City Council
Mayor Sarah Glade Gurney
Vice Mayor Una Glass
John Eder
Robert Jacob
Patrick Slayter

City Manager-City Attorney
Larry McLaughlin

City Clerk
Mary Gourley

City of Sebastopol
City Council Staff Report

Reviewed by City Manager

Meeting Date:	April 19, 2016
To:	Mayor and City Council
From:	Kenyon Webster, Planning Director Jonathan Atkinson, Assistant Planner
Subject:	2015 Annual Level of Service Report
Recommendation:	Receive Report
Funding:	Currently Budgeted: ____ Yes ____ No __X__N/A Net General Fund Cost: If Cost to Other Fund(s), ____ Yes ____ No __X__N/A

Introduction:

This staff report is to provide the Level of Service (LOS) Report, which includes information on the status of the General Plan and progress of its implementation, as well as the status of LOS standards for City services. It also provides an annual update on City Park issues, as well as annual Planning Department information.

Recommendation:

Staff recommends that the City Council receive the LOS Report.

Attachments:

- 2015 Annual Level of Service Report
- Annual Water and Wastewater Statistics Report for 2015
- 2015 Water Production Tables
- Ground Water Data: 2015

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2015 Level of Service Report

Prepared by the Planning Department
April 2016

Introduction

The City's Growth Management Ordinance requires the provision of an annual Level of Service (LOS) Report to the City Council. The Governor's Office of Planning and Research requires jurisdictions to submit a General Plan progress report to their office annually.

The LOS Report includes information on the status of the General Plan and progress of its implementation, as well as the status of LOS standards for City services. It also provides an annual update on City park issues, as well as annual Planning Department information.

General Plan Annual Report

The LOS Report provides an update on the General Plan and related matters. The current General Plan was adopted in 1994 with several amendments in subsequent years and includes the following elements: Land Use, Circulation, Parks and Open Space, Housing, Community Identity, Economic Vitality, and Safety.

General Plan Update: The City initiated the General Plan Update and retained De Novo Planning Group to lead the process in 2014. A General Plan Advisory Committee (GPAC) began its work in 2014 and concluded in late 2015 with the recommendation of a preliminary draft General Plan, which is available for public review and was the subject of three joint City Council-Planning Commission joint meetings in early 2016.

A new Housing Element was placed on an expedited track and adopted in March 2015.

The future process will include the preparation of a formal draft General Plan and Environmental Impact Report with review by the Planning Commission and City Council in anticipation of late 2016 adoption.

City Population:

The Sebastopol population was estimated to be 7,507, as of January 1, 2015, according to the California State Department of Finance. This is an increase of 67 persons from 7,440 in 2014.

LOS Update

The LOS Report includes an update on Planning projects, annual housing totals, and the status of City services, which include water, wastewater, drainage, parks, fire, police, schools, and traffic. Land Use Policy 1.4 of the 1994 General Plan sets forth standards for each of these services.

City policies require that the LOS Report advise the City Council if any of the standards have not been fulfilled, and to include mitigation measures or actions necessary to achieve compliance. If the City Council determines that it is not feasible within the fiscal resources or regulatory authority of the City to meet the standards or guidelines, the additional residential dwelling unit allocations for the next calendar year shall be suspended for a period of 60 days. This would give the City Council time to adopt a moratorium to restrict issuance of further residential dwelling unit allocation until the LOS can be improved or met.

Review: The following is an analysis of the state of various City services as it relates to LOS.

Water

Standard: The General Plan requires a fire flow standard of 1,000 gallons per minute.

Present Situation: Sebastopol relies solely on its own wells to supply the community with water. The City does not have a backup system nor does it have a connection to other water systems in the area, which makes it critical that the City's water system is maintained and closely monitored.

The Engineering Division produces an annual report, which includes statistics for water production, usage, and wastewater flow (attached). The report also contains information about groundwater levels in City wells. The report shows a decrease of 21 percent in total annual water production, from 333 million gallons in 2014, to 296 million gallons in 2015. This is the lowest total water production since 1983. Total annual water production remains significantly lower than peak production of 500 million gallons in 2004.

The City currently has electronic data loggers in every City well and a continuous water level monitoring program, which enables close monitoring of water levels. Please refer to the attached *Water Production and Usage and Water Statistics* report from the Engineering Division for additional information.

The State has adopted new emergency requirements in 2015 in an effort to mitigate the effects of years of drought conditions and include:

- A prohibition on irrigating turf or ornamental landscapes during and 48 hours following measureable precipitation;
- Operators of hotels and motels must provide guests with the option of choosing not to have towels and linens laundered daily, and prominently display notice of this option; and
- A prohibition on restaurants and other food establishments from serving water to customers except on request.

The City has adopted various ordinances and resolutions to implement these requirements.

The City completed a Groundwater Regulatory Standards Compliance Feasibility Study in 2012 in an effort to address new regulatory standards for public water systems, and arsenic, in particular. The purpose of the study was to determine the best options for providing maximum redundancy and flexibility of operations in the City system to maintain excellent water quality in the most cost-efficient manner.

The City constructed an arsenic remediation system at City Well #7, as a result of the study, which was substantially completed in October 2015, and accepted by the City Council on April 5, 2016. The City also obtained funding to begin design work on an arsenic remediation system at City Well #6. Both of these City wells are capital-intensive projects that put a high demand on the Water Fund.

Determination: The standard has been met.

Recommendation: Continue to monitor City wells and diligently address contamination issues.

The City should continue aggressive efforts to promote water conservation and policy efforts for additional conservation measures, since conservation is one way to help ensure that there is an adequate water supply, as well as saving energy and reducing greenhouse gas emissions.

The City has experienced water supply challenges in the past decade due to mechanical and water quality issues. Considerable resources have been necessary to address these issues, and it will be important to continue to ensure that adequate financial and staff resources are available for the water system.

Waste Water

Standard: The General Plan requires a reservation of 5 percent of wastewater treatment capacity.

Present Situation: Wastewater service is critical to the City, and public health concerns related to wastewater was one of the compelling reasons, the City incorporated in 1902.

The City operates a sanitary sewer system in a service area that covers 1.85 square miles. The sewer system consists of 29.6 miles of gravity sewers (approximately 750 line segments), 10.5 miles of lower laterals (approximately 2,800 laterals), 749 manholes, 2.7 miles of force mains, and two (2) lift stations: The Morris Street Lift Station and the Valley View Lift Station. The sewer mains range in diameter from six (6) inches to twenty-one (21) inches in diameter.

The attached Engineering Division annual report provides wastewater statistics. Average Daily Dry Weather Flow (ADDWF), as measured at the Morris Street Pump Station, was approximately 0.413 million gallons per day in 2015. This is a 2 percent decrease from 2014 when ADDWF was measured at 0.432 million gallons per day. ADDWF remains considerably lower than it was 10 years ago and illustrates declining water usage.

The City has an updated Sewer System Management Plan (SSMP) to address strict new regulatory requirements. It is intended to be a compendium of the policies, procedures, and activities that are included in the planning, management, operation, and maintenance of the City sanitary sewer system. The SSMP is intended to meet the requirements of the State Water Resources Control sanitary sewer system General Waste Discharge Requirements (GWDR).

There are substantial maintenance needs, in addition to demanding training and reporting requirements. The following table illustrates pipe age and indicates that a significant proportion of City pipes are old.

City Pipes

Age in Years	Construction Period	Percent of System*	Linear Feet of Main
0 to 15	2000 to Current	5%	7,601
16 to 35	1980 to 1999	20%	30,407
36 to 55	1960 to 1979	50%	76,017
56 to 75	1940 to 1959	20%	30,407
76 to 95	1920 to 1939	5%	7,601
96 to 115	1900 to 1919	0%	0
116 +	Before 1900	0%	0
Total Linear Feet			**152, 034**
Total Miles			**28.8**

*Source: City Staff (November 2014)

The City Council approved rate increases in 2012 to ensure adequate funds for operation and maintenance of the sewer system. The rate increases were implemented in stages over several years with the final increase having gone into effect in 2015.

Determination: The standard has been met.

Recommendation: Continue to monitor the sewer system to provide wastewater service and meet regulatory requirements.

The City has a legal cap on the volume of wastewater that can be sent to the sub-regional treatment plant. This is one of the key factors that limits the future growth of Sebastopol and is part of the rationale for the Growth Management Program, which substantially limits housing development.

Drainage

The City owns and operates a storm water conveyance system located primarily within public streets, roads, and lands. The majority of this system flows in an easterly direction and discharges into the Laguna de Santa Rosa. A small portion on the western portion of the City drains to Atascadero Creek.

There were no major drainage issues identified nor were there any substantial drainage projects implemented in 2015. The City has a Storm Drain Master Plan, which identifies various long-term improvements that are planned. New State promulgated storm water regulations call for a major upgrade of the Master Plan.

The City currently has a Low Impact Development (LID) program, which imposes new, demanding application requirements on a wide range of development projects, and requires that site planning address storm water control and mitigation. This program regulates both storm water and non-storm water discharges into the City's drainage system with the intent to reduce storm water pollution and protect the water quality of local creeks and waterways, as well as to promote groundwater recharge.

LID Best Management Practices (BMPs) treat storm water as a resource to be preserved and maintained. BMPs focus on retention and infiltration of rainfall to maintain a natural water balance. Slowing the movement of water reduces problems with erosion and increases the chance for onsite filtration and purification of storm water. This is often accomplished by using vegetated areas and the natural purification of soil and plants.

The City does not have an established revenue source for the operation and improvement of its storm water facilities or for programs, such as LID. This is a challenge for the City with increasing regulatory requirements. Some jurisdictions have approved local tax measures to specifically fund these types of activities, which the City should consider.

Parks

Standard: The General Plan requires 5 acres of parkland for each 1,000 residents.

Biannual Review of Parks, Trails, and Open Space Acquisition: Conservation, Open Space, and Parklands Policy P.27 of the 1994 General Plan requires the provision of a biannual report to the City Council on the status of parks, trails, and open space acquisition and development. The City Council is regularly provided with information and updates on a variety of parks issues and projects. These periodic updates and the following information are intended to satisfy this requirement.

Present Situation: The 1994 General Plan established that the City had 3 acres of developed parks for each 1,000 residents. While Ragle Park is immediately adjacent to Sebastopol, readily accessible, and used by residents, it was not included in this calculation of the parkland ratio in that parks within City limits are only counted. Additionally, only trails and other developed areas of the Laguna Wetlands Preserve are counted toward the parkland ratio, which does not give sufficient credit to its actual overall acreage.

There is a total of 36.32 acres of developed parkland in Sebastopol. The most recent addition of parkland was Tomodachi Park, which was completed in 2013 and includes 0.58 acres of developed parkland. However, this does not account for an additional 8 acres of open space, which are also part of the property but undeveloped. The total parkland ratio is 4.88 acres for each 1,000 residents, which means that the City is close to achieving the parkland standard.

