



January 28, 2021

**954.001.03.002**

City of Sebastopol  
Public Works Department  
Attention: Dante Del Prete, Superintendent  
714 Johnson Street  
Sebastopol, California 95472

**Re: Groundwater Level Data Transmittal  
January through December 2020  
City of Sebastopol  
Sebastopol, California**

Dear Mr. Del Prete:

This data transmittal has been prepared by PES Environmental, Inc. (PES) on behalf of the City of Sebastopol (City) to summarize the results of the groundwater level monitoring program performed in 2020 (January through December). The following sections of this transmittal summarize the activities performed and data collected for the subject monitoring period.

**GROUNDWATER LEVEL MONITORING PROGRAM**

The activities performed for the monitoring period (January through December) included: (1) recording groundwater levels in five City production wells; (2) summarizing regional precipitation data; and (3) preparing groundwater level hydrographs.

**Groundwater Level Measurements**

Groundwater level data collected during the subject monitoring period (January through December 2020) included groundwater elevations from five City production wells: inactive municipal Well #5, and active municipal Wells #4, #6, #7, and #8. These wells are equipped with Solinst Inc., electronic submersible “LT Edge Levellogger” absolute (i.e., un-vented) pressure transducers and data logger systems. Additionally, a Solinst Inc., “LT Edge Barologger” is installed within Well #4 to provide baseline data for barometric compensation. The pressure transducers/data loggers are programmed to record pressure-head measurements at 20-minute intervals. Due to a malfunction of the telemetry system at Well #4, groundwater elevation data were not available for a portion (i.e., June through November 2020) of the monitoring period, and the telemetry modem was re-programmed by PES staff on December 3, 2020. The pressure-head measurements were barometrically compensated and correlated to groundwater level measurements obtained manually using an electronic water level sounder.

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**Precipitation Data**

Daily precipitation records maintained by the National Oceanic and Atmospheric Administration are summarized on Table 1. The precipitation data (reported in total inches per day) were measured at the Sonoma County Airport, Santa Rosa, California (Station ID: USW00023213). As indicated in Table 1, a total of 10.37 inches of rain was recorded during the monitoring period.

**Groundwater Level Hydrographs**

Following conversion of the pressure-head measurements to depth-to-groundwater levels, groundwater level hydrographs were prepared for each of the five City wells (Plates 1 through 5). During the subject monitoring period (January through December), observed groundwater levels were generally stable with seasonal variations related to precipitation and associated groundwater recharge.

**CLOSURE**

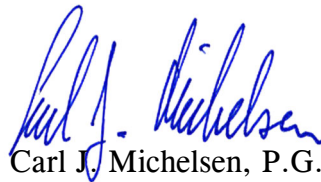
PES appreciates the opportunity to be of service to the City and in providing assistance with the subject Groundwater Level Monitoring Program. Should you have any questions regarding this information, please call PES at (415) 899-1600.

Yours very truly,

**PES ENVIRONMENTAL, INC.**



Peter D. Gorman, P.G., C.HG.  
Associate Hydrogeologist



Carl J. Michelsen, P.G., C.HG.  
Principal Geochemist

cc: Reyna Ramirez – City of Sebastopol (paper copy)

Attachments: Table 1 – Summary of Precipitation Totals  
Plate 1 – Groundwater Level Hydrograph, Municipal Well #4  
Plate 2 – Groundwater Level Hydrograph, Municipal Well #5  
Plate 3 – Groundwater Level Hydrograph, Municipal Well #6  
Plate 4 – Groundwater Level Hydrograph, Municipal Well #7  
Plate 5 – Groundwater Level Hydrograph, Municipal Well #8

