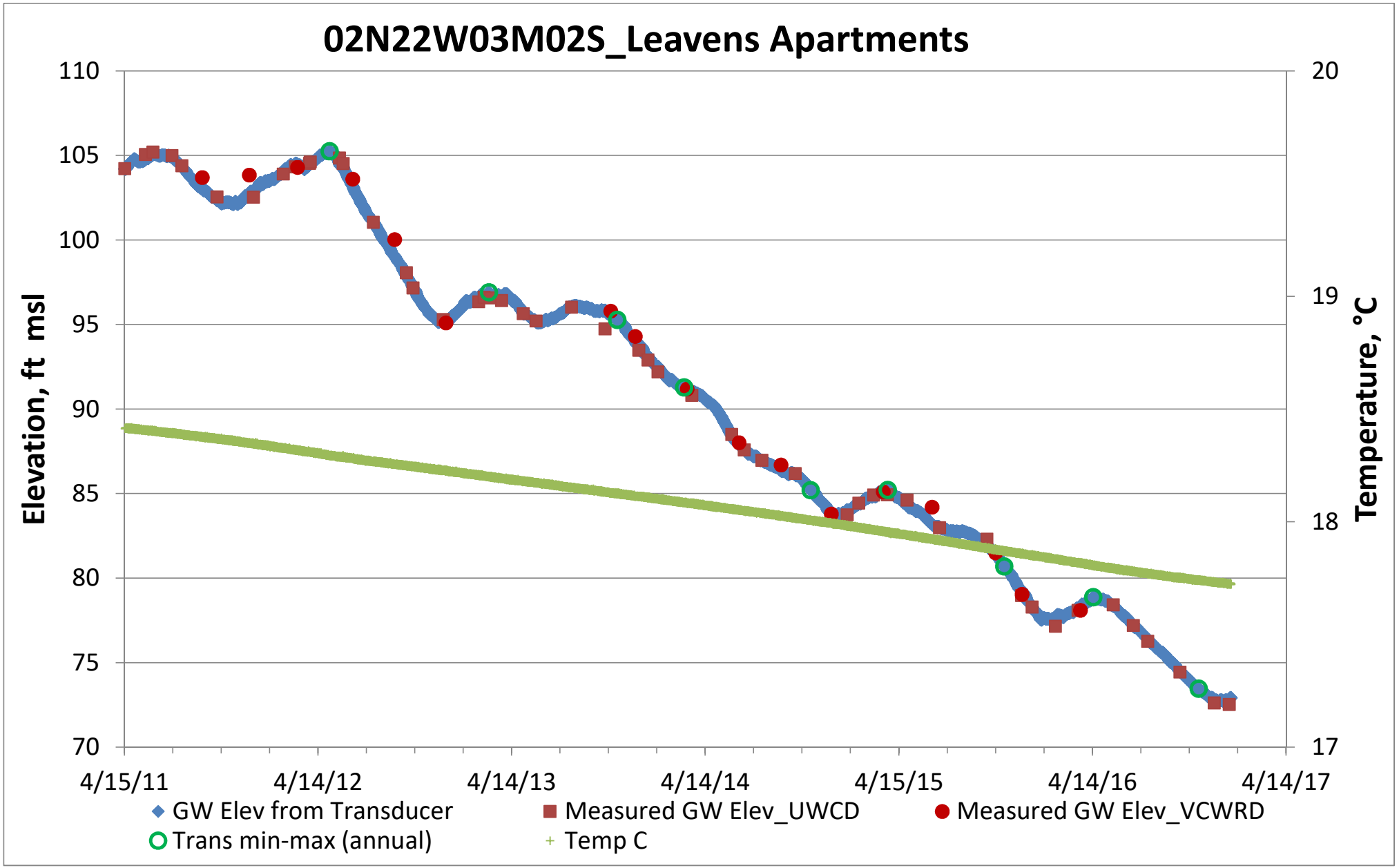

03N22W36K02S (170' - 270' bgs)
Groundwater Elev. (ft, msl)
190
180
170
160
150
140
130
120
110
RP = 179.39
2016
135'
Jan-26
Jan-37
Jan-48
Jan-59
Jan-70
Jan-81
Jan-92
Jan-03
Jan-14
Jan-25

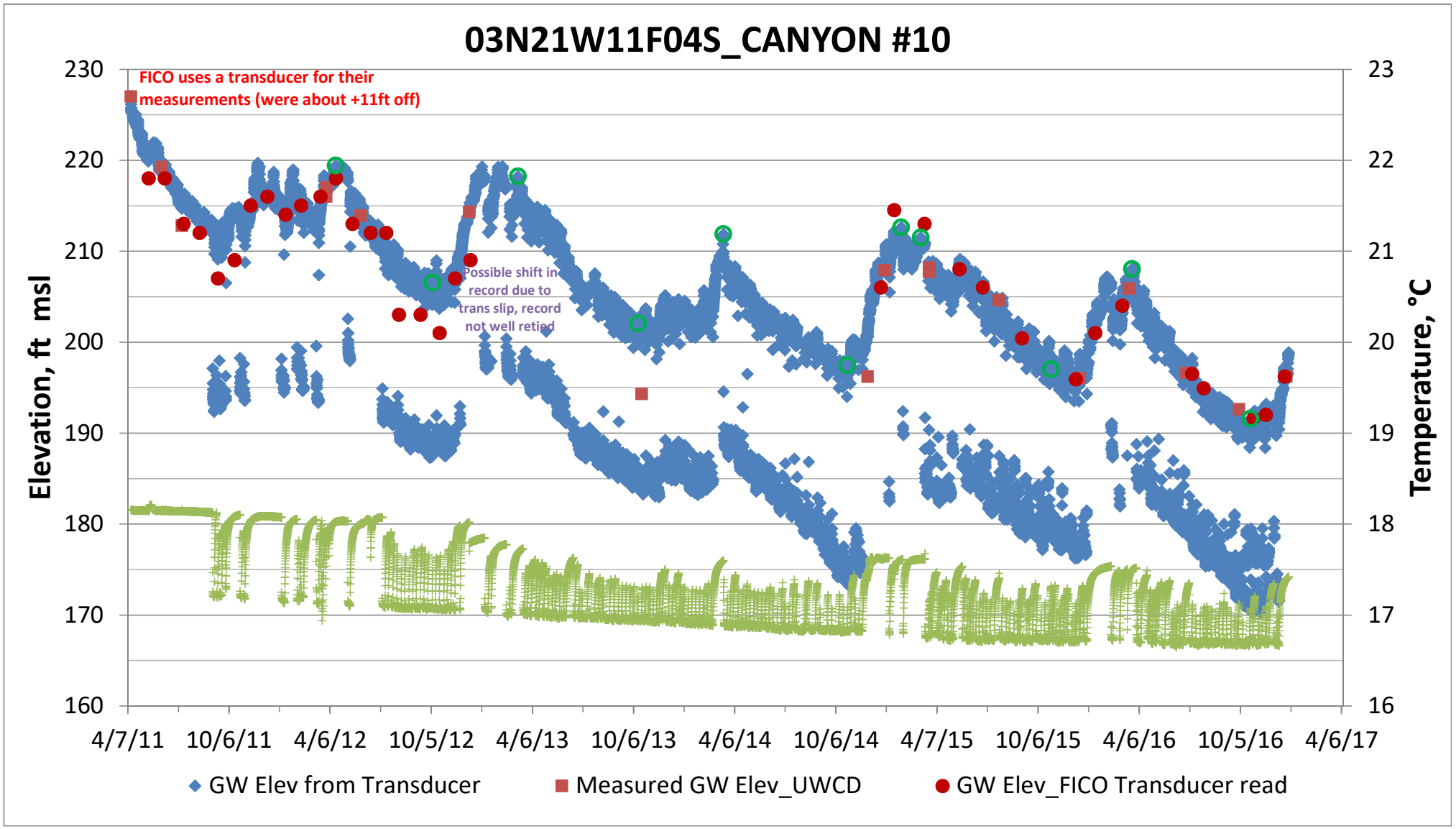

03N22W36K05S (175' - 265' bgs)
Groundwater Elev. (ft, msl)
380
340
300
260
220
180
140
100
60
20
-20
-60
Jan-72
Jan-78
Jan-84
Jan-90
Jan-96
Jan-02
Jan-08
Jan-14
Jan-20
REFERENCE POINT 180.9 FEET
TOP OF WELL SCREEN
1998
164'
2005
158'
2011
156'
2016
136'

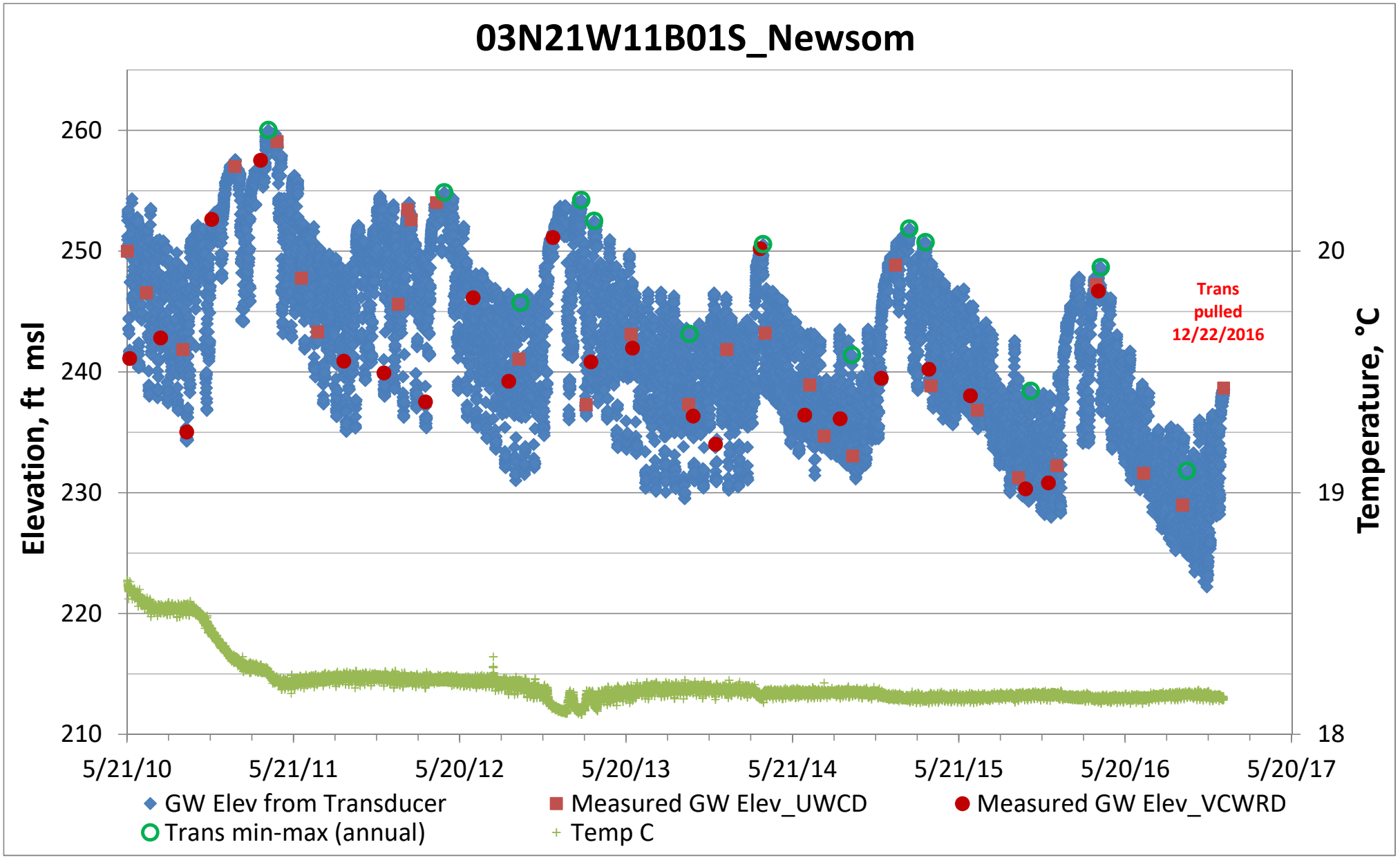

03N22W36K05S (175' - 265' bgs)
Groundwater Elev. (ft, msl)
190
180
170
160
150
140
130
120
110
Jan-88
Jan-92
Jan-96
Jan-00
Jan-04
Jan-08
Jan-12
Jan-16
Jan-20
RP = 180.89
1998
164'
2005
158'
2011
156'
2016
136'