While the City did not technically add acreage to its total parkland, there were a few noteworthy projects that were initiated and/or completed in 2015:

- The preparation of the Laguna Wetlands Preserve Management Plan to establish maintenance, restoration, and improvement policies, which was reviewed by the Planning Commission in late 2015 and included multiple workshops throughout the year. The City Council adopted the Management Plan in early 2016.
- The installation of the Sebastopol Living Peace Wall on the open space just opposite of the Mario Savio Free Speech Town Plaza, which was approved by the City Council.
- Authorization to proceed with bidding for the Skategarden Expansion Project. A contractor was selected, and construction will begin in April 2016.
- Ongoing fabrication of the Occupy Bench at the Town Plaza, which is a circular bench intended to recognize the 'Occupy' movement. It will likely be installed in fall 2016.

Determination: While substantial progress has been made in recent years, the General Plan standard has not been met, based on current methodology.

Recommendation: There is a continuing need to establish and maintain priorities for park improvements, given limited resources. Maintenance of existing facilities should be a high priority and there is a need to provide additional revenue for park maintenance. The Management Plan identified the need for a higher level of maintenance for the Laguna Wetlands Preserve. There are also major capital improvement needs for the Laguna Wetlands Preserve, and for Ives Park. The City currently has an adopted Ives Park Renovation Master Plan, which would cost over $4 million to implement.

As suggested by prior LOS reports, the draft General Plan includes a new methodology for the calculation of a parkland ratio that provides greater acknowledgement of all open space areas in Sebastopol. If this new approach is used, parkland figures will change in the 2016 LOS Report.

Fire Department

Standard: The General Plan requires an emergency response time of less than 5 minutes for 80 percent of calls.

Present Situation: The average response time is 4:55 minutes for 80 percent of calls, and 6:50 minutes for 100 percent of calls. This represents an increase from 2014, when the response time was 4:45 minutes for 80 percent of calls. The average response time was 4:48 minutes in 2013 and 4:32 minutes in 2012. The Fire Department currently has a volunteer staff of 31 members: 25 active members and 6 reserve members. The Fire department has an ongoing program to recruit new firefighters.

The Fire Department responded to 1,071 calls for service in 2015, an increase from 1,055 in 2014. The four-year average is 978 calls for service. Over 60 percent of calls for service are medical-related. The following table indicates that the City is seeing increased calls on an annual basis.

Calls for Service: 2012-2015

2012	2013	2014	2015
926	861	1,055	1,071

The City currently has a fire protection rating from the Insurance Services Office (ISO), of Class 3. Only 5 percent of the fire departments in the nation have a Class 3 or better rating, which speaks to the outstanding level of service provided by the City's volunteer and professional Fire Department staff.

Capital Equipment needs are a continuing concern. Fire Inspection and Prevention Programs and Public Emergency Planning are two other areas where services could be enhanced. Another ongoing issue for the Fire Department is the difficulty of recruiting new volunteer firefighters as the community demographics change to an older population with fewer young families, and particularly in light of the high housing costs, which inhibits younger individuals and families from moving into the City.

The Fire Department reduced the hiring age from 21 years to 18 years, and has expanded the boundaries of either living near or working in the City. This change has benefited the Fire Department, as younger volunteers and those that do not live in the City have been added to

the roster. The City should also review the need for one to two full-time, paid firefighter positions, particularly to address weekday, daytime response issues.

The City should continue to offer incentives for citizens to volunteer as firefighting staff and to retain those already volunteering. The Fire Department has provided a modest monetary benefit program to the volunteer firefighters based on their number of emergency responses since 2005. This program has increased the average number of firefighters per call by 25 percent. The Staffing for Adequate Fire and Emergency Response (SAFER) program is 100 percent funded by FEMA and the Department of Homeland Security.

Unfortunately, the FEMA SAFER Grant ended in 2015. The Fire Chief has adjusted this year's budget to continue this very important incentive for the volunteers. Traffic conditions and congestion also have an impact on response times. The Fire Department is continuing to look for ways to lessen the number of callouts to false alarms and unwarranted requests for calls for service.

The National Response Standard, as adopted by the National Fire Protection Association (NFPA) has changed since the 1994 General Plan was adopted. The NFPA has adopted Standard 1720: Standard for Volunteer Firefighters. This standard stipulates that volunteer staffed fire departments, serving an urban area (1,000 + persons per square mile), shall have a maximum response time of 9 minutes and assemble 15 firefighters on the scene of structure fires 90 percent of the time. The Fire Department assembled an average of 18 staff for fires 90 percent of the time, and was under 9 minutes, as stated in NFPA 1720. The 18 staff members assembled, consisted of 12 Fire Department staff from the City and 6 Automatic Mutual Aid staff from the Graton and Gold Ridge Fire Protection Districts. The Fire Department is well within compliance with the new NFPA standard. The draft General Plan includes this standard.

Determination: The standard has been met.

Recommendation: The situation should continue to be monitored. Revision of the LOS standard to match the more suitable NFPA Standard for volunteer departments should be enacted in the new General Plan. The City should evaluate additional volunteer staffing incentives, as well as considering one to two additional full-time, paid firefighter positions.

Police Services

Standard: The General Plan requires a response time of 3 minutes for 70 percent of calls.

Present Situation: The Police Departments consisted of 14 full time sworn officers, which included the Police Chief, Police Captain, 4 Sergeants, and 8 Officers. The Police Department had 8 civilian support staff, which included a part-time (50 percent time) Dispatch and Records Supervisor, 5 fulltime Dispatchers, one per-diem Dispatcher, and one part-time (75 percent time) Police Aide, who primarily deals with parking enforcement, civilian fingerprinting, and animal control. The Police Department also has 9 Reserve Police Officers, 16 Community Service Volunteers, and 8 Police Explorers.

The Police Department handled 17,608 incidents in 2015. The average response time to all emergencies was 3:05 minutes. The average response time was within 3 minutes for at least 70 percent of calls and 3:45 minutes for all calls. Police Department staffing was reduced in 2015 with one sergeant out on leave due to a work-related injury and the retirement of another

officer in the spring. The retiring officer's replacement completed training and began patrol at the end of December 2015.

Determination: The standard has been met.

Recommendation: Maintain current Police Department staffing levels, consider a fulltime School Resource Officer, and continue seeking grants to enhance service, per the recommendation of the Police Chief.

Schools

Standard: The Sebastopol Union School District and the West Sonoma County High School District (High School District) establish their own standards for school class size and the requisite amount of square footage of play area per student.

Present Situation: Sebastopol schools are under the jurisdiction of the Sebastopol Union School District and the High School District. Sebastopol is also home to two charter schools that are not affiliated with either school district.

Sebastopol Union School District: There are currently two elementary schools under the jurisdiction of the school district: Park Side (Kindergarten to 5th Grade) and Brook Haven (Kindergarten to 8th Grade).

The Sebastopol Independent Charter School (Kindergarten to 8th Grade) is also part of the Sebastopol Union School District and is located at 200 Main Street, where it holds a Use Permit. Operations were restructured in 2011, which resulted in Kindergarten through 2nd Grade classes being relocated to the Brook Haven campus and 3rd Grade through 8th Grade classes remaining at the main campus on South Main Street. The Independent Charter School is currently developing a plan for a new campus in the district, just outside City limits near Gravenstein Highway North.

District-Wide Enrollment: 2010-2015

2010	2011	2012	2013	2014	2015
1,043	1,021	871	877	856	796

2015 Enrollment Levels by Sebastopol Union School District Schools

School	Total Enrollment
Park Side	211
Brook Haven	299
Sebastopol Independent Charter School: Grades K to 8	286

Total 2015 enrollment in the Sebastopol Union School District decreased by 60 students from 2014. This is a relatively large decrease for a small district.

Sebastopol Area Charter Schools: There are also two charter schools located in Sebastopol that are not part of the Sebastopol Union School District or the High School District: The REACH Charter School and Sun Ridge Charter School.

The REACH Charter School (Kindergarten to 8th Grade) is an integrated liberal arts school, which is located at 7285 Hayden Avenue, a site that was formerly home to Pine Crest Elementary School, which closed in 2011. The school had a total 2015 enrollment of 102 students, which was also the total enrollment in 2014. Total enrollment is not counted towards Sebastopol Union School District enrollment.

Sun Ridge Charter School (Kindergarten to 8th Grade) is part of the Twin Hills Union School District and also operates at the former Pine Crest Elementary School site. Sun Ridge also has a campus at 487 Watertrough Road, which is home to Kindergarten classes and a farm. Sun Ridge Charter School had a total 2015 enrollment of 270 students, which is an increase of 27 students from 2014, when total enrollment was 243 students. Total enrollment is not counted towards Sebastopol Union School District enrollment.

West Sonoma County High School District: The High School District operates three schools in Sebastopol: Analy High School, Laguna High School, and Community Day School, which is a continuation school and alternative to the standard high school format with a maximum enrollment allowance of 15 students. The High School District also operates three schools in greater West Sonoma County: El Molino High School, Nuevo Leon High School, and the Russian River Ramparts Independent Study program.

Total Enrollment for High Schools in Sebastopol: 2010-2015

2010	2011	2012	2013	2014	2015
1,370	1,383	1,445	1,459	1,461	1,393

2015 Enrollment by Grade

School	9th Grade	10th Grade	11th Grade	12th Grade	Total
Analy High	316	361	340	300	1,317
Laguna High	0	10	25	35	70
Community Day School	0	2	3	1	6

Total high school enrollment decreased by 68 students in 2015.

Total enrollment decreased by 128 students in 2015 in Sebastopol, which includes both the Sebastopol Union School District and the High School District.

The Board of Education and District Administration of the West Sonoma County High School District prepared an Enrollment Projection Study to understand the long-term effects of declining enrollment in December 2013. The Enrollment Projection Study determined that enrollment for resident students will continue to decline over the next 10 years but did offer some mitigation options that include:

- Offering an innovative approach that tailors instructional approaches to the individual student by blending classroom instruction, online courses, independent study, community college study, and community-based learning.
- Developing programs to attract transfer students to West County such as career technical education programs or programs in the arts.
- Increasing the percentage of students who complete course sequences and experiences that make them ready for a career or college after high school.

Determination: The Sebastopol Union School District has experienced declining enrollment, which has resulted in school closures in recent years and could lead to the closure of another school. This could result in a further enrollment decline within the High School District in coming years.

Recommendation: The City should support policies in the draft General Plan and adopted Housing Element to encourage more family housing. However, even with some additional housing development, young families will face substantial affordability and availability challenges in the Sebastopol housing market, which along with other demographic trends, appears to likely continue declining enrollment.

Traffic

In terms of traffic conditions, the Level of Service (LOS) concept is a qualitative rather than a quantitative measure describing the relative ease or congestion of traffic movement. 'Level A' represents free flow conditions and 'Level F' represents jammed conditions, where traffic flow is at or over the capacity of the roadway and consequently moves very slowly.