**TABLE**

**Table 1**  
**Summary of Precipitation Totals**  
**Sonoma County Airport**  
**Santa Rosa, California**

Day	Daily Precipitation Totals (inches) for 2020											
	Jan-2020	Feb-2020	Mar-2020	Apr-2020	May-2020	Jun-2020	Jul-2020	Aug-2020	Sep-2020	Oct-2020	Nov-2020	Dec-2020
1	--	--	--	--	--	--	--	--	--	--	--	--
2	--	--	--	--	T	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--	--	--	--	--	--
4	0.10	--	--	0.56	--	--	--	--	--	--	--	--
5	--	--	--	0.31	--	--	--	--	--	--	--	--
6	--	--	0.03	0.06	--	--	--	--	--	--	T	--
7	0.04	--	0.11	--	--	--	--	--	--	--	0.01	--
8	T	--	--	T	--	--	--	--	--	--	T	--
9	0.11	--	--	0.01	--	--	--	--	--	--	--	--
10	T	--	--	--	--	--	--	--	--	T	--	--
11	0.01	--	--	--	0.47	--	--	--	--	--	--	0.46
12	T	--	--	0.25	0.03	T	--	--	--	--	--	T
13	0.06	--	--	--	0.09	--	--	--	--	--	0.32	0.58
14	T	--	0.08	--	0.03	--	--	--	--	--	--	--
15	T	--	0.26	T	--	--	--	--	--	--	--	--
16	0.99	--	T	--	0.25	--	--	0.06	--	--	--	0.63
17	--	--	0.01	T	0.15	--	--	0.03	T	--	0.70	0.13
18	--	--	0.08	--	0.12	--	--	--	--	--	0.41	--
19	--	--	--	--	T	--	--	--	--	--	--	--
20	T	--	--	--	--	--	--	--	--	--	--	--
21	0.56	--	--	--	--	--	T	--	--	--	--	--
22	--	--	T	--	--	--	T	--	--	--	--	--
23	--	--	T	--	T	--	--	T	--	--	--	--
24	0.02	--	0.20	--	--	--	--	T	--	--	--	T
25	0.27	--	0.03	--	--	--	--	--	--	--	--	1.06
26	0.19	--	--	--	--	--	T	--	--	--	--	0.01
27	T	--	--	--	--	--	--	--	--	--	--	--
28	0.03	--	0.13	--	--	--	--	--	--	--	--	--
29	--	--	0.12	--	0.03	--	--	--	--	--	--	--
30	--	na	T	--	0.03	--	T	--	T	--	--	0.15
31	--	na	--	na	--	na	--	--	--	--	na	--
Total (inches)	2.38	0.00	1.05	1.19	1.20	0.00	0.00	0.09	0.00	0.00	1.44	3.02
<b>Total Precipitation (in inches) for January through December: 10.37</b>												

**Notes:**

Source of Data: National Oceanic and Atmospheric Administration (NOAA)  
Preliminary Record of Climatological Observations for Sonoma County  
Airport - Cooperative Station Network (Station ID: USW00023213)  
-- = No measurable/reported precipitation  
T = Trace precipitation event  
na = Not Applicable

**PLATES**

Plate 1  
Groundwater Level Hydrograph - Well #4  
City of Sebastopol Municipal Wellfield  
Sebastopol, California

