

**Coachella Valley Water District  
Coachella Water Authority  
Desert Water Agency  
Indio Water Authority**

## **Indio Subbasin Annual Report for Water Year 2018-2019**

**February 2020**



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**FINAL**

**INDIO SUBBASIN ANNUAL REPORT  
FOR WATER YEAR 2018-2019**

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COACHELLA VALLEY WATER DISTRICT  
COACHELLA WATER AUTHORITY  
DESERT WATER AGENCY  
INDIO WATER AUTHORITY

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**February 2020**



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*In cooperation with:*



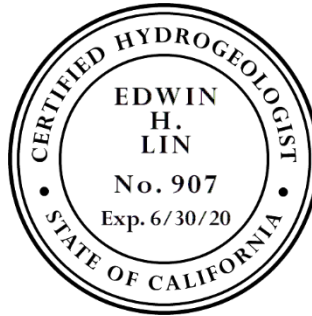
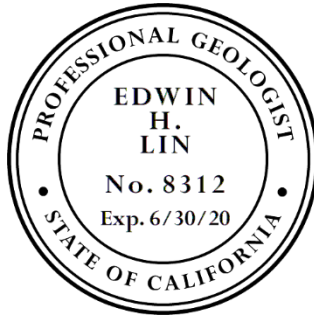
## Alternative Annual Report Elements Guide - Indio Subbasin Annual Report for Water Year 2018-2019

<i>California Code of Regulations - GSP Regulation Sections</i>	<b>Alternative Elements</b>	<b>Document which attachment(s) contains the applicable alternative element.</b>	<b>Document which section(s), page number(s), or briefly describe why that Alternative element does not apply to the entity.</b>
<b>Article 7</b>	<b>Annual Reports and Periodic Evaluations by the Agency</b>		
<b>§ 356.2</b>	<b>Annual Reports</b>		
	Each Agency shall submit an annual report to the Department by April 1 of each year following the adoption of the Plan. The annual report shall include the following components for the preceding water year:		
	(a) General information, including an executive summary and a location map depicting the basin covered by the report.	Annual Report	An executive summary is provided as the first section of the Annual Report. Maps depicting the Indio Subbasin are shown on Figures 1-1 and 1-2.
	(b) A detailed description and graphical representation of the following conditions of the basin managed in the Plan:		
	(1) Groundwater elevation data from monitoring wells identified in the monitoring network shall be analyzed and displayed as follows:		
	(A) Groundwater elevation contour maps for each principal aquifer in the basin illustrating, at a minimum, the seasonal high and seasonal low groundwater conditions.	Annual Report	A groundwater contour map is provided on Figure 3-2 for WY 2018 -2019. Seasonal changes are generally not significant in this large basin, as shown in hydrographs provided on Figure 3-2.
	(B) Hydrographs of groundwater elevations and water year type using historical data to the greatest extent available, including from January 1, 2015, to current reporting year.	Annual Report	Representative hydrographs are provided on Figure 3-2. Water year type is not provided because the basin is not directly affected by runoff conditions in Sacramento and San Joaquin River, but instead receives water from the Colorado River.
	(2) Groundwater extraction for the preceding water year. Data shall be collected using the best available measurement methods and shall be presented in a table that summarizes groundwater extractions by water use sector, and identifies the method of measurement (direct or estimate) and accuracy of measurements, and a map that illustrates the general location and volume of groundwater extractions.	Annual Report	Groundwater extraction by water use section is described in Section 4 of the annual report. Extractions, methods of measurement, and accuracy of measurements are summarized in Table 4-1. A map of groundwater extractions is provided on Figure 4-1.
	(3) Surface water supply used or available for use, for groundwater recharge or in-lieu use shall be reported based on quantitative data that describes the annual volume and sources for the preceding water year.	Annual Report	Surface water supply and use is described in Section 5. Direct use of surface water is summarized in Table 5-3.
	(4) Total water use shall be collected using the best available measurement methods and shall be reported in a table that summarizes total water use by water use sector, water source type, and identifies the method of measurement (direct or estimate) and accuracy of measurements. Existing water use data from the most recent Urban Water Management Plans or Agricultural Water Management Plans within the basin may be used, as long as the data are reported by water year.	Annual Report	Total water use is described in Section 6. Table 6-1 summarizes water sources for each water use sector and provides the method of measurement and accuracy of measurements.
	(5) Change in groundwater in storage shall include the following:		
	(A) Change in groundwater in storage maps for each principal aquifer in the basin.	Annual Report	There is one principal aquifer for the Indio Subbasin. Change in storage is described in Section 7 and summarized on Figure 7-1.
	(B) A graph depicting water year type, groundwater use, the annual change in groundwater in storage, and the cumulative change in groundwater in storage for the basin based on historical data to the greatest extent available, including from January 1, 2015, to the current reporting year.	Annual Report	Historical annual change in groundwater storage since 1970 is depicted in graphical form on Figure 7-2. Cumulative change in storage since 1970 is presented depicted in graphical form on Figure 7-3.
	(c) A description of progress towards implementing the Plan, including achieving interim milestones, and implementation of projects or management actions since the previous annual report.	Annual Report	A description of progress toward implementing the plan is provided in Section 8. A detailed status for WY 2018-2019 is provided in Table 8-2.

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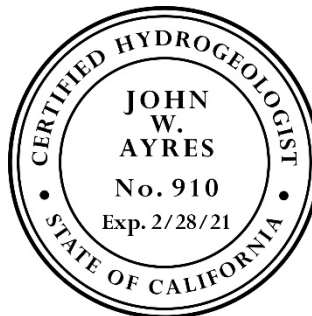
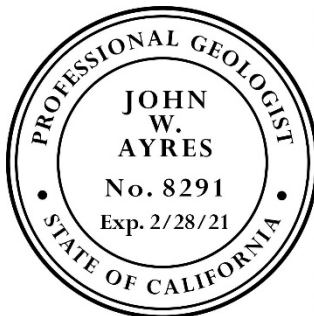


A handwritten signature in blue ink, appearing to read "Edwin H. Lin".

Edwin H. Lin, PG, CHG

Principal Hydrogeologist

Todd Groundwater



A handwritten signature in blue ink, appearing to read "John W. Ayres".

John W. Ayres, PG, CHG

Project Manager / Hydrogeologist

Woodard and Curran

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## LIST OF ACRONYMS AND ABBREVIATIONS

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AF	acre-feet
AFY	acre-feet per year
AMI	Advanced Metering Infrastructure
AOB	Area of Benefit
CASGEM	California Statewide Groundwater Elevation Monitoring Program
CRA	Colorado River Aqueduct
CVSC	Coachella Valley Stormwater Channel
CVWD	Coachella Valley Water District
CVWMP	Coachella Valley Water Management Plan
CWA	Coachella Water Authority
CWC	California Water Code
DWA	Desert Water Agency
DWR	California Department of Water Resources
ET	evapotranspiration
°F	degrees Fahrenheit
feet-ags	feet above ground surface
feet-bgs	feet below ground surface
feet msl	feet above mean sea level
GPS	Global Positioning System
GIPSY-OASIS	GNSS-Inferred Positioning System and Orbit Analysis Simulation Software
GRF	Groundwater Replenishment Facility
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
ID	Improvement District
IID	Imperial Irrigation District
InSar	Interferometric Synthetic Aperture Radar
IWA	Indio Water Authority
mgd	million gallons per day
mi <sup>2</sup>	square miles
msl	mean sea level
MC-GRF	Mission Creek Groundwater Replenishment Facility
MSWD	Mission Springs Water District
MWD	Metropolitan Water District of Southern California
MVP	Mid-Valley Pipeline
PD-GRF	Palm Desert Groundwater Replenishment Facility

## LIST OF ACRONYMS (CONTINUED)

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QSA	Quantification Settlement Agreement
RCFCWD	Riverside County Flood Control and Water Conservation District
SGMA	Sustainable Groundwater Management Act
SWRCB	State Water Resources Control Board
SWP	State Water Project
TEL-GRF	Thomas E. Levy Groundwater Replenishment Facility
USBR	United States Bureau of Reclamation
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
VSD	Valley Sanitary District
WRP	Water Reclamation Plant
WWR-GRF	Whitewater River Groundwater Replenishment Facility
WY	Water Year

## EXECUTIVE SUMMARY

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The Coachella Valley Water District (CVWD), Coachella Water Authority (CWA), Desert Water Agency (DWA), and Indio Water Authority (IWA) represent the Groundwater Sustainability Agencies (GSAs) responsible for sustainably managing the Indio Subbasin in compliance with the Sustainable Groundwater Management Act (SGMA).

On behalf of the Indio Subbasin GSAs, Todd Groundwater and Woodard and Curran have prepared this Indio Subbasin Annual Report for Water Year (WY) 2018-2019 (Annual Report) in accordance with annual reporting requirements of the SGMA. The Annual Report summarizes groundwater conditions and the implementation status of projects and management actions in the Indio Subbasin for WY 2018-2019 (October 1, 2018 to September 30, 2019). This report is the third annual report prepared for the Indio Subbasin (designated as Basin No. 7-21.01) by the California Department of Water Resources (DWR, 2003).

### ES-1 BACKGROUND

The Coachella Valley Groundwater Basin has been divided into four subbasins by DWR in California Bulletin 108 (1964) and Bulletin 118 (2003). The four subbasins include the Indio<sup>1</sup>, Mission Creek, San Geronio Pass, and Desert Hot Springs Subbasins (**Figure 1-1**). The Indio, Mission Creek, and San Geronio Pass Subbasins have been designated medium-priority subbasins under the SGMA, and the Desert Hot Springs Subbasin has been designated a very low-priority subbasin.

On December 29, 2016, the Indio Subbasin GSAs submitted to DWR the 2010 Coachella Valley Water Management Plan (CVWMP) Update (CVWD, 2012a), accompanied by a Bridge Document (Indio Subbasin GSAs, 2016) that describes how the 2010 CVWMP Update and supporting documents satisfy the requirements of the SGMA and should be considered as an acceptable Alternative Plan to a Groundwater Sustainability Plan (GSP) for the Indio Subbasin.

On July 17, 2019, DWR approved the Alternative Plan with a requirement to submit a Plan Update by January 1, 2022. The purpose of the Plan Update is to assess the progress of the Alternative Plan in addressing overdraft in the Indio Subbasin and make any needed updates to ensure that future water demands in the Indio Subbasin are reliably met in a cost-effective and sustainable manner.

Additionally, in accordance with SGMA GSP Emergency Regulations (CDWR, 2016), DWR requires that the Indio Subbasin GSAs submit annual reports following submission of the Alternative Plan. The WY 2018-2019 Annual Report must be submitted to DWR by April 1, 2020.

### ES-2 COACHELLA VALLEY GROUNDWATER BASIN, SUBBASINS, AND SUBAREAS

The Coachella Valley Groundwater Basin extends approximately 50 miles southeast from the San Bernardino Mountains to the northern shore of the Salton Sea (**Figure 1-1**). Cities within the Coachella Valley include Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage and the unincorporated communities of North Palm Springs, Thousand

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<sup>1</sup> The Indio Subbasin is also identified as the Whitewater River Subbasin by the United States Geological Survey, 1980. However, the subbasin is identified as the Indio Subbasin in DWR Bulletin 108 (1964) and Bulletin 118 (2003). For continuity, this annual report will identify the subbasin as the Indio Subbasin.

Palms, Thermal, Bermuda Dunes, Oasis, and Mecca. The Coachella Valley is bordered on the north by Mount San Gorgonio in the San Bernardino Mountains, on the west by the San Jacinto and Santa Rosa mountains, on the east by the Little San Bernardino Mountains, and on the south by the Salton Sea. The Coachella Valley lies within the northwesterly portion of California's Colorado Desert, an extension of the Sonoran Desert. The San Bernardino, San Jacinto, and Santa Rosa Mountains impede the eastward movement of storms and create a rain shadow, which results in an arid climate and greatly reduces the contribution of direct precipitation as a source of recharge to the Coachella Valley Groundwater Basin.

Although there is subsurface groundwater flow throughout the groundwater basin, fault barriers, constrictions in the groundwater basin profile, and areas of low permeability limit and control movement of groundwater. Based on these occurrences, the Coachella Valley Groundwater Basin has been divided into four subbasins as described by DWR in Bulletin 108 (1964) and Bulletin 118 (2003). The subbasins are defined without regard to water quantity or quality and delineate areas underlain by formations that readily yield stored groundwater through water wells and offer natural reservoirs for the regulation of water supplies. The boundaries between the subbasins within the Coachella Valley Groundwater Basin are generally defined by faults that impede the lateral movement of groundwater flow.

The Indio Subbasin underlies the major portion of the Coachella Valley floor and encompasses approximately 465 square miles (mi<sup>2</sup>). The Indio Subbasin extends from the Interstate 10 and State Highway 111 intersection in the northwest approximately 50 miles to the southeast, terminating at the northern shoreline of the Salton Sea. The Indio Subbasin underlies the Cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, and Coachella, and the unincorporated communities of Thousand Palms, Thermal, Bermuda Dunes, Oasis, and Mecca.

The Indio Subbasin is bordered on the southwest by the Santa Rosa and San Jacinto Mountains. The Indio Subbasin is separated from the Mission Creek Subbasin by the Banning Fault, and from the Desert Hot Springs Subbasin by the San Andreas Fault (**Figure 2-1**). Both faults represent effective barriers to groundwater flow. Within the Indio Subbasin, the Garnet Hill Fault also partially impedes groundwater flow from the Garnet Hill Subarea to the south. From about the City of Indio southeasterly to the Salton Sea, the Indio Subbasin is characterized by increasingly thick layers of silt and clay, especially in the shallower portions of the Indio Subbasin. These silt and clay layers are remnants of ancient lakebed deposits and impede the percolation of water applied for irrigation (DWR 1964). In 1964, DWR estimated that the Indio Subbasin contained approximately 29,800,000 acre-feet (AF) of water in the first 1,000 feet below the ground surface, or approximately 76 percent of the total groundwater in the Coachella Valley Groundwater Basin.

The Indio Subbasin has been divided by DWR (1964) into five subareas: Palm Springs, Thermal, Thousand Palms, Oasis, and Garnet Hill (**Figure 2-2**). Subareas have been delineated based on one or more of the following geologic or hydrogeologic characteristics: type(s) of water-bearing formations, water quality, areas of confined groundwater, and groundwater or surface drainage divides. Located in the northwestern portion of the Indio Subbasin, the Palm Springs Subarea is bounded by the Garnet Hill Fault to the north and the San Jacinto Mountains to the south and extends southeast to Cathedral City. Infiltration of storm runoff (from the San Jacinto Mountains) beneath the Whitewater River in the Palm Springs Subarea represents the primary source of natural recharge in the Indio Subbasin. Subsurface inflow to the Palm Springs Subarea from the San Gorgonio Pass and Mission Creek Subbasins also contribute to natural recharge in the Indio Subbasin. Groundwater of the Palm Springs Subarea moves

southeastward into the Thermal Subarea underlying the central portion of the Coachella Valley. The hydrostratigraphy of the Thermal Subarea is generally characterized by an Upper Aquifer and Lower Aquifer separated by a semi-confining aquitard. The aquitard is absent along the southwestern margins of the Thermal Subarea. Capping the upper aquifer zone in the Thermal Subarea is a shallow fine-grained zone in which semi-perched groundwater occurs. Semi-perched groundwater has been maintained by irrigation water applied to agricultural lands, necessitating the construction of an extensive subsurface tile drain system (DWR, 1964). Limited hydraulic connection and a more local source of natural recharge has resulted in contrasting groundwater quality between the peripheral Thousand Palms Subarea and the Thermal Subarea. Another peripheral zone of unconfined groundwater that is different in chemical characteristics from water in the major aquifers of the Indio Subbasin is found in the Oasis Subarea, which extends along the base of the Santa Rosa Mountains. The Garnet Hill Fault partially impedes groundwater flow from the Garnet Hill Subarea to the Palm Springs Subarea. This is demonstrated by significant groundwater elevation differences across the Garnet Hill Fault.

### ES-3 GROUNDWATER ELEVATION DATA

As summarized in **Table ES-1**, groundwater levels were measured in 345 wells in the Indio Subbasin in WY 2018-2019. Of these wells, 52 wells were monitored by the Indio Subbasin GSAs (and the Mission Springs Water District [MSWD]) as part of the California Statewide Groundwater Elevation Monitoring (CASGEM) program. The CASGEM program was developed by DWR in 2009 to track seasonal and long-term trends in groundwater elevations in California's groundwater basins and continues to exist as a tool to support the SGMA. The CASGEM program relies and builds upon the previously established local monitoring programs. An additional 293 wells were measured by the Indio Subbasin GSAs in WY 2018-2019 as part of their respective groundwater level monitoring programs.

**Table ES-1**  
**WY 2018-2019 Wells in Water Level Monitoring Program Indio Subbasin**

Monitoring Agency	CASGEM Wells Monitored	Additional Wells Monitored	Total Wells Monitored
Coachella Valley Water District	39	243	282
Coachella Water Authority	1	0	1
Desert Water Agency	4	30	34
Indio Water Authority	6	20	26
Mission Springs Water District	2	0	2
<b>Total</b>	<b>52</b>	<b>293</b>	<b>345</b>

**Figure 3-2** shows the WY 2018-2019 groundwater elevation contour map for the Indio Subbasin. Groundwater elevations presented in this report are representative of the principal aquifer zone. Average groundwater elevations of the principal aquifer for the water year are shown, as water levels do not exhibit strong seasonal trends. Regional groundwater flows are in a northwest-to-southeast direction across the Indio Subbasin. The hydraulic gradients across the Indio Subbasin in WY 2018-2019 were typically steeper in the northwest, flattening downgradient to the southeast. Groundwater elevations and gradients are strongly influenced by groundwater replenishment activities near the Whitewater River

Groundwater Replenishment Facility (WWR-GRF) and Thomas E. Levy Groundwater Replenishment Facility (TEL-GRF). Geological faults, constrictions, and pumping also affect localized hydraulic gradients. Selected water level hydrographs across the Indio Subbasin depict the effects on groundwater levels of historical pumping and benefits of water management actions identified in the 2002 CVWMP and 2010 CVWMP Update, including groundwater replenishment, source substitution, and conservation programs.

Historically, the eastern portion of the Indio Subbasin experienced artesian conditions with sufficient pressure to cause groundwater levels in wells to rise above the ground surface. Beginning in the late 1980s, groundwater use increased, resulting in declining water levels and the loss of artesian conditions. Groundwater water management programs, including groundwater replenishment, source substitution and water conservation, are restoring groundwater levels and artesian conditions in the eastern portion of the Indio Subbasin. The area of artesian conditions has remained relatively stable from WY 2017-2018 to WY 2018-2019 (**Figure 3-3**).

Land subsidence in the Coachella Valley has been investigated since 1995 through an on-going cooperative program between CVWD and the United States Geological Survey (USGS). Analysis of Interferometric Synthetic Aperture Radar (InSAR) data collected from 1995 to 2017 by the USGS indicates that as much as 2.0 feet of subsidence occurred in the Indio Subbasin from 1995 to 2010 near Palm Desert, Indian Wells, and La Quinta (Sneed and Brandt, in press). Since 2010, groundwater levels have stabilized or partially recovered in that area in response to the implementation of source substitution, conservation, and groundwater replenishment programs included in the 2010 CVWMP Update. Elsewhere, up to 1 inch of uplift has been measured since 2011 in the Palm Springs area, corresponding to higher groundwater levels in response to WWR-GRF recharge. In the Thermal area, the ground surface has also rebounded about 2 inches over the past 10 years, returning to elevations observed in 2001. This rebound coincides with commencement of recharge operations at the TEL-GRF in 2009. Continued monitoring of water levels and subsidence is planned by the Indio Subbasin GSAs to track the effects of management actions on land subsidence and help inform future mitigation measures to comply with the SGMA.

## **ES-4 GROUNDWATER EXTRACTION**

A total of 263,366 AF of groundwater was extracted from the Indio Subbasin in WY 2018-2019 (**Table ES-2**). The total groundwater extracted represents a decrease of 24,942 AF (8.7 percent) compared to the volume extracted in WY 2017-2018 (288,308 AF). The urban water use sector experienced the largest decrease in water use volumetrically (-15,989 AF compared to WY 2017-2018, or 6.9%), while the agricultural sector experienced the largest percent decrease in water use (-8,738 AF compared to 51,012 AF in WY 2017-2018, or 17.1 percent).

**Table ES-2**  
**WY 2018-2019 Groundwater Extractions by Water Use Sector in the Indio Subbasin**

Water Use Sector	Groundwater Extractions (AF)	Method of Measurement	Accuracy of Measurement
Agriculture <sup>1</sup>	42,274	100% metered	±2%
Industrial <sup>2</sup>	1,307	16% metered	±2%
		84% estimated	±50%
Urban <sup>3</sup>	218,285	99% metered	±2%
		1% estimated	±50%
Environmental	0	Not applicable	--
Undetermined <sup>4</sup>	1,500	100% estimated	±50%
<b>Total Production</b>	<b>263,366</b>		

Notes:

1 – Includes crop irrigation and fish farms.

2 – Includes 1,100 AF of estimated unreported extractions for industrial tribal water use

3 – Includes municipal and recreational uses. Total includes 1,200 AF of estimated unreported extractions for recreational tribal water use. Of the total urban use, 2,215 AF is exported for use outside the Indio Subbasin

4 – Estimated unreported extraction by minimal pumpers who do not have to report production to CVWD (<25 AFY) or DWA (<10 AFY) and estimated additional unclassified tribal water use

## ES-5 SURFACE WATER USE

Surface water supplies consist of local surface water, imported Colorado River water including water from the Coachella Canal, State Water Project (SWP) exchange water from the Colorado River Aqueduct (CRA), and recycled water produced by public wastewater treatment/reclamation plants.

Natural surface water flow in the Coachella Valley occurs as a result of precipitation and concentrated stream runoff originating from the San Bernardino and San Jacinto Mountains, with lesser amounts originating from the Santa Rosa Mountains. Precipitation data for WY 2018-2019 collected at 12 precipitation monitoring stations in the Coachella Valley are provided in **Table 5-1**. Station locations are shown on **Figure 5-1**. The annual precipitation for these stations during WY 2018-2019 averaged 11.70 inches, or approximately 240 percent above the long-term average.

Streamflow is measured by the USGS at 19 locations within the Indio Subbasin. **Table 5-2** shows the station name and number and the recorded streamflow volumes for WY 2018-2019.

### ES-5.1 Local Surface Water

Desert Water Agency (DWA) operates stream diversions facilities on Snow, Falls, and Chino Creeks, and captures subsurface flow from the Whitewater River Canyon. During WY 2018-2019, 1,632 AF of local surface water was directly used as shown in **Table 5-3**. A total of 974 AF was used for urban water supply



in DWA's service area. An estimated 658 AF of local surface water was used for agricultural irrigation near Whitewater. A total of 497 AF was utilized for groundwater replenishment.

### **ES-5.2 Colorado River Water**

Colorado River water has been a major water supply source for the Indio Subbasin area since the completion of the Coachella Canal in 1949. CVWD is the only agency in the Indio Subbasin that receives Colorado River water allocations. In WY 2018-2019, CVWD's total allocation of Colorado River water was 389,000 AF, an increase of 5,000 AF compared to WY 2017-2018. Approximately 76 percent of the delivered Colorado River water was for agricultural use, about 11 percent was delivered for urban uses, and about 13 percent was replenished at the TEL-GRF and Palm Desert Groundwater Replenishment Facility (PD-GRF).

### **ES-5.3 State Water Project Water**

DWR manages the SWP and determines the available amount of SWP water for delivery based on hydrologic, storage, water rights, water quality, and environmental factors, including requirements for the Sacramento-San Joaquin Delta. While CVWD and DWA have contracts for Table A SWP water, there are no physical facilities to deliver this water to the Coachella Valley. Table A SWP water is exchanged with Colorado River water from the Metropolitan Water District of Southern California's (MWD's) facilities for the Colorado River Aqueduct (CRA). Since 1973, this exchange water has been delivered to the Indio Subbasin for groundwater replenishment at the WWR-GRF.

In WY 2018-2019, CVWD and DWA received 213,380 AF of SWP Exchange water at the WWR-GRF and 4,930 AF at the Mission Creek Groundwater Replenishment Facility (MC-GRF) (in the Mission Creek Subbasin), for a total delivery to the Coachella Valley of 218,310 AF. Of this amount, 112,251 AF was credited to the Advanced Delivery Account. At the end of WY 2018-2019, there were 415,227 AF stored in MWD's Advanced Delivery Account in the Indio Subbasin.

### **ES-5.4 Recycled Water**

**Figure 5-2** shows the locations of water reclamation plants (WRPs) and other wastewater treatment and discharge facilities in the Indio Subbasin. Currently, three WRPs provide recycled water for irrigation in the Indio Subbasin (DWA/City of Palm Springs WRP, CVWD WRP 7, and CVWD WRP 10).

Four additional WRPs in the Indio Subbasin treat wastewater but do not deliver recycled water for direct use. For these wastewater treatment facilities, treated effluent is discharged either to onsite percolation/evaporation ponds or to the Coachella Valley Storm Channel (CVSC). In WY 2018-2019, a total of 41,065 AF of wastewater was treated of which 14,446 AF was recycled and reused, 4,776 AF was discharged through percolation/evaporation, and 21,843 was released to the CVSC.

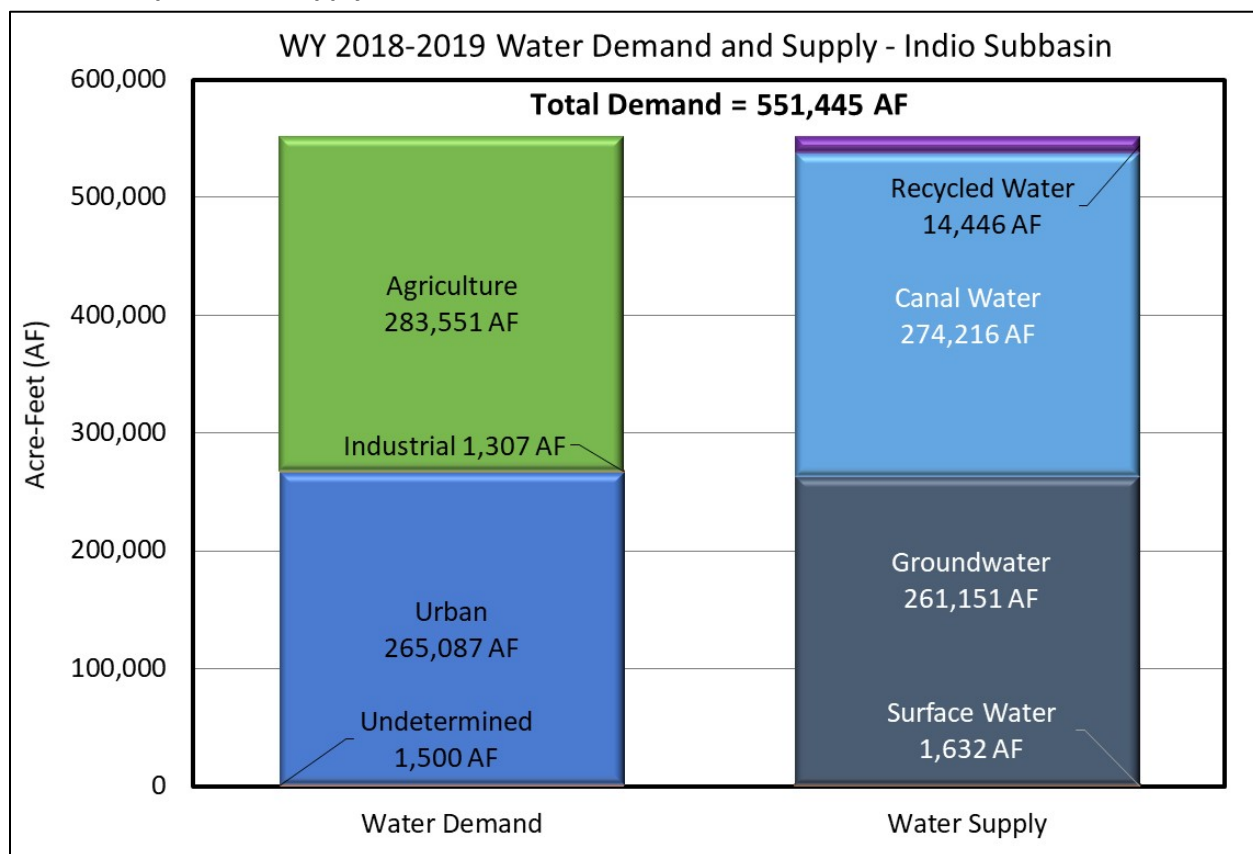
## **ES-6 TOTAL WATER USE**

A total of 551,445 AF of water was delivered for direct use within the Indio Subbasin during WY 2018-2019. This represents a decrease of 42,894 AF compared to WY 2017-2018 (594,339 AF). The lower water usage may be attributed to relatively wet conditions in WY 2018-2019, resulting in lower agricultural and landscape irrigation demands.

As summarized on **Figure ES-1**, total direct use is calculated by summing groundwater production, local surface water diversions, Coachella Canal water, and recycled water for agricultural, industrial, urban, and other undetermined uses, and subtracting the water that is exported for use outside the Indio Subbasin.

Total direct use volumes do not include 5,100 AF of water exported for use outside of the Indio Subbasin. This includes Colorado River water exported outside the Indio Subbasin for agricultural use (1,811 AF) and urban use (1,074 AF), and groundwater pumped from the Indio Subbasin and delivered to CVWD customers in Imperial and Riverside counties on the east and west sides of the Salton Sea (East and West Salton Sea Basins) or pumped by MSWD and delivered to its customers in the Mission Creek and Desert Hot Springs subbasins (2,215 AF).

**Figure ES-1**  
**Comparison of Supply and Demand for Direct Use for the Indio Subbasin - WY 2018-2019**



## **ES-7 GROUNDWATER BALANCE AND CHANGE IN GROUNDWATER STORAGE**

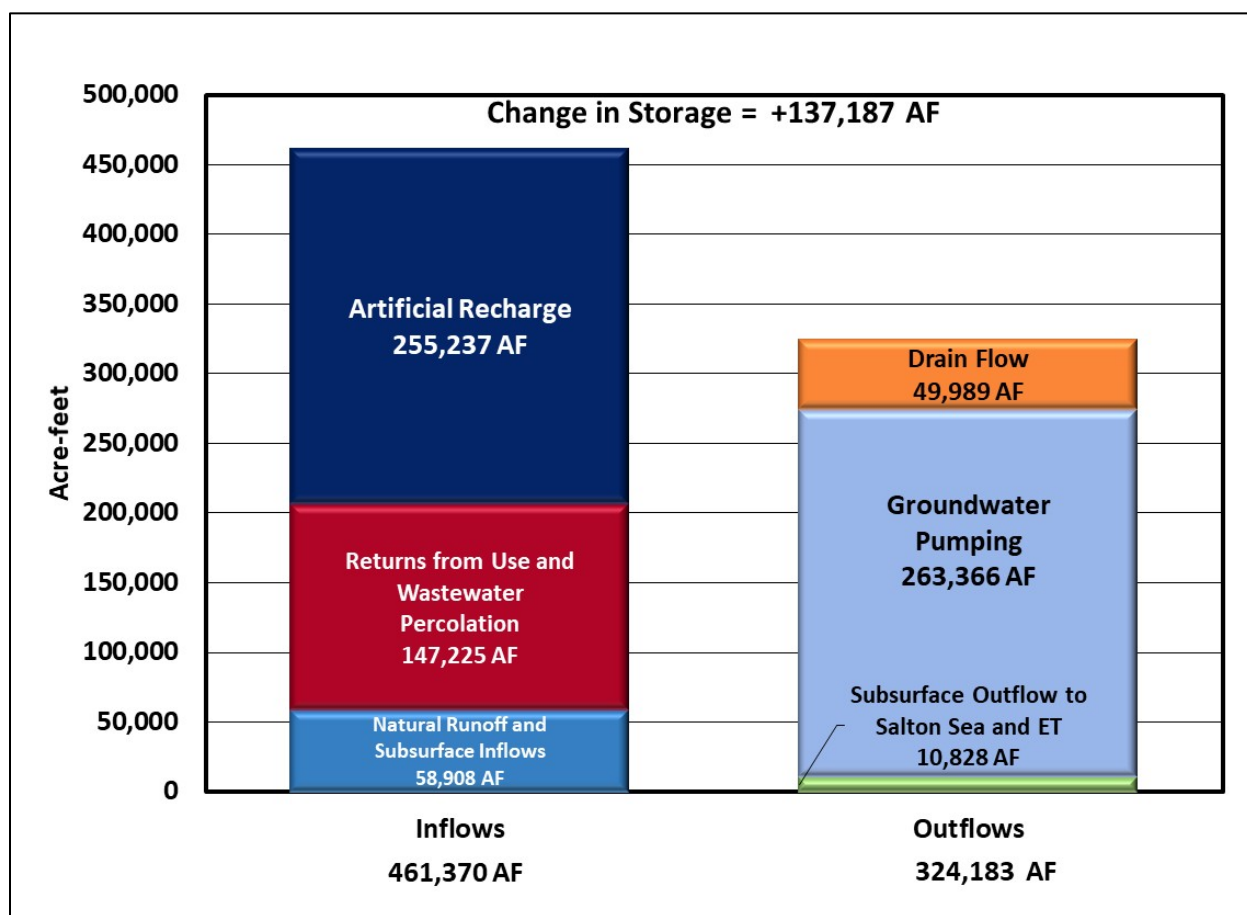
A groundwater balance is helpful in assessing the condition of the groundwater of the Indio Subbasin. The groundwater balance compares the inflows and outflows to the Indio Subbasin for a specific time period. The difference between inflows and outflows at a given time is defined as the change in storage for that time period. The Indio Subbasin groundwater balance for WY 2018-2019, including estimated inflow and outflow quantities, is summarized on **Figure ES-2**.

Groundwater inflows to the Indio Subbasin consist of infiltration of natural inflows, return flows from urban and agricultural uses, artificial recharge, and Salton Sea intrusion. Inflows from outside the Indio

Subbasin consist of underflow from the San Gorgonio Pass and Mission Creek Subbasins and flows across the Banning fault. Groundwater outflows from the Indio Subbasin consist of groundwater pumping, flow from the semi-perched aquifer through the agricultural drains into the Salton Sea, ET from the shallow unconfined aquifer, evaporation losses, and subsurface flow out of the Indio Subbasin into the aquifers beneath the Salton Sea.

The annual change in groundwater storage represents the annual difference between inflows and outflows in the Indio Subbasin. During wet years or periods of high artificial recharge, the change in storage is positive (water in storage increases). In dry years or periods of high pumping, the change in storage is often negative (storage decreases). Because of the large amount of recharge relative to discharges, the Indio Subbasin gained 137,187 AF in storage during WY 2018-2019.

**Figure ES-2**  
**Groundwater Balance for the Indio Subbasin – WY 2018-2019**



Long-term sustainability is typically assessed based on changes in groundwater storage over a historical period on the order of 10 to 20 years that includes wet and dry periods. While the goal of the CVWMP is to eliminate groundwater overdraft, not to restore the subbasin to historical conditions, it is worth noting that since 2009 the basin has recovered approximately 840,000 AF of groundwater in storage, or about 45 percent of the cumulative depletion observed from 1970 to 2009. **Figure 7-3** shows the cumulative change in storage since 1970. The Indio Subbasin was at its minimum storage in 2009 (with a calculated storage loss of 1,890,000 AF from 1970 to 2009, which represents 6 percent of the estimated storage

capacity of the Indio Subbasin). Since 2009, groundwater pumping has decreased by about 25 percent, and replenishment activities have increased leading to the observed recovery of groundwater in storage. The recovery of groundwater storage demonstrates the progress being made through implementation of the CVWMP.

**Figure 7-4** shows the one-year change in average groundwater elevations from WY 2017-2018 to WY 2018-2019 for the Indio Subbasin. Groundwater levels in the Indio Subbasin generally increased from WY 2017-2018 to WY 2018-2019. In the vicinity of the WWR-GRF, groundwater levels declined by 31 to 36 feet. This decline reflects the smaller volume of water replenished in WY 2018-2019 compared to WY 2016-2017 and 2017-2018, resulting in dissipation of the local groundwater mound. In the vicinity of Palm Springs, water levels were generally stable to slightly increasing (up to approximately 17 feet in some wells). In the central portion of the subbasin from Palm Desert to La Quinta, groundwater levels were mostly stable with water level changes ranging from about -5 to 5 feet. In the eastern portion of the subbasin in the vicinity of TEL-GRF, groundwater levels increased by up to 6 feet, with storage benefits observed as far as the Thermal and Mecca areas. Groundwater level increases reflect the continued benefits of recharge operations at the TEL-GRF. Some local groundwater level declines were observed northeast of Bermuda Dunes and adjacent to the Salton Sea.

**Figure 7-5** shows the ten-year change in average groundwater elevations from WY 2008-2009 to WY 2018-2019 for the Indio Subbasin. Groundwater levels in the Indio Subbasin have increased significantly over the past 10 years from WY 2008-2009 to WY 2018-2019. The largest groundwater increases are observed in the vicinity of the WWR-GRF and TEL-GRF, with water level increases of up to about 200 feet and 100 feet in the immediate vicinity of the two facilities respectively. In the mid-valley area near Palm Desert, Indian Wells, and La Quinta, groundwater level increases have ranged from about 7 to 15 feet, reflecting the benefits of source substitution and conservation programs. Some localized declines in groundwater levels are observed in the Palm Desert area to northeast of Bermuda Dunes. Replenishment at the PD-GRF began in February 2019 and is expected to improve groundwater level conditions in the mid-valley region. Groundwater levels in the southeastern portion of the Indio Subbasin have generally increased between 10 and 40 feet, reflecting storage benefits from replenishment operations at the TEL-GRF and decreased pumping.

## **ES-8 SUMMARY OF PROGRESS AND PROJECTS**

The sustainability goals described in the Alternative Plan for the Indio Subbasin identified the following water management elements for implementation:

- Water conservation measures
- Acquisition of additional water supplies
- Conjunctive use programs to maximize supply reliability
- Source substitution programs
- Groundwater recharge programs
- Water quality protection measures
- Other management activities

The Indio Subbasin GSAs continue to implement the goals and programs of the Alternative Plan. Groundwater production remains more than 25 percent less than the historical highs in the early 2000s. The results of the on-going basin monitoring program demonstrate the significant progress being made toward the goal of eliminating long-term groundwater overdraft. In the last 10 years, the Indio Subbasin has gained over 840,000 AF of groundwater in storage.

Groundwater level monitoring demonstrates that most of the Indio Subbasin exhibited water level gains in the past year across most of the Indio Subbasin. Localized water level declines in the Palm Springs area are the residual effect of lower imported replenishment water deliveries to the WWR-GRF compared to previous years.

Over the past ten years, much of the Indio Subbasin experienced water level gains as a result of continued recharge at the WWR-GRF and TEL GRF, conversion of golf courses from groundwater to Coachella Canal and recycled water, and water conservation. Replenishment operations at the PD-GRF began in February 2019 and is expected to contribute significantly to improved groundwater level conditions in the mid-valley region.

CVWD continues to work with the golf courses in its service area to extend the Mid-Valley Pipeline distribution system to serve additional courses with Coachella Canal and recycled water and reduce their groundwater pumping. CVWD's increased allocation of Colorado River water through the Quantification Settlement Agreement (QSA) added 5,000 AF of available supply in 2019.

Groundwater conditions documented in this WY 2018-2019 Annual Report demonstrate the effectiveness of the Alternative Plan in guiding sustainable management of the Indio Subbasin. Over the next approximately 18 months, the Indio Subbasin GSAs will be working to update the Alternative Plan to assess current and future conditions. The Plan Update effort will involve refinement of the hydrogeologic conceptual model; documentation of historical and current groundwater conditions; assessment of future population growth, land use, water demand, and water supplies; identification and prioritization of projects and programs and update of the implementation plan; establishment of groundwater sustainability goals and criteria; and evaluation of groundwater monitoring programs and the data management system. In compliance with the SGMA, the Plan Update will be submitted to DWR by January 1, 2022.

# 1. INTRODUCTION

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The Coachella Valley Water District (CVWD), Coachella Water Authority (CWA), Desert Water Agency (DWA), and Indio Water Authority (IWA), represent the Groundwater Sustainability Agencies (GSAs) responsible for managing the Indio Subbasin in compliance with the Sustainable Groundwater Management Act (SGMA). On behalf of the Indio Subbasin GSAs, Todd Groundwater and Woodard and Curran have prepared this Indio Subbasin Annual Report for Water Year (WY) 2018-2019 (Annual Report) in accordance with annual reporting requirements of the SGMA. The Annual Report summarizes groundwater conditions and the implementation status of projects and management actions in the Indio Subbasin for WY 2018-2019 (October 1, 2018 to September 30, 2019).

## 1.1 REPORT ORGANIZATION

This Annual Report is divided into the following nine sections:

**Section 1 – Introduction** summarizes the report organization, background as related to the SGMA, and the approach used by the four Indio Subbasin GSAs to comply with the SGMA.

**Section 2 – Coachella Valley Groundwater Basin Setting** provides an overview of the Coachella Valley Groundwater Basin, its component subbasins and subareas, and the physiography, climate, and regional geology of the Indio Subbasin.

**Section 3 – Groundwater Elevation Data** describes the sources of groundwater level data and provides a groundwater elevation contour map and hydrographs of groundwater levels over time.

**Section 4 – Groundwater Extraction** summarizes groundwater extraction by volume, area, and water use sectors.

**Section 5 – Surface Water** summarizes the various surface water and surface water-related components in the Indio Subbasin including precipitation, streamflow, imported water deliveries for direct use and groundwater replenishment, and wastewater treatment, disposal, and reuse. This section also includes a description of contracts with the California Department of Water Resources (DWR) and Metropolitan Water District of Southern California (MWD) for access and availability of imported water for use in the Indio Subbasin.

**Section 6 – Total Water Use** provides a summary of the total water use by source and water use sector.

**Section 7 – Groundwater Balance and Change in Groundwater Storage** provides the groundwater balance and change in storage for the Indio Subbasin.

**Section 8 – Description of Progress** provides a summary of progress toward achieving the water management objectives outlined in the 2010 Coachella Valley Water Management Plan (CVWMP) Update.

**Section 9 – References** provides references for this report.

## 1.2 IMPLEMENTATION OF THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT

In 2014, faced with declining groundwater levels (most notably in California's Central Valley), the California Legislature enacted the SGMA, which was intended to provide a framework for the sustainable management of groundwater resources throughout California, primarily by local authorities. The SGMA consisted of three bills, Assembly Bill (AB) 1739 (Dickinson), Senate Bill (SB) 1168 (Pavley), and SB 1319 (Pavley), and was signed into law by Governor Brown on September 16, 2014.

The SGMA required local authorities to form local GSAs by June 30, 2017 to evaluate conditions in their local groundwater basins and adopt locally-based Groundwater Sustainability Plan (GSPs) or Alternative Plans tailored to their regional economic and environmental needs. The SGMA allows a 20-year time frame for GSAs to implement their GSPs or Alternative Plans and achieve long-term groundwater sustainability. It protects existing water rights and does not affect current drought response measures. The SGMA provides local GSAs with tools and authority to:

- Monitor and manage groundwater levels and quality
- Monitor and manage land subsidence and changes in surface water flow and quality affecting groundwater levels or quality or caused by groundwater extraction
- Require registration of groundwater wells
- Require reporting of annual extractions
- Require reporting of surface water diversions to underground storage
- Impose limits on extractions from individual wells, if needed
- Assess fees to implement GSPs and Alternative Plans
- Request revisions of basin boundaries, including establishing new boundaries

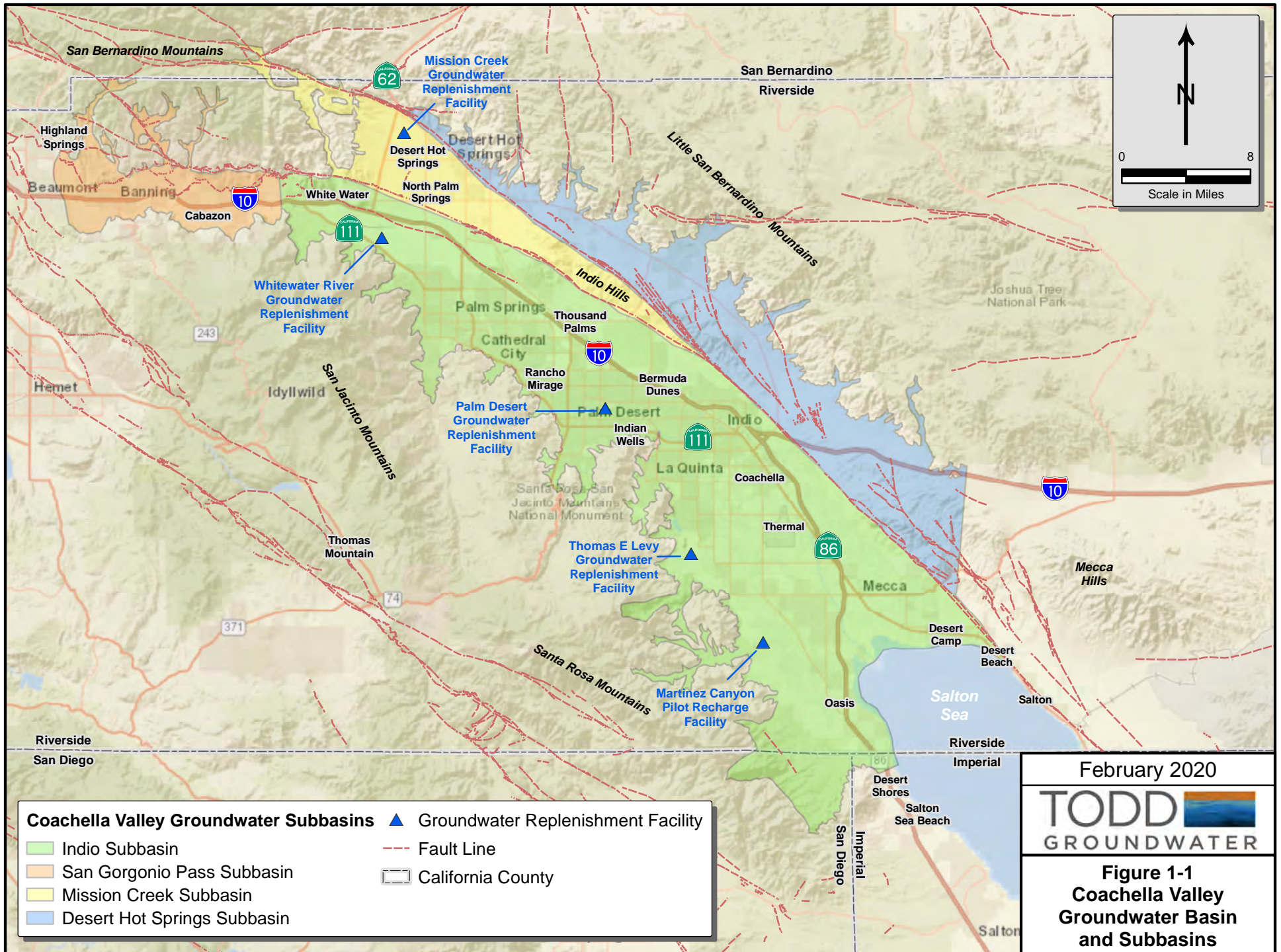
The DWR developed the California Statewide Groundwater Elevation Monitoring (CASGEM) Program to track seasonal and long-term trends in groundwater elevations in California's groundwater basins. Through its CASGEM program, DWR ranked the priority of all 515 groundwater basins and subbasin in California as either very low, low, medium, or high priority. In addition, DWR, as required by the SGMA, identified the basins and subbasins that are in conditions of critical overdraft. Twenty-one basins and subbasins in California were identified as critically-overdrafted. None of the subbasins in the Coachella Valley Groundwater Basin were listed as critically-overdrafted.

The Coachella Valley Groundwater Basin has been divided into four subbasins by DWR in California Bulletin 108 (1964) and Bulletin 118 (2003): they are the Indio<sup>2</sup>, Mission Creek, San Geronio Pass, and Desert Hot Springs Subbasins (**Figure 1-1**). The Indio, Mission Creek, and San Geronio Pass Subbasins were designated medium-priority subbasins under the SGMA, and the Desert Hot Springs Subbasin was designated a very low-priority subbasin.

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<sup>2</sup> The Indio Subbasin is also identified as the Whitewater River Subbasin by the United States Geological Survey, 1980. However, the subbasin is identified as the Indio Subbasin in DWR Bulletin 108 (1964) and Bulletin 118 (2003). For continuity, this annual report will identify the subbasin as the Indio Subbasin.







GSAs responsible for high-priority and medium-priority basins and subbasins must prepare and adopt GSPs by January 31, 2020 for critically-overdrafted basins, and by January 31, 2022 for those not in critical overdraft. GSAs may adopt a single GSP covering an entire basin or combine a number of GSPs created by multiple GSAs. Sustainability must be achieved within 20 years after adoption of the GSP for all high-priority and medium-priority basins. GSAs that elect to submit an Alternative to a GSP (Alternative Plan), rather than prepare a GSP in accordance with California Water Code (CWC) §10727 et seq., must have done so by January 1, 2017, with updates every five years thereafter. The State Water Resources Control Board (SWRCB) is empowered to intervene if local agencies fail to form GSAs or fail to adopt their GSPs or Alternative Plans on schedule.

### **1.2.1 Formation of GSAs by Local Agencies in the Indio Subbasin**

Four separate entities filed Notices of Election with DWR to become GSAs to manage the Indio Subbasin within their respective services areas in compliance with the SGMA:

- Coachella Valley Water District (CVWD)
- Coachella Water Authority (CWA)
- Desert Water Agency (DWA)
- Indio Water Authority (IWA)

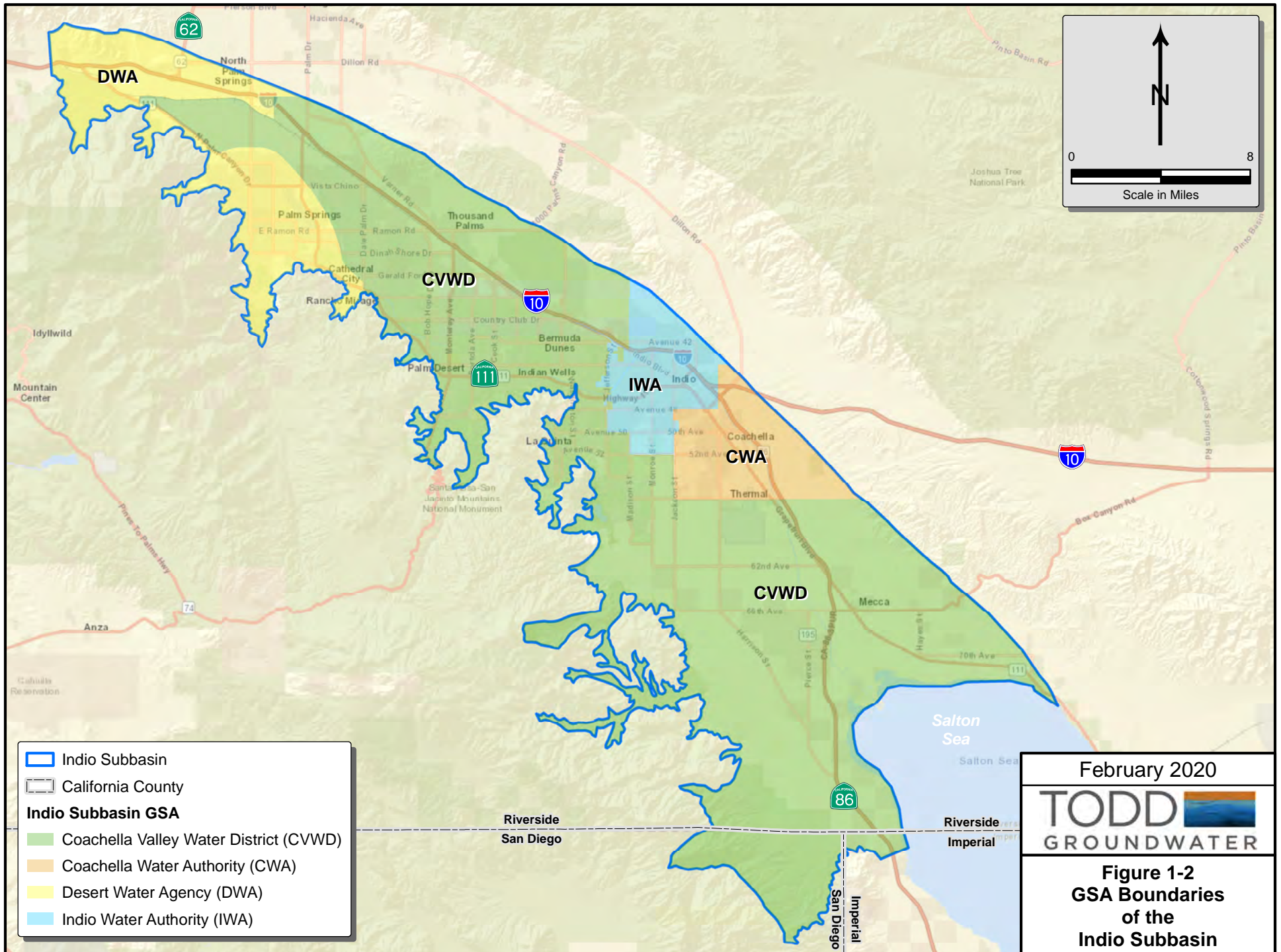
These agencies have been designated as Exclusive GSAs within their respective services areas in the Indio Subbasin and are referred to herein collectively as the Indio Subbasin GSAs. **Figure 1-2** shows the service areas of the Indio Subbasin GSAs within the Indio Subbasin.

### **1.2.2 Submission of the Indio Subbasin Alternative Plan**

The SGMA recognized the efforts many areas, such as the Coachella Valley, had made in developing and implementing local groundwater management plans by allowing existing groundwater management plans to be submitted as an Alternative Plan. Twenty years before the adoption of SGMA, CVWD began development of the initial CVWMP in 1994 to sustainably manage the Coachella Valley Groundwater Basin. The 2002 CVWMP and 2010 CVWMP Update were developed to eliminate long-term overdraft and satisfy the goals and intent of the then-Groundwater Management Planning Act (now superseded by the SGMA).

On December 29, 2016, the Indio Subbasin GSAs collaboratively submitted to DWR the 2010 CVWMP Update (CVWD, 2012a), accompanied by a Bridge Document (Indio Subbasin GSAs, 2016) that describes how the 2010 CVWMP Update and supporting documents satisfy the requirements of the SGMA and thus should be considered as an acceptable Alternative Plan for the Indio Subbasin. The commitment of the Indio Subbasin GSAs to continue assessment of plan assumptions, associated environmental impacts, and implementation status (as required by the SGMA) was further demonstrated and documented in the following additional documents submitted to DWR as part of the Alternative Plan:

- Program Environmental Impact Report (EIR) CVWMP and State Water Project (SWP) Entitlement Transfer (CVWD, 2002b)
- Subsequent Program EIR for the CVWMP 2010 Update (CVWD, 2012b)



- 2014 Status Report on the 2010 CVWMP Update (CVWD and MWH, 2014)
- CVWD Annual Engineer's Reports on Water Supply and Replenishment Assessment for the Mission Creek Subbasin Area of Benefit (AOB), West Whitewater River Subbasin AOB, and East Whitewater River Subbasin AOB
- DWA Annual Engineer's Reports Groundwater Replenishment and Assessment Program for the West Whitewater River Subbasin AOB, Mission Creek Subbasin AOB, and Garnet Hill Subbasin AOB

On July 17, 2019, DWR approved the Alternative Plan for the Indio Subbasin with a requirement to submit a Plan Update by January 1, 2022. The purpose of the Plan Update is to assess the progress of the Alternative Plan at addressing overdraft in the Indio Subbasin and, consistent with the goals of the 2010 CVWMP Update, make any needed updates to ensure that future water demands in the Indio Subbasin are reliably met in a cost-effective and sustainable manner.

Additionally, in accordance with SGMA GSP Emergency Regulations (CDWR, 2016), DWR requires that the Indio Subbasin GSAs submit annual reports following submission of the Alternative Plan. The WY 2018-2019 Annual Report must be submitted to DWR by April 1, 2020.

### **1.2.3 Annual Reporting**

Annual reporting on groundwater conditions in the Indio Subbasin has been performed by CVWD and DWA since 1978. CVWD has published an annual Engineer's Report on Water Supply and Replenishment Assessment for its West Whitewater River Subbasin Area AOB since 1980 and for the East Whitewater River Subbasin AOB since 2004. Similarly, DWA has published an Annual Engineer's Report for the Groundwater Replenishment and Assessment Program in its Whitewater River Subbasin AOB since 1978, and separately for the Garnet Hill Subbasin AOB since 2015. The Engineer's Reports describe groundwater levels, annual water budgets, artificial and natural recharge, and groundwater pumping, as well as the replenishment assessment charged for production within each management area for the following fiscal year.

In accordance with the SGMA (Water Code 10728), on April 1 following the year of adoption of a GSP or submission of Alternative Plan and annually thereafter, the annual report must document the following basin conditions for the preceding water year:

- Groundwater elevation data
- Aggregated data identifying groundwater extraction
- Surface water supply used or available for groundwater recharge or in-lieu use
- Total water use
- Change in groundwater storage
- Progress toward implementing the GSP or Alternative Plan

This Indio Subbasin Annual Report for WY 2018-2019 is the third annual report prepared for the Indio Subbasin in response to the SGMA requirements. This Annual Report contains a discussion of the Coachella Valley Groundwater Basin followed by sections describing each of the annual report elements required by the SGMA.

## **2. COACHELLA VALLEY GROUNDWATER BASIN SETTING**

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**Figure 1-1** shows the location of the Coachella Valley Groundwater Basin and its subbasins, including the Indio Subbasin. The Coachella Valley Groundwater Basin extends approximately 50 miles southeast from the San Bernardino Mountains to the northern shore of the Salton Sea. Cities within the Coachella Valley include Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage and the unincorporated communities of North Palm Springs, Thousand Palms, Thermal, Bermuda Dunes, Oasis, and Mecca. The Coachella Valley is bordered on the north by Mount San Gorgonio in the San Bernardino Mountains, on the west by the San Jacinto and Santa Rosa mountains, on the east by the Little San Bernardino Mountains, and on the south by the Salton Sea. The Coachella Valley lies within the northwesterly portion of California's Colorado Desert, an extension of the Sonoran Desert. The San Bernardino, San Jacinto, and Santa Rosa Mountains impede the eastward movement of storms and create a rain shadow, which results in an arid climate and greatly reduces the contribution of direct precipitation as a source of recharge to the Coachella Valley Groundwater Basin.

### **2.1 CLIMATE**

The bulk of natural groundwater replenishment comes in the form of runoff from the adjacent mountains. Climate in the Coachella Valley is characterized by low humidity, high summer temperatures, and mild dry winters. Average annual precipitation ranges from 3 to 6 inches on the valley floor to more than 30 inches in the surrounding mountains. Most of the precipitation occurs between December and February. Additional discussion of precipitation is provided in Section 5.

Mid-summer high temperatures commonly exceed 100 degrees Fahrenheit (°F), frequently exceed 110°F, and periodically reach 120°F. Winter high temperatures typically range from about 45°F to 70°F.

### **2.2 COACHELLA VALLEY GROUNDWATER BASIN**

The Coachella Valley Groundwater Basin is bounded by crystalline (non-water bearing) rocks of the San Bernardino Mountains and Little San Bernardino Mountains to the north/northwest and of the San Jacinto Mountains and Santa Rosa Mountains to the west/southwest. At the west end of the San Gorgonio Pass Subbasin between Beaumont and Banning, a surface drainage divide separates the Coachella Valley Groundwater Basin from the Beaumont Groundwater Basin of the Upper Santa Ana Drainage Area.

The southern boundary is formed primarily by the watershed of the Mecca Hills and by the northwest shoreline of the Salton Sea. At the base of the Santa Rosa Mountains, the southern boundary crosses the Riverside County Line into Imperial and San Diego Counties.

At the southern boundary of the Indio Subbasin, subsurface materials are predominantly fine grained and low in permeability. Although groundwater is present, it is not readily extractable. A zone of transition exists at these boundaries; to the north the subsurface materials are coarser and more readily yield groundwater.

Although there is subsurface groundwater flow throughout the groundwater basin, fault barriers, constrictions in the groundwater basin profile, and areas of low permeability limit and control movement of groundwater. Based on these occurrences, the Coachella Valley Groundwater Basin has been divided

into subbasins and subareas as described by the California Department of Water Resources (DWR) in Bulletin 108 (1964) and Bulletin 118 (2003)

### **2.2.1 Subbasins and Subareas of the Indio Subbasin**

As shown on **Figure 1-1**, the Coachella Valley Groundwater Basin is divided into four subbasins – Indio, San Gorgonio Pass, Mission Creek, and Desert Hot Springs. The subbasins are defined without regard to water quantity or quality and delineate areas underlain by formations that readily yield stored groundwater through water wells and offer natural reservoirs for the regulation of water supplies.

The boundaries between the subbasins within the Coachella Valley Groundwater Basin are generally defined by faults that impede the lateral movement of groundwater flow. Subareas have also been delineated based on one or more of the following geologic or hydrogeologic characteristics: type(s) of water-bearing formations, water quality, areas of confined groundwater, and groundwater or surface drainage divides. Boundaries for the Indio Subbasin subareas are shown on **Figure 2-2**. Additional description of subarea boundaries is presented in Section 2.3.

The following is a list of the subbasin and associated subareas in the Coachella Valley Groundwater Basin as designated by DWR in Bulletin 108 (1964) and Bulletin 118 (2003), with subbasin numbers as identified by DWR (2003):

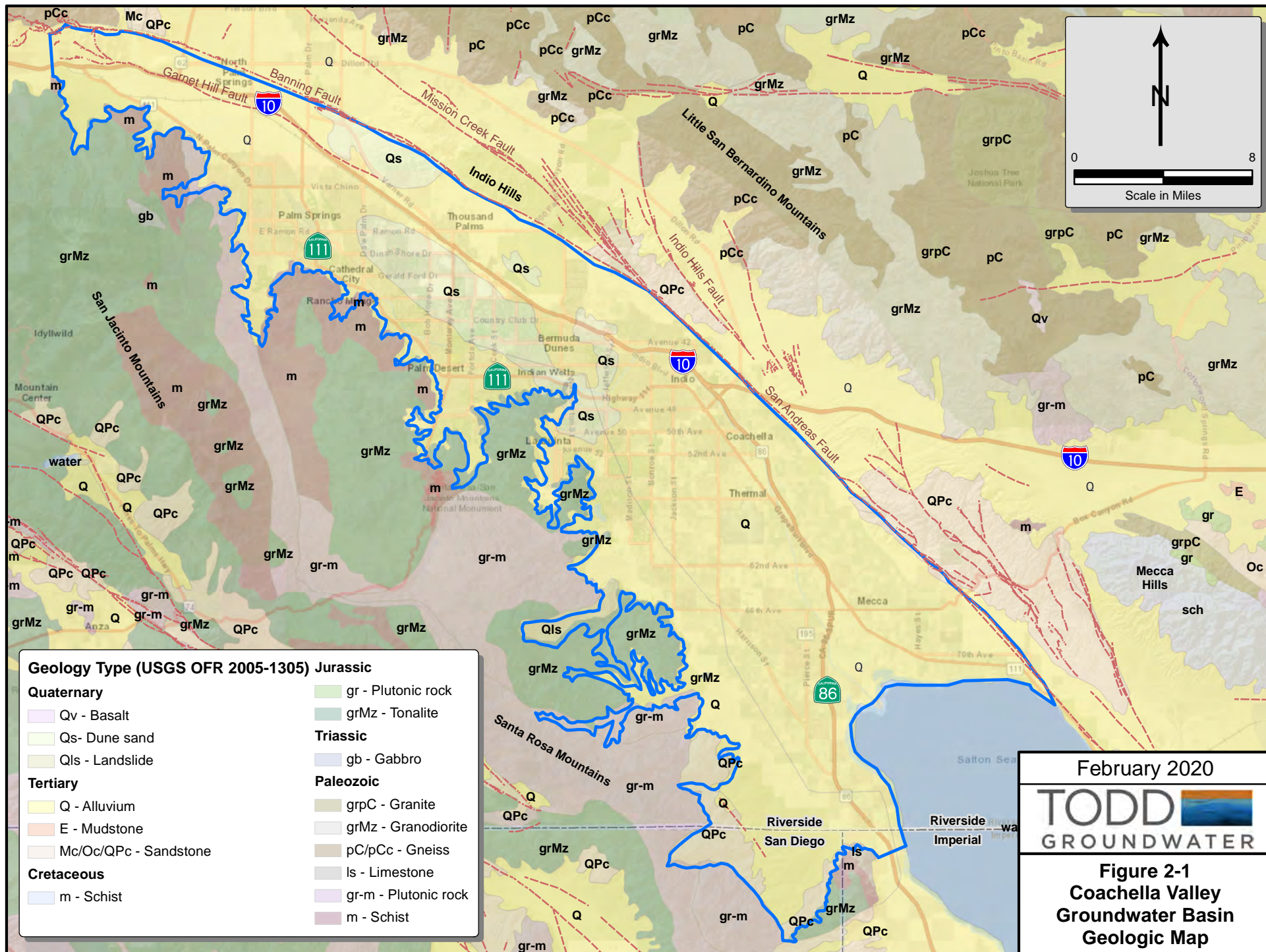
- Indio Subbasin (7-21.01)
  - Palm Springs Subarea
  - Thermal Subarea
  - Thousand Palms Subarea
  - Oasis Subarea
  - Garnet Hill Subarea
- Mission Creek Subbasin (7-21.02)
- Desert Hot Springs Subbasin (7-21.03)
  - Miracle Hill Subarea
  - Sky Valley Subarea
  - Fargo Canyon Subarea
- San Gorgonio Pass Subbasin (7-21.04)

The boundaries (based on faults, barriers, constrictions in basin profile, and changes in permeability of water-bearing units), geology, hydrogeology, water supply, and groundwater storage of the Indio Subbasin and Indio Subareas are further described in the following sections.

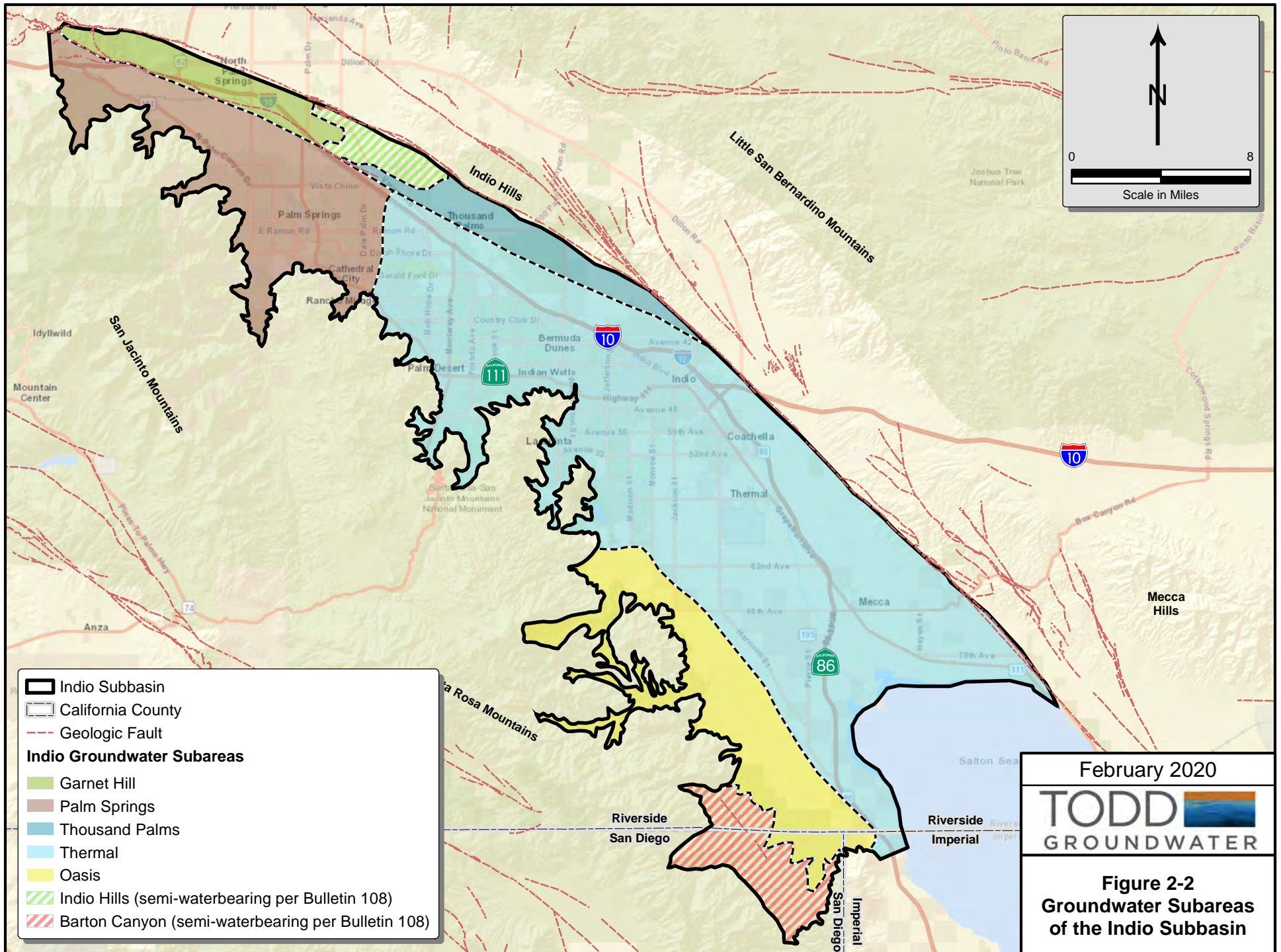
### **2.2.2 Geology**

The Coachella Valley Groundwater Basin encompasses much of the floor area of Coachella Valley. The Coachella Valley itself trends northwest–southeast; its surface slopes generally to the southeast, and is bounded on its northern, northwestern, southwestern, and southern margins by uplifted mountains of bedrock. Coachella Valley sedimentary fill consists of thick sand and gravel sedimentary sequences eroded from the surrounding mountains. Sedimentary infill within the Coachella Valley thickens from north to south, and depending on location within the basin, is at least several thousand and as much as 12,000 feet









February 2020

**TODD** GROUNDWATER

**Figure 2-2**  
Groundwater Subareas  
of the Indio Subbasin

in thickness. The upper approximately 2,000 feet constitute the aquifer system that is the primary source of groundwater supply (DWR, 1979). A geologic map of the Coachella Valley Groundwater Basin is shown on **Figure 2-1**.

### 2.2.3 Basin Storage Capacity

In 1964, DWR estimated that the subbasins in the Coachella Valley Groundwater Basin contained approximately 39,200,000 acre-feet (AF) of water in the first 1,000 feet below the ground surface. The capacities of the individual subbasins (and subareas of the Indio Subbasin) are shown in **Table 2-1**.

**Table 2-1**  
**Coachella Valley Groundwater Basin Groundwater Storage Capacity**

Subbasin or Subarea	Groundwater Storage (AF) <sup>1</sup>
Indio Subbasin	
<i>Garnet Hill Subarea</i>	1,000,000
<i>Oasis Subarea</i>	3,000,000
<i>Palm Springs Subarea</i>	4,600,000
<i>Thermal Subarea</i>	19,400,000
<i>Thousand Palms Subarea</i>	1,800,000
<b>Indio Subbasin Subtotal</b>	<b>29,800,000</b>
San Gorgonio Pass Subbasin	2,700,000
Mission Creek Subbasin	2,600,000
Desert Hot Springs Subbasin	4,100,000
<b>All Subbasins Total</b>	<b>39,200,000</b>

Notes:

1 – Storage volume in first 1,000 feet below the ground surface (DWR, 1964).