The following table explains the LOS concept in more detail.

Level of Service Definitions

LOS	Description	V/C Ratio
A: Free Flow	Relatively free-flow. No restrictions to vehicle maneuverability or speed. Very slight delay.	0.00-0.60
B: Minimal Delays	Stable flow. Some slight reduction in maneuverability and speed. Vehicle platoons form. Suitable operation for rural design. Slight delay.	0.61-0.70
C: Acceptable Delays	Stable flow operation. Higher volumes. More restrictions on maneuverability and speed. Acceptable delays.	0.71-0.80
D: Tolerable Delays	Approaching unstable flow operation. Queues develop. Little freedom to maneuver. Tolerable delays for short periods.	0.81-0.90
E: Significant Delays	Unstable flow or operation. Low operating speed; momentary stoppages. This condition is not common in peak hours. Congestion and intolerable delays.	0.91-1.00
F: Excessive Delays	Forced flow or operation. There are many stoppages. The highway acts as a vehicle storage area. Jammed. Gridlock.	1.00 +

V/C is the ratio of traffic volume to capacity.

Standard: The General Plan establishes the following LOS Standards:

A. At Intersections: Allow a minimum operation of LOS D for signalized intersections within the Downtown; LOS C for all signalized intersections outside of the Downtown; and LOS D for all side street movement at un-signalized intersections.

B. On Road Segments: Allow a minimum LOS E for Highway 12, east of Main Street; LOS D for Highway 116 and Bodega Avenue; and LOS C for all other road segments.

C. On Local Residential Streets: Allow a maximum of 1,500 to 2,000 vehicles per day on all existing residential streets and a maximum of 1,000 to 1,500 vehicles per day on all new residential streets.

Present Situation: The General Plan Update provided comprehensive data on current traffic conditions. This has even included preliminary analysis of the feasibility to change the one-way street system. Initial analysis indicated that the conversion could be workable. However, considerable additional analysis would be needed and costs would be substantial, if feasible. The conversion may not improve traffic flow but could have other benefits. The General Plan is expected to recommend further investigation of the concept.

Vehicle access is critical to the operation of a modern city. Most people in Sebastopol travel by vehicle and many more in the surrounding market area have no other viable transportation option. Pavement conditions in Sebastopol are an ongoing concern with conditions continuing to decline. Deferred maintenance will result in much higher long-term costs, especially given that Federal and State funding for street maintenance has declined. Additional local funding is highly desirable.

The improvement of Gravenstein Highway South is a continuing objective. There are several sections that lack curb, gutter, sidewalk, street trees, and street furniture. The undergrounding of overhead utilities would also be desirable. The General Plan is expected to call for these improvements.

The improvement of Sebastopol Avenue and South Main Street is also another objective. The City recently embarked on the Downtown Core Streetscape Project to address the aesthetics of the streetscape throughout the Downtown Core. However, the Streetscape Project was funded by the City's Redevelopment Agency and ultimately terminated, as a result of the State dissolution of redevelopment agencies throughout California. No replacement funding has been identified. The General Plan is expected to call for these improvements.

The City has made considerable progress in its plans to add bicycle lanes to Highway 116. Plans have been substantially engineered, in close consultation with Caltrans. The City applied for, but did not receive, a major grant to construct the project. Subsequently, staff have been in discussions with Caltrans regarding potential implementation of the project in a cooperative effort with a major Caltrans maintenance project.

The City Council also authorized a contract for the Wayfinding Sign Project in 2015, which will include auto and pedestrian wayfinding signs, as well as design for new gateway signs and identification signs for major City facilities, including parks and buildings. Additional funding will be needed for implementation.

Caltrans is currently in the process of replacing the Highway 12 Bridge, which will be wider and slightly higher than existing bridge. Construction is expected to be complete in 2017. Construction has caused traffic delays at times.

Determination: Traffic studies provided comprehensive information on traffic conditions as part of the General Plan Update process, and an opportunity to update circulation policy and improvement priorities.

Recommendation: There are numerous circulation maintenance and improvement needs, which far exceed existing City resources. Substantial revenue enhancements for street maintenance and improvements should be explored. Routine paving and maintenance have been underfunded. Sidewalks could also benefit from additional maintenance, as well as addressing gaps in the sidewalk system. The improvement of Sebastopol Avenue and Gravenstein Highway South should be major long-term capital improvement objectives.

The General Plan Update process has provided an opportunity to review circulation priorities, including maintenance, paving, and bicycle and pedestrian opportunities, as well as review of current traffic LOS standards. There has been both local and statewide discussion of revisions to traditional LOS standards, which tend to favor the automobile and do not adequately recognize other modes of transportation.

Residential Dwelling Allocation

Standard: The General Plan establishes an annual residential development limit of 25 units. Certain types of residential development, such as second units are exempt, while affordable housing units are not subject to the 25-unit limit.

Present Situation: The Growth Management Program, which was adopted in 1994, is intended to preserve the small town character of Sebastopol, and identify infrastructure limitations, such as sewage treatment capacity, water supply, and roadway constraints. The following table outlines dwelling unit allocations.

Allocation: Availability Calendar 2015

Total Permit and Approval Activity During 2015	**3**
Permits issued for exempt units during 2015	1
Permits issued for exempt Category C units during 2015	0
Permits issued for exempt Category D units during 2015	0
Existing residential units annexed during 2015 (Category C)	0
Out-of-service-area agreements approved during 2015 (Category D)	0
Number of Units Removed	0
Permits issued for other non-exempt units during 2015	2
Non-exempt allocations reserved during 2015 for future use	0
Subtotal of Nonexempt Allocations Issued or Reserved in 2015	**2**
Base year dwelling unit allocations available on 1/1/2015	25
Total non-exempt allocations issued or reserved in 2015	2
Total Remaining 2015 Base Allocations for Carryover	**23**
Total Carryover Available from 2014	**24**
New Base Year 2016 Allocations Available 1/1/2016	25
Total Allocations Available 1/1/2016	**72**

The following unit types are exempt from the annual limit per the Zoning Ordinance:

- Affordable Housing Units
- Second Dwelling Units
- Replacement Residential Structures
- Single-Family Residences (On Existing Lots of Record as of November 1994)
- Homeless Shelters
- Single Room Occupancy Residences
- Community Care/Healthcare Facilities
- Category C Units (Conform to the Zero Net Flow of the Growth Management Ordinance)
- Category D Units (Conform to the Zero Net Flow of the Growth Management Ordinance)

Second units are exempt from annual and total build-out allocations per State regulations, and are not included in any of the housing allocations tables. 1 Building Permit was issued for a second unit in 2015.

Replacement residences are also exempt from the annual allocation limit. No Building Permits were issued for replacement residences in 2015. New residences constructed on existing lots of record as of November 1994 are exempt as well. No Building Permits were issued for this type of development in 2015.

Allocation: Aging Analysis

The City Council modified the Growth Management Ordinance to limit the term of unused annual growth management allocations from 3 years to 2 years and extended the life of the program beyond 2015.

Year	Building Permits Issued/Reserved	Carryover Allocations	Base Year Allocations	Total
2010	4	46 (25 from 2009 are Carry Over + 21 Carry Over 2010)	25	52
2011	0	46 (21 from 2010 are Carry Over + 25 Carry Over 2011)	25	46
2012	10	40 (25 from 2011 are Carry Over + 15 Carry Over 2012)	25	44
2013	7	33 (15 from 2012 are Carry Over + 18 Carry Over 2013)	25	58
2014	1	42 (18 from 2013 are Carry Over + 24 Carry Over 2014)	25	67
2015	2	47 (24 from 2014 are Carry Over + 23 Carry Over 2015)	25	72

Overall Allocations

Total Residential Allocations Available Per GMO 1994-2015	575
Total Allocations Issued: 1994-2014	368
Total Allocations Issued for Ultimate Build-Out Units: 2015	2
Subtotal of Allocations Used	370
Total Allocations Issued for Exempt Units in 2015	1
Allocations Currently Reserved for Future Use	0
Total Allocations Remaining Through 2015	**205**

Note: *Second units shall not be considered in the application of any local ordinance, policy, or program to limit residential growth, pursuant to California Government Code Section 65852.2.B.5.*

There has been very low housing development activity in Sebastopol as indicated by 2015 Building Permit activity and previous years.

A maximum of 72 allocations are available for new, non-exempt Building Permits in 2015. There are 205 housing unit allocations available under the current Growth Management Program. It may be a number of years before the limit of the program is approached based on the generally low rate of development experienced in recent years. However, a few large projects could cause the City to reach the limit more quickly. The limits of the program also have implications, regarding housing needs and the housing production goals set by the State of California.

Determination: The standard has been met.

Recommendation: Continue to monitor the use of Growth Management Allocations. A key limiting factor for residential development is wastewater treatment capacity. At this time, there is substantial remaining capacity. The 1994 General Plan provided for 575 allocations, and was designed to be adequate for 15-20 years. The draft General Plan proposes renewal of the program and provision of additional allocations to address housing needs.

Housing Activity Report

Annual Housing Activity Report

Policy H-1 of the 2015-2023 Housing Element requires the City to prepare an Annual Report that describes activities undertaken in support of the City's housing objectives. This section is intended to fulfill that objective. The City needs a total of 120 housing units for the 2015-2023 Housing Element period according to the Association of Bay Area Governments (ABAG) 'fair share' calculations. This is a reduction from the previous goal of 176 housing units, and thus likely more achievable.

The Housing Element also includes a number of goals, policies, and actions, which are required to achieve consistency with State law and will involve amendment of the Zoning Ordinance. Planning Department staff prepared multiple Zoning Ordinance amendments to fulfil the mandatory Housing Element requirements, which the Planning Commission reviewed and recommended for approval at their March 22, 2016 meeting. The City Council will take final action on the amendments in 2016. The following are amendments as identified in the Housing Element:

Remove Government Constraints

- Action G-1: *Modify the Zoning Ordinance to permit farmworker housing consistent with the requirements of State law, including Health and Safety Code Sections 17021.5 and 17021.6.*

- Action G-2: *Modify the Zoning Ordinance so that homeless shelters proposed for the General Commercial (CG) District are only subject to Administrative Review as a condition of approval.*

- Action G-3: *Modify the Zoning Ordinance to include definitions of Transitional and Supportive Housing, which are consistent with State law.*

- Action G-6: *Modify the Zoning Ordinance to allow second units as a permitted use consistent with State law, increase the size allowance, and consider revisions to standards for second units related to unit height, setbacks, and other relevant standards to facilitate such units.*

- Action G-15: *Modify Sebastopol's density bonus policy so that it is consistent with State law, including reduced parking requirements for housing projects that are eligible to receive a density bonus.*

- Action G-16: *Revise the Zoning Ordinance so that architectural and design review requirements for a manufactured home will not exceed those allowed under Government Code Section 65852.3.*

There was also an increase in housing development activity in 2015. The Planning Department approved four applications for second units. The Design Review Board approved two applications for single-family residences and also provided comments as part of Preliminary Review for a mixed-use development, which would include commercial spaces and apartments on Gravenstein Highway North. The Planning Department received a formal Design Review application for the project in March 2016.