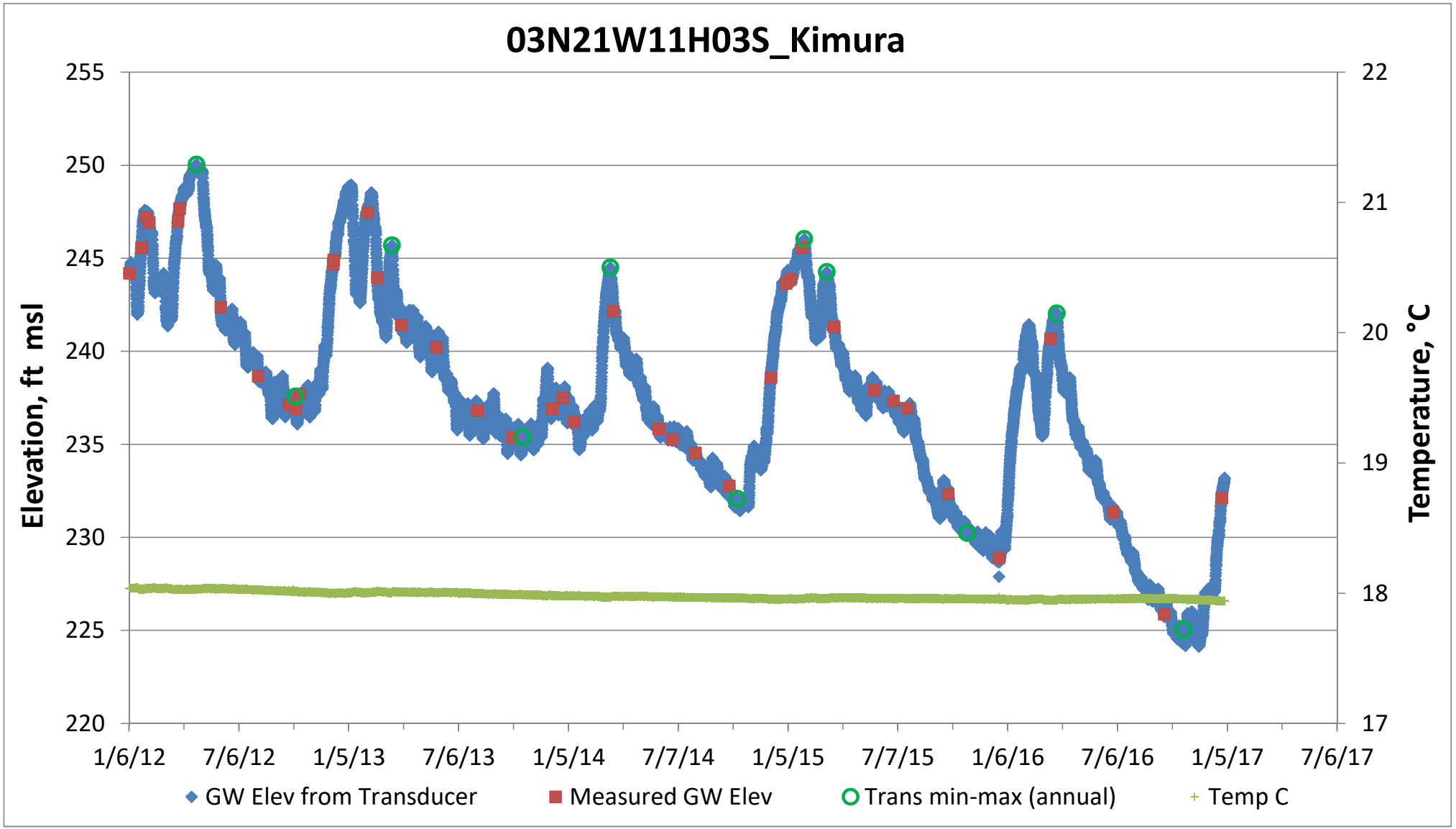

02N22W02K07S_Alta #9
Well Destroyed & Replaced with Alta #12
New Trans Installed (100' DRC)
New Trans Installed (120' DRC)
Rehang Trans
Rehang Trans
Pump & Trans pulled
Trans pulled
Trans Malfunc
Trans Malfunc
Transducer sometimes goes dry when well is pumping
offsets in temp due to changes in transducer hang depth
Elevation, ft msl
Temperature, °C
160
150
140
130
120
110
100
90
80
70
60
50
40
30
24
22
20
18
16
14
12
4/7/11
10/6/11
4/6/12
10/5/12
4/6/13
10/6/13
GW Elev from Transducer
Measured GW Elev_UWCD
Measured GW Elev_Alta MWC
Trans min-max (annual)
Temp C

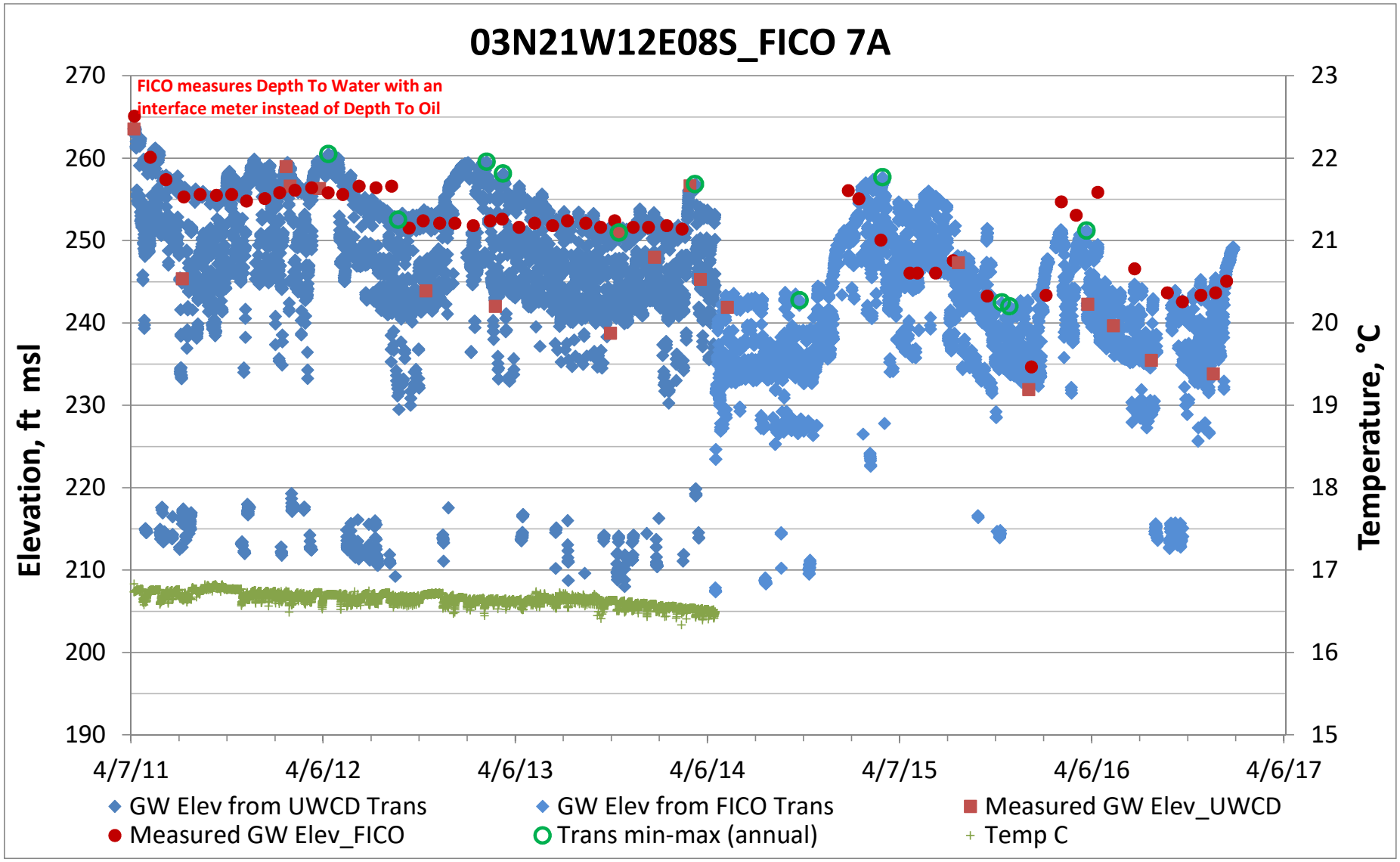

02N22W02K10S_Alta #12
Alta #12 Well
Replaced Alta #9
(destroyed)
Trans
Pulled
5/5/2015
Elevation, ft msl
Temperature, °C
160
150
140
130
120
110
100
90
80
70
60
50
40
30
24
22
20
18
16
14
12
4/1/14
7/1/14
9/30/14
12/30/14
4/1/15
GW Elev from Transducer
Measured GW Elev_UWCD
Measured GW Elev_Alta MWC
Trans min-max (annual)
Temp C

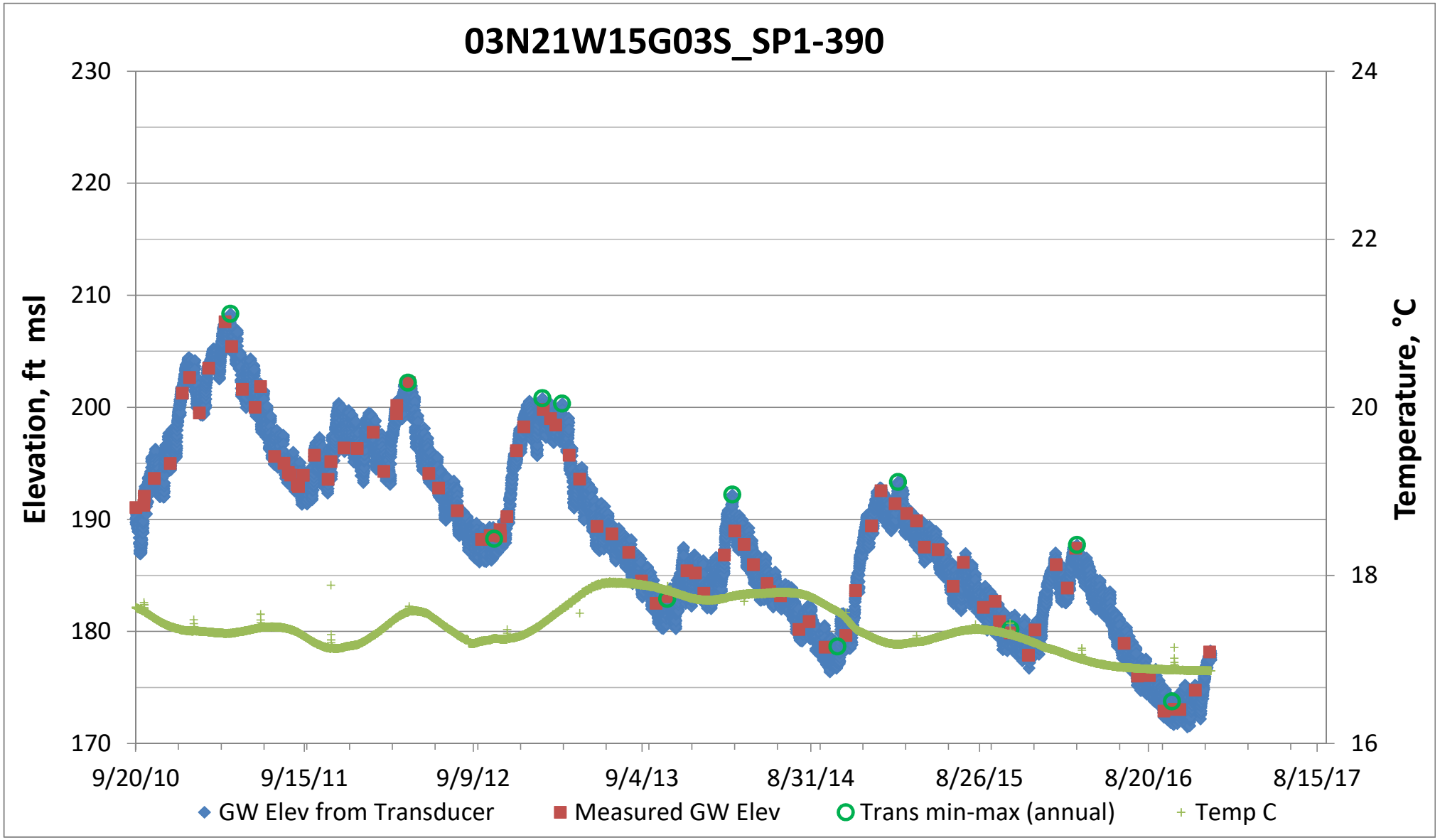

02N22W03M02S_Leavens Apartments
Elevation, ft msl
Temperature, °C
110
105
100
95
90
85
80
75
70
20
19
18
17
4/15/11
4/14/12
4/14/13
4/14/14
4/15/15
4/14/16
4/14/17
GW Elev from Transducer
Measured GW Elev_UWCD
Measured GW Elev_VCWRD
Trans min-max (annual)
Temp C