## 2.3 INDIO SUBBASIN DESCRIPTION

The Indio Subbasin underlies the major portion of the Coachella Valley floor and encompasses approximately 465 square miles (mi<sup>2</sup>). The Indio Subbasin extends from the Interstate 10 and State Highway 111 intersection in the northwest to approximately 50 miles to the southeast, terminating at the northern shoreline of the Salton Sea.

The Indio Subbasin is bordered on the southwest by the Santa Rosa and San Jacinto Mountains and is separated from the Mission Creek Subbasin by the Banning Fault, and from the Desert Hot Springs Subbasin by the San Andreas Fault (**Figure 2-1**). Both faults represent effective barriers to groundwater flow. Groundwater level differences across the Banning Fault, between the Mission Creek Subbasin and the Garnet Hill Subarea of the Indio Subbasin, are on the order of 200 feet to 250 feet. The San Andreas Fault, extending southeasterly from the junction of the Mission Creek and Banning Faults in the Indio Hills and continuing out of the basin on the east flank of the Salton Sea, is also an effective barrier to lateral groundwater movement from the northeast (DWR 1964). Within the Indio Subbasin, the Garnet Hill Fault, which extends southeasterly from the north side of the San Gorgonio Pass to the Indio Hills, also partially



impedes groundwater flow from the Garnet Hill Subarea to the south. Groundwater levels on the north side of the Garnet Hill Fault are approximately 150 to 170 feet higher than on the south side of the fault. The Garnet Hill Fault does not reach the surface and its effectiveness as a barrier to groundwater flow is assumed to occur below a depth of 100 feet (DWR, 1964).

The Indio Subbasin underlies the Cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, and Coachella, and the unincorporated communities of Thousand Palms, Thermal, Bermuda Dunes, Oasis, and Mecca. From about the City of Indio southeasterly to the Salton Sea, the Indio Subbasin is characterized by increasingly thick layers of silt and clay, especially in the shallower portions of the Indio Subbasin. These silt and clay layers are remnants of ancient lakebed deposits and impede the percolation of water applied for irrigation (DWR 1964).

**Figure 2-2** shows the five Indio Subbasin subareas: Palm Springs, Thermal, Thousand Palms, Oasis, and Garnet Hill. The Palm Springs Subarea is the forebay or main area of replenishment to the Indio Subbasin, and the Thermal Subarea is the pressure, or confined area, within the Indio Subbasin. The other three subareas are peripheral areas characterized by unconfined groundwater conditions.

### **2.3.1 Palm Springs Subarea**

Located in the northwestern portion of the Indio Subbasin, the Palm Springs Subarea is bounded by the Garnet Hill Fault to the north and the eastern slopes of the San Jacinto Mountains to the south and extends southeast to Cathedral City. Alluvial fan deposits consist of heterogeneous, coarse-grained sediments with a total thickness in excess of 1,000 feet. Although there is no lithologic distinction apparent from water well driller's logs, the total thickness of recent deposits suggests that Ocotillo Conglomerate underlies recent Fanglelomerate deposits at a depth of 300 to 400 feet (DWR, 1964).

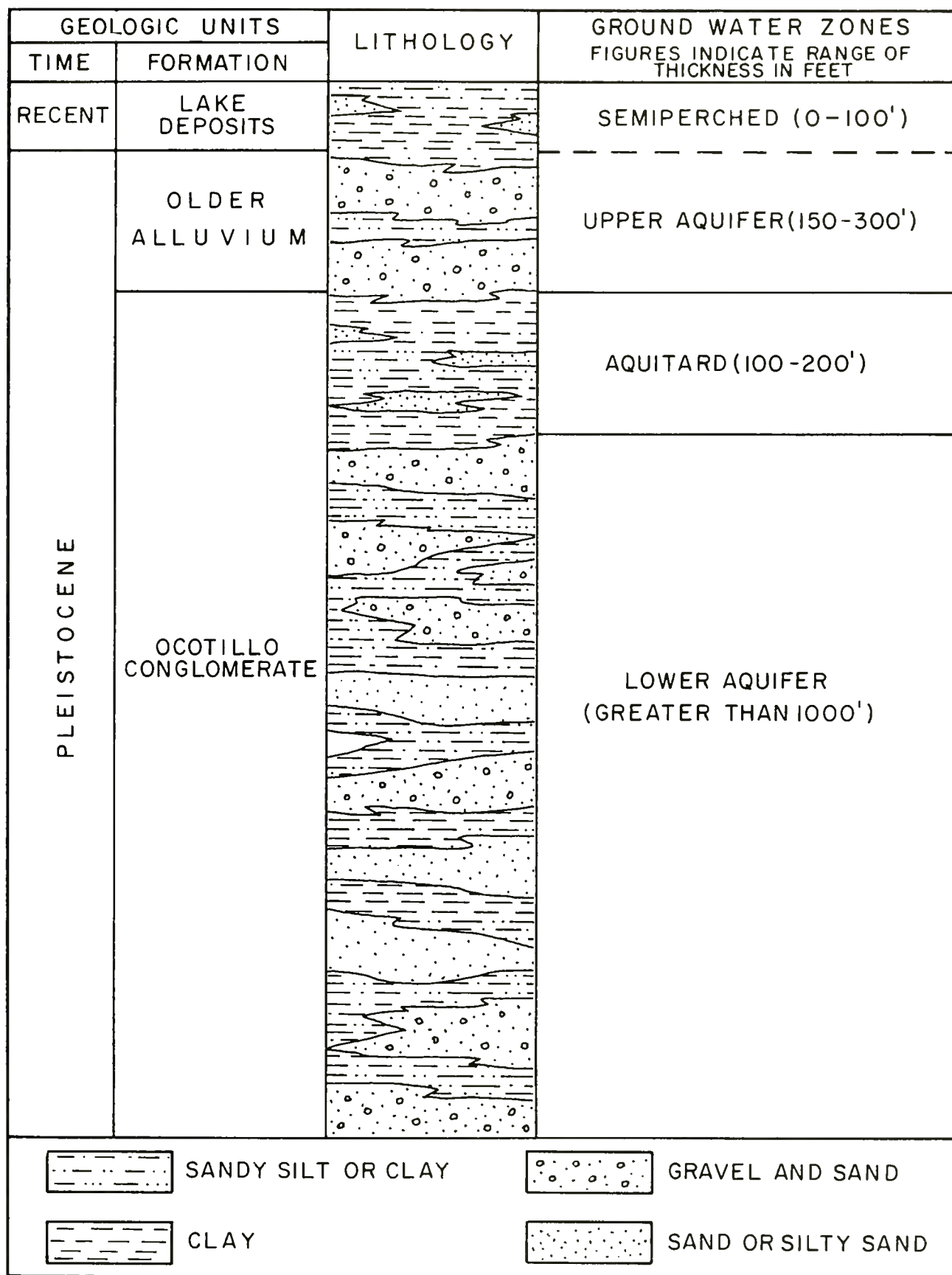
Infiltration of storm runoff (from the San Jacinto Mountains) beneath the Whitewater River presents the primary source of natural recharge in the Indio Subbasin. Subsurface inflow to the Palm Springs Subarea from the San Gorgonio Pass and Mission Creek Subbasins also contribute to natural recharge in the Indio Subbasin. Deep percolation of areal precipitation in the Palm Springs Subarea is considered negligible.

### **2.3.2 Thermal Subarea**

Groundwater of the Palm Springs Subarea moves southeastward into the Thermal Subarea underlying the central portion of the Coachella Valley. The division between the Palm Springs Subarea and the Thermal Subarea is near the City of Cathedral City.

**Figure 2-3** presents a generalized stratigraphic column of the Thermal Subarea showing local geologic units and groundwater zones. As illustrated, the hydrostratigraphy is characterized by a shallow semi-perched and confining zone consisting of recent silts, clays, and fine sands; an Upper Aquifer; a semi-confining aquitard of fine-grained materials; and Lower Aquifer. As shown on the figure, fine-grained (clay) deposits of the upper Ocotillo Conglomerate Formation separate the Upper and Lower aquifers. The clay deposits are not regionally extensive or sufficiently thick to completely restrict vertical groundwater flow between the Upper and Lower Aquifer zones and are thus referred to as an "aquitard".

The aquitard is absent (and no distinction between the Upper and Lower Aquifer zones occurs) along the southwestern margins of the Thermal Subarea at the base of the Santa Rosa Mountains, such as the alluvial fans at the mouth of Deep Canyon and near the City of La Quinta.



Source: Bulletin No. 108 (DWR 1964)

February 2020

**TODD**  
GROUNDWATER

**Figure 2-3**  
Generalized  
Stratigraphic Column  
Thermal Subbarea

The Lower Aquifer, composed of Ocotillo Conglomerate Formation, consists of silty sands and gravels with interbeds of silt and clay. It contains the greatest quantity of stored groundwater in the Indio Subbasin. The top of the Lower Aquifer occurs at a depth ranging from 300 to 600 feet below ground surface (feet-bgs). The thickness of the zone is undetermined, as the deepest wells in the Coachella Valley do not fully penetrate the formation. The available data indicate that the zone is at least 500 feet thick and may be in excess of 1,000 feet thick. The thickness of the aquitard overlying the Lower Aquifer zone ranges from 100 to 200 feet, although in some areas near the Salton Sea may be in excess of 500 feet.

Capping the Upper Aquifer zone in the Thermal Subarea is a shallow fine-grained zone in which semi-perched groundwater occurs (**Figure 2-4**). This zone consists of recent silts, clays, and fine sands and is relatively persistent southeast of the City of Indio. It ranges from zero to 100 feet thick and is an effective barrier to deep percolation. The low permeability of the materials southeast of the City of Indio has contributed to irrigation drainage challenges in the area. Semi-perched groundwater has been maintained by irrigation water applied to agricultural lands, necessitating the construction of an extensive subsurface tile drain system (DWR 1964). North and west of the City of Indio, the zone is composed mainly of clayey sands and silts, and its effect in retarding deep percolation is limited.

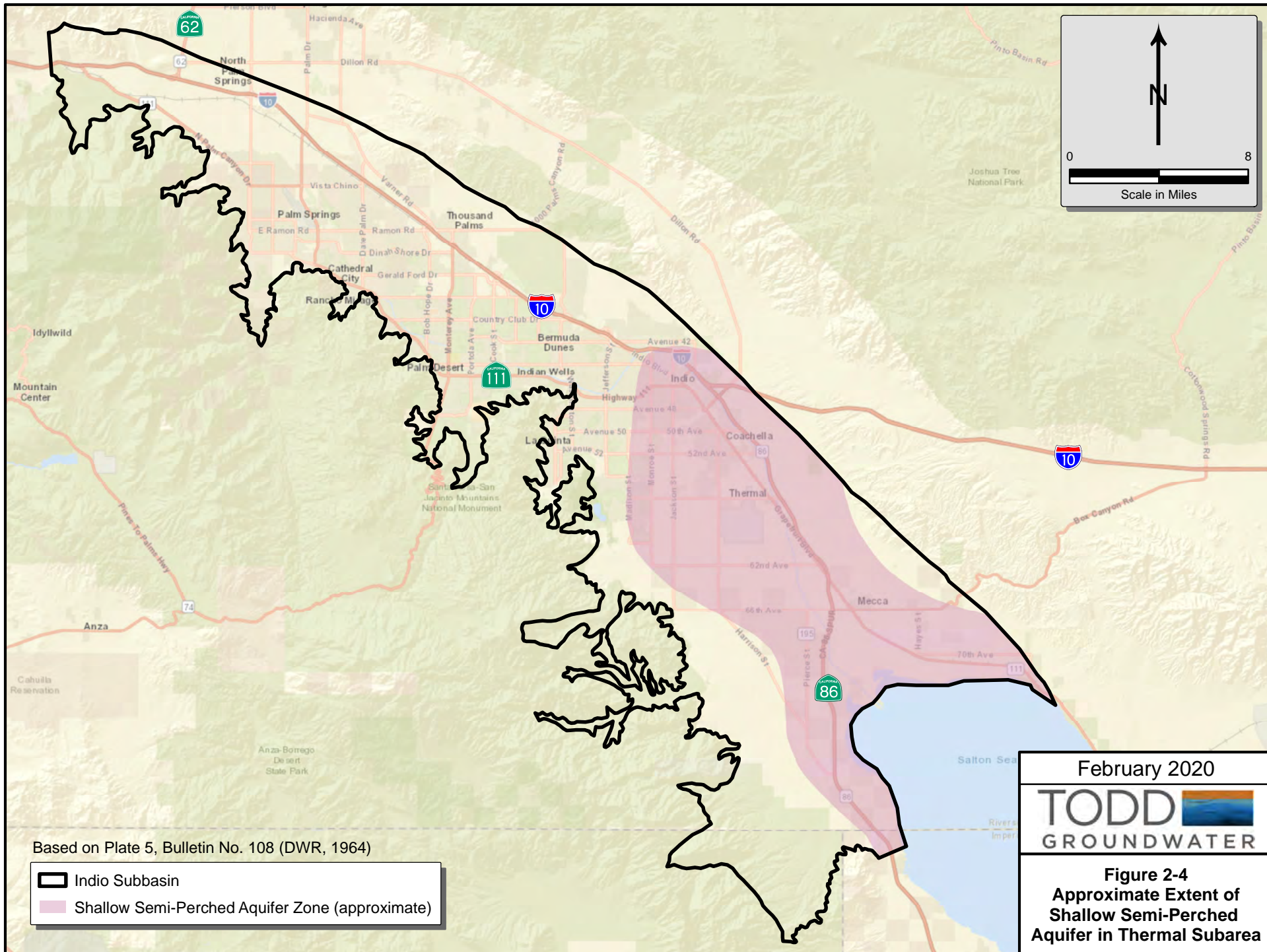
### **2.3.3 Thousand Palms Subarea**

The Thousand Palms Subarea is located along the southwest flank of the Indio Hills and is differentiated from the Thermal Subarea by groundwater quality differences (DWR, 1964). In brief, groundwater in the Thousand Palms Subarea is characterized by sodium sulfate chemistry that is distinct from the calcium bicarbonate water of the Thermal Subarea. The differences in water quality indicate that replenishment to the Thousand Palms Subarea comes primarily from the Indio Hills and is limited in supply. The relatively sharp boundary between chemical characteristics of water derived from the Indio Hills in the Thousand Palms Subarea and groundwater in the Thermal Subarea suggests there is little intermixing between the two subareas.

The configuration of the water table north of the community of Thousand Palms is such that the generally uniform, southeasterly gradient in the Palm Springs Subarea diverges and steepens to the east along the base of Edom Hill. This steepened gradient suggests the presence of a barrier to groundwater flow in the form of a reduction in sediment permeability or a southeast extension of the Garnet Hill Fault. Gravity surveys by DWR (1964) do not indicate a subsurface fault. Accordingly, the sharp increase in gradient is attributed to lower sediment permeability to the east.

### **2.3.4 Oasis Subarea**

Another peripheral zone of unconfined groundwater that is different in chemical characteristics from water in the major aquifers of the Indio Subbasin is found underlying the Oasis Piedmont slope. This zone, named the Oasis Subarea, extends along the base of the Santa Rosa Mountains. Water-bearing materials underlying the subarea consist of highly permeable fan deposits. Although groundwater data suggest that the boundary between the Oasis and Thermal Subareas may be a buried fault extending from Travertine Rock to the community of Oasis, the remainder of the boundary is a lithologic change from the coarse fan deposits of the Oasis Subarea to the interbedded sands, gravel, and silts of the Thermal Subarea. Little information is available as to the thickness of the water-bearing materials, but it is estimated to be in excess of 1,000 feet.



### **2.3.5 Garnet Hill Subarea**

This subarea is considered part of the Indio Subbasin in DWR's Bulletin 118 (2003). The area between the Garnet Hill Fault and the Banning Fault, named the Garnet Hill Subarea of the Indio Subbasin by DWR (1964), was considered a distinct subbasin by the United States Geological Survey (USGS) because of the partially effective Banning and Garnet Hill Faults as barriers to lateral groundwater movement. This is demonstrated by a difference of 170 feet in groundwater level elevation in a horizontal distance of 3,200 feet across the Garnet Hill Fault, as measured in the spring of 1961. The Garnet Hill Fault does not reach the surface and is probably effective as a barrier to lateral groundwater movement only below a depth of about 100 feet (MWH, 2013).

The 2013 Mission Creek/Garnet Hill Subbasins Water Management Plan (MWH, 2013) states that groundwater production is low in the Garnet Hill Subarea and is not expected to increase significantly in the future due to relatively low well yields compared to those in the Mission Creek Subbasin. Water levels in the western and central portions of the subarea show response to large replenishment quantities from the Whitewater River Groundwater Replenishment Facility (WWR-GRF), while levels are relatively flat in the eastern portion of the subarea. The lack of wells in the subarea limits the geologic understanding of how this subarea operates relative to the Mission Creek Subbasin and Indio Subbasin.

Although some natural replenishment to this subarea may come from Mission Creek and other streams that pass through during periods of high flood flows, the chemical character of the groundwater, and its direction of movement, indicate that the main source of replenishment to the subarea comes from the Whitewater River through the permeable deposits which underlie Whitewater Hill (MWH, 2013).

### 3. GROUNDWATER ELEVATION DATA

Section 356.2(b) of the Sustainable Groundwater Management Act (SGMA) Emergency Regulations requires:

*A detailed description and graphical representation of the following conditions of the basin managed in the Plan:*

*(1) Groundwater elevation data from monitoring wells identified in the monitoring network shall be analyzed and displayed as follows:*

*(A) Groundwater elevation contour maps for each principal aquifer in the basin illustrating, at a minimum, the seasonal high and seasonal low groundwater conditions.*

*(B) Hydrographs of groundwater elevations and water year type using historical data to the greatest extent available, including from January 1, 2015, to current reporting year.*

This section presents the groundwater level monitoring program results for the Indio Subbasin for Water Year (WY) 2018-2019.

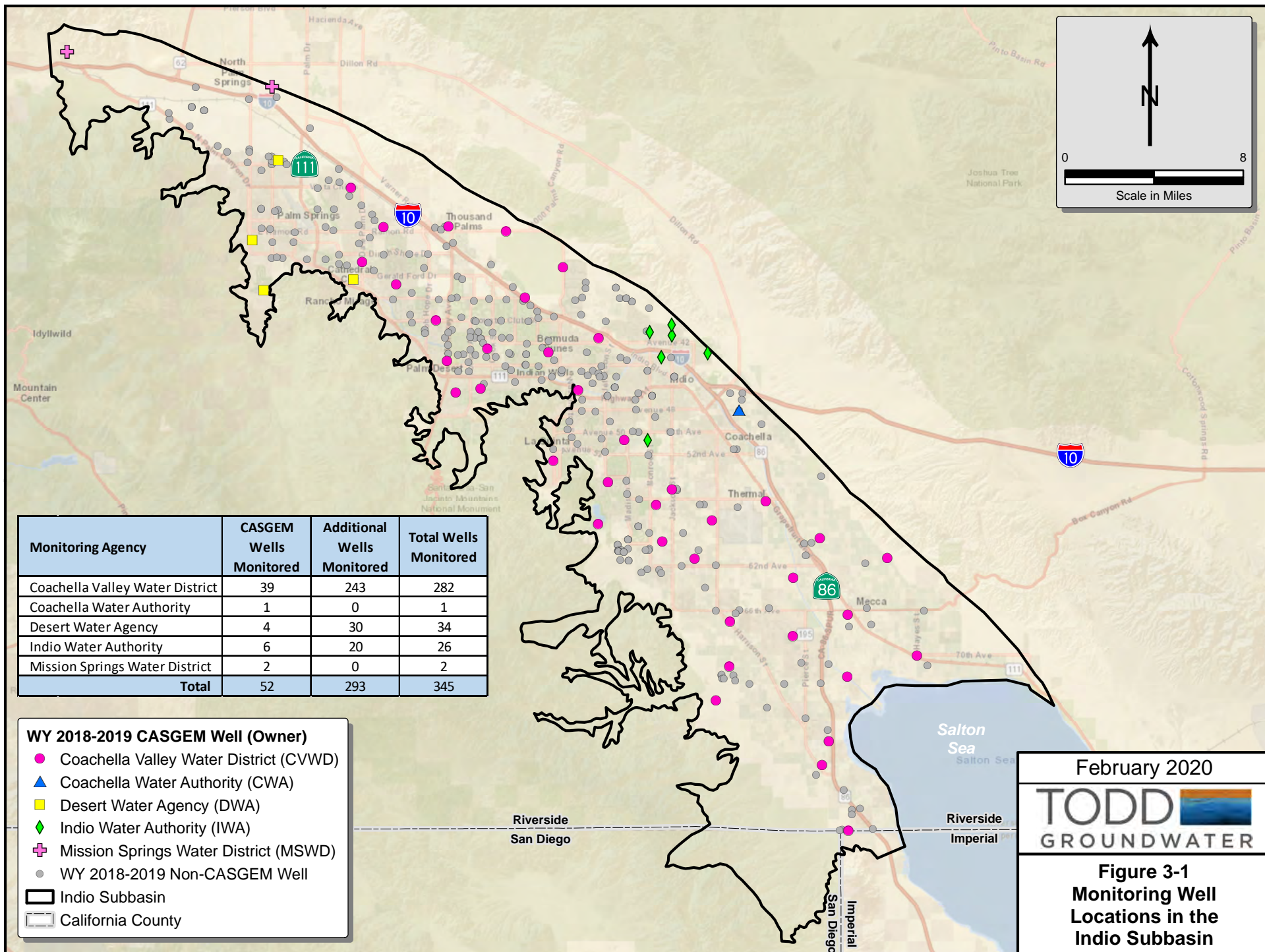
#### 3.1 MONITORING WELLS

Groundwater level monitoring data are available for selected wells in the Indio Subbasin dating back to 1910. As summarized in **Table 3-1**, groundwater levels in a total of 345 wells in the Indio Subbasin were measured in WY 2018-2019. **Figure 3-1** shows the distribution of monitoring wells in the Indio Subbasin. Of these wells, 52 wells were monitored by the Indio Subbasin Groundwater Sustainability Agencies (GSAs) (and the Mission Springs Water District [MSWD]) as part of the California Statewide Groundwater Elevation Monitoring (CASGEM) program. The CASGEM program was developed by the California Department of Water Resources (DWR) in 2009 to track seasonal and long-term trends in groundwater elevations in California's groundwater basins and continues to exist as a tool to support the SGMA. The CASGEM program relies and builds upon the previously established local monitoring programs. As shown in the table, an additional 293 wells were measured by the Indio Subbasin GSAs in WY 2018-2019 as part of their respective groundwater level monitoring programs. WY 2018-2019 water level measurements are provided in **Appendix B**.

**Table 3-1**  
**WY 2018-2019 Wells in Water Level Monitoring Program Indio Subbasin**

Monitoring Agency	CASGEM Wells Monitored	Additional Wells Monitored	Total Wells Monitored
Coachella Valley Water District	39	243	282
Coachella Water Authority	1	0	1
Desert Water Agency	4	30	34
Indio Water Authority	6	20	26
Mission Springs Water District	2	0	2
<b>Total</b>	<b>52</b>	<b>293</b>	<b>345</b>





## 3.2 GROUNDWATER LEVELS

**Figure 3-2** shows the WY 2018-2019 groundwater elevation contour map for the Indio Subbasin. Average groundwater elevations of the principal aquifer for the water year are shown on the map, as water levels do not exhibit strong seasonal trends. As shown on the figure, regional groundwater flows are in a northwest-to-southeast direction across the Indio Subbasin. Groundwater elevations ranging from greater than 1,100 feet above mean sea level (feet msl) near the San Geronimo Pass Subbasin in the northwest to approximately -220 feet msl in the southeast along the northern shoreline of the Salton Sea. The hydraulic gradients across the Indio Subbasin in WY 2018-2019 were typically steeper in the northwest, flattening downgradient to the southeast. Groundwater elevations and gradients are strongly influenced by groundwater replenishment activities near the Whitewater River Groundwater Replenishment Facility (WWR-GRF) and Thomas E. Levy Groundwater Replenishment Facility (TEL-GRF). Geological faults, constrictions, and pumping also affect localized hydraulic gradients.

Long-term water level hydrographs for selected wells distributed across the Indio Subbasin are presented on **Figure 3-2** to illustrate groundwater elevation trends over time. Full-scale hydrographs are provided in **Appendix A**. Water level measurements for 13 wells are included on five hydrographs (labeled 1 through 5 on the figure) and depict the groundwater level response to historical pumping and water management activities identified and implemented in the 2002 Coachella Valley Water Management Plan (CVWMP) and 2010 CVWMP Update. The hydrographs show that groundwater levels in the northwestern portion of the Indio Subbasin have responded directly and positively to historical replenishment activities at the WWR-GRF (Hydrograph 1). Groundwater elevations in the Palm Springs/Cathedral City area have remained relatively stable over time with more moderate positive responses to upgradient WWR-GRF replenishment activities. Groundwater levels in the Palm Desert area have stabilized since 2005 and increased slightly since 2010 (Hydrograph 2). Groundwater elevations in Bermuda Dunes, La Quinta, Indio, and Coachella have stabilized since 2005 and increased slightly in the La Quinta area since 2010 (Hydrograph 3). Groundwater elevations in the southeastern portion of the Indio Subbasin near Thermal and Mecca have responded positively to replenishment activities at the TEL-GRF, since recharge commenced in 2009 (Hydrographs 4 and 5).

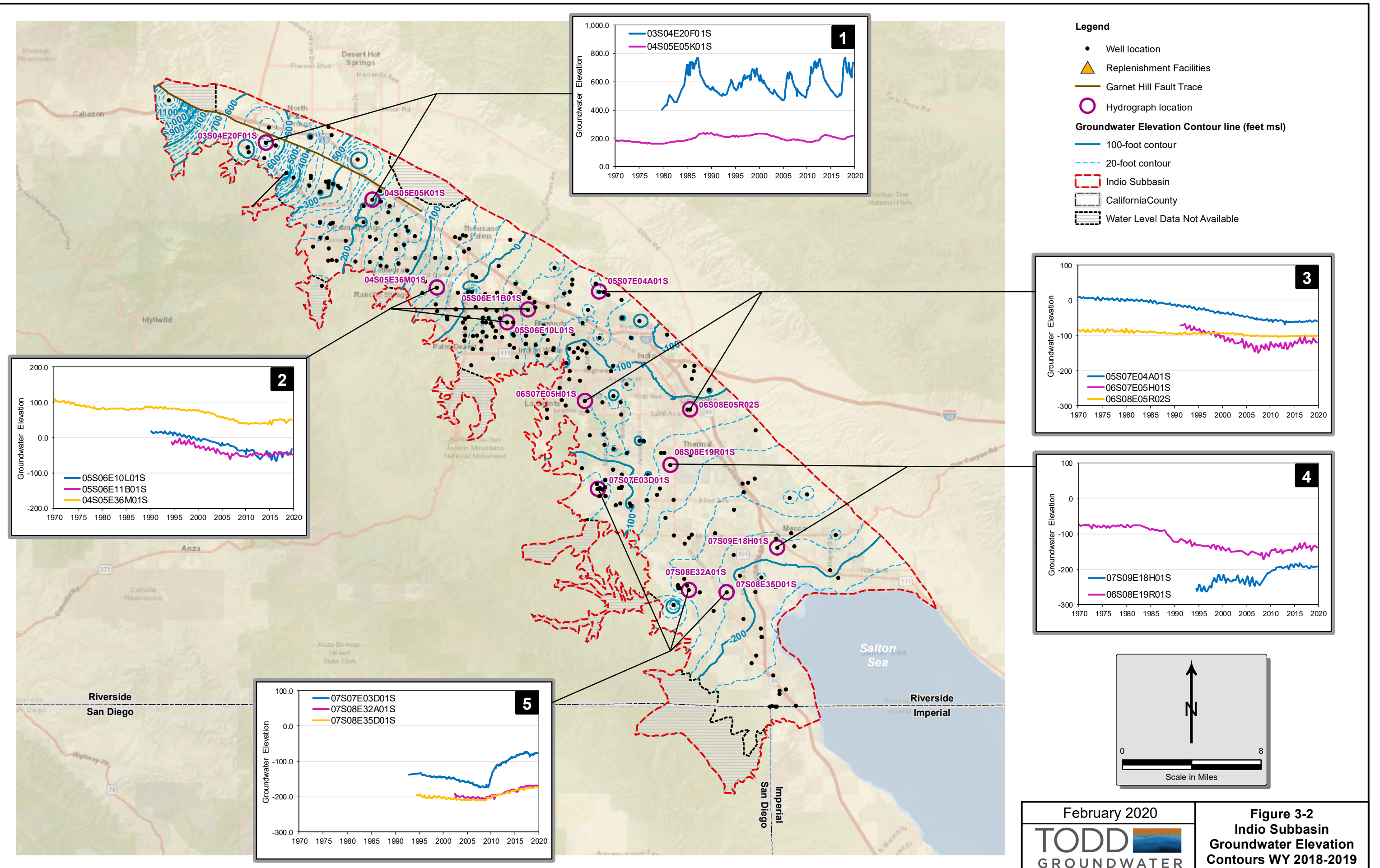
Collectively, the selected hydrographs illustrate the effectiveness of groundwater replenishment, source substitution, and conservation programs in the Indio Subbasin in maintaining and, in some areas, increasing groundwater storage through varying historical climatic and water use conditions.

## 3.3 ARTESIAN CONDITIONS

Historically, the eastern portion of the Indio Subbasin experienced artesian conditions with sufficient pressure to cause groundwater levels in wells to rise above the ground surface. Artesian flowing wells attracted early settlers to farm in this area. Artesian conditions declined in the late 1930s as a result of increased local groundwater pumping. The completion of the Coachella Canal by the United States Bureau of Reclamation (USBR) in 1949 brought Colorado River water to the eastern Coachella Valley for agricultural irrigation purposes. Artesian conditions returned in the early 1960s through the 1980s, as imported Colorado River water was substituted for groundwater production. Beginning in the late 1980s, groundwater use increased again, resulting in declining water levels and the loss of artesian conditions.

Groundwater water management programs, including groundwater replenishment, source substitution and water conservation, are restoring local groundwater levels and artesian conditions in the eastern





portion of the Indio Subbasin. Benefits associated with artesian conditions include reduced groundwater pumping costs and water quality protection of the deeper, confined production zone aquifers.

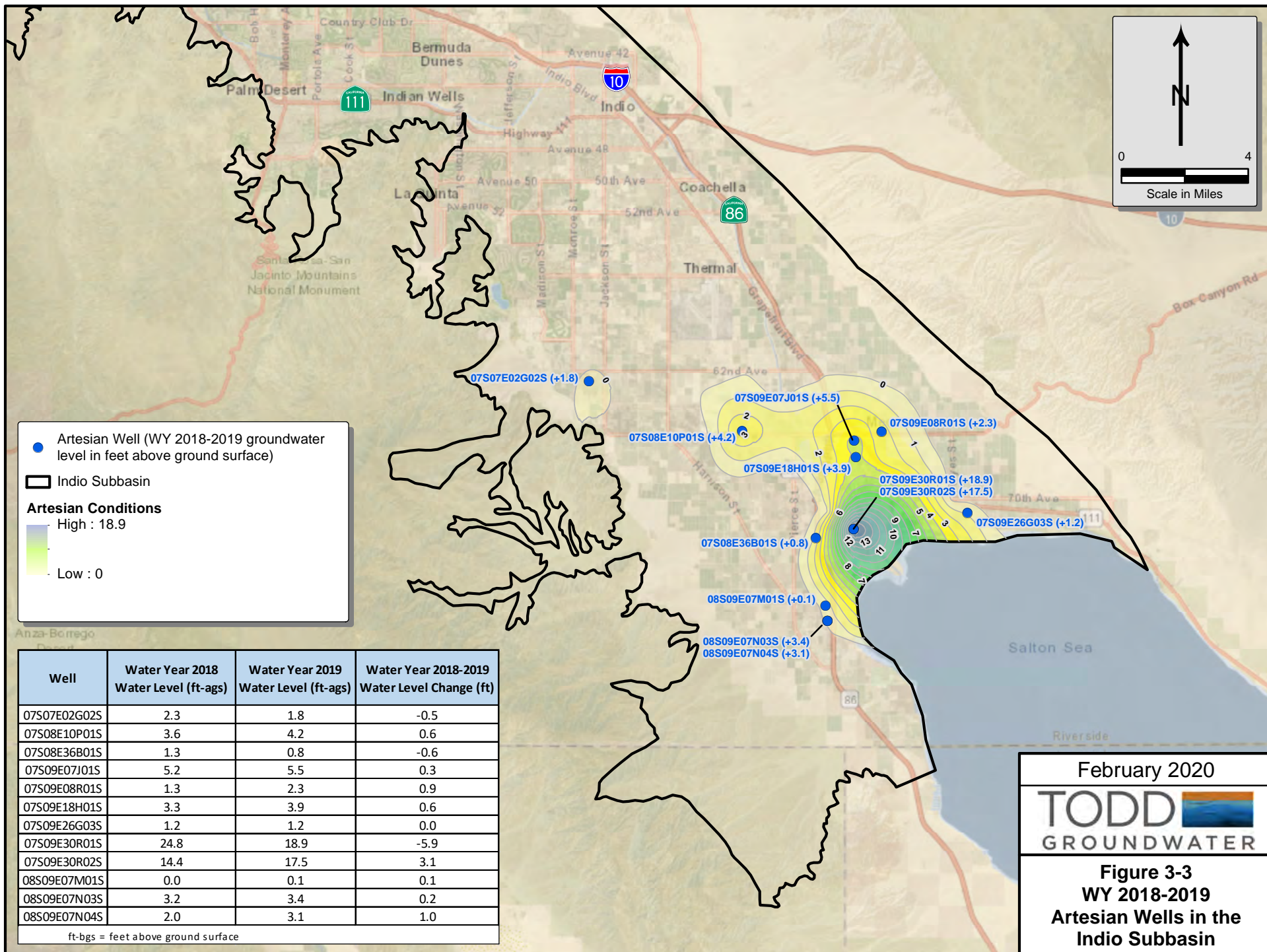
**Figure 3-3** shows the location of twelve artesian wells in WY 2018-2019 and their respective water pressure equivalent elevation (measured in feet above ground surface [feet-ags]). The area of artesian conditions has remained relatively stable in comparison to WY 2017-2018. Small increases in artesian water levels (ranging from +0.3 to +0.9 feet) are noted in four wells in the northern half of the main artesian area. Declines were observed in only three artesian wells, most notably in Well 07S09E30R01S (-5.9 feet compared to WY 2017-2018). However, it is noted that artesian water levels increased in the adjacent Well 07S09E30R02S (+3.1 feet). These two wells are screened at different depths, indicating that the response to pumping and recharge at this location varies with depth.

### **3.4 LAND SUBSIDENCE**

Land subsidence, resulting from aquifer system compaction and groundwater level declines, has been a concern in the Coachella Valley since the mid-1990s and has been investigated since 1996 through an on-going cooperative program between the Coachella Valley Water District (CVWD) and the United States Geological Survey (USGS). Global Positioning System (GPS) surveying, using GNSS-Inferred Positioning System and Orbit Analysis Simulation Software (GIPSY-OASIS) and interferometric synthetic aperture radar (InSAR) methods have been used to determine the location, extent, and magnitude of the vertical land-surface changes in the Coachella Valley.

Analysis of InSAR data collected from 1995 to 2017 by the USGS indicates that as much as 2.0 feet of subsidence occurred in the Indio Subbasin from 1995 to 2010 near Palm Desert, Indian Wells, and La Quinta (Sneed and Brandt, in press). Since 2010, groundwater levels have stabilized or partially recovered in that area in response to the implementation of source substitution, conservation, and groundwater replenishment programs included in the 2010 CVWMP Update. Elsewhere, up to 1 inch of uplift has been measured since 2011 in the Palm Springs area, corresponding to higher groundwater levels in response to upgradient WWR-GRF recharge. In the Thermal area, the ground surface has also rebounded about 2 inches over the past 10 years, returning to elevations observed in 2001. This rebound roughly coincides with commencement of recharge operations at the TEL-GRF in 2009. Continued monitoring of water levels and subsidence is planned by the Indio Subbasin GSAs to track the effects of management actions on land subsidence and help inform future mitigation measures to comply with the SGMA.





## 4. GROUNDWATER EXTRACTIONS

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Section 356.2(b)(2) of the Sustainable Groundwater Management Act (SGMA) Emergency Regulations requires:

*A detailed description and graphical representation of the following conditions of the basin managed in the Plan: ...*

*(2) Groundwater extraction for the preceding water year. Data shall be collected using the best available measurement methods and shall be presented in a table that summarizes groundwater extractions by water use sector and identifies the method of measurement (direct or estimate) and accuracy of measurements, and a map that illustrates the general location and volume of groundwater extractions.*

This section presents groundwater extraction volumes for the Indio Subbasin for Water Year (WY) 2018-2019. Because the Coachella Valley Water District (CVWD) and Desert Water Agency (DWA) are authorized to collect a replenishment assessment fee from groundwater producers, their respective legislations mandate the installation of water meters on all wells producing more than 25 acre-feet per year (AFY) in CVWD's service area and more than 10 AFY in DWA's service area. Accordingly, the CVWD and DWA groundwater extraction monitoring programs provide relatively accurate extraction information for the Indio Subbasin.

**Table 4-1** summarizes the groundwater extraction volumes in the Indio Subbasin in WY 2018-2019 by water use sector. The methods of measurement and corresponding measurement accuracy are also provided. The table shows that in WY 2018-2019, a total of 263,366 AF of groundwater was extracted from the Indio Subbasin. Of the total volume extracted, groundwater production of 259,566 AF was extracted from 550 metered wells. The remaining 3,800 AF of groundwater extraction is estimated for uses that are not required to report extraction amounts to any of the agencies: (1) industrial tribal water use (1,100 AF), (2) recreational tribal water use (1,200 AF), and (3) minimal pumpers extracting less than 25 AFY in CVWD's service area and less than 10 AFY in DWA's service area combined with unclassified tribal water use (1,500 AF).

The total groundwater extracted represents a decrease of 24,942 AF (8.7 percent) compared to the volume extracted in WY 2017-2018 (288,308 AF). The urban water use sector experienced the largest decrease in water use volumetrically (-15,989 AF compared to WY 2017-2018), while the agricultural sector experienced the largest relative percent decrease in water use (-8,738 AF compared to 51,012 AF in WY 2017-2018, or 17.1 percent).

It is noted that **Table 4-1** includes a portion of groundwater extracted in the Indio Subbasin that is exported for use outside the Indio Subbasin. Groundwater volumes exported from the Indio Subbasin in WY 2018-2019 are described in further detail in Section 6.

**Table 4-1**  
**WY 2018-2019 Groundwater Extractions by Water Use Sector in the Indio Subbasin**

Water Use Sector	Groundwater Extractions (AF)	Method of Measurement	Accuracy of Measurement
Agriculture <sup>1</sup>	42,274	100% metered	±2%
Industrial <sup>2</sup>	1,307	16% metered	±2%
		84% estimated	±50%
Urban <sup>3</sup>	218,285	99% metered	±2%
		1% estimated	±50%
Environmental	0	Not applicable	--
Undetermined <sup>4</sup>	1,500	100% estimated	±50%
<b>Total Extraction</b>	<b>263,366</b>		

Notes:

1 – Includes crop irrigation and fish farms.

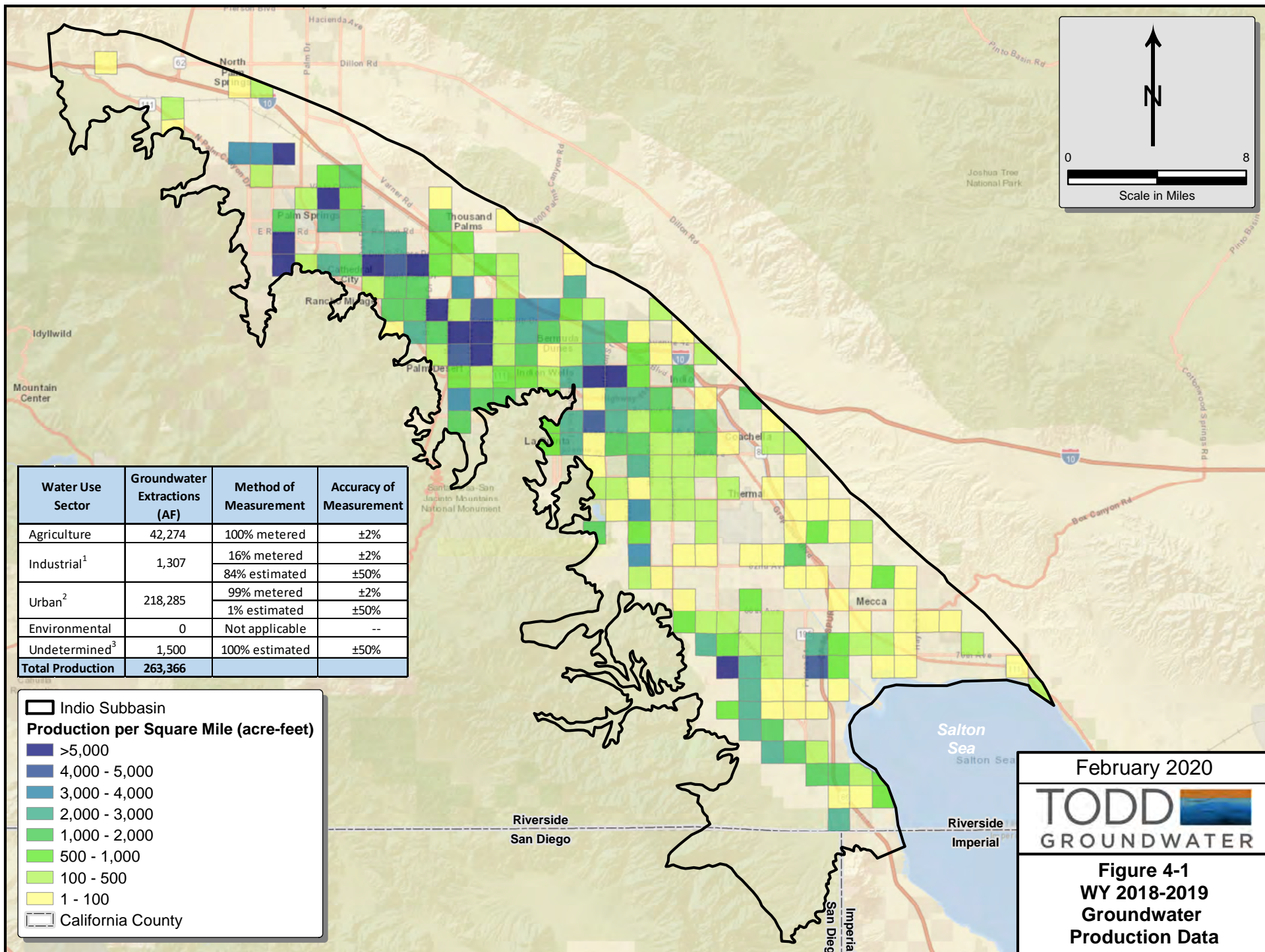
2 – Includes 1,100 AF of estimated unreported extractions for industrial tribal water use

3 – Includes municipal and recreational uses. Total includes 1,200 AF of estimated unreported extractions for recreational tribal water use. Of the total urban use, 2,215 AF is exported for use outside the Indio Subbasin

4 – Estimated unreported extraction by minimal pumpers who do not have to report production to CVWD (<25 AFY) or DWA (<10 AFY) and estimated additional unclassified tribal water use

**Figure 4-1** shows the location of groundwater extraction in the Indio Subbasin based on public land survey sections. The volume of groundwater extraction is symbolized by color with dark blue sections corresponding to groundwater extraction exceeding 5,000 AF per mi<sup>2</sup>. Such areas are generally located near urban centers, including the cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, and Indio.







## 5. SURFACE WATER

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Section 356.2(b)(3) of the Sustainable Groundwater Management Act (SGMA) Emergency Regulations requires:

*A detailed description and graphical representation of the following conditions of the basin managed in the Plan: ...*

*(3) Surface water supply used or available for use, for groundwater recharge or in-lieu use shall be reported based on quantitative data that describes the annual volume and sources for the preceding water year.*

This section presents the surface water availability and use for the Indio Subbasin for Water Year (WY) 2018-2019. Surface water supplies consist of local surface water, imported Colorado River water including water from the Coachella Canal, State Water Project (SWP) exchange water from the Colorado River Aqueduct (CRA), and recycled water produced by publicly-owned wastewater treatment plants.

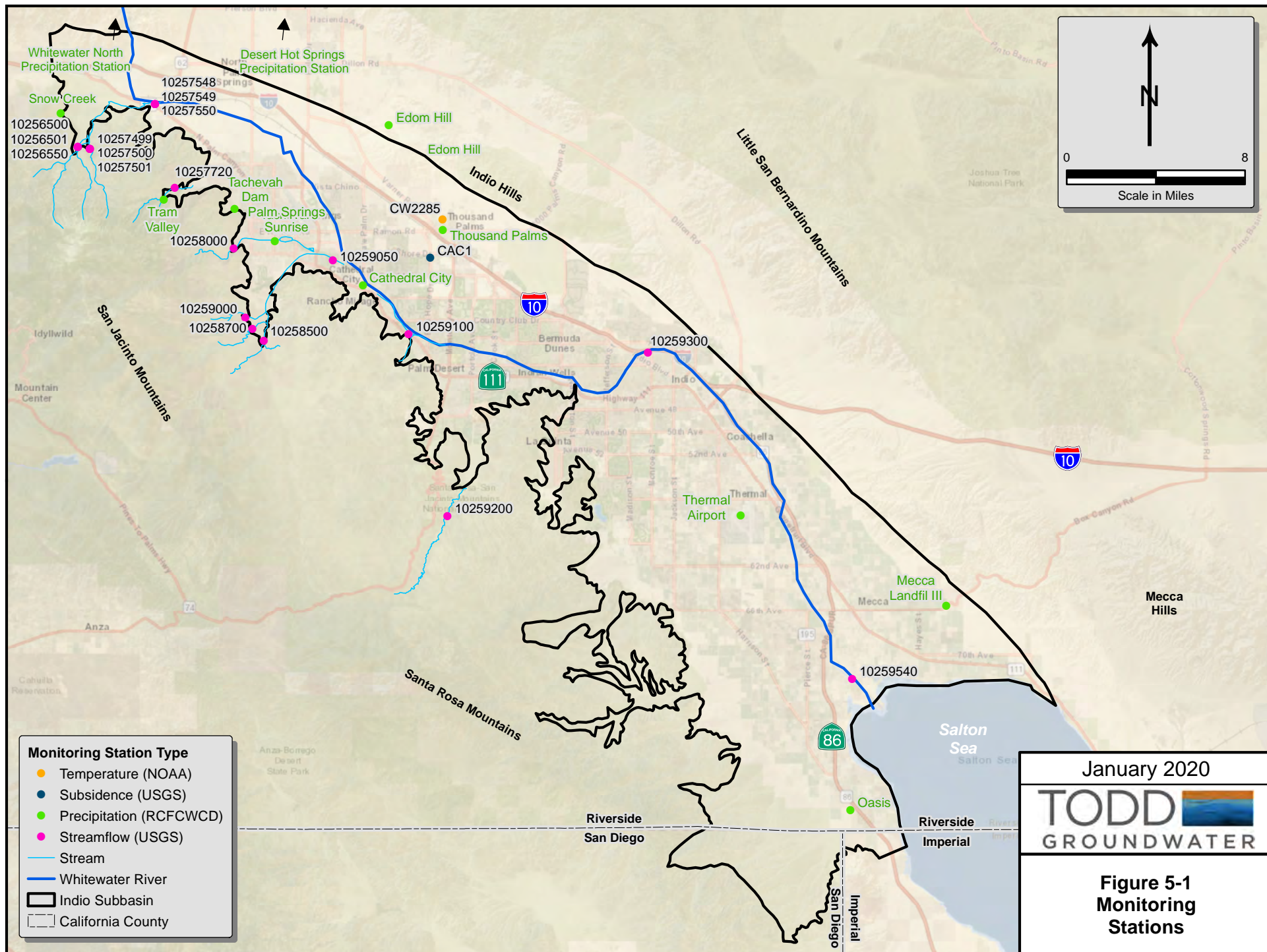
### 5.1 LOCAL PRECIPITATION

Natural surface water flow in the Coachella Valley occurs as a result of precipitation, precipitation runoff, and stream flow originating from the San Bernardino and San Jacinto Mountains, with lesser amounts originating from the Santa Rosa Mountains. The majority of precipitation in the Coachella Valley occurs from December through February with annual averages ranging from 3 to 6 inches on the Coachella Valley floor to more than 30 inches in the surrounding mountains (DWR, 1964). Occasionally, intense precipitation events occur during the summer months from subtropical thunderstorms. The precipitation that occurs within the tributary watersheds either evaporates, is consumed by native vegetation, percolates into underlying alluvium and fractured rock, or becomes runoff, which can be captured by mountain-front debris basins and percolated into the aquifer. A portion of the flow percolating into the mountain watersheds eventually becomes subsurface inflow to the subbasins.

Precipitation data for WY 2018-2019 collected for 12 precipitation monitoring stations in the Coachella Valley are provided in **Table 5-1**. Station locations are shown on **Figure 5-1**. The annual precipitation for these stations during WY 2018-2019 averaged 11.70 inches, or approximately 240 percent above the long-term average.

**Table 5-1**  
**WY 2018-2019 Coachella Valley Precipitation Data (Inches)**

Station Name	Whitewater North	Snow Creek	Desert Hot Springs	Tachevah Dam	Tram Valley	Cathedral City	Thousand Palms	Palm Springs Sunrise	Edom Hill	Oasis	Mecca Landfill III	Thermal Airport
Subbasin	Indio	Indio	Mission Creek	Indio	Indio	Indio	Indio	Indio	Mission Creek	Indio	Indio	Indio
Station Number	233	207	57	216	224	34	222	442	436	431	432	443
Latitude	33°59'23.06"	33°53'32.64"	33°58'2.85"	33°49'51.26"	33°50'11.56"	33°46'51.49"	33°49'1.66"	33°48'35.94"	33°53'7.52"	33°26'21.64"	33°34'20.19"	33°37'53.90"
Longitude	116°39'21.39"	116°41'41.06"	116°29'39.93"	116°33'31.53"	116°36'49.72"	116°27'29.69"	116°23'46.30"	116°31'37.94"	116°26'18.48"	116° 4'44.83"	116° 0'15.33"	116° 9'50.81"
Elevation (feet msl)	2,220	1,658	1,223	570	2,675	283	230	397	1,038	-108	13	-122
October	0.66	0.66	1.09	0.69	0.98	1.55	0.69	0.98	0.83	0.8	2.78	0.85
November	1.38	1.87	0.15	0.11	0.9	0.03	0.02	0.08	0.06	0.02	0	0
December	1.24	1.4	0.54	0.71	1.5	0.72	0.66	0.57	0.46	0.51	0.72	0.43
January	4.37	2.89	1.65	1.34	3.56	1.28	1.03	1.5	0.97	0.87	0.73	0.61
February	13.6	16.2	3.78	7.8	13.4	3.9	2.77	5.88	2.55	1.56	1.05	1.28
March	1.52	2.58	0.49	0.5	1.64	0.29	0.28	0.49	0.39	0.29	0.25	0.17
April	0	0.02	0	0	0.02	0	0.05	0	0	0	0.04	0
May	0.6	2.56	0.06	0.03	0.43	0.02	0.02	0.05	0.02	0	0	0.02
June	0	0	0	0	0	0	0	0	0.01	0	0	0
July	0.03	0.06	0	0	0.07	0	0.02	0.01	0.02	0	0.06	0.42
August	0	0	0	0	0	0	0.03	0	0	0	0	0
September	0.15	0.38	0.09	0.59	1.39	0.27	0.36	0.79	0.18	0.23	0.71	0.51
Total	23.55	28.62	7.85	11.77	23.89	8.06	5.93	10.35	5.49	4.28	6.34	4.29
Average	11.70											



## 5.2 LOCAL STREAMFLOW

Streamflow is measured by the United States Geological Survey (USGS) at 19 stations in the Indio Subbasin. **Table 5-2** shows the station name and number, and the recorded streamflow volumes for WY 2018-2019. Stream gauge locations are shown on **Figure 5-1**.

**Table 5-2**  
**WY 2018-2019 Local Streamflow Measurements for the Indio Subbasin**

Station Number	Station Name	WY 2018-2019 Flows (AF)
10256500	SNOW C NR WHITE WATER CA	7,692
10256501	SNOW C AND DIV COMBINED CA	8,528
10256550	SNOW C DIV NR WHITE WATER CA <sup>1</sup>	836
10257499	FALLS C DIV NR WHITEWATER CA	0
10257500	FALLS C NR WHITEWATER CA	2,665
10257501	FALLS C AND DIV COMBINED CA <sup>1</sup>	2,598
10257548	WHITEWATER R A WINDY POINT MAIN CHANNEL CA	181,990
10257549	WHITEWATER R A WINDY POINT OVERFLOW CHANNEL CA	1,334
10257550	WHITEWATER R A WINDY PT NR WHITEWATER CA	14,421
10257720	CHINO CYN C BL TRAMWAY NR PALM SPRINGS CA	19
10258000	TAHQUITZ C NR PALM SPRINGS CA	7,068
10258500	PALM CYN C NR PALM SPRINGS CA	7,555
10258700	MURRAY CYN C NR PALM SPRINGS CA	2,952
10259000	ANDREAS C NR PALM SPRINGS CA	3,178
10259050	PALM CYN WASH NR CATHEDRAL CITY CA	5,038
10259100	WHITEWATER R A RANCHO MIRAGE CA	14,487
10259200	DEEP C NR PALM DESERT CA	1,486
10259300	WHITEWATER R A INDIO CA	12,890
10259540	WHITEWATER R NR MECCA	50,242

Note:

1 – USGS measurements are calculated for the Snow Creek and Falls Creek diversion based on the difference between the measurement at the gauges upstream and downstream of the diversions.

It is noted that some streams (e.g., Whitewater River, Snow Creek, and Falls Creek) are gauged at multiple locations. For example, the Whitewater River is gauged at six locations. USGS gauges 10257548 and 10257549 are downstream from where imported water is released at the Whitewater River Groundwater Replenishment Facility (WWR-GRF). USGS gauge 10259540 measures the flow in the Coachella Valley Stormwater Channel (CVSC) before it enters the Salton Sea. Snow Creek and Falls Creek are each gauged at two locations (upgradient and downgradient of respective diversion structures). Diversions for each creek are calculated based on the difference between the upstream and downstream gauges.

### 5.2.1 Direct Use of Local Surface Water

Desert Water Agency (DWA) operates stream diversions facilities on Snow, Falls, and Chino Creeks, and captures subsurface flow from the Whitewater River Canyon. During WY 2018-2019, 1,632 acre-feet (AF) of local surface water was directly used as shown in **Table 5-3**. A total of 974 AF was used for urban water supply in DWA's service area. An estimated 658 AF of local surface water was used for agricultural irrigation near Whitewater.

**Table 5-3**  
**WY 2018-2019 Direct Use of Local Surface Water in the Indio Subbasin**

Water Use Sector	Surface Water Use (AF)	Method of Measurement	Accuracy of Measurement
Agriculture	658	100% estimated	±50%
Industrial		Not applicable	--
Urban	974	100% metered	±2%
Environmental		Not applicable	--
<b>Total Surface Water Use</b>	<b>1,632</b>		

## 5.3 IMPORTED WATER DELIVERIES

The Indio Subbasin region has water allocations from two imported surface water sources: the Colorado River and the SWP. Colorado River water is delivered to the eastern part of the Indio Subbasin via the Coachella Canal. There is currently no infrastructure to physically deliver SWP water to the Coachella Valley. To exercise SWP deliveries, CVWD and DWA exchange the deliveries with the Metropolitan Water District of Southern California (MWD) for Colorado River water, which can be delivered via the Colorado River Aqueduct. Imported surface water is used recharge groundwater and as an alternative source to groundwater pumping in the Indio Subbasin. CVWD and DWA augment natural recharge of the Indio Subbasin through their respective groundwater replenishment programs. There are two types of groundwater replenishment programs in the Indio Subbasin: 1) direct replenishment, in which imported surface water is percolated directly into the aquifer, and 2) in-lieu replenishment, in which imported surface water or recycled water is provided directly to irrigation customers, thus reducing or eliminating the use of pumped groundwater.

### 5.3.1 Colorado River Water Allocation

Colorado River water has been a water supply source for the Indio Subbasin area since the Coachella Canal was completed in 1949. CVWD is the only agency in the Indio Subbasin that receives Colorado River water allocations. California's Colorado River water rights are defined by the 1922 Colorado River Compact and the 1928 Boulder Canyon Project Act. CVWD's allocation of its portion of California's rights were set by the 1931 Seven Party Agreement<sup>3</sup>. Under the Seven Party Agreement, approximately 330,000 AF of Priority 3A Colorado River water is diverted from the All-American Canal at the Imperial Dam to CVWD's

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<sup>3</sup> The seven parties include CVWD, MWD, Imperial Irrigation District (IID), Palo Verde Irrigation District, City of Los Angeles, City of San Diego, and County of San Diego.



Lake Cahuilla via the Coachella Canal. This water is then delivered to the CVWD's Improvement District No. 1 (ID-1) service area, which encompasses 136,436 acres mainly in the southeastern area of the Coachella Valley, as defined by the above agreements.

The 2003 Quantification Settlement Agreement (QSA), negotiated by CVWD, Imperial Irrigation District (IID), and MWD, quantifies the Colorado River water allocations of California's water contractors through 2077 and supports the transfer of water between agencies. The QSA defines CVWD's Colorado River water supply entitlement on a calendar year basis. Under the QSA, CVWD has a base allotment of 330,000 acre-feet per year (AFY). CVWD negotiated QSA transfer agreements with MWD and IID for an additional 123,000 AFY of Colorado River water by 2026. CVWD's Colorado River entitlement under the QSA for Calendar Year 2019 is summarized in **Table 5-4**. CVWD's total Colorado River water entitlements under the QSA is 389,000 AFY, an increase of 5,000 AF from the previous year. The 5,000 AF increase reflects the change in Second IID/CVWD Transfer water from 13,000 AF in calendar year (CY) 2018 to 18,000 AF in CY 2019.

**Table 5-4**  
**CY 2019 CVWD Colorado River Water Entitlements under the QSA**

<b>Budget Component</b>	<b>Amount (AF)</b>
Base Entitlement	330,000
Less Coachella Canal Lining (to SDCWA)	-26,000
Less Miscellaneous/Indian PPRs <sup>1</sup>	-3,000
1988 MWD/IID Approval Agreement	20,000
First IID/CVWD Transfer	50,000
Second IID/CVWD Transfer	18,000
MWD/CVWD Replacement Water <sup>2</sup>	0
<b>Total Colorado River Diversions</b>	<b>389,000</b>

Notes:

1 – Indian Present Perfected Rights.

2 – MWD assumes the obligation to provide 50,000 AFY of replacement water after 2048.

### **5.3.2 State Water Project Allocation (Exchange Water)**

The California Department of Water Resources (DWR) manages the SWP and determines the available amount of SWP water for delivery based on hydrologic, storage, water rights, water quality, and environmental factors, including requirements for the Sacramento-San Joaquin Delta. The available water is then allocated to the SWP contractors according to Table A amounts (CVWD, 2012a). During calendar year 2019, DWR allocated 75 percent of the Table A amounts to contractors. This is more than the current average reliability of 62 percent due to above average snowpack during the winter of WY 2018-2019. DWR allocated 35 percent of CVWD's and DWA's Table A amounts in calendar year 2018.

While CVWD and DWA have contracts for Table A SWP water (**Table 5-5**), there are no physical facilities to deliver this water to the Coachella Valley. Table A SWP water is exchanged for Colorado River water from MWD's CRA facilities. Since 1973, this exchange water has been delivered to the Indio Subbasin at the WWR-GRF or the Mission Creek Groundwater Replenishment Facility (MC-GRF) turnout. As



summarized in **Table 5-5**, CVWD and DWA SWP allocations include their original Table A allocations and the following transfer agreements:

- **MWD Transfer (2003):** CVWD and DWA executed a Delivery and Exchange Agreement with MWD for a total of 100,000 AFY as a permanent transfer to be delivered to the WWR-GRF or the MC-GRF.
- **Tulare Lake Basin Transfer #1 (2004):** CVWD purchased an additional 9,900 AFY of Table A water from Tulare Lake Basin Water Storage District in Kings County.
- **Tulare Lake Basin Transfer #2 (2007):** CVWD and DWA executed transfer agreements with Tulare Lake Basin Water Storage District for 5,250-7,000 AFY and 1,750 AFY, respectively.
- **Berrenda Transfer (2007):** CVWD and DWA executed transfer agreements with Berrenda Mesa Water District in Kern County for 12,000-16,000 AFY and 4,000 AFY, respectively.

Along with the transfer agreements described above, CVWD also acquired an additional 35,000 AFY of SWP transfer water from the QSA. The SWP QSA water is exchanged for Colorado River water that can either be delivered to the eastern portion of the Indio Subbasin via the Coachella Canal or to the western portion of the subbasin via the CRA.

The objective of these purchases and acquisitions along with the CVWD QSA Transfer was to achieve long-term average deliveries of 140,000 AFY from the SWP. The 2010 Coachella Valley Water Management Plan (CVWMP) Update reestablished this goal of SWP supplies for the Indio Subbasin.

An Advanced Delivery Agreement between CVWD, DWA, and MWD, signed in 1985 and later amended, allows for pre-delivery of Colorado River water to the Indio Subbasin. As such, CVWD and DWA may either receive deliveries of SWP Exchange water from the CRA or from water previously stored in the Indio Subbasin as part of the Advanced Delivery Account. The agreement allows for up to 800,000 AF of SWP Exchange water stored in the account.

**Table 5-5**  
**State Water Project Table A Amounts**

Agency	Original SWP Table A (AFY)	Metropolitan Transfer (AFY)	Tulare Lake Basin Transfer #1 (AFY)	Tulare Lake Basin Transfer #2 (AFY)	Berrenda Transfer (AFY)	Total (AFY)
CVWD	23,100	88,100	9,900	5,250	12,000	138,350
DWA	38,100	11,900	-	1,750	4,000	55,750
<b>Total</b>	<b>61,200</b>	<b>100,000</b>	<b>9,900</b>	<b>7,000</b>	<b>16,000</b>	<b>194,100</b>

For the WY 2018-2019, CVWD's and DWA's SWP allocations were delivered to MWD in accordance with the SWP Exchange Agreement. Along with transfers listed in **Table 5-5**, CVWD and DWA have explored additional water transfers, for example water purchases from programs such as SWP Article 21 and Turnback Water Pool water, Governor's Drought Water Bank, Yuba Accord, and Rosedale-Rio Bravo Water

Storage District. Because these supplies are highly uncertain, they are not accounted for as firm existing supplies.

**Table 5-6** summarizes the deliveries of SWP water to MWD during the WY 2018-2019, which MWD then exchanges for Colorado River water and delivers to CVWD and DWA at their respective facilities. Surplus deliveries received by CVWD and DWA are credited to the Advanced Delivery Account.

As part of the SWP Exchange Agreement, MWD received a total of 106,059 AF of SWP water. Of this amount, 65,618 AF was SWP Table A water, 17 AF was Dry Year (Yuba) water, and 5,424 AF was Rosedale-Rio Bravo transfer water. MWD also received 35,000 AF of SWP water allocated to CVWD under the QSA.

As shown in **Table 5-6** CVWD and DWA received 213,380 AF of SWP Exchange water at the WWR-GRF and 4,930 AF at the MC-GRF (in the Mission Creek Subbasin), for a total delivery to the Coachella Valley of 218,310 AF (37,397 AF less than the 255,707 AF delivered in WY 2017-2018). Of this amount, 112,251 AF was credited to the Advanced Delivery Account. At the end of WY 2018-2019, there was 415,227 AF stored in MWD's Advanced Delivery Account in the Indio Subbasin. This represents over three years of SWP Exchange water deliveries at the current average reliability of 62 percent of CVWD's and DWA's combined Table A amounts. The 2017 SWP Delivery Capability Report (DWR, 2018) estimates the long-term average deliverability at 62 percent of maximum Table A amounts.

**Table 5-6**  
**Deliveries of CVWD and DWA SWP Water to MWD in WY 2018-2019**

<b>Description</b>	<b>CVWD (AF)</b>	<b>DWA (AF)</b>	<b>Total (AF)</b>
Table A	46,771	18,847	65,618
Article 21 "Interruptible"	0	0	0
Turnback Pool A and B	0	0	0
Multi-Year Pool	0	0	0
Dry Year (Yuba)	12	5	17
Flex Storage Payback	0	0	0
Article 56 (c) "Carryover" from 2018 delivered in 2019	0	0	0
Rosedale-Rio Bravo	5,424	0	5,424
CVWD QSA Transfer <sup>1</sup>	35,000	0	35,000
<b>Total Delivered to MWD</b>	<b>87,207</b>	<b>18,852</b>	<b>106,059</b>
Water Delivered to CVWD and DWA at Whitewater River-GRF (WWR-GRF)	--	--	213,380
Water Delivered to CVWD and DWA at Mission Creek GRF (MC-GRF)	--	--	4,930 <sup>3</sup>
<b>Total Delivered to Indio Subbasin</b>			<b>218,310</b>
Credit to/from Advanced Delivery Account <sup>2</sup>	--	--	112,251
Advanced Delivery Account Balance as of September 30, 2019	--	--	415,227

Notes:

1 – The 35,000 AFY of SWP water available through the QSA may be delivered at either Imperial Dam or Whitewater River and is not subject to SWP or Colorado River reliability.

2 – Credit to/from Advanced Delivery Account is the difference between Total Water Delivered to MWD and Total Water Delivered to the Indio Subbasin.

3 – Recharge volume at the MC-GRF for April 2019 was adjusted from 2,478 AF down to 585 AF due to meter error. Data is provisional pending verification by MWD.

### 5.3.3 Total Imported Deliveries

**Table 5-7** summarizes the imported water use in the Indio Subbasin by water use sector and source during WY 2018-2019. Total imported water use in the Indio Subbasin was 529,453 AF. This accounts for 2,885 AF of imported water used outside the Indio Subbasin.

**Table 5-7**  
**WY 2018-2019 Imported Water for Direct Use in the Indio Subbasin**

Water Use Sector	Water Source	Imported Water Use (AF)	Method of Measurement	Accuracy of Measurement
Agriculture <sup>1</sup>	Coachella Canal	242,430	100% metered	±2%
Industrial	Coachella Canal	0	100% metered	±2%
Urban <sup>2</sup>	Coachella Canal	34,671	100% metered	±2%
Environmental <sup>3</sup>	Coachella Canal	0	Not applicable	--
Total Imported Water for Direct Use		277,101		
<i>exported for use outside of Indio Subbasin<sup>4</sup></i>		-2,885		
<b>Total Imported Water for Direct Use in Indio Subbasin</b>		<b>274,216</b>		
Groundwater Replenishment	Coachella Canal <sup>5</sup>	41,857	100% metered	±2%
Groundwater Replenishment	SWP Exchange	213,380	100% metered	±2%
<b>Total Imported Water for Groundwater Replenishment</b>		<b>255,237</b>		
<b>Total Imported Water Use in the Indio Subbasin</b>		<b>529,453</b>		

Notes:

1 – Includes crop irrigation and fish farms. Includes 1,811 AF for agricultural use outside Indio Subbasin.

2 – Includes municipal and recreational uses. Includes 1,074 AF for urban use outside Indio Subbasin.

3 – A small amount of Coachella Canal water is used for wildlife habitat enhancement and mitigation in the East Salton Sea groundwater basin.

4 – Water delivered to agricultural and urban users outside Indio Subbasin.

5 – Includes 36,662 AF to TEL-GRF and 5,195 AFY to PD-GRF.

## 5.4 RECYCLED WATER

**Figure 5-2** shows the locations of water reclamation plants (WRPs) and other wastewater treatment and discharge facilities in the Indio Subbasin. Currently, three WRPs provide recycled water for irrigation in the Indio Subbasin. Of these, two WRPs are operated by CVWD (WRP 7 and WRP 10) and one WRP is operated by DWA in cooperation with the City of Palm Springs.

CVWD WRP 7, located north of Indio, has a tertiary treatment capacity of 2.5 million gallons per day (mgd). Recycled water from WRP 7 is applied to golf courses in the Sun City area and percolated at on-site and off-site ponds. CVWD WRP 10, located in Palm Desert, has a tertiary treatment capacity of 15 mgd and delivers recycled water for golf course irrigation and HOAs (CVWD, 2018a).

The City of Palm Springs/DWA WRP is located in the City of Palm Springs and has a tertiary treatment capacity of 10 mgd. DWA provides tertiary treatment for City of Palm Springs's wastewater to recycle it for uses such as irrigation of several golf courses, parks, and other greenscapes in the Palm Springs area. **Table 5-8** shows that 14,446 AF of recycled water was used in WY 2018-2019 in the Indio Subbasin to offset groundwater pumping.





**Table 5-8**  
**WY 2018-2019 Recycled Water Use in the Indio Subbasin**

Water Use Sector	Water Source	Recycled Water Use (AF)	Method of Measurement	Accuracy of Measurement
Urban <sup>1</sup>	DWA WRP	4,468	100% metered	±2%
Urban <sup>1</sup>	CVWD WRP 7	2,094	100% metered	±2%
Urban <sup>1</sup>	CVWD WRP 10	7,884	100% metered	±2%
<b>Total Recycled Water Use</b>		<b>14,446</b>		

Notes:

1. Includes municipal, recreational, and reclamation plant (including on-site) water uses.

Four additional WRPs in the Indio Subbasin treat wastewater but do not generate recycled water. These wastewater treatment facilities are operated by the Valley Sanitary District (VSD), the City of Coachella, and CVWD (WRP 2 and 4) (locations of each facility are shown on **Figure 5-2**). For these wastewater treatment facilities, treated effluent is discharged either to on-site percolation/evaporation ponds or to the CVSC. Additionally, the Kent SeaTech Fish Farm has an NPDES permit to discharge water to the CVSC. **Table 5-9** summarizes the volumes of wastewater treated, recycled, and disposed in the Indio Subbasin by facility (listed from northwest to southeast).

**Table 5-9**  
**WY 2018-2019 Wastewater Treatment, Reuse, and Disposal in the Indio Subbasin**

Facility	Wastewater Treated (AF)	Recycled Water Use <sup>1</sup> (AF)	Recycled On-site WRP Use <sup>2</sup> (AF)	Disposal Percolation/ Evaporation (AF)	Disposal to CVSC <sup>3</sup> (AF)
CPS WWTP/DWA WRP	6,137	4,456	12	1,669	N/A
CVWD WRP 7	3,252	1,764	330	1,159	N/A
CVWD WRP 10	9,817	7,352	532	1,933	N/A
Valley SD WRP	6,705	0	0	0	6,705
City of Coachella WRP	3,029	0	0	0	3,029
CVWD WRP 4	5,463	0	0	0	5,463
Kent SeaTech	6,646	0	0	0	6,646
CVWD WRP 2	15	0	0	15	0
<b>Total</b>	<b>41,065</b>	<b>13,572</b>	<b>874</b>	<b>4,776</b>	<b>21,843</b>

Notes:

1 – Recycled water sold to customers

2 – Recycled water use for WRP on-site water uses

3 – Coachella Valley Stormwater Channel



## 6. TOTAL WATER USE

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Section 356.2(b)(4) of the Sustainable Groundwater Management Act (SGMA) Emergency Regulations requires:

A detailed description and graphical representation of the following conditions of the basin managed in the Plan: ...

(4) Total water use shall be collected using the best available measurement methods and shall be reported in a table that summarizes total water use by water use sector, water source type, and identifies the method of measurement (direct or estimate) and accuracy of measurements. Existing water use data from the most recent Urban Water Management Plans or Agricultural Water Management Plans within the basin may be used, as long as the data are reported by water year.

This section presents the total water use for the Indio Subbasin for WY 2018-2019. **Table 6-1** presents a summary of water use by water use sector and source water. As shown in **Table 6-1**, a total of 551,445 acre-feet (AF) of water was directly used within the Indio Subbasin. This represents a decrease of 42,894 AF compared to water year (WY) 2017-2018 (594,339 AF). The lower water usage may be attributed to relatively wet conditions in WY 2018-2019, resulting in lower agricultural and landscape irrigation demands.