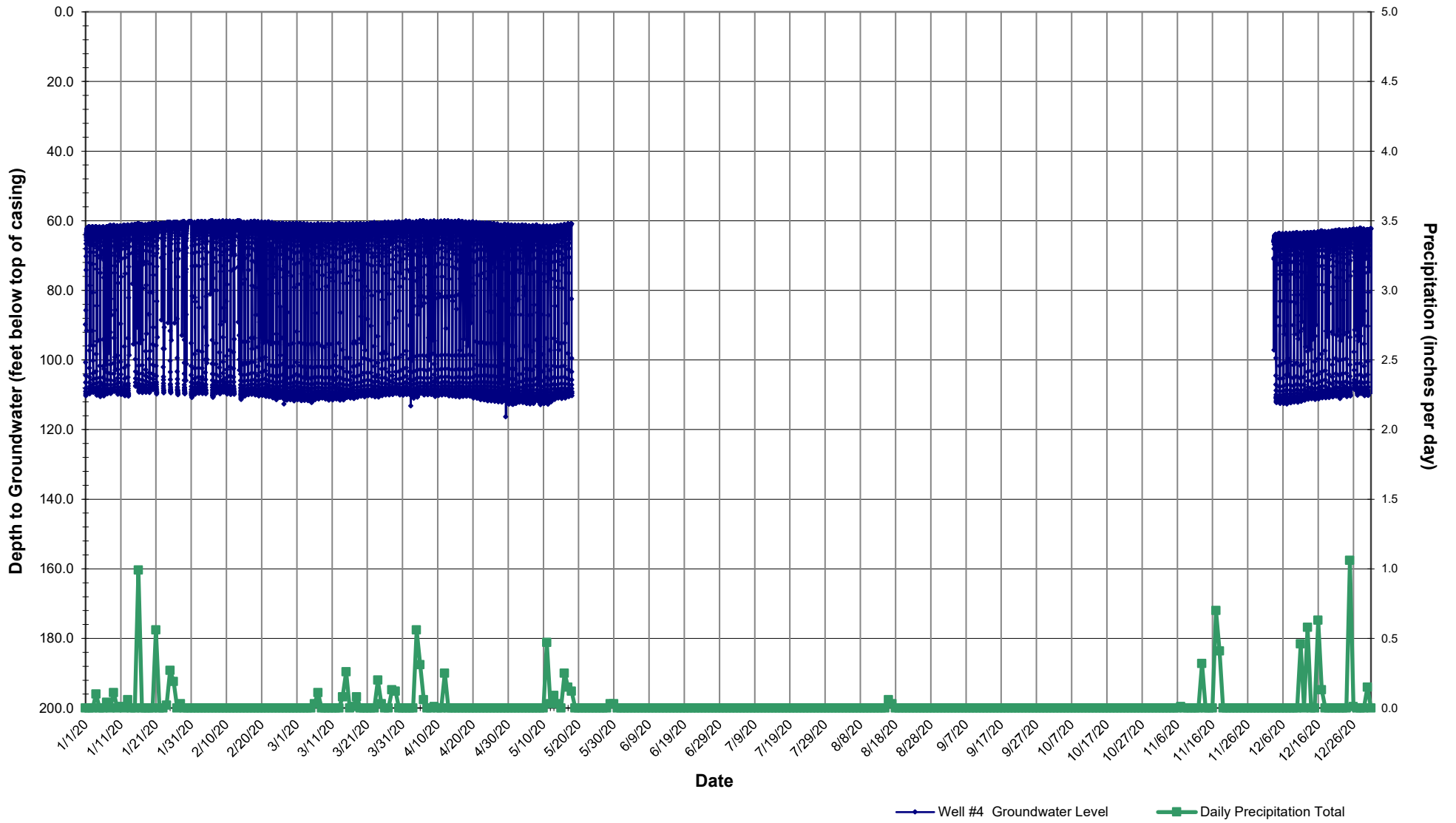


Plate 2  
Groundwater Level Hydrograph - Well #5  
City of Sebastopol Municipal Wellfield  
Sebastopol, California