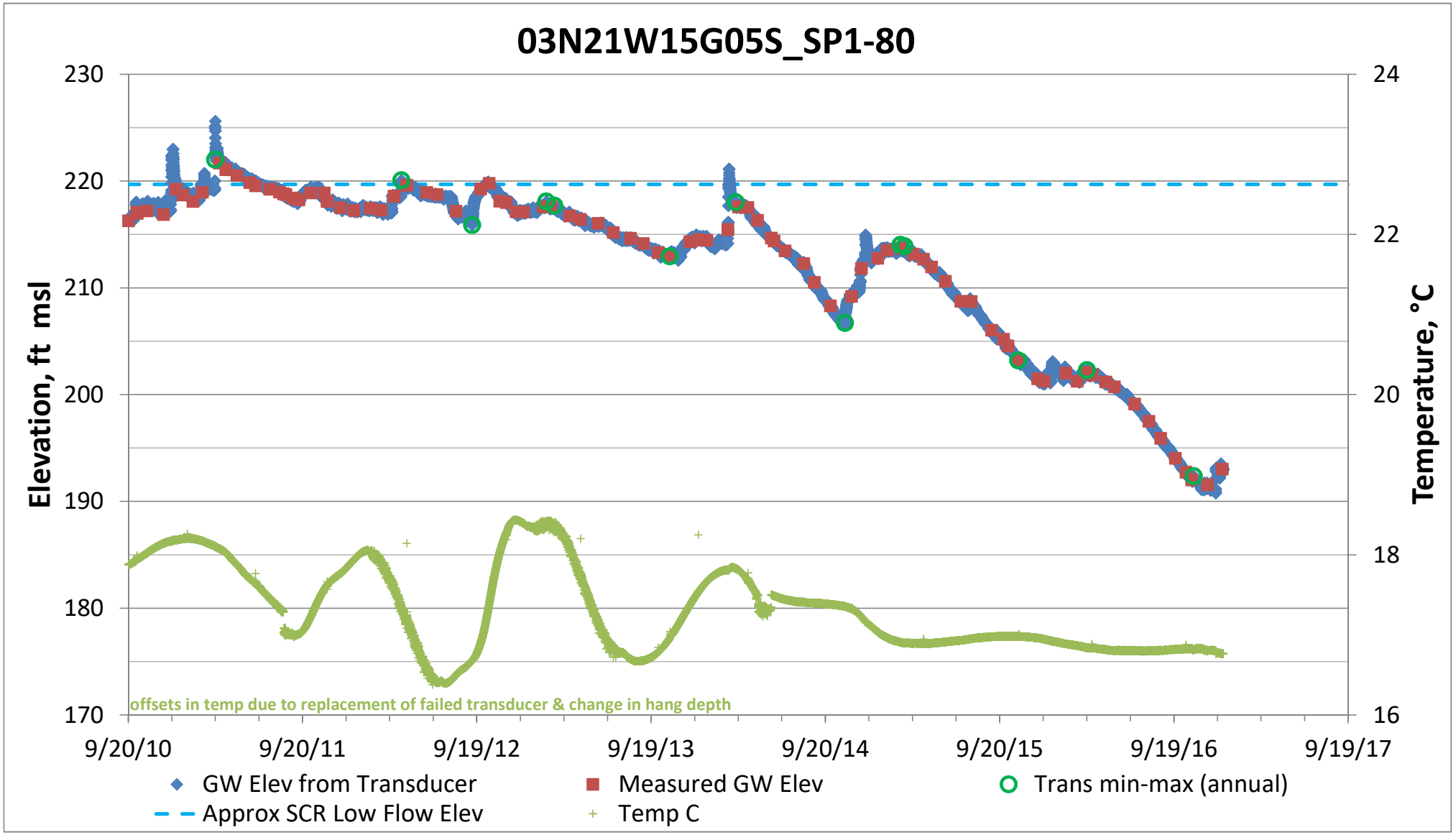

03N21W11F04S_CANYON #10
FICO uses a transducer for their measurements (were about +11ft off)
Possible shift in record due to trans slip, record not well retied
Elevation, ft msl
Temperature, °C
230
220
210
200
190
180
170
160
23
22
21
20
19
18
17
16
4/7/11
10/6/11
4/6/12
10/5/12
4/6/13
10/6/13
4/6/14
10/6/14
4/7/15
10/6/15
4/6/16
10/5/16
4/6/17
GW Elev from Transducer
Measured GW Elev_UWCD
GW Elev_FICO Transducer read

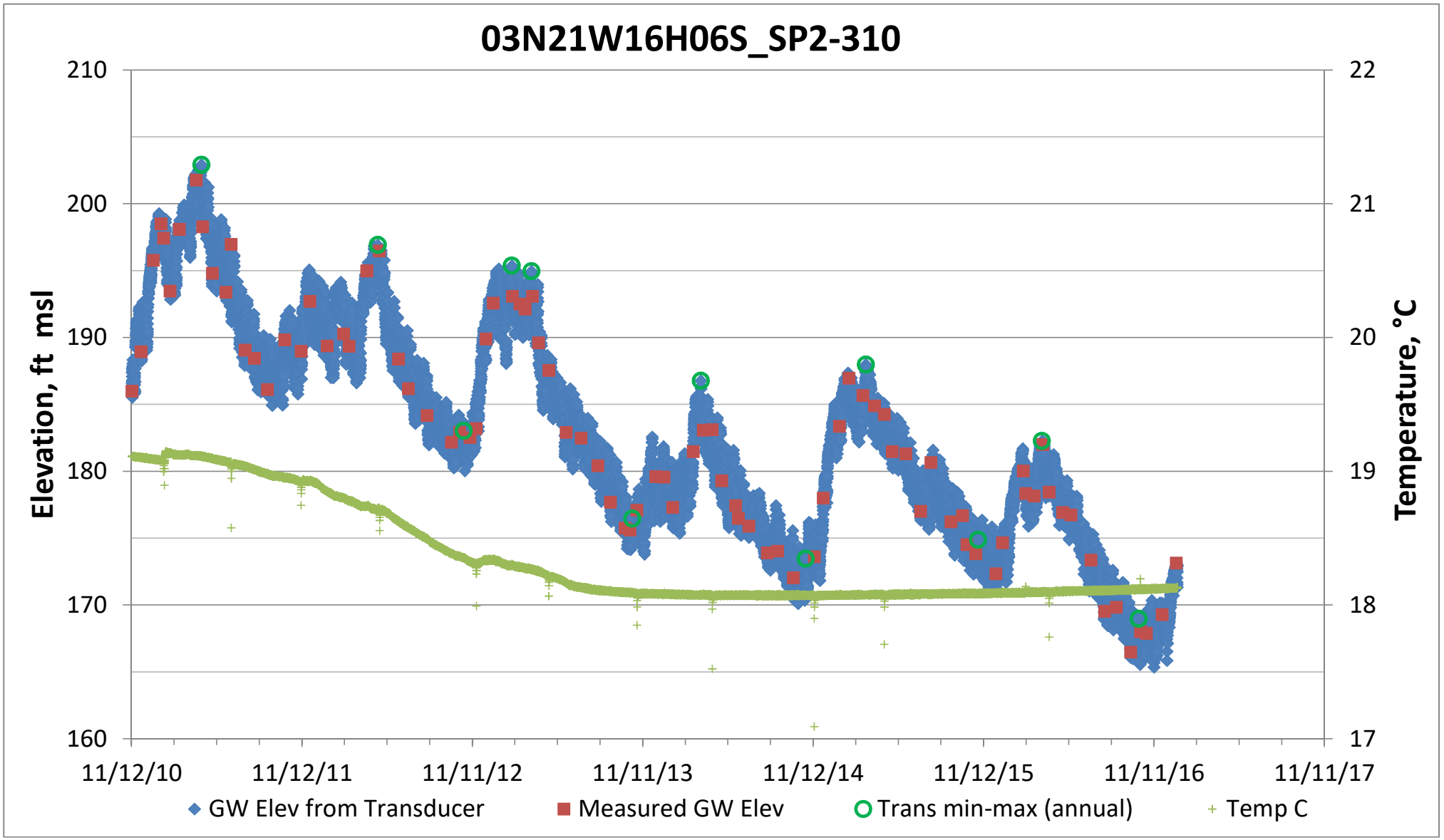

03N21W11B01S_Newsom
Elevation, ft msl
Temperature, °C
260
250
240
230
220
210
20
19
18
5/21/10
5/21/11
5/20/12
5/20/13
5/21/14
5/21/15
5/20/16
5/20/17
Trans pulled 12/22/2016
GW Elev from Transducer
Measured GW Elev_UWCD
Measured GW Elev_VCWRD
Trans min-max (annual)
Temp C

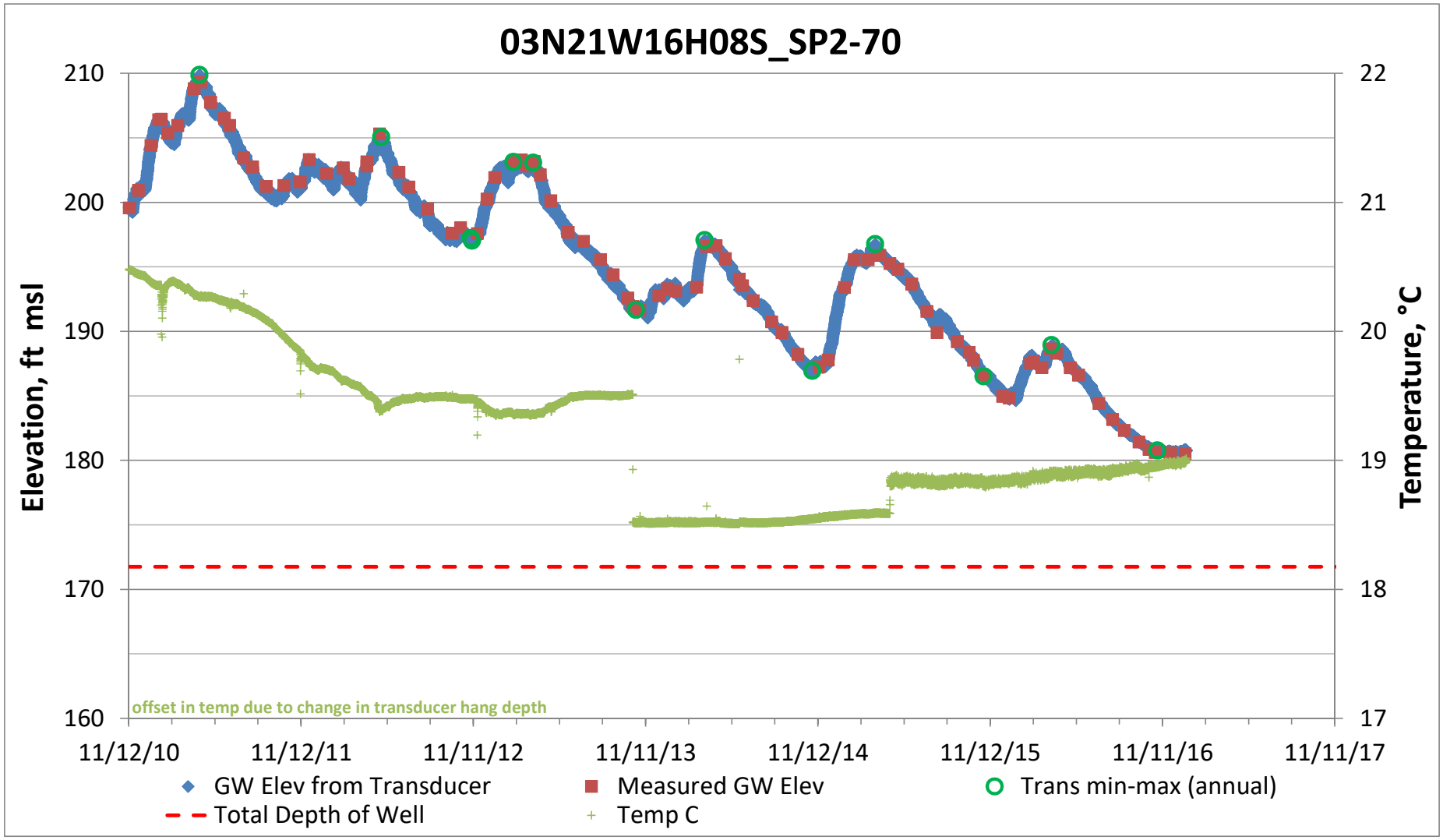

03N21W11H03S_Kimura
Elevation, ft msl
Temperature, °C
255
250
245
240
235
230
225
220
22
21
20
19
18
17
1/6/12
7/6/12
1/5/13
7/6/13
1/5/14
7/7/14
1/5/15
7/7/15
1/6/16
7/6/16
1/5/17
7/6/17
GW Elev from Transducer
Measured GW Elev
Trans min-max (annual)
Temp C

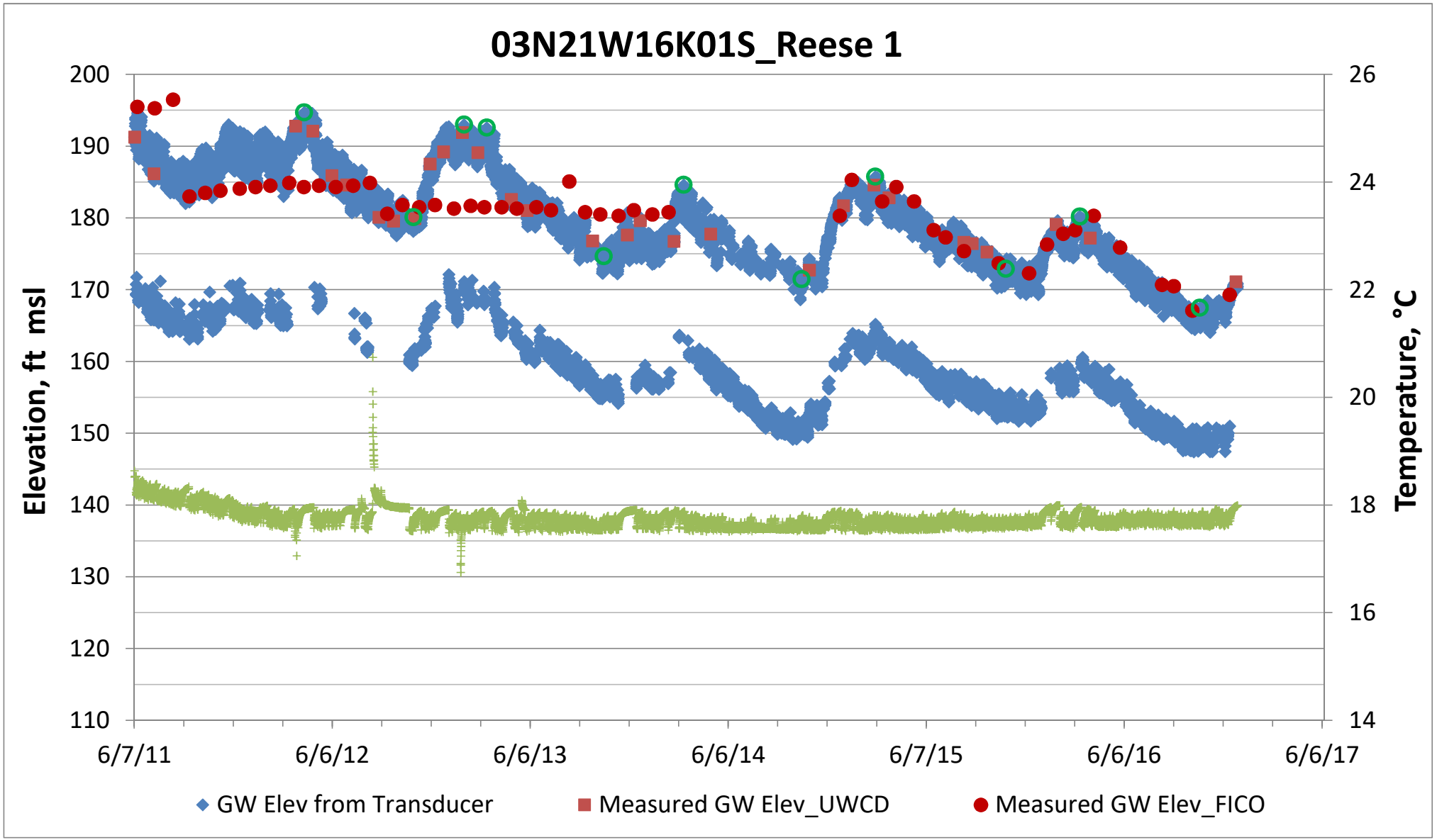

03N21W12E08S_FICO 7A
FICO measures Depth To Water with an interface meter instead of Depth To Oil
Elevation, ft msl
Temperature, °C
270
260
250
240
230
220
210
200
190
23
22
21
20
19
18
17
16
15
4/7/11
4/6/12
4/6/13
4/6/14
4/7/15
4/6/16
4/6/17
GW Elev from UWCD Trans
GW Elev from FICO Trans
Measured GW Elev_UWCD
Measured GW Elev_FICO
Trans min-max (annual)
Temp C