Total direct use volumes do not include 5,100 AF of water exported for use outside of the Indio Subbasin. This includes (a) Colorado River water exported outside the Indio Subbasin for agricultural use (1,811 AF) and urban use (1,074 AF) and (b) groundwater pumped from the Indio Subbasin and delivered to Coachella Valley Water District (CVWD) customers in Imperial and Riverside Counties on the east and west sides of the Salton Sea (East and West Salton Sea Basins) or pumped by Mission Springs Water District (MSWD) and delivered to its customers in the Mission Creek and Desert Hot Springs Subbasins (2,215 AF).

**Figure 6-1** shows a comparison of supply and demand for direct use within the Indio Subbasin for WY 2018-2019.

**Table 6-1**  
**WY 2018-2019 Total Water Use by Sector and Source in the Indio Subbasin**

Water Use Sector	Water Source (AF)						Method of Measurement	Accuracy of Measurement
	Groundwater Production	Local Surface Water	Imported Water: Colorado River <sup>4</sup>	Imported Water: SWP Exchange	Recycled Water	Total Direct Water Use in Indio Subbasin		
Agriculture <sup>1</sup>	42,274	658	240,619	-	-	<b>283,551</b>	99% metered 1% estimated	±2% ±50%
Industrial	1,307	-	-	-	-	<b>1,307</b>	16% metered 84% estimated	±2% ±50%
Urban <sup>2</sup>	216,070	974	33,597	-	14,446	<b>265,087</b>	99% metered 1% estimated	±2% ±50%
Environmental	-	-	-	-	-	-	Not applicable	-
Undetermined <sup>3</sup>	1,500	-	-	-	-	<b>1,500</b>	100% estimated	±50%
<b>Total Direct Water Use in Indio Subbasin</b>	<b>261,151</b>	<b>1,632</b>	<b>274,216</b>	<b>-</b>	<b>14,446</b>	<b>551,445</b>		
<b>Water Exported for Use outside Indio Subbasin</b>	<b>2,215</b>		<b>2,885</b>			<b>5,100</b>		
<b>Total Water Use including Water Exported outside Indio Subbasin</b>	<b>263,366</b>	<b>1,632</b>	<b>277,101</b>		<b>14,446</b>	<b>556,545</b>		

Notes:

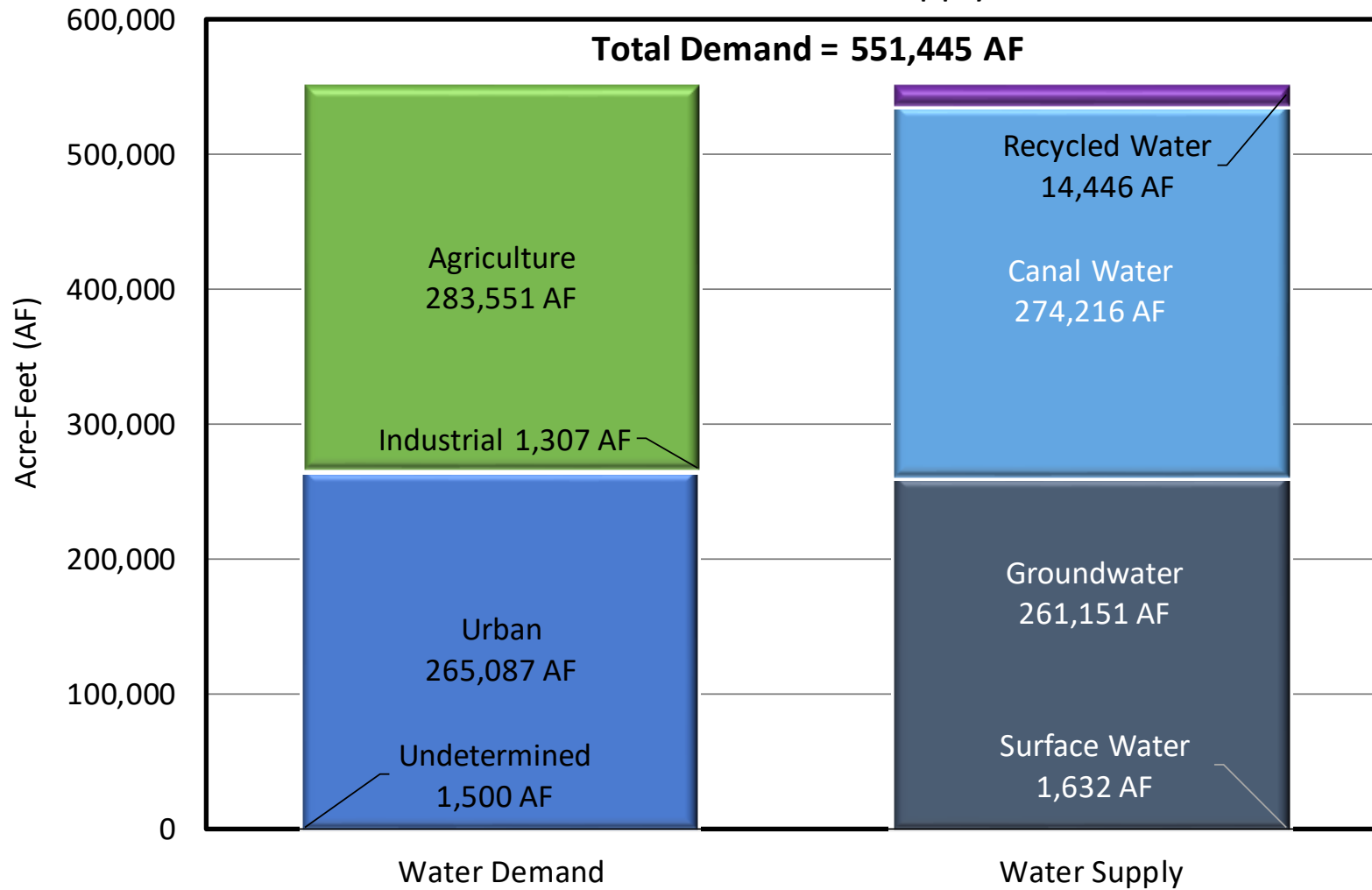
1 – Includes crop irrigation and fish farms; excludes 1,811 AF of imported Colorado River water Canal water exported for agricultural use in the Desert Hot Springs Subbasin outside of the Indio Subbasin.

2 – Includes municipal and recreational uses; excludes 1,074 AF of Canal water and 2,215 AF of groundwater exported for use outside the Indio Subbasin for urban use in the Mission Creek Subbasin, Desert Hot Springs Subbasin, and West Salton Sea and East Salton Sea.

3 – Estimated production by minimal pumpers who do not report production to CVWD (<25 AFY) or DWA (<10 AFY) and estimated additional unreported tribal water use.

4 – Excludes regulatory water (6,535 AF) and conveyance losses

# WY 2018-2019 Water Demand and Supply - Indio Subbasin



February 2020

**TODD**  
GROUNDWATER

**Figure 6-1**  
**Comparison of Supply**  
**and Demand for Direct**  
**Use for the Indio Subbasin**  
**WY 2018-2019**

## 7. CHANGE IN GROUNDWATER STORAGE

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Section 356.2(b)(4) of the Sustainable Groundwater Management Act (SGMA) Emergency Regulations requires:

*A detailed description and graphical representation of the following conditions of the basin managed in the Plan: ...*

*(5) Change in groundwater in storage shall include the following:*

*(A) Change in groundwater in storage maps for each principal aquifer in the basin.*

*(B) A graph depicting water year type, groundwater use, the annual change in groundwater in storage, and the cumulative change in groundwater in storage for the basin based on historical data to the greatest extent available, including from January 1, 2015, to the current reporting year.*

This section presents the groundwater balance and change in storage for the Indio Subbasin for water year (WY) 2018-2019.

### 7.1 GROUNDWATER BALANCE

The water budget compares the inflows and outflows to the Indio Subbasin. The difference between inflows and outflows at a given time defines the change in storage for that time period. The annual water balance for the Indio Subbasin in WY 2018-2019 shows an increase in groundwater storage of 138,549 acre-feet (AF). A discussion of major inflows and outflows from the Indio Subbasin is presented below. A stacked bar chart of total groundwater Inflows and outflows is presented on **Figure 7-1**.

#### 7.1.1 Groundwater Inflows

Major inflows to the Indio Subbasin include natural recharge, subsurface inflow (from adjacent subbasins and from the Salton Sea), return flows from use and wastewater percolation, and groundwater replenishment (or artificial recharge).

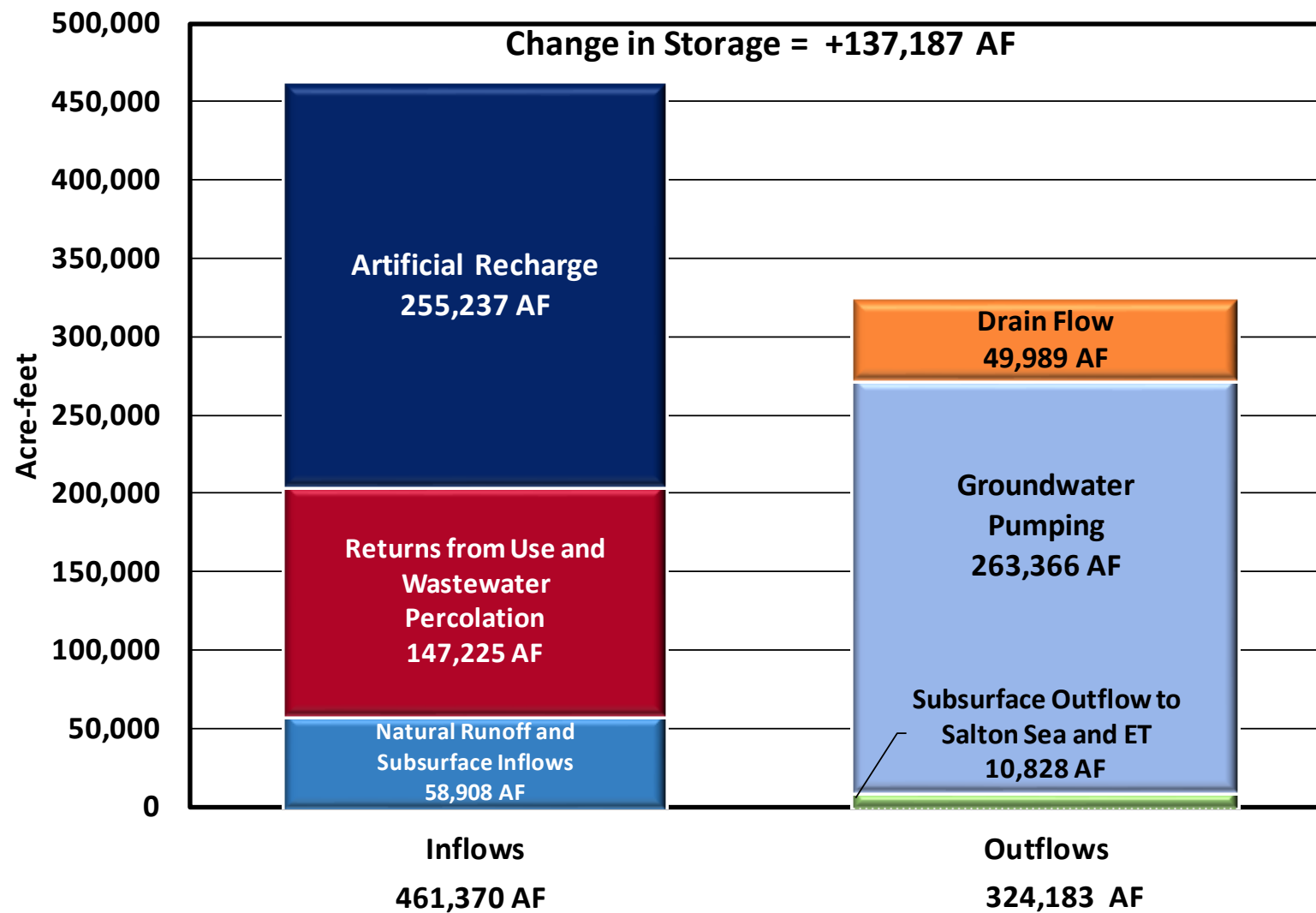
##### Natural Recharge

Precipitation that falls in the San Jacinto, Santa Rosa, and Little San Bernardino mountains is the primary source of natural recharge in the Indio Subbasin. A portion of the surface runoff produced by precipitation percolates directly into the subsurface or infiltrates through streambeds. The annual volume of natural recharge varies significantly as the annual volume of precipitation varies widely.

Natural recharge was estimated with the Coachella Valley groundwater flow model (Fogg, et al., 2002). During the historical period (1936-2009), annual natural recharge ranged from 8,400 AF during dry years to 204,000 AF during wet years, with an annual average of 45,953 AF. This value is used in the water budget to represent natural recharge.

##### Subsurface Inflow

Natural inflow to the Indio Subbasin includes subsurface inflows from the San Geronio Pass Subbasin, Mission Creek Subbasin, and Desert Hot Springs Subbasin across the Banning Fault (**Table 7-1**). Historically,



February 2020

**TODD**  
GROUNDWATER

**Figure 7-1**  
**Groundwater Balance**  
**for the Indio Subbasin**  
**WY 2018-2019**

these inflows are estimated to range from 7,000 acre-feet per year (AFY) to 13,000 AFY. The 2010 Coachella Valley Water Management Plan (CVWMP) Update estimated the long-term average inflow to be approximately 11,405 AFY, as shown in **Table 7-1**.

In addition, subsurface inflow takes place near the Salton Sea. Groundwater modeling estimates that subsurface inflow from the Salton Sea was 1,550 AF for WY 2018-2019.

**Table 7-1**  
**Estimated Average Subsurface Inflows into Indio Subbasin**

Subbasin Boundary Transfer	Estimated Average Annual Underflow (AF)
San Geronio Pass Subbasin to the Indio Subbasin <sup>1</sup>	6,135
Mission Creek Subbasin to the Indio Subbasin <sup>2</sup>	5,100
Desert Hot Springs Subbasin (Fargo Canyon) to the Indio Subbasin <sup>1</sup>	170
<b>Total Subsurface Inflow from Neighboring Subbasins</b>	<b>11,405</b>
Salton Sea to the Indio Subbasin <sup>3</sup>	1,550
<b>Total Subsurface Inflow - Indio Subbasin</b>	<b>12,955</b>

Notes:

1 – Estimated from groundwater modeling (Fogg, et al., 2000).

2 – Estimated from groundwater modeling (MWH, 2013 and Psomas, 2013).

3 – Estimated inflow to Semi-perched Aquifer from groundwater modeling (MWH, 2011).

Collectively, long-term average natural recharge and subsurface inflows applied to WY 2018-2019 total 58,908 AF.

#### Infiltration of Applied Irrigation Water

Deep percolation of water applied to agricultural fields, golf courses, and urban landscapes represents a major inflow to the groundwater system and is referred to as irrigation return flow. Irrigation return flows can be calculated based on evapotranspiration (ET) and leaching requirements of existing crops and landscaped areas and assumptions on irrigation methods applied and their respective efficiencies.

The method of estimating return flows used in this Indio Subbasin Annual Report for Water Year 2018-2019 (Annual Report) is described in Appendix B of Coachella Valley Water District's (CVWD's) Engineer's Reports on Water Supply and Replenishment Assessments (CVWD, 2017 and 2018). For WY 2018-2019, irrigation return flow in the Indio Subbasin was estimated to be 139,049 AF. Return flows have generally decreased over the past 20 years due to increased irrigation efficiency for both agriculture and urban landscaping.

#### Wastewater and Septic Tank Percolation

The urban portions of the Indio Subbasin are served primarily by municipal sewer systems that convey wastewater to municipal wastewater treatment plants. A portion of the treated wastewater that is not reused is disposed to percolation/evaporation ponds as described in Section 5. Wastewater disposal to



percolation/evaporation ponds was 4,776 AF for WY 2018-2019. For groundwater balance purposes, a three percent evaporation loss is applied to wastewater evaporation as an outflow.

Rural portions of the Indio Subbasin and a few urban areas that do not currently have access to the sewer system use septic tank/leachfield systems to treat and dispose wastewater. It is estimated that about 3,400 AF of septic effluent recharges the Indio Subbasin. Both wastewater effluent and percolation are influenced by water use efficiency and overall demands. As conservation efforts increase, the amount of wastewater return flow decreases.

#### Groundwater Replenishment

Artificial recharge is accomplished in the western portion of the Indio Subbasin at the Whitewater River Groundwater Replenishment Facility (WWR-GRF), in the mid-valley at the Palm Desert Groundwater Replenishment Facility (PD-GRF), and in the eastern portion of the Indio Subbasin at the Thomas E. Levy Groundwater Replenishment Facility (TEL-GRF) (formerly the Dike 4 Recharge Facility).

The source of replenishment water for the WWR-GRF is State Water Project (SWP) Exchange water (exchanged for Colorado River water via the Colorado River Aqueduct (CRA)), while the source of replenishment water for the PD-GRF and TEL-GRF is Colorado River water via the Coachella Canal. Canal water is delivered to the PD-GRF via the Mid-Valley Pipeline (MVP).

In WY 2018-2019, 255,237 AF of imported water was used for groundwater replenishment in the Indio Subbasin. Of this volume, 213,380 AF of SWP Exchange water was replenished at the WWR-GRF. Of the 41,857 AF of Colorado River (Coachella Canal) water, 36,662 AF was replenished at the TEL-GRF and 5,195 AF was replenished at the PD-GRF (**Table 5-7**). For groundwater balance purposes, a two percent evaporation loss is applied to all replenishment water deliveries as an outflow.

#### **7.1.2 Groundwater Outflows**

Indio Subbasin groundwater outflows consist of:

- Groundwater pumping to meet Coachella Valley demands,
- Flow from the semi-perched aquifer through the agricultural drains into the Salton Sea,
- ET from the semi-perched aquifer, and
- Subsurface flow out of the Indio Subbasin, into the aquifers beneath the Salton Sea.

#### Groundwater Pumping

Groundwater pumping is the largest component of outflow from the Indio Subbasin. During WY 2018-2019, there was 263,366 AF of groundwater pumped for beneficial uses within the Indio Subbasin or exported for use in adjacent subbasins as shown in **Table 4-1**.

#### Flow to Drains

In the eastern portion of the Indio Subbasin, the confining unit of the Upper Aquifer impedes deep percolation of applied water at the surface, resulting in saturated soil conditions in the root zone reducing agricultural productivity. In the 1930s, a network of drains was constructed to alleviate this condition. The Coachella Valley Stormwater Channel (CVSC) and 26 drains which flow to the Salton Sea receive intercepted shallow groundwater from agricultural fields. With the delivery of Coachella Canal water to the Coachella Valley in 1949, subsurface (tile) drainage systems were first installed in 1950 to control the

high water table conditions and to intercept poor quality shallow groundwater. CVWD currently maintains 21 miles of open drains and 166 miles of subsurface pipe drains serving 37,425 acres of agricultural lands in the Coachella Valley (CVWD, 2018a).

Maintaining the water table at the level of the drains also acts as a barrier to the percolation of poor-quality return flows into the deeper potable aquifers. Flow in the drains increased steadily as additional tile drains were installed, until the early 1970s. Agricultural drainage flow remained relatively stable through the 1970s and steadily declined through 2009. Drain flow (excluding wastewater discharges and fish farm effluent) has decreased steadily from a high of approximately 158,000 AF in 1976, to 58,800 AF in 1999, and about 40,000 AF in 2009. Since 2009, drain flows have increased due to improved groundwater conditions in the eastern portion of the Indio Subbasin.

CVWD monitors on a monthly basis drain flows to the Salton Sea. The United States Geological Survey (USGS) also operates a continuous flow gauge near the terminus of the CVSC (USGS Gauge Number 10256540 on Figure 5-1). As shown in **Table 7-2**, the total measured drain flow to the Salton Sea in WY 2018-2019 was 79,683 AF.

**Table 7-2**  
**WY 2018-2019 Measured Drain Flows from the Indio Subbasin to the Salton Sea**

<b>Drain</b>	<b>Measured Drain Flows (AF)<sup>1</sup></b>
F Channel	0
E Channel	1,380
Oasis-Grant	247
D Channel	539
C Channel	682
Ave 83	310
Ave 78	544
Ave 79	1,395
Lincoln-Oasis	4,135
A Channel	1,392
Ave 76	2,170
Ave 74	486
Coachella Valley Storm Water Channel <sup>2</sup>	50,108
Johnson St.	2,681
Grant St.	2,424
Grant 0.5	1,176
Hayes	2,048
Hayes 0.5	215
Garfield St.	1,866
Garfield 0.5	507
Arthur St.	1,668
Arthur 0.5	848
Cleveland East	384
Cleveland West	378
Caleb Channel	609
Cleveland 0.5	810
Mckinley	684
<b>Total Drain Flows</b>	<b>79,683</b>

**Notes:**

1 – Drain flows are measured once per month using current meter and cross-sectional areas. If conditions are unsafe for metering, flows are estimated based on the average for the three previous years. Total shown reflects rounding.

2 – Coachella Valley Stormwater Channel flow is measured by USGS Gauge 10259540 – Whitewater River near Mecca.

The CVSC and drain system also receive flows of Coachella Canal water that exceeds requested deliveries (regulatory water), treated wastewater, and fish farm effluent. These flows must be deducted from the total flow to calculate the amount of groundwater leaving the Indio Subbasin through the drain system. **Table 7-3** shows that 56,066 AF of drain water flowed from the shallow groundwater system to the Salton Sea in WY 2018-2019.

**Table 7-3**  
**WY 2018-2019 Net Drain Flow from the Indio Subbasin to the Salton Sea**

Component	Net Drain Flow (AF)
Total Drain Flow	79,683
Storm Flow <sup>1</sup>	-1,315
Regulatory Water <sup>2</sup>	-6,535
Valley Sanitary District	-6,705
Coachella Water Authority	-3,029
Water Reclamation Plant No. 4	-5,463
Kent SeaTech	-6,646
<b>Net Drain Flow to Salton Sea</b>	<b>49,989</b>

Notes:

1 – Storm flow is the volume of Coachella Valley Stormwater Channel flow attributed to storm events and is calculated using a base flow separation methodology.

2 – Regulatory water is Coachella Canal water discharged to the drain system from the irrigation distribution system because it cannot be delivered to users, for example due to water order changes.

#### Subsurface Flow to the Salton Sea

Historically, when groundwater levels were relatively high, groundwater naturally flowed toward the Salton Sea. Shallow semi-perched groundwater discharged into the Salton Sea and deeper groundwater left the Indio Subbasin as subsurface outflow. As groundwater levels in the southeastern portion of the Indio Subbasin declined, the rate of outflow to the Salton Sea decreased. Groundwater modeling studies performed for the 2010 CVWMP Update indicate that both inflow and outflow from under the Salton Sea has occurred in recent time. Current estimates of groundwater flow into the Salton Sea are 646 AF for WY 2018-2019. Declining Salton Sea levels in the future could increase subsurface outflow (MWH, 2011).

#### Evapotranspiration (ET)

Prior to development, water loss through ET was significant above the semi-perched aquifer in the southeastern portion of the Coachella Valley. As native landscapes were converted to agriculture, groundwater loss to ET decreased. The installation of the drain system in the 1950s and 1960s lowered groundwater levels in the semi-perched aquifer, further reducing ET losses. Increased pumping in the 1980s and 1990s resulted in further declines in groundwater elevations and ET. ET for the Indio Subbasin under current conditions is estimated to be approximately 4,934 AFY. This estimate is based on groundwater modeling conducted for the 2010 CVWMP Update (CVWD, 2011).

Additionally, a portion of the imported water used for groundwater replenishment and/or disposed as wastewater is assumed to be lost to evaporation. Assuming a factor of 2 and 3 percent of total volume for groundwater replenishment and wastewater disposal ponds respectively, it is estimated that 5,248 AF of water was lost to evaporation from the wastewater disposal ponds and groundwater replenishment spreading basins.

### 7.1.3 Annual Change in Groundwater Storage

**Table 7-4** and **Figure 7-1** shows inflows and outflows from the Indio Subbasin and the calculated annual change in groundwater storage for WY 2018-2019. During periods of high artificial recharge, the change in storage tends to be positive (water in storage increases). In dry years or periods of high pumping, the change in storage is often negative (storage decreases). Because of the large amount of recharge in WY 2018-2019, there was a positive change in storage for the Indio Subbasin of 137,187 AF.

**Table 7-4**  
**WY 2018-2019 Groundwater Balance in the Indio Subbasin**

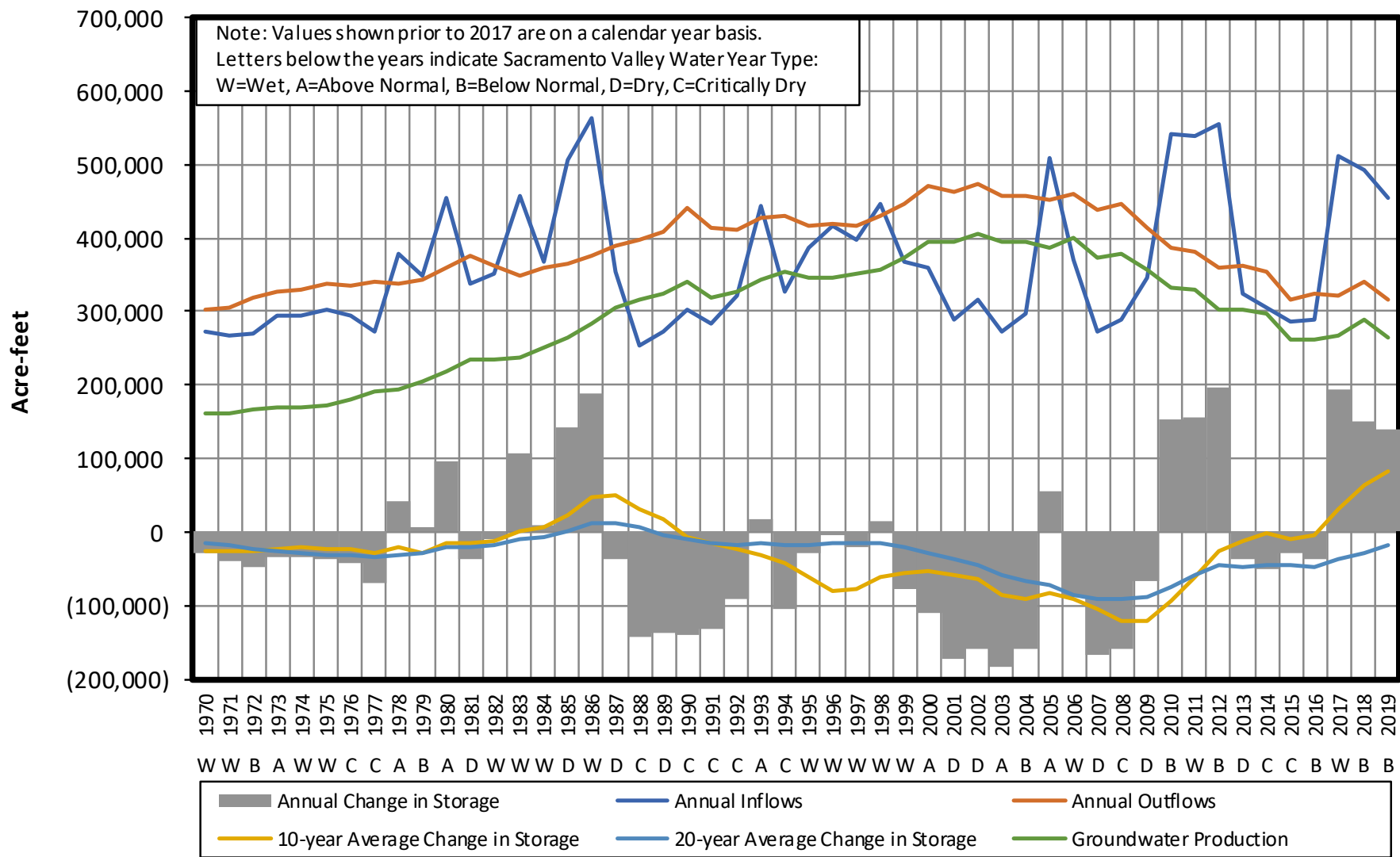
Groundwater Balance Component	WY 2018-2019 Flows (AF)
<b>Inflows</b>	
Infiltration of natural runoff	45,953
Subsurface inflows from adjacent basins	11,405
Infiltration of applied irrigation water	139,049
Wastewater percolation	4,776
Septic tank percolation	3,400
Groundwater replenishment	255,237
Salton Sea intrusion	1,550
<b>Total Inflow</b>	<b>461,370</b>
<b>Outflows</b>	
Groundwater pumping	-263,366
Net drain flow to Salton Sea	-49,989
Evaporative losses <sup>1</sup>	-5,248
Evapotranspiration from the shallow aquifer	-4,934
Subsurface outflow to adjacent basins	-646
<b>Total Outflow</b>	<b>-324,183</b>
<b>Change in Groundwater Storage</b>	<b>+137,187</b>

Notes:

1 – Equivalent to two percent of groundwater replenishment and three percent of wastewater percolation

Long-term sustainability is typically assessed based on changes in groundwater storage over a historical period on the order of 10 to 20 years that includes wet and dry periods. **Figure 7-2** shows the annual change in groundwater storage from 1970 through WY 2018-2019 (gray columns). The starting year of 1970 was selected as it is three years before imported water replenishment commenced in the Indio





Subbasin. The data used to prepare this figure are based on calendar year until WY 2016-2017, when data sources were compiled for the water year for the first Annual Report.

**Figure 7-2** also shows the annual inflows, outflows, groundwater production, and ten-year and twenty-year running-average change in groundwater storage. As shown on the chart, annual inflows to the Indio Subbasin (dark blue line) are highly variable with years of high inflows corresponding to wet years when SWP delivery volumes were greater. Higher inflows in the mid-1980s occurred when Metropolitan Water District of Southern California (MWD) commenced large-scale advanced water deliveries to the Indio Subbasin. The chart shows that after an extended period of decline, both the ten-year and twenty-year running average change in storage have shown upward trends since 2009, and the ten-year running average has been positive since 2017.

While the goal of the CVWMP is to eliminate groundwater overdraft, not to restore the subbasin to historical conditions, it is worth noting that since 2009 the Indio Subbasin has recovered approximately 840,000 AF of groundwater in storage, or about 45 percent of the cumulative depletion observed from 1970 to 2009. **Figure 7-3** shows the cumulative change in storage since 1970. The subbasin was at its minimum storage in 2009 (with a calculated storage loss of 1,890,000 AF from 1970 to 2009, which represents 6 percent of the estimated storage capacity of the Indio Subbasin). Since 2009, groundwater pumping has decreased by about 25 percent and replenishment activities have increased leading to the observed recovery of groundwater in storage.

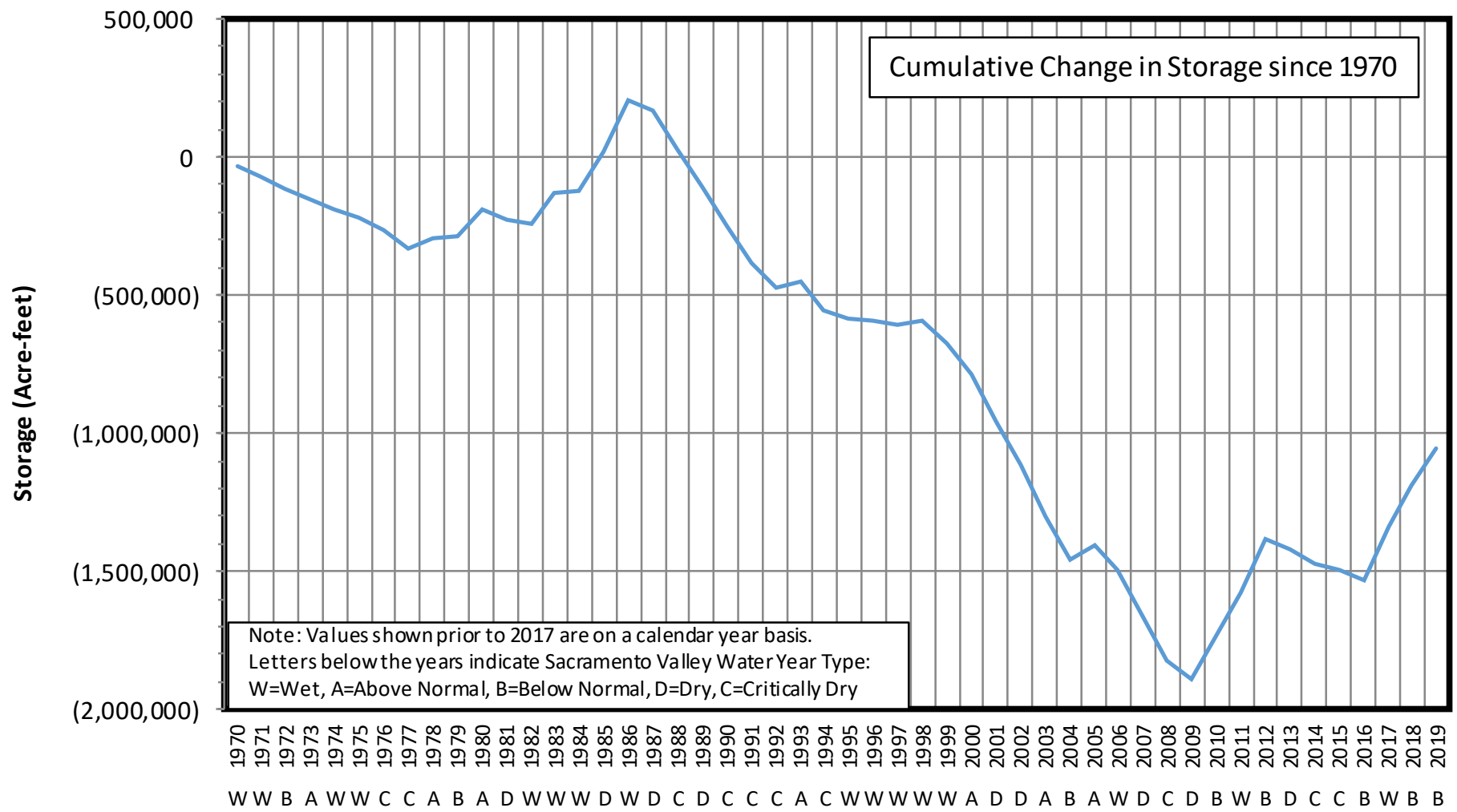
The recovery of groundwater storage demonstrates the progress being made through implementation of the CVWMP.

## **7.2 CHANGE IN GROUNDWATER ELEVATION MAPS**

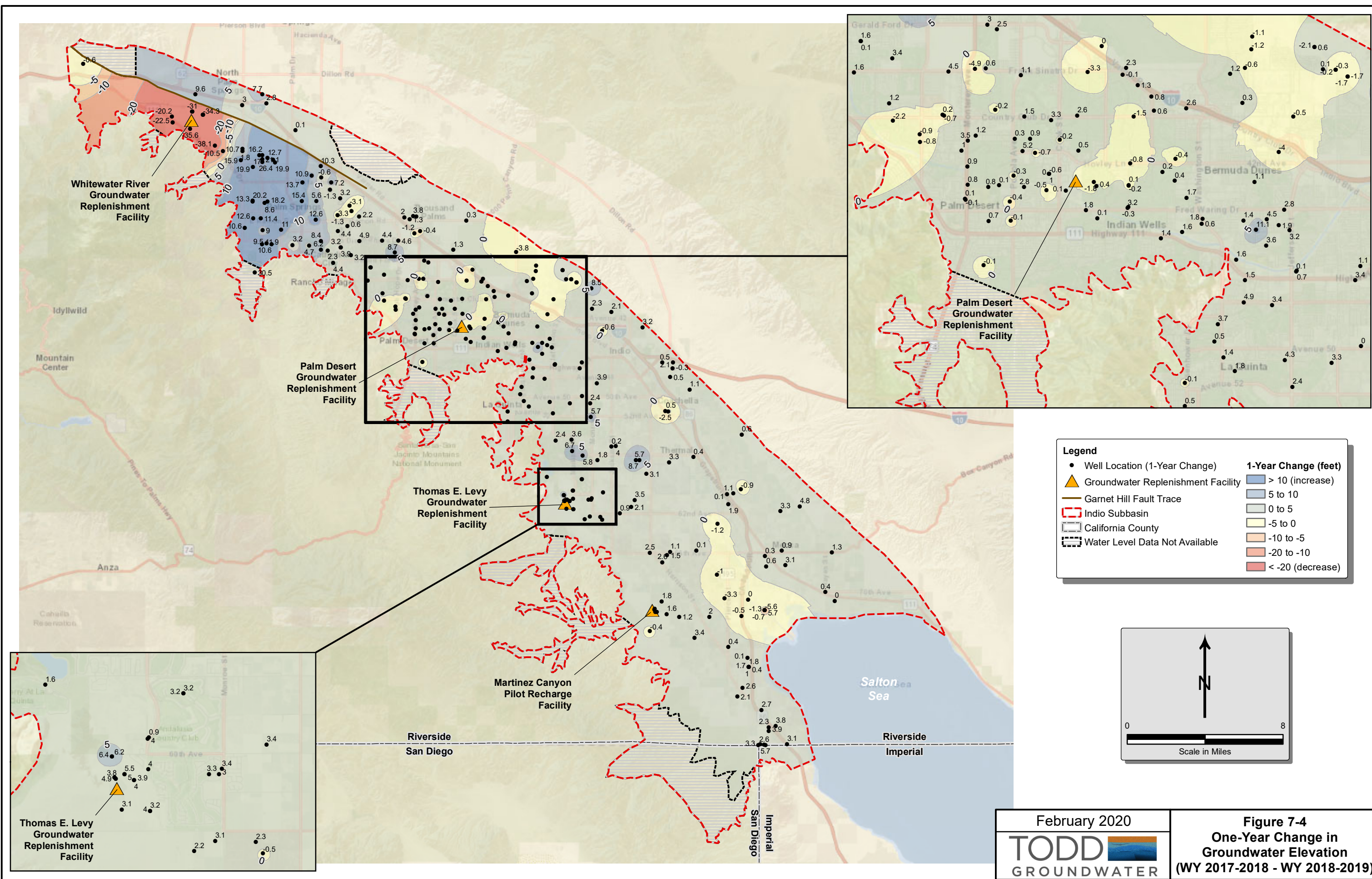
**Figures 7-4** and **7-5** show one-year and ten-year groundwater elevation change maps for the Indio Subbasin, respectively. In addition to the main data frame, two separate zoomed-in data frames are included on each figure to show calculated water level changes for the numerous wells in the mid-valley area and TEL-GRF vicinity. The change in groundwater elevation is based on the difference between the average groundwater elevations for wells monitored by CVWD, Coachella Water Authority (CWA), Desert Water Agency (DWA), and Indio Water Authority (IWA) during WY 2018-2019 and WY 2017-2018 (one-year) or WY 2008-2009 (ten-year). Careful consideration was taken to ensure that average water level measurements for each well for the respective water years were comparable, given modification by CVWD of its trimester reporting period by one month to align with the water year reporting requirements of SGMA starting in WY 2018-2019.

### **7.2.1 One-Year Change (WY 2017-2018 to WY 2018-2019)**

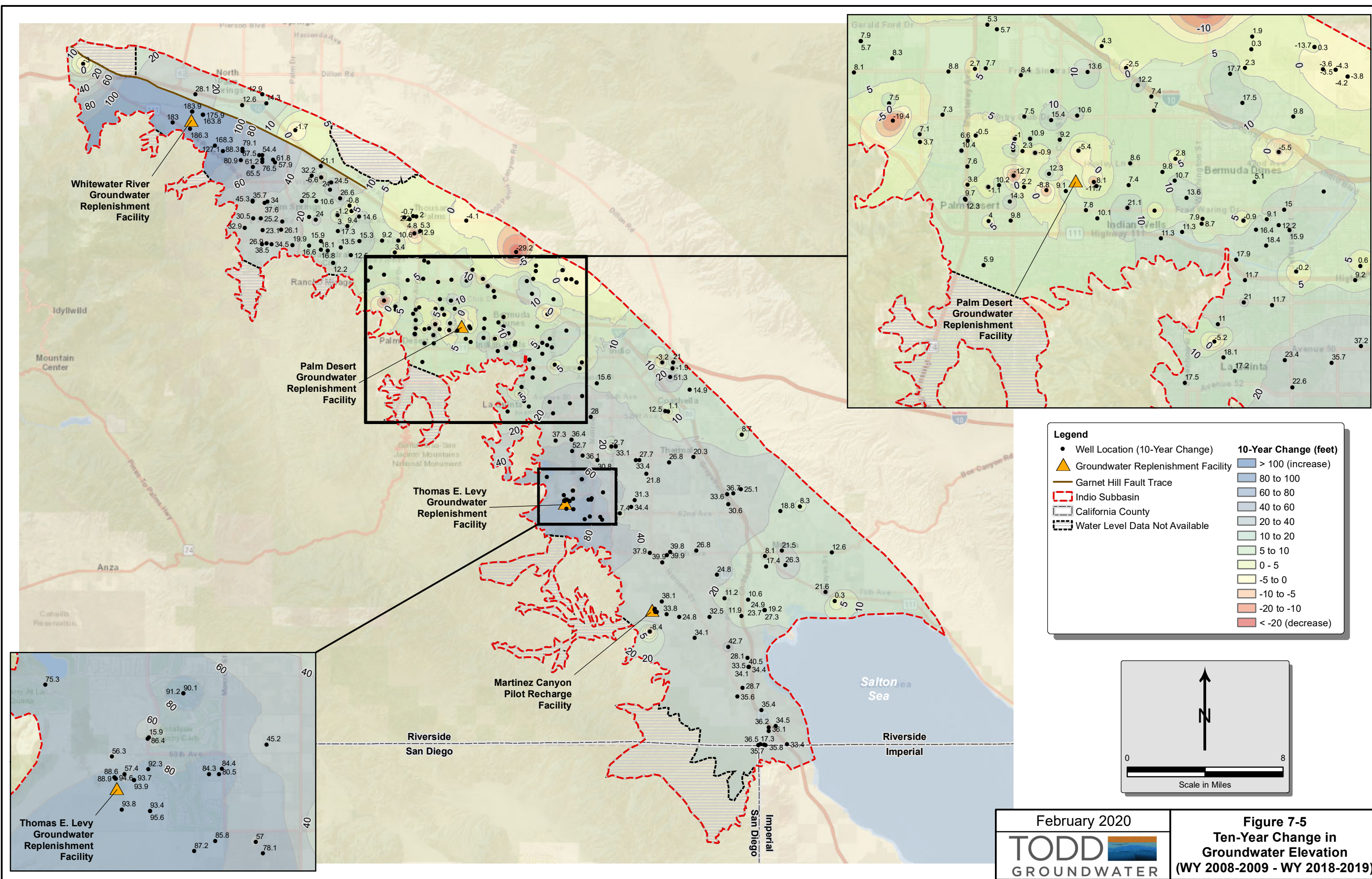
**Figure 7-4** shows the one-year change in average groundwater elevations from WY 2017-2018 to WY 2018-2019 for the Indio Subbasin. Groundwater levels in the Indio Subbasin generally increased from WY 2017-2018 to WY 2018-2019. In the vicinity of the WWR-GRF, groundwater levels declined by 31 to 36 feet. This decline reflects the smaller volume of water replenished in WY 2018-2019 compared to WY 2016-2017 and 2017-2018, resulting in dissipation of the local groundwater mound. In the vicinity of Palm Springs, water levels have been generally stable to slightly increasing (up to approximately 26 feet in some wells). In the central portion of the basin from Palm Desert to La Quinta, groundwater levels were mostly stable with water level changes ranging from about -5 to 5 feet. In the eastern portion of the basin in the vicinity of TEL-GRF, groundwater levels have increased by up to 6 feet, with storage benefits observed as













far as the Thermal and Mecca areas. Groundwater level increases reflect the continued benefits of recharge operations at the TEL-GRF. Some local groundwater level declines were observed northeast of Bermuda Dunes and adjacent to the Salton Sea.

### **7.2.2 Ten-Year Change (WY 2008-2009 to WY 2018-2019)**

**Figure 7-5** shows the ten-year change in average groundwater elevations from WY 2008-2009 to WY 2018-2019 for the Indio Subbasin. Groundwater levels in the Indio Subbasin have increased significantly over the past 10 years from WY 2008-2009 to WY 2018-2019. The largest groundwater increases are observed in the vicinity of the WWR-GRF and TEL-GRF, with water level increases of up to about 200 feet and 100 feet in the immediate vicinity of the two facilities respectively. In the mid-valley area near Palm Desert, Indian Wells, and La Quinta, groundwater level increases have ranged from about 7 to 15 feet, reflecting the benefits of source substitution and conservation programs. Some localized declines in groundwater levels are observed in the Palm Desert area to northeast of Bermuda Dunes. Replenishment at the PD-GRF began in February 2019 and is expected to improve groundwater level conditions in the mid-valley region. Groundwater levels in the southeastern portion of the Indio Subbasin have generally increased between 10 and 40 feet, reflecting storage benefits from replenishment operations at the TEL-GRF and decreased pumping.

## **8. DESCRIPTION OF PROGRESS**

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The 2010 Coachella Valley Water Management Plan (CVWMP) Update was adopted in January 2012 as an update to the original 2002 CVWMP for the Indio Subbasin. The 2010 CVWMP Update refined goals and objectives described in the 2002 CVWMP to better match the current needs of the Coachella Valley. The basic goal of the CVWMP remained the same but was modified to reflect a more holistic approach: “to reliably meet current and future water demands in a cost-effective and sustainable manner.” The 2010 CVWMP Update objectives are as follows:

1. Meet current and future water demands with a 10 percent supply buffer.
2. Eliminate long-term groundwater overdraft.
3. Manage and protect water quality.
4. Comply with state and federal laws and regulations.
5. Manage future costs.
6. Minimize adverse environmental impacts.

In response to the adoption of the Sustainable Groundwater Management Act (SGMA) in 2014, the Indio Subbasin Groundwater Sustainability Agencies (GSAs) collaboratively submitted the 2010 CVWMP Update with an associated Bridge Document as an Alternative to Groundwater Sustainability Plan (Alternative Plan) that describes how the existing 2010 CVWMP Update met the requirements of the SGMA. The California Department of Water Resources (DWR) approved the Alternative Plan in July of 2019.

This section provides an update of the status of CVWMP implementation activities during water year (WY) 2018-2019.

### **8.1 IMPLEMENTATION OF PROJECTS AND MANAGEMENT ACTIONS**

The sustainability goals described in the Alternative Plan for the Indio Subbasin identified the following water management elements for implementation:

- Water conservation measures
- Acquisition of additional water supplies
- Conjunctive use programs to maximize supply reliability
- Source substitution programs
- Groundwater recharge programs
- Water quality protection measures
- Other management activities

#### **8.1.1 Water Conservation Measures**

The primary focus of water conservation is on urban/residential use, agricultural irrigation, and golf course irrigation, as these are the principal water uses in the Indio Subbasin. Other water use groups represent a relatively small portion of the total demand and are handled on a case-by-case basis.

This Indio Subbasin Annual Report for Water Year 2018-2019 (Annual Report) provides a status update of water conservation efforts since the 2010 CVWMP Update. These efforts are consistent with applicable State law without causing dramatic lifestyle changes on the part of those conserving. It is expected that as total demand increases and the landscape ordinance is applied to new growth, the volume of water

conserved will increase, representing the equivalent of a substantial source of supply. The Indio Subbasin GSAs manage a suite of conservation programs and activities designed to increase efficiency, reduce future water demand, and assist the Coachella Valley in meeting the requirements of the Statewide Water Conservation Act, that requires urban suppliers to achieve a 20 percent reduction in per capita use by 2020 (20x2020). Coachella Valley Water District (CVWD), Coachella Water Authority (CWA), Desert Water Agency (DWA), and Indio Water Authority (IWA) have initiated and continue to implement the following on-going water conservation programs, as listed below.

### **Urban Conservation**

Urban water use is expected to grow significantly in the future as development occurs. The Indio Subbasin GSAs have implemented water conservation programs for both large irrigation customers and residential customers. Most water purveyors and several cities have implemented landscape audit programs and rebates for replacements lawn conversion and high-efficiency water devices.

- **Outdoor Retrofit Rebate Programs:** The four Indio Subbasin GSAs offer rebates for replacement of inefficient irrigation fixtures with high-efficiency devices such as weather-based irrigation controllers, subsurface/in-line drip tubing, non-adjustable pressure compensating bubblers, pressure compensating emitters, and new generation rotary nozzles for commercial and residential users. Between 2015 and 2019, CVWD installed a total of 3,813 controllers, CWA installed 12 controllers, DWA installed 3,023 controllers, and IWA installed 301 controllers via their respective weather-based irrigation controller programs. In this same timeframe, CVWD also installed a total of 6,829 residential rotary nozzles and 539,928 square feet of irrigation system upgrades for HOA and commercial customers. DWA has installed a total of 4,386 new generation rotary nozzles and bubblers.
- **Indoor Retrofit Rebate and Giveaway Programs:** The four agencies have also participated in indoor water-efficiency retrofit rebate programs. Programs include rebates for residential and commercial high-efficiency toilets, water brooms, pre-rinse nozzles, showerheads, and washing machines. To date, CVWD's Toilet Rebate Program has replaced 4,536 toilets for residential and commercial customers. CVWD has also distributed a total of 56 water brooms and 792 conservation kits. CWA and DWA have installed a combined total of 1,887 WaterSense toilets. CWA has also distributed more than 444 efficient showerheads, aerators and hose nozzles. IWA has installed over 4,400 high-efficiency toilets, replaced 300 washing machines, and distributed thousands of water conservation kits, shower timers, efficient nozzles, and showerheads. As part of their Fiscal Year 2020/2021 budget, IWA will introduce a pilot incentives program to further expand conservation efforts. DWA's new EnergyStar Washing Machines Program has already rebated five washing machines since September 2019.
- **Water Audit Programs:** CVWD, DWA, and IWA manage water audit programs for residential and/or commercial customers. The CVWD Water Audit Program consists of three components: residential Conservation Reviews, Simplified Audits, and Proteus Consulting–Comprehensive Water Audits. Since 2015, CVWD has completed 12,847 Conservation Reviews, 49 Simplified Audits, and 7 Comprehensive Water Audits.
- **Turf Conversion Rebate Programs:** The Indio Subbasin GSAs manage turf conversion programs for residential and commercial users. Customers in the CVWD service area can receive \$2 per

square foot, up to \$20,000 per residential project, and \$25,000 per commercial project for converting grass lawns to desert-friendly landscaping. Since 2008, approximately 17.6 million square feet of turf has been converted, saving approximately 3,014 acre-feet per year (AFY) of water. Since 2014, DWA has facilitated the conversion of 2.2 million square feet of turf, equating to an annual water savings of 372 AFY. CWA has converted approximately 482,175 square feet of turf, equating to an annual water savings of 83 AFY. IWA offers \$2 per square foot, up to \$20,000 (residential) and \$60,000 (commercial), for residential and commercial customers. To expand participation, IWA created a new incentive category “City/Schools/Government” with a \$3 per square foot, up to \$150,000 per account, incentive. Since 2010, IWA has facilitated the conversion of 1.76 million square feet of turf, saving 301 AFY of water.

- **Water Conservation Outreach:** The Indio Subbasin GSAs conduct conservation outreach through a variety of methods. CVWD holds several water-efficiency and conservation workshops throughout the year on topics such as composting, soil types, drip irrigation, and turf conversion. CVWD also provides an online Professional Landscaper Certification Course. City Ordinance requires this course to apply or renew a business license. A free online course is offered by College of the Desert. DWA created a water-efficient demonstration garden and initiated a conservation coupon program designed to incentivize water conservation practices such as leak inspections. In 2016, DWA also conducted a smart meter pilot test to assess the effectiveness of additional information on customer conservation habits. IWA continues to provide speaking engagements, classroom demonstrations and school outreaches, and workshops. CWA continues its conservation efforts via the development of a website dedicated to water conservation. The website includes information that helps create water savings habits. These efforts, in addition to the many outreach events throughout the years, have helped to create a community that understands that conservation is a way of life.
- **Advanced Metering Infrastructure:** In 2016, IWA implemented the advanced metering infrastructure (AMI) and customer web portal to provide customers with interactive consumption data. The web portal empowers customers to set triggers and alerts to monitor consumption and leaks, while allowing IWA staff to review water consumption data in a timely fashion and contact customers for consumption abnormalities. Staff continues to promote the web portal as a tool for customers to actively manage their water use and save money.

## **Agricultural Conservation**

Agriculture is an essential part of the Coachella Valley economy generating more than \$700 million per year in production. Agriculture demands averaging 6.2 AFY per cropped acre, including allowances for multiple cropping, account for more than 40 percent of Coachella Valley water use (CVWD, 2012a).

Since preparation of the 2002 CVWMP, CVWD has implemented agricultural water conservation efforts. CVWD continues to offer rebates to farming customers to convert up to 667 acres of farmed land from flood/furrow to drip irrigation. The program began in 2016, is scheduled to operate for five years, and is estimated to conserve up to 5,000 acre-feet (AF) (see also Section 8.2.1).

## **Golf Course Conservation**

The CVWD Landscape Ordinance (Ordinance No. 1302.4), effective February 2019, supersedes previous landscape ordinances. Uniform landscaping standards throughout the Coachella Valley are regulated through Ordinance 1302.4 or a similar ordinance. The ordinance, developed in conjunction with Coachella Valley Association of Governments (CVAG), Riverside County, the Coachella Valley cities and major water purveyors, establishes maximum allowable turf area and associated water demands for new golf courses by limiting turf to four acres per hole plus 10 acres for associated practice areas (driving ranges and putting greens). Other landscaping must use low water-using plant materials (CVWD, 2019). Based on a typical 18-hole course encompassing about 125 acres of landscaped area, the expected water use would be about 700 AFY, which is an additional 22 percent reduction compared with the 2002 CVWMP goal for new courses. It is one of the most stringent ordinances in the State and is one of the few to establish turf limitations for new golf courses.

## **8.2 ACQUISITION OF ADDITIONAL WATER SUPPLIES**

The following describes the management strategies and their status associated with securing additional sources of water:

### **8.2.1 Colorado River Supplies**

Demands on the Colorado River supplies have been reduced by voluntary agreement among the United States Bureau of Reclamation (USBR), Central Arizona Project, Metropolitan Water District of Southern California (MWD), Denver Water, and Southern Nevada Water Authority under the USBR 2014 Pilot System Conservation Program (USBR, 2014). Under this program, CVWD is offering rebates to farming customers to convert up to 667 acres of farmed land from flood/furrow to drip irrigation. The program began in 2016, is scheduled to operate for five years, and is estimated to conserve up to 5,000 AF. As part of the QSA, CVWD's Colorado River allocation through the Coachella Canal increased by 5,000 AF in 2019 to 389,000 AF. CVWD's Colorado River water supply will increase annually in 5,000 AF increments through 2026, when the amount under the QSA will be 424,000 AF. The QSA also provided CVWD a transfer of State Water Project (SWP) water from MWD in the amount of 35,000 AFY that may be delivered at either Imperial Dam or Whitewater River and is not subject to SWP or Colorado River reliability.

### **8.2.2 State Water Project**

In June 2019, SWP allocations increased to 75 percent of SWP Table A Amounts in response to the wet winter of WY 2018-2019. SWP water allocations for 2018 were set at 35 percent of the SWP Table A Amounts. The SWP faces many challenges including the on-going drought, risk of Delta levee failure, legal and regulatory restrictions on exports due to environmental degradation, water quality degradation, and climate change. In the absence of definitive measures to resolve these challenges, SWP reliability is likely to continue declining in the absence of programs such as the previously-proposed California WaterFix. CVWD and DWA are actively participating in other statewide programs to improve the long-term reliability of the SWP supply.

### **8.2.3 Other Water Transfers**

As opportunities arise, CVWD and DWA make water purchases from programs such as SWP Article 21 (interruptible water) and Turnback Pool water, Governor's Drought Water Bank, the Yuba Accord, and the Rosedale-Rio Bravo transfer. During WY 2018-2019, CVWD and DWA acquired 5,441 AF of supplemental water through these programs, as shown in **Table 5-6**.



#### **8.2.4 Recycled Water**

The principal non-potable uses for recycled water in the Indio Subbasin are:

- Golf course irrigation
- Urban landscape irrigation

During WY 2018-2019 CVWD and DWA delivered 13,572 AF of recycled water in the western portion of the Indio Subbasin for golf course and other large irrigation (an additional 874 AF was used onsite at the water reclamation plants [WRPs]). Treated wastewater generated in the western Indio Subbasin that is not recycled is disposed in percolation/evaporation ponds.

#### **8.2.5 Desalinated Semi-Perched Brackish Groundwater**

The 2002 CVWMP recommended that a desalination facility commence operation between 2010 and 2015 to treat semi-perched brackish groundwater for irrigation purposes. The facility would be initially constructed to treat 4,000 AFY and expanded to 11,000 AFY by 2025. A brackish groundwater treatment study and feasibility study was completed in 2008. Source water supply options for producing desalinated water include installation of a well field to extract semi-perched brackish groundwater in the upper part of the aquifer (2010 CVWMP Update). The 2015 Urban Water Management Plan (UWMP) (CVWD, 2016b) anticipated the need for desalinated semi-perched brackish groundwater starting in 2025. No activities were conducted during WY 2018-2019 with regard to desalination, as projected demands have been lower than estimated in the 2015 UWMP. Additional development of this potential supply will be re-evaluated as part of the Alternative Plan Update.

### **8.3 GROUNDWATER SUPPLY SUBSTITUTION**

Groundwater supply substitution represents an effective strategy to mitigate the lowering of groundwater levels, reduction of groundwater in storage, and subsidence. Management strategies currently include the substitution of groundwater supply with recycled water and Coachella Canal water for golf and agricultural use and future treatment of Coachella Canal water for urban use. Groundwater substitution projects identified in the Alternative Plan include the following:

- Conversion of golf courses in the western Indio Subbasin from groundwater to recycled water from local WRPs or Colorado River water delivered directly via the Mid-Valley Pipeline (MVP)
- Conversion of golf courses in the eastern Indio Subbasin from groundwater to Colorado River water
- Conversion of agricultural irrigation from groundwater to Colorado River water, primarily in the Oasis area
- Conversion of urban use from groundwater to treated Colorado River water in the eastern Indio Subbasin
- Conversion of outdoor urban use to non-potable water including Colorado River water or recycled water in the eastern Indio Subbasin

**Table 8-1** shows the current status of golf course conversions in the Indio Subbasin. There are 113 golf courses in the Indio Subbasin, of which 58.5 currently receive non-potable water from the Coachella Canal, recycled water, or a combination of the two sources.

**Table 8-1  
Golf Course Conversion Status - Indio Subbasin (Golf Course Count)**

<b>Water Source</b>	<b>Existing</b>	<b>Planned Future</b>	<b>Not Planned</b>	<b>Total</b>
Non-potable Water via CVWD WRP 7 <sup>1</sup>	2.5	0		2.5
Non-potable Water via CVWD WRP 10 <sup>2</sup>	15	19		34
Coachella Canal Water via CVWD Mid-Valley Pipeline	6	17		23
Coachella Canal Water via CVWD Canal Distribution System <sup>1</sup>	30	3.5		33.5
Non-potable Water via DWA WRP	6	2		8
Groundwater Only			12	12
<b>Total Golf Courses</b>	<b>59.5</b>	<b>41.5</b>	<b>12</b>	<b>113</b>

Notes:

1 – Courses indicated as 0.5 are served or will be served with recycled water with non-potable water (blend of recycled and Canal water) on part of the course and Canal water on the other part

2 – In addition to golf courses, non-potable water is served to five existing landscape irrigation customers and three future landscape irrigation customers are planned.

### **8.3.1 Golf Courses Served with Coachella Canal Water**

CVWD has worked closely with golf courses in the eastern portion of the Indio Subbasin to encourage the use of Coachella Canal water instead of pumping groundwater. Currently, 30 golf courses are connected to the Coachella Canal distribution system. CVWD plans to connect three additional courses and a portion of another golf course after 2025.

CVWD staff continues to work closely with the connected golf courses to ensure they meet at least 80 percent of their demand with Coachella Canal water. In WY 2018-2019, golf courses connected to the Coachella Canal distribution system met 70 percent of their total water use with Coachella Canal water.

### **8.3.2 Mid-Valley Pipeline**

The Mid-Valley Pipeline (MVP) is a key element of "in-lieu" replenishment designed to help eliminate overdraft in the Indio Subbasin. This source substitution project is currently being implemented to reduce groundwater pumping by supplying CVWD recycled water and Colorado River water. Colorado River water from the Coachella Canal is supplied through the MVP to CVWD WRP 10, where it supplements the supply of recycled water and both are delivered to non-potable water customers for golf course and landscape irrigation. In WY 2018-2019, WRP 10 produced 8.8 million gallons per day (MGD) of secondary effluent, of which 7.0 MGD was recycled. The remaining secondary effluent was disposed in onsite percolation ponds. Disposal occurs primarily in winter months, when non-potable demand is less than the available supply. During the irrigation season, when irrigation demand exceeds available recycled water supply, the recycled water is blended with Coachella Canal water.

Construction of the first phase of the MVP from the Coachella Canal in Indio to WRP 10 (6.6 miles in length) was completed in 2009. Since that time, CVWD staff have worked with local golf courses to connect them to the non-potable water system. Currently, there are 21 golf course/irrigation customers connected either directly to the MVP or the non-potable water system supplied by the MVP and WRP 10 recycled water. An additional 36 golf courses are planned for future connection either directly to the MVP or the non-potable water supply system.

CVWD completed a Non-Potable Water Master Plan, prepared by GEI Consultants in June 2017 and a WRP 10 Non-Potable Water System Expansion Report (CVWD, 2018b). Approximately 36 additional customers are expected to connect to the MVP non-potable water system between 2022 and 2031. When these connections are completed, the MVP non-potable water system will deliver approximately 33,000 AFY of blended recycled water and Coachella Canal water for irrigation.

CVWD's near-term non-potable connections involve the construction of approximately 9.5 miles of non-potable water pipeline segments and connections to provide approximately 6,500 AFY of irrigation water for seven local golf courses and rehabilitation of the existing T-1 pump station. Approximately 50,000 linear feet of non-potable pipeline will be constructed within the public right-of-way and private lands in Palm Desert and unincorporated Bermuda Dunes. These improvements will serve the following users: Marriott Shadow Ridge, Marriott Desert Springs, Emerald Desert RV Resort, Oasis Club, Palm Desert Resort, Woodhaven and Bermuda Dunes Country Club. In 2018, CVWD completed a Mitigated Negative Declaration (SCH#2018051031), prepared by Rincon Consultants (August 2018). In 2019, CVWD completed a Non-Potable Connections Feasibility Study, prepared by Woodard & Curran (January 2019). Design is underway for several of these individual connections, including Oasis Country Club (90% Drawings by Krieger and Stewart, October 2018). Multiple grant applications were submitted by CVWD in 2019 to fund construction of these short-term connections, including to the California Department of Water Resources (IRWM Grant Program) and U.S. Bureau of Reclamation (WIIN Grant Program).

DWA is evaluating the feasibility of connecting two additional golf courses and one park to its non-potable water system in the future. Connection of these users to non-potable water will increase DWA's winter demand and minimize future wastewater percolation.

## **8.4 GROUNDWATER RECHARGE**

Groundwater recharge is a key groundwater management strategy employed in the Indio Subbasin.

### **8.4.1 Whitewater River Groundwater Replenishment Facility**

Beginning in 1918, CVWD initiated activities to obtain water rights and acquire lands to begin groundwater replenishment activities using stream flows from the Whitewater River. Replenishment with imported water began in 1973, and the Whitewater River Groundwater Replenishment Facility (WWR-GRF) was expanded in 1984. During WY 2018-2019, groundwater recharge operations replenished 213,380 AF of imported water at the WWR-GRF. As of September 30, 2019, a total of 3,661,287 AF of imported water has been recharged at the WWR-GRF.

### **8.4.2 Palm Desert Groundwater Replenishment Facility**

In 2018, CVWD completed planning and environmental studies along with engineering and construction of a portion of the Palm Desert Groundwater Replenishment Facility (PD-GRF). The PD-GRF will provide an estimated 25,000 AFY of direct groundwater replenishment using imported Colorado River water

delivered via the MVP in the Palm Desert area when fully completed. The PD-GRF will be constructed and implemented in two phases. Phase I of the project involved re-purposing nine existing ponds adjacent to and north of WRP 10 to function as Colorado River water recharge basins and will provide 8,000 AFY of recharge capacity. Delivery and recharge of Colorado River water in the Phase I recharge basins began in February 2019. Phase II of the PD-GRF involves construction of recharge basins in the Whitewater River Stormwater Channel south/southeast of WRP 10 and is expected to provide up to 15,000 AFY of recharge capacity. CVWD is currently working to obtain environmental permits from the Colorado River Regional Water Quality Control Board and United States Army Corp of Engineers.

In WY 2018-2019, a total of 5,195 AF of Colorado River water was replenished at the PD-GRF.

#### **8.4.3 Thomas E. Levy Groundwater Replenishment Facility**

Recharge operations continued at the Thomas E. Levy (TEL-GRF) with an annual recharge of 36,662 AF in WY 2018-2019. This amount was about 15 percent more than the previous year (due to pump maintenance work and panel repair work for the Coachella Canal Lining Project in the winter of 2017/2018). Since the full-scale facility commenced operation in 2009, a total of 359,300 AF has been recharged and groundwater elevations near the facility have increased by nearly 100 feet.

### **8.5 WATER QUALITY IMPROVEMENTS**

Based on historical and recent monitoring, CVWD, CWA, and IWA identified that approximately 30 percent of their drinking water wells have chromium-6 (Cr-6) levels above 10 micrograms per liter ( $\mu\text{g/L}$ ). This level was adopted by California as the standard in 2014 but was subsequently removed in 2017. Building on the success with ion exchange (IX) technology for arsenic removal and treatment, the water agencies evaluated the use of similar technology to reduce Cr-6 levels found in other drinking water wells. CVWD operates two IX facilities reducing Cr-6 levels in four wells, and IWA is currently treating three (3) wells to remove Cr-6.

In October 2016, the CVWD Board of Directors approved launching a pilot study to evaluate the feasibility and effectiveness of using stannous chloride to reduce Cr-6 levels in drinking water. CVWD recently completed a full-scale demonstration project using stannous chloride treatment for the water system serving Indio Hills, Sky Valley, and some areas in and around Desert Hot Springs. The project successfully reduced Cr-6 to chromium-3 (Cr-3) using stannous chloride, an approved drinking water and food additive. The stannous chloride treatment option is substantially less expensive and has less impact to the community and the environment than other methods.

On September 11, 2017, the State deleted the drinking water standard for Cr-6 in response to a court order. The State plans to complete work needed to establish a new Cr-6 drinking water standard. Because of the aforementioned testing, CVWD is prepared to meet anticipated future Cr-6 drinking water standards set by the State.

As part of the Coachella Valley Regional Water Management Group (CVRWMG), CVWD was awarded two grants for Proposition 84 Round 4 totaling about \$500,000 for two rebate programs. The Regional Well Retrofit and Abandonment Program totals approximately \$250,000 providing up to \$35,000 per well for the retrofit of leaking artesian wells, or the capping and sealing of improperly abandoned wells. The Disadvantaged Community (DAC) Septic Rehabilitation and Demand Reduction Program totals approximately \$250,000 providing up to \$60,000 per septic system for the rehabilitation of failing septic systems.

## 8.6 CURRENT IMPLEMENTATION STATUS

The recommended actions identified in the 2010 CVWMP Update (Alternative Plan) are described in **Table 6-2** of the Alternative Plan. A revised version of **Table 6-2**, with the current updated status, is presented as **Table 8-2**.