The City also received inquiries from a developer, who is interested in developing a limited number of small and affordable single-family residences at 7950 Bodega Avenue. Construction also commenced in late 2015 for a previously-approved mixed-use development at 961 Gravenstein Highway South, which will include commercial spaces and 8 condominiums. This increase in housing development and general interest in the Sebastopol housing market in part supports Housing Element Policy C-4:

New Housing Production

- Policy C-4: *The City will encourage development of new housing to meet a range of income levels, including market-rate housing, and a variety of housing and sizes and types.*

Planning Department

The Planning Department provides planning and environmental review assistance to the City Council, Planning Commission, Design Review Board, Public Arts Committee, Complete Streets Advisory Committee, Sebastopol residents, as well as the real estate, development, and construction industries.

This Planning Department is divided into two functional units: Current Planning and Development Review, and Advanced Planning. The Planning Department has just three staff persons: Planning Director, Assistant Planner, and Senior Administrative Assistant. The Planning Director was the only fulltime position until July 1, 2015, which made for a challenging workload.

Planning Department Permit Activity

Application Type	06	07	08	09	10	11	12	13	14	15
Use Permit	12	7	6	7	8	12	17	31	10	20
Design Review (DRB)	23	13	13	10	7	8	10	11	11	8
Design Review (Staff)	4	0	1	3	0	3	2	5	4	7
Variance	6	0	0	0	0	0	0	0	2	3
Tree Removal Permit	22	16	12	14	9	12	10	13	12	19
Administrative Sign Review	11	13	8	12	11	10	9	27	19	20
Preliminary Review	6	1	1	0	0	1	1	0	1	2
Annexation / Pre-Zone	1	0	0	0	1	0	0	0	0	1
Rezone/Text Amendment	1	0	1	0	0	0	0	0	0	1
General Plan Amendment	0	0	0	0	0	0	0	0	0	0
Minor Subdivision	4	0	2	0	1	0	0	0	0	0
Major Subdivision	3	0	1	0	0	0	0	0	0	0
Lot Line Adjustment/Certificate of Compliance	2	1	0	21	0	1	2	0	1	3
Environmental Review: Negative Declaration	1	1	1	0	1	1	0	2	0	0
Appeal	4	2	2	0	0	5	2	2	1	2
ABC Transfer	X	X	X	X	X	X	X	X	7	3
Antenna Use Permit	X	X	X	X	X	X	X	X	6	1
Temporary Use Permit	X	X	X	X	X	X	X	X	12	10
Zoning Determination	X	X	X	X	X	X	X	X	1	0
Village Building Convergence	X	X	X	X	X	X	X	X	1	0
Administrative Permit Review	X	X	X	X	X	X	X	X	4	12
Time Extension (Staff)	X	X	X	X	X	X	X	X	1	1
Film Permit	X	X	X	X	X	X	X	X	X	2
Public Art Review	X	X	X	X	X	X	X	X	X	1
Total	**100**	**53**	**48**	**77**	**38**	**53**	**53**	**91**	**93**	**126**

'X' means that the permit type was not specifically identified in pervious LOS Reports.

The Design Review Board (DRB) denied the following applications: Sign Review: 2
The Tree Board denied the following applications: Tree Removal Permit: 1
The City Council denied the following applications: Design Review Board Appeal: 2

The following applications were withdrawn:

- Design Review (Staff): 1
- Design Review (DRB): 1
- Lot Line Adjustment: 1
- Sign Review (DRB): 2
- Tree Removal Permit: 1
- Variance: 1

The following applications are pending as of April 2016:

- Annexation: 1
- Design Review (Staff): 1
- Public Art Review: 1
- Use Permit: 1

Administrative Level Review

Planning Department staff approved the following applications administratively:

- Administrative Permit Review: 12
- Alcoholic Beverage Control License Transfer: 3
- Design Review: 5
- Film Permit: 2
- Sign Review: 20
- Temporary Use Permit: 9
- Time Extension: 1
- Tree Removal Permit: 14
- Use Permit: 6

Planning Department staff denied the following applications administratively:

- Temporary Use Permit: 1
- Tree Removal Permit: 1

Notable 2015 Accomplishments

- Continued the General Plan Update, which included a General Plan Advisory Committee draft.
- Adoption of a new Housing Element, which covers a planning period from 2015-2023.
- Adoption of a new Formula Business Ordinance.
- Processed a Design Review Permit application for the development of Handline, a seafood restaurant, which will be located at a site that was formerly home to Foster's Freeze.
- Initiated Planning Commission and Design Review Board review of the draft Sebastopol Downtown Design Standards, which was produced by a Council subcommittee.
- Managed City review of the Laguna Wetlands Management Plan, which was adopted in early 2016.
- Continued review of The Barlow, which included several Use Permit and Design Review Permit applications, Building Permit Plan Checks, and construction issues.
- Completed final plans and specifications for the Skategarden Expansion Project.
- Applied for a major grant for Laguna Wetlands Preserve improvements.
- Participation in preparation of the multi-jurisdictional Climate Action 2020 Plan.

Expected Special 2016 Planning Department Activities

- Completion of the General Plan update.
- Adoption of the Climate Action 2020 Plan.
- Completion of the Skategarden Expansion Project.
- Adoption of the identified mandatory Housing Element Zoning Ordinance revisions.
- Selection of an artist for a major public art project.
- Initiation of annexation of the Village Park/Tomodachi Park property.
- Completion of design for the Wayfinding Sign project.

Future Issues

The LOS Report has identified a number of important issues, which have been discussed and addressed in the new General Plan, along with a number of other issues. Ongoing and focused attention on conservative financial management, attention to the needs of essential City functions and services, realistic priority-setting, and promotion of economic development to strengthen the local economy are merited to ensure that core services and community assets can be maintained at an acceptable level.

CITY OF SEBASTOPOL
WATER PRODUCTION AND USAGE, AND WASTEWATER STATISTICS
FOR ANNUAL LEVEL OF SERVICE REPORT
CALENDAR YEAR 2015

March 31, 2016

This report is prepared annually by the Public Works Department, to accompany the Planning Department's Annual Level of Service Report.

The report includes statistics showing trends in water production, water consumption, and wastewater flows for the preceding ten years. Beginning in 2009, these annual reports also include information on groundwater levels in our City wells.

This portion of the report will summarize data obtained during 2015. Tables and Figures referenced in the summary are attached at the back of the document.

PART 1 – WATER PRODUCTION AND USAGE

Table 1 shows annual water production statistics for the past ten years, along with the ten-year average.

Total Annual Production from all wells dropped from 333 million gallons in 2014 to 296 million gallons in 2015, a decrease of about 21%. This is the lowest total water production in the Sebastopol system since 1983. The prolonged dry weather conditions statewide led the State to declare a drought emergency, and Sebastopol implemented emergency voluntary water conservation requirements in August, 2014. However, water demand remains significantly lower than when production peaked at 500 million gallons in 2004.

Population is reported by the State Department of Finance on January 1 of each year. The population figures used in this report match the DOF's most current population estimates, based on a 2000 benchmark. The population figure increased by 67, from 7,440 (2014) to 7,507 as of January 1, 2015.

Overall **Per Capita Production** is a calculated average of all water produced divided by population. Per Capita Production decreased 12% from 123 gallons/person/day (2014) to 108 gallons/person/day in 2015.

Rainfall received during 2015 was 15.01 inches, below Mean Seasonal Precipitation for Sebastopol (35 inches per year).

Figure 1 shows some of this information in Graphic form.

Water Consumption

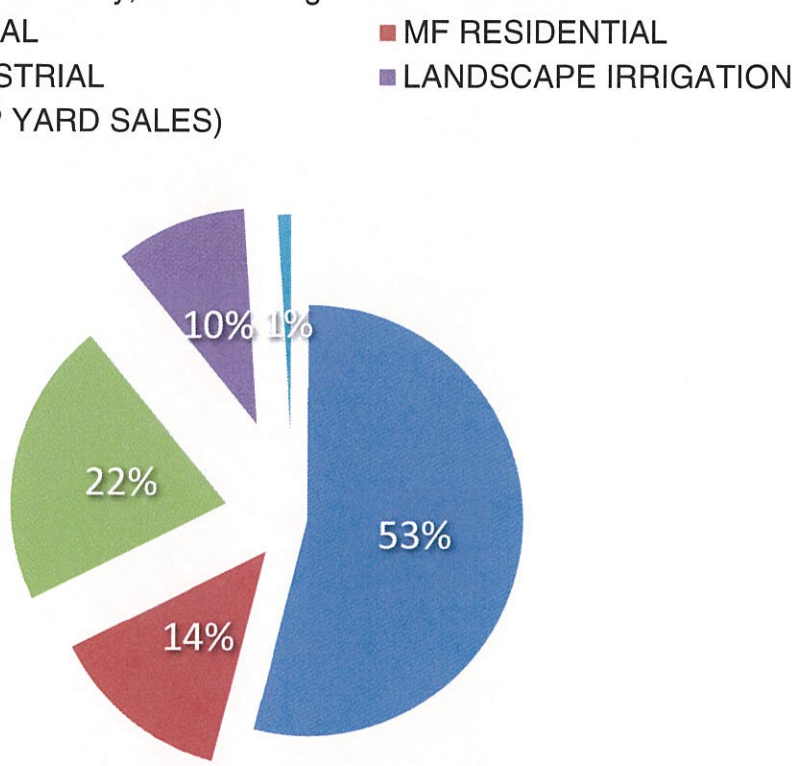
Water consumption by our residents and other users is tracked by monitoring billing records.

Table 2 shows the contribution of various classes of customers to total water sales in Sebastopol over the past 10 years. Figure 2 shows this information in graphic form.

The chart below shows the contribution of various classes of customers to total water sales in Sebastopol during Calendar Year 2015. The distribution of water usage between various classes has not changed appreciably over the past years.

Water Usage by Customer Class

Residential: Together, single-family and multi-family residential usage account for 67% of all water used in Sebastopol in 2015. Though *water produced* in 2015 for all uses averaged 98 gallons/person/day, actual billing records show that residential customers



in Sebastopol use substantially less water on a per capita basis. Per capita *residential usage* was 68 gallons per day in 2014, down from 77 gallons per day in 2014.

Commercial and Institutional: 22% of water sold in 2015 was to commercial and institutional customers (churches, schools, government buildings, etc.). Usage in this customer class remained about the same as a percentage of total use.