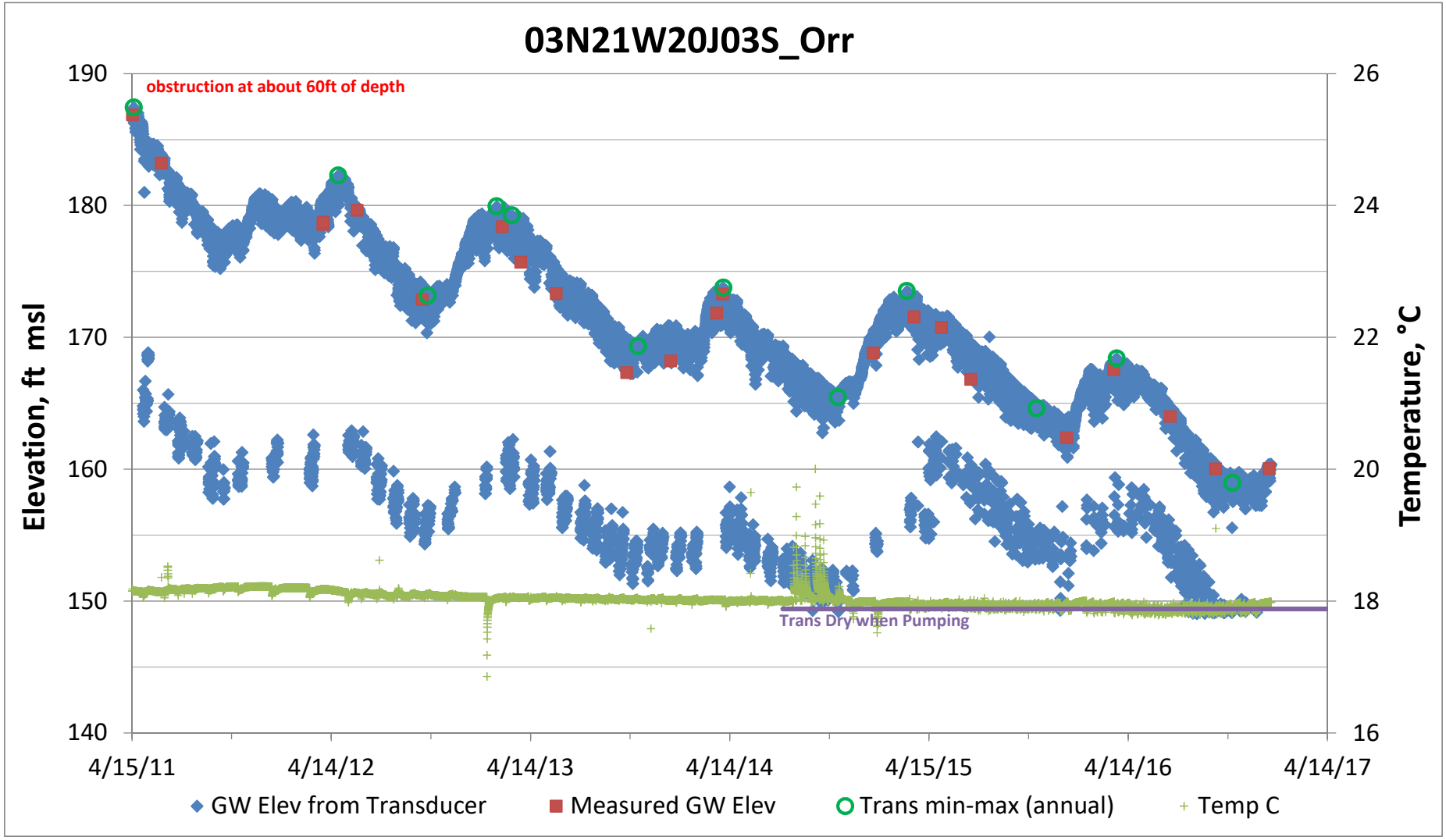

03N21W15G03S_SP1-390
Elevation, ft msl
Temperature, °C
230
220
210
200
190
180
170
24
22
20
18
16
9/20/10
9/15/11
9/9/12
9/4/13
8/31/14
8/26/15
8/20/16
8/15/17
GW Elev from Transducer
Measured GW Elev
Trans min-max (annual)
Temp C

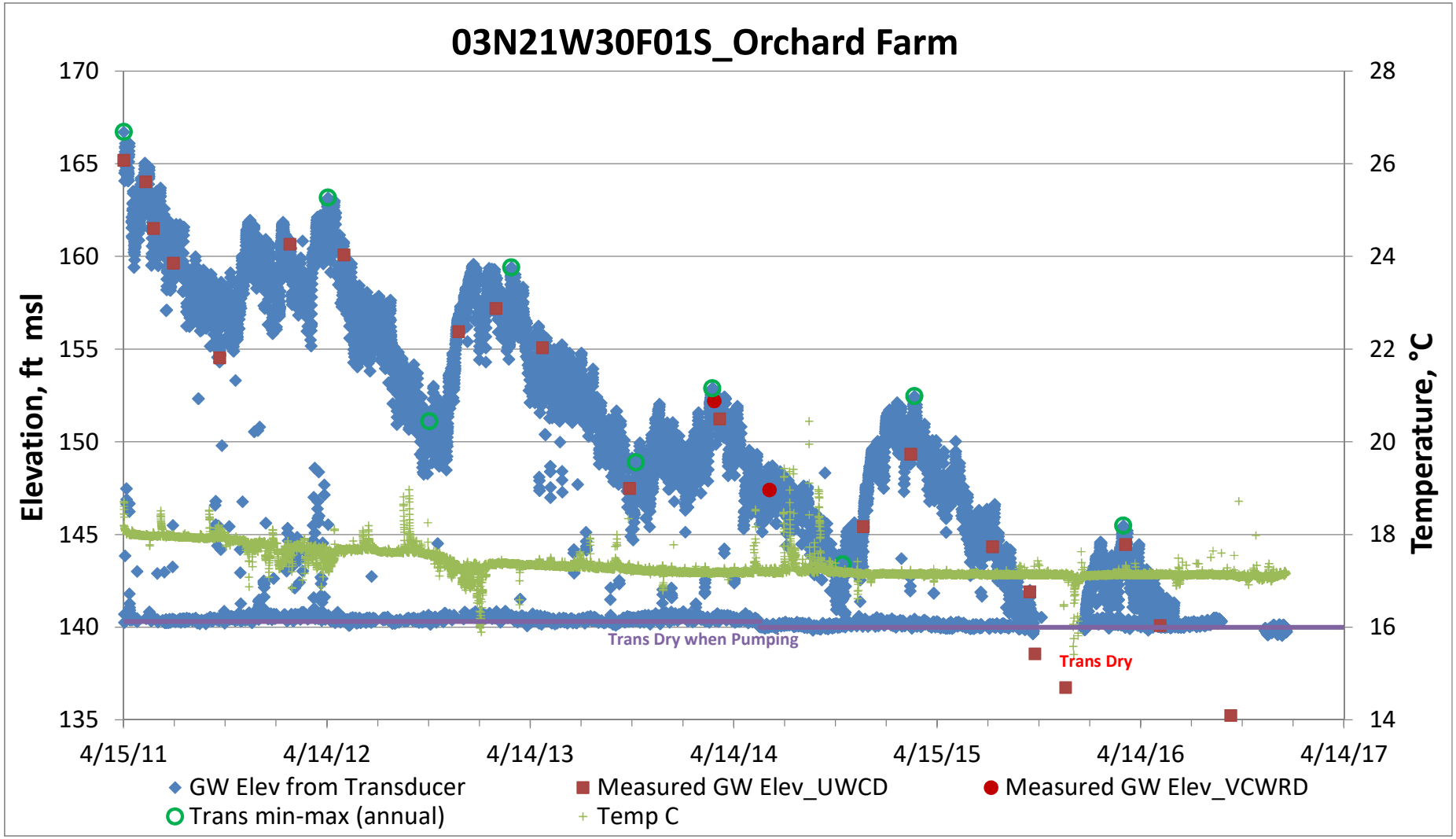

03N21W15G05S_SP1-80
Elevation, ft msl
Temperature, °C
230
220
210
200
190
180
170
24
22
20
18
16
9/20/10
9/20/11
9/19/12
9/19/13
9/20/14
9/20/15
9/19/16
9/19/17
offsets in temp due to replacement of failed transducer & change in hang depth
GW Elev from Transducer
Measured GW Elev
Trans min-max (annual)
Approx SCR Low Flow Elev
Temp C

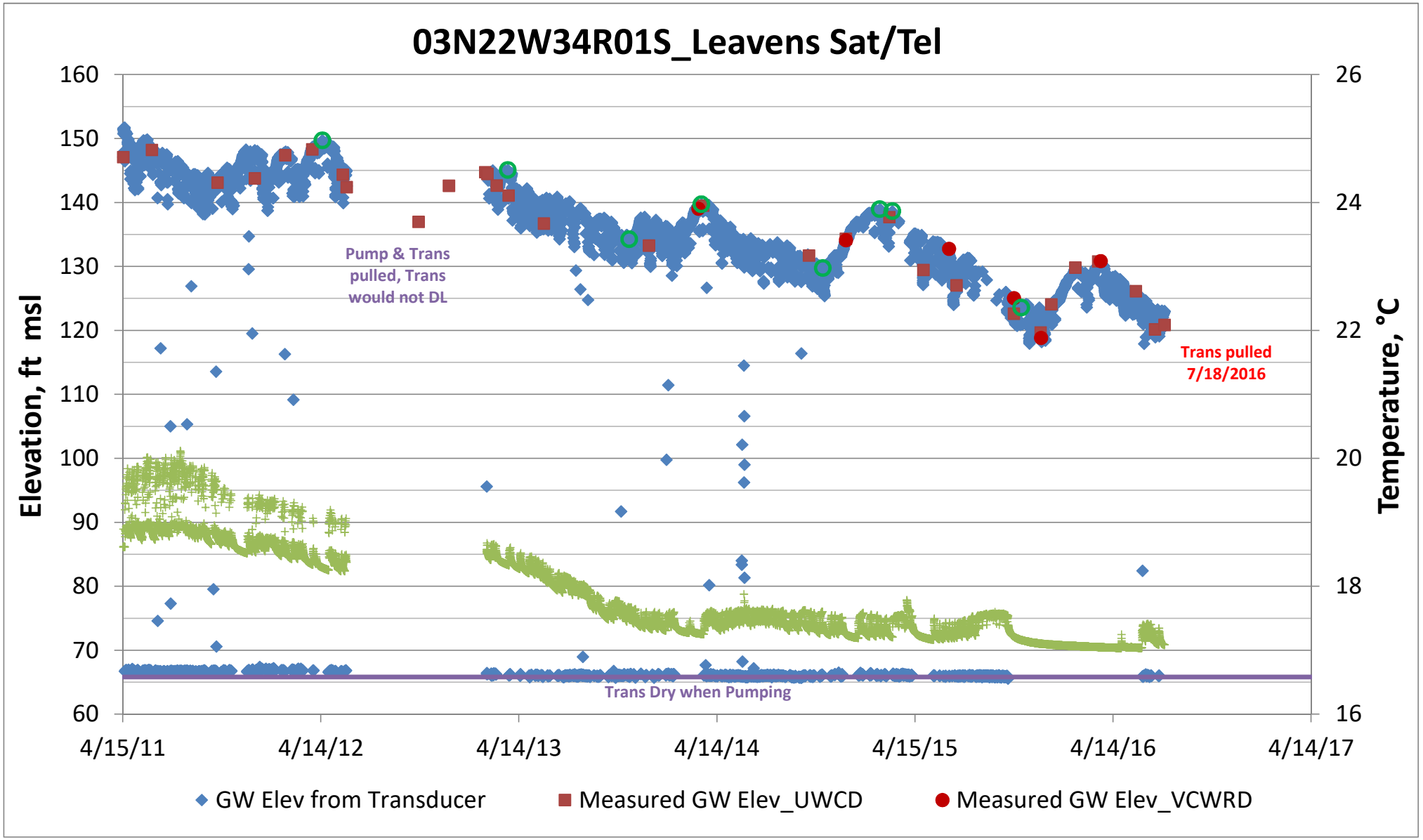

03N21W16H06S_SP2-310
Elevation, ft msl
Temperature, °C
210
200
190
180
170
160
22
21
20
19
18
17
11/12/10
11/12/11
11/11/12
11/11/13
11/12/14
11/12/15
11/11/16
11/11/17
GW Elev from Transducer
Measured GW Elev
Trans min-max (annual)
Temp C