**Table 8-2**  
**WY 2018-2019 CVWMP Implementation Status Update**

Plan Element	Responsible Entity(ies)	SGMA Bridge Document Goal	2019 Status	2020 Planned Activities
<b>WATER CONSERVATION PROGRAM</b>				
Adopt and implement 2009 CVWD/CVAG Landscape Ordinance or equivalent	CVWD, water purveyors, cities, Riverside County	Ongoing	<b>Completed.</b> Ordinance revised in 2015 to comply with new State requirements	Continue to comply with State requirements
Establish urban water conservation baseline	CVWD, other urban water purveyors	Completed	<b>Completed.</b> Re-evaluated in 2015 UWMPs based on 2010 census population	Initiate development of 2020 Regional UWMP scheduled for 2021 and re-evaluate
Achieve minimum 10 percent reduction in existing golf course use	CVWD, DWA	2015	In Progress	Continue to work with Golf and Water Task Force to develop and monitor custom water budgets and continue to implement grant-funded conservation rebates
Achieve 14 percent reduction in agricultural water use	CVWD	2020	<b>Completed.</b> As of 2017, agricultural water use has decreased by 15%	Continue to work with Agricultural Water Advisory Group to develop programs for increased conservation
Achieve 20 percent reduction in urban use	CVWD, other urban water purveyors	2020	<b>Completed.</b> 2015 UWMPs documented 37% reduction in 2015 from 1999 to 2008 baseline	Initiate development of 2020 Regional UWMP and 2022 Alternative Plan Update and re-evaluate conservation target

Plan Element	Responsible Entity(ies)	SGMA Bridge Document Goal	2019 Status	2020 Planned Activities
<b>WATER SUPPLY DEVELOPMENT PROGRAM</b>				
Complete siting studies, environmental impact evaluation and design for CVSC drain water capture and treatment facilities	CVWD	2013	Deferred. Imported water status report (2015) indicated potential deferral until 2025 or later depending on growth	Deferred. Imported water status report (2015) indicated potential deferral until 2025 or later depending on growth
File for water rights application for change of point of use for wastewater effluent discharges to allow water recycling	CVWD, VSD, CWA	2015	In Progress. CVWD's wastewater change petition to reuse effluent from WRP-4 was released for public review in October 2017 and received several protests	Continue to work to resolve any concerns identified by valid protests
Complete construction of initial CVSC drain water capture and treatment facilities	CVWD	2015	Deferred. Imported water status report (2015) indicated potential deferral until 2025 or later depending on growth	Re-evaluate need in the upcoming 2022 Alternative Plan Update
Conduct a feasibility study to investigate the potential for additional stormwater capture in the East Valley	CVWD	2015	In Progress with stormwater studies	Continue to maximize stormwater capture in facilities design



Plan Element	Responsible Entity(ies)	SGMA Bridge Document Goal	2019 Status	2020 Planned Activities
Conduct a study to determine the amount of water lost to leakage or otherwise unaccounted in the first 49 miles of the Coachella Canal and evaluate the feasibility of corrective actions to capture lost water	CVWD	2015	Deferred. No longer a priority due to measured losses below 5% since canal lining	Continue to monitor annual system losses
Conduct a joint investigation with IWA and CWA of groundwater development potential in Fargo Canyon Subarea of the Desert Hot Springs Subbasin to determine the available supply and suitability for use in meeting non-potable demands of development east of the San Andreas fault	CVWD, IWA, CWA	2020	Deferred due to changes in water supply needs.	Re-evaluate need in the upcoming 2022 Alternative Plan Update
<b>SOURCE SUBSTITUTION PROGRAM</b>				
Prepare a master plan for Mid-Valley Pipeline completion (NPW Master Plan)	CVWD	2011	In Progress - Draft plan completed in 2016	Master plan (including WRP 4, 7, 10 and Mid-Valley Pipeline NPW Connections) and environmental analysis to be completed in 2020

Plan Element	Responsible Entity(ies)	SGMA Bridge Document Goal	2019 Status	2020 Planned Activities
Connect four golf course users along the Mid-Valley Pipeline alignment to the Mid-Valley Pipeline	CVWD	2011	<b>Completed</b>	Continue monthly progress report to CVWD Board
Work with existing East Valley golf courses having Coachella Canal water access to increase their use to 90 percent of demand	CVWD	2012	In Progress - revised to 80% via non-potable agreements	Continue to work to expand use of Coachella Canal water and report progress in annual Non-Potable Water Report
Investigate regional opportunities for Colorado River water treatment facilities	CVWD, IWA, CWA	2012	<b>Completed</b> via Source of Supply/Treatment Study (SS/TS).	None - completed
Develop policy requiring the installation of non-potable water systems for new development	CVWD	2012	<b>Completed</b>	Continue required WSAs/WSVs and Development Design Manual
Work with large agricultural groundwater pumpers to determine what obstacles exist that prevent them from using additional Coachella Canal water and encourage them to reduce their groundwater pumping	CVWD	2012	Deferred due to changes in water supply needs.	Re-evaluate need in the upcoming 2022 Alternative Plan Update

Plan Element	Responsible Entity(ies)	SGMA Bridge Document Goal	2019 Status	2020 Planned Activities
Construct north and east extensions to the Mid-Valley Pipeline system (2017-2018 NPW Connections)	CVWD	2013	Design and environmental documentation are currently underway	Finalize design and advertise the projects for construction. CVWD has applied for loan and grant funding to help implement these projects.
Complete siting studies, environmental impact evaluation and design for Colorado River water treatment facilities	CVWD	2013	Deferred due to changes in water supply need	No action. Re-evaluate need in the upcoming 2022 Alternative Plan Update
Complete construction of initial Colorado River water treatment facilities and connect to distribution system	CVWD	2015	Deferred due to changes in water supply need	No action. Re-evaluate need in the upcoming 2022 Alternative Plan Update
Complete Oasis In-Lieu Recharge Project study update	CVWD	2015	Project separated into two phases. Phase One construction under way for completion in fall of 2020. Phase Two construction to begin in early 2021.	Complete Phase One construction, land acquisition, and final Phase Two construction plans and specifications.
Prepare a non-potable water distribution master plan Phase 3	CVWD	2015	<b>Completed</b>	None - Completed
Complete construction of Mid-Valley Pipeline backbone system	CVWD	2020	Deferred pending results of non-potable master plan	No action. Re-evaluate schedule based on master plan

GROUNDWATER RECHARGE PROGRAM				
Operate and monitor the TEL GRF with a 40,000 AFY goal	CVWD	2010	In Progress with lower goal of 32,000 AFY	Continue recharge with lower goal of 32,000 AFY and finalize TEL GRF groundwater replenishment evaluation
Investigate groundwater storage opportunities with IID	CVWD	2010	<b>Completed</b>	None - Completed
Transfer the unused portion of the 35,000 AFY of SWP water available under the QSA to the WR GRF	CVWD	2011	<b>Completed</b>	Continue to budget transportation funds annually. Maximize advanced delivery opportunities.
Work with IWA to evaluate the feasibility of developing a groundwater recharge project that reduces groundwater overdraft. If feasible, work with IWA to construct the facility	CVWD, IWA	2011	Deferred pending evaluation of need	No action. Re-evaluate need in the upcoming 2022 Alternative Plan Update
Design and construct an additional pumping station and pipeline from Lake Cahuilla to the TEL GRF if the existing pumping station and pipeline cannot provide sufficient water to meet the annual goal	CVWD	2015	Deferred pending TEL GRF groundwater replenishment evaluation	Continue TEL GRF groundwater replenishment evaluation
Conduct siting studies, environmental impact evaluation and design for Martinez Canyon GRF	CVWD	2018	Deferred indefinitely due to monitoring results	None – deferred indefinitely

MONITORING AND DATA MANAGEMENT				
Continue to monitor the extent of land subsidence	CVWD, USGS	2010	Final report for 2010-2017 data to be completed in Spring 2020	Discussion with USGS for continuing monitoring and studies
Provide additional information in the annual engineers' reports:	CVWD, DWA	2011	All elements completed	Engineer's reports content is now coordinated with SGMA annual reporting requirements
* Annual precipitation and stream flow			<b>Completed</b>	
* Additional groundwater level data and hydrographs			<b>Completed</b>	
* In-lieu recharge water deliveries from imported water and recycled water that offset pumping			<b>Completed</b>	
* Imported water deliveries for direct use			<b>Completed</b>	
Obtain DWR designation as groundwater level monitoring and reporting entity for the Coachella Valley within their respective service areas	CVWD, DWA, water purveyors	2011	<b>Completed</b> via the CASGEM Program	Continue to monitor and report, including budgeting funds as needed to continue program participation
Prepare a comprehensive groundwater monitoring plan	CVWD, DWA, water purveyors, wastewater agencies, tribes	2012	Developed monitoring well grid with the GSA's in 2017 and will continue adding wells as needed	Continue to pursue grant funding to expand network based on periodic review of needs by GSAs
Enhance the CVSC gauging station at Lincoln Street to provide continuous flow recording	CVWD, USGS	2012	<b>Completed</b>	Continue using USGS gauge for CVSC drain flow reporting

Develop centralized groundwater database	CVWD, DWA, water agencies, tribes	2012	Deferred, pending 2022 Alternative Plan Update	Evaluate needs as part of the 2022 Alternative Plan Update
Install gauging stations on the individual drains flowing to the Salton Sea	CVWD	New	In Progress – feasibility being evaluated as part of the Agricultural Drain Flow Monitoring Network Assessment	Finalize Agricultural Drain Flow Monitoring Network Assessment
<b>OTHER PROGRAMS</b>				
Continue to operate a groundwater advisory committee regarding groundwater management issues in the East Valley	CVWD, water agencies, pumpers, tribes	2010	<b>Completed</b>	Annual meeting with Joint Water Policy Advisory Committee (JWPAC)
Develop a program to educate and work with well owners to properly control artesian wells	CVWD	2011	<b>Completed.</b> Obtained \$250,000 IWRM grant funding for artesian well sealing – up to \$35,000 per well	Continue program implementation
Update and recalibrate the CVWD groundwater model based on the most current information	CVWD	2012	Deferred, pending 2022 Alternative Plan Update	Initiate groundwater model update to support the 2022 Alternative Plan Update
Develop a water planning interface to the groundwater model	CVWD	2012	Deferred indefinitely. Water planning being supported by consultants	None - deferred indefinitely
Prepare a plan to maintain and enhance the existing drainage system to allow its future use for urban purposes	CVWD	2012	<b>Completed.</b> Legal authority established	None - completed



Develop well construction, destruction and abandonment policies	CVWD, DWA, water agencies, tribes, Riverside County	2012	Obtained \$250,000 grant funding – up to \$35,000 per well for artesian well retrofits (sealing, well destruction, and conversion to CASGEM monitoring well.)	Continue to support County's efforts to enforce. Pursue additional IRWMP grant funding as available
Add groundwater quality simulation capabilities to the model that will allow simulation of salinity (TDS) and nitrogen in the groundwater	CVWD	2013	Deferred indefinitely. Water planning being supported by consultants	None - deferred indefinitely
Prepare a salt/nutrient management plan for the Valley to meet SWRCB Recycled Water Policy requirements	CVWD, DWA, water purveyors, wastewater agencies, tribes, agricultural and golf communities, and Regional Board	2014	Submitted to RWQCB in June 2015, RWQCB acceptance pending	Continue coordination with RWQCB to obtain acceptance
Extend urban water and sewer service to trailer/RV park communities with deficient infrastructure and poor water quality	CVWD	2015	In progress. Formed Disadvantaged Community Task Force. Developing an implementation strategy that prioritizes connection needs. Secured IRWM and USDA rural assistance funding for St. Anthony's, Huerda, and Mountain View Estates mobile home parks.	Continue to sponsor applications for USDA, IRWM, CDPH, and SWRCB funding

Investigate the feasibility of installing nitrate treatment on selected high nitrate wells to avoid redistribution of nitrates	CVWD	2015	In Progress via CVWD's Source of Supply/ Treatment Study. Treatment process being re-evaluated	CVWD continues to explore new technologies for pilot testing any promising processes that may be technically and economically feasible to implement.
Undertake a cooperative program to identify and cap wells that are no longer being used for groundwater production	CVWD, DWA	2015	Obtained \$250,000 grant funding – up to \$35,000/ per well for artesian well retrofits (sealing, well destruction, and conversion to CASGEM monitoring well.)	Continue to support County's efforts to enforce. Pursue IRWM grant funding
<b>ENVIRONMENTAL ENHANCEMENT AND MITIGATION PROJECTS</b>				
Develop plans for the creation of: * 25 acres of managed pupfish replacement habitat * 66 acres of managed rail replacement habitat * 44 acres of Sonoran cottonwood-willow riparian forest habitat	CVWD	2010	In Progress. Received wildlife agency approval of the Garfield Street site and workplan. A revised workplan to include a secondary site along Johnson Street is underway, and has had a first review by wildlife agencies	Continue to work with wildlife agencies to complete review. Update project implementation schedule. Budget funds in CIB/CIP
Remove tamarisk, restore and enhance mesquite and Coachella Valley round-tailed ground squirrel habitat on land CVWD owns in the East Indio Hills Conservation Area	CVWD, CVCC	Not Specified	Completed tamarisk removal in 2017, follow up treatments and quarterly monitoring regularly completed at WRP-7 site. CVCC study on mesquite restoration in progress	Continue to monitor the site and support CVCC efforts to complete feasibility study

Conserve approximately 1,200 acres of land owned in the CVFTL HCP Whitewater Floodplain Preserve in perpetuity as part of the CVMSHCP Reserve System	CVWD, CVCC	2010	In Progress. Resource agencies have completed review of the Draft Conservation Easement prepared by CVCC and CVWD. Execution pending BLM, awaiting Whitewater Replenishment Facility Lease agreement renewal	Continue to work with Resource agencies to achieve conservation easement approvals and a lease agreement renewal with BLM.
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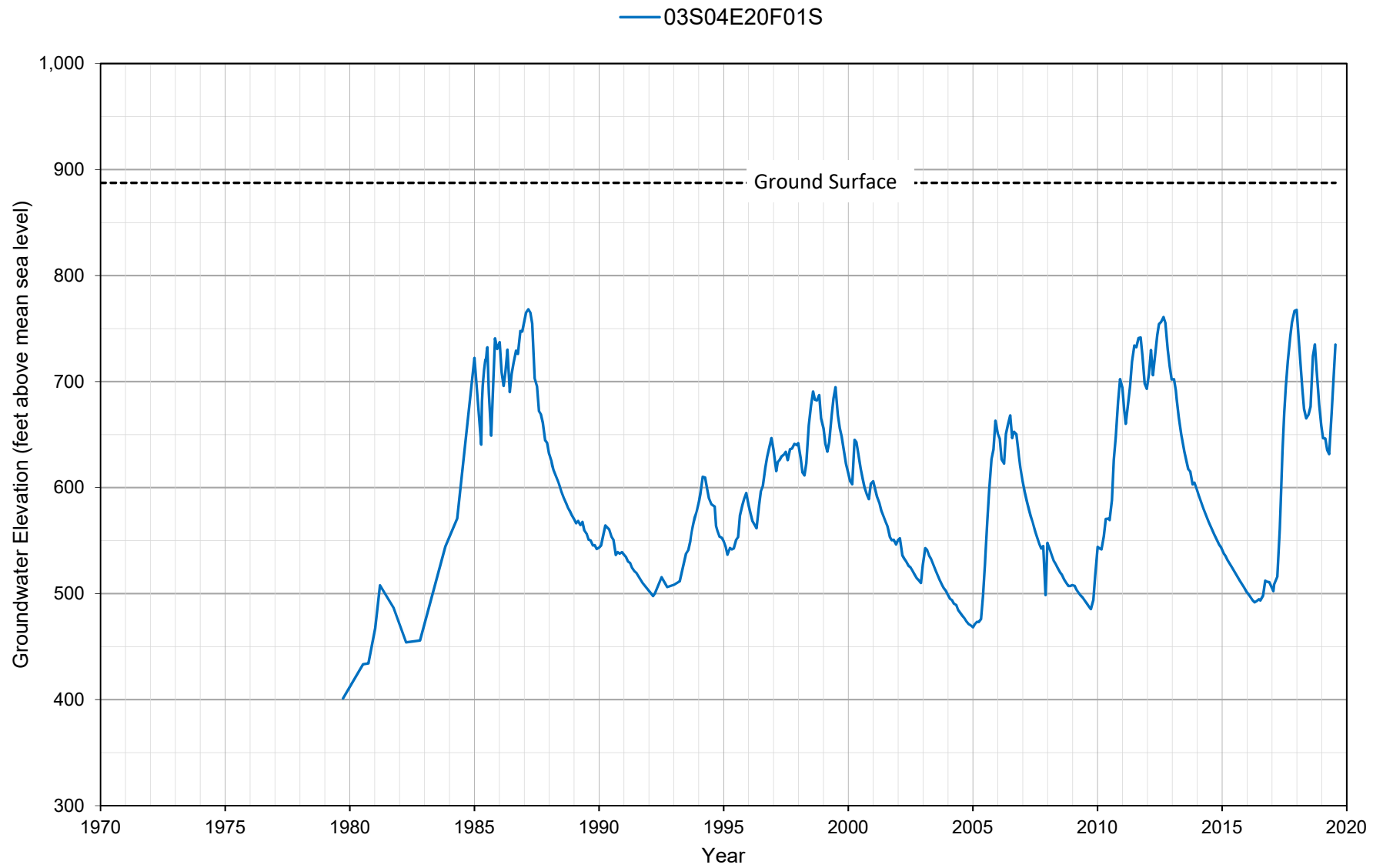
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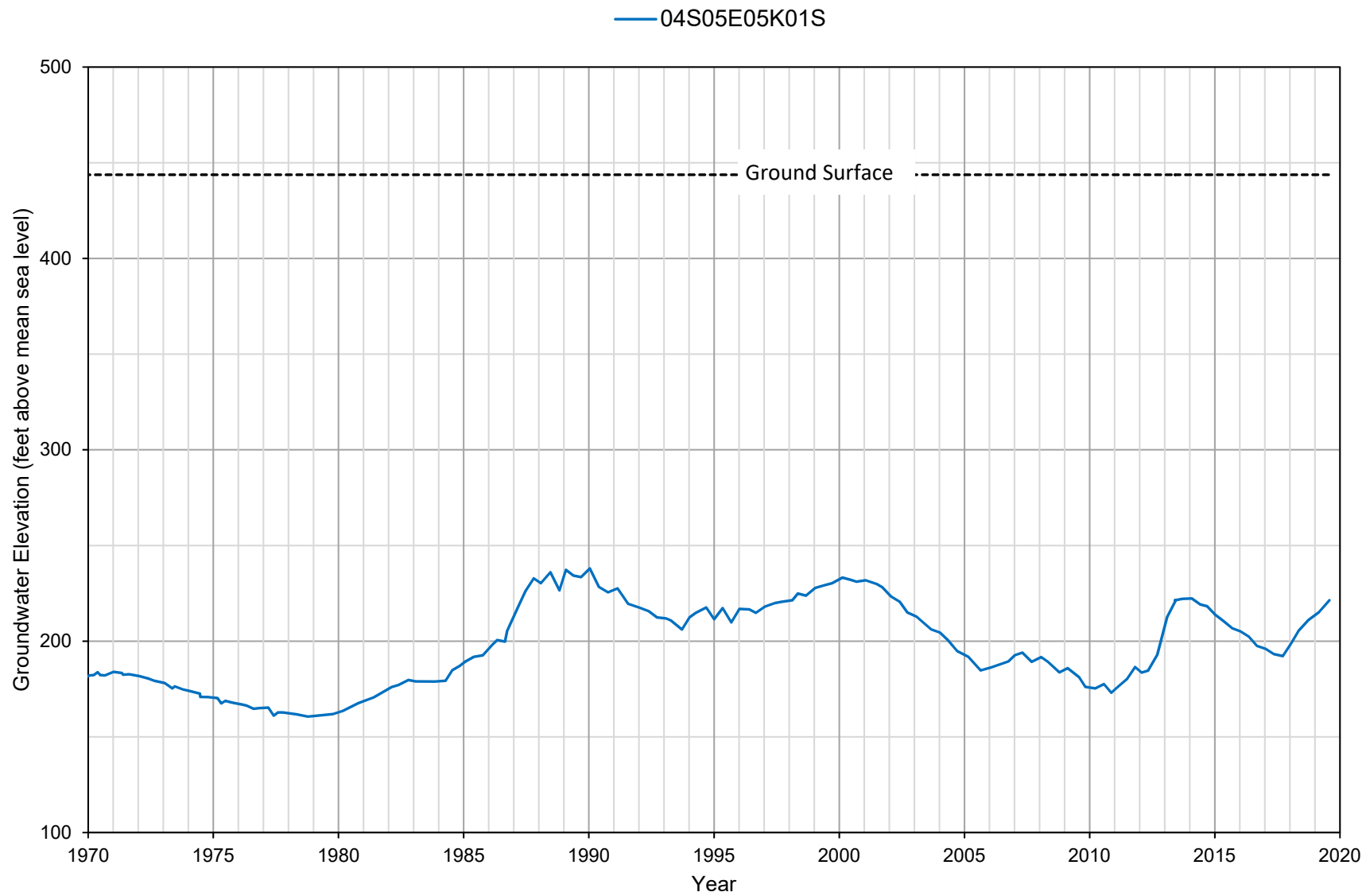
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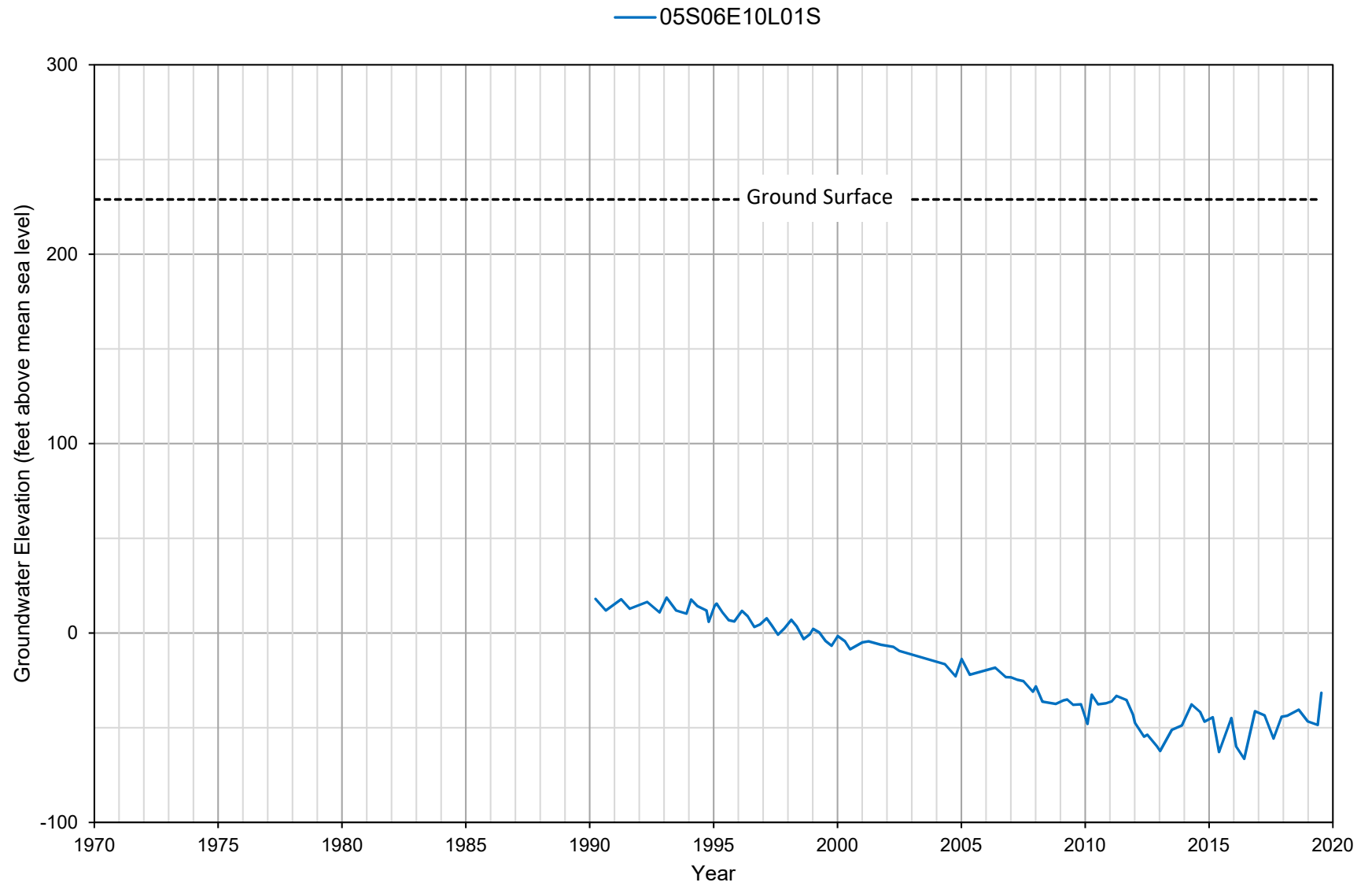
## **APPENDIX A**

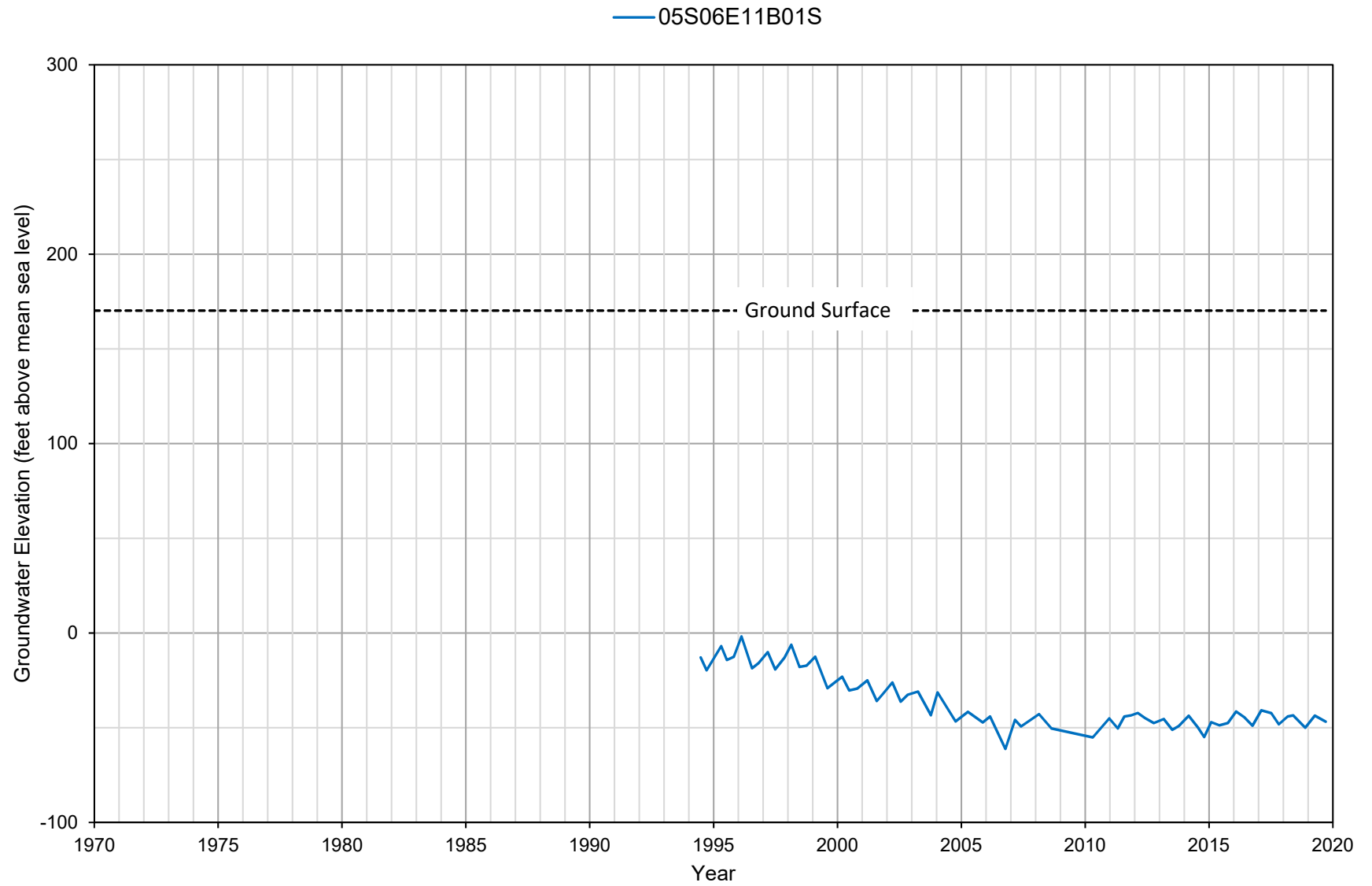
### **Representative Groundwater Elevation Hydrographs**

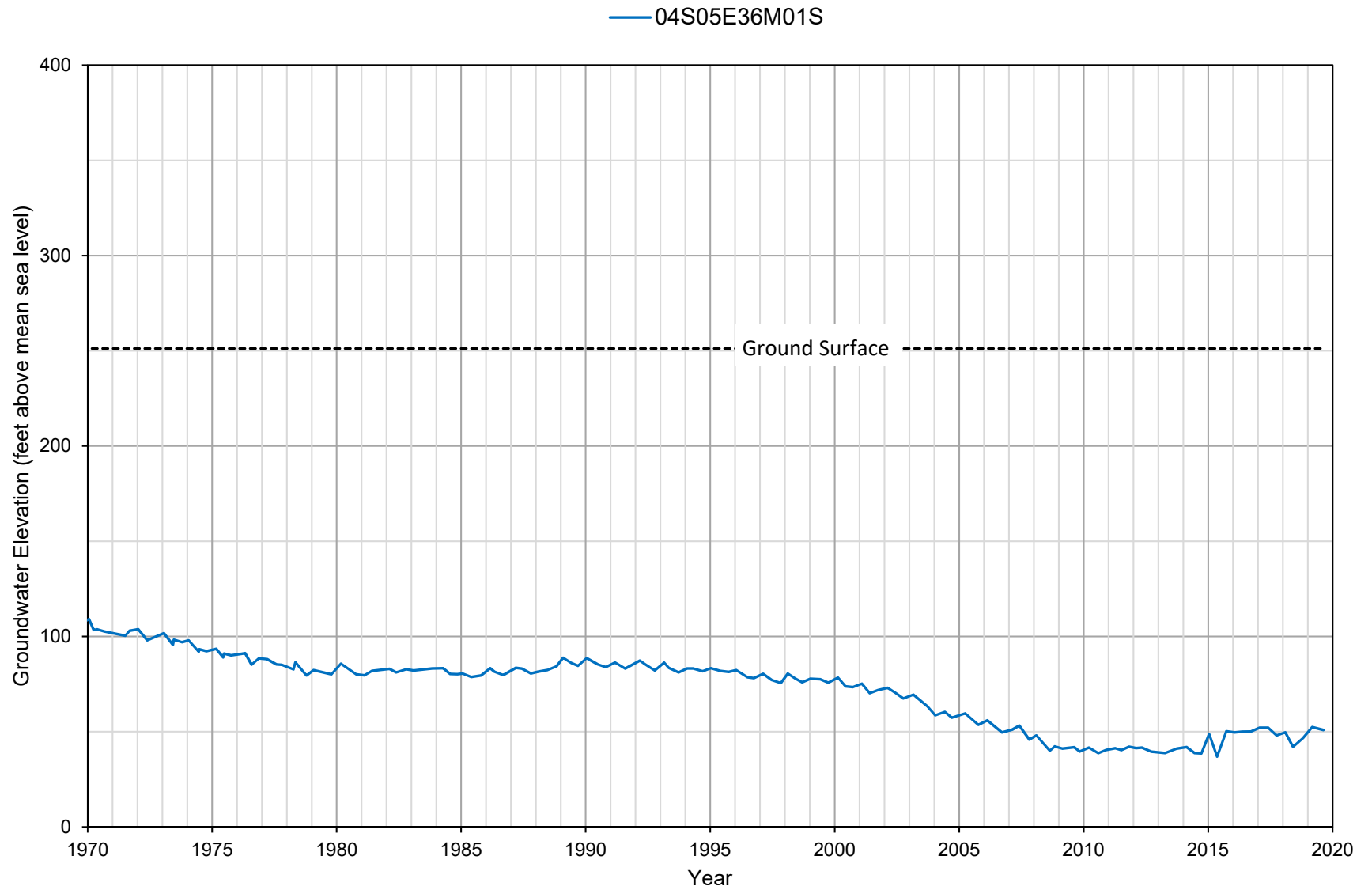


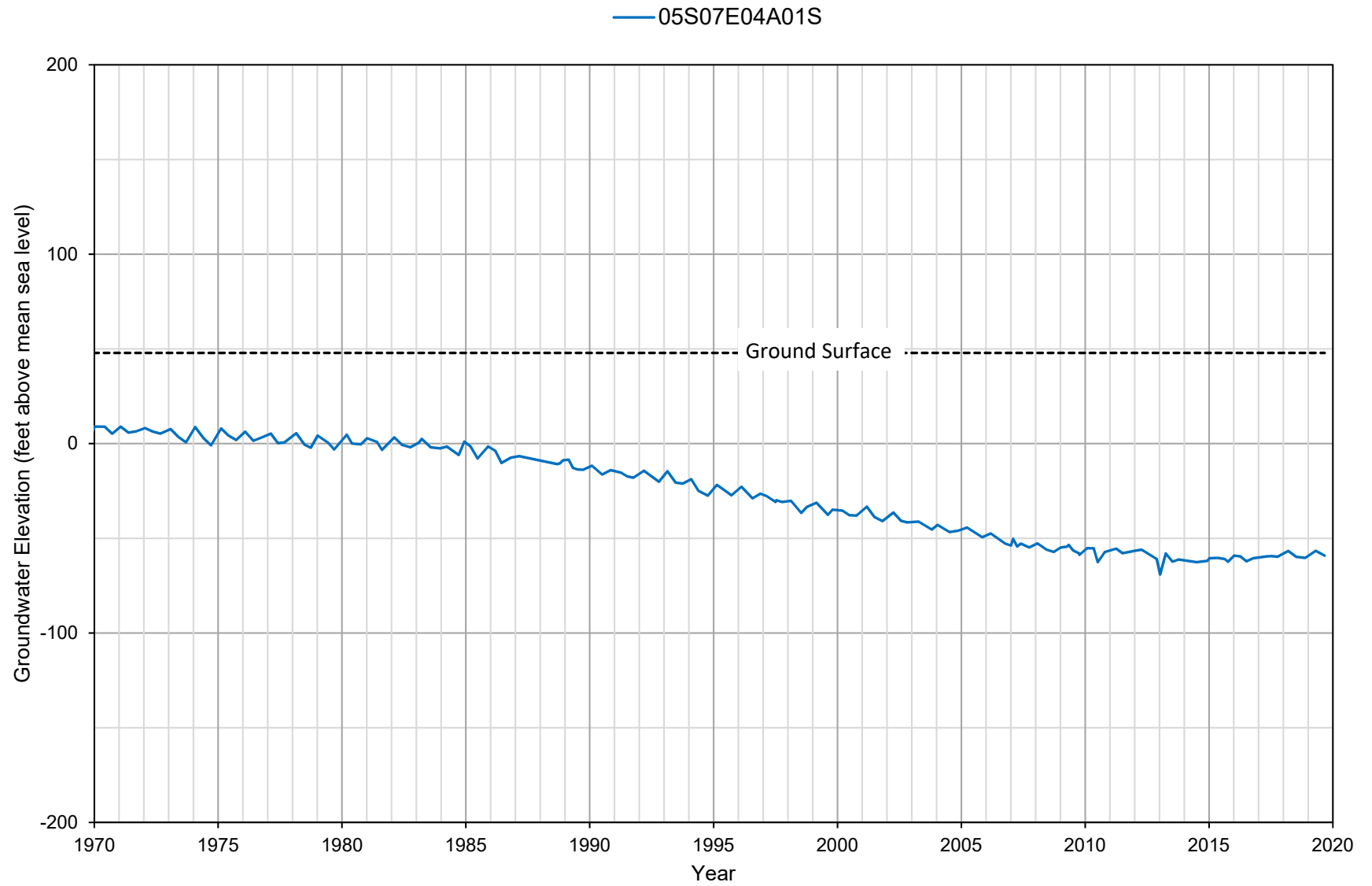




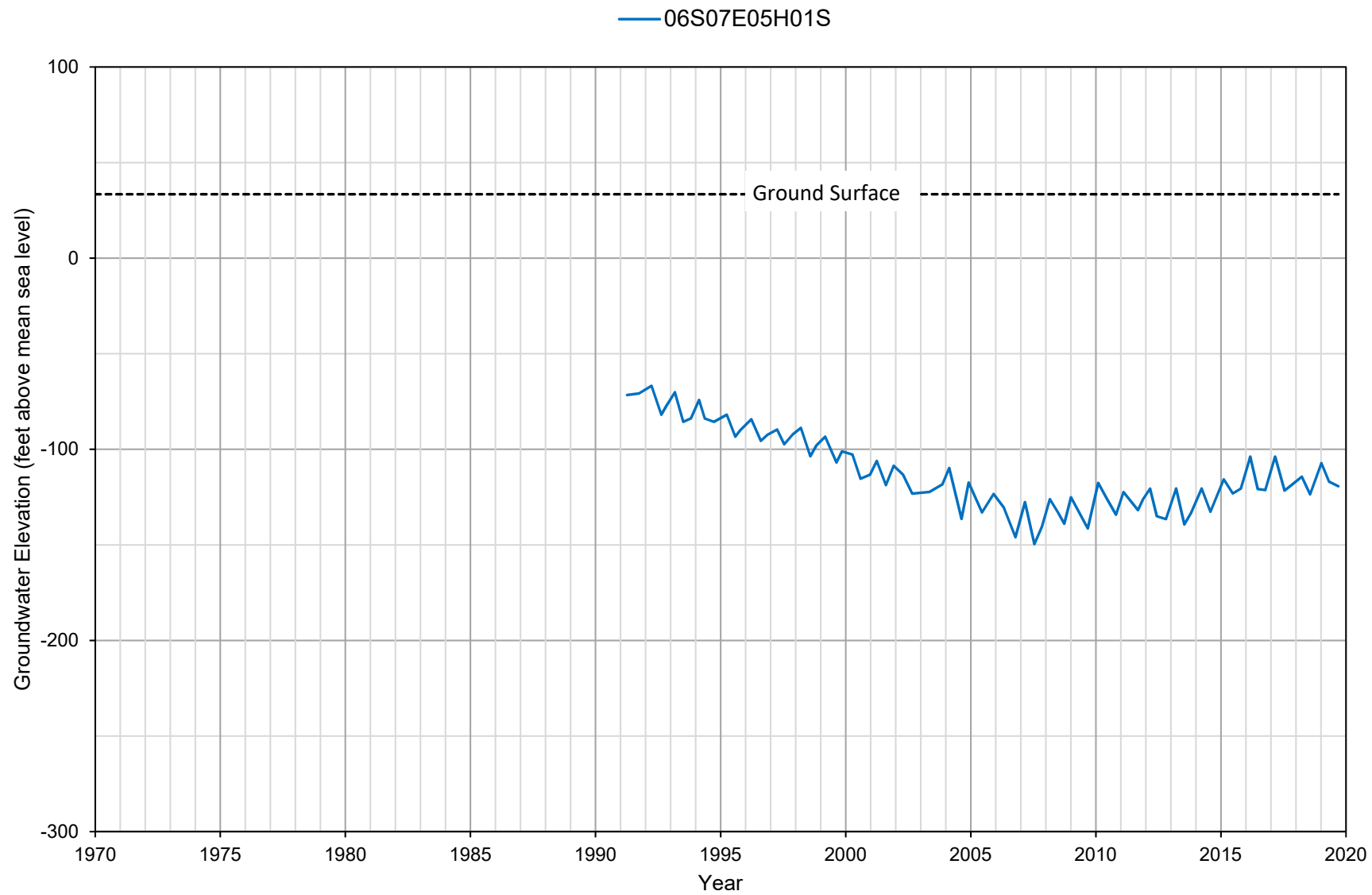


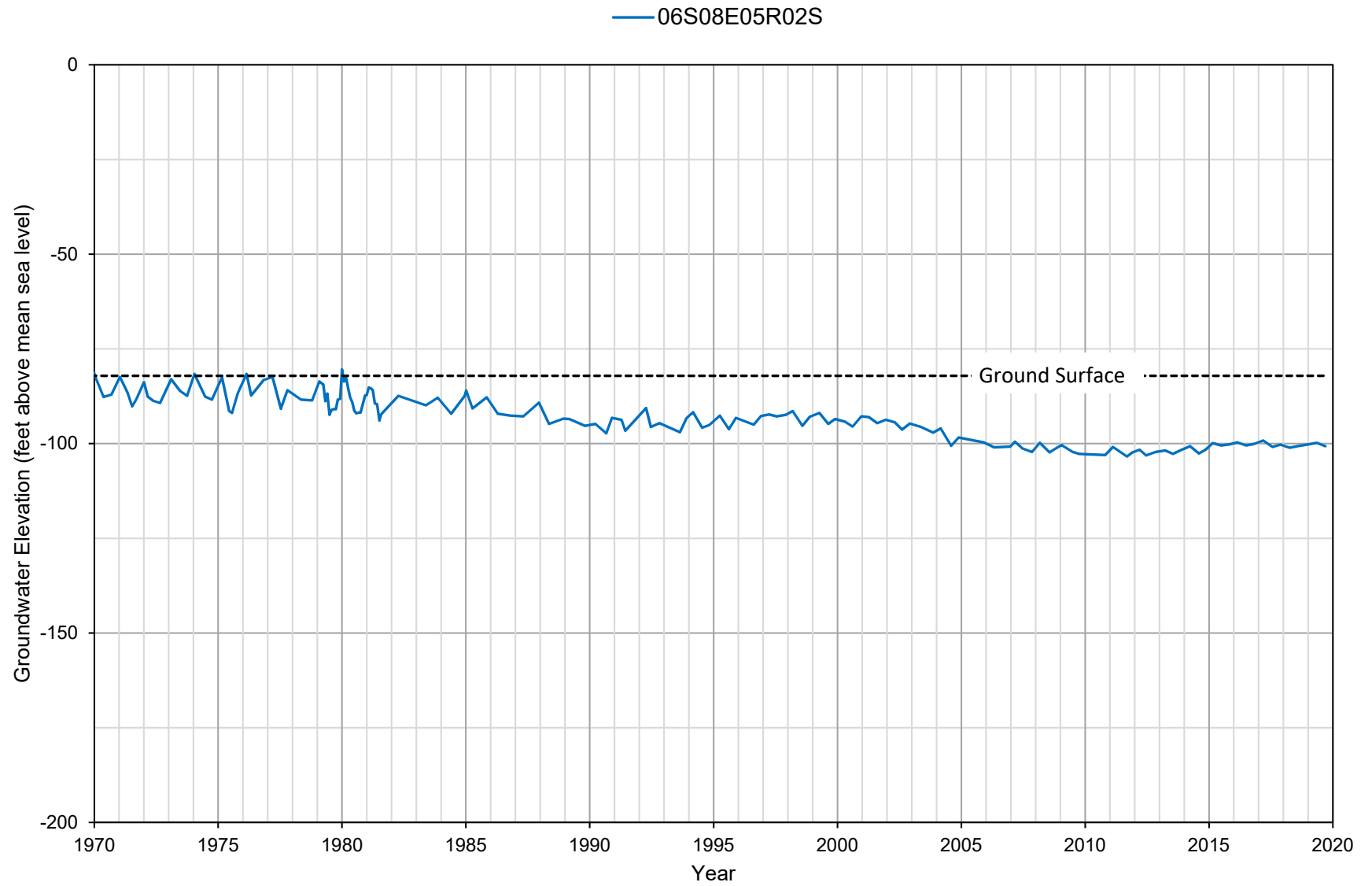


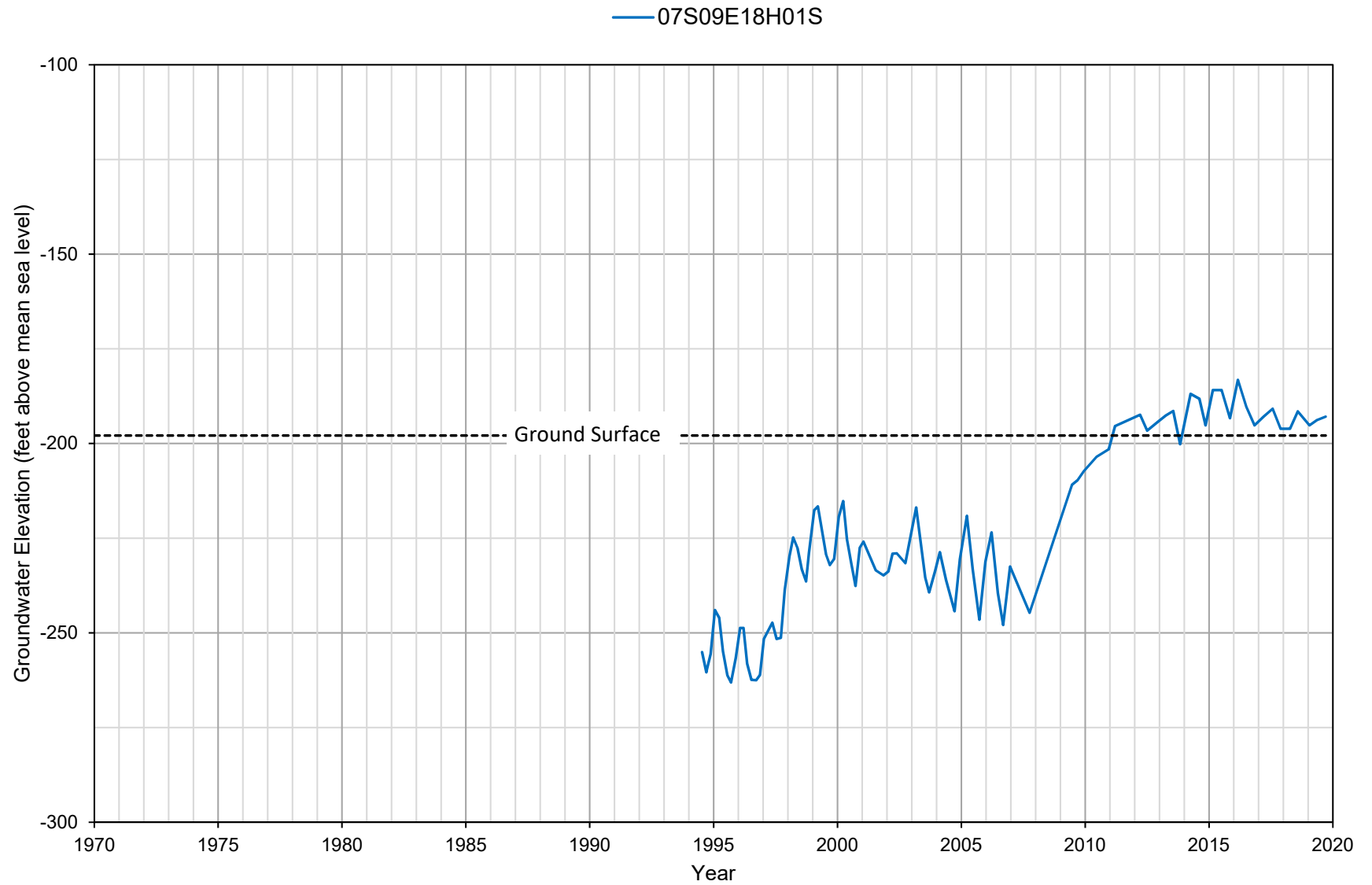


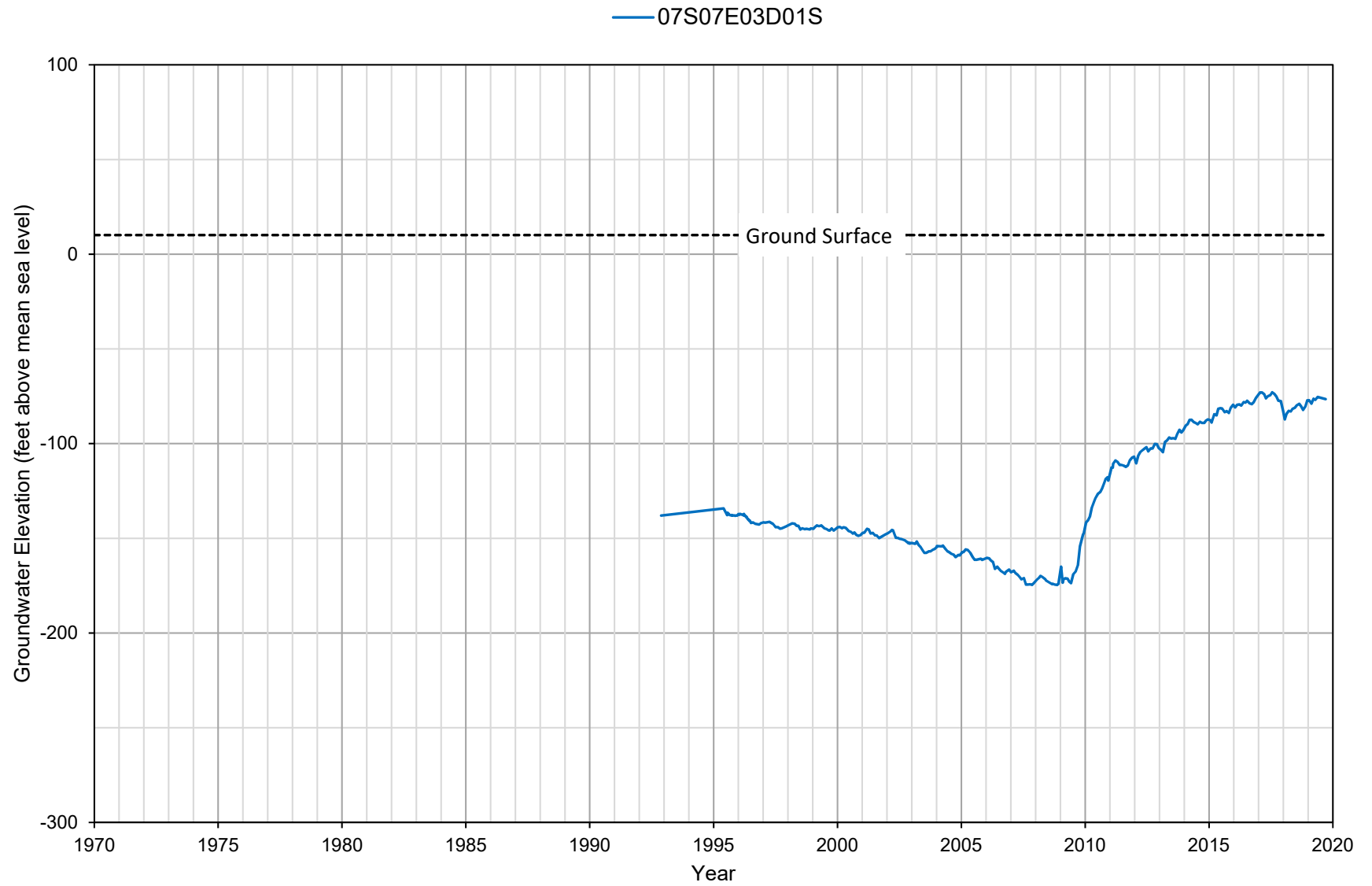


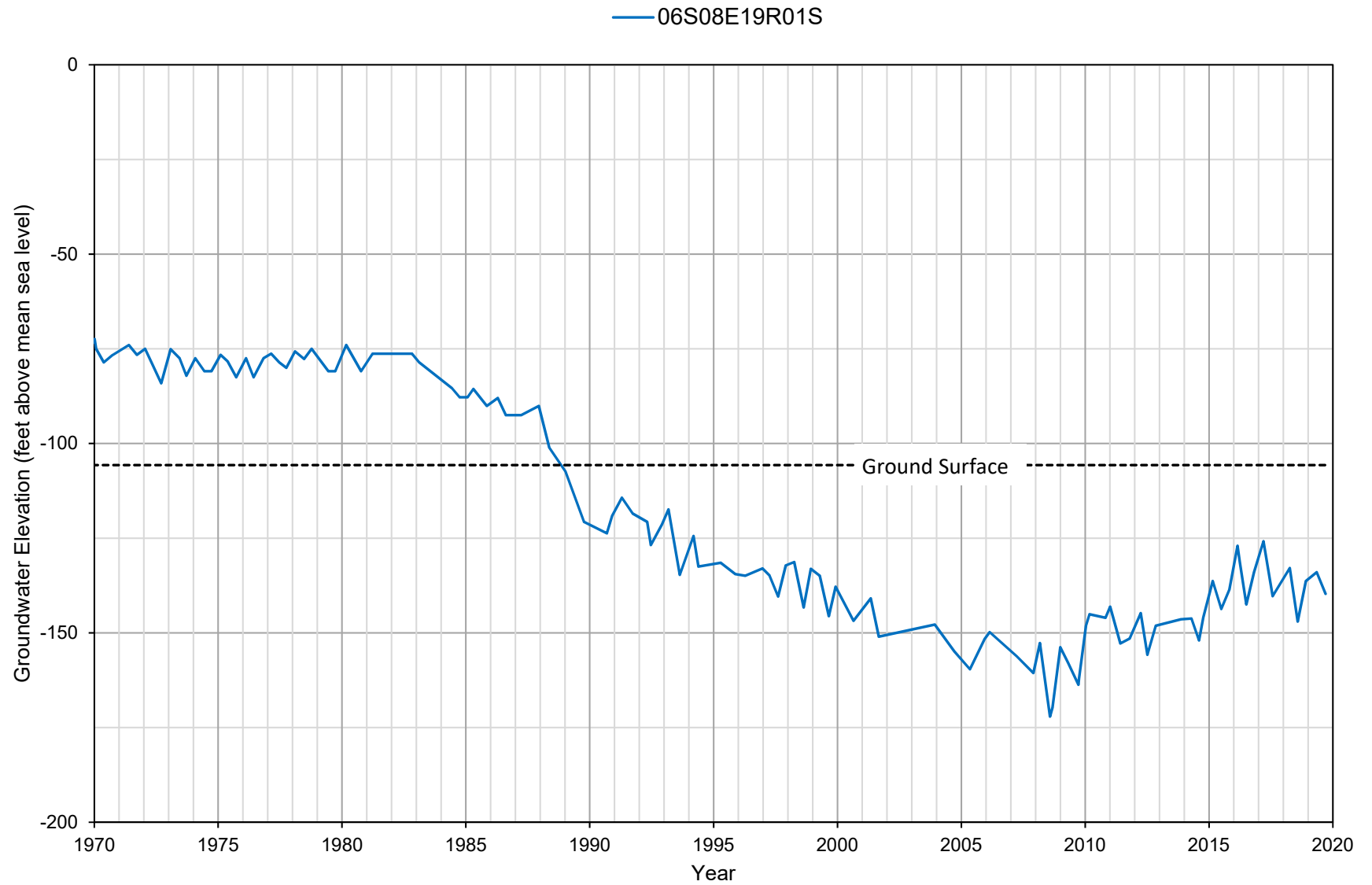


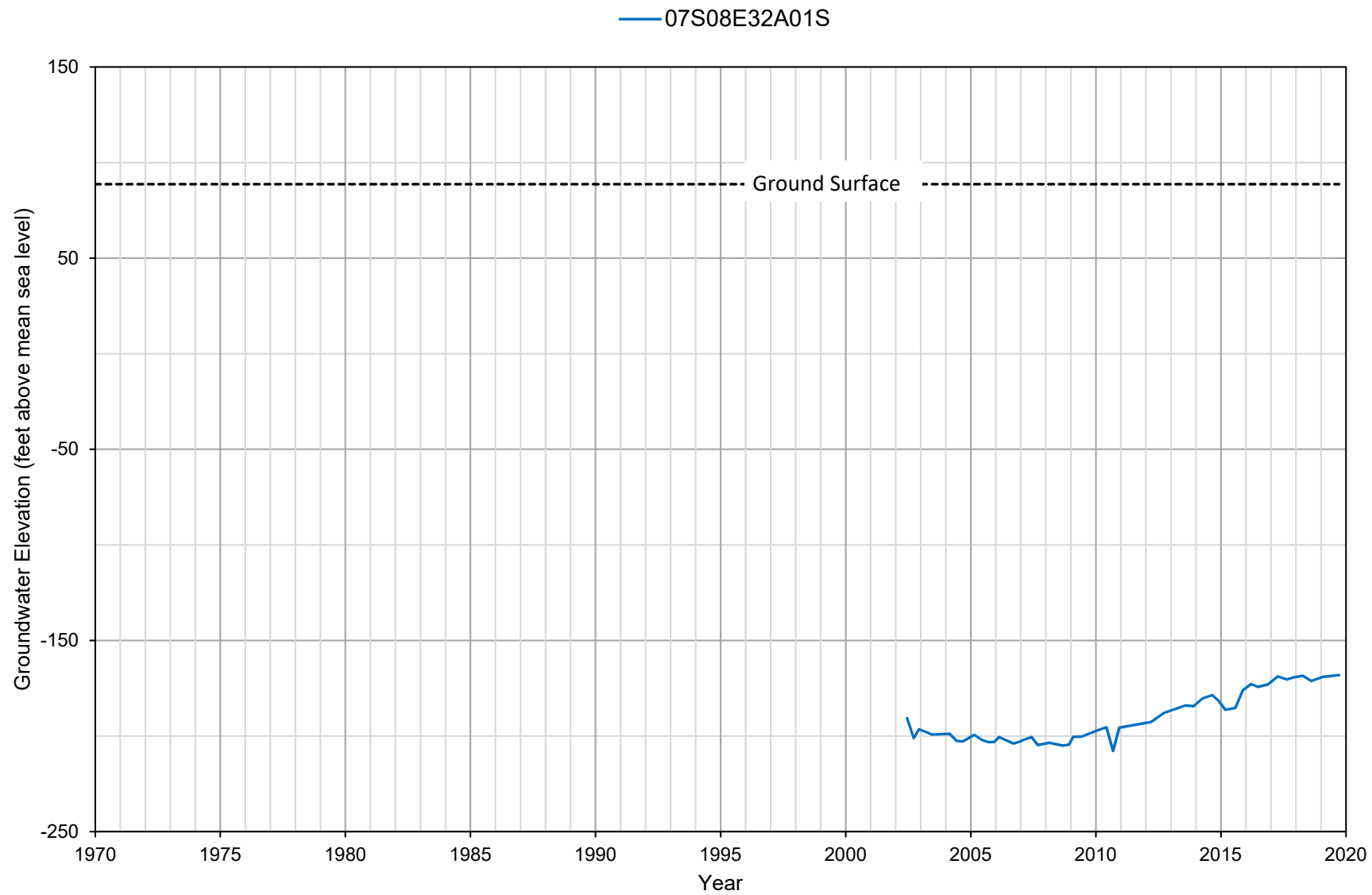




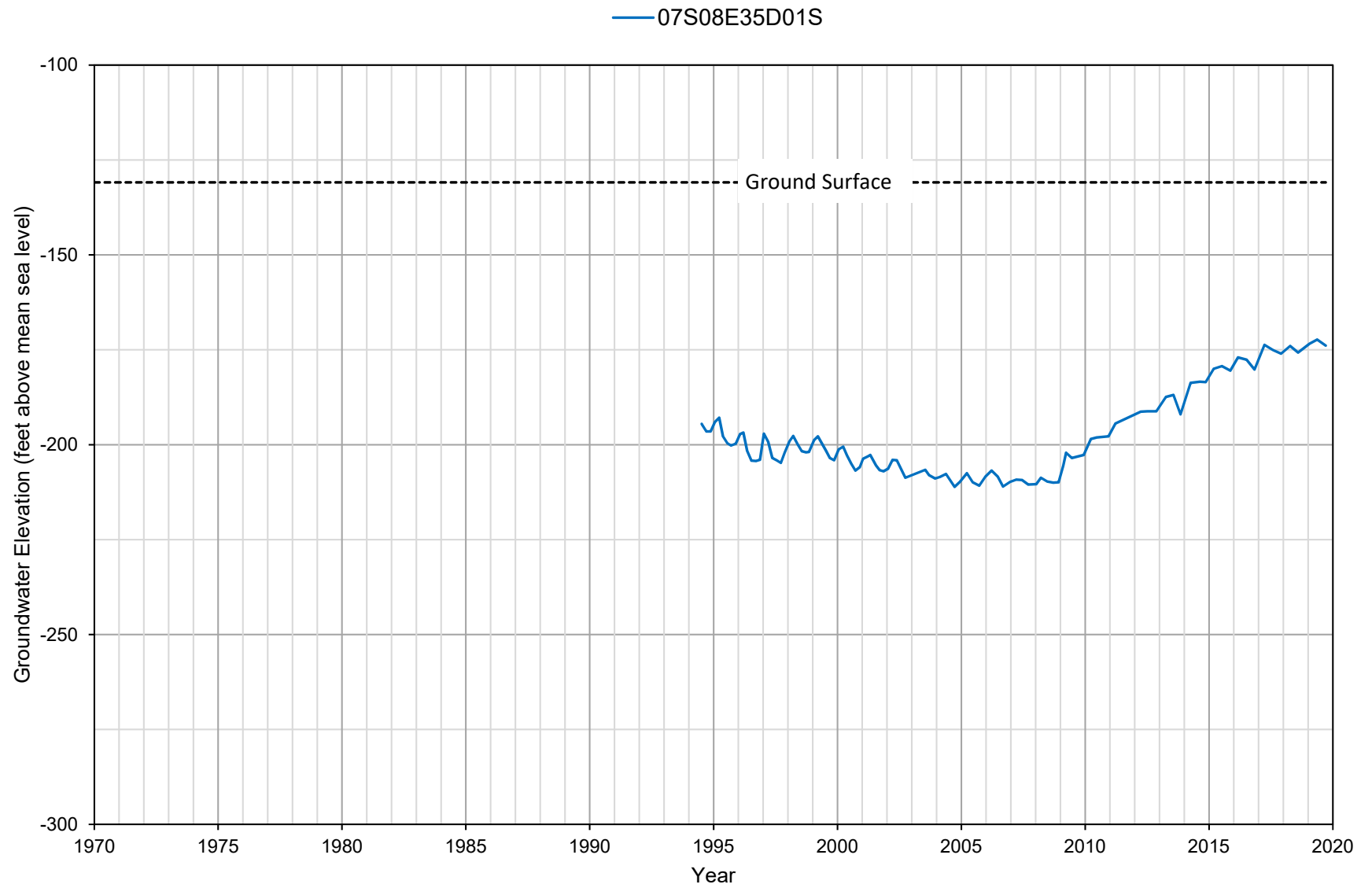












## **APPENDIX B**

### **Groundwater Elevation Data**

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
03S04E13N02S	1/30/2009	710.00	201.30	508.70
03S04E13N02S	7/30/2009	710.00	202.90	507.10
03S04E13N02S	1/23/2018	710.00	193.10	516.90
03S04E13N02S	5/15/2018	710.00	189.60	520.40
03S04E13N02S	9/26/2018	710.00	189.20	520.80
03S04E13N02S	1/2/2019	710.00	188.30	521.70
03S04E13N02S	2/19/2019	710.00	188.00	522.00
03S04E13N02S	9/17/2019	710.00	187.20	522.80
03S04E17K01S	1/30/2009	898.20	278.20	620.00
03S04E17K01S	8/5/2009	898.20	280.00	618.20
03S04E17K01S	1/23/2018	898.20	253.00	645.20
03S04E17K01S	5/15/2018	898.20	254.40	643.80
03S04E17K01S	9/26/2018	898.20	272.00	626.20
03S04E17K01S	1/2/2019	898.20	271.90	626.30
03S04E17K01S	2/19/2019	898.20	248.60	649.60
03S04E17K01S	7/22/2019	898.20	230.20	668.00
03S04E20F01S	10/9/2008	887.50	377.70	509.80
03S04E20F01S	11/7/2008	887.50	380.30	507.20
03S04E20F01S	12/5/2008	887.50	380.20	507.30
03S04E20F01S	1/2/2009	887.50	379.40	508.10
03S04E20F01S	2/5/2009	887.50	380.10	507.40
03S04E20F01S	3/6/2009	887.50	384.00	503.50
03S04E20F01S	4/3/2009	887.50	386.60	500.90
03S04E20F01S	5/1/2009	887.50	389.00	498.50
03S04E20F01S	6/4/2009	887.50	391.30	496.20
03S04E20F01S	7/2/2009	887.50	393.80	493.70
03S04E20F01S	8/7/2009	887.50	397.10	490.40
03S04E20F01S	9/4/2009	887.50	399.90	487.60
03S04E20F01S	10/27/2017	887.50	131.60	755.90
03S04E20F01S	12/4/2017	887.50	120.80	766.70
03S04E20F01S	1/4/2018	887.50	119.90	767.60
03S04E20F01S	1/30/2018	887.50	142.70	744.80
03S04E20F01S	2/27/2018	887.50	168.50	719.00
03S04E20F01S	3/30/2018	887.50	195.50	692.00
03S04E20F01S	4/23/2018	887.50	213.20	674.30
03S04E20F01S	5/25/2018	887.50	222.20	665.30
03S04E20F01S	6/27/2018	887.50	218.80	668.70
03S04E20F01S	7/27/2018	887.50	211.10	676.40
03S04E20F01S	8/31/2018	887.50	163.30	724.20
03S04E20F01S	9/28/2018	887.50	152.50	735.00
03S04E20F01S	10/24/2018	887.50	176.50	711.00
03S04E20F01S	11/30/2018	887.50	209.20	678.30
03S04E20F01S	12/31/2018	887.50	229.00	658.50
03S04E20F01S	1/25/2019	887.50	240.80	646.70
03S04E20F01S	2/28/2019	887.50	241.20	646.30
03S04E20F01S	3/28/2019	887.50	252.10	635.40
03S04E20F01S	4/26/2019	887.50	255.90	631.60
03S04E20F01S	5/31/2019	887.50	217.50	670.00
03S04E20F01S	7/26/2019	887.50	152.60	734.90
03S04E20F02S	10/9/2008	887.50	382.80	504.70
03S04E20F02S	12/5/2008	887.50	382.30	505.20
03S04E20F02S	10/27/2017	887.50	92.20	795.30
03S04E20F02S	12/4/2017	887.50	86.30	801.20
03S04E20F02S	1/4/2018	887.50	91.60	795.90
03S04E20F02S	1/30/2018	887.50	125.60	761.90

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
03S04E20F02S	2/27/2018	887.50	156.60	730.90
03S04E20F02S	3/30/2018	887.50	185.50	702.00
03S04E20F02S	4/23/2018	887.50	204.40	683.10
03S04E20F02S	5/25/2018	887.50	198.90	688.60
03S04E20F02S	6/27/2018	887.50	205.70	681.80
03S04E20F02S	7/27/2018	887.50	186.90	700.60
03S04E20F02S	8/31/2018	887.50	120.50	767.00
03S04E20F02S	9/28/2018	887.50	117.20	770.30
03S04E20F02S	10/24/2018	887.50	158.10	729.40
03S04E20F02S	11/30/2018	887.50	197.50	690.00
03S04E20F02S	12/31/2018	887.50	218.00	669.50
03S04E20F02S	1/25/2019	887.50	227.20	660.30
03S04E20F02S	2/28/2019	887.50	215.10	672.40
03S04E20F02S	3/28/2019	887.50	229.80	657.70
03S04E20F02S	4/26/2019	887.50	250.80	636.70
03S04E20F02S	5/31/2019	887.50	161.00	726.50
03S04E20F02S	7/26/2019	887.50	106.10	781.40
03S04E20F03S	10/9/2008	887.50	386.80	500.70
03S04E20F03S	11/7/2008	887.50	389.40	498.10
03S04E20F03S	12/5/2008	887.50	389.80	497.70
03S04E20F03S	1/2/2009	887.50	390.30	497.20
03S04E20F03S	2/5/2009	887.50	390.80	496.70
03S04E20F03S	3/6/2009	887.50	394.00	493.50
03S04E20F03S	4/3/2009	887.50	396.30	491.20
03S04E20F03S	5/1/2009	887.50	399.90	487.60
03S04E20F03S	6/4/2009	887.50	401.00	486.50
03S04E20F03S	7/1/2009	887.50	403.10	484.40
03S04E20F03S	8/7/2009	887.50	406.10	481.40
03S04E20F03S	9/4/2009	887.50	408.50	479.00
03S04E20F03S	10/27/2017	887.50	174.40	713.10
03S04E20F03S	12/4/2017	887.50	161.00	726.50
03S04E20F03S	1/4/2018	887.50	156.60	730.90
03S04E20F03S	1/30/2018	887.50	172.70	714.80
03S04E20F03S	2/27/2018	887.50	192.30	695.20
03S04E20F03S	3/23/2018	887.50	214.70	672.80
03S04E20F03S	4/23/2018	887.50	230.10	657.40
03S04E20F03S	5/25/2018	887.50	241.00	646.50
03S04E20F03S	6/27/2018	887.50	239.60	647.90
03S04E20F03S	7/27/2018	887.50	235.00	652.50
03S04E20F03S	8/31/2018	887.50	197.40	690.10
03S04E20F03S	9/28/2018	887.50	184.30	703.20
03S04E20F03S	10/24/2018	887.50	200.30	687.20
03S04E20F03S	11/30/2018	887.50	226.20	661.30
03S04E20F03S	12/31/2018	887.50	243.50	644.00
03S04E20F03S	1/25/2019	887.50	254.60	632.90
03S04E20F03S	2/28/2019	887.50	257.70	629.80
03S04E20F03S	3/28/2019	887.50	266.70	620.80
03S04E20F03S	4/26/2019	887.50	271.20	616.30
03S04E20F03S	5/31/2019	887.50	244.40	643.10
03S04E20F03S	7/26/2019	887.50	186.40	701.10
03S04E20J01S	10/9/2008	839.20	350.90	488.30
03S04E20J01S	11/7/2008	839.20	353.80	485.40
03S04E20J01S	12/5/2008	839.20	354.60	484.60
03S04E20J01S	1/2/2009	839.20	354.30	484.90
03S04E20J01S	2/5/2009	839.20	353.80	485.40

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
03S04E20J01S	3/6/2009	839.20	357.20	482.00
03S04E20J01S	4/3/2009	839.20	359.30	479.90
03S04E20J01S	5/1/2009	839.20	361.50	477.70
03S04E20J01S	6/4/2009	839.20	364.00	475.20
03S04E20J01S	7/2/2009	839.20	366.30	472.90
03S04E20J01S	8/7/2009	839.20	369.50	469.70
03S04E20J01S	9/4/2009	839.20	372.00	467.20
03S04E20J01S	10/27/2017	839.20	109.40	729.80
03S04E20J01S	12/4/2017	839.20	97.90	741.30
03S04E20J01S	1/4/2018	839.20	96.90	742.30
03S04E20J01S	1/30/2018	839.20	118.70	720.50
03S04E20J01S	2/28/2018	839.20	146.20	693.00
03S04E20J01S	3/30/2018	839.20	172.10	667.10
03S04E20J01S	4/23/2018	839.20	189.80	649.40
03S04E20J01S	5/25/2018	839.20	198.00	641.20
03S04E20J01S	6/27/2018	839.20	193.20	646.00
03S04E20J01S	7/27/2018	839.20	191.50	647.70
03S04E20J01S	8/31/2018	839.20	144.10	695.10
03S04E20J01S	9/28/2018	839.20	133.00	706.20
03S04E20J01S	10/24/2018	839.20	155.30	683.90
03S04E20J01S	11/30/2018	839.20	192.90	646.30
03S04E20J01S	12/31/2018	839.20	206.80	632.40
03S04E20J01S	1/25/2019	839.20	218.00	621.20
03S04E20J01S	2/28/2019	839.20	220.50	618.70
03S04E20J01S	3/28/2019	839.20	229.60	609.60
03S04E20J01S	4/26/2019	839.20	235.10	604.10
03S04E20J01S	5/31/2019	839.20	204.50	634.70
03S04E20J01S	7/26/2019	839.20	135.00	704.20
03S04E20J02S	10/9/2008	839.20	351.40	487.80
03S04E20J02S	11/7/2008	839.20	354.20	485.00
03S04E20J02S	12/5/2008	839.20	355.00	484.20
03S04E20J02S	1/2/2009	839.20	354.70	484.50
03S04E20J02S	2/5/2009	839.20	354.40	484.80
03S04E20J02S	3/6/2009	839.20	357.70	481.50
03S04E20J02S	4/3/2009	839.20	361.70	477.50
03S04E20J02S	5/1/2009	839.20	363.30	475.90
03S04E20J02S	6/4/2009	839.20	364.60	474.60
03S04E20J02S	7/1/2009	839.20	366.90	472.30
03S04E20J02S	8/7/2009	839.20	370.00	469.20
03S04E20J02S	9/4/2009	839.20	371.60	467.60
03S04E20J02S	10/27/2017	839.20	112.20	727.00
03S04E20J02S	12/4/2017	839.20	100.50	738.70
03S04E20J02S	1/4/2018	839.20	99.20	740.00
03S04E20J02S	1/30/2018	839.20	120.20	719.00
03S04E20J02S	2/28/2018	839.20	147.40	691.80
03S04E20J02S	3/30/2018	839.20	173.00	666.20
03S04E20J02S	4/23/2018	839.20	190.70	648.50
03S04E20J02S	5/25/2018	839.20	199.10	640.10
03S04E20J02S	6/27/2018	839.20	194.60	644.60
03S04E20J02S	7/27/2018	839.20	192.50	646.70
03S04E20J02S	8/31/2018	839.20	146.00	693.20
03S04E20J02S	9/28/2018	839.20	134.80	704.40
03S04E20J02S	10/24/2018	839.20	159.70	679.50
03S04E20J02S	11/30/2018	839.20	189.40	649.80
03S04E20J02S	12/31/2018	839.20	207.40	631.80

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
03S04E20J02S	1/25/2019	839.20	218.60	620.60
03S04E20J02S	2/28/2019	839.20	221.00	618.20
03S04E20J02S	3/28/2019	839.20	230.20	609.00
03S04E20J02S	4/26/2019	839.20	235.60	603.60
03S04E20J02S	5/31/2019	839.20	205.30	633.90
03S04E20J02S	7/26/2019	839.20	137.00	702.20
03S04E20J03S	10/9/2008	839.20	354.00	485.20
03S04E20J03S	11/7/2008	839.20	356.60	482.60
03S04E20J03S	12/5/2008	839.20	357.70	481.50
03S04E20J03S	1/2/2009	839.20	357.40	481.80
03S04E20J03S	2/5/2009	839.20	357.30	481.90
03S04E20J03S	3/6/2009	839.20	360.80	478.40
03S04E20J03S	4/3/2009	839.20	362.90	476.30
03S04E20J03S	5/1/2009	839.20	364.60	474.60
03S04E20J03S	6/5/2009	839.20	367.50	471.70
03S04E20J03S	7/1/2009	839.20	369.80	469.40
03S04E20J03S	8/7/2009	839.20	372.90	466.30
03S04E20J03S	9/4/2009	839.20	375.30	463.90
03S04E20J03S	10/27/2017	839.20	131.40	707.80
03S04E20J03S	12/4/2017	839.20	118.60	720.60
03S04E20J03S	1/4/2018	839.20	115.60	723.60
03S04E20J03S	1/30/2018	839.20	133.70	705.50
03S04E20J03S	2/28/2018	839.20	156.90	682.30
03S04E20J03S	3/30/2018	839.20	180.10	659.10
03S04E20J03S	4/23/2018	839.20	197.40	641.80
03S04E20J03S	5/25/2018	839.20	206.40	632.80
03S04E20J03S	6/27/2018	839.20	203.30	635.90
03S04E20J03S	7/27/2018	839.20	200.20	639.00
03S04E20J03S	8/31/2018	839.20	159.20	680.00
03S04E20J03S	9/28/2018	839.20	146.70	692.50
03S04E20J03S	10/24/2018	839.20	187.40	651.80
03S04E20J03S	11/30/2018	839.20	217.60	621.60
03S04E20J03S	12/31/2018	839.20	237.40	601.80
03S04E20J03S	1/25/2019	839.20	240.20	599.00
03S04E20J03S	2/28/2019	839.20	225.30	613.90
03S04E20J03S	3/28/2019	839.20	234.10	605.10
03S04E20J03S	4/26/2019	839.20	239.10	600.10
03S04E20J03S	5/31/2019	839.20	211.90	627.30
03S04E20J03S	7/26/2019	839.20	149.70	689.50
03S04E22A01S	1/30/2009	711.80	121.80	590.00
03S04E22A01S	8/5/2009	711.80	121.90	589.90
03S04E22A01S	1/23/2018	711.80	110.60	601.20
03S04E22A01S	5/15/2018	711.80	116.30	595.50
03S04E22A01S	9/26/2018	711.80	110.60	601.20
03S04E22A01S	1/2/2019	711.80	110.40	601.40
03S04E22A01S	2/19/2019	711.80	109.90	601.90
03S04E22A01S	7/22/2019	711.80	108.20	603.60
03S04E29F01S	10/9/2008	873.80	372.20	501.60
03S04E29F01S	11/7/2008	873.80	374.90	498.90
03S04E29F01S	12/5/2008	873.80	375.50	498.30
03S04E29F01S	1/2/2009	873.80	372.70	501.10
03S04E29F01S	2/5/2009	873.80	375.20	498.60
03S04E29F01S	3/6/2009	873.80	378.00	495.80
03S04E29F01S	4/3/2009	873.80	380.60	493.20
03S04E29F01S	5/1/2009	873.80	381.80	492.00