Irrigation: Irrigation meters are required for all new multi-family and commercial uses, government and institutional buildings and City parks. Beginning in the summer of 2006 upgrades to our billing software allowed us to begin tabulating irrigation meters separately from their associated domestic meters. In 2015, separately metered irrigation usage was 27.4 million gallons. This represents about 10% of all water sold. This amount decreased 11% from 2014, presumably in part due to the emergency water conservation requirements and rate increases.

Corporation Yard Sales: The City maintains a potable water-filling stand at the Corporation Yard. Customers for water dispensed at the stand include private contractors and water haulers, and individuals. By far the vast majority of water sold at the Corporation Yard, over 80 % is purchased by potable water haulers to provide potable water to rural-residential customers in County areas around Sebastopol. The remainder is sold to haulers for dust control on construction projects inside and out of town, including Sonoma County Farm Trails for performing dust control at the annual Gravenstein Apple Fair. About 5% is purchased by individual self-haul customers for refilling of storage tanks, and for irrigation on rural properties. Historically, sales of water at the Corp Yard ranges from about 0.3% to a little over 1% of all water sold. In 2015, about 3.7 million gallons were sold from the Corp Yard stand, or about 1.25% of all water produced. This was about 20% higher than in 2014.

Future Water Demand

The estimated water demand from projects currently approved by the City but not yet constructed is 4.9 million gallons per year. This represents the equivalent of approximately 1.7% of total production in 2015. The water demand for projects pending approval is estimated at an additional 16.4 million gallons per year. This is equivalent to an additional 5.5% of 2015 annual production. Table 4 shows projects included in these calculations.

Groundwater Levels

Sebastopol is dependent on our municipal wells for water to supply our customers. During Fiscal Year 2013/14, the City budgeted funds to replace data-loggers (transducers) in all of our City wells. The project was completed in Spring, 2014. The City has retained the services of our consultants at PES to oversee the monitoring of ground water levels, maintain the monitoring equipment, supplement it with hand measurements when needed, and to prepare quarterly reports. The City received four reports during 2015, for the first, second, third and fourth quarters. These are attached. This information will also be uploaded to the Public Works Department web page at a future date.

Groundwater Management

The final report from the USGS Groundwater Study for the Santa Rosa Plain was released to the public in May 2014. The Santa Rosa Plain Groundwater Management Plan Basin Advisory Panel (BAP) completed work on a Groundwater Management Plan, which was adopted formally by the County Board of Supervisors on October 7, 2014. The City of Sebastopol, along with other Cities in the basin, entered into a Cooperative Funding Agreement and Memorandum of Understanding in December, 2014, to formally adopt the Groundwater Management Plan for the basin, and undertake the first two years' implementation program.

PART 2 – WASTEWATER

Sebastopol maintains a sanitary sewer collection system and pumping stations that transfer wastewater from Sebastopol to the Sub-regional Water Reclamation System Treatment Plant operated by the City of Santa Rosa on Llano Road. As a partner in the Subregional system, Sebastopol has an entitlement to treatment capacity up to 840,000 gallons, or 0.84 million gallons per day (mgd) Average Daily Dry Weather Flow. Average Daily Dry Weather Flow (ADDWF) is computed using metered wastewater flows through the Morris Street Lift Station during the dry-weather months of each year (typically between May and September) with the lowest rainfall.

Average Daily Dry Weather Flow

Table 3, Average Daily Dry Weather Flow at Morris Street Lift Station, shows current and past years' ADDWF, Population, Percent of Treatment Capacity Used, Per Capita Sewer Flows and Annual Rainfall.

Figure 3 shows ADDWF, compared to Treatment Capacity Entitlement, annual rainfall and average rainfall in graphic form.

For 2015, Average Daily Dry Weather Flow (ADDWF) was 0.413 mgd, or about 49% of our treatment entitlement. This was a decrease of about 2% in ADDWF from 2014.

Sewer Flows, Project Commitments and Treatment Capacity

Sebastopol's ability to accommodate future development is limited by our entitlement in the Sub-regional Water Reclamation System. To estimate the treatment capacity available for future development, we calculate estimated flows from current project commitments. Table 4 provides information about estimated future water and sewer demand attributable to currently Approved Projects and Projects Pending in the planning process.

Projected sewer demand (ADDWF) for Approved Projects is 0.008 mgd.
Projected sewer demand (ADDWF) for Applications Pending is 0.028 mgd.

Using these figures, we can compare current and future flows to treatment capacity as shown in the following table:

Wastewater Treatment Capacity Based on Current Year Statistics

	MGD
Average Daily Dry Weather Flow, 2015 (Table 3)	0.413
Treatment Capacity Reserve per General Plan (5% of entitlement)	0.042
Estimated Flows from Approved Projects (Table 2)	+0.008
Subtotal – Treatment Capacity Used, Reserved and Committed	0.473
Current Capacity Entitlement in Sub-regional Treatment System	0.840
Less Treatment Capacity Used, Reserved and Committed	-0.473
Remaining Treatment Capacity Available for future Growth	0.367
Less Treatment Capacity Demand from Pending Applications (Table 2B)	-0.028
Remainder Available for New Projects	0.339

0.339 mgd represents approximately 40% of our total treatment capacity and would be equivalent to projected flows from 2,140 new single-family homes (assumes sewer flow from a typical single-family residential unit is 157 gpd).

PART 3 – MEETING OUR CONSERVATION GOALS

Water demand in any given year may vary due to a number of factors including weather patterns, the economy in general and rate increases. However, water usage is also affected by changing land use patterns, conservation efforts, rate increases and changes in the public attitude towards the need to conserve resources. In 2008, the City Council Water Subcommittee established a voluntary reduction goal of 15% from the past ten-year average usage by Sebastopol's Customers. In the reports for calendar years 2009-2011, that goal was met and exceeded. In August 2014, in response to the Governor's statewide drought declaration, the City adopted emergency regulations and voluntary water conservation requirements, and asked our customers to aim for a 20% voluntary reduction in water usage. Overall in 2015, water usage decreased by about 22% from the previous year of 2014.

Attachments:

TABLES FOR ANNUAL LEVEL OF SERVICE REPORT FOR 2015

Table 1	Water Production
Figure 1	Water Production, Population and Rainfall (Graph)
Table 2	Water Sales by Customer Class
Figure 2	Water Sales by Customer Class (Graph)
Table 3	Average Daily Dry Weather Flows at Morris Street Lift Station
Figure 3	Average Daily Dry Weather Flow v. Treatment Capacity (Graph)
Table 4	Estimated Sewer and Water Demand from Future Development

GROUNDWATER LEVEL DATA TRANSMITTALS (PES Environmental, Inc.)

- 2015 1st Quarter, April 3, 2015
- 2015 2nd Quarter; July 21, 2015
- 2015 3rd Quarter; November 5, 2015
- 2015 4th Quarter; February 2, 2016

Table 1
Water Production

Calendar Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	10-Year Average
Total Annual Production (mg)	395	392	412	362	338	339	367	376	333	296	361
Average Day (mg)	1.1	1.1	1.1	1	0.9	0.9	1	1	0.9	0.8	1
Population (State DOF, Jan. 1)	7714	7712	7680	7734	7943	7423	7405	7445	7440	7507	7600
Average Production Per Capita Per Day (gallons)	140	139	147	128	117	125	136	138	123	101	129
Maximum Month (mg)	49	49	37	41	39	38	45	40	43	35	42
Maximum Day (mg)	2.9	2.6	1.7	2.1	1.7	1.6	1.8	1.5	2.1	1.3	1.9
Average Day in Maximum Mo. (mg)	1.6	1.6	1.2	1.4	1.3	1.3	1.5	1.3	1.4	1.2	1.4
Maximum Well Capacity (gpm)	2,900	2,900	3,400	2,200	2,200	2,200	2,550	1,800	1,800	2,257	2421
% Total Production to Max Production	25.91 %	25.72%	23.05%	31.31%	29.23%	29.32%	27.38%	39.74%	35.20%	24.94%	29.18%
Amount of Water Billed (mg)	365	365	377	344	313	309	338	350	311	277	335
Un-metered Water Usage (mg)	1.7	1.7	1.6	2.5	2.9	5.2	2.1	3.0	1.5	0.0	2.2
Total Reported Use	366.7	366.7	378.6	346.5	315.9	314.2	340.1	353.0	313.0	277.0	337.2

Unaccounted- for Water (mg)	28.3	25.3	33.4	15.5	22.1	24.8	26.9	23.0	20.0	16	23.53
Unaccounted- for Water, % of Total Production	7.16 %	6.45%	8.11%	4.28%	6.54%	7.32%	7.33%	6.12%	6.01%	6.42%	6.57%
Rainfall (inches)	39.50	23.12	23.12	22.91	50.80	28.07	43.30	11.83	38.63	15.01	29.63