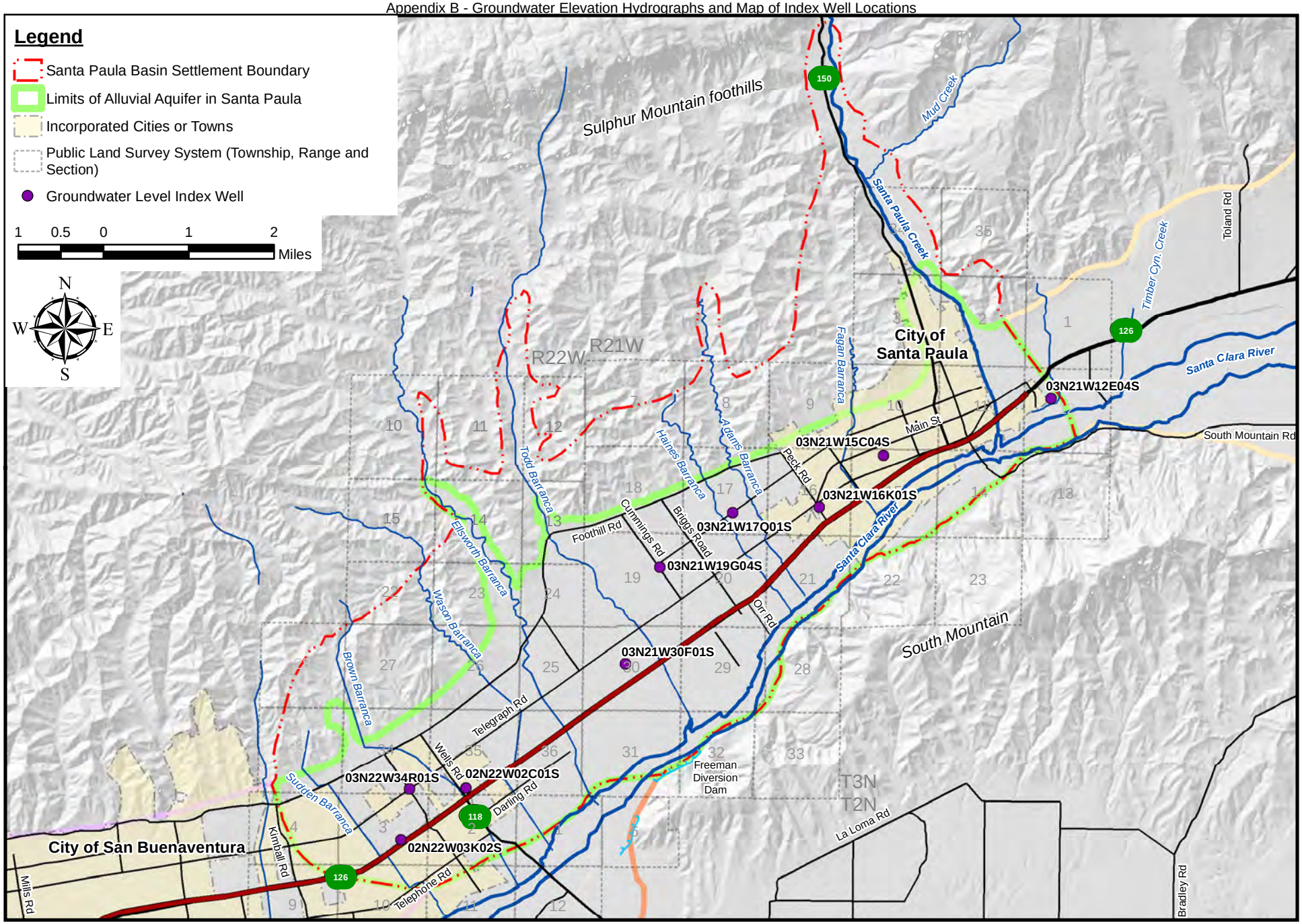

03N21W16H08S_SP2-70
Elevation, ft msl
Temperature, °C
210
200
190
180
170
160
22
21
20
19
18
17
offset in temp due to change in transducer hang depth
11/12/10
11/12/11
11/11/12
11/11/13
11/12/14
11/12/15
11/11/16
11/11/17
GW Elev from Transducer
Measured GW Elev
Trans min-max (annual)
Total Depth of Well
Temp C


03N21W16K01S_Reese 1
Elevation, ft msl
Temperature, °C
200
190
180
170
160
150
140
130
120
110
26
24
22
20
18
16
14
6/7/11
6/6/12
6/6/13
6/6/14
6/7/15
6/6/16
6/6/17
GW Elev from Transducer
Measured GW Elev_UWCD
Measured GW Elev_FICO


03N21W20J03S_Orr
obstruction at about 60ft of depth
Trans Dry when Pumping
Elevation, ft msl
Temperature, °C
190
180
170
160
150
140
26
24
22
20
18
16
4/15/11
4/14/12
4/14/13
4/14/14
4/15/15
4/14/16
4/14/17
GW Elev from Transducer
Measured GW Elev
Trans min-max (annual)
Temp C


03N21W30F01S_Orchard Farm
Elevation, ft msl
Temperature, °C
170
165
160
155
150
145
140
135
28
26
24
22
20
18
16
14
4/15/11
4/14/12
4/14/13
4/14/14
4/15/15
4/14/16
4/14/17
Trans Dry when Pumping
Trans Dry
GW Elev from Transducer
Measured GW Elev_UWCD
Measured GW Elev_VCWRD
Trans min-max (annual)
Temp C


03N22W34R01S_Leavens Sat/Tel
Elevation, ft msl
Temperature, °C
160
150
140
130
120
110
100
90
80
70
60
26
24
22
20
18
16
4/15/11
4/14/12
4/14/13
4/14/14
4/15/15
4/14/16
4/14/17
Pump & Trans pulled, Trans would not DL
Trans pulled 7/18/2016
Trans Dry when Pumping
GW Elev from Transducer
Measured GW Elev_UWCD
Measured GW Elev_VCWRD



Location of Santa Paula Basin Groundwater Level Index Wells

APPENDIX C - Individual Party Allocations and Groundwater Extractions (from Frank B & Associates)

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Draft Table "D-1"

7/17/2017

2010 (16) (19)	2011 (2)	2012 (2)	2013 (2)	2014 (2)	2015 (2)	2016 (2)	7 Year Average	Avg Over + Under (-)	Acre Feet	Party Name	Well Number
13.3	17.1	20.4	19.8	16.5	4.6	0.5	13.2	(24.3)	37.5	18004 Telegraph Road Properties LLC (33)	03N/21W-11H03
									0.0	ABC Rubarb Farms	03N/21W-16P01
0.7	0.7	0.7	1.0	0.8	0.6	1.0	0.8	(1.0)	1.8	Aliso Vista Ranch	03N/22W-23Q01
									0.0	Alsono, Andrew	03N/21W-21M01
563.3	595.9	757.6	241.0	1,018.4	1,175.1	1,386.5	819.7	56.59	763.1	Alta Mutual Water Company, Inc.	02N/22W-02K07, 02N/22W-02K10
10.7	10.7	10.3	10.3	6.2	4.4	2.9	7.9	5.0	2.9	Arambula, Pedro	03N/21W-21E02
									0.0	Associated Concrete Products, Inc.	3N/21W-29K03 D
							396.15		0.0	Axell, Randall as Trustee of the Dorthey E. Axell Trust	3N/21W16P02, 3N/21W16P03
0.0	0.0	0.0	0.0				0.0	0.0	0	Basso Properties	03N/21W-09J01
-8.2	-8.2	-8.2	-3.6				0.7	0.7	0	Bender Farms (23) (29)	03N/21W-16P01
297.7	241.3	306.5	391.1	273.7	247.8	188.2	278.0	(14.5)	292.56	Bender Realty LTD (19) (29)	3N/21W16P02, 3N/21W16P03, 3N21W17R01 (4)
											03N/21W-17R01
93.0	33.0	61.6	70.6	62.1	46.5	52.4	59.9	(40.9)	100.8	Billiwhack Ranch	03N/22W-23F02
									0.0	Birky, Angie E. Trustee	3N/21W-10E01
									0.0	Brucker, Frank R. as Trustee of the Frank R. Brucker Trust	03N/21W-29E1, 3N/21W-29C3
2.4	2.4	2.4	2.4	2.5	2.5	2.2	2.4	(3.6)	6.0	Bratcher Family Revocable Tr 1-24-02 & Cutright Revocable Tr 8-18-03 (22)	03N/21W-16P01
409.0	388.0	379.0	363.0	561.9	237.0	266.7	372.1	95.6	276.5	Brucker Family Trust (29)	3N/21W-19Q1, 3N/21W-29E1, 3N/21W-29C3
											03N/21W-29E1, 3N/21W-29C3
105.2	101.5	76.1	128.8	137.0	165.6	91.4	115.1	(167.2)	282.3	Campbell Dan	03N/21W-19R01
6.2	3.9	0.9	0.8	0.6	0.4	0.4	1.9	0.8	1.1	Canine Adoption and Rescue League	03N/21W-29B02
407.6	238.7	1,442.4	2,069.1	2,013.9	1,526.5	1,342.9	1,291.6	618.6	673.0	Canyon Irrigation Company	03N/21W-11F03, 3N/21W-11E3, 3N/21W-11F4

Draft Table "D-1"

7/17/2017

2010 (16) (19)	2011 (2)	2012 (2)	2013 (2)	2014 (2)	2015 (2)	2016 (2)	7 Year Average	Avg Over + Under (-)	Acre Feet	Party Name	Well Number
19.7	28.1	35.6	40.1	46.5	42.3	37.0	35.6	(63.7)	99.3	Casa De Oro Ranch	03N/21W-20F01
85.0	85.0	44.7	63.8	88.0	140.0	65.6	81.7	(19.7)	101.4	Castaneda, Albert and Mary	03N/21W-19L01 (1), 3N21W19K01
											03N/21W-19L01
										Coffman, Laura K. McAvoy, Successor Trustee of the Gladys Daily Coffman Trust dated June 16, 1993	03N/22W-35N01
4,505.3	4,523.1	4,771.4	5,054.0	4,691.7	4,012.9	3,932.1	4,498.6	(1,061.5)	5,560.1	City of Santa Paula	03N/21W-21B03
											3N/21W9R5, 03N/21W11J02, 03N/21W15C06, 03N/21W16A02, 3N/21W16A3
63.8	51.6	63.6	26.4	39.0	50.8	33.3	46.9	(46.7)	93.6	Clow, The Roger D. Clow Trust, Dated September 15, 1994	3N/21W20J04 (17)
											03N/21W-20A02, 03N21WL02S
103.4	110.4	111.1	142.5	127.2	74.2	96.0	109.3	(49.4)	158.7	Cole, Lecil E. Trustee of the Lecil E. a	3N/21W-16E02
									0.0	Conklin, Patricia	03N/21W-21D02
11.6	6.4	5.94	9.87	8.85	11.76	13.2	9.7	0.1	9.6	The Judson T. Cook & Suzette H. Cook Revocable Trust dated December 5, 2007 (28)	3N/22W-26B1
154.7	155.0	70.1	175.2	168.2	142.3	121.3	141.0	(31.2)	172.2	County of Ventura, General Services Agency (26)	03N/21W-30H08, 3N/21W-30H02
134.5	100.2	67.6	142.4	134.6	115.7	110.8	115.1	(63.2)	178.3	County of Ventura, General Services Agency	02N/22W-02G01
									0.0	Cummings, Paul R. and Irene & Sons	03N/21W-19L01
										Dabney, George & Rebecca Trust Inter Vivos	3N/22W-26B1
212.5	212.5	212.5	212.5	295.5	286.6	222.0	236.3	(84.9)	321.2	Dickenson, D&P Dickenson Family Revocable Trust, Louise Dickenson, Bruce E. Dickenson, Virginia Dickenson, Reed and Diana G. Dickenson as undivided co-owners	03N/21W-10M01
										Dominguez, G. (6)	03N/21W-12E07
									0.0	Evergreen Ranch AKA San Miguel Products	03N/21W-19R01

Draft Table "D-1"