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
03S04E29F01S	6/4/2009	873.80	385.40	488.40
03S04E29F01S	7/2/2009	873.80	387.80	486.00
03S04E29F01S	8/7/2009	873.80	391.10	482.70
03S04E29F01S	9/4/2009	873.80	393.70	480.10
03S04E29F01S	10/27/2017	873.80	107.40	766.40
03S04E29F01S	12/4/2017	873.80	98.30	775.50
03S04E29F01S	1/4/2018	873.80	100.10	773.70
03S04E29F01S	1/30/2018	873.80	130.00	743.80
03S04E29F01S	2/27/2018	873.80	160.50	713.30
03S04E29F01S	3/30/2018	873.80	191.80	682.00
03S04E29F01S	4/23/2018	873.80	211.50	662.30
03S04E29F01S	5/25/2018	873.80	216.40	657.40
03S04E29F01S	6/27/2018	873.80	208.20	665.60
03S04E29F01S	7/27/2018	873.80	204.70	669.10
03S04E29F01S	8/31/2018	873.80	144.20	729.60
03S04E29F01S	9/28/2018	873.80	133.60	740.20
03S04E29F01S	10/24/2018	873.80	167.40	706.40
03S04E29F01S	11/30/2018	873.80	206.80	667.00
03S04E29F01S	12/31/2018	873.80	228.60	645.20
03S04E29F01S	1/25/2019	873.80	238.50	635.30
03S04E29F01S	2/28/2019	873.80	239.60	634.20
03S04E29F01S	3/28/2019	873.80	251.90	621.90
03S04E29F01S	4/26/2019	873.80	256.00	617.80
03S04E29F01S	5/31/2019	873.80	209.60	664.20
03S04E29F01S	7/26/2019	873.80	133.80	740.00
03S04E29R01S	10/10/2008	777.40	370.00	407.40
03S04E29R01S	11/7/2008	777.40	372.60	404.80
03S04E29R01S	12/5/2008	777.40	374.80	402.60
03S04E29R01S	1/2/2009	777.40	376.40	401.00
03S04E29R01S	2/5/2009	777.40	377.30	400.10
03S04E29R01S	3/6/2009	777.40	379.20	398.20
03S04E29R01S	4/3/2009	777.40	380.90	396.50
03S04E29R01S	5/1/2009	777.40	382.70	394.70
03S04E29R01S	6/4/2009	777.40	385.10	392.30
03S04E29R01S	7/2/2009	777.40	387.30	390.10
03S04E29R01S	8/7/2009	777.40	390.00	387.40
03S04E29R01S	9/4/2009	777.40	392.20	385.20
03S04E29R01S	10/27/2017	777.40	153.20	624.20
03S04E29R01S	12/4/2017	777.40	132.20	645.20
03S04E29R01S	1/4/2018	777.40	123.20	654.20
03S04E29R01S	1/30/2018	777.40	137.90	639.50
03S04E29R01S	2/27/2018	777.40	158.30	619.10
03S04E29R01S	3/30/2018	777.40	183.90	593.50
03S04E29R01S	4/23/2018	777.40	200.90	576.50
03S04E29R01S	5/25/2018	777.40	215.60	561.80
03S04E29R01S	6/27/2018	777.40	212.80	564.60
03S04E29R01S	7/27/2018	777.40	216.30	561.10
03S04E29R01S	8/31/2018	777.40	184.50	592.90
03S04E29R01S	9/28/2018	777.40	172.70	604.70
03S04E29R01S	10/24/2018	777.40	179.60	597.80
03S04E29R01S	11/30/2018	777.40	185.70	591.70
03S04E29R01S	12/31/2018	777.40	220.40	557.00
03S04E29R01S	1/25/2019	777.40	230.60	546.80
03S04E29R01S	2/28/2019	777.40	238.30	539.10
03S04E29R01S	3/28/2019	777.40	244.10	533.30



State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
03S04E29R01S	4/26/2019	777.40	251.80	525.60
03S04E29R01S	5/31/2019	777.40	246.90	530.50
03S04E29R01S	7/26/2019	777.40	187.80	589.60
03S05E30G01S	1/30/2009	587.10	201.80	385.30
03S05E30G01S	8/5/2009	587.10	202.20	384.90
03S05E30G01S	1/23/2018	587.10	203.80	383.30
03S05E30G01S	5/15/2018	587.10	203.80	383.30
03S05E30G01S	9/26/2018	587.10	204.00	383.10
03S05E30G01S	1/2/2019	587.10	203.90	383.20
03S05E30G01S	2/19/2019	587.10	204.00	383.10
03S05E30G01S	7/22/2019	587.10	203.50	383.60
04S05E04N01S	10/22/2008	427.90	254.40	173.50
04S05E04N01S	2/20/2009	427.90	255.60	172.30
04S05E04N01S	1/25/2018	427.90	262.40	165.50
04S05E04N01S	5/16/2018	427.90	259.60	168.30
04S05E04N01S	10/4/2018	427.90	262.50	165.40
04S05E04N01S	3/5/2019	427.90	260.70	167.20
04S05E04N01S	8/1/2019	427.90	255.30	172.60
04S05E05A01S	10/22/2008	448.00	254.40	193.60
04S05E05A01S	12/2/2008	448.00	255.20	192.80
04S05E05A01S	2/13/2009	448.00	256.70	191.30
04S05E05A01S	8/6/2009	448.00	257.60	190.40
04S05E05A01S	1/25/2018	448.00	250.20	197.80
04S05E05A01S	5/16/2018	448.00	244.90	203.10
04S05E05A01S	10/4/2018	448.00	240.60	207.40
04S05E05A01S	3/5/2019	448.00	233.80	214.20
04S05E05A01S	8/7/2019	448.00	231.50	216.50
04S05E05K01S	10/22/2008	443.70	260.00	183.70
04S05E05K01S	2/20/2009	443.70	257.80	185.90
04S05E05K01S	8/6/2009	443.70	262.50	181.20
04S05E05K01S	1/25/2018	443.70	244.90	198.80
04S05E05K01S	5/16/2018	443.70	238.20	205.50
04S05E05K01S	10/4/2018	443.70	232.70	211.00
04S05E05K01S	3/5/2019	443.70	228.60	215.10
04S05E05K01S	8/7/2019	443.70	222.30	221.40
04S05E08D01S	8/19/2009	443.90	261.90	182.00
04S05E08D01S	1/25/2018	443.90	263.80	180.10
04S05E08D01S	5/16/2018	443.90	254.60	189.30
04S05E08D01S	10/4/2018	443.90	247.30	196.60
04S05E08D01S	3/5/2019	443.90	243.80	200.10
04S05E08R01S	8/19/2009	397.00	241.20	155.80
04S05E08R01S	1/25/2018	397.00	246.00	151.00
04S05E08R01S	5/18/2018	397.00	243.80	153.20
04S05E08R01S	10/4/2018	397.00	235.20	161.80
04S05E08R01S	3/5/2019	397.00	243.50	153.50
04S05E08R01S	8/13/2019	397.00	230.60	166.40
04S05E09B01S	10/22/2008	395.50	233.80	161.70
04S05E09B01S	2/20/2009	395.50	230.10	165.40
04S05E09B01S	8/12/2009	395.50	239.00	156.50
04S05E09B01S	1/25/2018	395.50	221.00	174.50
04S05E09B01S	5/18/2018	395.50	217.70	177.80
04S05E09B01S	10/4/2018	395.50	213.80	181.70
04S05E09B01S	3/5/2019	395.50	210.50	185.00
04S05E09B01S	8/13/2019	395.50	205.10	190.40
04S05E09F03S	8/19/2009	396.90	246.70	150.20

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
04S05E09F03S	1/25/2018	396.90	222.60	174.30
04S05E09F03S	5/18/2018	396.90	220.70	176.20
04S05E09F03S	10/4/2018	396.90	225.70	171.20
04S05E09F03S	3/5/2019	396.90	220.10	176.80
04S05E09F03S	8/13/2019	396.90	222.70	174.20
04S05E09R01S	10/30/2008	375.40	241.10	134.30
04S05E09R01S	2/26/2009	375.40	236.50	138.90
04S05E09R01S	8/6/2009	375.40	234.50	140.90
04S05E09R01S	1/25/2018	375.40	212.20	163.20
04S05E09R01S	5/22/2018	375.40	217.50	157.90
04S05E09R01S	10/4/2018	375.40	214.50	160.90
04S05E09R01S	3/5/2019	375.40	208.80	166.60
04S05E09R01S	8/13/2019	375.40	209.00	166.40
04S05E15C01S	10/30/2008	353.70	232.00	121.70
04S05E15C01S	3/11/2009	353.70	228.10	125.60
04S05E15C01S	8/13/2009	353.70	235.10	118.60
04S05E15C01S	1/29/2018	353.70	231.20	122.50
04S05E15C01S	5/22/2018	353.70	230.60	123.10
04S05E15C01S	10/10/2018	353.70	239.70	114.00
04S05E15C01S	3/5/2019	353.70	228.30	125.40
04S05E15C01S	8/14/2019	353.70	229.60	124.10
04S05E15G01S	10/30/2008	356.70	236.00	120.70
04S05E15G01S	3/11/2009	356.70	241.10	115.60
04S05E15G01S	8/13/2009	356.70	239.70	117.00
04S05E15G01S	1/29/2018	356.70	237.70	119.00
04S05E15G01S	5/22/2018	356.70	233.40	123.30
04S05E15G01S	10/10/2018	356.70	244.50	112.20
04S05E15G01S	3/5/2019	356.70	233.20	123.50
04S05E15G01S	8/14/2019	356.70	242.80	113.90
04S05E15R02S	10/23/2008	346.70	235.60	111.10
04S05E15R02S	1/6/2009	346.70	235.20	111.50
04S05E15R02S	8/13/2009	346.70	239.10	107.60
04S05E15R02S	9/29/2009	346.70	242.70	104.00
04S05E15R02S	1/29/2018	346.70	223.40	123.30
04S05E15R02S	5/22/2018	346.70	227.70	119.00
04S05E15R02S	10/10/2018	346.70	225.80	120.90
04S05E15R02S	3/8/2019	346.70	220.80	125.90
04S05E15R02S	8/14/2019	346.70	221.40	125.30
04S05E16J01S	3/11/2009	367.80	237.70	130.10
04S05E16J01S	8/21/2009	367.80	245.80	122.00
04S05E16J01S	10/4/2017	367.80	247.80	120.00
04S05E16J01S	1/29/2018	367.80	239.30	128.50
04S05E16J01S	5/22/2018	367.80	232.80	135.00
04S05E16J01S	10/11/2018	367.80	241.40	126.40
04S05E16J01S	3/8/2019	367.80	237.60	130.20
04S05E16J01S	8/14/2019	367.80	239.90	127.90
04S05E21J02S	11/3/2008	345.40	228.20	117.20
04S05E21J02S	2/27/2009	345.40	225.90	119.50
04S05E21J02S	8/13/2009	345.40	231.30	114.10
04S05E21J02S	1/29/2018	345.40	217.20	128.20
04S05E21J02S	5/23/2018	345.40	216.00	129.40
04S05E21J02S	10/11/2018	345.40	214.40	131.00
04S05E21J02S	3/8/2019	345.40	210.00	135.40
04S05E21J02S	8/16/2019	345.40	209.10	136.30
04S05E22C01S	11/3/2008	350.10	239.10	111.00

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04S05E22C01S	3/11/2009	350.10	237.80	112.30
04S05E22C01S	8/21/2009	350.10	247.90	102.20
04S05E22C01S	1/29/2018	350.10	232.40	117.70
04S05E22C01S	5/22/2018	350.10	233.50	116.60
04S05E22C01S	10/10/2018	350.10	234.60	115.50
04S05E22C01S	3/8/2019	350.10	230.20	119.90
04S05E22C01S	8/1/2019	350.10	231.80	118.30
04S05E25A01S	11/3/2008	350.00	308.00	42.00
04S05E25A01S	2/26/2009	350.00	302.10	47.90
04S05E25A01S	8/21/2009	350.00	303.70	46.30
04S05E25A01S	10/5/2017	350.00	298.30	51.70
04S05E25A01S	2/7/2018	350.00	297.20	52.80
04S05E25A01S	6/1/2018	350.00	300.40	49.60
04S05E25A01S	10/16/2018	350.00	296.70	53.30
04S05E25A01S	4/5/2019	350.00	291.00	59.00
04S05E25A01S	8/20/2019	350.00	294.30	55.70
04S05E25D02S	11/6/2008	324.80	258.00	66.80
04S05E25D02S	2/26/2009	324.80	253.40	71.40
04S05E25D02S	8/21/2009	324.80	258.90	65.90
04S05E25D02S	10/12/2017	324.80	253.70	71.10
04S05E25D02S	2/7/2018	324.80	249.50	75.30
04S05E25D02S	6/1/2018	324.80	252.70	72.10
04S05E25D02S	10/16/2018	324.80	251.70	73.10
04S05E25D02S	3/12/2019	324.80	242.70	82.10
04S05E25D02S	8/20/2019	324.80	248.30	76.50
04S05E25J01S	11/3/2008	318.16	275.80	42.36
04S05E25J01S	2/26/2009	318.16	271.70	46.46
04S05E25J01S	8/21/2009	318.16	276.80	41.36
04S05E25J01S	10/6/2017	318.16	286.50	31.66
04S05E25J01S	2/9/2018	318.16	266.50	51.66
04S05E25J01S	6/5/2018	318.16	287.20	30.96
04S05E25J01S	10/18/2018	318.16	267.60	50.56
04S05E25J01S	3/14/2019	318.16	261.50	56.66
04S05E25J01S	8/26/2019	318.16	285.00	33.16
04S05E27A01S	2/27/2009	349.00	258.00	91.00
04S05E27A01S	8/28/2009	349.00	267.40	81.60
04S05E27A01S	10/4/2017	349.00	252.70	96.30
04S05E27A01S	2/2/2018	349.00	252.40	96.60
04S05E27A01S	5/30/2018	349.00	251.90	97.10
04S05E27A01S	10/11/2018	349.00	249.60	99.40
04S05E27A01S	3/11/2019	349.00	245.50	103.50
04S05E27A01S	8/20/2019	349.00	249.40	99.60
04S05E27E01S	11/5/2008	313.20	208.50	104.70
04S05E27E01S	2/27/2009	313.20	206.80	106.40
04S05E27E01S	8/27/2009	313.20	210.90	102.30
04S05E27E01S	10/4/2017	313.20	199.90	113.30
04S05E27E01S	2/2/2018	313.20	199.50	113.70
04S05E27E01S	5/30/2018	313.20	198.20	115.00
04S05E27E01S	10/11/2018	313.20	198.10	115.10
04S05E27E01S	3/12/2019	313.20	194.20	119.00
04S05E27E01S	8/20/2019	313.20	193.30	119.90
04S05E27E03S	10/4/2017	315.00	203.10	111.90
04S05E27E03S	2/2/2018	315.00	202.80	112.20
04S05E27E03S	5/30/2018	315.00	201.90	113.10
04S05E27E03S	10/11/2018	315.00	200.80	114.20

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04S05E27E03S	3/12/2019	315.00	196.80	118.20
04S05E27E03S	8/20/2019	315.00	196.70	118.30
04S05E27K01S	11/3/2008	296.50	206.80	89.70
04S05E27K01S	2/26/2009	296.50	204.80	91.70
04S05E27K01S	8/26/2009	296.50	208.80	87.70
04S05E27K01S	10/4/2017	296.50	198.60	97.90
04S05E27K01S	2/2/2018	296.50	198.00	98.50
04S05E27K01S	5/30/2018	296.50	197.50	99.00
04S05E27K01S	10/11/2018	296.50	197.20	99.30
04S05E27K01S	3/11/2019	296.50	192.70	103.80
04S05E27K01S	8/20/2019	296.50	193.10	103.40
04S05E28F02S	10/3/2008	318.30	206.40	111.90
04S05E28F02S	3/11/2009	318.30	208.50	109.80
04S05E28F02S	8/27/2009	318.30	210.00	108.30
04S05E28F02S	10/4/2017	318.30	196.30	122.00
04S05E28F02S	1/30/2018	318.30	190.80	127.50
04S05E28F02S	5/23/2018	318.30	191.70	126.60
04S05E28F02S	10/12/2018	318.30	193.50	124.80
04S05E28F02S	3/8/2019	318.30	187.20	131.10
04S05E28F02S	8/16/2019	318.30	189.90	128.40
04S05E29F01S	11/14/2008	333.90	195.80	138.10
04S05E29F01S	3/27/2009	333.90	195.20	138.70
04S05E29F01S	8/14/2009	333.90	199.70	134.20
04S05E29F01S	10/4/2017	333.90	188.10	145.80
04S05E29F01S	1/30/2018	333.90	187.00	146.90
04S05E29F01S	5/23/2018	333.90	185.70	148.20
04S05E29F01S	10/12/2018	333.90	184.70	149.20
04S05E29F01S	3/11/2019	333.90	179.10	154.80
04S05E29F01S	8/16/2019	333.90	177.10	156.80
04S05E30C01S	11/14/2008	357.70	200.30	157.40
04S05E30C01S	3/27/2009	357.70	203.50	154.20
04S05E30C01S	8/14/2009	357.70	207.90	149.80
04S05E30C01S	10/4/2017	357.70	192.00	165.70
04S05E30C01S	1/30/2018	357.70	189.70	168.00
04S05E30C01S	5/23/2018	357.70	189.40	168.30
04S05E30C01S	10/12/2018	357.70	190.60	167.10
04S05E30C01S	3/11/2019	357.70	183.20	174.50
04S05E30C01S	8/16/2019	357.70	178.10	179.60
04S05E35G03S	11/7/2008	271.80	211.10	60.70
04S05E35G03S	2/27/2009	271.80	209.40	62.40
04S05E35G03S	8/13/2009	271.80	211.70	60.10
04S05E35G03S	10/6/2017	271.80	204.70	67.10
04S05E35G03S	2/9/2018	271.80	204.00	67.80
04S05E35G03S	6/5/2018	271.80	204.60	67.20
04S05E35G03S	11/1/2018	271.80	205.40	66.40
04S05E35G03S	3/15/2019	271.80	201.40	70.40
04S05E35G03S	8/26/2019	271.80	201.70	70.10
04S05E35G04S	11/7/2008	272.70	211.50	61.20
04S05E35G04S	2/27/2009	272.70	208.80	63.90
04S05E35G04S	8/13/2009	272.70	214.40	58.30
04S05E35G04S	10/6/2017	272.70	206.70	66.00
04S05E35G04S	2/9/2018	272.70	202.60	70.10
04S05E35G04S	6/5/2018	272.70	208.50	64.20
04S05E35G04S	11/1/2018	272.70	207.80	64.90
04S05E35G04S	3/15/2019	272.70	200.60	72.10

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04S05E35G04S	8/26/2019	272.70	209.10	63.60
04S05E36M01S	11/7/2008	251.20	209.00	42.20
04S05E36M01S	2/27/2009	251.20	210.10	41.10
04S05E36M01S	8/21/2009	251.20	209.40	41.80
04S05E36M01S	10/9/2017	251.20	203.20	48.00
04S05E36M01S	2/13/2018	251.20	201.50	49.70
04S05E36M01S	6/5/2018	251.20	209.20	42.00
04S05E36M01S	11/1/2018	251.20	204.50	46.70
04S05E36M01S	3/15/2019	251.20	198.80	52.40
04S05E36M01S	8/26/2019	251.20	200.30	50.90
04S06E18P01S	10/10/2008	231.10	177.60	53.50
04S06E18P01S	2/11/2009	231.10	175.50	55.60
04S06E18P01S	8/6/2009	231.10	180.60	50.50
04S06E18P01S	10/5/2017	231.10	177.50	53.60
04S06E18P01S	2/7/2018	231.10	181.70	49.40
04S06E18P01S	6/1/2018	231.10	182.40	48.70
04S06E18P01S	10/16/2018	231.10	177.10	54.00
04S06E18P01S	3/12/2019	231.10	181.40	49.70
04S06E18P01S	9/17/2019	231.10	177.20	53.90
04S06E18Q04S	10/10/2008	243.20	204.10	39.10
04S06E18Q04S	2/20/2009	243.20	199.10	44.10
04S06E18Q04S	8/6/2009	243.20	204.70	38.50
04S06E18Q04S	10/5/2017	243.20	203.00	40.20
04S06E18Q04S	2/7/2018	243.20	202.90	40.30
04S06E18Q04S	6/1/2018	243.20	206.80	36.40
04S06E18Q04S	10/16/2018	243.20	200.10	43.10
04S06E18Q04S	3/12/2019	243.20	201.90	41.30
04S06E18Q04S	8/21/2019	243.20	199.30	43.90
04S06E18Q06S	10/10/2008	228.90	187.80	41.10
04S06E18Q06S	2/11/2009	228.90	179.90	49.00
04S06E18Q06S	8/6/2009	228.90	190.00	38.90
04S06E18Q06S	10/5/2017	228.90	182.30	46.60
04S06E18Q06S	2/7/2018	228.90	181.30	47.60
04S06E18Q06S	6/1/2018	228.90	183.50	45.40
04S06E18Q06S	10/16/2018	228.90	181.10	47.80
04S06E18Q06S	3/12/2019	228.90	181.10	47.80
04S06E18Q06S	8/21/2019	228.90	181.00	47.90
04S06E18R01S	10/10/2008	242.50	198.60	43.90
04S06E18R01S	2/11/2009	242.50	195.60	46.90
04S06E18R01S	8/6/2009	242.50	201.30	41.20
04S06E18R01S	10/4/2017	242.50	198.70	43.80
04S06E18R01S	2/7/2018	242.50	197.10	45.40
04S06E18R01S	6/1/2018	242.50	198.90	43.60
04S06E18R01S	10/16/2018	242.50	197.60	44.90
04S06E18R01S	3/12/2019	242.50	195.10	47.40
04S06E18R01S	8/21/2019	242.50	196.90	45.60
04S06E19J03S	10/13/2008	218.90	191.70	27.20
04S06E19J03S	3/5/2009	218.90	186.30	32.60
04S06E19J03S	8/7/2009	218.90	192.00	26.90
04S06E19J03S	10/6/2017	218.90	206.30	12.60
04S06E19J03S	2/8/2018	218.90	197.60	21.30
04S06E19J03S	6/5/2018	218.90	201.30	17.60
04S06E19J03S	10/17/2018	218.90	205.40	13.50
04S06E19J03S	3/14/2019	218.90	198.50	20.40
04S06E19J03S	8/22/2019	218.90	204.90	14.00

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04S06E20M02S	10/13/2008	207.30	184.40	22.90
04S06E20M02S	2/11/2009	207.30	172.90	34.40
04S06E20M02S	8/6/2009	207.30	186.50	20.80
04S06E20M02S	10/6/2017	207.30	177.20	30.10
04S06E20M02S	2/8/2018	207.30	172.50	34.80
04S06E20M02S	6/4/2018	207.30	176.90	30.40
04S06E20M02S	10/17/2018	207.30	176.30	31.00
04S06E20M02S	3/14/2019	207.30	172.50	34.80
04S06E20M02S	8/22/2019	207.30	179.10	28.20
04S06E22C01S	10/13/2008	218.70	210.10	8.60
04S06E22C01S	2/11/2009	218.70	208.70	10.00
04S06E22C01S	8/6/2009	218.70	211.80	6.90
04S06E22C01S	10/5/2017	218.70	215.10	3.60
04S06E22C01S	2/7/2018	218.70	214.20	4.50
04S06E22C01S	6/1/2018	218.70	214.60	4.10
04S06E22C01S	10/16/2018	218.70	215.40	3.30
04S06E22C01S	3/13/2019	218.70	213.30	5.40
04S06E22C01S	8/21/2019	218.70	214.20	4.50
04S06E25J02S	1/8/2009	157.90	142.50	15.40
04S06E25J02S	5/8/2009	157.90	131.00	26.90
04S06E25J02S	11/3/2017	157.90	164.50	-6.60
04S06E25J02S	3/16/2018	157.90	163.50	-5.60
04S06E25J02S	7/17/2018	157.90	162.60	-4.70
04S06E25J02S	11/22/2018	157.90	163.80	-5.90
04S06E25J02S	4/19/2019	157.90	168.10	-10.20
04S06E25J02S	9/11/2019	157.90	170.20	-12.30
04S06E28H02S	12/20/2017	169.20	166.30	2.90
04S06E28H02S	2/8/2018	169.20	175.00	-5.80
04S06E28H02S	7/24/2018	169.20	174.30	-5.10
04S06E28H02S	1/30/2019	169.20	168.30	0.90
04S06E28H02S	4/3/2019	169.20	174.00	-4.80
04S06E28H02S	8/22/2019	169.20	169.30	-0.10
04S06E32C01S	11/22/2008	311.90	301.40	10.50
04S06E32C01S	3/5/2009	311.90	294.30	17.60
04S06E32C01S	8/14/2009	311.90	301.30	10.60
04S06E32C01S	10/12/2017	311.90	300.10	11.80
04S06E32C01S	2/27/2018	311.90	291.40	20.50
04S06E32C01S	6/8/2018	311.90	298.80	13.10
04S06E32C01S	11/7/2018	311.90	295.00	16.90
04S06E32C01S	3/27/2019	311.90	291.00	20.90
04S06E32C01S	9/10/2019	311.90	295.20	16.70
04S06E32C02S	10/22/2008	305.70	301.20	4.50
04S06E32C02S	2/20/2009	305.70	291.90	13.80
04S06E32C02S	8/14/2009	305.70	301.10	4.60
04S06E32C02S	10/12/2017	305.70	297.30	8.40
04S06E32C02S	2/27/2018	305.70	290.00	15.70
04S06E32C02S	6/8/2018	305.70	297.20	8.50
04S06E32C02S	11/17/2018	305.70	293.70	12.00
04S06E32C02S	3/27/2019	305.70	289.80	15.90
04S06E32C02S	9/10/2019	305.70	293.50	12.20
04S06E32N02S	10/22/2008	186.00	285.40	-99.40
04S06E32N02S	3/5/2009	186.00	278.60	-92.60
04S06E32N02S	8/7/2009	186.00	287.30	-101.30
04S06E32N02S	10/12/2017	186.00	277.70	-91.70
04S06E32N02S	2/21/2018	186.00	274.20	-88.20

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
04S06E32N02S	6/8/2018	186.00	278.20	-92.20
04S06E32N02S	11/7/2018	186.00	278.90	-92.90
04S06E32N02S	3/27/2019	186.00	273.40	-87.40
04S06E32N02S	9/9/2019	186.00	275.90	-89.90
04S06E32N03S	10/22/2008	292.00	279.40	12.60
04S06E32N03S	3/5/2009	292.00	272.50	19.50
04S06E32N03S	8/14/2009	292.00	281.00	11.00
04S06E32N03S	10/12/2017	292.00	271.30	20.70
04S06E32N03S	2/21/2018	292.00	267.10	24.90
04S06E32N03S	6/8/2018	292.00	271.80	20.20
04S06E32N03S	11/7/2018	292.00	272.20	19.80
04S06E32N03S	3/27/2019	292.00	265.70	26.30
04S06E32N03S	9/9/2019	292.00	286.90	5.10
04S06E34K01S	10/22/2008	160.60	183.40	-22.80
04S06E34K01S	3/5/2009	160.60	179.60	-19.00
04S06E34K01S	9/4/2009	160.60	185.70	-25.10
04S06E34K01S	2/9/2018	160.60	176.30	-15.70
04S06E34K01S	6/12/2018	160.60	179.30	-18.70
04S06E34K01S	10/17/2018	160.60	180.20	-19.60
04S06E34K01S	3/22/2019	160.60	176.40	-15.80
04S06E34K01S	9/18/2019	160.60	179.30	-18.70
04S06E35P01S	1/8/2009	151.60	186.40	-34.80
04S06E35P01S	5/8/2009	151.60	191.10	-39.50
04S06E35P01S	10/5/2017	151.60	193.10	-41.50
04S06E35P01S	2/8/2018	151.60	190.90	-39.30
04S06E35P01S	6/1/2018	151.60	192.50	-40.90
04S06E35P01S	10/17/2018	151.60	192.90	-41.30
04S06E35P01S	4/3/2019	151.60	189.70	-38.10
04S06E35P01S	8/22/2019	151.60	187.10	-35.50
04S07E31H01S	1/12/2009	96.90	158.30	-61.40
04S07E31H01S	5/13/2009	96.90	165.60	-68.70
04S07E31H01S	11/6/2017	96.90	160.10	-63.20
04S07E31H01S	3/15/2018	96.90	155.70	-58.80
04S07E31H01S	7/17/2018	96.90	165.20	-68.30
04S07E31H01S	11/27/2018	96.90	163.30	-66.40
04S07E31H01S	4/17/2019	96.90	156.80	-59.90
04S07E31H01S	9/11/2019	96.90	164.10	-67.20
04S07E31J01S	10/2/2008	89.60	154.20	-64.60
04S07E31J01S	1/8/2009	89.60	151.80	-62.20
04S07E31J01S	5/13/2009	89.60	156.70	-67.10
04S07E31J01S	11/6/2017	89.60	155.10	-65.50
04S07E31J01S	3/15/2018	89.60	149.70	-60.10
04S07E31J01S	7/17/2018	89.60	159.40	-69.80
04S07E31J01S	11/27/2018	89.60	158.10	-68.50
04S07E31J01S	4/19/2019	89.60	151.00	-61.40
04S07E31J01S	9/12/2019	89.60	158.80	-69.20
04S07E31R02S	10/2/2008	86.10	168.20	-82.10
04S07E31R02S	5/13/2009	86.10	170.40	-84.30
04S07E31R02S	11/6/2017	86.10	170.30	-84.20
04S07E31R02S	3/15/2018	86.10	159.60	-73.50
04S07E31R02S	7/17/2018	86.10	172.80	-86.70
04S07E31R02S	11/28/2018	86.10	173.90	-87.80
04S07E31R02S	4/19/2019	86.10	160.20	-74.10
04S07E31R02S	9/12/2019	86.10	170.50	-84.40
04S07E33L01S	10/14/2008	66.00	126.10	-60.10



State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
04S07E33L01S	1/13/2009	66.00	123.00	-57.00
04S07E33L01S	4/14/2009	66.00	120.90	-54.90
04S07E33L01S	7/14/2009	66.00	124.10	-58.10
04S07E33L01S	1/10/2018	66.00	121.70	-55.70
04S07E33L01S	3/22/2018	66.00	122.20	-56.20
04S07E33L01S	7/18/2018	66.00	126.40	-60.40
04S07E33L01S	11/28/2018	66.00	126.30	-60.30
04S07E33L01S	4/30/2019	66.00	120.30	-54.30
04S07E33L01S	9/9/2019	66.00	122.00	-56.00
04S07E33L02S	10/14/2008	66.00	110.10	-44.10
04S07E33L02S	1/13/2009	66.00	109.80	-43.80
04S07E33L02S	4/14/2009	66.00	107.80	-41.80
04S07E33L02S	7/14/2009	66.00	110.40	-44.40
04S07E33L02S	1/10/2018	66.00	119.80	-53.80
04S07E33L02S	3/22/2018	66.00	119.80	-53.80
04S07E33L02S	7/18/2018	66.00	123.40	-57.40
04S07E33L02S	11/28/2018	66.00	124.20	-58.20
04S07E33L02S	4/30/2019	66.00	120.00	-54.00
04S07E33L02S	9/9/2019	66.00	125.10	-59.10
05S05E01L05S	11/10/2008	240.10	212.40	27.70
05S05E01L05S	3/6/2009	240.10	208.30	31.80
05S05E01L05S	8/21/2009	240.10	215.10	25.00
05S05E01L05S	10/9/2017	240.10	206.70	33.40
05S05E01L05S	2/13/2018	240.10	204.50	35.60
05S05E01L05S	6/5/2018	240.10	205.60	34.50
05S05E01L05S	11/1/2018	240.10	206.20	33.90
05S05E01L05S	3/15/2019	240.10	202.00	38.10
05S05E01L05S	8/29/2019	240.10	205.00	35.10
05S05E02B01S	11/10/2008	261.90	206.90	55.00
05S05E02B01S	3/10/2009	261.90	205.10	56.80
05S05E02B01S	8/21/2009	261.90	209.10	52.80
05S05E02B01S	10/9/2017	261.90	201.70	60.20
05S05E02B01S	2/13/2018	261.90	199.80	62.10
05S05E02B01S	6/5/2018	261.90	200.30	61.60
05S05E02B01S	11/1/2018	261.90	201.20	60.70
05S05E02B01S	3/15/2019	261.90	197.00	64.90
05S05E02B01S	8/26/2019	261.90	198.70	63.20
05S05E12C01S	11/10/2008	231.40	163.90	67.50
05S05E12C01S	3/10/2009	231.40	168.20	63.20
05S05E12C01S	8/21/2009	231.40	177.80	53.60
05S05E12C01S	10/9/2017	231.40	177.30	54.10
05S05E12C01S	10/9/2017	231.40	189.30	42.10
05S05E12C01S	2/18/2018	231.40	187.70	43.70
05S05E12C01S	6/6/2018	231.40	190.40	41.00
05S05E12C01S	11/1/2018	231.40	190.70	40.70
05S05E12C01S	3/15/2019	231.40	185.90	45.50
05S05E12C01S	8/28/2019	231.40	191.50	39.90
05S05E12H02S	11/10/2008	221.80	211.80	10.00
05S05E12H02S	3/10/2009	221.80	207.90	13.90
05S05E12H02S	8/21/2009	221.80	215.10	6.70
05S05E12H02S	10/9/2017	221.80	204.20	17.60
05S05E12H02S	2/13/2018	221.80	202.10	19.70
05S05E12H02S	6/6/2018	221.80	204.40	17.40
05S05E12H02S	11/1/2018	221.80	205.50	16.30
05S05E12H02S	3/15/2019	221.80	200.20	21.60

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S05E12H02S	8/28/2019	221.80	207.80	14.00
05S05E12J01S	11/10/2008	223.40	219.00	4.40
05S05E12J01S	3/10/2009	223.40	214.90	8.50
05S05E12J01S	8/21/2009	223.40	218.50	4.90
05S05E12J01S	10/9/2017	223.40	212.90	10.50
05S05E12J01S	2/13/2018	223.40	214.40	9.00
05S05E12J01S	6/6/2018	223.40	211.50	11.90
05S05E12J01S	11/1/2018	223.40	213.00	10.40
05S05E12J01S	3/15/2019	223.40	213.20	10.20
05S05E12J01S	8/29/2019	223.40	215.10	8.30
05S06E01R02S	11/3/2017	118.20	180.30	-62.10
05S06E01R02S	3/13/2018	118.20	173.30	-55.10
05S06E01R02S	7/16/2018	118.20	181.50	-63.30
05S06E01R02S	11/27/2018	118.20	176.00	-57.80
05S06E01R02S	4/17/2019	118.20	173.10	-54.90
05S06E01R02S	9/10/2019	118.20	178.20	-60.00
05S06E02C01S	11/3/2017	150.90	193.70	-42.80
05S06E02C01S	3/12/2018	150.90	191.80	-40.90
05S06E02C01S	7/16/2018	150.90	198.70	-47.80
05S06E02C01S	11/27/2018	150.90	195.70	-44.80
05S06E02C01S	4/17/2019	150.90	191.80	-40.90
05S06E02C01S	9/18/2019	150.90	196.90	-46.00
05S06E02G03S	12/9/2008	144.60	196.60	-52.00
05S06E02G03S	9/2/2009	144.60	212.50	-67.90
05S06E02G03S	11/3/2017	144.60	191.10	-46.50
05S06E02G03S	3/12/2018	144.60	188.90	-44.30
05S06E02G03S	7/16/2018	144.60	195.90	-51.30
05S06E02G03S	11/27/2018	144.60	192.10	-47.50
05S06E02G03S	4/17/2019	144.60	187.30	-42.70
05S06E02G03S	9/10/2019	144.60	192.60	-48.00
05S06E02J01S	12/9/2008	134.70	193.10	-58.40
05S06E02J01S	4/29/2009	134.70	193.80	-59.10
05S06E02J01S	9/2/2009	134.70	209.70	-75.00
05S06E02J01S	11/2/2017	134.70	193.70	-59.00
05S06E02J01S	3/13/2018	134.70	193.60	-58.90
05S06E02J01S	7/17/2018	134.70	189.50	-54.80
05S06E02J01S	11/27/2018	134.70	195.30	-60.60
05S06E02J01S	4/17/2019	134.70	191.10	-56.40
05S06E02J01S	9/13/2019	134.70	187.90	-53.20
05S06E03B02S	12/11/2008	182.50	216.10	-33.60
05S06E03B02S	4/9/2009	182.50	222.20	-39.70
05S06E03B02S	9/2/2009	182.50	228.60	-46.10
05S06E03B02S	11/3/2017	182.50	211.60	-29.10
05S06E03B02S	3/13/2018	182.50	199.90	-17.40
05S06E03B02S	6/21/2018	182.50	204.50	-22.00
05S06E03B02S	11/19/2018	182.50	203.30	-20.80
05S06E03B02S	4/17/2019	182.50	208.40	-25.90
05S06E03B02S	9/18/2019	182.50	214.30	-31.80
05S06E03P01S	12/9/2008	245.70	277.80	-32.10
05S06E03P01S	9/9/2009	245.70	284.10	-38.40
05S06E03P01S	10/18/2017	245.70	276.20	-30.50
05S06E03P01S	3/7/2018	245.70	270.10	-24.40
05S06E03P01S	6/18/2018	245.70	270.60	-24.90
05S06E03P01S	11/20/2018	245.70	271.20	-25.50
05S06E03P01S	4/4/2019	245.70	268.20	-22.50

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S06E03P01S	9/9/2019	245.70	269.60	-23.90
05S06E04A01S	3/31/2009	260.70	278.70	-18.00
05S06E04A01S	3/27/2019	260.70	271.70	-11.00
05S06E04A01S	9/10/2019	260.70	275.60	-14.90
05S06E04D03S	11/21/2008	271.98	285.10	-13.12
05S06E04D03S	3/31/2009	271.98	282.00	-10.02
05S06E04D03S	8/19/2009	271.98	293.00	-21.02
05S06E04D03S	10/12/2017	271.98	279.20	-7.22
05S06E04D03S	10/12/2017	271.98	280.90	-8.92
05S06E04D03S	2/27/2018	271.98	275.80	-3.82
05S06E04D03S	6/8/2018	271.98	282.30	-10.32
05S06E04D03S	11/7/2018	271.98	281.20	-9.22
05S06E04D03S	3/27/2019	271.98	274.50	-2.52
05S06E04D03S	9/10/2019	271.98	279.20	-7.22
05S06E04N02S	9/18/2019	244.70	251.70	-7.00
05S06E05Q01S	10/11/2017	244.70	247.10	-2.40
05S06E05Q01S	2/21/2018	244.70	245.60	-0.90
05S06E05Q01S	6/5/2018	244.70	248.50	-3.80
05S06E05Q01S	11/6/2018	244.70	249.50	-4.80
05S06E05Q01S	3/26/2019	244.70	244.40	0.30
05S06E05Q01S	9/9/2019	244.70	247.80	-3.10
05S06E06B03S	9/4/2009	283.40	279.20	4.20
05S06E06B03S	10/11/2017	283.40	272.30	11.10
05S06E06B03S	2/21/2018	283.40	274.60	8.80
05S06E06B03S	6/8/2018	283.40	271.80	11.60
05S06E06B03S	11/7/2018	283.40	262.00	21.40
05S06E06B03S	3/26/2019	283.40	272.70	10.70
05S06E06B03S	9/9/2019	283.40	270.40	13.00
05S06E06Q01S	1/2/2009	220.30	214.20	6.10
05S06E06Q01S	2/27/2009	220.30	213.70	6.60
05S06E06Q01S	5/1/2009	220.30	217.30	3.00
05S06E06Q01S	9/29/2009	220.30	219.50	0.80
05S06E06Q01S	10/11/2017	220.30	210.10	10.20
05S06E06Q01S	2/21/2018	220.30	207.20	13.10
05S06E06Q01S	6/7/2018	220.30	210.60	9.70
05S06E06Q01S	11/7/2018	220.30	211.30	9.00
05S06E06Q01S	3/26/2019	220.30	206.00	14.30
05S06E06Q01S	9/9/2019	220.30	210.10	10.20
05S06E06Q02S	10/11/2017	220.00	212.60	7.40
05S06E06Q02S	2/21/2018	220.00	209.20	10.80
05S06E06Q02S	6/7/2018	220.00	215.00	5.00
05S06E06Q02S	11/7/2018	220.00	215.20	4.80
05S06E06Q02S	3/26/2019	220.00	209.90	10.10
05S06E06Q02S	9/9/2019	220.00	213.80	6.20
05S06E07J04S	12/2/2008	202.80	213.90	-11.10
05S06E07J04S	3/31/2009	202.80	212.50	-9.70
05S06E07J04S	9/3/2009	202.80	216.00	-13.20
05S06E07J04S	10/11/2017	202.80	206.00	-3.20
05S06E07J04S	2/14/2018	202.80	199.20	3.60
05S06E07J04S	6/7/2018	202.80	208.80	-6.00
05S06E07J04S	11/5/2018	202.80	206.30	-3.50
05S06E07J04S	3/25/2019	202.80	200.00	2.80
05S06E07J04S	9/5/2019	202.80	204.80	-2.00
05S06E08E01S	12/3/2008	211.10	220.60	-9.50
05S06E08E01S	4/9/2009	211.10	224.20	-13.10

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05S06E08E01S	9/16/2009	211.10	231.20	-20.10
05S06E08E01S	10/11/2017	211.10	225.70	-14.60
05S06E08E01S	2/14/2018	211.10	225.10	-14.00
05S06E08E01S	6/7/2018	211.10	230.20	-19.10
05S06E08E01S	11/5/2018	211.10	227.30	-16.20
05S06E08E01S	3/26/2019	211.10	221.70	-10.60
05S06E08E01S	9/5/2019	211.10	228.50	-17.40
05S06E08M03S	10/23/2008	202.60	220.50	-17.90
05S06E08M03S	1/13/2009	202.60	212.50	-9.90
05S06E08M03S	4/16/2009	202.60	215.50	-12.90
05S06E08M03S	7/30/2009	202.60	220.50	-17.90
05S06E08M03S	10/11/2017	202.60	215.70	-13.10
05S06E08M03S	2/14/2018	202.60	212.40	-9.80
05S06E08M03S	6/7/2018	202.60	215.10	-12.50
05S06E08M03S	11/5/2018	202.60	217.20	-14.60
05S06E08M03S	3/26/2019	202.60	201.00	1.60
05S06E08M03S	9/5/2019	202.60	214.40	-11.80
05S06E08N02S	12/8/2008	192.20	212.00	-19.80
05S06E08N02S	3/31/2009	192.20	208.80	-16.60
05S06E08N02S	10/11/2017	192.20	205.80	-13.60
05S06E08N02S	2/14/2018	192.20	201.40	-9.20
05S06E08N02S	6/7/2018	192.20	205.40	-13.20
05S06E08N02S	11/5/2018	192.20	206.60	-14.40
05S06E08N02S	3/26/2019	192.20	199.00	-6.80
05S06E08N02S	9/5/2019	192.20	204.20	-12.00
05S06E09A01S	11/21/2008	242.00	272.70	-30.70
05S06E09A01S	4/9/2009	242.00	269.70	-27.70
05S06E09A01S	9/3/2009	242.00	277.80	-35.80
05S06E09A01S	10/19/2017	242.00	263.90	-21.90
05S06E09A01S	2/28/2018	242.00	257.70	-15.70
05S06E09A01S	6/18/2018	242.00	262.30	-20.30
05S06E09A01S	11/19/2018	242.00	262.00	-20.00
05S06E09A01S	4/3/2019	242.00	254.50	-12.50
05S06E09A01S	9/9/2019	242.00	257.50	-15.50
05S06E09C01S	11/10/2008	242.90	266.20	-23.30
05S06E09C01S	11/21/2008	242.90	263.70	-20.80
05S06E09C01S	4/9/2009	242.90	261.60	-18.70
05S06E09C01S	9/3/2009	242.90	268.30	-25.40
05S06E09C01S	10/19/2017	242.90	261.70	-18.80
05S06E09C01S	3/7/2018	242.90	257.80	-14.90
05S06E09C01S	6/13/2018	242.90	257.30	-14.40
05S06E09C01S	11/19/2018	242.90	260.20	-17.30
05S06E09C01S	4/3/2019	242.90	255.50	-12.60
05S06E09C01S	9/9/2019	242.90	256.70	-13.80
05S06E09E01S	11/10/2008	196.70	221.00	-24.30
05S06E09E01S	4/2/2009	196.70	218.00	-21.30
05S06E09E01S	10/23/2017	196.70	220.00	-23.30
05S06E09E01S	3/7/2018	196.70	221.40	-24.70
05S06E09E01S	6/13/2018	196.70	216.60	-19.90
05S06E09E01S	11/16/2018	196.70	221.70	-25.00
05S06E09E01S	4/3/2019	196.70	219.30	-22.60
05S06E09E01S	10/1/2019	196.70	216.20	-19.50
05S06E09F01S	11/10/2008	209.60	237.10	-27.50
05S06E09F01S	11/21/2008	209.60	235.50	-25.90
05S06E09F01S	4/2/2009	209.60	233.30	-23.70

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S06E09F01S	9/3/2009	209.60	239.20	-29.60
05S06E09F01S	10/19/2017	209.60	227.50	-17.90
05S06E09F01S	3/7/2018	209.60	225.50	-15.90
05S06E09F01S	6/13/2018	209.60	225.80	-16.20
05S06E09F01S	11/19/2018	209.60	228.00	-18.40
05S06E09F01S	4/3/2019	209.60	223.50	-13.90
05S06E09F01S	9/25/2019	209.60	224.50	-14.90
05S06E09M01S	10/30/2008	188.10	213.90	-25.80
05S06E09M01S	1/13/2009	188.10	214.30	-26.20
05S06E09M01S	4/16/2009	188.10	214.70	-26.60
05S06E09M01S	7/15/2009	188.10	231.10	-43.00
05S06E09M01S	10/18/2017	188.10	225.40	-37.30
05S06E09M01S	3/7/2018	188.10	222.20	-34.10
05S06E09M01S	7/18/2018	188.10	230.40	-42.30
05S06E09M01S	9/19/2018	188.10	228.30	-40.20
05S06E09M01S	4/3/2019	188.10	221.60	-33.50
05S06E09M01S	9/11/2019	188.10	219.60	-31.50
05S06E09M02S	2/20/2009	200.00	212.70	-12.70
05S06E09M02S	7/16/2009	200.00	223.50	-23.50
05S06E09M02S	10/12/2018	200.00	208.60	-8.60
05S06E09M02S	4/3/2019	200.00	205.30	-5.30
05S06E09M02S	10/1/2019	200.00	209.40	-9.40
05S06E09P01S	10/15/2008	195.20	228.50	-33.30
05S06E09P01S	1/13/2009	195.20	222.80	-27.60
05S06E09P01S	4/16/2009	195.20	228.40	-33.20
05S06E09P01S	7/16/2009	195.20	230.00	-34.80
05S06E09P01S	10/18/2017	195.20	228.70	-33.50
05S06E09P01S	3/6/2018	195.20	230.50	-35.30
05S06E09P01S	6/13/2018	195.20	225.20	-30.00
05S06E09P01S	11/16/2018	195.20	230.40	-35.20
05S06E09P01S	4/2/2019	195.20	231.30	-36.10
05S06E09P01S	10/10/2019	195.20	224.90	-29.70
05S06E09P02S	7/19/2019	196.30	209.50	-13.20
05S06E09P02S	7/24/2019	196.30	210.60	-14.30
05S06E09P02S	8/30/2019	196.30	209.60	-13.30
05S06E09P02S	9/30/2019	196.30	209.10	-12.80
05S06E09Q01S	1/13/2009	192.30	220.40	-28.10
05S06E09Q01S	4/16/2009	192.30	221.60	-29.30
05S06E09Q01S	9/11/2019	192.30	214.10	-21.80
05S06E10E01S	11/21/2008	237.80	272.00	-34.20
05S06E10E01S	9/3/2009	237.80	242.10	-4.30
05S06E10E01S	10/19/2017	237.80	247.50	-9.70
05S06E10E01S	3/7/2018	237.80	247.60	-9.80
05S06E10E01S	6/18/2018	237.80	247.60	-9.80
05S06E10E01S	11/20/2018	237.80	247.80	-10.00
05S06E10E01S	4/4/2019	237.80	247.80	-10.00
05S06E10E01S	9/9/2019	237.80	247.80	-10.00
05S06E10J01S	7/19/2019	233.60	257.70	-24.10
05S06E10J01S	7/24/2019	233.60	257.60	-24.00
05S06E10J01S	8/30/2019	233.60	257.20	-23.60
05S06E10J01S	9/30/2019	233.60	255.80	-22.20
05S06E10L01S	10/30/2008	228.90	266.30	-37.40
05S06E10L01S	2/20/2009	228.90	264.50	-35.60
05S06E10L01S	4/17/2009	228.90	264.00	-35.10
05S06E10L01S	7/14/2009	228.90	266.80	-37.90

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S06E10L01S	12/13/2017	228.90	273.10	-44.20
05S06E10L01S	3/7/2018	228.90	272.60	-43.70
05S06E10L01S	8/23/2018	228.90	269.40	-40.50
05S06E10L01S	1/3/2019	228.90	275.60	-46.70
05S06E10L01S	5/29/2019	228.90	277.40	-48.50
05S06E10L01S	7/23/2019	228.90	260.50	-31.60
05S06E11B01S	11/3/2017	170.20	218.40	-48.20
05S06E11B01S	3/13/2018	170.20	214.30	-44.10
05S06E11B01S	6/2/2018	170.20	213.70	-43.50
05S06E11B01S	11/27/2018	170.20	220.20	-50.00
05S06E11B01S	4/17/2019	170.20	213.80	-43.60
05S06E11B01S	9/25/2019	170.20	217.00	-46.80
05S06E12N01S	10/2/2008	178.10	238.00	-59.90
05S06E12N01S	1/7/2009	178.10	236.60	-58.50
05S06E12N01S	5/8/2009	178.10	236.30	-58.20
05S06E12N01S	11/3/2017	178.10	231.60	-53.50
05S06E12N01S	3/12/2018	178.10	227.90	-49.80
05S06E12N01S	6/21/2018	178.10	231.50	-53.40
05S06E12N01S	11/21/2018	178.10	232.10	-54.00
05S06E12N01S	3/19/2019	178.10	227.40	-49.30
05S06E12N01S	9/10/2019	178.10	229.70	-51.60
05S06E12Q03S	10/2/2008	136.40	205.70	-69.30
05S06E12Q03S	1/7/2009	136.40	206.70	-70.30
05S06E12Q03S	5/29/2009	136.40	210.00	-73.60
05S06E12Q03S	12/8/2017	136.40	204.70	-68.30
05S06E12Q03S	3/12/2018	136.40	205.10	-68.70
05S06E12Q03S	7/17/2018	136.40	207.40	-71.00
05S06E12Q03S	11/21/2018	136.40	205.60	-69.20
05S06E12Q03S	4/16/2019	136.40	205.00	-68.60
05S06E12Q03S	9/10/2019	136.40	207.80	-71.40
05S06E13D01S	10/7/2008	169.90	237.10	-67.20
05S06E13D01S	1/8/2009	169.90	230.60	-60.70
05S06E13D01S	5/29/2009	169.90	233.30	-63.40
05S06E13D01S	10/25/2017	169.90	225.70	-55.80
05S06E13D01S	3/8/2018	169.90	221.80	-51.90
05S06E13D01S	6/20/2018	169.90	224.90	-55.00
05S06E13D01S	11/21/2018	169.90	226.00	-56.10
05S06E13D01S	3/19/2019	169.90	221.60	-51.70
05S06E13D01S	9/10/2019	169.90	224.10	-54.20
05S06E13G02S	10/2/2008	157.90	233.20	-75.30
05S06E13G02S	1/7/2009	157.90	222.40	-64.50
05S06E13G02S	5/29/2009	157.90	225.90	-68.00
05S06E13G02S	11/2/2017	157.90	219.00	-61.10
05S06E13G02S	3/8/2018	157.90	214.30	-56.40
05S06E13G02S	6/20/2018	157.90	217.50	-59.60
05S06E13G02S	11/21/2018	157.90	218.30	-60.40
05S06E13G02S	3/19/2019	157.90	214.00	-56.10
05S06E13G02S	9/10/2019	157.90	217.20	-59.30
05S06E13M01S	10/15/2008	199.10	264.00	-64.90
05S06E13M01S	1/9/2009	199.10	258.60	-59.50
05S06E13M01S	5/29/2009	199.10	261.00	-61.90
05S06E13M01S	3/21/2019	199.10	248.60	-49.50
05S06E13M01S	9/17/2019	199.10	250.40	-51.30
05S06E13R01S	9/4/2009	147.70	226.50	-78.80
05S06E13R01S	10/25/2017	147.70	218.90	-71.20

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S06E13R01S	3/8/2018	147.70	212.00	-64.30
05S06E13R01S	7/20/2018	147.70	217.90	-70.20
05S06E13R01S	11/21/2018	147.70	219.50	-71.80
05S06E13R01S	4/16/2019	147.70	211.40	-63.70
05S06E13R01S	9/10/2019	147.70	212.90	-65.20
05S06E14B02S	10/2/2008	215.20	267.20	-52.00
05S06E14B02S	10/7/2008	215.20	267.70	-52.50
05S06E14B02S	1/7/2009	215.20	264.80	-49.60
05S06E14B02S	5/29/2009	215.20	265.10	-49.90
05S06E14B02S	12/20/2017	215.20	257.10	-41.90
05S06E14B02S	3/12/2018	215.20	255.20	-40.00
05S06E14B02S	6/21/2018	215.20	257.50	-42.30
05S06E14B02S	11/21/2018	215.20	259.20	-44.00
05S06E14B02S	3/19/2019	215.20	255.20	-40.00
05S06E14B02S	9/10/2019	215.20	257.80	-42.60
05S06E14G01S	10/15/2008	206.70	266.20	-59.50
05S06E14G01S	1/14/2009	206.70	261.20	-54.50
05S06E14G01S	4/15/2009	206.70	260.80	-54.10
05S06E14G01S	7/16/2009	206.70	266.30	-59.60
05S06E14G01S	10/25/2017	206.70	259.20	-52.50
05S06E14G01S	3/8/2018	206.70	252.20	-45.50
05S06E14G01S	6/20/2018	206.70	257.40	-50.70
05S06E14G01S	11/21/2018	206.70	260.70	-54.00
05S06E14G01S	4/16/2019	206.70	250.60	-43.90
05S06E14G01S	9/17/2019	206.70	257.20	-50.50
05S06E14G03S	10/11/2017	210.20	253.40	-43.20
05S06E14G03S	1/10/2018	210.20	253.30	-43.10
05S06E14G03S	3/8/2018	210.20	252.30	-42.10
05S06E14G03S	6/20/2018	210.20	253.60	-43.40
05S06E14G03S	11/21/2018	210.20	256.00	-45.80
05S06E14G03S	3/28/2019	210.20	252.20	-42.00
05S06E14G03S	4/26/2019	210.20	251.80	-41.60
05S06E14G03S	5/31/2019	210.20	251.70	-41.50
05S06E14G03S	6/26/2019	210.20	251.60	-41.40
05S06E14G03S	7/19/2019	210.20	252.00	-41.80
05S06E14G03S	7/31/2019	210.20	252.30	-42.10
05S06E14P02S	10/14/2008	170.00	227.00	-57.00
05S06E14P02S	1/14/2009	170.00	219.90	-49.90
05S06E14P02S	4/15/2009	170.00	222.30	-52.30
05S06E14P02S	7/16/2009	170.00	228.70	-58.70
05S06E14P02S	10/25/2017	170.00	210.70	-40.70
05S06E14P02S	3/8/2018	170.00	200.30	-30.30
05S06E14P02S	6/20/2018	170.00	209.90	-39.90
05S06E14P02S	11/20/2018	170.00	205.70	-35.70
05S06E14P02S	4/9/2019	170.00	201.70	-31.70
05S06E14P02S	7/23/2019	170.00	204.80	-34.80
05S06E14P02S	9/10/2019	170.00	203.00	-33.00
05S06E14P03S	10/11/2017	163.50	208.10	-44.60
05S06E14P03S	1/10/2018	163.50	208.70	-45.20
05S06E14P03S	3/8/2018	163.50	207.80	-44.30
05S06E14P03S	6/20/2018	163.50	208.20	-44.70
05S06E14P03S	11/20/2018	163.50	210.50	-47.00
05S06E14P03S	3/28/2019	163.50	208.00	-44.50
05S06E14P03S	4/26/2019	163.50	207.40	-43.90
05S06E14P03S	5/21/2019	163.50	207.20	-43.70



State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S06E14P03S	6/26/2019	163.50	207.30	-43.80
05S06E14P03S	7/31/2019	163.50	207.10	-43.60
05S06E15F01S	10/14/2008	180.00	211.80	-31.80
05S06E15F01S	1/13/2009	180.00	206.90	-26.90
05S06E15F01S	4/16/2009	180.00	200.40	-20.40
05S06E15F01S	7/14/2009	180.00	209.60	-29.60
05S06E15F01S	10/23/2017	180.00	196.60	-16.60
05S06E15F01S	3/7/2018	180.00	200.00	-20.00
05S06E15F01S	6/19/2018	180.00	199.70	-19.70
05S06E15F01S	11/30/2018	180.00	206.30	-26.30
05S06E15F01S	3/28/2019	180.00	196.70	-16.70
05S06E15F01S	4/26/2019	180.00	195.10	-15.10
05S06E15F01S	5/31/2019	180.00	194.30	-14.30
05S06E15F01S	6/26/2019	180.00	193.90	-13.90
05S06E15F01S	7/23/2019	180.00	192.80	-12.80
05S06E15H01S	10/14/2008	191.80	236.90	-45.10
05S06E15H01S	1/16/2009	191.80	232.80	-41.00
05S06E15H01S	4/17/2009	191.80	233.60	-41.80
05S06E15H01S	7/14/2009	191.80	238.20	-46.40
05S06E15H01S	10/25/2017	191.80	245.90	-54.10
05S06E15H01S	3/8/2018	191.80	243.60	-51.80
05S06E15H01S	6/20/2018	191.80	246.70	-54.90
05S06E15H01S	11/20/2018	191.80	247.70	-55.90
05S06E15H01S	4/9/2019	191.80	248.10	-56.30
05S06E15H01S	7/23/2019	191.80	245.90	-54.10
05S06E15M01S	10/14/2008	162.20	192.90	-30.70
05S06E15M01S	1/13/2009	162.20	192.10	-29.90
05S06E15M01S	4/16/2009	162.20	188.40	-26.20
05S06E15M01S	7/14/2009	162.20	191.20	-29.00
05S06E15M01S	10/23/2017	162.20	181.60	-19.40
05S06E15M01S	3/7/2018	162.20	182.00	-19.80
05S06E15M01S	6/19/2018	162.20	181.60	-19.40
05S06E15M01S	11/20/2018	162.20	185.70	-23.50
05S06E15M01S	3/28/2019	162.20	183.50	-21.30
05S06E15M01S	4/26/2019	162.20	181.10	-18.90
05S06E15M01S	5/31/2019	162.20	179.30	-17.10
05S06E15M01S	7/23/2019	162.20	177.90	-15.70
05S06E15P01S	10/14/2008	152.20	188.20	-36.00
05S06E15P01S	1/13/2009	152.20	187.80	-35.60
05S06E15P01S	4/16/2009	152.20	183.40	-31.20
05S06E15P01S	7/14/2009	152.20	187.10	-34.90
05S06E15P01S	10/23/2017	152.20	176.20	-24.00
05S06E15P01S	3/7/2018	152.20	175.90	-23.70
05S06E15P01S	6/19/2018	152.20	176.40	-24.20
05S06E15P01S	11/30/2018	152.20	179.80	-27.60
05S06E15P01S	3/28/2019	152.20	175.80	-23.60
05S06E15P01S	4/26/2019	152.20	174.80	-22.60
05S06E15P01S	5/31/2019	152.20	174.00	-21.80
05S06E15P01S	7/23/2019	152.20	173.60	-21.40
05S06E16A02S	10/15/2008	179.60	217.70	-38.10
05S06E16A02S	1/14/2009	179.60	212.70	-33.10
05S06E16A02S	4/16/2009	179.60	212.90	-33.30
05S06E16A02S	7/16/2009	179.60	218.40	-38.80
05S06E16A02S	10/23/2017	179.60	205.80	-26.20
05S06E16A02S	3/7/2018	179.60	199.80	-20.20

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S06E16A02S	6/19/2018	179.60	202.40	-22.80
05S06E16A02S	11/20/2018	179.60	207.20	-27.60
05S06E16A02S	4/4/2019	179.60	199.80	-20.20
05S06E16A02S	9/9/2019	179.60	202.70	-23.10
05S06E16A03S	10/11/2017	182.50	202.70	-20.20
05S06E16A03S	1/10/2018	182.50	202.80	-20.30
05S06E16A03S	3/7/2018	182.50	202.30	-19.80
05S06E16A03S	6/19/2018	182.50	200.40	-17.90
05S06E16A03S	11/20/2018	182.50	203.60	-21.10
05S06E16A03S	3/28/2019	182.50	203.00	-20.50
05S06E16A03S	4/26/2019	182.50	201.80	-19.30
05S06E16A03S	5/31/2019	182.50	200.70	-18.20
05S06E16A03S	6/26/2019	182.50	200.40	-17.90
05S06E16A03S	7/19/2019	182.50	200.00	-17.50
05S06E16A03S	7/30/2019	182.50	199.80	-17.30
05S06E16A04S	10/23/2017	179.50	207.40	-27.90
05S06E16A04S	3/22/2018	179.50	200.50	-21.00
05S06E16A04S	7/25/2018	179.50	206.50	-27.00
05S06E16A04S	10/12/2018	179.50	206.90	-27.40
05S06E16A04S	4/4/2019	179.50	200.60	-21.10
05S06E16A04S	7/23/2019	179.50	203.90	-24.40
05S06E16A04S	9/9/2019	179.50	204.00	-24.50
05S06E16E01S	10/15/2008	179.90	213.40	-33.50
05S06E16E01S	1/14/2009	179.90	208.60	-28.70
05S06E16E01S	4/16/2009	179.90	213.40	-33.50
05S06E16E01S	7/16/2009	179.90	220.30	-40.40
05S06E16E01S	10/13/2017	179.90	230.80	-50.90
05S06E16E01S	3/6/2018	179.90	223.20	-43.30
05S06E16E01S	6/12/2018	179.90	227.70	-47.80
05S06E16E01S	11/16/2018	179.90	231.70	-51.80
05S06E16E01S	4/2/2019	179.90	224.10	-44.20
05S06E16E01S	9/13/2019	179.90	226.90	-47.00
05S06E16K03S	10/15/2008	164.00	201.40	-37.40
05S06E16K03S	1/15/2009	164.00	195.50	-31.50
05S06E16K03S	4/16/2009	164.00	196.70	-32.70
05S06E16K03S	7/17/2009	164.00	202.00	-38.00
05S06E16K03S	10/13/2017	164.00	209.90	-45.90
05S06E16K03S	3/6/2018	164.00	204.70	-40.70
05S06E16K03S	6/12/2018	164.00	207.30	-43.30
05S06E16K03S	11/9/2018	164.00	210.80	-46.80
05S06E16K03S	4/2/2019	164.00	204.20	-40.20
05S06E16K03S	7/23/2019	164.00	207.00	-43.00
05S06E16K03S	9/13/2019	164.00	210.10	-46.10
05S06E16L01S	10/15/2008	172.80	208.40	-35.60
05S06E16L01S	1/15/2009	172.80	202.30	-29.50
05S06E16L01S	4/16/2009	172.80	203.50	-30.70
05S06E16L01S	7/17/2009	172.80	209.20	-36.40
05S06E16L01S	10/18/2017	172.80	209.70	-36.90
05S06E16L01S	3/6/2018	172.80	204.80	-32.00
05S06E16L01S	6/12/2018	172.80	205.40	-32.60
05S06E16L01S	11/9/2018	172.80	211.40	-38.60
05S06E16L01S	4/2/2019	172.80	204.50	-31.70
05S06E16L01S	9/11/2019	172.80	195.60	-22.80
05S06E16N02S	10/30/2008	181.60	216.50	-34.90
05S06E16N02S	1/15/2009	181.60	210.60	-29.00

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S06E16N02S	5/1/2009	181.60	211.80	-30.20
05S06E16N02S	7/15/2009	181.60	226.70	-45.10
05S06E16N02S	10/13/2017	181.60	205.80	-24.20
05S06E16N02S	3/6/2018	181.60	199.90	-18.30
05S06E16N02S	6/12/2018	181.60	202.40	-20.80
05S06E16N02S	11/20/2018	181.60	205.50	-23.90
05S06E16N02S	3/20/2019	181.60	199.60	-18.00
05S06E16N02S	9/9/2019	181.60	204.10	-22.50
05S06E17E01S	12/2/2008	197.50	217.70	-20.20
05S06E17E01S	4/9/2009	197.50	219.90	-22.40
05S06E17E01S	10/11/2017	197.50	214.60	-17.10
05S06E17E01S	2/14/2018	197.50	215.20	-17.70
05S06E17E01S	6/7/2018	197.50	213.30	-15.80
05S06E17E01S	11/5/2018	197.50	215.90	-18.40
05S06E17E01S	3/25/2019	197.50	214.20	-16.70
05S06E17E01S	9/5/2019	197.50	210.50	-13.00
05S06E17G03S	12/8/2008	186.00	214.80	-28.80
05S06E17G03S	3/31/2009	186.00	210.00	-24.00
05S06E17G03S	8/28/2009	186.00	216.70	-30.70
05S06E17G03S	10/10/2017	186.00	205.10	-19.10
05S06E17G03S	2/14/2018	186.00	201.80	-15.80
05S06E17G03S	6/6/2018	186.00	204.40	-18.40
05S06E17G03S	11/5/2018	186.00	207.20	-21.20
05S06E17G03S	3/10/2019	186.00	199.50	-13.50
05S06E17G03S	9/5/2019	186.00	204.30	-18.30
05S06E17L01S	12/8/2008	187.70	219.90	-32.20
05S06E17L01S	10/10/2017	187.70	219.80	-32.10
05S06E17L01S	2/14/2018	187.70	216.00	-28.30
05S06E17L01S	6/6/2018	187.70	216.80	-29.10
05S06E17L01S	11/5/2018	187.70	221.00	-33.30
05S06E17L01S	3/25/2019	187.70	214.20	-26.50
05S06E17L01S	9/5/2019	187.70	214.90	-27.20
05S06E18R01S	12/2/2008	192.80	218.30	-25.50
05S06E18R01S	3/4/2009	192.80	214.20	-21.40
05S06E18R01S	8/18/2009	192.80	222.70	-29.90
05S06E18R01S	10/10/2017	192.80	210.70	-17.90
05S06E18R01S	2/14/2018	192.80	206.70	-13.90
05S06E18R01S	6/6/2018	192.80	208.90	-16.10
05S06E18R01S	11/2/2018	192.80	211.90	-19.10
05S06E18R01S	3/22/2019	192.80	205.00	-12.20
05S06E18R01S	9/4/2019	192.80	209.10	-16.30
05S06E18R02S	3/4/2009	193.40	219.60	-26.20
05S06E18R02S	8/18/2009	193.40	222.40	-29.00
05S06E18R02S	10/10/2017	193.40	213.90	-20.50
05S06E18R02S	2/14/2018	193.40	209.60	-16.20
05S06E18R02S	6/6/2018	193.40	208.70	-15.30
05S06E18R02S	11/2/2018	193.40	214.90	-21.50
05S06E18R02S	3/22/2019	193.40	208.30	-14.90
05S06E18R02S	9/4/2019	193.40	209.20	-15.80
05S06E20A02S	10/14/2008	201.10	234.20	-33.10
05S06E20A02S	1/14/2009	201.10	232.30	-31.20
05S06E20A02S	4/16/2009	201.10	229.80	-28.70
05S06E20A02S	7/15/2009	201.10	235.10	-34.00
05S06E20A02S	10/13/2017	201.10	225.10	-24.00
05S06E20A02S	3/6/2018	201.10	220.60	-19.50

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S06E20A02S	6/12/2018	201.10	222.90	-21.80
05S06E20A02S	11/9/2018	201.10	226.40	-25.30
05S06E20A02S	3/19/2019	201.10	219.00	-17.90
05S06E20A02S	9/9/2019	201.10	223.50	-22.40
05S06E20F03S	11/10/2008	200.10	227.20	-27.10
05S06E20F03S	12/21/2017	200.10	221.70	-21.60
05S06E20F03S	3/6/2018	200.10	223.60	-23.50
05S06E20F03S	6/12/2018	200.10	229.90	-29.80
05S06E20F03S	11/9/2018	200.10	223.20	-23.10
05S06E20F03S	4/2/2019	200.10	220.80	-20.70
05S06E20F03S	9/13/2019	200.10	229.20	-29.10
05S06E21Q04S	7/19/2019	230.10	251.40	-21.30
05S06E21Q04S	7/24/2019	230.10	251.90	-21.80
05S06E21Q04S	8/30/2019	230.10	252.90	-22.80
05S06E21Q04S	9/30/2019	230.10	251.70	-21.60
05S06E22B02S	10/14/2008	150.90	192.80	-41.90
05S06E22B02S	1/22/2009	150.90	188.00	-37.10
05S06E22B02S	4/17/2009	150.90	196.30	-45.40
05S06E22B02S	7/31/2009	150.90	199.60	-48.70
05S06E22B02S	10/25/2017	150.90	192.10	-41.20
05S06E22B02S	3/12/2018	150.90	185.60	-34.70
05S06E22B02S	6/20/2018	150.90	190.80	-39.90
05S06E22B02S	11/20/2018	150.90	189.70	-38.80
05S06E22B02S	4/5/2019	150.90	185.10	-34.20
05S06E22B02S	9/17/2019	150.90	188.20	-37.30
05S06E23M02S	7/19/2019	150.70	178.90	-28.20
05S06E23M02S	7/24/2019	150.70	179.30	-28.60
05S06E23M02S	8/30/2019	150.70	180.00	-29.30
05S06E23M02S	9/30/2019	150.70	177.80	-27.10
05S06E24D01S	10/10/2008	167.10	233.90	-66.80
05S06E24D01S	1/9/2009	167.10	228.40	-61.30
05S06E24D01S	6/3/2009	167.10	236.10	-69.00
05S06E24D01S	3/21/2019	167.10	228.80	-61.70
05S06E24D01S	9/17/2019	167.10	235.00	-67.90
05S06E24G01S	10/9/2008	110.90	194.40	-83.50
05S06E24G01S	1/12/2009	110.90	195.10	-84.20
05S06E24G01S	6/2/2009	110.90	189.10	-78.20
05S06E24G01S	10/25/2017	110.90	183.30	-72.40
05S06E24G01S	3/8/2018	110.90	176.20	-65.30
05S06E24G01S	6/20/2018	110.90	182.30	-71.40
05S06E24G01S	11/21/2018	110.90	181.00	-70.10
05S06E24G01S	3/19/2019	110.90	175.80	-64.90
05S06E24G01S	9/10/2019	110.90	180.30	-69.40
05S06E24M01S	10/2/2008	115.30	195.70	-80.40
05S06E24M01S	1/12/2009	115.30	183.60	-68.30
05S06E24M01S	6/3/2009	115.30	189.90	-74.60
05S06E24M01S	10/25/2017	115.30	182.30	-67.00
05S06E24M01S	3/8/2018	115.30	175.50	-60.20
05S06E24M01S	6/20/2018	115.30	180.20	-64.90
05S06E24M01S	11/21/2018	115.30	179.80	-64.50
05S06E24M01S	4/16/2019	115.30	176.70	-61.40
05S06E24M01S	9/11/2019	115.30	177.20	-61.90
05S06E28C02S	12/8/2008	Dry	286.30	Dry
05S06E28C02S	3/11/2009	Dry	281.90	Dry
05S06E28C02S	8/18/2009	Dry	291.00	Dry