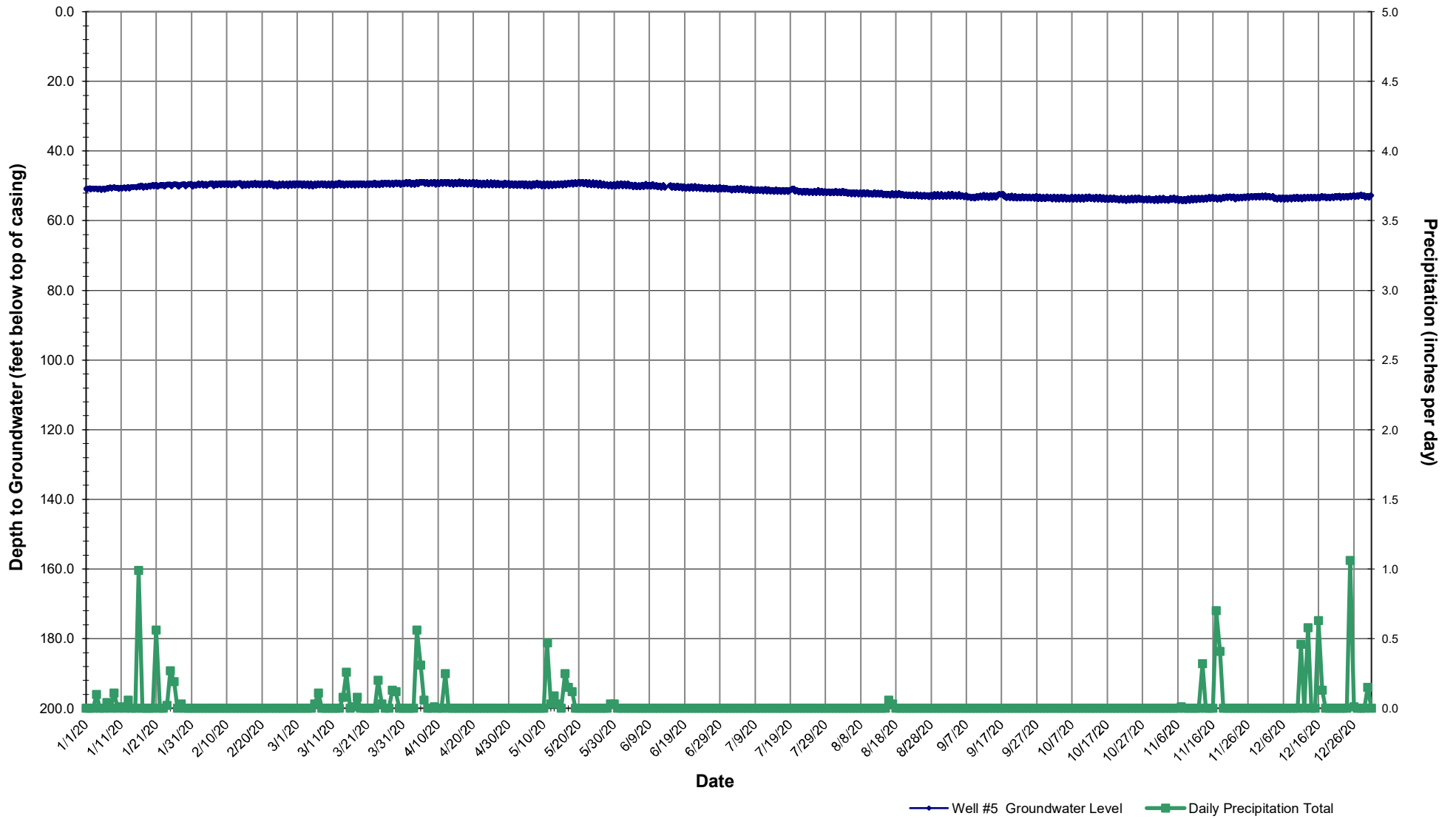


Plate 3  
Groundwater Level Hydrograph - Well #6  
City of Sebastopol Municipal Wellfield  
Sebastopol, California