Figure 1 Water Production v. Rainfall and Population

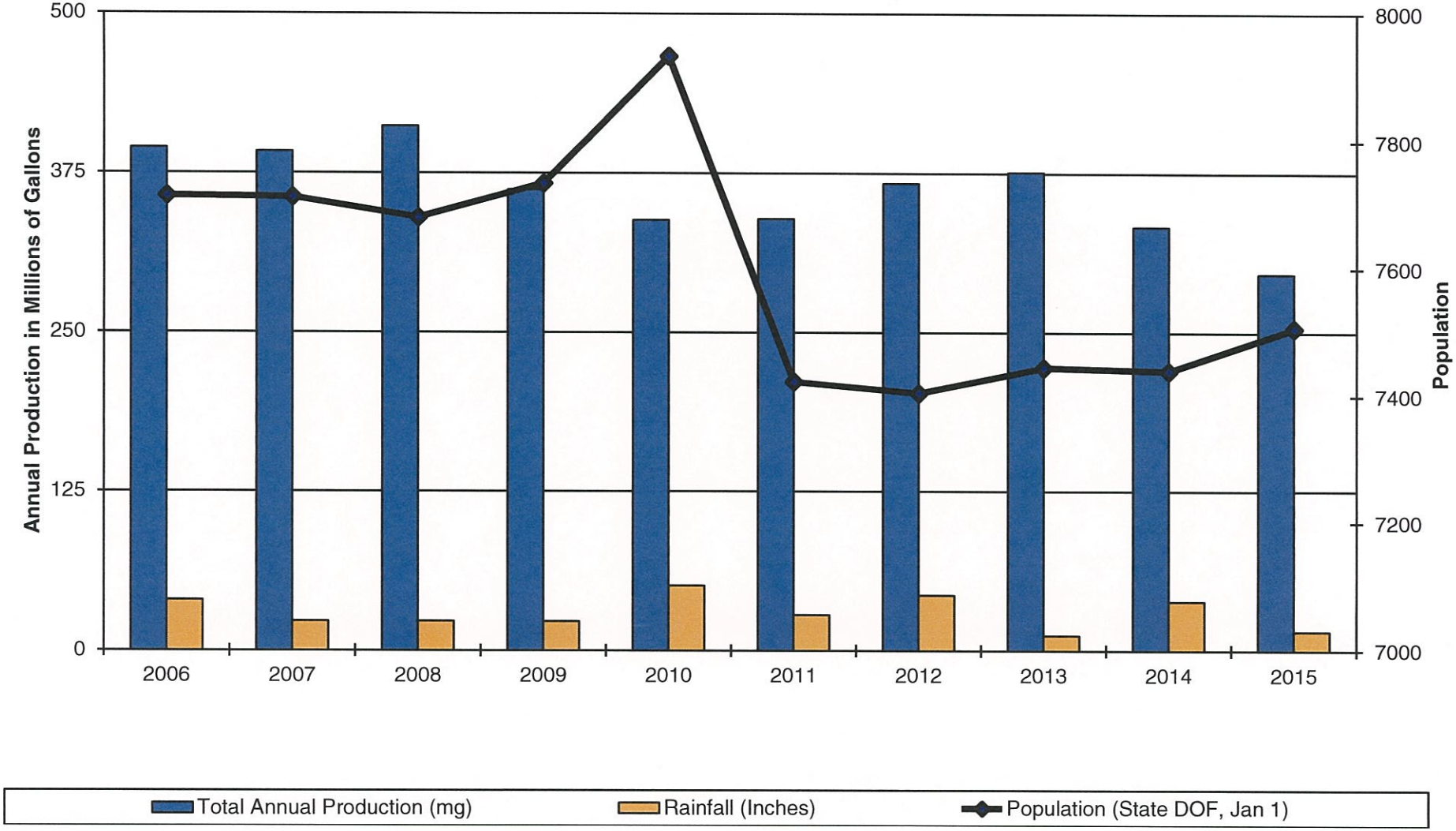


Table 2
WATER SALES by CUSTOMER CLASS
(In Million Gallons)

YEAR	Single Family Residential	Multi-Family Residential	Total Residential Water Sales	Commercial / Institutional	Landscape / Irrigation	Corp Yard	TOTAL WATER SALES ALL USES	Population per State Department of Finance	Residential Water Sold - Gallons per Person per Day	All Water Sold - Gallons per Person per Day
2005	208.2	50.1	258.3	106.1	4	2.8	371.2	7,758	91	131
2006	208	48.1	256.1	86.9	19.9	3.1	366	7,714	91	130
2007	200.7	47.6	248.3	80.4	33.6	2.8	365.1	7,723	88	130
2008	207.6	47.3	254.9	79.7	39.2	3.4	377.2	7,680	91	135
2009	185.4	53.4	238.8	71.2	31.3	3.1	344.4	7,734	85	122
2010	170.3	46.6	216.9	66.8	27.7	1.7	313.1	7,943	75	108
2011	171.5	45	216.5	66.4	24.7	1	308.7	7,423	80	114
2012	188.8	47.1	235.2	71.5	28.5	2.1	338	7,405	87	125
2013	190.2	46.8	237	74.5	36.4	1.7	349.7	7,445	87	129
2014	166.9	42.5	209	66.2	30.5	3.1	311.2	7,440	77	115
2015	146.2	39.9	186.1	59.9	27.4	3.7	277.1	7507	68	101

Figure 2 WATER SALES BY CUSTOMER CLASS

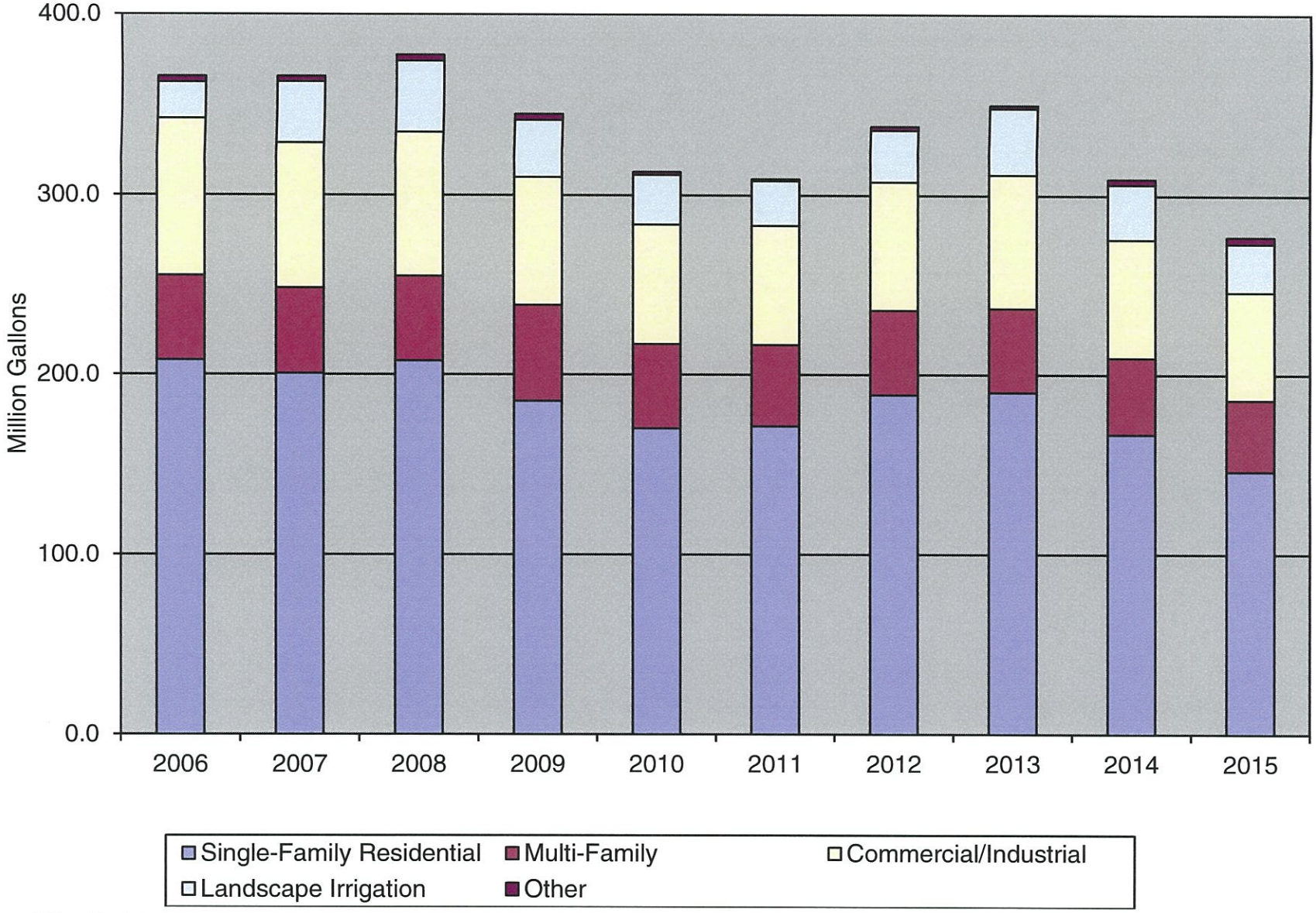


Table 3
Average Daily Dry Weather Flows at Morris Street Lift Station

Calendar Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Dry Weather Flow (MGD) [1]										
May							0.489			
June	0.427	0.597	0.501	0.471	0.388					0.410
July	0.513	0.479	0.503	0.427	0.336	0.515	0.465	0.467	0.428	0.404
August	0.575	0.435	0.507	0.424	0.337	0.516	0.47	0.461	0.430	0.419
September	0.56		0.453				0.48	0.467		
October										
Average Daily Dry Weather Flow (MGD)	**0.519**	**0.504**	**0.491**	**0.441**	**0.354**	**0.519**	**0.474**	**0.464**	**0.432**	**0.411**
Treatment Capacity Used [2]	62%	60%	58%	53%	42%	62%	56%	55%	51%	49%
Population [3]	7,714	7,712	7,680	7,734	7,943	7,423	7,405	7,445	7,440	7,507
Per Capita ADDWF(GPD) [4]	67	65	64	57	45	70	64	60	58	55
Rainfall (Inches)	39.5	23.12	23.12	22.91	50.80	28.07	43.3	11.83	38.63	15.01

Figure 3 Average Daily Dry Weather Flow v. Wastewater Treatment Capacity and Rainfall