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S06E29C01S	12/8/2008	335.60	367.20	-31.60
05S06E29C01S	3/18/2009	335.60	362.10	-26.50
05S06E29C01S	9/16/2009	335.60	370.30	-34.70
05S06E29C01S	10/10/2017	335.60	361.20	-25.60
05S06E29C01S	2/13/2018	335.60	356.60	-21.00
05S06E29C01S	6/6/2018	335.60	363.70	-28.10
05S06E29C01S	11/1/2018	335.60	362.40	-26.80
05S06E29C01S	3/19/2019	335.60	355.90	-20.30
05S06E29C01S	9/4/2019	335.60	363.50	-27.90
05S07E02E01S	10/2/2008	100.80	167.90	-67.10
05S07E02E01S	5/14/2009	100.80	169.60	-68.80
05S07E02E01S	7/18/2018	100.80	188.90	-88.10
05S07E02E01S	10/10/2019	100.80	180.40	-79.60
05S07E03D01S	10/14/2008	62.20	122.30	-60.10
05S07E03D01S	1/13/2009	62.20	119.20	-57.00
05S07E03D01S	4/19/2009	62.20	118.20	-56.00
05S07E03D01S	7/14/2009	62.20	120.50	-58.30
05S07E03D01S	1/10/2018	62.20	119.30	-57.10
05S07E03D01S	3/22/2018	62.20	120.50	-58.30
05S07E03D01S	7/18/2018	62.20	125.90	-63.70
05S07E03D01S	11/28/2018	62.20	127.20	-65.00
05S07E03D01S	4/30/2019	62.20	120.40	-58.20
05S07E03D01S	9/9/2019	62.20	123.10	-60.90
05S07E03D02S	10/14/2008	62.20	121.20	-59.00
05S07E03D02S	1/13/2009	62.20	118.80	-56.60
05S07E03D02S	4/14/2009	62.20	117.50	-55.30
05S07E03D02S	7/14/2009	62.20	119.70	-57.50
05S07E03D02S	1/10/2018	62.20	119.70	-57.50
05S07E03D02S	3/22/2018	62.20	119.60	-57.40
05S07E03D02S	7/18/2018	62.20	125.40	-63.20
05S07E03D02S	11/28/2018	62.20	126.50	-64.30
05S07E03D02S	4/30/2019	62.20	120.60	-58.40
05S07E03D02S	9/9/2019	62.20	122.70	-60.50
05S07E04A01S	1/9/2009	47.90	102.80	-54.90
05S07E04A01S	4/14/2009	47.90	102.30	-54.40
05S07E04A01S	5/9/2009	47.90	101.40	-53.50
05S07E04A01S	7/14/2009	47.90	104.30	-56.40
05S07E04A01S	10/12/2017	47.90	107.60	-59.70
05S07E04A01S	3/22/2018	47.90	104.60	-56.70
05S07E04A01S	7/19/2018	47.90	107.70	-59.80
05S07E04A01S	11/28/2018	47.90	108.20	-60.30
05S07E04A01S	4/30/2019	47.90	104.50	-56.60
05S07E04A01S	9/9/2019	47.90	107.00	-59.10
05S07E04A03S	10/14/2008	54.30	111.50	-57.20
05S07E04A03S	1/13/2009	54.30	108.00	-53.70
05S07E04A03S	4/14/2009	54.30	108.60	-54.30
05S07E04A03S	7/14/2009	54.30	112.80	-58.50
05S07E04A03S	10/12/2017	54.30	114.10	-59.80
05S07E04A03S	3/22/2018	54.30	111.50	-57.20
05S07E04A03S	7/19/2018	54.30	117.50	-63.20
05S07E04A03S	11/28/2018	54.30	117.80	-63.50
05S07E04A03S	4/30/2019	54.30	111.40	-57.10
05S07E04A03S	9/9/2019	54.30	114.80	-60.50
05S07E04A04S	10/14/2008	54.30	108.60	-54.30
05S07E04A04S	1/13/2009	54.30	109.40	-55.10

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05S07E04A04S	4/14/2009	54.30	104.60	-50.30
05S07E04A04S	10/12/2017	54.30	110.70	-56.40
05S07E04A04S	10/12/2017	54.30	110.80	-56.50
05S07E04A04S	3/22/2018	54.30	105.30	-51.00
05S07E04A04S	7/19/2018	54.30	113.90	-59.60
05S07E04A04S	11/28/2018	54.30	114.80	-60.50
05S07E04A04S	4/30/2019	54.30	105.90	-51.60
05S07E04A04S	9/9/2019	54.30	109.90	-55.60
05S07E06B04S	10/1/2008	111.40	185.80	-74.40
05S07E06B04S	1/12/2009	111.40	171.90	-60.50
05S07E06B04S	5/13/2009	111.40	180.70	-69.30
05S07E06B04S	11/6/2017	111.40	160.90	-49.50
05S07E06B04S	3/15/2018	111.40	159.40	-48.00
05S07E06B04S	7/17/2018	111.40	177.80	-66.40
05S07E06B04S	11/27/2018	111.40	163.50	-52.10
05S07E06B04S	4/17/2019	111.40	160.60	-49.20
05S07E06B04S	9/12/2019	111.40	170.30	-58.90
05S07E06J01S	5/13/2009	88.40	175.30	-86.90
05S07E06J01S	11/3/2017	88.40	160.90	-72.50
05S07E06J01S	3/15/2018	88.40	157.60	-69.20
05S07E06J01S	7/17/2018	88.40	169.80	-81.40
05S07E06J01S	11/28/2018	88.40	164.20	-75.80
05S07E06J01S	4/19/2019	88.40	157.80	-69.40
05S07E06J01S	9/11/2019	88.40	165.50	-77.10
05S07E08Q01S	10/8/2008	54.40	124.00	-69.60
05S07E08Q01S	1/8/2009	54.40	123.90	-69.50
05S07E08Q01S	6/4/2009	54.40	126.50	-72.10
05S07E08Q01S	12/8/2017	54.40	128.00	-73.60
05S07E08Q01S	4/12/2018	54.40	126.70	-72.30
05S07E08Q01S	7/20/2018	54.40	127.40	-73.00
05S07E08Q01S	12/12/2018	54.40	133.80	-79.40
05S07E08Q01S	5/2/2019	54.40	132.70	-78.30
05S07E08Q01S	9/11/2019	54.40	127.60	-73.20
05S07E09D01S	10/1/2008	51.50	154.10	-102.60
05S07E09D01S	1/30/2009	51.50	137.50	-86.00
05S07E09D01S	5/14/2009	51.50	148.60	-97.10
05S07E09D01S	11/7/2017	51.50	136.70	-85.20
05S07E09D01S	3/22/2018	51.50	129.50	-78.00
05S07E09D01S	7/19/2018	51.50	148.70	-97.20
05S07E09D01S	11/28/2018	51.50	141.70	-90.20
05S07E09D01S	5/2/2019	51.50	133.10	-81.60
05S07E09D01S	9/9/2019	51.50	141.70	-90.20
05S07E17E03S	10/2/2008	82.30	180.30	-98.00
05S07E17E03S	1/7/2009	82.30	170.20	-87.90
05S07E17E03S	8/17/2009	82.30	183.70	-101.40
05S07E17E03S	11/7/2017	82.30	169.60	-87.30
05S07E17E03S	4/12/2018	82.30	168.30	-86.00
05S07E17E03S	7/20/2018	82.30	182.30	-100.00
05S07E17E03S	12/5/2018	82.30	165.20	-82.90
05S07E17E03S	5/29/2019	82.30	168.00	-85.70
05S07E17E03S	9/11/2019	82.30	183.60	-101.30
05S07E19A01S	10/10/2008	89.60	196.80	-107.20
05S07E19A01S	3/13/2009	89.60	183.70	-94.10
05S07E19A01S	6/3/2009	89.60	197.00	-107.40
05S07E19A01S	11/7/2017	89.60	202.70	-113.10

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05S07E19A01S	3/28/2018	89.60	183.60	-94.00
05S07E19A01S	7/20/2018	89.60	197.90	-108.30
05S07E19A01S	12/5/2018	89.60	198.80	-109.20
05S07E19A01S	5/2/2019	89.60	184.20	-94.60
05S07E19A01S	9/18/2019	89.60	197.10	-107.50
05S07E19D01S	10/10/2008	141.20	222.10	-80.90
05S07E19D01S	3/13/2009	141.20	215.30	-74.10
05S07E19D01S	6/3/2009	141.20	220.70	-79.50
05S07E19D01S	11/6/2017	141.20	211.30	-70.10
05S07E19D01S	3/22/2018	141.20	208.20	-67.00
05S07E19D01S	7/20/2018	141.20	214.40	-73.20
05S07E19D01S	12/5/2018	141.20	207.70	-66.50
05S07E19D01S	3/20/2019	141.20	207.80	-66.60
05S07E19D01S	9/11/2019	141.20	216.50	-75.30
05S07E19D02S	10/10/2008	136.40	220.10	-83.70
05S07E19D02S	3/13/2009	136.40	212.70	-76.30
05S07E19D02S	6/3/2009	136.40	218.00	-81.60
05S07E19D02S	11/6/2017	136.40	214.20	-77.80
05S07E19D02S	3/22/2018	136.40	206.60	-70.20
05S07E19D02S	7/20/2018	136.40	211.50	-75.10
05S07E19D02S	12/5/2018	136.40	210.20	-73.80
05S07E19D02S	3/20/2019	136.40	206.10	-69.70
05S07E19D02S	9/11/2019	136.40	210.70	-74.30
05S07E20A02S	10/10/2008	52.60	173.10	-120.50
05S07E20A02S	1/8/2009	52.60	156.70	-104.10
05S07E20A02S	6/3/2009	52.60	176.50	-123.90
05S07E20A02S	11/6/2017	52.60	157.50	-104.90
05S07E20A02S	3/28/2018	52.60	149.70	-97.10
05S07E20A02S	7/24/2018	52.60	162.10	-109.50
05S07E20A02S	12/5/2018	52.60	152.80	-100.20
05S07E20A02S	5/3/2019	52.60	149.50	-96.90
05S07E20A02S	9/11/2019	52.60	158.60	-106.00
05S07E20C01S	10/2/2008	76.90	195.60	-118.70
05S07E20C01S	4/9/2009	76.90	184.90	-108.00
05S07E20C01S	11/7/2017	76.90	187.80	-110.90
05S07E20C01S	3/28/2018	76.90	179.30	-102.40
05S07E20C01S	7/24/2018	76.90	186.40	-109.50
05S07E20C01S	12/8/2018	76.90	183.20	-106.30
05S07E20C01S	5/2/2019	76.90	179.10	-102.20
05S07E20C01S	9/19/2019	76.90	177.70	-100.80
05S07E20F02S	10/16/2008	81.40	199.70	-118.30
05S07E20F02S	3/13/2009	81.40	189.40	-108.00
05S07E20F02S	9/4/2009	81.40	209.00	-127.60
05S07E20F02S	11/7/2017	81.40	200.20	-118.80
05S07E20F02S	3/28/2018	81.40	184.70	-103.30
05S07E20F02S	7/24/2018	81.40	197.40	-116.00
05S07E20F02S	12/5/2018	81.40	180.10	-98.70
05S07E20F02S	5/2/2019	81.40	183.90	-102.50
05S07E20F02S	9/11/2019	81.40	185.00	-103.60
05S07E20G01S	9/4/2009	74.10	211.80	-137.70
05S07E20G01S	11/7/2017	74.10	193.60	-119.50
05S07E20G01S	3/28/2018	74.10	190.60	-116.50
05S07E20G01S	7/24/2018	74.10	199.70	-125.60
05S07E20G01S	12/5/2018	74.10	189.20	-115.10
05S07E20G01S	5/3/2019	74.10	189.40	-115.30



State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S07E20G01S	10/1/2019	74.10	199.60	-125.50
05S07E20H01S	10/10/2008	48.93	177.10	-128.17
05S07E20H01S	1/8/2009	48.93	162.50	-113.57
05S07E20H01S	6/4/2009	48.93	184.40	-135.47
05S07E20H01S	11/8/2017	48.93	164.30	-115.37
05S07E20H01S	3/28/2018	48.93	155.00	-106.07
05S07E20H01S	7/24/2018	48.93	166.40	-117.47
05S07E20H01S	12/5/2018	48.93	158.40	-109.47
05S07E20H01S	5/3/2019	48.93	153.90	-104.97
05S07E20H01S	9/9/2019	48.93	163.90	-114.97
05S07E20P04S	10/10/2008	61.10	185.90	-124.80
05S07E20P04S	4/9/2009	61.10	175.80	-114.70
05S07E20P04S	6/4/2009	61.10	192.60	-131.50
05S07E20P04S	11/6/2017	61.10	173.30	-112.20
05S07E20P04S	3/28/2018	61.10	163.00	-101.90
05S07E20P04S	7/24/2018	61.10	173.50	-112.40
05S07E20P04S	12/12/2018	61.10	164.20	-103.10
05S07E20P04S	5/3/2019	61.10	163.90	-102.80
05S07E20P04S	9/18/2019	61.10	171.00	-109.90
05S07E27B01S	10/3/2008	16.50	96.20	-79.70
05S07E27B01S	1/7/2009	16.50	98.00	-81.50
05S07E27B01S	6/3/2009	16.50	104.80	-88.30
05S07E27B01S	11/17/2017	16.50	102.10	-85.60
05S07E27B01S	4/11/2018	16.50	101.80	-85.30
05S07E27B01S	8/15/2018	16.50	102.20	-85.70
05S07E27B01S	1/16/2019	16.50	98.70	-82.20
05S07E27B01S	5/14/2019	16.50	102.10	-85.60
05S07E27B01S	9/19/2019	16.50	101.90	-85.40
05S07E27L01S	12/26/2008	20.60	139.60	-119.00
05S07E27L01S	2/5/2009	20.60	142.30	-121.70
05S07E27L01S	6/3/2009	20.60	158.30	-137.70
05S07E27L01S	11/17/2017	20.60	138.10	-117.50
05S07E27L01S	4/11/2018	20.60	135.70	-115.10
05S07E27L01S	8/3/2018	20.60	149.00	-128.40
05S07E27L01S	1/16/2019	20.60	126.70	-106.10
05S07E27L01S	5/14/2019	20.60	138.70	-118.10
05S07E27L01S	9/11/2019	20.60	147.30	-126.70
05S07E28E01S	10/17/2008	46.30	137.60	-91.30
05S07E28E01S	4/9/2009	46.30	136.10	-89.80
05S07E28E01S	6/19/2009	46.30	136.90	-90.60
05S07E28E01S	11/8/2017	46.30	137.40	-91.10
05S07E28E01S	4/3/2018	46.30	136.40	-90.10
05S07E28E01S	7/31/2018	46.30	137.80	-91.50
05S07E28E01S	12/12/2018	46.30	137.60	-91.30
05S07E28E01S	5/3/2019	46.30	136.10	-89.80
05S07E28E01S	9/12/2019	46.30	137.60	-91.30
05S07E28E03S	11/8/2017	46.40	171.70	-125.30
05S07E28E03S	4/3/2018	46.40	169.90	-123.50
05S07E28E03S	7/31/2018	46.40	171.40	-125.00
05S07E28E03S	12/12/2018	46.40	170.80	-124.40
05S07E28E03S	5/3/2019	46.40	169.10	-122.70
05S07E28E03S	9/12/2019	46.40	170.90	-124.50
05S07E30A01S	11/10/2008	76.30	194.60	-118.30
05S07E30A01S	3/31/2009	76.30	191.80	-115.50
05S07E30A01S	6/3/2009	76.30	191.80	-115.50

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S07E30A01S	11/7/2017	76.30	178.30	-102.00
05S07E30A01S	3/22/2018	76.30	171.10	-94.80
05S07E30A01S	7/25/2018	76.30	179.70	-103.40
05S07E30A01S	12/6/2018	76.30	174.20	-97.90
05S07E30A01S	5/3/2019	76.30	172.00	-95.70
05S07E30A01S	9/9/2019	76.30	178.20	-101.90
05S07E30J01S	10/17/2008	69.50	187.10	-117.60
05S07E30J01S	4/9/2009	69.50	177.20	-107.70
05S07E30J01S	6/12/2009	69.50	182.40	-112.90
05S07E30J01S	11/8/2017	69.50	173.80	-104.30
05S07E30J01S	4/3/2018	69.50	167.60	-98.10
05S07E30J01S	7/31/2018	69.50	174.70	-105.20
05S07E30J01S	12/12/2018	69.50	169.80	-100.30
05S07E30J01S	5/3/2019	69.50	168.10	-98.60
05S07E30J01S	9/11/2019	69.50	173.70	-104.20
05S07E31A02S	10/17/2008	59.60	198.70	-139.10
05S07E31A02S	3/13/2009	59.60	192.00	-132.40
05S07E31A02S	6/19/2009	59.60	201.90	-142.30
05S07E31A02S	11/8/2017	59.60	181.10	-121.50
05S07E31A02S	11/8/2017	59.60	182.30	-122.70
05S07E31A02S	4/3/2018	59.60	177.00	-117.40
05S07E31A02S	7/31/2018	59.60	185.40	-125.80
05S07E31A02S	12/17/2018	59.60	172.00	-112.40
05S07E31A02S	5/3/2019	59.60	174.70	-115.10
05S07E31A02S	9/13/2019	59.60	182.80	-123.20
05S07E31P01S	10/3/2008	46.90	142.00	-95.10
05S07E31P01S	1/9/2009	46.90	143.90	-97.00
05S07E31P01S	6/4/2009	46.90	144.80	-97.90
05S07E31P01S	11/9/2017	46.90	147.40	-100.50
05S07E31P01S	4/3/2018	46.90	149.60	-102.70
05S07E31P01S	7/31/2018	46.90	150.30	-103.40
05S07E31P01S	12/17/2018	46.90	146.60	-99.70
05S07E31P01S	5/6/2019	46.90	147.70	-100.80
05S07E31P01S	10/1/2019	46.90	151.50	-104.60
05S07E32B01S	10/2/2008	53.70	190.00	-136.30
05S07E32B01S	2/5/2009	53.70	173.30	-119.60
05S07E32B01S	6/3/2009	53.70	187.50	-133.80
05S07E32B01S	11/8/2017	53.70	176.70	-123.00
05S07E32B01S	4/3/2018	53.70	168.40	-114.70
05S07E32B01S	7/31/2018	53.70	180.80	-127.10
05S07E32B01S	12/17/2018	53.70	167.00	-113.30
05S07E32B01S	5/3/2019	53.70	172.40	-118.70
05S07E32B01S	9/13/2019	53.70	176.30	-122.60
05S07E32H01S	2/5/2009	43.70	169.10	-125.40
05S07E32H01S	6/3/2009	43.70	188.20	-144.50
05S07E32H01S	11/16/2017	43.70	166.90	-123.20
05S07E32H01S	11/16/2017	43.70	167.90	-124.20
05S07E32H01S	4/4/2018	43.70	156.90	-113.20
05S07E32H01S	8/3/2018	43.70	178.40	-134.70
05S07E32H01S	1/15/2019	43.70	156.30	-112.60
05S07E32H01S	5/14/2019	43.70	166.30	-122.60
05S07E32H01S	9/19/2019	43.70	169.00	-125.30
05S07E35F04S	10/3/2008	0.30	150.90	-150.60
05S07E35F04S	2/5/2009	0.30	129.80	-129.50
05S07E35F04S	9/29/2009	0.30	147.00	-146.70

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S07E35F04S	11/21/2017	0.30	120.80	-120.50
05S07E35F04S	4/12/2018	0.30	128.50	-128.20
05S07E35F04S	8/3/2018	0.30	143.20	-142.90
05S07E35F04S	1/16/2019	0.30	120.60	-120.30
05S07E35F04S	5/24/2019	0.30	129.10	-128.80
05S07E35F04S	9/11/2019	0.30	131.10	-130.80
05S08E28M01S	10/3/2008	-18.60	97.90	-116.50
05S08E28M01S	1/20/2009	-18.60	84.80	-103.40
05S08E28M01S	6/3/2009	-18.60	96.30	-114.90
05S08E28M01S	11/17/2017	-18.60	74.60	-93.20
05S08E28M01S	4/11/2018	-18.60	71.00	-89.60
05S08E28M01S	8/3/2018	-18.60	78.20	-96.80
05S08E28M01S	1/16/2019	-18.60	69.30	-87.90
05S08E28M01S	5/20/2019	-18.60	71.90	-90.50
05S08E28M01S	9/19/2019	-18.60	76.40	-95.00
05S08E28M02S	10/3/2008	-40.50	41.30	-81.80
05S08E28M02S	1/20/2009	-40.50	41.40	-81.90
05S08E28M02S	6/3/2009	-40.50	43.50	-84.00
05S08E28M02S	11/17/2017	-40.50	43.70	-84.20
05S08E28M02S	4/11/2018	-40.50	43.20	-83.70
05S08E28M02S	8/3/2018	-40.50	44.30	-84.80
05S08E28M02S	1/16/2019	-40.50	44.00	-84.50
05S08E28M02S	5/14/2019	-40.50	43.50	-84.00
05S08E28M02S	9/19/2019	-40.50	44.60	-85.10
05S08E29G01S	10/3/2008	-26.80	49.80	-76.60
05S08E29G01S	1/22/2009	-26.80	49.80	-76.60
05S08E29G01S	7/7/2009	-26.80	51.50	-78.30
05S08E29G01S	11/17/2017	-26.80	53.70	-80.50
05S08E29G01S	8/16/2018	-26.80	55.10	-81.90
05S08E29G01S	1/16/2019	-26.80	54.10	-80.90
05S08E29G01S	5/10/2019	-26.80	53.20	-80.00
05S08E29G01S	9/19/2019	-26.80	53.60	-80.40
06S06E01Q01S	10/3/2008	53.30	193.30	-140.00
06S06E01Q01S	2/5/2009	53.30	187.00	-133.70
06S06E01Q01S	6/4/2009	53.30	186.50	-133.20
06S06E01Q01S	11/9/2017	53.30	171.90	-118.60
06S06E01Q01S	4/3/2018	53.30	169.70	-116.40
06S06E01Q01S	7/31/2018	53.30	172.50	-119.20
06S06E01Q01S	12/17/2018	53.30	168.40	-115.10
06S06E01Q01S	5/6/2019	53.30	167.40	-114.10
06S06E01Q01S	9/13/2019	53.30	178.60	-125.30
06S06E12G01S	11/9/2017	91.20	209.20	-118.00
06S06E12G01S	4/3/2018	91.20	206.00	-114.80
06S06E12G01S	7/31/2018	91.20	209.30	-118.10
06S06E12G01S	12/6/2018	91.20	209.60	-118.40
06S06E12G01S	5/6/2019	91.20	204.80	-113.60
06S06E12G01S	9/13/2019	91.20	208.70	-117.50
06S07E02D02S	10/3/2008	-1.20	124.40	-125.60
06S07E02D02S	1/9/2009	-1.20	101.50	-102.70
06S07E02D02S	6/30/2009	-1.20	120.50	-121.70
06S07E02D02S	11/16/2017	-1.20	79.30	-80.50
06S07E02D02S	4/13/2018	-1.20	79.50	-80.70
06S07E02D02S	8/3/2018	-1.20	79.70	-80.90
06S07E02D02S	1/15/2019	-1.20	79.40	-80.60
06S07E02D02S	5/10/2019	-1.20	79.50	-80.70

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
06S07E02D02S	9/19/2019	-1.20	79.70	-80.90
06S07E04H01S	10/3/2008	-22.60	162.40	-185.00
06S07E04H01S	1/9/2009	-22.60	141.70	-164.30
06S07E04H01S	6/30/2009	-22.60	160.20	-182.80
06S07E04H01S	10/26/2017	-22.60	128.30	-150.90
06S07E04H01S	12/1/2017	-22.60	123.20	-145.80
06S07E04H01S	1/5/2018	-22.60	122.20	-144.80
06S07E04H01S	1/31/2018	-22.60	119.10	-141.70
06S07E04H01S	2/26/2018	-22.60	115.50	-138.10
06S07E04H01S	3/29/2018	-22.60	115.60	-138.20
06S07E04H01S	4/27/2018	-22.60	115.80	-138.40
06S07E04H01S	5/24/2018	-22.60	120.30	-142.90
06S07E04H01S	6/26/2018	-22.60	123.20	-145.80
06S07E04H01S	7/26/2018	-22.60	128.30	-150.90
06S07E04H01S	8/30/2018	-22.60	130.30	-152.90
06S07E04H01S	9/27/2018	-22.60	124.40	-147.00
06S07E04H01S	10/26/2018	-22.60	126.00	-148.60
06S07E04H01S	11/29/2018	-22.60	120.00	-142.60
06S07E04H01S	12/27/2018	-22.60	115.60	-138.20
06S07E04H01S	1/24/2019	-22.60	113.50	-136.10
06S07E04H01S	2/27/2019	-22.60	113.10	-135.70
06S07E04H01S	3/29/2019	-22.60	114.20	-136.80
06S07E04H01S	4/25/2019	-22.60	116.10	-138.70
06S07E04H01S	5/30/2019	-22.60	119.50	-142.10
06S07E04H01S	6/19/2019	-22.60	119.40	-142.00
06S07E04H01S	9/25/2019	-22.60	124.90	-147.50
06S07E04N01S	10/8/2008	36.60	192.00	-155.40
06S07E04N01S	2/5/2009	36.60	168.10	-131.50
06S07E04N01S	9/11/2009	36.60	178.10	-141.50
06S07E04N01S	11/14/2017	36.60	160.90	-124.30
06S07E04N01S	4/5/2018	36.60	149.40	-112.80
06S07E04N01S	7/31/2018	36.60	167.30	-130.70
06S07E04N01S	12/17/2018	36.60	153.30	-116.70
06S07E04N01S	5/7/2019	36.60	158.60	-122.00
06S07E04N01S	9/19/2019	36.60	158.40	-121.80
06S07E05H01S	10/3/2008	33.40	172.30	-138.90
06S07E05H01S	1/9/2009	33.40	158.50	-125.10
06S07E05H01S	9/10/2009	33.40	174.80	-141.40
06S07E05H01S	11/17/2017	33.40	151.70	-118.30
06S07E05H01S	4/4/2018	33.40	147.70	-114.30
06S07E05H01S	8/2/2018	33.40	157.00	-123.60
06S07E05H01S	1/14/2019	33.40	140.60	-107.20
06S07E05H01S	5/6/2019	33.40	150.30	-116.90
06S07E05H01S	9/19/2019	33.40	152.70	-119.30
06S07E06B01S	10/8/2008	40.30	176.50	-136.20
06S07E06B01S	2/5/2009	40.30	170.40	-130.10
06S07E06B01S	6/4/2009	40.30	173.50	-133.20
06S07E06B01S	11/9/2017	40.30	157.20	-116.90
06S07E06B01S	4/3/2018	40.30	153.70	-113.40
06S07E06B01S	7/31/2018	40.30	159.30	-119.00
06S07E06B01S	12/17/2018	40.30	155.10	-114.80
06S07E06B01S	5/6/2019	40.30	153.30	-113.00
06S07E06B01S	9/18/2019	40.30	157.70	-117.40
06S07E06J01S	10/8/2008	39.30	174.20	-134.90
06S07E06J01S	1/9/2009	39.30	169.30	-130.00

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
06S07E06J01S	6/4/2009	39.30	171.40	-132.10
06S07E06J01S	11/9/2017	39.30	157.50	-118.20
06S07E06J01S	4/3/2018	39.30	151.70	-112.40
06S07E06J01S	7/31/2018	39.30	156.80	-117.50
06S07E06J01S	12/17/2018	39.30	153.60	-114.30
06S07E06J01S	5/6/2019	39.30	151.70	-112.40
06S07E06J01S	9/18/2019	39.30	155.20	-115.90
06S07E10A02S	10/3/2008	-14.20	145.10	-159.30
06S07E10A02S	1/22/2009	-14.20	128.50	-142.70
06S07E10A02S	7/7/2009	-14.20	142.10	-156.30
06S07E10A02S	12/7/2017	-14.20	119.70	-133.90
06S07E10A02S	12/7/2017	-14.20	120.30	-134.50
06S07E10A02S	4/6/2018	-14.20	108.00	-122.20
06S07E10A02S	8/3/2018	-14.20	123.80	-138.00
06S07E10A02S	1/15/2019	-14.20	102.80	-117.00
06S07E10A02S	5/10/2019	-14.20	111.70	-125.90
06S07E10A02S	9/25/2019	-14.20	120.10	-134.30
06S07E13M02S	10/3/2008	-57.50	25.80	-83.30
06S07E13M02S	1/9/2009	-57.50	27.10	-84.60
06S07E13M02S	7/7/2009	-57.50	28.50	-86.00
06S07E13M02S	11/16/2017	-57.50	30.80	-88.30
06S07E13M02S	4/5/2018	-57.50	30.10	-87.60
06S07E13M02S	8/3/2018	-57.50	29.80	-87.30
06S07E13M02S	12/6/2018	-57.50	30.10	-87.60
06S07E13M02S	5/9/2019	-57.50	29.90	-87.40
06S07E13M02S	9/23/2019	-57.50	30.20	-87.70
06S07E13M04S	10/3/2008	-61.10	100.10	-161.20
06S07E13M04S	1/23/2009	-61.10	83.10	-144.20
06S07E13M04S	7/7/2009	-61.10	101.90	-163.00
06S07E13M04S	11/16/2017	-61.10	67.60	-128.70
06S07E13M04S	4/5/2018	-61.10	63.70	-124.80
06S07E13M04S	8/3/2018	-61.10	71.30	-132.40
06S07E13M04S	1/15/2019	-61.10	56.30	-117.40
06S07E13M04S	5/9/2019	-61.10	63.40	-124.50
06S07E13M04S	9/23/2019	-61.10	71.00	-132.10
06S07E13M05S	6/19/2019	-58.50	30.10	-88.60
06S07E13M05S	10/1/2019	-58.50	28.90	-87.40
06S07E16A02S	10/8/2008	-5.50	154.80	-160.30
06S07E16A02S	2/5/2009	-5.50	138.00	-143.50
06S07E16A02S	6/30/2009	-5.50	162.00	-167.50
06S07E16A02S	11/14/2017	-5.50	120.10	-125.60
06S07E16A02S	4/5/2018	-5.50	117.20	-122.70
06S07E16A02S	8/2/2018	-5.50	119.00	-124.50
06S07E16A02S	1/14/2019	-5.50	109.40	-114.90
06S07E16A02S	5/8/2019	-5.50	117.40	-122.90
06S07E16A02S	9/24/2019	-5.50	118.70	-124.20
06S07E16D02S	10/8/2008	1.00	152.30	-151.30
06S07E16D02S	2/5/2009	1.00	140.40	-139.40
06S07E16D02S	6/30/2009	1.00	150.70	-149.70
06S07E16D02S	11/14/2017	1.00	112.50	-111.50
06S07E16D02S	4/4/2018	1.00	108.70	-107.70
06S07E16D02S	8/2/2018	1.00	117.30	-116.30
06S07E16D02S	12/6/2018	1.00	109.90	-108.90
06S07E16D02S	5/7/2019	1.00	108.40	-107.40
06S07E16D02S	9/19/2019	1.00	113.10	-112.10

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
06S07E16R02S	10/8/2008	-17.80	153.70	-171.50
06S07E16R02S	4/10/2009	-17.80	139.20	-157.00
06S07E16R02S	6/30/2009	-17.80	157.40	-175.20
06S07E16R02S	11/14/2017	-17.80	101.20	-119.00
06S07E16R02S	4/5/2018	-17.80	99.70	-117.50
06S07E16R02S	8/2/2018	-17.80	111.50	-129.30
06S07E16R02S	1/14/2019	-17.80	89.30	-107.10
06S07E16R02S	5/8/2019	-17.80	99.30	-117.10
06S07E16R02S	9/24/2019	-17.80	103.60	-121.40
06S07E22B02S	10/9/2008	-64.00	121.20	-185.20
06S07E22B02S	1/23/2009	-64.00	110.10	-174.10
06S07E22B02S	7/7/2009	-64.00	121.00	-185.00
06S07E22B02S	11/15/2017	-64.00	94.60	-158.60
06S07E22B02S	4/5/2018	-64.00	78.20	-142.20
06S07E22B02S	8/2/2018	-64.00	98.10	-162.10
06S07E22B02S	1/15/2019	-64.00	75.70	-139.70
06S07E22B02S	5/8/2019	-64.00	89.10	-153.10
06S07E22B02S	9/23/2019	-64.00	88.70	-152.70
06S07E23F01S	1/2/2009	-54.90	90.00	-144.90
06S07E23F01S	5/1/2009	-54.90	100.70	-155.60
06S07E23F01S	9/30/2009	-54.90	101.20	-156.10
06S07E23F01S	11/16/2017	-54.90	68.10	-123.00
06S07E23F01S	4/6/2018	-54.90	66.60	-121.50
06S07E23F01S	8/2/2018	-54.90	70.30	-125.20
06S07E23F01S	12/11/2018	-54.90	62.50	-117.40
06S07E23F01S	5/9/2019	-54.90	66.30	-121.20
06S07E23F01S	9/23/2019	-54.90	70.70	-125.60
06S07E25L01S	6/16/2019	-85.40	10.90	-96.30
06S07E25L01S	10/1/2019	-85.40	11.70	-97.10
06S07E26Q01S	10/10/2008	-83.80	78.00	-161.80
06S07E26Q01S	1/27/2009	-83.80	70.00	-153.80
06S07E26Q01S	7/8/2009	-83.80	83.40	-167.20
06S07E26Q01S	11/16/2017	-83.80	33.20	-117.00
06S07E26Q01S	4/5/2018	-83.80	32.80	-116.60
06S07E26Q01S	8/2/2018	-83.80	42.60	-126.40
06S07E26Q01S	12/6/2018	-83.80	32.20	-116.00
06S07E26Q01S	5/8/2019	-83.80	31.40	-115.20
06S07E26Q01S	9/24/2019	-83.80	34.80	-118.60
06S07E27J03S	6/19/2019	-63.00	28.50	-91.50
06S07E27J03S	10/1/2019	-63.00	28.30	-91.30
06S07E29B01S	10/9/2008	23.60	192.90	-169.30
06S07E29B01S	1/27/2009	23.60	192.10	-168.50
06S07E29B01S	7/9/2009	23.60	194.50	-170.90
06S07E29B01S	12/7/2017	23.60	118.30	-94.70
06S07E29B01S	4/27/2018	23.60	117.60	-94.00
06S07E29B01S	8/2/2018	23.60	122.80	-99.20
06S07E29B01S	12/6/2018	23.60	117.00	-93.40
06S07E29B01S	5/24/2019	23.60	117.40	-93.80
06S07E29B01S	9/23/2019	23.60	119.40	-95.80
06S07E33G01S	1/7/2009	39.90	167.40	-127.50
06S07E33G01S	1/14/2009	39.90	166.30	-126.40
06S07E33G01S	10/26/2017	39.90	104.70	-64.80
06S07E33G01S	12/1/2017	39.90	109.10	-69.20
06S07E33G01S	1/5/2018	39.90	118.30	-78.40
06S07E33G01S	1/31/2018	39.90	128.60	-88.70

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
06S07E33G01S	2/26/2018	39.90	118.00	-78.10
06S07E33G01S	3/29/2018	39.90	111.40	-71.50
06S07E33G01S	4/27/2018	39.90	112.60	-72.70
06S07E33G01S	5/24/2018	39.90	112.30	-72.40
06S07E33G01S	6/26/2018	39.90	118.40	-78.50
06S07E33G01S	7/26/2018	39.90	119.10	-79.20
06S07E33G01S	8/30/2018	39.90	117.00	-77.10
06S07E33G01S	9/27/2018	39.90	112.30	-72.40
06S07E33G01S	10/26/2018	39.90	111.10	-71.20
06S07E33G01S	11/29/2018	39.90	113.10	-73.20
06S07E33G01S	12/27/2018	39.90	112.00	-72.10
06S07E33G01S	1/24/2019	39.90	106.10	-66.20
06S07E33G01S	2/27/2019	39.90	109.20	-69.30
06S07E33G01S	3/29/2019	39.90	106.70	-66.80
06S07E33G01S	4/25/2019	39.90	106.20	-66.30
06S07E33G01S	5/30/2019	39.90	110.70	-70.80
06S07E33G01S	9/24/2019	39.90	108.20	-68.30
06S07E33G02S	10/26/2017	39.90	102.50	-62.60
06S07E33G02S	12/1/2017	39.90	108.00	-68.10
06S07E33G02S	1/5/2018	39.90	115.80	-75.90
06S07E33G02S	1/31/2018	39.90	128.30	-88.40
06S07E33G02S	2/26/2018	39.90	116.70	-76.80
06S07E33G02S	3/29/2018	39.90	109.30	-69.40
06S07E33G02S	4/28/2018	39.90	110.80	-70.90
06S07E33G02S	5/24/2018	39.90	110.60	-70.70
06S07E33G02S	6/26/2018	39.90	117.30	-77.40
06S07E33G02S	7/26/2018	39.90	118.10	-78.20
06S07E33G02S	8/30/2018	39.90	115.20	-75.30
06S07E33G02S	9/27/2018	39.90	109.80	-69.90
06S07E33G02S	10/26/2018	39.90	108.70	-68.80
06S07E33G02S	11/29/2018	39.90	112.00	-72.10
06S07E33G02S	12/27/2018	39.90	110.80	-70.90
06S07E33G02S	1/24/2019	39.90	104.10	-64.20
06S07E33G02S	2/27/2019	39.90	107.80	-67.90
06S07E33G02S	3/29/2019	39.90	104.90	-65.00
06S07E33G02S	4/25/2019	39.90	103.90	-64.00
06S07E33G02S	5/30/2019	39.90	109.30	-69.40
06S07E33G02S	9/24/2019	39.90	105.90	-66.00
06S07E33J01S	1/7/2009	39.10	168.80	-129.70
06S07E33J01S	10/26/2017	39.10	107.60	-68.50
06S07E33J01S	12/1/2017	39.10	108.30	-69.20
06S07E33J01S	1/5/2018	39.10	120.20	-81.10
06S07E33J01S	1/31/2018	39.10	127.50	-88.40
06S07E33J01S	2/26/2018	39.10	117.20	-78.10
06S07E33J01S	3/29/2018	39.10	113.50	-74.40
06S07E33J01S	4/27/2018	39.10	114.30	-75.20
06S07E33J01S	5/24/2018	39.10	114.00	-74.90
06S07E33J01S	6/26/2018	39.10	117.80	-78.70
06S07E33J01S	7/26/2018	39.10	118.30	-79.20
06S07E33J01S	8/31/2018	39.10	115.40	-76.30
06S07E33J01S	9/27/2018	39.10	114.00	-74.90
06S07E33J01S	10/26/2018	39.10	113.80	-74.70
06S07E33J01S	11/29/2018	39.10	112.00	-72.90
06S07E33J01S	12/27/2018	39.10	111.50	-72.40
06S07E33J01S	1/24/2019	39.10	108.50	-69.40



State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
06S07E33J01S	2/27/2019	39.10	111.90	-72.80
06S07E33J01S	3/29/2019	39.10	107.10	-68.00
06S07E33J01S	4/25/2019	39.10	106.50	-67.40
06S07E33J01S	5/30/2019	39.10	109.20	-70.10
06S07E33J01S	9/24/2019	39.10	110.30	-71.20
06S07E33J02S	10/26/2017	39.10	102.50	-63.40
06S07E33J02S	12/1/2017	39.10	107.00	-67.90
06S07E33J02S	1/5/2018	39.10	120.00	-80.90
06S07E33J02S	1/31/2018	39.10	127.30	-88.20
06S07E33J02S	2/26/2018	39.10	116.20	-77.10
06S07E33J02S	3/29/2018	39.10	112.40	-73.30
06S07E33J02S	4/27/2018	39.10	113.10	-74.00
06S07E33J02S	5/24/2018	39.10	112.90	-73.80
06S07E33J02S	6/26/2018	39.10	116.80	-77.70
06S07E33J02S	7/26/2018	39.10	117.40	-78.30
06S07E33J02S	8/30/2018	39.10	114.50	-75.40
06S07E33J02S	9/27/2018	39.10	113.00	-73.90
06S07E33J02S	10/26/2018	39.10	112.70	-73.60
06S07E33J02S	11/29/2018	39.10	110.70	-71.60
06S07E33J02S	12/27/2018	39.10	110.70	-71.60
06S07E33J02S	1/24/2019	39.10	107.50	-68.40
06S07E33J02S	2/27/2019	39.10	111.20	-72.10
06S07E33J02S	3/29/2019	39.10	109.90	-70.80
06S07E33J02S	4/25/2019	39.10	105.20	-66.10
06S07E33J02S	5/30/2019	39.10	108.50	-69.40
06S07E33J02S	9/24/2019	39.10	109.10	-70.00
06S07E34A01S	10/30/2008	-77.50	96.00	-173.50
06S07E34A01S	1/27/2009	-77.50	92.10	-169.60
06S07E34A01S	7/9/2009	-77.50	92.60	-170.10
06S07E34A01S	10/26/2017	-77.50	6.40	-83.90
06S07E34A01S	12/1/2017	-77.50	5.80	-83.30
06S07E34A01S	1/5/2018	-77.50	12.00	-89.50
06S07E34A01S	1/31/2018	-77.50	16.00	-93.50
06S07E34A01S	2/26/2018	-77.50	13.50	-91.00
06S07E34A01S	3/29/2018	-77.50	12.60	-90.10
06S07E34A01S	4/27/2018	-77.50	12.30	-89.80
06S07E34A01S	5/24/2018	-77.50	11.70	-89.20
06S07E34A01S	6/26/2018	-77.50	12.80	-90.30
06S07E34A01S	7/26/2018	-77.50	12.90	-90.40
06S07E34A01S	8/30/2018	-77.50	12.00	-89.50
06S07E34A01S	9/27/2018	-77.50	11.00	-88.50
06S07E34A01S	10/26/2018	-77.50	11.80	-89.30
06S07E34A01S	11/29/2018	-77.50	10.50	-88.00
06S07E34A01S	12/27/2018	-77.50	8.10	-85.60
06S07E34A01S	1/24/2019	-77.50	6.70	-84.20
06S07E34A01S	2/27/2019	-77.50	7.60	-85.10
06S07E34A01S	3/29/2019	-77.50	6.20	-83.70
06S07E34A01S	4/25/2019	-77.50	6.30	-83.80
06S07E34A01S	5/30/2019	-77.50	6.70	-84.20
06S07E34A01S	9/24/2019	-77.50	8.60	-86.10
06S07E34A02S	7/30/2009	-76.30	37.40	-113.70
06S07E34A02S	8/6/2009	-76.30	37.70	-114.00
06S07E34A02S	8/13/2009	-76.30	37.90	-114.20
06S07E34A02S	8/20/2009	-76.30	37.60	-113.90
06S07E34A02S	8/27/2009	-76.30	37.60	-113.90

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
06S07E34A02S	9/3/2009	-76.30	37.80	-114.10
06S07E34A02S	9/10/2009	-76.30	37.40	-113.70
06S07E34A02S	10/26/2017	-76.30	23.60	-99.90
06S07E34A02S	12/1/2017	-76.30	23.40	-99.70
06S07E34A02S	1/5/2018	-76.30	23.20	-99.50
06S07E34A02S	1/31/2018	-76.30	23.00	-99.30
06S07E34A02S	2/26/2018	-76.30	22.80	-99.10
06S07E34A02S	3/29/2018	-76.30	22.80	-99.10
06S07E34A02S	4/27/2018	-76.30	22.80	-99.10
06S07E34A02S	5/24/2018	-76.30	23.00	-99.30
06S07E34A02S	6/21/2018	-76.30	22.60	-98.90
06S07E34A02S	7/26/2018	-76.30	22.80	-99.10
06S07E34A02S	8/30/2018	-76.30	22.90	-99.20
06S07E34A02S	9/27/2018	-76.30	22.40	-98.70
06S07E34A02S	10/26/2018	-76.30	22.70	-99.00
06S07E34A02S	11/29/2018	-76.30	22.60	-98.90
06S07E34A02S	12/27/2018	-76.30	22.40	-98.70
06S07E34A02S	1/24/2019	-76.30	22.30	-98.60
06S07E34A02S	2/27/2019	-76.30	22.10	-98.40
06S07E34A02S	3/29/2019	-76.30	22.00	-98.30
06S07E34A02S	4/25/2019	-76.30	21.90	-98.20
06S07E34A02S	5/30/2019	-76.30	21.40	-97.70
06S07E34A02S	9/24/2019	-76.30	21.70	-98.00
06S07E34A03S	6/19/2019	-76.30	17.40	-93.70
06S07E34A03S	9/24/2019	-76.30	17.30	-93.60
06S07E34D01S	10/30/2008	-15.50	157.90	-173.40
06S07E34D01S	1/27/2009	-15.50	154.40	-169.90
06S07E34D01S	6/19/2009	-15.50	155.20	-170.70
06S07E34D01S	10/26/2017	-15.50	58.60	-74.10
06S07E34D01S	12/1/2017	-15.50	59.90	-75.40
06S07E34D01S	1/5/2018	-15.50	69.20	-84.70
06S07E34D01S	1/31/2018	-15.50	74.70	-90.20
06S07E34D01S	2/26/2018	-15.50	69.20	-84.70
06S07E34D01S	3/29/2018	-15.50	65.90	-81.40
06S07E34D01S	4/27/2018	-15.50	65.10	-80.60
06S07E34D01S	5/24/2018	-15.50	64.70	-80.20
06S07E34D01S	6/26/2018	-15.50	67.80	-83.30
06S07E34D01S	7/26/2018	-15.50	68.10	-83.60
06S07E34D01S	8/30/2018	-15.50	67.20	-82.70
06S07E34D01S	9/27/2018	-15.50	65.00	-80.50
06S07E34D01S	10/26/2018	-15.50	65.40	-80.90
06S07E34D01S	11/29/2018	-15.50	63.90	-79.40
06S07E34D01S	12/27/2018	-15.50	62.80	-78.30
06S07E34D01S	1/24/2019	-15.50	59.80	-75.30
06S07E34D01S	2/27/2019	-15.50	61.20	-76.70
06S07E34D01S	3/29/2019	-15.50	59.20	-74.70
06S07E34D01S	4/25/2019	-15.50	59.00	-74.50
06S07E34D01S	5/30/2019	-15.50	60.80	-76.30
06S07E34D01S	9/24/2019	-15.50	63.80	-79.30
06S07E34D02S	7/30/2009	-14.30	150.00	-164.30
06S07E34D02S	8/6/2009	-14.30	148.80	-163.10
06S07E34D02S	8/13/2009	-14.30	149.60	-163.90
06S07E34D02S	8/20/2009	-14.30	150.50	-164.80
06S07E34D02S	8/27/2009	-14.30	148.70	-163.00
06S07E34D02S	9/3/2009	-14.30	148.50	-162.80

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
06S07E34D02S	9/10/2009	-14.30	147.40	-161.70
06S07E34D02S	9/17/2009	-14.30	144.60	-158.90
06S07E34D02S	10/26/2017	-14.30	58.70	-73.00
06S07E34D02S	12/1/2017	-14.30	59.90	-74.20
06S07E34D02S	1/5/2018	-14.30	67.30	-81.60
06S07E34D02S	1/31/2018	-14.30	70.60	-84.90
06S07E34D02S	2/26/2018	-14.30	70.00	-84.30
06S07E34D02S	3/29/2018	-14.30	66.00	-80.30
06S07E34D02S	4/27/2018	-14.30	65.30	-79.60
06S07E34D02S	5/24/2018	-14.30	63.30	-77.60
06S07E34D02S	6/26/2018	-14.30	68.40	-82.70
06S07E34D02S	7/26/2018	-14.30	69.20	-83.50
06S07E34D02S	8/30/2018	-14.30	67.60	-81.90
06S07E34D02S	9/27/2018	-14.30	65.40	-79.70
06S07E34D02S	10/26/2018	-14.30	65.30	-79.60
06S07E34D02S	11/29/2018	-14.30	64.30	-78.60
06S07E34D02S	12/27/2018	-14.30	63.50	-77.80
06S07E34D02S	1/24/2019	-14.30	60.20	-74.50
06S07E34D02S	2/27/2019	-14.30	61.50	-75.80
06S07E34D02S	3/29/2019	-14.30	59.50	-73.80
06S07E34D02S	4/25/2019	-14.30	59.40	-73.70
06S07E34D02S	5/30/2019	-14.30	61.30	-75.60
06S07E34D02S	9/24/2019	-14.30	62.10	-76.40
06S07E34N01S	10/2/2008	-5.90	166.90	-172.80
06S07E34N01S	10/9/2008	-5.90	167.40	-173.30
06S07E34N01S	10/16/2008	-5.90	167.60	-173.50
06S07E34N01S	10/23/2008	-5.90	167.70	-173.60
06S07E34N01S	10/30/2008	-5.90	167.40	-173.30
06S07E34N01S	11/6/2008	-5.90	167.90	-173.80
06S07E34N01S	11/13/2008	-5.90	168.00	-173.90
06S07E34N01S	11/21/2008	-5.90	167.70	-173.60
06S07E34N01S	11/25/2008	-5.90	167.50	-173.40
06S07E34N01S	12/4/2008	-5.90	167.20	-173.10
06S07E34N01S	12/9/2008	-5.90	166.70	-172.60
06S07E34N01S	12/11/2008	-5.90	166.90	-172.80
06S07E34N01S	12/18/2008	-5.90	167.50	-173.40
06S07E34N01S	12/23/2008	-5.90	166.40	-172.30
06S07E34N01S	12/30/2008	-5.90	167.10	-173.00
06S07E34N01S	1/8/2009	-5.90	166.30	-172.20
06S07E34N01S	1/15/2009	-5.90	166.30	-172.20
06S07E34N01S	1/22/2009	-5.90	165.00	-170.90
06S07E34N01S	1/29/2009	-5.90	164.50	-170.40
06S07E34N01S	2/5/2009	-5.90	165.20	-171.10
06S07E34N01S	2/10/2009	-5.90	164.40	-170.30
06S07E34N01S	2/19/2009	-5.90	163.50	-169.40
06S07E34N01S	2/26/2009	-5.90	164.00	-169.90
06S07E34N01S	3/5/2009	-5.90	164.30	-170.20
06S07E34N01S	3/12/2009	-5.90	164.30	-170.20
06S07E34N01S	3/20/2009	-5.90	164.50	-170.40
06S07E34N01S	3/26/2009	-5.90	163.70	-169.60
06S07E34N01S	4/2/2009	-5.90	163.20	-169.10
06S07E34N01S	4/9/2009	-5.90	163.40	-169.30
06S07E34N01S	4/16/2009	-5.90	164.20	-170.10
06S07E34N01S	5/7/2009	-5.90	165.30	-171.20
06S07E34N01S	5/14/2009	-5.90	166.20	-172.10

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
06S07E34N01S	5/21/2009	-5.90	166.60	-172.50
06S07E34N01S	5/28/2009	-5.90	167.00	-172.90
06S07E34N01S	6/3/2009	-5.90	167.30	-173.20
06S07E34N01S	6/11/2009	-5.90	167.70	-173.60
06S07E34N01S	6/18/2009	-5.90	166.80	-172.70
06S07E34N01S	7/1/2009	-5.90	163.90	-169.80
06S07E34N01S	7/9/2009	-5.90	161.20	-167.10
06S07E34N01S	7/16/2009	-5.90	160.90	-166.80
06S07E34N01S	7/30/2009	-5.90	158.40	-164.30
06S07E34N01S	8/6/2009	-5.90	159.50	-165.40
06S07E34N01S	8/13/2009	-5.90	160.30	-166.20
06S07E34N01S	8/20/2009	-5.90	160.80	-166.70
06S07E34N01S	9/3/2009	-5.90	159.40	-165.30
06S07E34N01S	9/10/2009	-5.90	158.80	-164.70
06S07E34N01S	9/19/2009	-5.90	158.00	-163.90
06S07E34N01S	9/23/2009	-5.90	156.40	-162.30
06S07E34N01S	10/26/2017	-5.90	69.30	-75.20
06S07E34N01S	12/1/2017	-5.90	65.60	-71.50
06S07E34N01S	1/5/2018	-5.90	77.10	-83.00
06S07E34N01S	1/31/2018	-5.90	81.50	-87.40
06S07E34N01S	2/26/2018	-5.90	79.60	-85.50
06S07E34N01S	3/29/2018	-5.90	75.70	-81.60
06S07E34N01S	4/27/2018	-5.90	72.80	-78.70
06S07E34N01S	5/24/2018	-5.90	70.90	-76.80
06S07E34N01S	6/26/2018	-5.90	74.00	-79.90
06S07E34N01S	7/26/2018	-5.90	72.10	-78.00
06S07E34N01S	8/30/2018	-5.90	71.20	-77.10
06S07E34N01S	9/27/2018	-5.90	72.90	-78.80
06S07E34N01S	10/26/2018	-5.90	72.30	-78.20
06S07E34N01S	10/26/2018	-5.90	75.30	-81.20
06S07E34N01S	11/29/2018	-5.90	73.20	-79.10
06S07E34N01S	12/27/2018	-5.90	69.10	-75.00
06S07E34N01S	1/24/2019	-5.90	69.80	-75.70
06S07E34N01S	2/27/2019	-5.90	71.80	-77.70
06S07E34N01S	3/29/2019	-5.90	69.50	-75.40
06S07E34N01S	4/25/2019	-5.90	69.70	-75.60
06S07E34N01S	10/1/2019	-5.90	69.20	-75.10
06S07E34N02S	8/13/2009	13.20	180.10	-166.90
06S07E34N02S	8/20/2009	13.20	180.30	-167.10
06S07E34N02S	8/27/2009	13.20	180.20	-167.00
06S07E34N02S	9/3/2009	13.20	179.80	-166.60
06S07E34N02S	9/10/2009	13.20	179.70	-166.50
06S07E34N02S	9/17/2009	13.20	178.10	-164.90
06S07E34N02S	10/26/2017	13.20	92.30	-79.10
06S07E34N02S	12/1/2017	13.20	89.30	-76.10
06S07E34N02S	1/5/2018	13.20	98.20	-85.00
06S07E34N02S	1/31/2018	13.20	102.40	-89.20
06S07E34N02S	2/26/2018	13.20	99.10	-85.90
06S07E34N02S	3/29/2018	13.20	97.60	-84.40
06S07E34N02S	4/27/2018	13.20	98.40	-85.20
06S07E34N02S	5/24/2018	13.20	96.40	-83.20
06S07E34N02S	6/26/2018	13.20	100.10	-86.90
06S07E34N02S	7/26/2018	13.20	94.10	-80.90
06S07E34N02S	8/30/2018	13.20	93.80	-80.60
06S07E34N02S	9/27/2018	13.20	106.00	-92.80

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
06S07E34N02S	10/26/2018	13.20	97.70	-84.50
06S07E34N02S	11/29/2018	13.20	95.00	-81.80
06S07E34N02S	12/27/2018	13.20	92.00	-78.80
06S07E34N02S	1/24/2019	13.20	92.00	-78.80
06S07E34N02S	2/27/2019	13.20	93.80	-80.60
06S07E34N02S	3/29/2019	13.20	91.90	-78.70
06S07E34N02S	4/25/2019	13.20	91.80	-78.60
06S07E34N02S	5/30/2019	13.20	90.20	-77.00
06S07E34N02S	9/24/2019	13.20	91.10	-77.90
06S07E34N03S	8/13/2009	13.20	179.40	-166.20
06S07E34N03S	8/20/2009	13.20	179.80	-166.60
06S07E34N03S	8/27/2009	13.20	179.70	-166.50
06S07E34N03S	9/3/2009	13.20	179.40	-166.20
06S07E34N03S	9/10/2009	13.20	179.10	-165.90
06S07E34N03S	9/17/2009	13.20	177.80	-164.60
06S07E34N03S	10/26/2017	13.20	91.70	-78.50
06S07E34N03S	12/1/2017	13.20	88.00	-74.80
06S07E34N03S	1/5/2018	13.20	97.40	-84.20
06S07E34N03S	1/31/2018	13.20	101.80	-88.60
06S07E34N03S	2/26/2018	13.20	99.10	-85.90
06S07E34N03S	3/29/2018	13.20	96.90	-83.70
06S07E34N03S	4/27/2018	13.20	97.20	-84.00
06S07E34N03S	5/24/2018	13.20	95.20	-82.00
06S07E34N03S	6/26/2018	13.20	99.30	-86.10
06S07E34N03S	7/26/2018	13.20	93.30	-80.10
06S07E34N03S	8/30/2018	13.20	92.50	-79.30
06S07E34N03S	9/27/2018	13.20	105.20	-92.00
06S07E34N03S	10/26/2018	13.20	96.30	-83.10
06S07E34N03S	11/29/2018	13.20	94.80	-81.60
06S07E34N03S	12/27/2018	13.20	90.90	-77.70
06S07E34N03S	1/24/2019	13.20	91.20	-78.00
06S07E34N03S	2/27/2019	13.20	93.10	-79.90
06S07E34N03S	3/29/2019	13.20	91.10	-77.90
06S07E34N03S	4/25/2019	13.20	91.10	-77.90
06S07E34N03S	5/30/2019	13.20	89.30	-76.10
06S07E34N03S	9/24/2019	13.20	90.30	-77.10
06S07E34R01S	7/30/2009	-76.40	92.40	-168.80
06S07E34R01S	8/6/2009	-76.40	92.10	-168.50
06S07E34R01S	8/13/2009	-76.40	91.20	-167.60
06S07E34R01S	8/27/2009	-76.40	91.40	-167.80
06S07E34R01S	9/3/2009	-76.40	90.70	-167.10
06S07E34R01S	9/10/2009	-76.40	89.80	-166.20
06S07E34R01S	9/17/2009	-76.40	89.00	-165.40
06S07E34R01S	10/26/2017	-76.40	9.60	-86.00
06S07E34R01S	12/1/2017	-76.40	8.70	-85.10
06S07E34R01S	1/5/2018	-76.40	13.80	-90.20
06S07E34R01S	1/31/2018	-76.40	17.40	-93.80
06S07E34R01S	2/26/2018	-76.40	16.20	-92.60
06S07E34R01S	3/29/2018	-76.40	15.20	-91.60
06S07E34R01S	4/27/2018	-76.40	15.00	-91.40
06S07E34R01S	5/24/2018	-76.40	14.90	-91.30
06S07E34R01S	6/26/2018	-76.40	15.40	-91.80
06S07E34R01S	7/26/2018	-76.40	14.60	-91.00
06S07E34R01S	8/30/2018	-76.40	13.90	-90.30
06S07E34R01S	9/27/2018	-76.40	13.60	-90.00

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
06S07E34R01S	10/26/2018	-76.40	14.50	-90.90
06S07E34R01S	11/29/2018	-76.40	14.40	-90.80
06S07E34R01S	12/27/2018	-76.40	11.30	-87.70
06S07E34R01S	1/24/2019	-76.40	10.20	-86.60
06S07E34R01S	2/27/2019	-76.40	10.80	-87.20
06S07E34R01S	3/29/2019	-76.40	9.70	-86.10
06S07E34R01S	4/25/2019	-76.40	9.70	-86.10
06S07E34R01S	5/30/2019	-76.40	9.70	-86.10
06S07E34R01S	9/24/2019	-76.40	10.40	-86.80
06S07E35L02S	12/9/2008	-84.30	87.40	-171.70
06S07E35L02S	1/16/2009	-84.30	85.90	-170.20
06S07E35L02S	2/19/2009	-84.30	84.90	-169.20
06S07E35L02S	3/20/2009	-84.30	84.80	-169.10
06S07E35L02S	4/23/2009	-84.30	85.10	-169.40
06S07E35L02S	5/21/2009	-84.30	86.40	-170.70
06S07E35L02S	7/16/2009	-84.30	85.30	-169.60
06S07E35L02S	1/5/2018	-84.30	3.80	-88.10
06S07E35L02S	1/31/2018	-84.30	7.10	-91.40
06S07E35L02S	2/27/2018	-84.30	5.10	-89.40
06S07E35L02S	3/29/2018	-84.30	5.10	-89.40
06S07E35L02S	4/27/2018	-84.30	5.00	-89.30
06S07E35L02S	5/24/2018	-84.30	4.40	-88.70
06S07E35L02S	6/26/2018	-84.30	4.30	-88.60
06S07E35L02S	7/26/2018	-84.30	4.60	-88.90
06S07E35L02S	8/30/2018	-84.30	3.50	-87.80
06S07E35L02S	9/27/2018	-84.30	2.30	-86.60
06S07E35L02S	10/26/2018	-84.30	2.60	-86.90
06S07E35L02S	11/29/2018	-84.30	3.30	-87.60
06S07E35L02S	12/27/2018	-84.30	3.00	-87.30
06S07E35L02S	1/24/2019	-84.30	3.10	-87.40
06S07E35L02S	2/27/2019	-84.30	1.80	-86.10
06S07E35L02S	3/29/2019	-84.30	0.00	-84.30
06S07E35L02S	4/25/2019	-84.30	0.00	-84.30
06S07E35L02S	5/30/2019	-84.30	0.00	-84.30
06S07E35L02S	9/24/2019	-84.30	0.80	-85.10
06S08E03D01S	10/8/2008	-82.60	36.70	-119.30
06S08E03D01S	1/23/2009	-82.60	28.20	-110.80
06S08E03D01S	7/8/2009	-82.60	33.10	-115.70
06S08E03D01S	11/17/2017	-82.60	18.90	-101.50
06S08E03D01S	4/11/2018	-82.60	16.60	-99.20
06S08E03D01S	8/2/2018	-82.60	20.50	-103.10
06S08E03D01S	1/17/2019	-82.60	16.50	-99.10
06S08E03D01S	5/14/2019	-82.60	17.10	-99.70
06S08E03D01S	9/19/2019	-82.60	19.20	-101.80
06S08E05R02S	10/8/2008	-82.10	19.40	-101.50
06S08E05R02S	1/23/2009	-82.10	18.30	-100.40
06S08E05R02S	7/8/2009	-82.10	20.10	-102.20
06S08E05R02S	11/28/2017	-82.10	18.20	-100.30
06S08E05R02S	4/11/2018	-82.10	19.00	-101.10
06S08E05R02S	8/3/2018	-82.10	18.60	-100.70
06S08E05R02S	1/18/2019	-82.10	18.10	-100.20
06S08E05R02S	5/15/2019	-82.10	17.70	-99.80
06S08E05R02S	9/19/2019	-82.10	18.60	-100.70
06S08E05R03S	10/8/2008	-80.30	47.30	-127.60
06S08E05R03S	1/23/2009	-80.30	32.90	-113.20

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
06S08E05R03S	7/8/2009	-80.30	44.40	-124.70
06S08E05R03S	11/28/2017	-80.30	28.90	-109.20
06S08E05R03S	4/11/2018	-80.30	22.70	-103.00
06S08E05R03S	8/3/2018	-80.30	29.80	-110.10
06S08E05R03S	1/18/2019	-80.30	25.90	-106.20
06S08E05R03S	5/15/2019	-80.30	29.40	-109.70
06S08E05R03S	9/19/2019	-80.30	33.60	-113.90
06S08E12Q01S	10/8/2008	61.30	191.70	-130.40
06S08E12Q01S	1/23/2009	61.30	187.70	-126.40
06S08E12Q01S	7/8/2009	61.30	186.80	-125.50
06S08E12Q01S	12/7/2017	61.30	176.30	-115.00
06S08E12Q01S	4/13/2018	61.30	184.30	-123.00
06S08E12Q01S	8/7/2018	61.30	185.50	-124.20
06S08E12Q01S	1/18/2019	61.30	175.20	-113.90
06S08E12Q01S	5/15/2019	61.30	185.20	-123.90
06S08E12Q01S	9/22/2019	61.30	183.90	-122.60
06S08E19C02S	10/8/2008	-94.90	72.40	-167.30
06S08E19C02S	1/9/2009	-94.90	58.70	-153.60
06S08E19C02S	6/3/2009	-94.90	67.30	-162.20
06S08E19C02S	11/16/2017	-94.90	41.00	-135.90
06S08E19C02S	4/6/2018	-94.90	35.60	-130.50
06S08E19C02S	8/2/2018	-94.90	55.40	-150.30
06S08E19C02S	1/15/2019	-94.90	33.60	-128.50
06S08E19C02S	5/8/2019	-94.90	37.50	-132.40
06S08E19C02S	9/23/2019	-94.90	43.80	-138.70
06S08E19D05S	6/2/2009	-87.60	75.50	-163.10
06S08E19D05S	11/16/2017	-87.60	46.20	-133.80
06S08E19D05S	4/6/2018	-87.60	39.00	-126.60
06S08E19D05S	8/2/2018	-87.60	55.70	-143.30
06S08E19D05S	1/15/2019	-87.60	34.70	-122.30
06S08E19D05S	5/8/2019	-87.60	38.10	-125.70
06S08E19D05S	9/23/2019	-87.60	42.10	-129.70
06S08E19R01S	1/6/2009	-105.70	48.10	-153.80
06S08E19R01S	5/1/2009	-105.70	52.20	-157.90
06S08E19R01S	9/30/2009	-105.70	58.00	-163.70
06S08E19R01S	4/13/2018	-105.70	27.20	-132.90
06S08E19R01S	8/7/2018	-105.70	41.30	-147.00
06S08E19R01S	12/6/2018	-105.70	30.60	-136.30
06S08E19R01S	5/15/2019	-105.70	28.30	-134.00
06S08E19R01S	9/23/2019	-105.70	34.00	-139.70
06S08E20H01S	10/9/2008	-114.50	53.40	-167.90
06S08E20H01S	1/27/2009	-114.50	41.70	-156.20
06S08E20H01S	7/9/2009	-114.50	51.50	-166.00
06S08E20H01S	11/21/2017	-114.50	24.00	-138.50
06S08E20H01S	4/13/2018	-114.50	20.40	-134.90
06S08E20H01S	8/7/2018	-114.50	32.00	-146.50
06S08E20H01S	1/18/2019	-114.50	17.00	-131.50
06S08E20H01S	5/15/2019	-114.50	21.20	-135.70
06S08E20H01S	9/23/2019	-114.50	28.40	-142.90
06S08E22D02S	10/9/2008	-119.80	52.50	-172.30
06S08E22D02S	1/27/2009	-119.80	38.40	-158.20
06S08E22D02S	7/9/2009	-119.80	38.60	-158.40
06S08E22D02S	11/21/2017	-119.80	19.80	-139.60
06S08E22D02S	4/13/2018	-119.80	16.10	-135.90
06S08E22D02S	8/7/2018	-119.80	25.70	-145.50



State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
06S08E22D02S	12/6/2018	-119.80	19.40	-139.20
06S08E22D02S	5/15/2019	-119.80	16.80	-136.60
06S08E22D02S	9/22/2019	-119.80	24.10	-143.90
06S08E25P04S	10/23/2008	-140.90	57.70	-198.60
06S08E25P04S	1/28/2009	-140.90	48.60	-189.50
06S08E25P04S	7/10/2009	-140.90	52.30	-193.20
06S08E25P04S	11/21/2017	-140.90	20.30	-161.20
06S08E25P04S	4/13/2018	-140.90	14.50	-155.40
06S08E25P04S	8/7/2018	-140.90	12.40	-153.30
06S08E25P04S	1/18/2019	-140.90	11.00	-151.90
06S08E25P04S	5/15/2019	-140.90	11.80	-152.70
06S08E25P04S	9/25/2019	-140.90	21.00	-161.90
06S08E25Q01S	1/7/2009	-125.70	50.10	-175.80
06S08E25Q01S	5/8/2009	-125.70	54.10	-179.80
06S08E25Q01S	9/29/2009	-125.70	56.10	-181.80
06S08E25Q01S	11/21/2017	-125.70	27.90	-153.60
06S08E25Q01S	4/13/2018	-125.70	27.10	-152.80
06S08E25Q01S	8/7/2018	-125.70	27.40	-153.10
06S08E25Q01S	12/6/2018	-125.70	27.00	-152.70
06S08E25Q01S	5/15/2019	-125.70	25.90	-151.60
06S08E25Q01S	9/25/2019	-125.70	32.20	-157.90
06S08E31L01S	10/16/2008	-116.70	54.60	-171.30
06S08E31L01S	11/21/2008	-116.70	51.80	-168.50
06S08E31L01S	12/9/2008	-116.70	50.50	-167.20
06S08E31L01S	12/18/2008	-116.70	48.80	-165.50
06S08E31L01S	1/16/2009	-116.70	43.20	-159.90
06S08E31L01S	2/19/2009	-116.70	41.00	-157.70
06S08E31L01S	3/20/2009	-116.70	41.20	-157.90
06S08E31L01S	4/23/2009	-116.70	45.00	-161.70
06S08E31L01S	5/21/2009	-116.70	48.10	-164.80
06S08E31L01S	6/11/2009	-116.70	49.10	-165.80
06S08E31L01S	7/16/2009	-116.70	52.40	-169.10
06S08E31L01S	8/20/2009	-116.70	53.90	-170.60
06S08E31L01S	9/22/2009	-116.70	51.10	-167.80
06S08E31L01S	10/27/2017	-116.70	19.90	-136.60
06S08E31L01S	12/1/2017	-116.70	19.40	-136.10
06S08E31L01S	1/5/2018	-116.70	18.60	-135.30
06S08E31L01S	1/31/2018	-116.70	22.30	-139.00
06S08E31L01S	2/26/2018	-116.70	15.80	-132.50
06S08E31L01S	4/27/2018	-116.70	17.30	-134.00
06S08E31L01S	6/27/2018	-116.70	23.00	-139.70
06S08E31L01S	8/30/2018	-116.70	23.70	-140.40
06S08E31L01S	4/25/2019	-116.70	14.20	-130.90
06S08E31L01S	10/10/2019	-116.70	18.60	-135.30
06S08E31P01S	10/15/2008	-117.40	58.60	-176.00
06S08E31P01S	11/21/2008	-117.40	57.60	-175.00
06S08E31P01S	12/9/2008	-117.40	53.70	-171.10
06S08E31P01S	12/18/2008	-117.40	51.80	-169.20
06S08E31P01S	2/19/2009	-117.40	45.40	-162.80
06S08E31P01S	3/20/2009	-117.40	45.40	-162.80
06S08E31P01S	7/16/2009	-117.40	57.10	-174.50
06S08E31P01S	7/29/2009	-117.40	59.10	-176.50
06S08E31P01S	9/22/2009	-117.40	57.10	-174.50
06S08E31P01S	10/27/2017	-117.40	24.70	-142.10
06S08E31P01S	12/1/2017	-117.40	19.70	-137.10