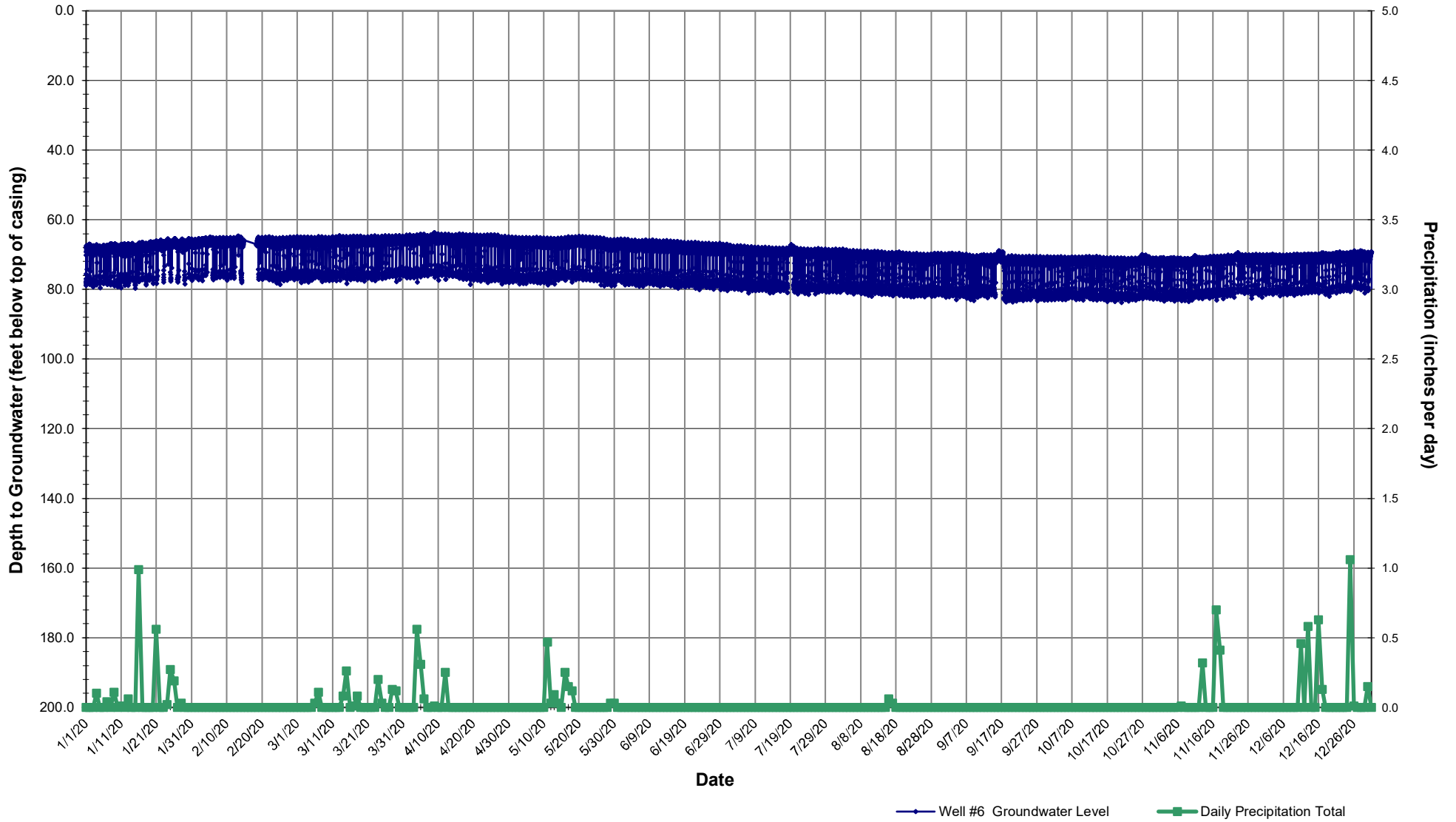




Plate 4  
Groundwater Level Hydrograph - Well #7  
City of Sebastopol Municipal Wellfield  
Sebastopol, California