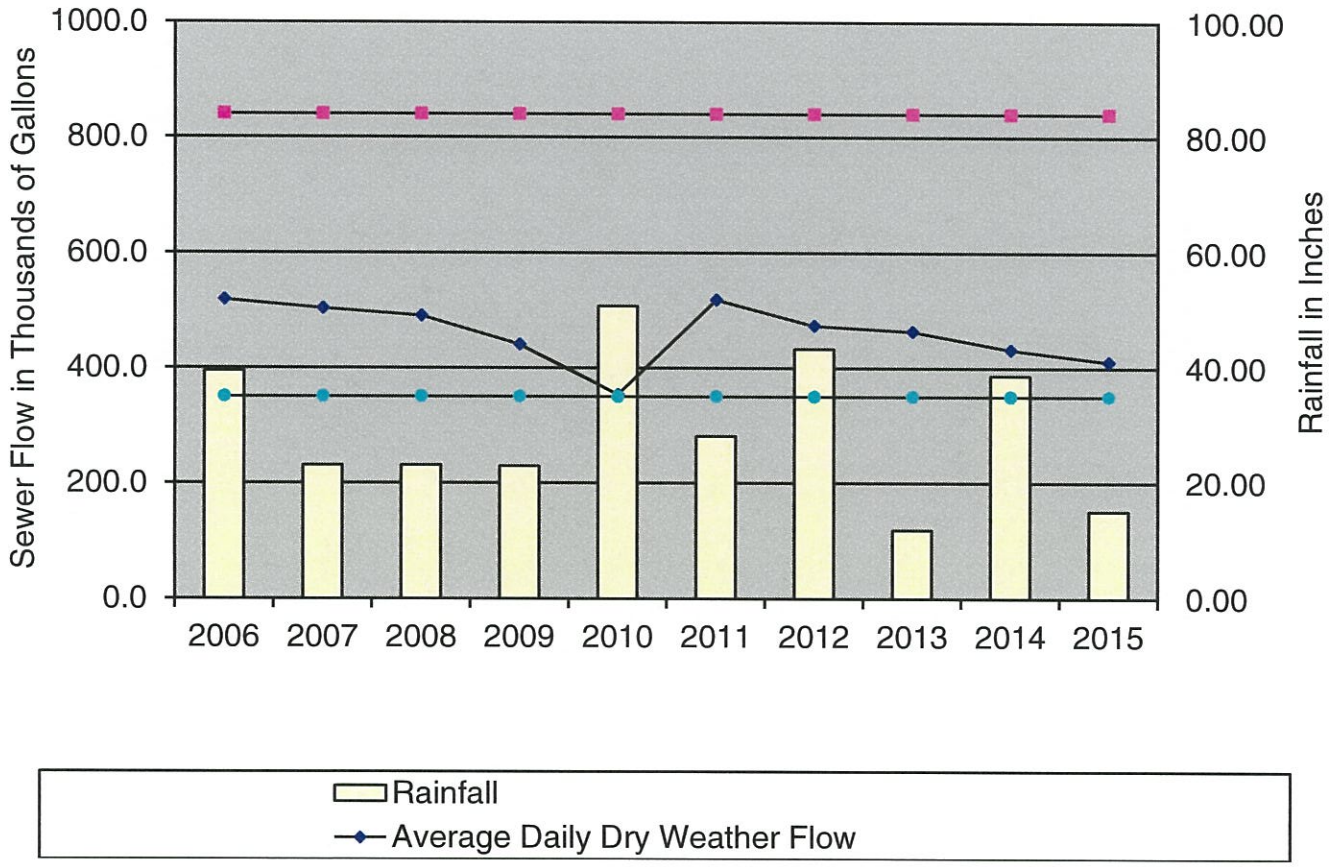


Table 4
ESTIMATED SEWER AND WATER DEMAND FROM FUTURE DEVELOPMENT

APPROVED PROJECTS	Updated March 30, 2016 for 2015 Report				
Project Name	**Street Address**	**Single Family Residential Units**	**Multi-Family Residential Units**	**Hotel Rooms**	**Office, Commercial, Industrial(See Notes) SQUARE FEET**
Oak Grove Subdivision	7801 Stefenoni	1			
Woodland Estates	7401-7440 Giusti	6			
Schoch Minor Subdivision	763 First Street	4			
Doughty CCC	327 Murphy	1			
Sharrocks Minor Subdivision	931 Litchfield	2			
Cypress Heights	160 Pleasant Hill Road	14			
Waters Minor Subdivision	7846 Washington Avenue	2			
Grav. Hwy. S. Mixed Use	961 Grav Hwy South	8			620
CVS/Chase	6877 Sebastopol Avenue				(13,541)*
Siegert SDU	259 Murphy Avenue		1		
Newhall SDU	282 Murphy Avenue		1		
Svandstrom SDU	700 Ellis Court		1		
Porter SDU	850 First Street		1		
Barlow Hotel	100 Morris Street			95	
French Garden Hotel				18	
TOTAL APPROVED		**38**	**4**	**113**	**38,519**
* Project will result in net reduction in square footage.					
PROJECTS PENDING					
	6828 Depot Street			65	Piazza Hotel
Laguna Vista	Hazel Cotter Court	115	30		
Williams SDU	7416 Calder Avenue		1		
TOTAL PENDING		**115**	**31**	**65**	**39,139**

	Water	Sewer
Estimated Demand from Approved Projects	4.9 million gallons/year	.008 million gallons/day

Estimated Demand from Pending Projects	16.4 million gallons/year	0.028 million gallons/day
TOTAL APPROVED AND PENDING	21.3 million gallons/year	.036 million gallons/day

PES Environmental, Inc.
Engineering & Environmental Services

April 3, 2015

954.001.03.002

Richard Emig
City of Sebastopol
Public Works Department
714 Johnson Street
Sebastopol, California 95472

Re: Groundwater Level Data Transmittal
First Quarter 2015
City of Sebastopol
Sebastopol, California

Dear Mr. Emig:

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 the first quarter of 2015 (January through March). 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 March) included: (1) recording groundwater levels in five City production wells; (2) summarizing regional precipitation data; (3) performing a site inspection with manual depth-to-water measurements; and (4) preparing groundwater level hydrographs.

Groundwater Level Measurements

Groundwater level data collected for the fourth quarter included groundwater elevations from five City monitoring: inactive municipal Wells #5 and #7, and active municipal Wells #4, #6, 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

were programmed to record pressure-head measurements at 15-minute intervals. Pressure-head measurements stored in each data logger were transmitted to PES' office via telemetry stations installed within the respective pump houses. The pressure-head measurements were then barometrically compensated and correlated to manual groundwater level measurements that were obtained via an electronic water level sounder on January 13, 2015. The respective manual groundwater level measurements on January 13, 2015 for Wells #4, #6, #7, and #8 were 114.7, 64.8, 82.1, and 40.3 feet below top of casing. An accurate groundwater level measurement could not be obtained from Well #5 due to the presence of oil within the well casing. Due to data transmission malfunctions with the telemetry system, pressure-head data is not available for the following brief periods: January 9 through 12, 2015 (Well #7 only), and March 14 through 15, 2015 (Wells #5, #6, and #8).

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 4.41 inches of rain were recorded during the subject monitoring period, comprising of 0.10 inches, 4.19 inches, and 0.12 inches in January, February, and March, respectively.

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). To facilitate groundwater trend analysis, groundwater data from the previous quarter (October through December) is included on Plates 1 through 5. During the subject monitoring period (January through March), observed groundwater levels generally exhibit a trend of recovery or relative stability. These observations appear to correlate with the seasonal precipitation and associated groundwater recharge during the monitoring period.

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: Susan Kelly – City of Sebastopol
Dante Del Prete – City of Sebastopol

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

TABLES

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

Day	Daily Precipitation Totals (inches)		
	Jan-2015	Feb-2015	Mar-2015
1	--	--	--
2	--	--	T
3	--	--	--
4	T	--	--
5	--	--	--
6	--	2.61	--
7	--	0.04	--
8	--	1.31	--
9	--	0.23	--
10	--	--	--
11	--	--	0.02
12	--	--	T
13	--	--	--
14	--	--	--
15	--	--	--
16	0.08	--	T
17	0.02	--	--
18	--	--	--
19	--	--	--
20	--	--	T
21	--	--	--
22	--	--	0.06
23	--	--	0.04
24	--	--	--
25	--	--	--
26	--	--	--
27	--	T	--
28	--	T	--
29	--	na	--
30	--	na	--
31	--	na	--
Total (inches)	0.10	4.19	0.12
Total Precipitation (in inches) for January through March: 4.41			

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 measureable/reported precipitation
T = Trace precipitation event
na = Not Applicable

PLATES

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

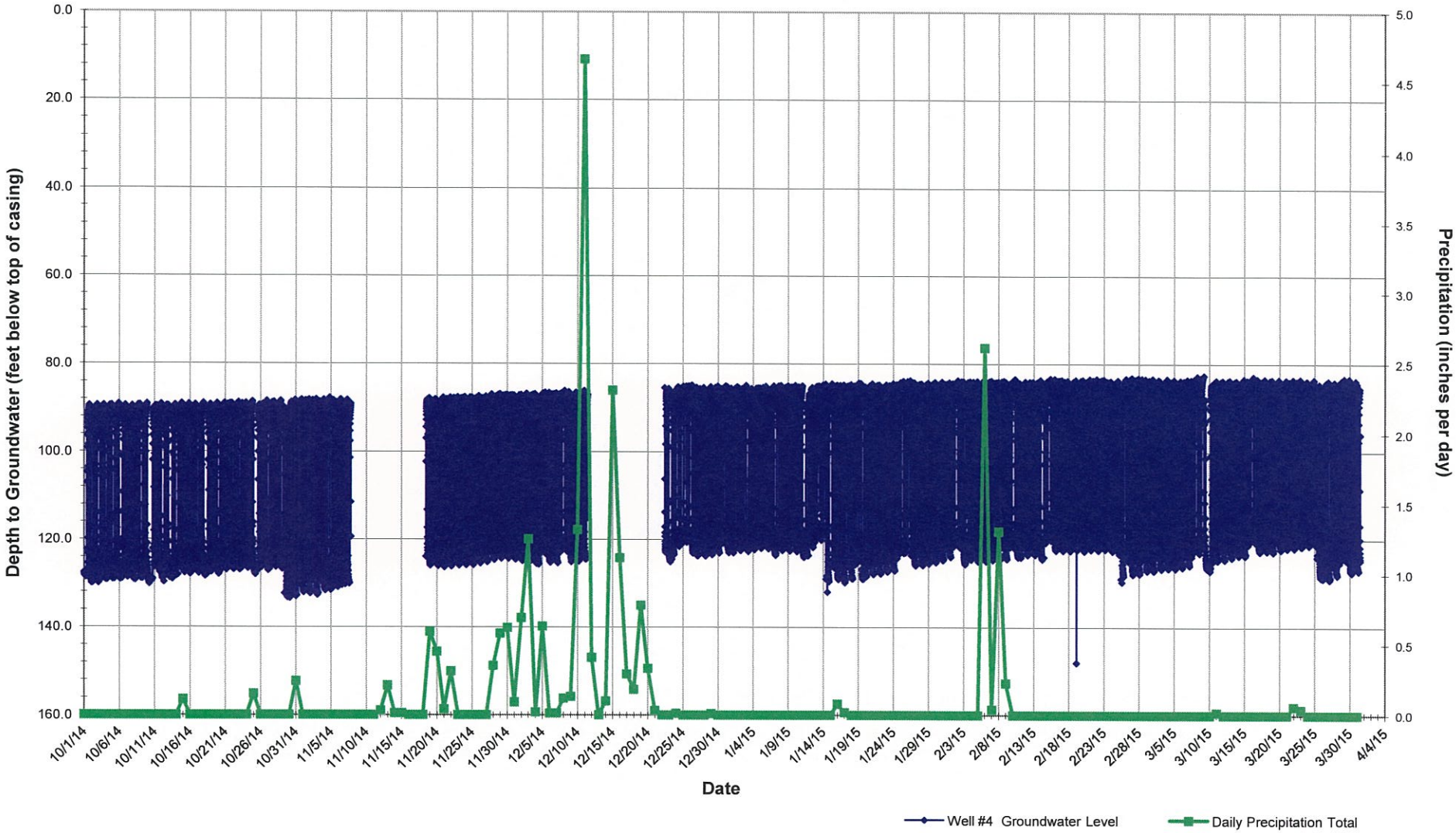


Plate 2
Groundwater Level Hydrograph - Well #5
City of Sebastopol Municipal Wellfield
Sebastopol, California