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
06S08E31P01S	1/5/2018	-117.40	17.20	-134.60
06S08E31P01S	1/31/2018	-117.40	15.40	-132.80
06S08E31P01S	2/26/2018	-117.40	15.70	-133.10
06S08E31P01S	3/29/2018	-117.40	16.20	-133.60
06S08E31P01S	4/27/2018	-117.40	19.60	-137.00
06S08E31P01S	5/25/2018	-117.40	20.30	-137.70
06S08E31P01S	6/27/2018	-117.40	22.50	-139.90
06S08E31P01S	7/27/2018	-117.40	23.30	-140.70
06S08E31P01S	8/30/2018	-117.40	25.80	-143.20
06S08E31P01S	9/28/2018	-117.40	25.80	-143.20
06S08E31P01S	10/26/2018	-117.40	22.20	-139.60
06S08E31P01S	11/29/2018	-117.40	20.20	-137.60
06S08E31P01S	12/27/2018	-117.40	15.90	-133.30
06S08E31P01S	1/24/2019	-117.40	15.30	-132.70
06S08E31P01S	2/27/2019	-117.40	10.40	-127.80
06S08E31P01S	3/29/2019	-117.40	12.10	-129.50
06S08E31P01S	4/25/2019	-117.40	16.40	-133.80
06S08E31P01S	5/31/2019	-117.40	16.90	-134.30
06S08E31P01S	9/25/2019	-117.40	23.00	-140.40
06S08E31R01S	6/19/2019	-125.20	11.60	-136.80
06S08E31R01S	9/25/2019	-125.20	10.80	-136.00
06S08E35A01S	10/23/2008	-147.90	47.60	-195.50
06S08E35A01S	1/28/2009	-147.90	36.90	-184.80
06S08E35A01S	7/10/2009	-147.90	47.00	-194.90
06S08E35A01S	12/7/2017	-147.90	12.90	-160.80
06S08E35A01S	4/13/2018	-147.90	8.60	-156.50
06S08E35A01S	8/7/2018	-147.90	8.80	-156.70
06S08E35A01S	1/30/2019	-147.90	6.60	-154.50
06S08E35A01S	5/16/2019	-147.90	7.90	-155.80
06S08E35A01S	9/25/2019	-147.90	15.50	-163.40
06S08E36M01S	10/9/2008	-152.90	40.90	-193.80
06S08E36M01S	1/27/2009	-152.90	34.10	-187.00
06S08E36M01S	7/10/2009	-152.90	39.70	-192.60
06S08E36M01S	12/6/2017	-152.90	8.80	-161.70
06S08E36M01S	4/20/2018	-152.90	8.80	-161.70
06S08E36M01S	8/15/2018	-152.90	10.20	-163.10
06S08E36M01S	1/30/2019	-152.90	3.50	-156.40
06S08E36M01S	5/24/2019	-152.90	6.00	-158.90
06S08E36M01S	9/25/2019	-152.90	12.60	-165.50
06S09E32Q01S	10/24/2008	-102.80	54.00	-156.80
06S09E32Q01S	1/28/2009	-102.80	51.30	-154.10
06S09E32Q01S	7/10/2009	-102.80	51.70	-154.50
06S09E32Q01S	11/21/2017	-102.80	36.90	-139.70
06S09E32Q01S	4/13/2018	-102.80	31.20	-134.00
06S09E32Q01S	8/9/2018	-102.80	38.20	-141.00
06S09E32Q01S	1/22/2019	-102.80	31.70	-134.50
06S09E32Q01S	5/16/2019	-102.80	29.50	-132.30
06S09E32Q01S	9/24/2019	-102.80	35.10	-137.90
06S09E33K01S	1/7/2009	29.40	179.90	-150.50
06S09E33K01S	11/22/2017	29.40	169.30	-139.90
06S09E33K01S	4/13/2018	29.40	164.30	-134.90
06S09E33K01S	8/9/2018	29.40	178.80	-149.40
06S09E33K01S	12/6/2018	29.40	171.60	-142.20
06S09E33K01S	5/17/2019	29.40	163.90	-134.50
06S09E33K01S	9/24/2019	29.40	162.50	-133.10

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S07E01C01S	10/16/2008	-111.60	17.00	-128.60
07S07E01C01S	11/21/2008	-111.60	17.50	-129.10
07S07E01C01S	12/9/2008	-111.60	17.30	-128.90
07S07E01C01S	12/18/2008	-111.60	16.40	-128.00
07S07E01C01S	1/16/2009	-111.60	17.10	-128.70
07S07E01C01S	2/19/2009	-111.60	16.80	-128.40
07S07E01C01S	3/20/2009	-111.60	16.60	-128.20
07S07E01C01S	4/23/2009	-111.60	18.60	-130.20
07S07E01C01S	5/21/2009	-111.60	17.10	-128.70
07S07E01C01S	6/11/2009	-111.60	17.40	-129.00
07S07E01C01S	7/16/2009	-111.60	17.60	-129.20
07S07E01C01S	7/20/2009	-111.60	17.90	-129.50
07S07E01C01S	9/22/2009	-111.60	18.20	-129.80
07S07E01C01S	10/27/2017	-111.60	12.50	-124.10
07S07E01C01S	12/1/2017	-111.60	11.30	-122.90
07S07E01C01S	1/5/2018	-111.60	11.20	-122.80
07S07E01C01S	1/31/2018	-111.60	10.90	-122.50
07S07E01C01S	2/26/2018	-111.60	10.70	-122.30
07S07E01C01S	3/29/2018	-111.60	10.60	-122.20
07S07E01C01S	4/27/2018	-111.60	10.30	-121.90
07S07E01C01S	5/25/2018	-111.60	10.40	-122.00
07S07E01C01S	6/27/2018	-111.60	10.50	-122.10
07S07E01C01S	7/27/2018	-111.60	10.70	-122.30
07S07E01C01S	8/30/2018	-111.60	10.70	-122.30
07S07E01C01S	9/28/2018	-111.60	10.50	-122.10
07S07E01C01S	10/26/2018	-111.60	10.40	-122.00
07S07E01C01S	11/29/2018	-111.60	10.00	-121.60
07S07E01C01S	12/27/2018	-111.60	10.00	-121.60
07S07E01C01S	1/24/2019	-111.60	9.90	-121.50
07S07E01C01S	2/27/2019	-111.60	9.50	-121.10
07S07E01C01S	3/29/2019	-111.60	9.20	-120.80
07S07E01C01S	4/25/2019	-111.60	9.40	-121.00
07S07E01C01S	5/31/2019	-111.60	9.60	-121.20
07S07E01C01S	9/24/2019	-111.60	10.50	-122.10
07S07E01M01S	10/16/2008	-110.10	61.90	-172.00
07S07E01M01S	11/21/2008	-110.10	62.60	-172.70
07S07E01M01S	12/9/2008	-110.10	60.50	-170.60
07S07E01M01S	12/18/2008	-110.10	59.90	-170.00
07S07E01M01S	1/16/2009	-110.10	58.20	-168.30
07S07E01M01S	2/19/2009	-110.10	56.70	-166.80
07S07E01M01S	3/20/2009	-110.10	56.30	-166.40
07S07E01M01S	4/23/2009	-110.10	57.30	-167.40
07S07E01M01S	5/21/2009	-110.10	59.40	-169.50
07S07E01M01S	6/11/2009	-110.10	60.30	-170.40
07S07E01M01S	7/16/2009	-110.10	61.70	-171.80
07S07E01M01S	8/20/2009	-110.10	61.60	-171.70
07S07E01M01S	9/22/2009	-110.10	62.20	-172.30
07S07E01M01S	10/27/2017	-110.10	4.20	-114.30
07S07E01M01S	12/1/2017	-110.10	2.30	-112.40
07S07E01M01S	1/5/2018	-110.10	2.10	-112.20
07S07E01M01S	1/31/2018	-110.10	3.60	-113.70
07S07E01M01S	2/26/2018	-110.10	4.10	-114.20
07S07E01M01S	3/29/2018	-110.10	5.00	-115.10
07S07E01M01S	4/27/2018	-110.10	4.70	-114.80
07S07E01M01S	5/25/2018	-110.10	6.10	-116.20

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S07E01M01S	6/27/2018	-110.10	7.60	-117.70
07S07E01M01S	7/27/2018	-110.10	7.50	-117.60
07S07E01M01S	8/30/2018	-110.10	7.70	-117.80
07S07E01M01S	9/28/2018	-110.10	6.30	-116.40
07S07E01M01S	10/26/2018	-110.10	5.50	-115.60
07S07E01M01S	11/29/2018	-110.10	3.80	-113.90
07S07E01M01S	12/27/2018	-110.10	3.60	-113.70
07S07E01M01S	1/24/2019	-110.10	3.50	-113.60
07S07E01M01S	2/27/2019	-110.10	0.50	-110.60
07S07E01M01S	3/29/2019	-110.10	0.00	-110.10
07S07E01M01S	4/25/2019	-110.10	1.20	-111.30
07S07E01M01S	5/31/2019	-110.10	1.00	-111.10
07S07E01M01S	9/25/2019	-110.10	3.70	-113.80
07S07E02G02S	10/16/2008	-98.90	77.30	-176.20
07S07E02G02S	12/18/2008	-98.90	76.20	-175.10
07S07E02G02S	1/16/2009	-98.90	75.60	-174.50
07S07E02G02S	6/11/2009	-98.90	76.10	-175.00
07S07E02G02S	7/16/2009	-98.90	75.80	-174.70
07S07E02G02S	10/27/2017	-98.90	-6.90	-92.00
07S07E02G02S	12/1/2017	-98.90	-4.60	-94.30
07S07E02G02S	1/5/2018	-98.90	-2.30	-96.60
07S07E02G02S	2/2/2018	-98.90	-4.60	-94.30
07S07E02G02S	2/26/2018	-98.90	-0.40	-98.50
07S07E02G02S	3/30/2018	-98.90	-0.40	-98.50
07S07E02G02S	4/27/2018	-98.90	-0.40	-98.50
07S07E02G02S	5/25/2018	-98.90	-0.40	-98.50
07S07E02G02S	6/27/2018	-98.90	-0.40	-98.50
07S07E02G02S	7/27/2018	-98.90	-2.70	-96.20
07S07E02G02S	11/29/2018	-98.90	-2.30	-96.60
07S07E02G02S	12/27/2018	-98.90	-2.30	-96.60
07S07E02G02S	1/24/2019	-98.90	-0.40	-98.50
07S07E02G02S	2/27/2019	-98.90	-2.30	-96.60
07S07E02G02S	5/30/2019	-98.90	-1.30	-97.60
07S07E02G02S	10/1/2019	-98.90	-2.30	-96.60
07S07E03A01S	10/16/2008	-72.00	102.90	-174.90
07S07E03A01S	11/21/2008	-72.00	102.80	-174.80
07S07E03A01S	12/9/2008	-72.00	102.20	-174.20
07S07E03A01S	12/18/2008	-72.00	102.60	-174.60
07S07E03A01S	1/16/2009	-72.00	101.00	-173.00
07S07E03A01S	2/19/2009	-72.00	100.00	-172.00
07S07E03A01S	3/20/2009	-72.00	99.60	-171.60
07S07E03A01S	4/23/2009	-72.00	99.70	-171.70
07S07E03A01S	5/21/2009	-72.00	100.80	-172.80
07S07E03A01S	6/11/2009	-72.00	101.50	-173.50
07S07E03A01S	7/16/2009	-72.00	100.10	-172.10
07S07E03A01S	8/20/2009	-72.00	98.20	-170.20
07S07E03A01S	9/22/2009	-72.00	94.90	-166.90
07S07E03A01S	10/27/2017	-72.00	13.60	-85.60
07S07E03A01S	12/1/2017	-72.00	13.00	-85.00
07S07E03A01S	1/5/2018	-72.00	17.40	-89.40
07S07E03A01S	1/31/2018	-72.00	20.80	-92.80
07S07E03A01S	2/26/2018	-72.00	19.80	-91.80
07S07E03A01S	3/29/2018	-72.00	18.80	-90.80
07S07E03A01S	4/27/2018	-72.00	19.10	-91.10
07S07E03A01S	5/25/2018	-72.00	18.60	-90.60

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S07E03A01S	6/26/2018	-72.00	18.80	-90.80
07S07E03A01S	7/27/2018	-72.00	18.00	-90.00
07S07E03A01S	8/30/2018	-72.00	17.50	-89.50
07S07E03A01S	9/27/2018	-72.00	17.20	-89.20
07S07E03A01S	10/26/2018	-72.00	18.00	-90.00
07S07E03A01S	11/29/2018	-72.00	17.20	-89.20
07S07E03A01S	12/27/2018	-72.00	15.00	-87.00
07S07E03A01S	1/24/2019	-72.00	14.00	-86.00
07S07E03A01S	2/27/2019	-72.00	14.50	-86.50
07S07E03A01S	3/29/2019	-72.00	13.50	-85.50
07S07E03A01S	4/25/2019	-72.00	13.50	-85.50
07S07E03A01S	5/30/2019	-72.00	13.30	-85.30
07S07E03A01S	9/24/2019	-72.00	14.00	-86.00
07S07E03C01S	10/16/2008	-39.20	135.90	-175.10
07S07E03C01S	11/21/2008	-39.20	135.80	-175.00
07S07E03C01S	12/9/2008	-39.20	134.80	-174.00
07S07E03C01S	12/18/2008	-39.20	134.90	-174.10
07S07E03C01S	1/16/2009	-39.20	134.00	-173.20
07S07E03C01S	2/10/2009	-39.20	133.50	-172.70
07S07E03C01S	2/19/2009	-39.20	132.80	-172.00
07S07E03C01S	3/20/2009	-39.20	132.30	-171.50
07S07E03C01S	4/23/2009	-39.20	132.50	-171.70
07S07E03C01S	5/21/2009	-39.20	134.00	-173.20
07S07E03C01S	6/11/2009	-39.20	134.60	-173.80
07S07E03C01S	7/16/2009	-39.20	132.10	-171.30
07S07E03C01S	8/20/2009	-39.20	130.30	-169.50
07S07E03C01S	9/23/2009	-39.20	126.50	-165.70
07S07E03C01S	10/27/2017	-39.20	42.00	-81.20
07S07E03C01S	12/1/2017	-39.20	40.20	-79.40
07S07E03C01S	1/5/2018	-39.20	46.50	-85.70
07S07E03C01S	1/31/2018	-39.20	50.60	-89.80
07S07E03C01S	2/26/2018	-39.20	48.80	-88.00
07S07E03C01S	3/29/2018	-39.20	47.40	-86.60
07S07E03C01S	4/27/2018	-39.20	48.00	-87.20
07S07E03C01S	5/25/2018	-39.20	46.80	-86.00
07S07E03C01S	6/26/2018	-39.20	47.10	-86.30
07S07E03C01S	7/27/2018	-39.20	46.00	-85.20
07S07E03C01S	8/30/2018	-39.20	43.40	-82.60
07S07E03C01S	9/27/2018	-39.20	45.40	-84.60
07S07E03C01S	10/26/2018	-39.20	46.60	-85.80
07S07E03C01S	11/29/2018	-39.20	45.70	-84.90
07S07E03C01S	12/27/2018	-39.20	42.90	-82.10
07S07E03C01S	1/24/2019	-39.20	42.20	-81.40
07S07E03C01S	2/27/2019	-39.20	43.10	-82.30
07S07E03C01S	3/29/2019	-39.20	42.80	-82.00
07S07E03C01S	4/25/2019	-39.20	41.70	-80.90
07S07E03C01S	5/30/2019	-39.20	41.30	-80.50
07S07E03C01S	9/24/2019	-39.20	42.00	-81.20
07S07E03C02S	10/16/2008	-39.20	135.60	-174.80
07S07E03C02S	11/21/2008	-39.20	135.70	-174.90
07S07E03C02S	12/9/2008	-39.20	134.70	-173.90
07S07E03C02S	12/18/2008	-39.20	134.80	-174.00
07S07E03C02S	1/16/2009	-39.20	133.90	-173.10
07S07E03C02S	2/10/2009	-39.20	133.30	-172.50
07S07E03C02S	2/19/2009	-39.20	133.00	-172.20

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S07E03C02S	3/20/2009	-39.20	132.30	-171.50
07S07E03C02S	4/23/2009	-39.20	132.40	-171.60
07S07E03C02S	5/21/2009	-39.20	133.70	-172.90
07S07E03C02S	6/11/2009	-39.20	134.50	-173.70
07S07E03C02S	7/16/2009	-39.20	137.30	-176.50
07S07E03C02S	8/20/2009	-39.20	129.90	-169.10
07S07E03C02S	9/23/2009	-39.20	126.70	-165.90
07S07E03C02S	10/27/2017	-39.20	41.30	-80.50
07S07E03C02S	12/1/2017	-39.20	39.40	-78.60
07S07E03C02S	1/5/2018	-39.20	45.50	-84.70
07S07E03C02S	1/31/2018	-39.20	49.60	-88.80
07S07E03C02S	2/26/2018	-39.20	48.10	-87.30
07S07E03C02S	3/29/2018	-39.20	46.70	-85.90
07S07E03C02S	4/27/2018	-39.20	47.10	-86.30
07S07E03C02S	5/25/2018	-39.20	46.20	-85.40
07S07E03C02S	6/26/2018	-39.20	46.40	-85.60
07S07E03C02S	7/27/2018	-39.20	45.20	-84.40
07S07E03C02S	8/30/2018	-39.20	43.30	-82.50
07S07E03C02S	9/27/2018	-39.20	44.70	-83.90
07S07E03C02S	10/26/2018	-39.20	45.90	-85.10
07S07E03C02S	11/29/2018	-39.20	45.10	-84.30
07S07E03C02S	12/27/2018	-39.20	42.20	-81.40
07S07E03C02S	1/24/2019	-39.20	41.60	-80.80
07S07E03C02S	2/27/2019	-39.20	42.50	-81.70
07S07E03C02S	3/29/2019	-39.20	42.20	-81.40
07S07E03C02S	4/25/2019	-39.20	41.20	-80.40
07S07E03C02S	5/30/2019	-39.20	40.70	-79.90
07S07E03C02S	9/24/2019	-39.20	41.00	-80.20
07S07E03D01S	10/16/2008	10.10	184.50	-174.40
07S07E03D01S	11/21/2008	10.10	184.70	-174.60
07S07E03D01S	12/9/2008	10.10	184.20	-174.10
07S07E03D01S	12/18/2008	10.10	200.40	-190.30
07S07E03D01S	1/16/2009	10.10	175.10	-165.00
07S07E03D01S	2/10/2009	10.10	183.50	-173.40
07S07E03D01S	2/19/2009	10.10	181.80	-171.70
07S07E03D01S	3/20/2009	10.10	181.20	-171.10
07S07E03D01S	4/23/2009	10.10	181.40	-171.30
07S07E03D01S	5/21/2009	10.10	183.10	-173.00
07S07E03D01S	6/11/2009	10.10	183.80	-173.70
07S07E03D01S	7/16/2009	10.10	179.10	-169.00
07S07E03D01S	8/20/2009	10.10	177.60	-167.50
07S07E03D01S	9/22/2009	10.10	174.20	-164.10
07S07E03D01S	10/26/2017	10.10	87.40	-77.30
07S07E03D01S	12/1/2017	10.10	87.70	-77.60
07S07E03D01S	1/5/2018	10.10	92.80	-82.70
07S07E03D01S	1/31/2018	10.10	97.30	-87.20
07S07E03D01S	2/26/2018	10.10	94.30	-84.20
07S07E03D01S	3/29/2018	10.10	92.80	-82.70
07S07E03D01S	4/27/2018	10.10	93.10	-83.00
07S07E03D01S	5/24/2018	10.10	91.70	-81.60
07S07E03D01S	6/26/2018	10.10	91.20	-81.10
07S07E03D01S	7/26/2018	10.10	89.90	-79.80
07S07E03D01S	8/30/2018	10.10	89.10	-79.00
07S07E03D01S	9/27/2018	10.10	90.40	-80.30
07S07E03D01S	10/26/2018	10.10	92.30	-82.20

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S07E03D01S	11/29/2018	10.10	90.50	-80.40
07S07E03D01S	12/27/2018	10.10	87.30	-77.20
07S07E03D01S	1/24/2019	10.10	87.20	-77.10
07S07E03D01S	2/27/2019	10.10	89.00	-78.90
07S07E03D01S	3/29/2019	10.10	86.40	-76.30
07S07E03D01S	4/25/2019	10.10	87.00	-76.90
07S07E03D01S	5/30/2019	10.10	85.50	-75.40
07S07E03D01S	9/24/2019	10.10	86.60	-76.50
07S07E03D02S	10/16/2008	9.70	185.10	-175.40
07S07E03D02S	11/21/2008	9.70	185.40	-175.70
07S07E03D02S	12/9/2008	9.70	185.00	-175.30
07S07E03D02S	12/18/2008	9.70	200.10	-190.40
07S07E03D02S	1/16/2009	9.70	183.70	-174.00
07S07E03D02S	2/10/2009	9.70	182.60	-172.90
07S07E03D02S	2/19/2009	9.70	182.60	-172.90
07S07E03D02S	3/20/2009	9.70	181.90	-172.20
07S07E03D02S	4/23/2009	9.70	182.10	-172.40
07S07E03D02S	5/21/2009	9.70	183.20	-173.50
07S07E03D02S	6/11/2009	9.70	184.50	-174.80
07S07E03D02S	7/16/2009	9.70	179.60	-169.90
07S07E03D02S	8/20/2009	9.70	178.30	-168.60
07S07E03D02S	9/22/2009	9.70	175.10	-165.40
07S07E03D02S	10/26/2017	9.70	88.40	-78.70
07S07E03D02S	12/1/2017	9.70	89.40	-79.70
07S07E03D02S	1/5/2018	9.70	94.40	-84.70
07S07E03D02S	1/31/2018	9.70	98.30	-88.60
07S07E03D02S	2/26/2018	9.70	95.10	-85.40
07S07E03D02S	3/28/2018	9.70	93.70	-84.00
07S07E03D02S	4/27/2018	9.70	94.10	-84.40
07S07E03D02S	5/24/2018	9.70	92.30	-82.60
07S07E03D02S	6/26/2018	9.70	92.00	-82.30
07S07E03D02S	7/26/2018	9.70	90.20	-80.50
07S07E03D02S	8/31/2018	9.70	89.20	-79.50
07S07E03D02S	9/27/2018	9.70	90.90	-81.20
07S07E03D02S	10/26/2018	9.70	93.10	-83.40
07S07E03D02S	11/29/2018	9.70	91.40	-81.70
07S07E03D02S	12/27/2018	9.70	87.70	-78.00
07S07E03D02S	1/24/2019	9.70	88.10	-78.40
07S07E03D02S	2/27/2019	9.70	89.90	-80.20
07S07E03D02S	3/29/2019	9.70	88.00	-78.30
07S07E03D02S	4/25/2019	9.70	88.00	-78.30
07S07E03D02S	5/30/2019	9.70	86.30	-76.60
07S07E03D02S	9/24/2019	9.70	87.10	-77.40
07S07E03D03S	10/16/2008	44.90	219.60	-174.70
07S07E03D03S	11/21/2008	44.90	219.80	-174.90
07S07E03D03S	12/18/2008	44.90	219.00	-174.10
07S07E03D03S	1/16/2009	44.90	218.20	-173.30
07S07E03D03S	2/10/2009	44.90	217.80	-172.90
07S07E03D03S	2/19/2009	44.90	217.00	-172.10
07S07E03D03S	3/20/2009	44.90	216.60	-171.70
07S07E03D03S	4/25/2009	44.90	216.70	-171.80
07S07E03D03S	5/21/2009	44.90	217.40	-172.50
07S07E03D03S	7/16/2009	44.90	215.80	-170.90
07S07E03D03S	8/20/2009	44.90	213.00	-168.10
07S07E03D03S	9/22/2009	44.90	218.30	-173.40



State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S07E03D03S	10/26/2017	44.90	123.20	-78.30
07S07E03D03S	12/1/2017	44.90	121.20	-76.30
07S07E03D03S	1/5/2018	44.90	127.30	-82.40
07S07E03D03S	1/31/2018	44.90	131.70	-86.80
07S07E03D03S	2/26/2018	44.90	130.40	-85.50
07S07E03D03S	3/29/2018	44.90	128.80	-83.90
07S07E03D03S	4/27/2018	44.90	128.10	-83.20
07S07E03D03S	5/24/2018	44.90	128.10	-83.20
07S07E03D03S	6/26/2018	44.90	128.10	-83.20
07S07E03D03S	7/26/2018	44.90	127.10	-82.20
07S07E03D03S	8/30/2018	44.90	125.40	-80.50
07S07E03D03S	9/27/2018	44.90	126.50	-81.60
07S07E03D03S	10/26/2018	44.90	128.20	-83.30
07S07E03D03S	11/29/2018	44.90	127.00	-82.10
07S07E03D03S	12/27/2018	44.90	124.10	-79.20
07S07E03D03S	1/24/2019	44.90	123.80	-78.90
07S07E03D03S	2/27/2019	44.90	125.30	-80.40
07S07E03D03S	3/29/2019	44.90	123.50	-78.60
07S07E03D03S	4/25/2019	44.90	123.00	-78.10
07S07E03D03S	5/30/2019	44.90	122.10	-77.20
07S07E03D03S	9/24/2019	44.90	122.50	-77.60
07S07E03D04S	10/2/2008	32.20	206.50	-174.30
07S07E03D04S	10/9/2008	32.20	206.20	-174.00
07S07E03D04S	10/16/2008	32.20	206.80	-174.60
07S07E03D04S	10/23/2008	32.20	206.70	-174.50
07S07E03D04S	10/30/2008	32.20	206.50	-174.30
07S07E03D04S	11/6/2008	32.20	207.00	-174.80
07S07E03D04S	11/13/2008	32.20	207.00	-174.80
07S07E03D04S	11/21/2008	32.20	207.00	-174.80
07S07E03D04S	11/25/2008	32.20	206.50	-174.30
07S07E03D04S	12/4/2008	32.20	206.80	-174.60
07S07E03D04S	12/9/2008	32.20	206.50	-174.30
07S07E03D04S	12/11/2008	32.20	206.60	-174.40
07S07E03D04S	12/18/2008	32.20	206.40	-174.20
07S07E03D04S	12/23/2008	32.20	205.30	-173.10
07S07E03D04S	12/30/2008	32.20	205.60	-173.40
07S07E03D04S	1/8/2009	32.20	205.50	-173.30
07S07E03D04S	1/15/2009	32.20	205.40	-173.20
07S07E03D04S	1/22/2009	32.20	205.30	-173.10
07S07E03D04S	1/29/2009	32.20	204.80	-172.60
07S07E03D04S	2/5/2009	32.20	205.10	-172.90
07S07E03D04S	2/10/2009	32.20	204.80	-172.60
07S07E03D04S	2/19/2009	32.20	204.10	-171.90
07S07E03D04S	2/26/2009	32.20	204.20	-172.00
07S07E03D04S	3/5/2009	32.20	203.80	-171.60
07S07E03D04S	3/11/2009	32.20	203.60	-171.40
07S07E03D04S	3/20/2009	32.20	203.40	-171.20
07S07E03D04S	3/26/2009	32.20	203.80	-171.60
07S07E03D04S	4/2/2009	32.20	203.70	-171.50
07S07E03D04S	4/9/2009	32.20	203.40	-171.20
07S07E03D04S	4/18/2009	32.20	203.60	-171.40
07S07E03D04S	4/23/2009	32.20	203.70	-171.50
07S07E03D04S	5/1/2009	32.20	203.90	-171.70
07S07E03D04S	5/7/2009	32.20	204.30	-172.10
07S07E03D04S	5/14/2009	32.20	204.90	-172.70

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S07E03D04S	5/21/2009	32.20	205.10	-172.90
07S07E03D04S	5/28/2009	32.20	205.20	-173.00
07S07E03D04S	6/4/2009	32.20	205.80	-173.60
07S07E03D04S	6/11/2009	32.20	205.80	-173.60
07S07E03D04S	6/18/2009	32.20	205.20	-173.00
07S07E03D04S	7/1/2009	32.20	203.00	-170.80
07S07E03D04S	7/9/2009	32.20	200.90	-168.70
07S07E03D04S	7/16/2009	32.20	200.40	-168.20
07S07E03D04S	7/22/2009	32.20	199.30	-167.10
07S07E03D04S	7/30/2009	32.20	198.40	-166.20
07S07E03D04S	8/6/2009	32.20	198.80	-166.60
07S07E03D04S	8/13/2009	32.20	198.70	-166.50
07S07E03D04S	8/20/2009	32.20	198.90	-166.70
07S07E03D04S	8/27/2009	32.20	199.00	-166.80
07S07E03D04S	9/3/2009	32.20	198.60	-166.40
07S07E03D04S	9/10/2009	32.20	197.60	-165.40
07S07E03D04S	9/17/2009	32.20	196.20	-164.00
07S07E03D04S	9/22/2009	32.20	195.40	-163.20
07S07E03D04S	10/26/2017	32.20	108.30	-76.10
07S07E03D04S	12/1/2017	32.20	105.10	-72.90
07S07E03D04S	1/5/2018	32.20	113.00	-80.80
07S07E03D04S	1/31/2018	32.20	118.90	-86.70
07S07E03D04S	2/26/2018	32.20	115.10	-82.90
07S07E03D04S	3/29/2018	32.20	113.50	-81.30
07S07E03D04S	4/27/2018	32.20	113.90	-81.70
07S07E03D04S	5/24/2018	32.20	112.30	-80.10
07S07E03D04S	6/28/2018	32.20	112.90	-80.70
07S07E03D04S	7/26/2018	32.20	110.00	-77.80
07S07E03D04S	8/30/2018	32.20	109.20	-77.00
07S07E03D04S	9/27/2018	32.20	110.60	-78.40
07S07E03D04S	10/26/2018	32.20	113.20	-81.00
07S07E03D04S	11/29/2018	32.20	111.60	-79.40
07S07E03D04S	12/27/2018	32.20	108.30	-76.10
07S07E03D04S	1/24/2019	32.20	108.00	-75.80
07S07E03D04S	2/27/2019	32.20	107.60	-75.40
07S07E03D04S	3/29/2019	32.20	104.10	-71.90
07S07E03D04S	4/25/2019	32.20	107.70	-75.50
07S07E03D04S	5/30/2019	32.20	105.40	-73.20
07S07E03D04S	9/24/2019	32.20	107.30	-75.10
07S07E03G02S	11/21/2008	-46.20	130.20	-176.40
07S07E03G02S	12/9/2008	-46.20	129.50	-175.70
07S07E03G02S	1/16/2009	-46.20	133.50	-179.70
07S07E03G02S	2/19/2009	-46.20	126.40	-172.60
07S07E03G02S	4/23/2009	-46.20	131.10	-177.30
07S07E03G02S	5/21/2009	-46.20	132.30	-178.50
07S07E03G02S	6/11/2009	-46.20	128.30	-174.50
07S07E03G02S	9/22/2009	-46.20	123.00	-169.20
07S07E03G02S	10/27/2017	-46.20	40.90	-87.10
07S07E03G02S	12/1/2017	-46.20	39.60	-85.80
07S07E03G02S	1/5/2018	-46.20	45.80	-92.00
07S07E03G02S	1/31/2018	-46.20	48.80	-95.00
07S07E03G02S	2/26/2018	-46.20	38.30	-84.50
07S07E03G02S	3/29/2018	-46.20	44.80	-91.00
07S07E03G02S	4/27/2018	-46.20	45.60	-91.80
07S07E03G02S	5/25/2018	-46.20	44.60	-90.80

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S07E03G02S	6/26/2018	-46.20	46.40	-92.60
07S07E03G02S	7/27/2018	-46.20	45.70	-91.90
07S07E03G02S	8/30/2018	-46.20	43.10	-89.30
07S07E03G02S	9/27/2018	-46.20	42.80	-89.00
07S07E03G02S	10/26/2018	-46.20	43.90	-90.10
07S07E03G02S	11/29/2018	-46.20	43.20	-89.40
07S07E03G02S	12/27/2018	-46.20	41.50	-87.70
07S07E03G02S	1/24/2019	-46.20	42.30	-88.50
07S07E03G02S	2/27/2019	-46.20	46.20	-92.40
07S07E03G02S	3/29/2019	-46.20	45.80	-92.00
07S07E03G02S	4/25/2019	-46.20	39.40	-85.60
07S07E03G02S	5/30/2019	-46.20	39.30	-85.50
07S07E03G02S	9/25/2019	-46.20	39.70	-85.90
07S07E04A01S	10/16/2008	52.40	226.60	-174.20
07S07E04A01S	11/21/2008	52.40	226.90	-174.50
07S07E04A01S	12/18/2008	52.40	226.20	-173.80
07S07E04A01S	1/16/2009	52.40	225.20	-172.80
07S07E04A01S	2/10/2009	52.40	224.70	-172.30
07S07E04A01S	2/19/2009	52.40	224.30	-171.90
07S07E04A01S	3/20/2009	52.40	223.50	-171.10
07S07E04A01S	4/23/2009	52.40	223.40	-171.00
07S07E04A01S	5/21/2009	52.40	224.80	-172.40
07S07E04A01S	7/16/2009	52.40	220.70	-168.30
07S07E04A01S	7/20/2009	52.40	218.30	-165.90
07S07E04A01S	9/22/2009	52.40	214.10	-161.70
07S07E04A01S	10/29/2017	52.40	128.40	-76.00
07S07E04A01S	12/1/2017	52.40	125.50	-73.10
07S07E04A01S	1/5/2018	52.40	134.90	-82.50
07S07E04A01S	1/31/2018	52.40	139.60	-87.20
07S07E04A01S	2/26/2018	52.40	135.40	-83.00
07S07E04A01S	3/29/2018	52.40	133.50	-81.10
07S07E04A01S	4/27/2018	52.40	134.20	-81.80
07S07E04A01S	5/24/2018	52.40	133.30	-80.90
07S07E04A01S	6/26/2018	52.40	134.00	-81.60
07S07E04A01S	7/26/2018	52.40	134.70	-82.30
07S07E04A01S	8/31/2018	52.40	129.90	-77.50
07S07E04A01S	9/27/2018	52.40	130.70	-78.30
07S07E04A01S	10/26/2018	52.40	133.80	-81.40
07S07E04A01S	11/29/2018	52.40	131.30	-78.90
07S07E04A01S	12/27/2018	52.40	128.60	-76.20
07S07E04A01S	1/24/2019	52.40	128.50	-76.10
07S07E04A01S	2/27/2019	52.40	130.70	-78.30
07S07E04A01S	3/29/2019	52.40	129.20	-76.80
07S07E04A01S	4/25/2019	52.40	128.00	-75.60
07S07E04A01S	5/30/2019	52.40	125.80	-73.40
07S07E04A01S	9/24/2019	52.40	127.90	-75.50
07S07E04A02S	10/16/2008	52.30	226.40	-174.10
07S07E04A02S	11/21/2008	52.30	226.80	-174.50
07S07E04A02S	12/18/2008	52.30	226.10	-173.80
07S07E04A02S	1/16/2009	52.30	225.00	-172.70
07S07E04A02S	2/10/2009	52.30	224.80	-172.50
07S07E04A02S	2/19/2009	52.30	224.00	-171.70
07S07E04A02S	3/20/2009	52.30	223.40	-171.10
07S07E04A02S	4/23/2009	52.30	223.40	-171.10
07S07E04A02S	5/21/2009	52.30	224.40	-172.10

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S07E04A02S	7/16/2009	52.30	220.50	-168.20
07S07E04A02S	8/20/2009	52.30	218.00	-165.70
07S07E04A02S	9/22/2009	52.30	214.10	-161.80
07S07E04A02S	10/26/2017	52.30	128.20	-75.90
07S07E04A02S	12/1/2017	52.30	125.50	-73.20
07S07E04A02S	1/5/2018	52.30	135.00	-82.70
07S07E04A02S	1/31/2018	52.30	139.40	-87.10
07S07E04A02S	2/26/2018	52.30	135.20	-82.90
07S07E04A02S	3/29/2018	52.30	133.30	-81.00
07S07E04A02S	4/27/2018	52.30	133.90	-81.60
07S07E04A02S	5/24/2018	52.30	132.40	-80.10
07S07E04A02S	6/26/2018	52.30	133.80	-81.50
07S07E04A02S	7/26/2018	52.30	134.30	-82.00
07S07E04A02S	8/30/2018	52.30	129.50	-77.20
07S07E04A02S	9/27/2018	52.30	130.60	-78.30
07S07E04A02S	10/26/2018	52.30	133.50	-81.20
07S07E04A02S	11/29/2018	52.30	131.00	-78.70
07S07E04A02S	12/27/2018	52.30	128.30	-76.00
07S07E04A02S	1/24/2019	52.30	128.20	-75.90
07S07E04A02S	2/27/2019	52.30	130.50	-78.20
07S07E04A02S	3/29/2019	52.30	128.70	-76.40
07S07E04A02S	4/25/2019	52.30	127.80	-75.50
07S07E04A02S	5/30/2019	52.30	125.40	-73.10
07S07E04A02S	9/24/2019	52.30	127.50	-75.20
07S08E02L03S	11/6/2017	-164.10	0.20	-164.30
07S08E02L03S	12/6/2017	-164.10	0.20	-164.30
07S08E02L03S	4/20/2018	-164.10	-0.90	-163.20
07S08E02L03S	8/15/2018	-164.10	2.70	-166.80
07S08E02L03S	12/11/2018	-164.10	1.10	-165.20
07S08E02L03S	9/25/2019	-164.10	4.10	-168.20
07S08E06P01S	6/19/2019	-130.00	15.20	-145.20
07S08E06P01S	9/25/2019	-130.00	15.10	-145.10
07S08E07R03S	1/2/2009	-89.30	98.90	-188.20
07S08E07R03S	5/1/2009	-89.30	97.20	-186.50
07S08E07R03S	9/29/2009	-89.30	97.70	-187.00
07S08E07R03S	12/6/2017	-89.30	62.70	-152.00
07S08E07R03S	4/19/2018	-89.30	62.00	-151.30
07S08E07R03S	8/14/2018	-89.30	62.90	-152.20
07S08E07R03S	1/30/2019	-89.30	58.60	-147.90
07S08E07R03S	5/24/2019	-89.30	59.50	-148.80
07S08E07R03S	9/25/2019	-89.30	62.10	-151.40
07S08E09N01S	10/9/2008	-135.30	59.90	-195.20
07S08E09N01S	1/27/2009	-135.30	59.60	-194.90
07S08E09N01S	7/9/2009	-135.30	56.60	-191.90
07S08E09N01S	12/6/2017	-135.30	19.20	-154.50
07S08E09N01S	12/6/2017	-135.30	19.60	-154.90
07S08E09N01S	4/20/2018	-135.30	19.70	-155.00
07S08E09N01S	8/14/2018	-135.30	19.70	-155.00
07S08E09N01S	1/29/2019	-135.30	17.90	-153.20
07S08E09N01S	5/24/2019	-135.30	18.70	-154.00
07S08E09N01S	9/25/2019	-135.30	18.80	-154.10
07S08E10P01S	12/12/2008	-168.60	26.70	-195.30
07S08E10P01S	2/19/2009	-168.60	20.70	-189.30
07S08E10P01S	3/25/2009	-168.60	19.60	-188.20
07S08E10P01S	6/25/2009	-168.60	21.60	-190.20

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S08E10P01S	9/23/2009	-168.60	23.00	-191.60
07S08E10P01S	10/26/2017	-168.60	-6.20	-162.40
07S08E10P01S	12/1/2017	-168.60	-1.80	-166.80
07S08E10P01S	1/5/2018	-168.60	-4.60	-164.00
07S08E10P01S	1/31/2018	-168.60	-1.30	-167.30
07S08E10P01S	2/26/2018	-168.60	-2.30	-166.30
07S08E10P01S	3/29/2018	-168.60	-1.30	-167.30
07S08E10P01S	4/27/2018	-168.60	-9.00	-159.60
07S08E10P01S	5/24/2018	-168.60	-8.00	-160.60
07S08E10P01S	6/26/2018	-168.60	-2.70	-165.90
07S08E10P01S	7/26/2018	-168.60	-2.30	-166.30
07S08E10P01S	8/31/2018	-168.60	-2.30	-166.30
07S08E10P01S	9/27/2018	-168.60	-1.80	-166.80
07S08E10P01S	10/26/2018	-168.60	-2.70	-165.90
07S08E10P01S	11/29/2018	-168.60	-6.40	-162.20
07S08E10P01S	12/27/2018	-168.60	-2.30	-166.30
07S08E10P01S	1/24/2019	-168.60	-1.30	-167.30
07S08E10P01S	2/27/2019	-168.60	-5.00	-163.60
07S08E10P01S	3/29/2019	-168.60	-8.30	-160.30
07S08E10P01S	4/25/2019	-168.60	-3.00	-165.60
07S08E10P01S	5/31/2019	-168.60	-6.90	-161.70
07S08E10P01S	9/25/2019	-168.60	-2.30	-166.30
07S08E14N01S	12/12/2008	-175.00	44.40	-219.40
07S08E14N01S	2/18/2009	-175.00	26.80	-201.80
07S08E14N01S	3/26/2009	-175.00	24.60	-199.60
07S08E14N01S	9/17/2009	-175.00	26.80	-201.80
07S08E14N01S	12/5/2017	-175.00	6.20	-181.20
07S08E14N01S	4/20/2018	-175.00	6.40	-181.40
07S08E14N01S	8/15/2018	-175.00	6.90	-181.90
07S08E14N01S	12/7/2018	-175.00	9.20	-184.20
07S08E14N01S	5/24/2019	-175.00	5.30	-180.30
07S08E14N01S	10/1/2019	-175.00	8.10	-183.10
07S08E17A04S	10/9/2008	-119.00	78.50	-197.50
07S08E17A04S	1/27/2009	-119.00	76.20	-195.20
07S08E17A04S	7/9/2009	-119.00	77.10	-196.10
07S08E17A04S	12/6/2017	-119.00	38.70	-157.70
07S08E17A04S	4/19/2018	-119.00	39.70	-158.70
07S08E17A04S	8/14/2018	-119.00	38.80	-157.80
07S08E17A04S	1/29/2019	-119.00	37.00	-156.00
07S08E17A04S	5/23/2019	-119.00	37.90	-156.90
07S08E17A04S	9/25/2019	-119.00	37.70	-156.70
07S08E17G01S	10/9/2008	-81.10	114.40	-195.50
07S08E17G01S	1/27/2009	-81.10	112.40	-193.50
07S08E17G01S	7/9/2009	-81.10	111.40	-192.50
07S08E17G01S	12/7/2017	-81.10	76.80	-157.90
07S08E17G01S	4/19/2018	-81.10	73.90	-155.00
07S08E17G01S	8/14/2018	-81.10	74.10	-155.20
07S08E17G01S	12/11/2018	-81.10	72.10	-153.20
07S08E17G01S	5/23/2019	-81.10	72.00	-153.10
07S08E17G01S	9/25/2019	-81.10	73.00	-154.10
07S08E25H01S	12/12/2008	-208.50	48.80	-257.30
07S08E25H01S	2/18/2009	-208.50	16.80	-225.30
07S08E25H01S	3/26/2009	-208.50	12.00	-220.50
07S08E25H01S	6/24/2009	-208.50	18.00	-226.50
07S08E25H01S	9/23/2009	-208.50	17.60	-226.10

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S08E25H01S	11/29/2017	-208.50	17.00	-225.50
07S08E25H01S	4/17/2018	-208.50	19.20	-227.70
07S08E25H01S	8/9/2018	-208.50	12.80	-221.30
07S08E25H01S	1/29/2019	-208.50	17.50	-226.00
07S08E25H01S	5/21/2019	-208.50	11.80	-220.30
07S08E25H01S	9/24/2019	-208.50	19.80	-228.30
07S08E26H02S	3/26/2009	-188.50	26.00	-214.50
07S08E26H02S	6/24/2009	-188.50	29.20	-217.70
07S08E26H02S	12/5/2017	-188.50	10.20	-198.70
07S08E26H02S	4/20/2018	-188.50	17.10	-205.60
07S08E26H02S	8/15/2018	-188.50	13.80	-202.30
07S08E26H02S	1/29/2019	-188.50	18.30	-206.80
07S08E26H02S	5/24/2019	-188.50	15.50	-204.00
07S08E26H02S	9/25/2019	-188.50	17.30	-205.80
07S08E29G01S	10/30/2008	81.10	281.80	-200.70
07S08E29G01S	4/9/2009	81.10	281.10	-200.00
07S08E29G01S	5/7/2009	81.10	284.70	-203.60
07S08E29G01S	12/7/2017	81.10	245.90	-164.80
07S08E29G01S	4/19/2018	81.10	245.60	-164.50
07S08E29G01S	8/21/2018	81.10	247.10	-166.00
07S08E29G01S	12/11/2018	81.10	243.80	-162.70
07S08E29G01S	5/23/2019	81.10	244.70	-163.60
07S08E29G01S	9/25/2019	81.10	244.60	-163.50
07S08E29P01S	2/12/2009	167.30	345.70	-178.40
07S08E29P01S	6/9/2009	167.30	363.30	-196.00
07S08E29P01S	9/24/2009	167.30	362.30	-195.00
07S08E29P01S	12/12/2017	167.30	330.40	-163.10
07S08E29P01S	4/20/2018	167.30	329.60	-162.30
07S08E29P01S	8/21/2018	167.30	330.90	-163.60
07S08E29P01S	1/31/2019	167.30	330.20	-162.90
07S08E29P01S	5/31/2019	167.30	328.30	-161.00
07S08E29P01S	9/30/2019	167.30	329.90	-162.60
07S08E29P02S	12/11/2008	155.00	351.10	-196.10
07S08E29P02S	2/12/2009	155.00	337.60	-182.60
07S08E29P02S	9/24/2009	155.00	350.00	-195.00
07S08E29P02S	12/12/2017	155.00	315.80	-160.80
07S08E29P02S	4/20/2018	155.00	316.80	-161.80
07S08E29P02S	8/21/2018	155.00	319.40	-164.40
07S08E29P02S	1/31/2019	155.00	320.60	-165.60
07S08E29P02S	5/31/2019	155.00	315.60	-160.60
07S08E29P02S	9/30/2019	155.00	317.00	-162.00
07S08E29P03S	11/4/2008	175.60	371.90	-196.30
07S08E29P03S	12/2/2008	175.60	373.90	-198.30
07S08E29P03S	12/11/2008	175.60	370.70	-195.10
07S08E29P03S	1/6/2009	175.60	358.00	-182.40
07S08E29P03S	2/3/2009	175.60	352.90	-177.30
07S08E29P03S	2/12/2009	175.60	353.30	-177.70
07S08E29P03S	5/5/2009	175.60	364.10	-188.50
07S08E29P03S	7/7/2009	175.60	372.10	-196.50
07S08E29P03S	8/4/2009	175.60	371.40	-195.80
07S08E29P03S	9/24/2009	175.60	371.10	-195.50
07S08E29P03S	12/12/2017	175.60	336.80	-161.20
07S08E29P03S	4/20/2018	175.60	338.80	-163.20
07S08E29P03S	8/21/2018	175.60	340.20	-164.60
07S08E29P03S	1/31/2019	175.60	339.50	-163.90

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S08E29P03S	5/31/2019	175.60	336.90	-161.30
07S08E29P03S	9/30/2019	175.60	339.10	-163.50
07S08E29P04S	12/11/2008	162.90	366.20	-203.30
07S08E29P04S	2/12/2009	162.90	347.80	-184.90
07S08E29P04S	6/9/2009	162.90	357.10	-194.20
07S08E29P04S	9/24/2009	162.90	360.20	-197.30
07S08E29P04S	12/12/2017	162.90	328.30	-165.40
07S08E29P04S	4/20/2018	162.90	326.70	-163.80
07S08E29P04S	8/21/2018	162.90	329.10	-166.20
07S08E29P04S	1/31/2019	162.90	328.60	-165.70
07S08E29P04S	5/31/2019	162.90	325.60	-162.70
07S08E29P04S	9/30/2019	162.90	327.00	-164.10
07S08E29Q01S	2/12/2009	89.30	287.70	-198.40
07S08E29Q01S	6/9/2009	89.30	290.60	-201.30
07S08E29Q01S	1/1/2019	89.30	255.00	-165.70
07S08E31R01S	10/30/2008	236.20	280.00	-43.80
07S08E31R01S	1/28/2009	236.20	280.50	-44.30
07S08E31R01S	7/17/2009	236.20	281.30	-45.10
07S08E31R01S	12/6/2017	236.20	288.70	-52.50
07S08E31R01S	4/19/2018	236.20	288.70	-52.50
07S08E31R01S	8/13/2018	236.20	288.80	-52.60
07S08E31R01S	12/11/2018	236.20	288.60	-52.40
07S08E31R01S	5/27/2019	236.20	289.10	-52.90
07S08E31R01S	9/25/2019	236.20	289.70	-53.50
07S08E32A01S	12/11/2008	88.70	293.20	-204.50
07S08E32A01S	2/12/2009	88.70	289.10	-200.40
07S08E32A01S	6/9/2009	88.70	289.00	-200.30
07S08E32A01S	12/12/2017	88.70	257.90	-169.20
07S08E32A01S	4/20/2018	88.70	257.20	-168.50
07S08E32A01S	8/21/2018	88.70	259.90	-171.20
07S08E32A01S	1/31/2019	88.70	257.80	-169.10
07S08E32A01S	9/30/2019	88.70	256.80	-168.10
07S08E33B01S	1/6/2009	21.80	230.70	-208.90
07S08E33B01S	5/7/2009	21.80	223.70	-201.90
07S08E33B01S	9/29/2009	21.80	224.40	-202.60
07S08E33B01S	12/6/2017	21.80	202.80	-181.00
07S08E33B01S	4/19/2018	21.80	201.20	-179.40
07S08E33B01S	8/14/2018	21.80	203.90	-182.10
07S08E33B01S	1/30/2019	21.80	201.10	-179.30
07S08E33B01S	5/23/2019	21.80	202.70	-180.90
07S08E33B01S	9/25/2019	21.80	200.60	-178.80
07S08E35D01S	12/12/2008	-130.90	79.00	-209.90
07S08E35D01S	2/18/2009	-130.90	74.60	-205.50
07S08E35D01S	3/31/2009	-130.90	71.20	-202.10
07S08E35D01S	6/24/2009	-130.90	72.60	-203.50
07S08E35D01S	12/5/2017	-130.90	45.10	-176.00
07S08E35D01S	4/19/2018	-130.90	43.10	-174.00
07S08E35D01S	8/14/2018	-130.90	44.80	-175.70
07S08E35D01S	1/30/2019	-130.90	42.50	-173.40
07S08E35D01S	5/23/2019	-130.90	41.40	-172.30
07S08E35D01S	9/25/2019	-130.90	43.00	-173.90
07S08E36B01S	12/12/2008	-204.80	30.00	-234.80
07S08E36B01S	2/18/2009	-204.80	15.00	-219.80
07S08E36B01S	3/31/2009	-204.80	10.60	-215.40
07S08E36B01S	6/24/2009	-204.80	11.10	-215.90



State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S08E36B01S	9/17/2009	-204.80	8.00	-212.80
07S08E36B01S	11/29/2017	-204.80	-1.60	-203.20
07S08E36B01S	4/17/2018	-204.80	-1.80	-203.00
07S08E36B01S	8/9/2018	-204.80	-0.60	-204.20
07S08E36B01S	5/21/2019	-204.80	-0.60	-204.20
07S08E36B01S	9/24/2019	-204.80	-0.90	-203.90
07S09E07J01S	12/12/2008	-185.40	-1.10	-184.30
07S09E07J01S	11/22/2017	-185.40	-5.00	-180.40
07S09E07J01S	4/13/2018	-185.40	-3.20	-182.20
07S09E07J01S	8/9/2018	-185.40	-7.30	-178.10
07S09E07J01S	12/11/2018	-185.40	-9.20	-176.20
07S09E07J01S	5/20/2019	-185.40	-3.20	-182.20
07S09E07J01S	9/22/2019	-185.40	-4.10	-181.30
07S09E08R01S	10/29/2008	-166.40	27.20	-193.60
07S09E08R01S	1/28/2009	-166.40	19.50	-185.90
07S09E08R01S	7/10/2009	-166.40	16.10	-182.50
07S09E08R01S	11/21/2017	-166.40	-1.80	-164.60
07S09E08R01S	4/13/2018	-166.40	-0.40	-166.00
07S09E08R01S	8/8/2018	-166.40	-1.80	-164.60
07S09E08R01S	1/22/2019	-166.40	-3.20	-163.20
07S09E08R01S	5/17/2019	-166.40	-3.20	-163.20
07S09E08R01S	9/22/2019	-166.40	-0.40	-166.00
07S09E14C01S	10/29/2008	-64.60	104.30	-168.90
07S09E14C01S	1/29/2009	-64.60	104.70	-169.30
07S09E14C01S	7/17/2009	-64.60	105.40	-170.00
07S09E14C01S	11/28/2017	-64.60	93.80	-158.40
07S09E14C01S	4/13/2018	-64.60	93.20	-157.80
07S09E14C01S	8/8/2018	-64.60	93.50	-158.10
07S09E14C01S	1/22/2019	-64.60	92.70	-157.30
07S09E14C01S	5/17/2019	-64.60	92.00	-156.60
07S09E14C01S	9/22/2019	-64.60	92.00	-156.60
07S09E16M03S	12/12/2008	-191.40	39.80	-231.20
07S09E16M03S	2/18/2009	-191.40	18.50	-209.90
07S09E16M03S	3/25/2009	-191.40	18.70	-210.10
07S09E16M03S	6/26/2009	-191.40	21.00	-212.40
07S09E16M03S	9/17/2009	-191.40	19.80	-211.20
07S09E16M03S	11/28/2017	-191.40	0.80	-192.20
07S09E16M03S	11/28/2017	-191.40	1.80	-193.20
07S09E16M03S	4/13/2018	-191.40	2.60	-194.00
07S09E16M03S	8/8/2018	-191.40	5.30	-196.70
07S09E16M03S	1/22/2019	-191.40	2.60	-194.00
07S09E16M03S	5/17/2019	-191.40	-1.30	-190.10
07S09E16M03S	9/22/2019	-191.40	-1.30	-190.10
07S09E18H01S	6/26/2009	-197.90	13.00	-210.90
07S09E18H01S	9/17/2009	-197.90	11.80	-209.70
07S09E18H01S	11/28/2017	-197.90	-1.80	-196.10
07S09E18H01S	4/17/2018	-197.90	-1.80	-196.10
07S09E18H01S	8/9/2018	-197.90	-6.40	-191.50
07S09E18H01S	1/29/2019	-197.90	-2.70	-195.20
07S09E18H01S	5/20/2019	-197.90	-4.10	-193.80
07S09E18H01S	9/24/2019	-197.90	-5.00	-192.90
07S09E23N01S	1/29/2009	-187.70	31.70	-219.40
07S09E23N01S	7/17/2009	-187.70	25.90	-213.60
07S09E23N01S	11/28/2017	-187.70	8.30	-196.00
07S09E23N01S	4/17/2018	-187.70	5.90	-193.60

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S09E23N01S	8/8/2018	-187.70	6.60	-194.30
07S09E23N01S	12/12/2018	-187.70	7.20	-194.90
07S09E23N01S	5/17/2019	-187.70	5.30	-193.00
07S09E23N01S	9/22/2019	-187.70	7.20	-194.90
07S09E26G03S	1/29/2009	-201.40	-0.70	-200.70
07S09E26G03S	7/17/2009	-201.40	-1.20	-200.20
07S09E26G03S	11/28/2017	-201.40	-1.20	-200.20
07S09E26G03S	4/17/2018	-201.40	-1.20	-200.20
07S09E26G03S	8/8/2018	-201.40	-1.20	-200.20
07S09E26G03S	1/22/2019	-201.40	-1.20	-200.20
07S09E26G03S	5/17/2019	-201.40	-1.20	-200.20
07S09E26G03S	9/22/2019	-201.40	-1.20	-200.20
07S09E30R01S	12/12/2008	-203.20	0.60	-203.80
07S09E30R01S	2/3/2009	-203.20	0.40	-203.60
07S09E30R01S	2/18/2009	-203.20	0.70	-203.90
07S09E30R01S	3/25/2009	-203.20	0.00	-203.20
07S09E30R01S	4/7/2009	-203.20	0.00	-203.20
07S09E30R01S	6/2/2009	-203.20	0.00	-203.20
07S09E30R01S	6/26/2009	-203.20	0.00	-203.20
07S09E30R01S	8/4/2009	-203.20	0.00	-203.20
07S09E30R01S	9/17/2009	-203.20	0.00	-203.20
07S09E30R01S	4/17/2018	-203.20	-28.80	-174.40
07S09E30R01S	8/9/2018	-203.20	-20.70	-182.50
07S09E30R01S	1/28/2019	-203.20	-18.40	-184.80
07S09E30R01S	5/20/2019	-203.20	-22.60	-180.60
07S09E30R01S	10/1/2019	-203.20	-15.70	-187.50
07S09E30R02S	10/7/2008	-203.10	12.90	-216.00
07S09E30R02S	12/2/2008	-203.10	17.60	-220.70
07S09E30R02S	12/12/2008	-203.10	12.50	-215.60
07S09E30R02S	2/3/2009	-203.10	8.90	-212.00
07S09E30R02S	2/18/2009	-203.10	7.60	-210.70
07S09E30R02S	3/25/2009	-203.10	6.60	-209.70
07S09E30R02S	4/7/2009	-203.10	6.30	-209.40
07S09E30R02S	6/2/2009	-203.10	6.30	-209.40
07S09E30R02S	6/26/2009	-203.10	6.20	-209.30
07S09E30R02S	8/4/2009	-203.10	10.40	-213.50
07S09E30R02S	9/17/2009	-203.10	8.10	-211.20
07S09E30R02S	4/17/2018	-203.10	-13.60	-189.50
07S09E30R02S	8/9/2018	-203.10	-15.20	-187.90
07S09E30R02S	1/29/2019	-203.10	-12.40	-190.70
07S09E30R02S	5/20/2019	-203.10	-12.40	-190.70
07S09E30R02S	10/1/2019	-203.10	-27.70	-175.40
07S09E30R03S	10/7/2008	-203.00	63.50	-266.50
07S09E30R03S	12/2/2008	-203.00	61.40	-264.40
07S09E30R03S	12/12/2008	-203.00	55.00	-258.00
07S09E30R03S	2/3/2009	-203.00	35.40	-238.40
07S09E30R03S	2/18/2009	-203.00	32.70	-235.70
07S09E30R03S	3/25/2009	-203.00	27.60	-230.60
07S09E30R03S	4/7/2009	-203.00	24.50	-227.50
07S09E30R03S	6/2/2009	-203.00	23.20	-226.20
07S09E30R03S	6/26/2009	-203.00	23.90	-226.90
07S09E30R03S	8/4/2009	-203.00	19.50	-222.50
07S09E30R03S	9/17/2009	-203.00	16.20	-219.20
07S09E30R03S	10/4/2017	-203.00	10.40	-213.40
07S09E30R03S	12/5/2017	-203.00	11.60	-214.60

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
07S09E30R03S	4/17/2018	-203.00	10.90	-213.90
07S09E30R03S	8/9/2018	-203.00	10.00	-213.00
07S09E30R03S	1/29/2019	-203.00	15.30	-218.30
07S09E30R03S	5/20/2019	-203.00	9.90	-212.90
07S09E30R03S	10/1/2019	-203.00	10.70	-213.70
07S09E30R04S	10/7/2008	-203.00	62.90	-265.90
07S09E30R04S	12/2/2008	-203.00	56.30	-259.30
07S09E30R04S	12/12/2008	-203.00	50.40	-253.40
07S09E30R04S	2/3/2009	-203.00	29.80	-232.80
07S09E30R04S	2/18/2009	-203.00	25.50	-228.50
07S09E30R04S	3/25/2009	-203.00	21.50	-224.50
07S09E30R04S	4/7/2009	-203.00	21.40	-224.40
07S09E30R04S	6/2/2009	-203.00	21.40	-224.40
07S09E30R04S	6/26/2009	-203.00	22.40	-225.40
07S09E30R04S	8/4/2009	-203.00	25.50	-228.50
07S09E30R04S	9/17/2009	-203.00	22.50	-225.50
07S09E30R04S	10/4/2017	-203.00	11.80	-214.80
07S09E30R04S	12/15/2017	-203.00	12.40	-215.40
07S09E30R04S	4/17/2018	-203.00	10.20	-213.20
07S09E30R04S	8/9/2018	-203.00	8.50	-211.50
07S09E30R04S	12/11/2018	-203.00	14.30	-217.30
07S09E30R04S	1/29/2019	-203.00	12.50	-215.50
07S09E30R04S	5/20/2019	-203.00	7.50	-210.50
07S09E30R04S	10/1/2019	-203.00	11.90	-214.90
08S08E01N01S	12/12/2008	-173.30	55.60	-228.90
08S08E01N01S	2/18/2009	-173.30	52.30	-225.60
08S08E01N01S	3/25/2009	-173.30	50.80	-224.10
08S08E01N01S	6/24/2009	-173.30	49.50	-222.80
08S08E01N01S	9/17/2009	-173.30	49.60	-222.90
08S08E01N01S	12/5/2017	-173.30	10.30	-183.60
08S08E01N01S	4/19/2018	-173.30	9.70	-183.00
08S08E01N01S	8/13/2018	-173.30	9.60	-182.90
08S08E01N01S	1/30/2019	-173.30	9.60	-182.90
08S08E01N01S	5/22/2019	-173.30	9.70	-183.00
08S08E01N01S	9/25/2019	-173.30	9.20	-182.50
08S08E03L01S	12/12/2008	-58.60	156.40	-215.00
08S08E03L01S	2/19/2009	-58.60	152.70	-211.30
08S08E03L01S	3/25/2009	-58.60	151.80	-210.40
08S08E03L01S	9/23/2009	-58.60	152.40	-211.00
08S08E03L01S	12/5/2017	-58.60	122.30	-180.90
08S08E03L01S	4/19/2018	-58.60	123.50	-182.10
08S08E03L01S	8/13/2018	-58.60	123.10	-181.70
08S08E03L01S	1/30/2019	-58.60	119.40	-178.00
08S08E03L01S	5/22/2019	-58.60	118.60	-177.20
08S08E03L01S	9/25/2019	-58.60	120.70	-179.30
08S08E24A01S	1/2/2009	-155.20	86.90	-242.10
08S08E24A01S	5/1/2009	-155.20	90.20	-245.40
08S08E24A01S	9/29/2009	-155.20	77.40	-232.60
08S08E24A01S	12/5/2017	-155.20	59.90	-215.10
08S08E24A01S	4/18/2018	-155.20	58.70	-213.90
08S08E24A01S	8/10/2018	-155.20	57.40	-212.60
08S08E24A01S	12/11/2018	-155.20	62.50	-217.70
08S08E24A01S	5/22/2019	-155.20	54.30	-209.50
08S08E24A01S	9/24/2019	-155.20	51.50	-206.70
08S08E24L01S	10/29/2008	-110.80	138.40	-249.20

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
08S08E24L01S	1/29/2009	-110.80	141.20	-252.00
08S08E24L01S	7/23/2009	-110.80	135.90	-246.70
08S08E24L01S	9/29/2009	-110.80	136.70	-247.50
08S08E24L01S	12/5/2017	-110.80	107.30	-218.10
08S08E24L01S	4/18/2018	-110.80	104.90	-215.70
08S08E24L01S	8/10/2018	-110.80	102.80	-213.60
08S08E24L01S	1/30/2019	-110.80	104.80	-215.60
08S08E24L01S	5/21/2019	-110.80	103.70	-214.50
08S08E24L01S	9/24/2019	-110.80	100.10	-210.90
08S09E07M01S	12/12/2008	-205.60	37.90	-243.50
08S09E07M01S	2/18/2009	-205.60	27.10	-232.70
08S09E07M01S	3/25/2009	-205.60	23.80	-229.40
08S09E07M01S	9/17/2009	-205.60	20.70	-226.30
08S09E07M01S	12/5/2017	-205.60	0.00	-205.60
08S09E07M01S	4/18/2018	-205.60	0.00	-205.60
08S09E07M01S	8/10/2018	-205.60	0.00	-205.60
08S09E07M01S	1/30/2019	-205.60	0.00	-205.60
08S09E07M01S	5/22/2019	-205.60	0.00	-205.60
08S09E07M01S	9/24/2019	-205.60	-0.20	-205.40
08S09E07N01S	11/4/2008	-206.30	51.60	-257.90
08S09E07N01S	12/12/2008	-206.30	50.00	-256.30
08S09E07N01S	1/6/2009	-206.30	48.70	-255.00
08S09E07N01S	2/18/2009	-206.30	45.70	-252.00
08S09E07N01S	3/3/2009	-206.30	45.10	-251.40
08S09E07N01S	3/25/2009	-206.30	43.70	-250.00
08S09E07N01S	5/5/2009	-206.30	42.20	-248.50
08S09E07N01S	6/24/2009	-206.30	32.00	-238.30
08S09E07N01S	7/7/2009	-206.30	33.50	-239.80
08S09E07N01S	9/1/2009	-206.30	31.90	-238.20
08S09E07N01S	9/17/2009	-206.30	31.50	-237.80
08S09E07N01S	11/22/2017	-206.30	4.30	-210.60
08S09E07N01S	4/18/2018	-206.30	3.70	-210.00
08S09E07N01S	8/10/2018	-206.30	2.40	-208.70
08S09E07N01S	12/11/2018	-206.30	4.40	-210.70
08S09E07N01S	5/22/2019	-206.30	0.90	-207.20
08S09E07N01S	9/24/2019	-206.30	-0.30	-206.00
08S09E07N02S	11/4/2008	-206.30	37.60	-243.90
08S09E07N02S	12/12/2008	-206.30	40.70	-247.00
08S09E07N02S	1/6/2009	-206.30	41.70	-248.00
08S09E07N02S	2/18/2009	-206.30	41.00	-247.30
08S09E07N02S	3/3/2009	-206.30	39.00	-245.30
08S09E07N02S	3/25/2009	-206.30	36.40	-242.70
08S09E07N02S	5/5/2009	-206.30	35.00	-241.30
08S09E07N02S	6/24/2009	-206.30	33.40	-239.70
08S09E07N02S	7/7/2009	-206.30	33.30	-239.60
08S09E07N02S	9/1/2009	-206.30	32.90	-239.20
08S09E07N02S	9/17/2009	-206.30	32.20	-238.50
08S09E07N02S	11/22/2017	-206.30	5.60	-211.90
08S09E07N02S	4/18/2018	-206.30	4.20	-210.50
08S09E07N02S	8/10/2018	-206.30	3.80	-210.10
08S09E07N02S	12/11/2018	-206.30	6.30	-212.60
08S09E07N02S	9/24/2019	-206.30	-0.30	-206.00
08S09E07N03S	11/4/2008	-206.90	34.10	-241.00
08S09E07N03S	12/12/2008	-206.90	39.40	-246.30
08S09E07N03S	1/6/2009	-206.90	40.40	-247.30

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
08S09E07N03S	2/18/2009	-206.90	37.60	-244.50
08S09E07N03S	3/4/2009	-206.90	35.80	-242.70
08S09E07N03S	3/25/2009	-206.90	32.50	-239.40
08S09E07N03S	5/5/2009	-206.90	30.40	-237.30
08S09E07N03S	6/24/2009	-206.90	28.40	-235.30
08S09E07N03S	7/7/2009	-206.90	28.00	-234.90
08S09E07N03S	9/1/2009	-206.90	27.70	-234.60
08S09E07N03S	9/17/2009	-206.90	27.60	-234.50
08S09E07N03S	8/10/2018	-206.90	-3.20	-203.70
08S09E07N03S	12/11/2018	-206.90	3.60	-210.50
08S09E07N03S	5/22/2019	-206.90	-3.20	-203.70
08S09E07N03S	9/24/2019	-206.90	-3.60	-203.30
08S09E07N04S	11/4/2008	-206.90	33.30	-240.20
08S09E07N04S	12/12/2008	-206.90	38.60	-245.50
08S09E07N04S	1/6/2009	-206.90	39.60	-246.50
08S09E07N04S	2/18/2009	-206.90	38.20	-245.10
08S09E07N04S	3/4/2009	-206.90	35.20	-242.10
08S09E07N04S	3/25/2009	-206.90	31.90	-238.80
08S09E07N04S	5/5/2009	-206.90	29.90	-236.80
08S09E07N04S	6/24/2009	-206.90	27.90	-234.80
08S09E07N04S	7/7/2009	-206.90	28.50	-235.40
08S09E07N04S	9/1/2009	-206.90	27.30	-234.20
08S09E07N04S	9/17/2009	-206.90	27.10	-234.00
08S09E07N04S	4/18/2018	-206.90	-0.50	-206.40
08S09E07N04S	8/10/2018	-206.90	-3.60	-203.30
08S09E07N04S	12/11/2018	-206.90	2.50	-209.40
08S09E07N04S	5/22/2019	-206.90	-2.70	-204.20
08S09E07N04S	9/24/2019	-206.90	-3.40	-203.50
08S09E30A01S	10/29/2008	-152.30	103.60	-255.90
08S09E30A01S	1/29/2009	-152.30	108.20	-260.50
08S09E30A01S	7/23/2009	-152.30	102.00	-254.30
08S09E30A01S	11/29/2017	-152.30	71.80	-224.10
08S09E30A01S	4/18/2018	-152.30	72.10	-224.40
08S09E30A01S	8/9/2018	-152.30	69.40	-221.70
08S09E30A01S	1/30/2019	-152.30	71.10	-223.40
08S09E30A01S	5/21/2019	-152.30	68.10	-220.40
08S09E30A01S	9/24/2019	-152.30	66.10	-218.40
08S09E31Q03S	1/29/2009	2.00	270.20	-268.20
08S09E31Q03S	11/29/2017	2.00	243.70	-241.70
08S09E31Q03S	4/18/2018	2.00	244.10	-242.10
08S09E31Q03S	8/10/2018	2.00	255.50	-253.50
08S09E31Q03S	1/30/2019	2.00	252.90	-250.90
08S09E31Q03S	5/21/2019	2.00	242.30	-240.30
08S09E31Q03S	9/24/2019	2.00	231.00	-229.00
08S09E31Q04S	10/29/2008	14.00	280.40	-266.40
08S09E31Q04S	1/29/2009	14.00	280.20	-266.20
08S09E31Q04S	7/23/2009	14.00	280.30	-266.30
08S09E31Q04S	11/29/2017	14.00	247.40	-233.40
08S09E31Q04S	4/18/2018	14.00	247.90	-233.90
08S09E31Q04S	8/10/2018	14.00	246.80	-232.80
08S09E31Q04S	1/30/2019	14.00	244.30	-230.30
08S09E31Q04S	5/21/2019	14.00	244.70	-230.70
08S09E31Q04S	9/24/2019	14.00	243.20	-229.20
08S09E31R01S	10/23/2008	-17.80	240.90	-258.70
08S09E31R01S	1/29/2009	-17.80	241.20	-259.00