7/17/2017

2010 (16) (19)	2011 (2)	2012 (2)	2013 (2)	2014 (2)	2015 (2)	2016 (2)	7 Year Average	Avg Over + Under (-)	Acre Feet	Party Name	Well Number
31.8	31.2	28.5	33.7	9.3		5.9	20.0	(65.0)	85.0	Fam, J. LLC	03N/22W-35N01
8,202.5	9,567.0	9,443.5	8,294.6	9,543.8	7,431.2	7,733.9	8,602.3	(1,310.9)	9,913.2	Farmers Irrigation Company, Inc.	03N/21W09R04, 03N/21W12E04, 03N/21W12E08, 03N/21W12F03, 03N/21W16K01, 03N/21W16K02, 03N/21W16K03, 03N/21W19H07, 3N/21W19G4, 3N/21W12F6, 03N21W15C04, 3N21W15C02
	75.0	27.2	44.7	33.8	43.3	30.1	36.3	36.3	0.0	Fiano, Michael (21)	3N/22W26B02 & 3
											03N/21W-15C02, 03N/21W-15C04
206.9	129.4	154.5	205.4	211.3	193.1	171.2	181.7	(31.7)	213.4	Finch, J.J. & H.H.	3N/22W-34Q02, 3N22W34Q03
									0.0	Galbreaith Brothers, Inc.	03N/21W-17Q01
11.6	3.1	13.31	13.45	13.89	6.75	6.51	9.8	0.2	9.6	Garcia, Elias & Guadalupe (15)	3N/22W-26B1
25.0	25.0	25.0	25.0	18.4	18.8	16.7	22.0	(20.8)	42.8	Gilbert, Patricia L., Trustee of the Gilbert Family Survivor's Trust	03N/21W-16E01
143.8	152.5	115.6	128.9	136.3	125.1	34.3	119.5	17.7	101.8	Gooding Ranch (John F. Gooding)	03N/21W-09K02
58.8	60.0	60.0	36.6	41.5	31.4	31.6	45.7	(7.2)	52.9	Grant Family Ranches, LLC (20) (30)	3N22W3E01, 3N21W20E01
									0.0	Gregory, Eva as Trustee of the Gregory Family Trust	
46.9	62.7	55.7	59.4	62.2	83.2	47.6	59.7	(37.9)	97.6	Grether, Elizabeth Broome, Ann B. Priske, John S. Broome Jr. as Trustee of the John S. Broome Jr. Trust	03N/22W-35Q02
13.0	10.8	12.3	12.9	11.1	8.2	10.7	11.3	(1.7)	13.0	Yeisi Brayen Guzman, Trustee of the Brayen And Mesa Guzman Revocable Family Trust, dated July 24, 2015	03N/21W-19G03
128.2	128.2	128.2	128.2	91.4	128.9	136.9	124.3	(4.9)	129.2	Hadley-Williams Partnership	02N/22W-03E01 (9)
										Hampton Canyon Ranch (Leslie) (32)	03N/21W-19A02
0.0	0.0	0.0	0.0	0.0	0.0		0.0	(7.9)	7.9	Held, Family Trust dtd 1-16-03	03N/22W-23F02
0.0	0.0	0.0	0.0	0.0	0.0		0.0	(33.8)	33.8	Held, Joann	03N/22W-23F02
125.0	125.0	125.0	125.0	125.0	34.0	77.14	105.2	(19.8)	125.0	JKJ Farms, LLC (29)	3N/21W-16P01 3N/21W-16P02&3

Draft Table "D-1"

7/17/2017

2010 (16) (19)	2011 (2)	2012 (2)	2013 (2)	2014 (2)	2015 (2)	2016 (2)	7 Year Average	Avg Over + Under (-)	Acre Feet	Party Name	Well Number
									0.0	Juanamaria Land Company	02N/22W-03E01
									2.0	JVP Citrus, Inc.	
										Kimura, Albert	03N/21W-11H03
									0.0	Kimura, Tama	03N/21W-11H01
									0.0	La Mesa Partnership #1	3N/21W-17R01
									0.0	Lassich, Madeline	03N/21W-29B02
168.5	161.6	178.5	176.5	235.5	195.0	159.1	182.1	(13.2)	195.3	Leavens Ranches	03N/22W-24R01 (13), 2N22W03F02
1,655.5	2,138.8	2,348.2	2,808.2	2,419.4	2,723.0	2,248.2	2,334.5	(1,214.5)	3,549.0	Limoneira Company	03N/21W-01N02, 03N/21W-02Q01, 03N/21W-02R02, 03N/21W-19G02, 03N/21W-30F01, 03N/21W-30H04, 03N/21W-31E03, 3N/21W-31L2
											03N/21W-11A01
											See Limoneira
0.0	0.5	3.8	1.2	1.1	0.5	1.0	1.1	(8.9)	10.0	Little Clara Ranch LLC (30)	3N22W34E01
											3N22W34E01
32.6	30.3	30.3	30.3	7.2	8.9	18.7	22.6	(13.7)	36.3	Malzacher, Fred H. & Elaine C., Trustees of the Fred H. Malzacher and Elaine C. Malzacher Revocable Trust dated January 16, 1992 U/D/T dated November 25, 2009, as amended	
											03N/21W-21G03
31.5	31.5	31.5	31.5	31.5	31.5	47.3	33.8	(0.5)	34.3	Martinez, Esther	3N21W-29G02
25.3	20.9	20.3	22.3	23.8	17.3	25.2	22.2	(2.5)	24.7	McConica, John II	2N/22W-3Q1
										McConica, John R. et al.	3N/21W21B3
										McConica, John R. II et al.	03N/21W-21B03
168.9	122.9	176.5	149.6	124.8	162.9	123.74	147.1	(34.5)	181.6	McGaelic Group	03N/21W17R01 (4), 3N/21W11H01
351.2	288.9	356.8	570.6	392.0	479.9	296.6	390.9	107.3	283.6	McGrath, John & Sons (18)	03N/21W21E05, 3N/21W21E11, 3N/21W-20J04 (17) & 3N/21W-20R3

Draft Table "D-1"

7/17/2017

2010 (16) (19)	2011 (2)	2012 (2)	2013 (2)	2014 (2)	2015 (2)	2016 (2)	7 Year Average	Avg Over + Under (-)	Acre Feet	Party Name	Well Number
										Mondol, J.K.	03N/21W-10E01, 3N/21W-10E2
									0.0	Newsom, Alice C. as Trustee of the Newsom Family Trust	03N/21W-11A01
28.6	20.9	23.3	31.8	27.4	35.8	18.5	26.6	(20.1)	46.7	Nichols Associates	03N/22W36H01, 03N/22W36H02
24.3	31.1	25.9	33.5	28.1	25.5	23.4	27.4	(99.0)	126.4	Nutwood Farms	03N/22W-36J01, 36J02 & 36J03
0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	(7.8)	7.9	Oba Family Trust dtd 12-22-92	03N/22W23F02, 3N/21W17D03(10)
12.5	12.5	9.4	12.5	6.3	12.3	10.3	10.8	(4.3)	15.1	Ohst, Gary	03N/21W-10E01, 3N/21W-10E2
0.0	0.0	0.0	0.0				0.0	0.0		Orr, Roger as Trustee of the Orr Family Trust	03N/21W-20J03, 3N/21W-20J2
160.3	159.9	159.9	159.9	261.3	108.5	159.0	167.0	(26.9)	193.9	Orr Ranch Co. (25)	03N/21W-20J03, 3N/21W-20J2
99.3	92.40	116.32	95.01	89.82	101.97	115.8	101.5	62.9	38.6	Ortiz Trust - Joseph & Sons (3)	03N/21W-30E01 3N/21W-30E2, 3N/21W-20H1
225.6	255.4	303.4	406.7	445.8	392.7	299.3	332.7	(77.6)	410.3	Panamerican Seed, aka Ball Horticultural	3N/21W20K01, 3N/21W20M01 03N/21W20P01 & 3N/21W20F4
										Pear Blossom Town & Country Marke	03N/21W-10E01, 3N/21W-10E2
44.6	66.0	73.1	85.5	86.8	63.6	42.1	66.0	(50.0)	116.0	Petty Ranch LP	03N/22W-36K04, 3N/22W-36K6
							0.0			Pinkerton, Dan C. and Susan V. Pinkerton, Co-Trustees of the Pinkerton Family Living Trust dated March 19, 1990	03N/21W-17P02
							0.0	(39.1)	39.1	Pinkerton, Arlene	3N21W17Q01 (5)
									2	Pinkerton, Jennifer Paulene	
38.7	25.5	46.5	41.1	59.2	41.5	1.6	36.3	(25.6)	61.9	Pinkerton, Murray	03N/21W-21E01
									2	Pinkerton Ranch Trust	
									0.0	Pinkerton, W. B. Limited Partnership	3N21W17Q01
										Pinkerton, W. J. Estate Ranch 1 & 2	03N/21W-16E02, 3N/21W-29B4
							0.0	0.0	0	Pinkerton, W. J. Estate Ranch	3N/21W-16E02
									0.0	Pinkerton, Wesley Estate	03N/21W-21E01
									0.0	Rancho Attilio	2N/22W-2Q01
93.2	116.5	130.2	157.9	160.6	172.6	143.7	139.2	19.6	119.6	Rancho Filoso, LLC	03N/21W-09K03, 3N/21W-9K4
2.0	2.4	2.4	0.5	0.5	0.5	2.4	1.5	1.4	0.1	Ray, Richard T. and Ruth L.	03N/22W026P01

Draft Table "D-1"

7/17/2017

2010 (16) (19)	2011 (2)	2012 (2)	2013 (2)	2014 (2)	2015 (2)	2016 (2)	7 Year Average	Avg Over + Under (-)	Acre Feet	Party Name	Well Number
0.0	0.0	0.0	0.0	0.0			0.0	0.0	0	Regents of the University of California (31)	3N/22W-34R1
1,151.8	1,252.6	1,225.2	1,017.1	1,092.2	1,114.4	1,268.1	1,160.2	396.7	763.5	Riverbank Citrus, LLC	3N/22W36K7 & 3N/22W36Q1, 3N22W36K05
									0.0	R.F. Robertson as Trustee of the Robertson Family Trust	03N/21W-17Q01
210.2	229.5	185.1	439.2	245.4	325.7	265.59	271.5	(92.3)	363.8	Santana, Jamie, L. Trustee of the Survivor's Trust Under the Jamime L. Santana Family Trust dated May 30, 1984 as amended	3N/22W-24R01 (13)
											03N/21W-17Q01 (5)
											03N/21W-17Q01 (5)
											3N21W17R01 (4)
											3N21W9J01 (24)
											2N22W03E01
91.5	89.5	119.9	101.1	75.9	63.5	64.1	86.5	(47.5)	134.0	Saticoy Foods Corp.	03N/21W-30H05 (7), 3N/21W-30H6, 3N/21W-30H9
145.3	81.1	80.0	115.2	114.4	95.5	0.0	90.2	(77.1)	167.3	Sharp, J. M. Company	03N/21W-19M01
										Shores, John Family Partnership	03N/21W-20J04 (17), 3N/21W-20R2
20.2	59.7	69.9	85.1	87.6	80.4	81.4	69.2	(3.0)	72.2	Shozi Ventura, LLC	02N/22W-03B01, 02N/22W-03B02
							0.0	(61.3)	61.3	Silva, Frank	02N/22W-01M03, 02N/22W-01M04
									0.0	Southern California Edison Co.	3N/22W-27M02 D
57.5	54.7	51.4	64.1	103.6	72.9	73.3	68.2	6.1	62.1	Strata Holdings LP	03N/21W-17P02
							0.0	(107.5)	107.5	The Nature Conservency	3N/21W29K1, 29K02 & 29K4
									0.0	Thermal Belt Mutual Water Co. Inc.	03N/21W-15C02, 03N/21W-15C04
6.9	7.0	4.2	3.6	8.3	5.0	10.4	6.5	(15.4)	21.9	Torres, George 2013 Trust (32)	03N/21W-19A02
									0.0	Tri-Leaf Nursery (Bruce Arikawa)	3N/21W-30E01
146.3	93.3	103.6	162.3	134.4	148.1	74.38	123.2	55.2	68.0	Tucker Ranch	02N/22W-03K02, 2N/22W-3K3
187.6	102.1	206.3	315.4	206.0	247.6	187.2	207.5	75.0	132.5	TVC Pinkerton Ranch LLC	3N21W-29B4
										Twyford Plant Laboratories, Inc Fedes	03N/21W-17R01
							0.0	(5.8)	5.8	Utility Vault (Newbasis is Parent Co)	3N/21W-29K03 D (8)
1.0	1.0	1.1	1.2	1.2	1.2	1.0	1.1	(6.9)	8.0	Vanoni, David or Mary - Mary Vanoni	02N/22W-02Q01

Draft Table "D-1"

7/17/2017

2010 (16) (19)	2011 (2)	2012 (2)	2013 (2)	2014 (2)	2015 (2)	2016 (2)	7 Year Average	Avg Over + Under (-)	Acre Feet	Party Name	Well Number
0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	Walking Beam Ranches	03N/21W-19G03
									0.0	Wallace, William	3N/21W-21E01
15.0	11.3	11.5	46.8	23.87	28.22	44.3	25.9	16.1	9.8	We 5 Properties (35)	02N/22W-02J03
										WH Ventura 165 LLC (31)	3N/22W-34R1, 3N21W20F04
3.0	1.8	1.3	2.0	2.2	1.5	1.0	1.8	(25.8)	27.6	Williams, James W. III	03N/22W-23G01
										Wittenberg-Livingston Inc. (30)	02N/22W-02Q01
										Von Chmielewski, Wolfgang (15)	03N/21W-10E01, 3N/21W-10E2
4.8	4.8	4.8	4.8	2.4	16.7	79.1	16.8	(14.2)	31.0	Yoon Family Trust, (Soo Han Yoon)	2N/22W-3L01
24.5	13.6	13.2	11.7	15.0	15.7	14.9	15.5	(5.3)	20.8	Zimmerman, Wade N. III and Patricia B. Zimmerman Trust	3N/21W-21E08 03N/21W-21D02
21,421.0	**22,855.2**	**24,743.0**	**25,456.5**	**26,504.2**	**23,181.8**	**22,169.7**	**23,761.6**	(3,718.0)	**27,510.7**	**Total Basin IPA Stipulated Parties**	
27,554.4	**27,554.4**	**27,586.5**	**27,586.5**	**27,586.5**	**27,586.5**	**27,586.5**	**27,577.3**		**27,551.4**	**Historical Association IPA With Non-Parties (40.7 AF)**	

20	**1,571.8**	**IPA Over Production**
53	(5,314.12)	**IPA Under Production**

22,189	**23,947**	**25,823**	**26,462**	**27,426**	**25,856**	**25,363**	**25,295**			**Total IPA, Ventura, Non-Parties and De Minimus**
23,115	**24,202**	**25,823**	**26,479**	**27,445**	**25,856**	**25,363**				**United Water Conservation District Totals**
(926.16)	(254.21)	(0.00)	(16.94)	(19.14)	0.00	0.00				**Over/Under Amounts (1) (3) (19)**

(1) Albert and Mary Casteneda (03N21W19L01S) used the UWCD crop factor estimating 2011 production at 271.25 ac-ft. Subsequent to 2011 they installed a water meter which indicates that their production is likely much lower. The SPBPA then lowered their 2011 production by 186.25 ac-ft to 85 ac-ft which they feel more accurately reflects 2011 production. UWCD does not accept the reduction of the 2011 production for Albert and Mary Castaneda as they did not have a meter installed in 2011.
(2) Source of production data for 2011, 2012, 2013, 2014, 2015, and 2016 was the United Water Conservation District, reviewed by the Association.
(3) Ortiz-Trust – Joseph and Sons (03N21W30E01S, 03N21W30E02S, 03N21W20H01S) according to the SPBPA used the wrong meter readings and over reported 2011 production by 131.08 ac-ft . UWCD accepts only 63.8 ac-ft the reduction of the 2011 production for Ortiz Trust-Joseph and Sons for a total 2011 production of 159.68 ac-ft.
(4) Shared well amoung Bender Realty LTD, Santana, Jamie L. and McGaelic Group. Production is split in accorance with each parties metered use.
(5) Shared well need to determine how to allocate production between Santana and Pinkerton, Arlene.
(6) G. Dominguez was a listed non-party in the original Judgment and the 0.9 acre-feet has been removed from this list reducing the total by 0.9 acre-feet.
(7) Well number 3N/21W-30H3 should be changed to 3N/21W-30H5.