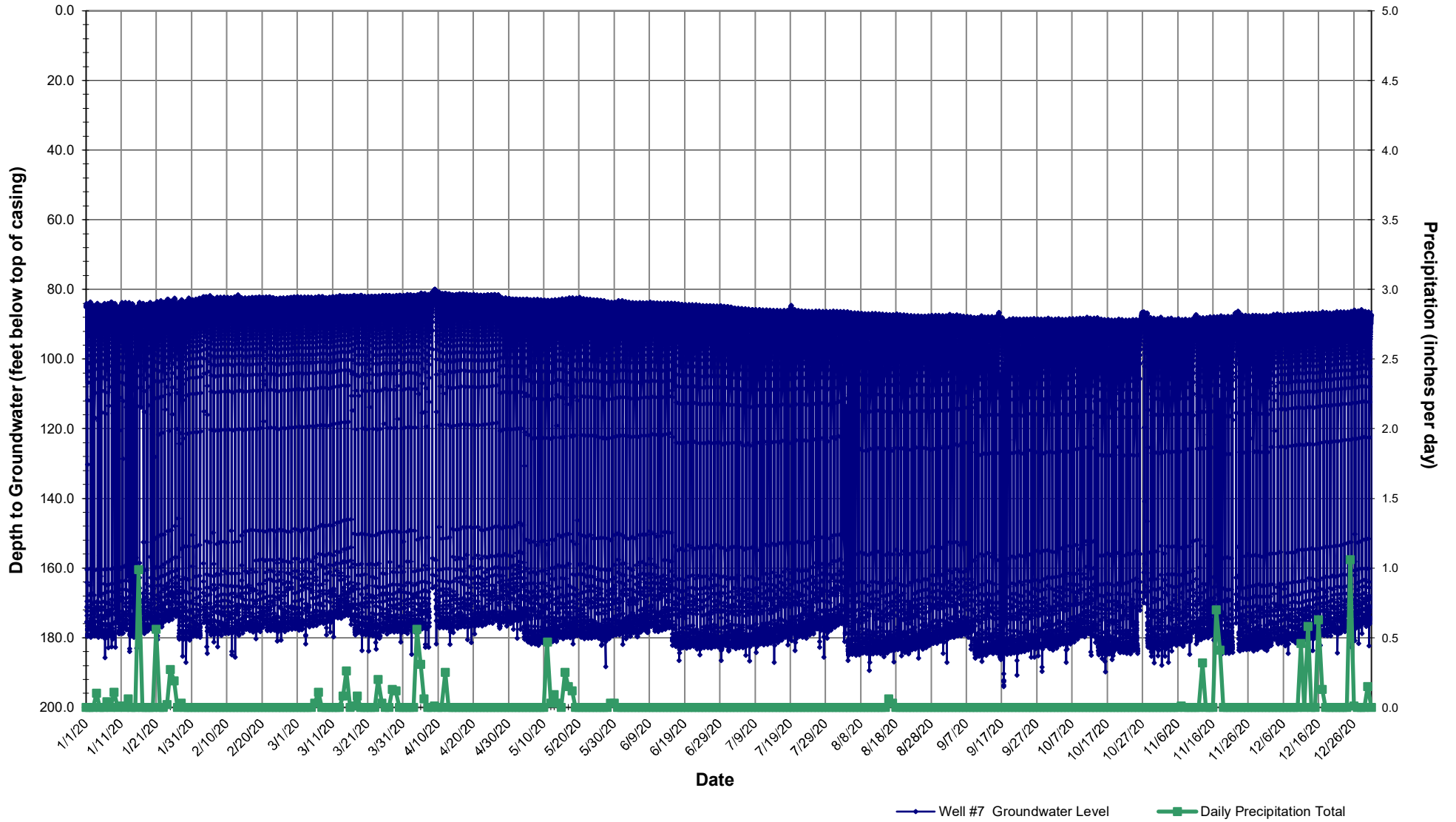


Plate 5  
Groundwater Level Hydrograph - Well #8  
City of Sebastopol Municipal Wellfield  
Sebastopol, California