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
08S09E31R01S	7/23/2009	-17.80	238.70	-256.50
08S09E31R01S	11/29/2017	-17.80	207.40	-225.20
08S09E31R01S	4/18/2018	-17.80	207.30	-225.10
08S09E31R01S	8/10/2018	-17.80	209.00	-226.80
08S09E31R01S	12/11/2018	-17.80	204.40	-222.20
08S09E31R01S	5/21/2019	-17.80	204.30	-222.10
08S09E31R01S	9/24/2019	-17.80	203.80	-221.60
08S09E31R03S	10/29/2008	-9.00	256.40	-265.40
08S09E31R03S	1/29/2009	-9.00	257.30	-266.30
08S09E31R03S	7/23/2009	-9.00	256.30	-265.30
08S09E31R03S	11/29/2017	-9.00	223.80	-232.80
08S09E31R03S	4/18/2018	-9.00	223.80	-232.80
08S09E31R03S	8/10/2018	-9.00	222.90	-231.90
08S09E31R03S	1/30/2019	-9.00	220.60	-229.60
08S09E31R03S	5/21/2019	-9.00	220.80	-229.80
08S09E31R03S	9/24/2019	-9.00	221.20	-230.20
08S09E32C01S	10/16/2008	-145.30	111.90	-257.20
08S09E32C01S	11/21/2008	-145.30	112.60	-257.90
08S09E32C01S	12/9/2008	-145.30	113.00	-258.30
08S09E32C01S	12/18/2008	-145.30	113.90	-259.20
08S09E32C01S	1/16/2009	-145.30	114.60	-259.90
08S09E32C01S	2/19/2009	-145.30	114.90	-260.20
08S09E32C01S	3/20/2009	-145.30	114.30	-259.60
08S09E32C01S	4/23/2009	-145.30	112.70	-258.00
08S09E32C01S	5/21/2009	-145.30	111.80	-257.10
08S09E32C01S	6/11/2009	-145.30	111.50	-256.80
08S09E32C01S	7/16/2009	-145.30	110.70	-256.00
08S09E32C01S	8/20/2009	-145.30	109.90	-255.20
08S09E32C01S	10/26/2017	-145.30	80.70	-226.00
08S09E32C01S	12/1/2017	-145.30	81.20	-226.50
08S09E32C01S	1/5/2018	-145.30	82.00	-227.30
08S09E32C01S	1/31/2018	-145.30	86.50	-231.80
08S09E32C01S	2/26/2018	-145.30	86.60	-231.90
08S09E32C01S	3/29/2018	-145.30	82.60	-227.90
08S09E32C01S	4/27/2018	-145.30	81.10	-226.40
08S09E32C01S	5/25/2018	-145.30	80.90	-226.20
08S09E32C01S	6/26/2018	-145.30	80.50	-225.80
08S09E32C01S	7/26/2018	-145.30	80.10	-225.40
08S09E32C01S	8/31/2018	-145.30	79.40	-224.70
08S09E32C01S	9/27/2018	-145.30	79.20	-224.50
08S09E32C01S	10/26/2018	-145.30	78.60	-223.90
08S09E32C01S	11/29/2018	-145.30	79.10	-224.40
08S09E32C01S	12/31/2018	-145.30	76.80	-222.10
08S09E32C01S	1/24/2019	-145.30	76.20	-221.50
08S09E32C01S	2/27/2019	-145.30	82.50	-227.80
08S09E32C01S	3/29/2019	-145.30	79.40	-224.70
08S09E32C01S	4/25/2019	-145.30	79.10	-224.40
08S09E32C01S	5/30/2019	-145.30	80.40	-225.70
08S09E32C01S	9/24/2019	-145.30	75.90	-221.20
08S09E32G01S	10/16/2008	-148.50	109.90	-258.40
08S09E32G01S	11/21/2008	-148.50	109.80	-258.30
08S09E32G01S	12/9/2008	-148.50	110.60	-259.10
08S09E32G01S	12/18/2008	-148.50	111.20	-259.70
08S09E32G01S	1/16/2009	-148.50	112.80	-261.30
08S09E32G01S	2/19/2009	-148.50	112.20	-260.70

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
08S09E32G01S	3/20/2009	-148.50	111.60	-260.10
08S09E32G01S	4/23/2009	-148.50	110.00	-258.50
08S09E32G01S	5/21/2009	-148.50	109.30	-257.80
08S09E32G01S	6/11/2009	-148.50	110.30	-258.80
08S09E32G01S	7/16/2009	-148.50	108.20	-256.70
08S09E32G01S	8/20/2009	-148.50	107.20	-255.70
08S09E32G01S	10/26/2017	-148.50	77.20	-225.70
08S09E32G01S	12/1/2017	-148.50	72.90	-221.40
08S09E32G01S	1/5/2018	-148.50	77.90	-226.40
08S09E32G01S	1/31/2018	-148.50	77.90	-226.40
08S09E32G01S	2/26/2018	-148.50	77.30	-225.80
08S09E32G01S	3/29/2018	-148.50	77.10	-225.60
08S09E32G01S	4/27/2018	-148.50	76.70	-225.20
08S09E32G01S	5/25/2018	-148.50	76.50	-225.00
08S09E32G01S	6/26/2018	-148.50	76.00	-224.50
08S09E32G01S	7/26/2018	-148.50	75.70	-224.20
08S09E32G01S	8/31/2018	-148.50	75.00	-223.50
08S09E32G01S	9/27/2018	-148.50	74.70	-223.20
08S09E32G01S	10/26/2018	-148.50	74.40	-222.90
08S09E32G01S	11/29/2018	-148.50	74.10	-222.60
08S09E32G01S	12/31/2018	-148.50	74.60	-223.10
08S09E32G01S	1/24/2019	-148.50	75.20	-223.70
08S09E32G01S	2/27/2019	-148.50	76.30	-224.80
08S09E32G01S	3/29/2019	-148.50	74.90	-223.40
08S09E32G01S	4/25/2019	-148.50	74.20	-222.70
08S09E32G01S	5/30/2019	-148.50	73.60	-222.10
08S09E32G01S	9/24/2019	-148.50	72.40	-220.90
08S09E32G02S	10/16/2008	-142.40	109.10	-251.50
08S09E32G02S	11/21/2008	-142.40	109.00	-251.40
08S09E32G02S	12/9/2008	-142.40	110.50	-252.90
08S09E32G02S	12/18/2008	-142.40	111.10	-253.50
08S09E32G02S	1/16/2009	-142.40	112.90	-255.30
08S09E32G02S	2/19/2009	-142.40	114.10	-256.50
08S09E32G02S	3/20/2009	-142.40	112.90	-255.30
08S09E32G02S	4/23/2009	-142.40	112.80	-255.20
08S09E32G02S	5/21/2009	-142.40	110.80	-253.20
08S09E32G02S	6/11/2009	-142.40	112.50	-254.90
08S09E32G02S	7/16/2009	-142.40	109.60	-252.00
08S09E32G02S	8/20/2009	-142.40	108.70	-251.10
08S09E32G02S	10/26/2017	-142.40	79.40	-221.80
08S09E32G02S	12/1/2017	-142.40	79.20	-221.60
08S09E32G02S	1/5/2018	-142.40	79.80	-222.20
08S09E32G02S	1/31/2018	-142.40	79.70	-222.10
08S09E32G02S	2/26/2018	-142.40	79.50	-221.90
08S09E32G02S	3/29/2018	-142.40	79.30	-221.70
08S09E32G02S	4/27/2018	-142.40	78.80	-221.20
08S09E32G02S	5/25/2018	-142.40	78.90	-221.30
08S09E32G02S	6/26/2018	-142.40	78.50	-220.90
08S09E32G02S	7/26/2018	-142.40	78.00	-220.40
08S09E32G02S	8/31/2018	-142.40	78.40	-220.80
08S09E32G02S	9/27/2018	-142.40	77.50	-219.90
08S09E32G02S	10/26/2018	-142.40	76.80	-219.20
08S09E32G02S	11/29/2018	-142.40	76.30	-218.70
08S09E32G02S	12/31/2018	-142.40	77.40	-219.80
08S09E32G02S	1/24/2019	-142.40	77.20	-219.60



State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
08S09E32G02S	2/27/2019	-142.40	77.20	-219.60
08S09E32G02S	3/29/2019	-142.40	77.00	-219.40
08S09E32G02S	4/25/2019	-142.40	76.50	-218.90
08S09E32G02S	5/30/2019	-142.40	75.80	-218.20
08S09E32G02S	9/24/2019	-142.40	71.60	-214.00
08S09E33N01S	1/2/2009	-133.60	124.10	-257.70
08S09E33N01S	5/1/2009	-133.60	123.80	-257.40
08S09E33N01S	9/29/2009	-133.60	120.70	-254.30
08S09E33N01S	11/29/2017	-133.60	92.60	-226.20
08S09E33N01S	4/18/2018	-133.60	92.40	-226.00
08S09E33N01S	8/10/2018	-133.60	92.70	-226.30
08S09E33N01S	1/30/2019	-133.60	90.50	-224.10
08S09E33N01S	5/21/2019	-133.60	89.60	-223.20
08S09E33N01S	9/24/2019	-133.60	88.20	-221.80
05S08E33D01S	1/29/2009	-57.10	72.20	-129.30
05S08E33D01S	7/9/2009	-57.10	87.10	-144.20
05S08E33D01S	10/19/2017	-57.10	23.10	-80.20
05S08E33D01S	11/17/2017	-57.10	34.10	-91.20
05S08E33D01S	4/11/2018	-57.10	30.60	-87.70
05S08E33D01S	5/18/2018	-57.10	25.10	-82.20
05S08E33D01S	8/3/2018	-57.10	31.70	-88.80
05S08E33D01S	10/11/2018	-57.10	23.10	-80.20
05S08E33D01S	1/16/2019	-57.10	30.70	-87.80
05S08E33D01S	5/14/2019	-57.10	30.00	-87.10
05S08E33D01S	9/19/2019	-57.10	29.90	-87.00
03S04E19L01S	10/20/2017	969.00	203.25	765.75
03S04E19L01S	11/27/2017	969.00	194.33	774.67
03S04E19L01S	12/19/2017	969.00	186.75	782.25
03S04E19L01S	1/25/2018	969.00	167.50	801.50
03S04E19L01S	2/20/2018	969.00	213.25	755.75
03S04E19L01S	3/27/2018	969.00	239.50	729.50
03S04E19L01S	4/23/2018	969.00	257.33	711.67
03S04E19L01S	5/21/2018	969.00	270.00	699.00
03S04E19L01S	6/21/2018	969.00	271.08	697.92
03S04E19L01S	7/20/2018	969.00	261.75	707.25
03S04E19L01S	8/15/2018	969.00	231.50	737.50
03S04E19L01S	9/14/2018	969.00	203.30	765.70
03S04E19L01S	10/12/2018	969.00	210.90	758.10
03S04E19L01S	11/20/2018	969.00	243.58	725.42
03S04E19L01S	12/13/2018	969.00	259.35	709.65
03S04E19L01S	1/28/2019	969.00	282.25	686.75
03S04E19L01S	2/26/2019	969.00	281.70	687.30
03S04E19L01S	3/15/2019	969.00	288.75	680.25
03S04E19L01S	4/18/2019	969.00	300.80	668.20
03S04E19L01S	5/16/2019	969.00	279.00	690.00
03S04E19L01S	6/26/2019	969.00	231.30	737.70
03S04E19L01S	7/24/2019	969.00	206.80	762.20
03S04E19L01S	8/21/2019	969.00	187.33	781.67
03S04E19L01S	9/23/2019	969.00	170.30	798.70
03S04E30C01S	10/1/2008	938.00	371.00	567.00
03S04E30C01S	10/16/2008	938.00	371.00	567.00
03S04E30C01S	11/1/2008	938.00	370.50	567.50
03S04E30C01S	11/6/2008	938.00	370.50	567.50
03S04E30C01S	12/1/2008	938.00	371.25	566.75
03S04E30C01S	1/6/2009	938.00	375.58	562.42

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
03S04E30C01S	2/4/2009	938.00	379.80	558.20
03S04E30C01S	3/11/2009	938.00	410.50	527.50
03S04E30C01S	4/24/2009	938.00	407.33	530.67
03S04E30C01S	5/22/2009	938.00	415.08	522.92
03S04E30C01S	6/11/2009	938.00	423.50	514.50
03S04E30C01S	7/14/2009	938.00	422.58	515.42
03S04E30C01S	8/12/2009	938.00	432.66	505.34
03S04E30C01S	9/17/2009	938.00	433.16	504.84
03S04E30C01S	10/21/2017	938.00	173.33	764.67
03S04E30C01S	11/21/2017	938.00	161.75	776.25
03S04E30C01S	12/19/2017	938.00	152.83	785.17
03S04E30C01S	1/26/2018	938.00	166.50	771.50
03S04E30C01S	2/20/2018	938.00	185.83	752.17
03S04E30C01S	3/27/2018	938.00	212.16	725.84
03S04E30C01S	4/20/2018	938.00	229.33	708.67
03S04E30C01S	5/22/2018	938.00	244.00	694.00
03S04E30C01S	6/22/2018	938.00	244.00	694.00
03S04E30C01S	8/17/2018	938.00	199.00	739.00
03S04E30C01S	9/14/2018	938.00	171.50	766.50
03S04E30C01S	10/12/2018	938.00	181.50	756.50
03S04E30C01S	11/20/2018	938.00	216.75	721.25
03S04E30C01S	12/13/2018	938.00	233.33	704.67
03S04E30C01S	1/29/2019	938.00	257.66	680.34
03S04E30C01S	2/26/2019	938.00	255.60	682.40
03S04E30C01S	3/15/2019	938.00	263.25	674.75
03S04E30C01S	4/18/2019	938.00	275.70	662.30
03S04E30C01S	5/16/2019	938.00	252.20	685.80
03S04E30C01S	6/26/2019	938.00	203.10	734.90
03S04E30C01S	7/24/2019	938.00	178.00	760.00
03S04E30C01S	8/21/2019	938.00	157.70	780.30
03S04E30C01S	9/23/2019	938.00	140.80	797.20
03S04E33H01S	5/22/2009	691.45	382.50	308.95
03S04E33H01S	6/1/2009	691.45	380.20	311.25
03S04E33H01S	7/17/2009	691.45	379.50	311.95
03S04E33H01S	8/20/2009	691.45	394.50	296.95
03S04E33H01S	9/24/2009	691.45	382.33	309.12
03S04E33H01S	10/20/2017	691.45	273.58	417.87
03S04E33H01S	11/21/2017	691.45	206.75	484.70
03S04E33H01S	1/26/2018	691.45	233.08	458.37
03S04E33H01S	2/20/2018	691.45	232.58	458.87
03S04E33H01S	3/27/2018	691.45	240.00	451.45
03S04E33H01S	4/20/2018	691.45	239.00	452.45
03S04E33H01S	5/21/2018	691.45	238.50	452.95
03S04E33H01S	6/21/2018	691.45	254.41	437.04
03S04E33H01S	7/20/2018	691.45	257.00	434.45
03S04E33H01S	8/22/2018	691.45	253.16	438.29
03S04E33H01S	9/18/2018	691.45	245.82	445.63
03S04E33H01S	10/12/2018	691.45	241.25	450.20
03S04E33H01S	11/20/2018	691.45	243.50	447.95
03S04E33H01S	12/13/2018	691.45	247.60	443.85
03S04E33H01S	1/28/2019	691.45	255.75	435.70
03S04E33H01S	2/26/2019	691.45	260.00	431.45
03S04E33H01S	3/15/2019	691.45	262.00	429.45
03S04E33H01S	4/17/2019	691.45	266.75	424.70
03S04E33H01S	5/16/2019	691.45	269.60	421.85

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03S04E33H01S	6/26/2019	691.45	263.90	427.55
03S04E33H01S	7/24/2019	691.45	253.45	438.00
03S04E33H01S	8/21/2019	691.45	243.10	448.35
03S04E33H01S	9/23/2019	691.45	231.00	460.45
03S04E34H01S	10/1/2008	622.83	324.16	298.67
03S04E34H01S	10/16/2008	622.83	324.16	298.67
03S04E34H01S	11/1/2008	622.83	327.83	295.00
03S04E34H01S	11/6/2008	622.83	327.83	295.00
03S04E34H01S	12/1/2008	622.83	335.16	287.67
03S04E34H01S	12/5/2008	622.83	335.16	287.67
03S04E34H01S	1/6/2009	622.83	352.33	270.50
03S04E34H01S	2/13/2009	622.83	352.00	270.83
03S04E34H01S	3/11/2009	622.83	353.33	269.50
03S04E34H01S	3/18/2009	622.83	353.40	269.43
03S04E34H01S	4/24/2009	622.83	357.83	265.00
03S04E34H01S	5/27/2009	622.83	359.00	263.83
03S04E34H01S	6/11/2009	622.83	359.00	263.83
03S04E34H01S	7/14/2009	622.83	354.83	268.00
03S04E34H01S	8/13/2009	622.83	363.66	259.17
03S04E34H01S	9/17/2009	622.83	363.33	259.50
03S04E34H01S	10/18/2017	622.83	308.16	314.67
03S04E34H01S	11/27/2017	622.83	301.00	321.83
03S04E34H01S	12/19/2017	622.83	294.75	328.08
03S04E34H01S	1/20/2018	622.83	281.53	341.30
03S04E34H01S	2/20/2018	622.83	265.16	357.67
03S04E34H01S	3/26/2018	622.83	265.16	357.67
03S04E34H01S	4/20/2018	622.83	275.08	347.75
03S04E34H01S	5/22/2018	622.83	278.50	344.33
03S04E34H01S	6/21/2018	622.83	278.50	344.33
03S04E34H01S	8/14/2018	622.83	275.58	347.25
03S04E34H01S	9/11/2018	622.83	271.16	351.67
03S04E34H01S	10/12/2018	622.83	268.66	354.17
03S04E34H01S	11/20/2018	622.83	269.40	353.43
03S04E34H01S	12/13/2018	622.83	269.30	353.53
03S04E34H01S	1/25/2019	622.83	270.15	352.68
03S04E34H01S	2/26/2019	622.83	272.15	350.68
03S04E34H01S	3/15/2019	622.83	272.15	350.68
03S04E34H01S	4/18/2019	622.83	275.70	347.13
03S04E34H01S	5/16/2019	622.83	276.25	346.58
03S04E34H01S	6/24/2019	622.83	273.50	349.33
03S04E34H01S	7/24/2019	622.83	271.58	351.25
03S04E34H01S	8/20/2019	622.83	264.25	358.58
03S04E34H01S	9/24/2019	622.83	258.10	364.73
03S04E34H02S	10/1/2008	618.98	325.25	293.73
03S04E34H02S	11/1/2008	618.98	324.83	294.15
03S04E34H02S	11/6/2008	618.98	324.83	294.15
03S04E34H02S	12/1/2008	618.98	334.83	284.15
03S04E34H02S	12/5/2008	618.98	334.83	284.15
03S04E34H02S	1/6/2009	618.98	350.91	268.07
03S04E34H02S	2/13/2009	618.98	351.25	267.73
03S04E34H02S	3/11/2009	618.98	351.41	267.57
03S04E34H02S	4/24/2009	618.98	360.00	258.98
03S04E34H02S	6/11/2009	618.98	361.80	257.18
03S04E34H02S	7/14/2009	618.98	359.25	259.73
03S04E34H02S	8/13/2009	618.98	368.75	250.23

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03S04E34H02S	9/17/2009	618.98	367.83	251.15
03S04E34H02S	4/20/2018	618.98	272.58	346.40
03S04E34H02S	8/15/2018	618.98	274.50	344.48
03S04E34H02S	9/11/2018	618.98	271.66	347.32
03S04E34H02S	4/18/2019	618.98	273.70	345.28
03S04E34H02S	9/24/2019	618.98	268.40	350.58
03S04E34R01S	10/1/2008	610.69	334.61	276.08
03S04E34R01S	10/16/2008	610.69	334.61	276.08
03S04E34R01S	11/1/2008	610.69	333.70	276.99
03S04E34R01S	11/6/2008	610.69	333.70	276.99
03S04E34R01S	12/1/2008	610.69	354.20	256.49
03S04E34R01S	12/18/2008	610.69	354.20	256.49
03S04E34R01S	1/6/2009	610.69	355.03	255.66
03S04E34R01S	2/13/2009	610.69	354.61	256.08
03S04E34R01S	3/11/2009	610.69	358.20	252.49
03S04E34R01S	4/9/2009	610.69	358.11	252.58
03S04E34R01S	5/21/2009	610.69	359.86	250.83
03S04E34R01S	6/11/2009	610.69	358.70	251.99
03S04E34R01S	7/16/2009	610.69	359.36	251.33
03S04E34R01S	8/13/2009	610.69	367.45	243.24
03S04E34R01S	9/17/2009	610.69	365.45	245.24
03S04E34R01S	10/23/2017	610.69	315.70	294.99
03S04E34R01S	11/21/2017	610.69	308.03	302.66
03S04E34R01S	12/18/2017	610.69	302.53	308.16
03S04E34R01S	1/23/2018	610.69	291.03	319.66
03S04E34R01S	2/20/2018	610.69	285.61	325.08
03S04E34R01S	3/26/2018	610.69	281.70	328.99
03S04E34R01S	4/23/2018	610.69	280.95	329.74
03S04E34R01S	5/21/2018	610.69	280.95	329.74
03S04E34R01S	6/21/2018	610.69	283.28	327.41
03S04E34R01S	7/20/2018	610.69	283.61	327.08
03S04E34R01S	8/16/2018	610.69	280.45	330.24
03S04E34R01S	9/18/2018	610.69	278.86	331.83
03S04E34R01S	10/25/2018	610.69	274.36	336.33
03S04E34R01S	11/21/2018	610.69	273.55	337.14
03S04E34R01S	12/13/2018	610.69	274.60	336.09
03S04E34R01S	1/25/2019	610.69	273.10	337.59
03S04E34R01S	2/26/2019	610.69	275.40	335.29
03S04E34R01S	3/15/2019	610.69	272.20	338.49
03S04E34R01S	4/17/2019	610.69	277.28	333.41
03S04E34R01S	5/16/2019	610.69	277.30	333.39
03S04E34R01S	6/24/2019	610.69	277.70	332.99
03S04E34R01S	8/20/2019	610.69	270.50	340.19
03S04E34R01S	9/24/2019	610.69	265.05	345.64
03S04E35J01S	10/1/2008	551.74	290.66	261.08
03S04E35J01S	10/16/2008	551.74	290.66	261.08
03S04E35J01S	11/1/2008	551.74	288.66	263.08
03S04E35J01S	11/6/2008	551.74	288.66	263.08
03S04E35J01S	12/1/2008	551.74	291.33	260.41
03S04E35J01S	12/5/2008	551.74	291.33	260.41
03S04E35J01S	1/6/2009	551.74	317.00	234.74
03S04E35J01S	2/9/2009	551.74	313.08	238.66
03S04E35J01S	3/4/2009	551.74	307.00	244.74
03S04E35J01S	4/9/2009	551.74	314.83	236.91
03S04E35J01S	5/27/2009	551.74	319.66	232.08

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
03S04E35J01S	6/12/2009	551.74	320.00	231.74
03S04E35J01S	7/14/2009	551.74	319.83	231.91
03S04E35J01S	8/12/2009	551.74	326.58	225.16
03S04E35J01S	9/18/2009	551.74	327.33	224.41
03S04E35J01S	10/18/2017	551.74	293.00	258.74
03S04E35J01S	11/21/2017	551.74	281.16	270.58
03S04E35J01S	12/19/2017	551.74	287.16	264.58
03S04E35J01S	1/25/2018	551.74	275.66	276.08
03S04E35J01S	2/20/2018	551.74	271.00	280.74
03S04E35J01S	3/26/2018	551.74	267.88	283.86
03S04E35J01S	4/17/2018	551.74	267.91	283.83
03S04E35J01S	5/21/2018	551.74	266.66	285.08
03S04E35J01S	6/26/2018	551.74	267.00	284.74
03S04E35J01S	8/16/2018	551.74	263.75	287.99
03S04E35J01S	9/18/2018	551.74	260.72	291.02
03S04E35J01S	10/10/2018	551.74	258.66	293.08
03S04E35J01S	11/20/2018	551.74	257.00	294.74
03S04E35J01S	12/13/2018	551.74	255.00	296.74
03S04E35J01S	1/25/2019	551.74	254.41	297.33
03S04E35J01S	2/26/2019	551.74	253.30	298.44
03S04E35J01S	3/13/2019	551.74	253.67	298.07
03S04E35J01S	4/17/2019	551.74	257.50	294.24
03S04E35J01S	5/16/2019	551.74	254.00	297.74
03S04E35J01S	6/24/2019	551.74	251.83	299.91
03S04E35J01S	7/24/2019	551.74	275.20	276.54
03S04E35J01S	8/20/2019	551.74	251.33	300.41
03S04E35J01S	9/23/2019	551.74	249.60	302.14
03S04E35J02S	10/1/2008	560.81	302.83	257.98
03S04E35J02S	11/1/2008	560.81	304.25	256.56
03S04E35J02S	11/6/2008	560.81	304.25	256.56
03S04E35J02S	12/1/2008	560.81	300.00	260.81
03S04E35J02S	12/5/2008	560.81	300.00	260.81
03S04E35J02S	1/6/2009	560.81	325.66	235.15
03S04E35J02S	2/9/2009	560.81	325.41	235.40
03S04E35J02S	3/4/2009	560.81	321.25	239.56
03S04E35J02S	4/9/2009	560.81	324.91	235.90
03S04E35J02S	5/27/2009	560.81	327.66	233.15
03S04E35J02S	6/12/2009	560.81	327.75	233.06
03S04E35J02S	7/14/2009	560.81	326.75	234.06
03S04E35J02S	8/12/2009	560.81	331.83	228.98
03S04E35J02S	9/18/2009	560.81	330.16	230.65
03S04E35J02S	10/18/2017	560.81	288.31	272.50
03S04E35J02S	11/16/2017	560.81	290.50	270.31
03S04E35J02S	12/18/2017	560.81	284.37	276.44
03S04E35J02S	1/25/2018	560.81	259.73	301.08
03S04E35J02S	2/20/2018	560.81	269.60	291.21
03S04E35J02S	3/26/2018	560.81	265.50	295.31
03S04E35J02S	4/17/2018	560.81	264.50	296.31
03S04E35J02S	5/21/2018	560.81	264.50	296.31
03S04E35J02S	6/21/2018	560.81	262.50	298.31
03S04E35J02S	8/13/2018	560.81	263.08	297.73
03S04E35J02S	9/18/2018	560.81	260.22	300.59
03S04E35J02S	10/11/2018	560.81	257.50	303.31
03S04E35J02S	11/21/2018	560.81	255.91	304.90
03S04E35J02S	12/13/2018	560.81	252.58	308.23

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
03S04E35J02S	1/25/2019	560.81	250.70	310.11
03S04E35J02S	2/26/2019	560.81	251.00	309.81
03S04E35J02S	3/13/2019	560.81	251.25	309.56
03S04E35J02S	4/17/2019	560.81	251.25	309.56
03S04E35J02S	5/16/2019	560.81	253.50	307.31
03S04E35J02S	6/24/2019	560.81	253.58	307.23
03S04E35J02S	7/23/2019	560.81	255.42	305.39
03S04E35J02S	8/20/2019	560.81	250.91	309.90
03S04E35J02S	9/23/2019	560.81	246.83	313.98
03S04E35R01S	3/18/2009	543.00	313.00	230.00
03S04E35R01S	4/20/2018	543.00	262.00	281.00
03S04E35R01S	8/22/2018	543.00	257.91	285.09
03S04E35R01S	4/22/2019	543.00	236.50	306.50
03S04E35R01S	9/23/2019	543.00	230.60	312.40
03S04E35R02S	10/1/2008	546.85	285.00	261.85
03S04E35R02S	10/16/2008	546.85	285.00	261.85
03S04E35R02S	11/1/2008	546.85	284.51	262.34
03S04E35R02S	11/6/2008	546.85	284.51	262.34
03S04E35R02S	12/1/2008	546.85	314.41	232.44
03S04E35R02S	12/18/2008	546.85	314.41	232.44
03S04E35R02S	1/14/2009	546.85	312.50	234.35
03S04E35R02S	2/9/2009	546.85	309.50	237.35
03S04E35R02S	3/11/2009	546.85	314.16	232.69
03S04E35R02S	6/12/2009	546.85	309.58	237.27
03S04E35R02S	7/14/2009	546.85	310.50	236.35
03S04E35R02S	8/12/2009	546.85	320.41	226.44
03S04E35R02S	9/18/2009	546.85	318.33	228.52
03S04E35R02S	10/13/2017	546.85	293.50	253.35
03S04E35R02S	11/21/2017	546.85	287.25	259.60
03S04E35R02S	12/18/2017	546.85	282.66	264.19
03S04E35R02S	1/26/2018	546.85	273.25	273.60
03S04E35R02S	2/22/2018	546.85	271.25	275.60
03S04E35R02S	3/26/2018	546.85	263.00	283.85
03S04E35R02S	4/17/2018	546.85	262.25	284.60
03S04E35R02S	5/22/2018	546.85	258.00	288.85
03S04E35R02S	6/21/2018	546.85	257.58	289.27
03S04E35R02S	7/20/2018	546.85	256.00	290.85
03S04E35R02S	8/14/2018	546.85	255.33	291.52
03S04E35R02S	9/18/2018	546.85	253.64	293.21
03S04E35R02S	10/25/2018	546.85	251.16	295.69
03S04E35R02S	11/20/2018	546.85	249.80	297.05
03S04E35R02S	12/13/2018	546.85	246.90	299.95
03S04E35R02S	1/25/2019	546.85	245.90	300.95
03S04E35R02S	2/26/2019	546.85	240.30	306.55
03S04E35R02S	3/14/2019	546.85	244.85	302.00
03S04E35R02S	4/22/2019	546.85	250.33	296.52
03S04E35R02S	5/16/2019	546.85	246.90	299.95
03S04E35R02S	6/25/2019	546.85	247.10	299.75
03S04E35R02S	8/20/2019	546.85	245.20	301.65
03S04E35R02S	9/23/2019	546.85	245.60	301.25
03S04E36M01S	4/19/2018	546.82	258.15	288.67
03S04E36M01S	9/18/2018	546.82	251.54	295.28
03S04E36M01S	4/17/2019	546.82	244.23	302.59
03S04E36M01S	9/24/2019	546.82	240.15	306.67
03S04E36Q01S	10/1/2008	516.50	292.50	224.00

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
03S04E36Q01S	11/1/2008	516.50	292.16	224.34
03S04E36Q01S	11/6/2008	516.50	292.16	224.34
03S04E36Q01S	12/1/2008	516.50	292.83	223.67
03S04E36Q01S	12/5/2008	516.50	292.83	223.67
03S04E36Q01S	1/21/2009	516.50	298.08	218.42
03S04E36Q01S	2/9/2009	516.50	296.75	219.75
03S04E36Q01S	3/11/2009	516.50	304.25	212.25
03S04E36Q01S	5/19/2009	516.50	301.33	215.17
03S04E36Q01S	6/11/2009	516.50	301.58	214.92
03S04E36Q01S	10/18/2017	516.50	278.25	238.25
03S04E36Q01S	11/21/2017	516.50	277.16	239.34
03S04E36Q01S	12/18/2017	516.50	271.41	245.09
03S04E36Q01S	1/26/2018	516.50	265.08	251.42
03S04E36Q01S	2/20/2018	516.50	261.25	255.25
03S04E36Q01S	3/26/2018	516.50	257.25	259.25
03S04E36Q01S	4/19/2018	516.50	256.58	259.92
03S04E36Q01S	5/21/2018	516.50	255.91	260.59
03S04E36Q01S	6/21/2018	516.50	252.69	263.81
03S04E36Q01S	7/20/2018	516.50	253.25	263.25
03S04E36Q01S	8/16/2018	516.50	249.58	266.92
03S04E36Q01S	9/12/2018	516.50	248.83	267.67
03S04E36Q01S	10/12/2018	516.50	245.66	270.84
03S04E36Q01S	11/20/2018	516.50	245.05	271.45
03S04E36Q01S	12/13/2018	516.50	241.85	274.65
03S04E36Q01S	1/25/2019	516.50	240.25	276.25
03S04E36Q01S	2/26/2019	516.50	239.55	276.95
03S04E36Q01S	3/15/2019	516.50	239.41	277.09
03S04E36Q01S	4/22/2019	516.50	240.55	275.95
03S04E36Q01S	5/16/2019	516.50	241.75	274.75
03S04E36Q01S	6/25/2019	516.50	241.15	275.35
03S04E36Q01S	7/24/2019	516.50	239.41	277.09
03S04E36Q01S	8/20/2019	516.50	236.85	279.65
03S04E36Q01S	9/23/2019	516.50	236.55	279.95
03S04E36Q02S	10/1/2008	519.00	285.42	233.58
03S04E36Q02S	11/1/2008	519.00	284.25	234.75
03S04E36Q02S	11/6/2008	519.00	284.25	234.75
03S04E36Q02S	12/1/2008	519.00	284.58	234.42
03S04E36Q02S	12/5/2008	519.00	284.58	234.42
03S04E36Q02S	1/21/2009	519.00	296.70	222.30
03S04E36Q02S	2/9/2009	519.00	296.33	222.67
03S04E36Q02S	4/9/2009	519.00	299.67	219.33
03S04E36Q02S	6/12/2009	519.00	301.08	217.92
03S04E36Q02S	4/19/2018	519.00	256.08	262.92
03S04E36Q02S	8/15/2018	519.00	251.58	267.42
03S04E36Q02S	9/12/2018	519.00	247.50	271.50
03S04E36Q02S	4/22/2019	519.00	240.12	278.88
03S04E36Q02S	9/23/2019	519.00	235.42	283.58
04S04E02B01S	10/16/2008	564.18	323.49	240.69
04S04E02B01S	11/6/2008	564.18	323.83	240.35
04S04E02B01S	12/18/2008	564.18	332.08	232.10
04S04E02B01S	1/6/2009	564.18	333.99	230.19
04S04E02B01S	2/19/2009	564.18	334.33	229.85
04S04E02B01S	3/11/2009	564.18	333.01	231.17
04S04E02B01S	4/24/2009	564.18	334.16	230.02
04S04E02B01S	5/27/2009	564.18	331.99	232.19



State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
04S04E02B01S	6/12/2009	564.18	332.66	231.52
04S04E02B01S	7/16/2009	564.18	333.83	230.35
04S04E02B01S	8/13/2009	564.18	340.99	223.19
04S04E02B01S	9/19/2009	564.18	338.66	225.52
04S04E02B01S	10/23/2017	564.18	306.83	257.35
04S04E02B01S	11/27/2017	564.18	306.08	258.10
04S04E02B01S	12/19/2017	564.18	304.16	260.02
04S04E02B01S	1/26/2018	564.18	289.83	274.35
04S04E02B01S	2/22/2018	564.18	290.33	273.85
04S04E02B01S	3/26/2018	564.18	281.58	282.60
04S04E02B01S	4/19/2018	564.18	281.49	282.69
04S04E02B01S	5/21/2018	564.18	279.08	285.10
04S04E02B01S	6/21/2018	564.18	277.99	286.19
04S04E02B01S	7/20/2018	564.18	278.49	285.69
04S04E02B01S	8/22/2018	564.18	275.91	288.27
04S04E02B01S	9/14/2018	564.18	274.83	289.35
04S04E02B01S	10/24/2018	564.18	271.33	292.85
04S04E02B01S	11/20/2018	564.18	269.73	294.45
04S04E02B01S	12/13/2018	564.18	268.43	295.75
04S04E02B01S	1/25/2019	564.18	266.63	297.55
04S04E02B01S	2/25/2019	564.18	266.73	297.45
04S04E02B01S	3/15/2019	564.18	266.33	297.85
04S04E02B01S	4/17/2019	564.18	267.41	296.77
04S04E02B01S	5/16/2019	564.18	268.03	296.15
04S04E02B01S	6/24/2019	564.18	268.08	296.10
04S04E02B01S	7/24/2019	564.18	267.49	296.69
04S04E02B01S	8/20/2019	564.18	265.63	298.55
04S04E02B01S	9/24/2019	564.18	261.68	302.50
04S04E11Q01S	10/16/2008	468.25	238.20	230.05
04S04E11Q01S	11/7/2008	468.25	241.11	227.14
04S04E11Q01S	12/15/2008	468.25	257.86	210.39
04S04E11Q01S	1/13/2009	468.25	256.36	211.89
04S04E11Q01S	2/19/2009	468.25	256.20	212.05
04S04E11Q01S	3/11/2009	468.25	258.45	209.80
04S04E11Q01S	4/9/2009	468.25	265.36	202.89
04S04E11Q01S	5/21/2009	468.25	263.45	204.80
04S04E11Q01S	6/18/2009	468.25	262.11	206.14
04S04E11Q01S	7/15/2009	468.25	255.70	212.55
04S04E11Q01S	8/13/2009	468.25	265.53	202.72
04S04E11Q01S	9/18/2009	468.25	265.11	203.14
04S04E11Q01S	10/20/2017	468.25	254.61	213.64
04S04E11Q01S	11/27/2017	468.25	253.45	214.80
04S04E11Q01S	12/19/2017	468.25	251.70	216.55
04S04E11Q01S	1/26/2018	468.25	245.78	222.47
04S04E11Q01S	2/21/2018	468.25	243.95	224.30
04S04E11Q01S	3/27/2018	468.25	241.61	226.64
04S04E11Q01S	4/19/2018	468.25	238.36	229.89
04S04E11Q01S	5/21/2018	468.25	235.70	232.55
04S04E11Q01S	6/22/2018	468.25	236.53	231.72
04S04E11Q01S	7/20/2018	468.25	236.20	232.05
04S04E11Q01S	8/17/2018	468.25	231.45	236.80
04S04E11Q01S	9/14/2018	468.25	229.53	238.72
04S04E11Q01S	10/24/2018	468.25	227.95	240.30
04S04E11Q01S	11/20/2018	468.25	226.40	241.85
04S04E11Q01S	12/13/2018	468.25	225.49	242.76

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
04S04E11Q01S	1/29/2019	468.25	223.36	244.89
04S04E11Q01S	2/26/2019	468.25	221.78	246.47
04S04E11Q01S	3/18/2019	468.25	221.11	247.14
04S04E11Q01S	4/18/2019	468.25	215.30	252.95
04S04E11Q01S	5/17/2019	468.25	219.20	249.05
04S04E11Q01S	6/24/2019	468.25	218.45	249.80
04S04E11Q01S	7/24/2019	468.25	219.40	248.85
04S04E11Q01S	8/21/2019	468.25	219.50	248.75
04S04E11Q02S	10/16/2008	469.21	242.16	227.05
04S04E11Q02S	11/7/2008	469.21	241.99	227.22
04S04E11Q02S	12/15/2008	469.21	256.83	212.38
04S04E11Q02S	1/14/2009	469.21	255.24	213.97
04S04E11Q02S	2/19/2009	469.21	254.66	214.55
04S04E11Q02S	3/11/2009	469.21	255.33	213.88
04S04E11Q02S	4/9/2009	469.21	262.66	206.55
04S04E11Q02S	5/21/2009	469.21	261.99	207.22
04S04E11Q02S	6/18/2009	469.21	258.16	211.05
04S04E11Q02S	7/15/2009	469.21	258.58	210.63
04S04E11Q02S	8/13/2009	469.21	269.24	199.97
04S04E11Q02S	9/18/2009	469.21	266.58	202.63
04S04E11Q02S	4/19/2018	469.21	232.99	236.22
04S04E11Q02S	9/14/2018	469.21	224.91	244.30
04S04E11Q02S	4/18/2019	469.21	219.23	249.98
04S04E11Q02S	9/24/2019	469.21	211.99	257.22
04S04E13C01S	1/14/2009	454.11	252.60	201.51
04S04E13C01S	2/19/2009	454.11	252.00	202.11
04S04E13C01S	10/23/2017	454.11	246.41	207.70
04S04E13C01S	11/27/2017	454.11	245.00	209.11
04S04E13C01S	12/19/2017	454.11	242.16	211.95
04S04E13C01S	1/26/2018	454.11	238.58	215.53
04S04E13C01S	2/21/2018	454.11	237.50	216.61
04S04E13C01S	3/27/2018	454.11	238.41	215.70
04S04E13C01S	4/19/2018	454.11	232.16	221.95
04S04E13C01S	5/21/2018	454.11	229.58	224.53
04S04E13C01S	6/22/2018	454.11	228.33	225.78
04S04E13C01S	7/20/2018	454.11	227.66	226.45
04S04E13C01S	8/14/2018	454.11	225.50	228.61
04S04E13C01S	9/13/2018	454.11	224.91	229.20
04S04E13C01S	10/24/2018	454.11	225.50	228.61
04S04E13C01S	11/20/2018	454.11	223.25	230.86
04S04E13C01S	12/13/2018	454.11	222.90	231.21
04S04E13C01S	1/29/2019	454.11	218.41	235.70
04S04E13C01S	2/26/2019	454.11	218.50	235.61
04S04E13C01S	3/18/2019	454.11	216.00	238.11
04S04E13C01S	4/18/2019	454.11	207.25	246.86
04S04E13C01S	5/17/2019	454.11	214.91	239.20
04S04E13C01S	6/25/2019	454.11	213.58	240.53
04S04E13C01S	7/24/2019	454.11	214.16	239.95
04S04E13C01S	8/21/2019	454.11	212.66	241.45
04S04E13C01S	9/23/2019	454.11	211.08	243.03
04S04E14Q01S	11/7/2008	424.11	229.00	195.11
04S04E14Q01S	12/18/2008	424.11	234.00	190.11
04S04E14Q01S	1/14/2009	424.11	229.50	194.61
04S04E14Q01S	2/20/2009	424.11	230.33	193.78
04S04E14Q01S	3/10/2009	424.11	232.83	191.28

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
04S04E14Q01S	4/24/2009	424.11	233.00	191.11
04S04E14Q01S	5/14/2009	424.11	233.83	190.28
04S04E14Q01S	6/25/2009	424.11	234.16	189.95
04S04E14Q01S	9/24/2009	424.11	231.58	192.53
04S04E14Q01S	4/20/2018	424.11	217.66	206.45
04S04E14Q01S	5/22/2018	424.11	219.66	204.45
04S04E14Q01S	9/19/2018	424.11	215.00	209.11
04S04E14Q01S	9/24/2019	424.11	202.41	221.70
04S04E14R01S	1/14/2009	415.60	232.20	183.40
04S04E14R01S	10/20/2017	415.60	226.00	189.60
04S04E14R01S	11/27/2017	415.60	226.50	189.10
04S04E14R01S	12/19/2017	415.60	203.00	212.60
04S04E14R01S	1/26/2018	415.60	217.75	197.85
04S04E14R01S	2/21/2018	415.60	218.00	197.60
04S04E14R01S	3/27/2018	415.60	215.41	200.19
04S04E14R01S	4/19/2018	415.60	214.75	200.85
04S04E14R01S	5/21/2018	415.60	213.50	202.10
04S04E14R01S	6/22/2018	415.60	212.25	203.35
04S04E14R01S	7/20/2018	415.60	210.50	205.10
04S04E14R01S	8/17/2018	415.60	210.41	205.19
04S04E14R01S	9/19/2018	415.60	209.08	206.52
04S04E14R01S	10/22/2018	415.60	209.58	206.02
04S04E14R01S	12/13/2018	415.60	206.50	209.10
04S04E14R01S	1/25/2019	415.60	204.83	210.77
04S04E14R01S	2/26/2019	415.60	203.83	211.77
04S04E14R01S	3/14/2019	415.60	203.42	212.18
04S04E14R01S	4/18/2019	415.60	202.00	213.60
04S04E14R01S	5/17/2019	415.60	202.20	213.40
04S04E14R01S	6/24/2019	415.60	201.67	213.93
04S04E14R01S	7/24/2019	415.60	200.29	215.31
04S04E14R01S	8/21/2019	415.60	201.60	214.00
04S04E14R01S	9/24/2019	415.60	197.50	218.10
04S04E23E01S	10/22/2008	435.53	230.42	205.11
04S04E23E01S	11/7/2008	435.53	228.08	207.45
04S04E23E01S	12/18/2008	435.53	269.42	166.11
04S04E23E01S	1/9/2009	435.53	248.08	187.45
04S04E23E01S	2/20/2009	435.53	247.42	188.11
04S04E23E01S	3/12/2009	435.53	249.42	186.11
04S04E23E01S	4/24/2009	435.53	249.42	186.11
04S04E23E01S	5/27/2009	435.53	251.58	183.95
04S04E23E01S	6/24/2009	435.53	251.00	184.53
04S04E23E01S	7/17/2009	435.53	253.17	182.36
04S04E23E01S	8/13/2009	435.53	259.83	175.70
04S04E23E01S	9/22/2009	435.53	258.33	177.20
04S04E23E01S	4/19/2018	435.53	232.50	203.03
04S04E23E01S	9/14/2018	435.53	228.00	207.53
04S04E23E01S	4/18/2019	435.53	225.22	210.31
04S04E23E01S	9/23/2019	435.53	214.12	221.41
04S04E24D01S	10/1/2008	400.97	254.20	146.77
04S04E24D01S	11/1/2008	400.97	250.53	150.44
04S04E24D01S	11/7/2008	400.97	250.53	150.44
04S04E24D01S	12/1/2008	400.97	250.53	150.44
04S04E24D01S	12/18/2008	400.97	250.53	150.44
04S04E24D01S	1/7/2009	400.97	223.03	177.94
04S04E24D01S	2/20/2009	400.97	221.53	179.44

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
04S04E24D01S	10/23/2017	400.97	212.11	188.86
04S04E24D01S	11/20/2017	400.97	208.80	192.17
04S04E24D01S	1/26/2018	400.97	195.53	205.44
04S04E24D01S	2/21/2018	400.97	198.86	202.11
04S04E24D01S	3/22/2018	400.97	206.11	194.86
04S04E24D01S	4/19/2018	400.97	203.70	197.27
04S04E24D01S	5/21/2018	400.97	203.28	197.69
04S04E24D01S	6/22/2018	400.97	202.70	198.27
04S04E24D01S	7/24/2018	400.97	206.20	194.77
04S04E24D01S	8/22/2018	400.97	200.70	200.27
04S04E24D01S	9/13/2018	400.97	200.03	200.94
04S04E24D01S	10/25/2018	400.97	200.60	200.37
04S04E24D01S	11/21/2018	400.97	200.00	200.97
04S04E24D01S	1/25/2019	400.97	195.78	205.19
04S04E24D01S	2/26/2019	400.97	195.45	205.52
04S04E24D01S	3/14/2019	400.97	194.60	206.37
04S04E24D01S	5/16/2019	400.97	192.50	208.47
04S04E24D01S	6/26/2019	400.97	193.10	207.87
04S04E24D01S	7/24/2019	400.97	192.15	208.82
04S04E24D01S	8/21/2019	400.97	193.60	207.37
04S04E24D01S	9/23/2019	400.97	189.20	211.77
04S04E24E01S	10/1/2008	403.66	202.91	200.75
04S04E24E01S	11/1/2008	403.66	206.82	196.84
04S04E24E01S	11/7/2008	403.66	206.82	196.84
04S04E24E01S	12/1/2008	403.66	220.07	183.59
04S04E24E01S	12/7/2008	403.66	220.07	183.59
04S04E24E01S	2/20/2009	403.66	222.24	181.42
04S04E24E01S	3/11/2009	403.66	221.66	182.00
04S04E24E01S	4/25/2009	403.66	218.16	185.50
04S04E24E01S	9/24/2009	403.66	223.32	180.34
04S04E24E01S	4/19/2018	403.66	207.41	196.25
04S04E24E01S	7/2/2018	403.66	205.99	197.67
04S04E24E01S	9/18/2018	403.66	210.99	192.67
04S04E24E01S	4/18/2019	403.66	201.16	202.50
04S04E24E01S	9/24/2019	403.66	196.66	207.00
04S04E24H01S	10/1/2008	380.97	200.33	180.64
04S04E24H01S	10/22/2008	380.97	200.33	180.64
04S04E24H01S	11/1/2008	380.97	199.91	181.06
04S04E24H01S	11/14/2008	380.97	199.91	181.06
04S04E24H01S	12/1/2008	380.97	208.00	172.97
04S04E24H01S	12/17/2008	380.97	208.00	172.97
04S04E24H01S	1/7/2009	380.97	209.00	171.97
04S04E24H01S	2/19/2009	380.97	206.83	174.14
04S04E24H01S	3/11/2009	380.97	206.16	174.81
04S04E24H01S	4/23/2009	380.97	205.33	175.64
04S04E24H01S	5/28/2009	380.97	208.25	172.72
04S04E24H01S	6/11/2009	380.97	207.00	173.97
04S04E24H01S	8/20/2009	380.97	209.00	171.97
04S04E24H01S	9/18/2009	380.97	211.83	169.14
04S04E24H01S	10/23/2017	380.97	192.03	188.94
04S04E24H01S	11/20/2017	380.97	194.75	186.22
04S04E24H01S	12/19/2017	380.97	195.50	185.47
04S04E24H01S	1/26/2018	380.97	192.66	188.31
04S04E24H01S	7/20/2018	380.97	190.33	190.64
04S04E24H01S	8/23/2018	380.97	190.45	190.52

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
04S04E24H01S	9/19/2018	380.97	188.08	192.89
04S04E24H01S	10/22/2018	380.97	185.80	195.17
04S04E24H01S	11/21/2018	380.97	184.15	196.82
04S04E24H01S	12/13/2018	380.97	184.20	196.77
04S04E24H01S	1/25/2019	380.97	181.95	199.02
04S04E24H01S	2/26/2019	380.97	180.75	200.22
04S04E24H01S	3/14/2019	380.97	179.70	201.27
04S04E24H01S	4/19/2019	380.97	179.90	201.07
04S04E24H01S	5/16/2019	380.97	179.02	201.95
04S04E24H01S	6/26/2019	380.97	178.20	202.77
04S04E24H01S	7/24/2019	380.97	178.40	202.57
04S04E24H01S	8/21/2019	380.97	177.10	203.87
04S04E24H01S	9/23/2019	380.97	175.80	205.17
04S04E25C01S	10/1/2008	416.54	227.50	189.04
04S04E25C01S	11/1/2008	416.54	231.30	185.24
04S04E25C01S	12/1/2008	416.54	248.42	168.12
04S04E25C01S	4/24/2009	416.54	241.67	174.87
04S04E25C01S	6/11/2009	416.54	240.58	175.96
04S04E25C01S	10/20/2017	416.54	220.67	195.87
04S04E25C01S	11/20/2017	416.54	217.42	199.12
04S04E25C01S	12/19/2017	416.54	221.33	195.21
04S04E25C01S	1/26/2018	416.54	215.50	201.04
04S04E25C01S	2/21/2018	416.54	216.08	200.46
04S04E25C01S	3/27/2018	416.54	214.08	202.46
04S04E25C01S	4/19/2018	416.54	215.25	201.29
04S04E25C01S	5/21/2018	416.54	213.33	203.21
04S04E25C01S	6/22/2018	416.54	213.67	202.87
04S04E25C01S	7/24/2018	416.54	215.08	201.46
04S04E25C01S	8/22/2018	416.54	211.67	204.87
04S04E25C01S	9/13/2018	416.54	211.58	204.96
04S04E25C01S	10/11/2018	416.54	211.50	205.04
04S04E25C01S	11/21/2018	416.54	210.02	206.52
04S04E25C01S	12/14/2018	416.54	210.42	206.12
04S04E25C01S	1/28/2019	416.54	208.92	207.62
04S04E25C01S	2/26/2019	416.54	205.42	211.12
04S04E25C01S	3/14/2019	416.54	205.02	211.52
04S04E25C01S	4/19/2019	416.54	205.17	211.37
04S04E25C01S	5/16/2019	416.54	201.52	215.02
04S04E25C01S	6/25/2019	416.54	201.92	214.62
04S04E25C01S	7/24/2019	416.54	201.07	215.47
04S04E25C01S	8/21/2019	416.54	200.00	216.54
04S04E25C01S	9/23/2019	416.54	197.12	219.42
04S04E25D02S	12/1/2008	423.14	226.63	196.51
04S04E25D02S	12/4/2008	423.14	226.63	196.51
04S04E25D02S	1/16/2009	423.14	238.83	184.31
04S04E25D02S	4/24/2009	423.14	243.83	179.31
04S04E25D02S	6/11/2009	423.14	244.83	178.31
04S04E25D02S	4/19/2018	423.14	225.66	197.48
04S04E25D02S	7/2/2018	423.14	229.33	193.81
04S04E25D02S	8/15/2018	423.14	228.66	194.48
04S04E25D02S	9/13/2018	423.14	226.91	196.23
04S04E25D02S	4/19/2019	423.14	220.13	203.01
04S04E25D02S	6/25/2019	423.14	216.63	206.51
04S04E25D02S	9/23/2019	423.14	213.03	210.11
04S04E26A01S	10/1/2008	433.05	271.66	161.39

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04S04E26A01S	12/1/2008	433.05	290.30	142.75
04S04E26A01S	1/7/2009	433.05	269.50	163.55
04S04E26A01S	3/12/2009	433.05	266.50	166.55
04S04E26A01S	4/24/2009	433.05	262.50	170.55
04S04E26A01S	10/20/2017	433.05	243.83	189.22
04S04E26A01S	11/20/2017	433.05	249.66	183.39
04S04E26A01S	12/19/2017	433.05	241.25	191.80
04S04E26A01S	1/26/2018	433.05	239.33	193.72
04S04E26A01S	2/21/2018	433.05	240.50	192.55
04S04E26A01S	3/27/2018	433.05	239.66	193.39
04S04E26A01S	4/19/2018	433.05	244.25	188.80
04S04E26A01S	5/21/2018	433.05	245.66	187.39
04S04E26A01S	6/22/2018	433.05	246.00	187.05
04S04E26A01S	7/20/2018	433.05	244.00	189.05
04S04E26A01S	8/22/2018	433.05	236.66	196.39
04S04E26A01S	9/19/2018	433.05	242.66	190.39
04S04E26A01S	10/10/2018	433.05	235.41	197.64
04S04E26A01S	11/21/2018	433.05	234.16	198.89
04S04E26A01S	12/14/2018	433.05	234.30	198.75
04S04E26A01S	1/25/2019	433.05	232.16	200.89
04S04E26A01S	2/26/2019	433.05	238.00	195.05
04S04E26A01S	3/1/2019	433.05	230.45	202.60
04S04E26A01S	3/14/2019	433.05	230.16	202.89
04S04E26A01S	4/18/2019	433.05	228.50	204.55
04S04E26A01S	5/17/2019	433.05	225.66	207.39
04S04E26A01S	6/25/2019	433.05	224.25	208.80
04S04E26A01S	7/24/2019	433.05	224.25	208.80
04S04E26A01S	8/21/2019	433.05	232.50	200.55
04S04E26A01S	9/23/2019	433.05	230.90	202.15
04S04E35K01S	6/22/2018	535.00	322.00	213.00
04S04E35K01S	9/18/2018	535.00	323.00	212.00
04S04E35K01S	4/18/2019	535.00	296.65	238.35
04S04E35K01S	9/24/2019	535.00	292.00	243.00
04S05E08N01S	12/5/2008	412.02	228.66	183.36
04S05E08N01S	1/16/2009	412.02	218.83	193.19
04S05E08N01S	2/25/2009	412.02	218.83	193.19
04S05E08N01S	3/12/2009	412.02	220.83	191.19
04S05E08N01S	6/11/2009	412.02	243.83	168.19
04S05E08N01S	10/19/2017	412.02	228.99	183.03
04S05E08N01S	11/17/2017	412.02	225.91	186.11
04S05E08N01S	12/19/2017	412.02	228.99	183.03
04S05E08N01S	1/26/2018	412.02	211.41	200.61
04S05E08N01S	2/20/2018	412.02	221.83	190.19
04S05E08N01S	3/27/2018	412.02	217.16	194.86
04S05E08N01S	4/19/2018	412.02	228.93	183.09
04S05E08N01S	5/21/2018	412.02	216.91	195.11
04S05E08N01S	6/21/2018	412.02	214.33	197.69
04S05E08N01S	8/22/2018	412.02	213.24	198.78
04S05E08N01S	9/11/2018	412.02	211.58	200.44
04S05E08N01S	10/22/2018	412.02	209.73	202.29
04S05E08N01S	11/20/2018	412.02	207.93	204.09
04S05E08N01S	12/14/2018	412.02	207.53	204.49
04S05E08N01S	1/25/2019	412.02	204.33	207.69
04S05E08N01S	3/1/2019	412.02	203.08	208.94
04S05E08N01S	3/15/2019	412.02	202.40	209.62

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04S05E08N01S	4/19/2019	412.02	204.03	207.99
04S05E08N01S	5/16/2019	412.02	203.83	208.19
04S05E08N01S	6/26/2019	412.02	201.93	210.09
04S05E08N01S	7/24/2019	412.02	201.13	210.89
04S05E08N01S	8/21/2019	412.02	202.23	209.79
04S05E08N01S	9/23/2019	412.02	199.13	212.89
04S05E17P01S	10/1/2008	375.88	208.00	167.88
04S05E17P01S	11/1/2008	375.88	204.51	171.37
04S05E17P01S	11/14/2008	375.88	204.51	171.37
04S05E17P01S	12/1/2008	375.88	217.33	158.55
04S05E17P01S	12/17/2008	375.88	217.33	158.55
04S05E17P01S	1/7/2009	375.88	216.83	159.05
04S05E17P01S	2/20/2009	375.88	213.91	161.97
04S05E17P01S	3/12/2009	375.88	214.00	161.88
04S05E17P01S	4/23/2009	375.88	217.25	158.63
04S05E17P01S	5/28/2009	375.88	217.00	158.88
04S05E17P01S	6/11/2009	375.88	218.50	157.38
04S05E17P01S	7/17/2009	375.88	220.16	155.72
04S05E17P01S	8/20/2009	375.88	219.58	156.30
04S05E17P01S	9/24/2009	375.88	220.00	155.88
04S05E17P01S	4/19/2019	375.88	204.66	171.22
04S05E17P01S	9/23/2019	375.88	202.00	173.88
04S05E17Q02S	11/7/2008	367.99	206.25	161.74
04S05E17Q02S	1/7/2009	367.99	227.25	140.74
04S05E17Q02S	2/20/2009	367.99	222.00	145.99
04S05E17Q02S	3/12/2009	367.99	220.58	147.41
04S05E17Q02S	4/23/2009	367.99	224.41	143.58
04S05E17Q02S	6/11/2009	367.99	228.00	139.99
04S05E17Q02S	9/24/2009	367.99	225.16	142.83
04S05E17Q02S	10/19/2017	367.99	212.16	155.83
04S05E17Q02S	11/27/2017	367.99	215.08	152.91
04S05E17Q02S	12/19/2017	367.99	214.33	153.66
04S05E17Q02S	1/26/2018	367.99	225.25	142.74
04S05E17Q02S	2/20/2018	367.99	212.66	155.33
04S05E17Q02S	3/26/2018	367.99	207.33	160.66
04S05E17Q02S	4/19/2018	367.99	208.00	159.99
04S05E17Q02S	5/21/2018	367.99	207.50	160.49
04S05E17Q02S	6/21/2018	367.99	207.00	160.99
04S05E17Q02S	7/20/2018	367.99	207.50	160.49
04S05E17Q02S	8/14/2018	367.99	204.75	163.24
04S05E17Q02S	9/19/2018	367.99	204.40	163.59
04S05E17Q02S	10/11/2018	367.99	204.16	163.83
04S05E17Q02S	11/19/2018	367.99	193.00	174.99
04S05E17Q02S	11/20/2018	367.99	201.50	166.49
04S05E17Q02S	12/14/2018	367.99	201.40	166.59
04S05E17Q02S	1/28/2019	367.99	198.41	169.58
04S05E17Q02S	2/26/2019	367.99	197.25	170.74
04S05E17Q02S	3/18/2019	367.99	196.40	171.59
04S05E17Q02S	4/18/2019	367.99	197.45	170.54
04S05E17Q02S	5/16/2019	367.99	196.10	171.89
04S05E17Q02S	6/26/2019	367.99	197.50	170.49
04S05E17Q02S	7/24/2019	367.99	196.85	171.14
04S05E17Q02S	8/21/2019	367.99	197.15	170.84
04S05E17Q02S	9/23/2019	367.99	197.40	170.59
04S05E19D01S	10/16/2008	394.26	206.20	188.06



State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
04S05E19D01S	11/19/2008	394.26	207.70	186.56
04S05E19D01S	2/19/2009	394.26	216.86	177.40
04S05E19D01S	3/10/2009	394.26	217.36	176.90
04S05E19D01S	4/23/2009	394.26	218.11	176.15
04S05E19D01S	5/27/2009	394.26	221.45	172.81
04S05E19D01S	6/12/2009	394.26	219.03	175.23
04S05E19D01S	7/14/2009	394.26	221.36	172.90
04S05E19D01S	8/20/2009	394.26	221.20	173.06
04S05E19D01S	9/18/2009	394.26	219.53	174.73
04S05E19D01S	4/20/2018	394.26	204.03	190.23
04S05E19D01S	9/14/2018	394.26	199.20	195.06
04S05E19D01S	4/18/2019	394.26	191.30	202.96
04S05E19D01S	9/24/2019	394.26	186.03	208.23
04S05E29A02S	10/22/2008	334.04	190.20	143.84
04S05E29A02S	11/14/2008	334.04	191.03	143.01
04S05E29A02S	12/17/2008	334.04	208.70	125.34
04S05E29A02S	1/14/2009	334.04	209.20	124.84
04S05E29A02S	2/19/2009	334.04	209.95	124.09
04S05E29A02S	3/12/2009	334.04	207.86	126.18
04S05E29A02S	4/24/2009	334.04	209.28	124.76
04S05E29A02S	5/21/2009	334.04	211.36	122.68
04S05E29A02S	6/25/2009	334.04	210.03	124.01
04S05E29A02S	7/17/2009	334.04	209.03	125.01
04S05E29A02S	8/13/2009	334.04	215.11	118.93
04S05E29A02S	9/24/2009	334.04	214.53	119.51
04S05E29A02S	10/19/2017	334.04	197.53	136.51
04S05E29A02S	11/21/2017	334.04	199.78	134.26
04S05E29A02S	12/19/2017	334.04	203.40	130.64
04S05E29A02S	1/26/2018	334.04	206.50	127.54
04S05E29A02S	2/20/2018	334.04	206.70	127.34
04S05E29A02S	3/27/2018	334.04	198.86	135.18
04S05E29A02S	4/19/2018	334.04	197.70	136.34
04S05E29A02S	5/22/2018	334.04	198.30	135.74
04S05E29A02S	6/21/2018	334.04	197.45	136.59
04S05E29A02S	7/20/2018	334.04	197.45	136.59
04S05E29A02S	8/17/2018	334.04	197.20	136.84
04S05E29A02S	9/11/2018	334.04	196.36	137.68
04S05E29A02S	10/11/2018	334.04	195.11	138.93
04S05E29A02S	11/20/2018	334.04	194.90	139.14
04S05E29A02S	1/28/2019	334.04	194.45	139.59
04S05E29A02S	2/26/2019	334.04	191.11	142.93
04S05E29A02S	3/15/2019	334.04	190.78	143.26
04S05E29A02S	4/19/2019	334.04	188.50	145.54
04S05E29A02S	5/16/2019	334.04	189.20	144.84
04S05E29A02S	6/26/2019	334.04	189.50	144.54
04S05E29A02S	7/24/2019	334.04	190.11	143.93
04S05E29A02S	8/21/2019	334.04	189.60	144.44
04S05E29A02S	9/24/2019	334.04	187.95	146.09
04S05E29H01S	10/1/2008	330.25	193.25	137.00
04S05E29H01S	11/1/2008	330.25	193.88	136.37
04S05E29H01S	11/7/2008	330.25	193.88	136.37
04S05E29H01S	12/1/2008	330.25	214.25	116.00
04S05E29H01S	12/17/2008	330.25	214.25	116.00
04S05E29H01S	3/11/2009	330.25	209.80	120.45
04S05E29H01S	4/19/2018	330.25	199.50	130.75

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
04S05E29H01S	8/29/2018	330.25	195.80	134.45
04S05E29H01S	9/11/2018	330.25	198.66	131.59
04S05E29H01S	4/23/2019	330.25	193.00	137.25
04S05E29H01S	9/24/2019	330.25	191.25	139.00
04S05E33B03S	10/1/2008	299.31	175.43	123.88
04S05E33B03S	10/17/2008	299.31	175.43	123.88
04S05E33B03S	11/1/2008	299.31	175.51	123.80
04S05E33B03S	11/14/2008	299.31	175.51	123.80
04S05E33B03S	12/1/2008	299.31	197.93	101.38
04S05E33B03S	12/18/2008	299.31	197.93	101.38
04S05E33B03S	1/7/2009	299.31	197.60	101.71
04S05E33B03S	2/19/2009	299.31	197.26	102.05
04S05E33B03S	3/12/2009	299.31	197.60	101.71
04S05E33B03S	4/24/2009	299.31	193.76	105.55
04S05E33B03S	5/21/2009	299.31	194.85	104.46
04S05E33B03S	6/25/2009	299.31	195.18	104.13
04S05E33B03S	8/13/2009	299.31	200.85	98.46
04S05E33B03S	9/24/2009	299.31	198.43	100.88
04S05E33B03S	10/19/2017	299.31	185.85	113.46
04S05E33B03S	11/21/2017	299.31	181.60	117.71
04S05E33B03S	12/19/2017	299.31	185.60	113.71
04S05E33B03S	1/26/2018	299.31	185.60	113.71
04S05E33B03S	2/20/2018	299.31	186.60	112.71
04S05E33B03S	3/27/2018	299.31	185.93	113.38
04S05E33B03S	4/19/2018	299.31	185.76	113.55
04S05E33B03S	5/21/2018	299.31	185.26	114.05
04S05E33B03S	6/22/2018	299.31	184.26	115.05
04S05E33B03S	7/20/2018	299.31	185.43	113.88
04S05E33B03S	8/22/2018	299.31	185.35	113.96
04S05E33B03S	9/19/2018	299.31	184.48	114.83
04S05E33B03S	10/22/2018	299.31	184.20	115.11
04S05E33B03S	11/20/2018	299.31	184.00	115.31
04S05E33B03S	1/28/2019	299.31	184.10	115.21
04S05E33B03S	2/26/2019	299.31	180.60	118.71
04S05E33B03S	3/18/2019	299.31	179.60	119.71
04S05E33B03S	4/18/2019	299.31	179.10	120.21
04S05E33B03S	5/16/2019	299.31	178.50	120.81
04S05E33B03S	6/25/2019	299.31	178.40	120.91
04S05E33B03S	7/24/2019	299.31	179.20	120.11
04S05E33B03S	8/21/2019	299.31	179.00	120.31
04S05E33B03S	9/24/2019	299.31	178.60	120.71
05S07E11M03S	11/16/2017	10.00	113.78	-103.78
05S07E11M03S	1/15/2018	10.00	106.64	-96.64
05S07E11M03S	3/14/2018	10.00	109.13	-99.13
05S07E11M03S	5/14/2018	10.00	114.74	-104.74
05S07E11M03S	7/12/2018	10.00	121.01	-111.01
05S07E11M03S	9/20/2018	10.00	119.70	-109.70
05S07E11M03S	11/26/2018	10.00	112.73	-102.73
05S07E11M03S	1/25/2019	10.00	102.84	-92.84
05S07E11M03S	3/11/2019	10.00	103.57	-93.57
05S07E11M03S	5/16/2019	10.00	113.47	-103.47
05S07E11M03S	7/1/2019	10.00	117.80	-107.80
05S07E11M03S	9/10/2019	10.00	121.07	-111.07
05S07E12M01S	11/16/2017	-1.00	107.29	-108.29
05S07E12M01S	1/15/2018	-1.00	100.45	-101.45

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
05S07E12M01S	3/14/2018	-1.00	101.81	-102.81
05S07E12M01S	5/14/2018	-1.00	109.06	-110.06
05S07E12M01S	7/12/2018	-1.00	115.55	-116.55
05S07E12M01S	9/20/2018	-1.00	114.58	-115.58
05S07E12M01S	11/26/2018	-1.00	107.35	-108.35
05S07E12M01S	1/25/2019	-1.00	95.87	-96.87
05S07E12M01S	3/11/2019	-1.00	96.43	-97.43
05S07E12M01S	5/16/2019	-1.00	108.02	-109.02
05S07E12M01S	7/1/2019	-1.00	112.16	-113.16
05S07E12M01S	9/10/2019	-1.00	116.31	-117.31
05S07E14K02S	11/20/2017	-4.00	74.31	-78.31
05S07E14K02S	1/15/2018	-4.00	73.86	-77.86
05S07E14K02S	3/14/2018	-4.00	73.51	-77.51
05S07E14K02S	5/14/2018	-4.00	74.73	-78.73
05S07E14K02S	7/12/2018	-4.00	75.05	-79.05
05S07E14K02S	9/20/2018	-4.00	75.08	-79.08
05S07E14K02S	11/26/2018	-4.00	75.15	-79.15
05S07E14K02S	1/25/2019	-4.00	75.23	-79.23
05S07E14K02S	3/11/2019	-4.00	74.80	-78.80
05S07E14K02S	5/16/2019	-4.00	74.87	-78.87
05S07E14K02S	7/2/2019	-4.00	75.20	-79.20
05S07E14K02S	9/10/2019	-4.00	74.91	-78.91
05S08E18G01S	3/14/2018	21.00	127.80	-106.80
05S08E18G01S	5/14/2018	21.00	133.86	-112.86
05S08E18G01S	7/12/2018	21.00	140.65	-119.65
05S08E18G01S	9/20/2018	21.00	143.82	-122.82
05S08E18G01S	11/26/2018	21.00	137.89	-116.89
05S08E18G01S	1/25/2019	21.00	126.45	-105.45
05S08E18G01S	3/11/2019	21.00	122.91	-101.91
05S08E18G01S	5/16/2019	21.00	130.50	-109.50
05S08E18G01S	7/1/2019	21.00	136.83	-115.83
05S08E18G01S	9/10/2019	21.00	143.05	-122.05
06S07E03H02S	11/20/2017	-1.00	124.29	-125.29
06S07E03H02S	1/15/2018	-1.00	115.90	-116.90
06S07E03H02S	3/14/2018	-1.00	117.52	-118.52
06S07E03H02S	5/14/2018	-1.00	127.29	-128.29
06S07E03H02S	7/12/2018	-1.00	132.56	-133.56
06S07E03H02S	9/20/2018	-1.00	132.15	-133.15
06S07E03H02S	11/26/2018	-1.00	125.52	-126.52
06S07E03H02S	1/25/2019	-1.00	110.44	-111.44
06S07E03H02S	3/11/2019	-1.00	110.71	-111.71
06S07E03H02S	5/16/2019	-1.00	124.75	-125.75
06S07E03H02S	7/2/2019	-1.00	132.57	-133.57
06S07E03H02S	9/10/2019	-1.00	131.61	-132.61
03S03E08A01S	10/7/2008	1508.50	310.70	1197.80
03S03E08A01S	11/12/2008	1508.50	311.80	1196.70
03S03E08A01S	12/2/2008	1508.50	310.70	1197.80
03S03E08A01S	10/17/2017	1508.50	312.86	1195.64
03S03E08A01S	11/8/2017	1508.50	312.93	1195.57
03S03E08A01S	12/7/2017	1508.50	313.11	1195.39
03S03E08A01S	1/18/2018	1508.50	313.20	1195.30
03S03E08A01S	2/13/2018	1508.50	313.46	1195.04
03S03E08A01S	3/7/2018	1508.50	313.39	1195.11
03S03E08A01S	4/10/2018	1508.50	313.43	1195.07
03S03E08A01S	5/8/2018	1508.50	313.69	1194.81

State Well No.	Date	Ground Surface Elevation (feet msl)	Depth to Water (feet below ground surface)	Groundwater Elevation (feet msl)
03S03E08A01S	6/6/2018	1508.50	313.71	1194.79
03S03E08A01S	8/8/2018	1508.50	313.96	1194.54
03S03E08A01S	9/13/2018	1508.50	313.99	1194.51
03S03E08A01S	10/10/2018	1508.50	314.01	1194.49
03S03E08A01S	12/3/2018	1508.50	314.03	1194.47
03S03E08A01S	6/17/2019	1508.50	314.05	1194.45
03S04E14J01S	10/20/2008	760.00	240.60	519.40
03S04E14J01S	11/10/2008	760.00	241.80	518.20
03S04E14J01S	12/10/2008	760.00	242.90	517.10
03S04E14J01S	10/19/2017	760.00	241.60	518.40
03S04E14J01S	11/29/2017	760.00	242.70	517.30
03S04E14J01S	12/11/2017	760.00	237.60	522.40
03S04E14J01S	1/16/2018	760.00	234.50	525.50
03S04E14J01S	2/13/2018	760.00	234.50	525.50
03S04E14J01S	3/13/2018	760.00	235.80	524.20
03S04E14J01S	4/4/2018	760.00	234.10	525.90
03S04E14J01S	5/14/2018	760.00	233.40	526.60
03S04E14J01S	6/12/2018	760.00	232.70	527.30
03S04E14J01S	8/14/2018	760.00	233.10	526.90
03S04E14J01S	9/12/2018	760.00	232.10	527.90
03S04E14J01S	10/5/2018	760.00	229.50	530.50
03S04E14J01S	12/6/2018	760.00	228.30	531.70
03S04E14J01S	6/13/2019	760.00	227.40	532.60