Draft Table "D-1"

7/17/2017

2010 (16) (19)	2011 (2)	2012 (2)	2013 (2)	2014 (2)	2015 (2)	2016 (2)	7 Year Average	Avg Over + Under (-)	Acre Feet	Party Name	Well Number

(8) Newbasis is the reporting party, Utility Vault is parent.

(9) Shared well allocated 356.0 AF/Year of production for 2007 to 2013 between City of San Buenaventura and Hadley Williams Partnership by 64/36% of allocation, production meter should be installed to allocate produced water.

(10) Well number was added Oba.

(11) Deleted

(12) Source of well productin data for 2009: United Water Conservation District 2009SPbasinbywell.xls

(13) Shared well (3N/22W-24R01) between Leavens Ranches and Jamie Santana Family Trust. Production is reported separately.

(14) Deleted

(15) Spelling correction

(16) Deleted

(17) Roger Clow is a 1/3 owner of the Shores well; however, Clow used 100% of the water for 2007 and 2008. Clow's usage totals 30.5 AF for 2007 and 61 AF for 2008 were reallocated from Shores.

(18) Deleted

(19) Bender Reality 2010 production (03N21W16P02S, 03N21W16P03S) has been reduced by the SPBPA from 1,356.63 ac-ft (UWCD records) to 532.7 ac-ft for a reduction of 823.93 ac-ft. UWCD does not accept the reduction of the 2010 production of Bender Reality as no documentation was presented to UWCD within 6 month adjustment period.

(20) Deleted

(21) Michael Fiano stipulated in 2012 and will be leasing all water pumped annually going forward, transfers to date have been estimated and any remaining balances will be made current with 2014 recorded production.

(22) Bratcher Cutright IPA From Bender Farms, 6 acre-feet

(23) Bender Reality and Bender Farms are owned by the same person, Bender Farms transferred 4.6 AF to the City of Santa Paula in 2012 and 6.0 AF to Bratcher in 2014, minus numbers reflect remaining allocation for prior years, plus Bratcher reported production for the years reported to United Water Conservation District.

(24) Basso Properties Sold to Jaime Santana Trust 43.4 acre-feet with property

(25) Roger Orr as Trustee of the Orr Family Trust so the Orr Ranch Co. to Bryce R. and Elaine V. Bannatyne Co Trustees of the Bannatyne Trust

(26) County of Ventura over reported 158.62 acre-feet in 2013, (331.2+2.67-158.62=175.2) United Water Conservation Distrcit did not recognize that production correction in their records.

(27) Pinkerton, W. J. Estate Ranch 1 & 2, Sold to Pinkerton W. J. Estate Ranch 158.7 AF of IPA and 132.5 AF of IPA to TVC Pinkerton Ranch LLC in 2014, combined over production is reflected on TVC Pinkertor

(28) The Judson T. Cook & Suzette H. Cook Revocable Trust dated December 5, 2007 Purchased the Dabney, George and Rebecca Trust Inter Vivos in January 2016

(29) Bender Reality and Bender Farms sold property to JKJ Farms LLC with 225 acre-feet of allocation and JKJ later transferred 100 acre-feet to Brucker Family Trust

(30) Wittenberg-Livingston, Inc. sold 4 acre-feet to Little Clara Ranch and 20.8 acre-feet to Grant Family Ranches

(31) Regents of California sold property and water rights to WH Ventura 165 LLC

(32) Hampton Canyon Ranch Sold property and water rights to Torres, George 2013 Turst, 21.9 acre-feet

(33) Albert Kimura sold property and water rights to 18004 Telegraph Road Properties, LLC 37.5 acre-feet

(34) Silva allocation of 108 Acre-Feet was distributed to County of Ventura 47.3

DRAFT Table "D-2"

De Minimus 2010-2016 Production & Averages

(Production Not to Exceed 5 AFY)

2010 (3)	2011	2012	2013	2014	2015	2016	7 Year Average	Party Name	Well Number
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	Chapman, Kenneth	3N/21W21F1
3.5	3.5	3.5	3.5	3.4	2.2	2.2	3.1	Chavez, Joel and Carmen	3N/21W21E07
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Loza, Jesus and Veronica	3N/22W26L01S
8.7	4.3	8.6	4.3	4.3	3.3	3.9	5.3	Rogers, Charles W., Jason C. Rogers, and Aaron W. Rogers	2N/22W-1M2
10.0	3.6	3.6	3.6	4.1	4.2	4.2	4.8	Santa Paula Airport Association	3N21W14D01
3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	Sullivan, Russell J.	3N21W21L1
26.7	**15.9**	**20.2**	**15.9**	**16.3**	**14.2**	**14.8**	**17.7**	**Total De Minimus Producers**	

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Draft Table "D-3"

Non-Party 2010-2016 Production & Averages

2010 (6)	2011 (7)	2012 (7)	2013 (7)	2014 (7)	2015 (7)	2016 (7)	2009-15 Average AFY Production	Name	Well Number
2.0	4.0	4.0	3.2	3.2	3.2	3.0	3.2	Davis, Linda Trust	3N21W21E04, 3N/21W-21E10 (2)
								Dominguez, G.(5) (0.9 AF)	03N/21W-12E07
						Stipulated in 2012		Fiano, Michael	3N/22W26B02 & 3
1.0	0.0	0.0	0.0		0.0	0.0	0.2	Garman, William (5) (2.0 AF)	02N/22W-02N04
						Stipulated in 2012		Grant Family Ranches, LLC	3N22W3E01 (1), 3N21W20E01 (2)
2.0	1.3	1.5	1.4	2.0	1.6	2.0	1.7	Minero, Gilbert (5) (1.1 AF)	03N/21W-21M01
2.0	3.6	3.6	3.8	4.4	6.3	10.6	4.9	Sanchez, Martin	3N/21W-21E6
						3.5		Sullivan, Russell J.	3N21W21L1
								Ventura Unified School District (5) (30.8 AF)	02N/22W-03P01
1.0	1.0	2.0	1.0	2.0	1.8	2.0	1.5	Vint, Thomas H. (5) (4.9 AF)	03N/21W-21E03
5.5	5.0	5.0	5.0	5.0	1.6	1.1	4.0	Westerdale Trust (5) 1.0 AF)	03N/21W-21G01
13.5	**14.9**	**16.1**	**14.4**	**16.6**	**14.5**	**22.2**	**15.5**	**Total Average AFY Production (Average 2009-2015)**	

Footnotes to Non-Stipulating Pumpers

40.7 Acre-Feet for Non Parties from original Judgment

(1) Incorrect well number.
(2) Added well number.
(3) Source of well production data: Santa Paula Basin 2008 Annual Report, Appendix D - Groundwater Allocations and Pumpage, Table D-1 and Table D-2.
(4) Source of well production data: United Water Conservation District 2009SPbasinbywell.xls
(5) Non-party individuals named in the Original Judgment, 40.7 Acre-Feet 7/28/2011
(6) Source of well productin data: United Water Conservation District SP 10-1 and SP 10-2
(7) Source of production data for 2011, 2012, 2013, 2014, 2015 and 2016 was the United Water Conservation District, reviewed by the Association.

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Draft Table "D-4"
Temporary Water Transfers

7/17/2017

2010	2011	2012	2013	2014	2015	2016	7 Year Average	Avg Over + Under (-)	AF Annual Allocation	Transfering Parties
1,655	2,139	2,348	2,808	2,419	2,723	2,248	2,334.5	(1,215)	3,549	**From: Limoneira Company**
118.6		689.5	1,242.0	674.0	756.2	441.0				**To:** Canyon Irrigation Company
		72.5	120.4	136.1	79.8					**To:** Canyon Irrigation Company for Rancho La Cuesta
109.0	394.0	413.0	160.7	231.0	250.0	526.4				**To:** Riverbank Citrus LLC
		20.0	37.0	49.0						**To:** Fiano, Michael J. Trust
				135.1						**To:** Leavens Ranches
				74.5						**To:** Regents of the University of Californnia
-62.2	-62.2	-62.2	(62.2)	(62.2)	(62.2)	(62.2)				**To:** City of Santa Paula (2016 Permanent Transfer)
		2.0								**To:** Dabney/Cook
			146.2	90.0	132.0	43.0				**To:** Tucker Ranch
			28.1	35.0	24.0					**To:** Gooding Ranch
1883.1	2532.8	3483.0	4,452.3	3,781.8	3,902.8	3,196.4	3,318.9	(230)	3,549	**Limoneira Company Balance**
	75.0	27.2	44.7	33.8	43.3	30.1	35.8	36	-	**Fiano, Michael J. Trust**
		-20.0	-37.0	-49.0	-43.3	-29.85				**From:** Limoneira Company
0.0	75.0	7.2	7.7	-15.2	0.0	0.2	(0.0)	(0.00)	-	**Fiano, Michael J. Trust Balance**
8,202.5	9,567.0	9,443.5	8,294.6	9,543.8	7,431.2	7,733.9	8,602.3	(1,311)	9,913	**From: Farmers Irrigation Company**
328.2	214.9				33.0					**To:** Canyon Irrigation Company
	4.0			185.4	5.6					**To:** Brucker Family Trust
	53.8	77.7	56.4	51.2	63.4	77.2				**To:** Ortiz Trust - Joseph & Sons
			98.9							**To:** Bender Reality LTD
			32.9							**To:** Rancho Filoso, LLC
		190.0	306.0	150.0	170.0	85.0				**To:** McGrath, John & Sons
						426.3				**To:** Alta Mutual Water Company
			3.9	3.3						**To:** Aramblua, Pedro
				100.0	100.0					**To:** Strata Holdings LP
			4.5	9.4						**To:** Grant Family Ranches
			113.4			116.1				**To:** TVC Pinkerton Ranch LLC
8,530.7	9,839.7	9,711.2	8,910.6	10,043.1	7,803.1	8,438.4	9,039.5	(873.7)	9,913	**Farmers Irrigation Company Balance**
407.6	238.7	1442.4	2069.1	2013.9	1,526.5	1,342.9	1,291.6	619	673	**Canyon Irrigtion Company**
-328.2	-214.9	0.0	0.0	0.0						**To:** City of Santa Paula
		0.0	0.0	0.0						**Returned to Creek**
328.2	214.9	0.0	0.0	0.0						**From:** Farmers Irrigation Company
		-72.5	-120.4	-136.1	-79.8					**From:** Limoneira Company for La Cuesta over use
-118.6		-689.5	-1242.0	-674.0	-756.2	-441.0				**From:** Limoneira Company

Draft Table "D-4"
Temporary Water Transfers

7/17/2017

2010	2011	2012	2013	2014	2015	2016	7 Year Average	Avg Over + Under (-)	AF Annual Allocation	Transfering Parties
289.0	238.7	680.4	706.6	1203.8	690.5	901.9	673.0	(0.03)	673	**Canyon Irrigation Company Balance**
4,505.3	4,523.1	4,771.4	5,054.0	4,691.7	4,012.9	3,932.1	4,498.6	(1,062)	5,560	**City of Santa Paula**
-328.2	-214.9				-33.0					**From:** Canyon Irrigation Company
62.2	62.2	62.2	62.2	62.2	62.2	62.2				**From:** Limoneira Company (62.2 Permenant Transfer '16)
4,239.3	4,370.4	4,833.6	5,116.2	4,753.9	4,042.1	3,994.3	4,478.5	(1,082)	5,560	**City of Santa Paula Balance**
212.5	212.5	212.5	212.5	295.51	286.57		204.6	(117)	321.2	**From:** Dickenson, D&P Dickenson Family Revocable Tr.
34.5	51.0	13.8								**To:** Gooding Ranch (John F. Gooding)
247	263.5	226.3	212.5	295.51	286.57		218.8	(102)	321.2	**Dickenson, D&P Dickenson Family Rev. Tr Balance**
143.75	152.5	115.6	128.9	136.29	125.06	34.3	119.5	18	101.8	**Gooding Ranch (John F. Gooding)**
-34.5	-51.0	-13.8								**From:** Dickeson, D&P Dickenson Family Rev. Tr.
			-28.1	-35.0	-24.0					**From:** Limoneira Company
109.25	101.5	101.8	100.8	101.29	101.06	34.3	92.9	(8.9)	101.8	**Gooding Ranch (John F. Gooding) Balance**
168.9	122.9	176.5	149.6	124.8	162.9	123.7	147.1	(35)	181.6	**From: McGaelic Group (1)**
				48.8						**To:** McGrath, John & Sons (Permanent Transfer of 55.9)
168.9	122.9	176.5	149.6	173.6	162.9	123.7	154.0	(28)	181.6	**McGaelic Group Balance**
0	0	0	0	0			-	-	0.0	**From: Shores, John Family Partnership**
120.4	0.0	85.4	-439.7							**To:** McGrath, John & Sons (Permanent Transfer of 126.7)
120.4	0.0	85.4	-439.7	0.0			(0.0)	(0)	0.0	**Shores, John Family Partnership Balance**
351.2	288.9	356.8	570.6	392.0	479.9	296.6	390.9	107	283.6	**McGrath, John & Sons**
				-48.8						**From:** McGaelic Group
										From: Shores, John Family Partnership
		-190	-306.0	-150.0	-170.0	-85.0	(116.6)			**From:** Farmers Irrigation Company
351.2	288.9	166.8	264.6	193.2	309.9	211.6	255.2	(28.4)	283.6	**McGrath, John & Sons Balance**
0.0	0.0	0.0	0.0	0.0			-	-	0.0	**Regents of the University of California**
0	0.0	0.0	0.0	0.0						**From:** Leavens Ranches
0.0	0.0	0.0	0.0	0.0			-	-	0.0	**Regents of the University of California Balance**
0.0	0.0	0.0	0.0	0.0	0.0		-	-	0.0	**WH Ventura 165 LLC (Regents)**
-73.9	-60.0	-60.0	-52.0	172.0			(10.6)			**From: Leavens Ranches**
				-74.5	0.0		(10.6)			**From: Limoneira Company**
-73.9	-60.0	-60.0	-52.0	97.5	0.0		(21.2)	(21)	0.0	**WH Ventura 165 LLC**
168.5	161.6	178.5	176.5	235.5	195.0	159.1	182.1	(13)	195.3	**From: Leavens Ranches**

Draft Table "D-4"
Temporary Water Transfers

7/17/2017

2010	2011	2012	2013	2014	2015	2016	7 Year Average	Avg Over + Under (-)	AF Annual Allocation	Transfering Parties
73.9	0.0	0.0	0.0							**To:** Regents of the University of California
				-135.1						**From:** Limoneira Company
242.4	161.6	178.5	176.5	100.4	195.0	159.1	173.4	(21.9)	195.3	**Leavens Ranches Balance**
1151.8	1252.6	1225.2	1017.1	1092.2	1114.4	1268.1	1,160.2	397	763.5	**Riverbank Citrus LLC**
-109.0	-394.0	-413.0	-160.7	-231.0	-250.0	-526.4				**From:** Limoneira Company
-102.1	-95.3	-48.7	-141.9	-98.3	-100.9	-105.6				**From:** Nutwood Farms
940.7	763.3	763.5	714.5	762.9	763.5	636.1	763.5	(0.0)	763.5	**Riverbank Citrus LLC Balance**
24.3	31.1	25.9	33.5	28.1	25.5	23.4	27.4	(99)	126.4	**From: Nutwood Farms**
102.1	95.3	48.7	141.9	98.3	100.9	105.6				**To:** Riverbank Citrus LLC
126.4	126.4	74.6	175.4	126.4	126.4	129.0	126.4	(0)	126.4	**Nutwood Farms Balance**
0.0	0.5	3.8	1.2	1.1	0.5		1.0	(9)	10.0	**From: Little Clara Ranch LLC**
5.2	5.2									**To:** We 5 Properties
5.2	5.7	3.8	1.2	1.1	0.5		2.5	(8)	10.0	**Little Clara Ranch Balance**
15.0	11.3	11.5	46.8	23.9	28.2	44.3	25.9	16	9.8	**We 5 Properties**
-5.2	-5.2									**From:** Little Clara Ranch LLC
			-30.2	0.0	-42.98	-28.77				**From:** Alta Mutual Water Company
9.8	6.1	11.5	16.6	23.9	-14.8	15.5	9.8	0.00	9.8	**We 5 Properties Balance**
0.0	0.0	0.0	0.0	0.0	0.0		-	(108)	107.5	**From: The Nature Conservency**
					70.0					**To: County of Ventura Gen Services Agency Jail**
	107.5	107.5	107.5	100.0						**To:** Brucker Family Trust
0.0	107.5	107.5	107.5	100.0	70.0		70.4	(37.1)	107.5	**The Nature Conservancy Balance**
409.0	388.0	379.0	363.0	561.9	237.0	266.7	372.1	96	276.5	**Brucker Family Trust**
	-107.5	-107.5	-107.5	-100						**From:** The Nature Conservency
	-4.0			-185.4	-5.6	-51.7				**From:** Farmers Irrigation Company
409.0	276.5	271.5	255.5	276.5	231.5	215.1	276.5	0.00	276.5	**Brucker Family Trust Balance**
99.3	92.4	116.3	95.0	89.8	102.0	115.8	101.5	63	38.6	**Ortiz Trust - Joseph & Sons**
	-53.8	-77.7	-56.4	-51.2	-63.4	-77.2				**From:** Farmers Irrigation Company
99.3	38.6	38.6	38.6	38.6	38.6	38.6	47.3	8.67	38.6	**Ortiz Trust - Joseph & Sons Balance**
11.6	6.4	5.9	9.9	8.9	11.8	13.2	9.7	0	9.6	**The Judson T. Cook & Suzette H. Cook Revocable Tru**
		-2.0				-11.6				From: Limoneira Company
11.6	6.4	3.9	9.9	8.9	11.8	1.6	7.7	(1.89)	9.6	**The Judson T. Cook & Suzette H. Cook Revocable Trust da**

Draft Table "D-4"
Temporary Water Transfers

7/17/2017

2010	2011	2012	2013	2014	2015	2016	7 Year Average	Avg Over + Under (-)	AF Annual Allocation	Transfering Parties
563.3	595.9	757.6	241.0	1,018.4	1,175.1	1,386.5	819.7	57	763.1	**From: Alta Mutual Water Company**
			30.2							**To:** We 5 Properties
						-426.3				**From: Farmers Irrigation Company**
563.3	595.9	757.6	271.2	1018.4	1175.1	960.2	763.1	0.0	763.1	**Alta Mutual Water Company Balance**
146.29	93.31	103.6	162.34	134.36	148.11	111.92	128.6	61	68.0	**Tucker Ranch**
			-146.2	-90.0	-132.0	-43.0				From: Limoneira Company
						37.5				To: Yoon Family Trust
146.29	93.31	103.6	16.1	44.4	16.1	106.5	75.2	7.2	68.0	**Tucker Ranch Balance**
10.7	10.7	10.3	10.3	6.21	4.43		7.5	5	2.9	**Arambula, Pedro**
			-3.9	-3.3						From: Farmers Irrigation Company
			-3.5							From: Correction of Reporting to United (3)
10.7	10.7	10.3	2.9	2.9	4.4		6.0	3	2.9	**Arambula, Pedro Balance**
289.5	233.1	298.3	387.5	273.7	247.8		247.1	(45)	292.6	**Bender Reality, LTD & Bender Farms**
			-98.9							From: Farmers Irrigation Company
289.49	233.09	298.28	288.6	273.7	247.8		233.0	(60)	292.6	**Bender Reality, LTD & Bender Farms**
11.6	3.1	13.3	13.5	13.9	6.8		8.9	(1)	9.6	**Garcia, Elias & Guadalupe**
			-3.9	-4.3						From: Castaneda, Albert & Mary
11.6	3.14	13.31	9.6	9.6	6.8		7.7	(1.9)	9.6	**Garcia, Elias Balance**
85.0	85.0	44.7	63.8	88.0	140.0		72.3	(29)	101.4	**From: Castaneda, Albert & Mary**
			3.9	4.3						To: Garcia, Elias & Guadalupe
85	84.95	44.67	67.7	92.3	140.0		73.5	(28)	101.4	**Castaneda, Albert & Mary**
58.8	60.0	60.0	36.6	41.5	31.4		41.2	(12)	52.9	**Grant Family Ranches**
			-4.5	-9.4						From:Farmers Irrigation Company
58.75	60	60	32.1	32.1	31.4		39.2	(14)	52.9	**Grant Family Ranches Balance**
93.2	116.5	130.2	157.9	160.6	172.6	143.7	139.2	20	119.6	**Rancho Filoso, LLC**
				-11.2	-65.0	-28.7				From: JM Sharp Company
			-32.9							From:Farmers Irrigation Company
93.21	116.52	130.22	125.0	149.4	107.6	115.0	119.6	(0.0)	119.6	**Ranch Filoso, LLC Balance**
145.28	81.09	79.99	115.15	114.37	95.47	0	90.2	(77.1)	167.3	**From: Sharp, JM Compnay**
				11.2	65.0	28.7				To: Rancho Filloso
						15.0				Cook, The Judson T. Cook & Suzette H. Cook Revocable
145.28	81.09	79.99	115.15	125.57	160.47	43.7	107.3	(60.0)	167.3	**Sharp, JM Company Balance**

Draft Table "D-4"
Temporary Water Transfers

7/17/2017

2010	2011	2012	2013	2014	2015	2016	7 Year Average	Avg Over + Under (-)	AF Annual Allocation	Transfering Parties
11.6	6.4	5.9	9.9	8.9	11.8	13.2	9.7	0.1	9.6	**Cook, The Judson T. Cook & Suzette H. Cook**
						-15.0				From: Sharp, JM Company
11.6	6.4	5.9	9.9	8.9	11.8	(1.8)	7.5	(2.1)	9.6	**Cook, The Judson T. Balance**
187.55	102.11	206.31	315.42	206.04	247.64	187.17	207.5	75.0	132.5	**TVC Pinkerton Ranch LLC**
-55.26	-48.31	-47.65	-16.23	-31.47						From: Pinkerton, W. J. Estate Ranch
			-113.4	-69.8	-116.1	-116.1				From: Farmers Irrigation Company
132.29	53.8	158.66	185.79	104.77	131.50	71.12	119.7	(12.8)	132.5	**TVC Pinkerton Ranch LLC Balance**
103.44	110.39	111.05	142.47	127.23	0		84.9	73.8	158.7	**From: Pinkerton W. J. Estate Ranch**
55.26	48.31	47.65	16.23	31.47			289.3			**To: TVC Pinkerton Ranch LLC**
158.7	158.7	158.7	158.7	158.7	0.0		113.4	(45.3)	158.7	**TVC Pinkerton Ranch LLC Balance**
57.5	54.67	51.44	64.07	103.6	72.93	73.31	68.2	0.0	62.1	**Strata Holdings LP**
				-100.0	-100.0					From: Farmers Irrigation Company
57.5	54.67	51.44	64.07	3.6	-27.07	73.31	39.6	(22.5)	62.1	**Strata Holding LP Balance**
154.69	154.99	70.05	175.15	168.18	142.3	121.33	141.0	(31.2)	172.2	**County of Ventura, General Services Agency**
					-70					**From:** The Nature Conservancy
154.69	154.99	70.05	175.15	168.18	72.3	121.33	131.0	(41.2)	172.2	**County of Ventura, General Services Agency Jail Bal**
4.8	4.8	4.8	4.8	2.4	16.66	79.09	16.8	(14.2)	31.0	**Yoon Family Trust**
						-37.54	(5.4)			**From: Tucker Ranch**
4.8	4.8	4.8	4.8	2.4	16.66	41.55	11.4	(19.6)	31.0	**Yoon Family Trust Balance**

Draft Table "D-5"

Original and Acquired Allocation of the City of San Buenaventura

2010 (6)	2011 (7)	2012 (7)	2013 (7)	2014 (7)	2015 (7)	2016 (7)	7 Year Average	Over (+) Under (-)	Acre Feet	Party Name	Well Number	Predecessor
227.8	227.8	227.8	227.8	162.4	229.1	243.4	220.89	0.9	220.0	City of San Buenaventura	02N/22W-03E01 (1)	Juanamaria Land Company
									5.8	City of San Buenaventura	3N/21W-21B3	McConica, John R. et al. (3)
97.8	100.5	61.0	74.5	97.6	97.8	15.4	77.8	54.7	23.1	City of San Buenaventura	3N/22W-34R1, 3N21W20F04	WH Ventura 165 LLC (10)
									12.0	City of San Buenaventura	03N/22W-35N01	Fam, J LLC (9)
325.7	328.3	288.8	302.3	260.0	326.9	258.8	298.69	37.8	**260.9**	**Total Aquired by City of San Buenaventura**		
402.0	733.2	754.7	672.9	629.0	2,318.3	2,897.6	1,201.10	(1,798.9)	3,000.0	City of San Buenaventura	02N/22W-02K09 (2) 2N/22W-02H02 (8)	
727.7	1,061.5	1,043.5	975.2	889.0	2,645.2	3,156.3	1,499.78	(1,761.1)	**3,260.9**	**Total City of San Buenaventura**		

(1) Shared well allocated 356.0 AF/Year of production for 2007 to 2013 between City of San Buenaventura and Hadley Williams Partnership by 64/36% of allocation a production meter should be used.
(2) Well number was added.
(3) McConica allocation transfer.
(4) Source of well production data: Santa Paula Basin 2008 Annual Report (2004-2008), Appendix D - Groundwater Allocations and Pumpage, Table D-1 and Table D-2.
(5) Source of well productin data for 2009: United Water Conservation District 2009SPbasinbywell.xls
(6) Source of well production data for 2010: United Water Conservation District SP 10-1 and SP 10-2.
(7) Source of production data for 2011, 2012, 2013, 2014, 2015 and 2016 was the United Water Conservation District, reviewed by the Association.
(8) New well put online in 2015.
(9) Permanent water transfer from J Fam, LLC to City of Ventura in 2015 (12.0 AF)
(10) Permanent water transfer from WH Ventura 165 LLC to City of Ventura, 2016 (23.1 AF)