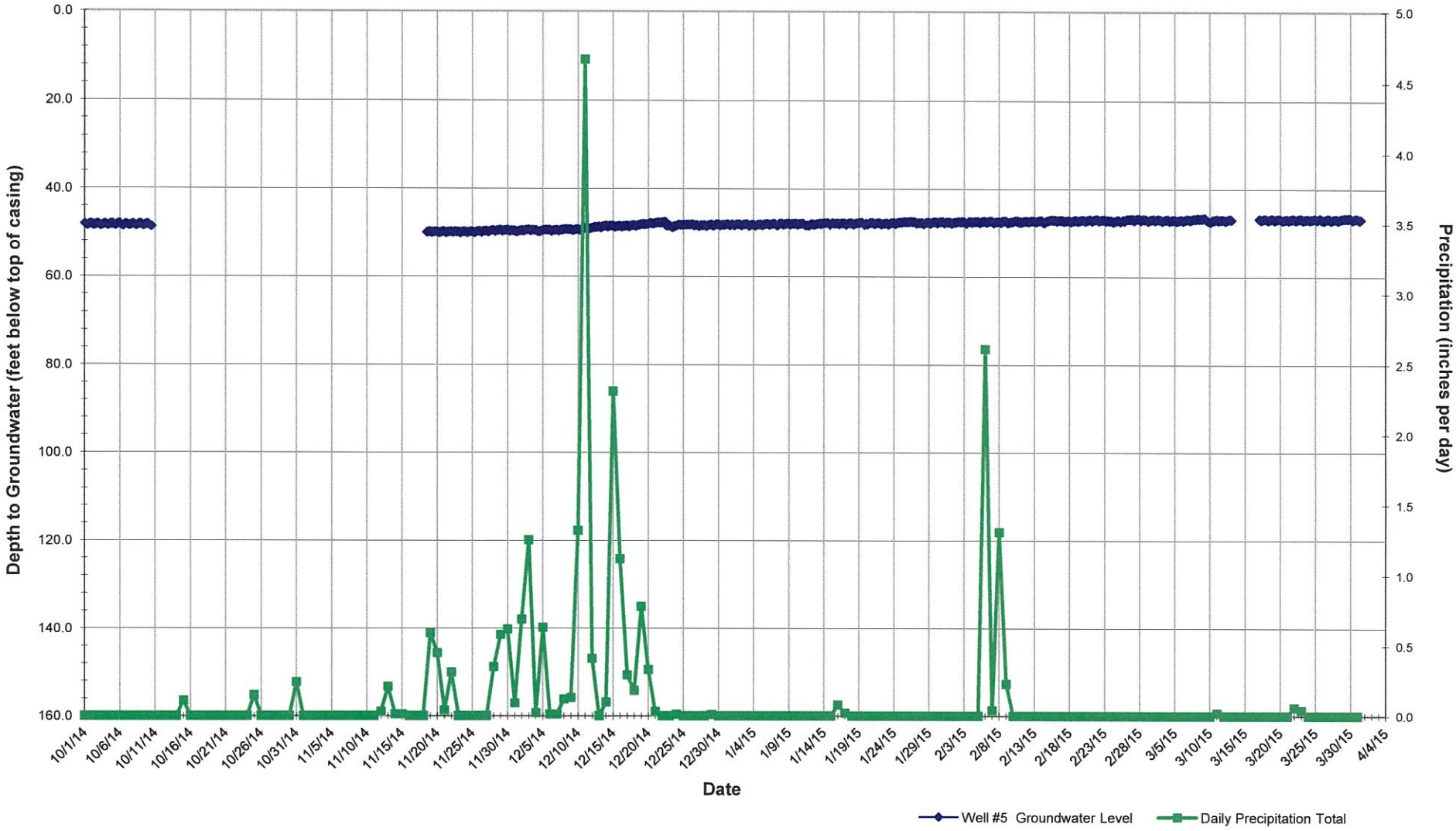


Plate 3
Groundwater Level Hydrograph - Well #6
City of Sebastopol Municipal Wellfield
Sebastopol, California

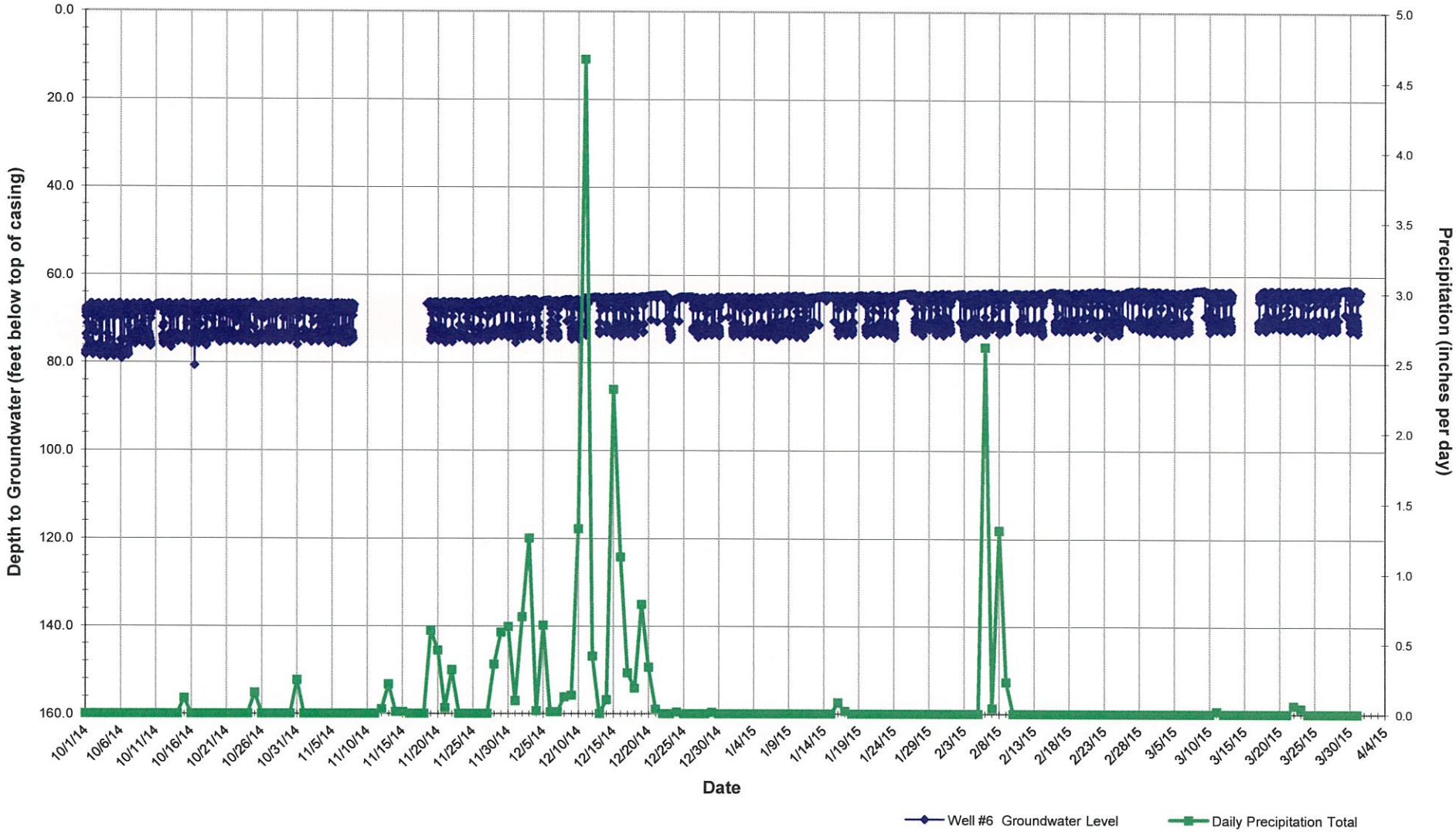


Plate 4
Groundwater Level Hydrograph - Well #7
City of Sebastopol Municipal Wellfield
Sebastopol, California

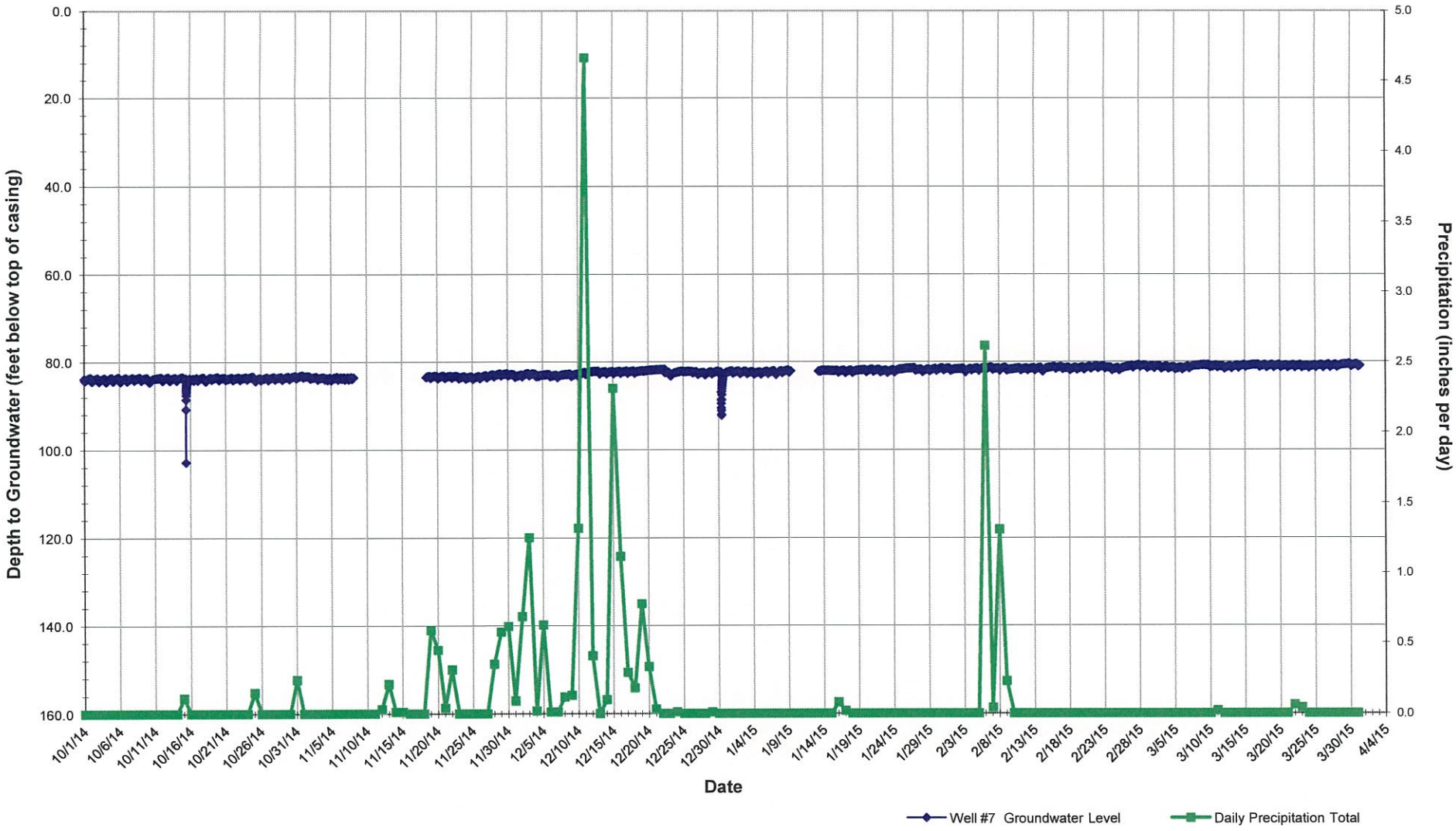
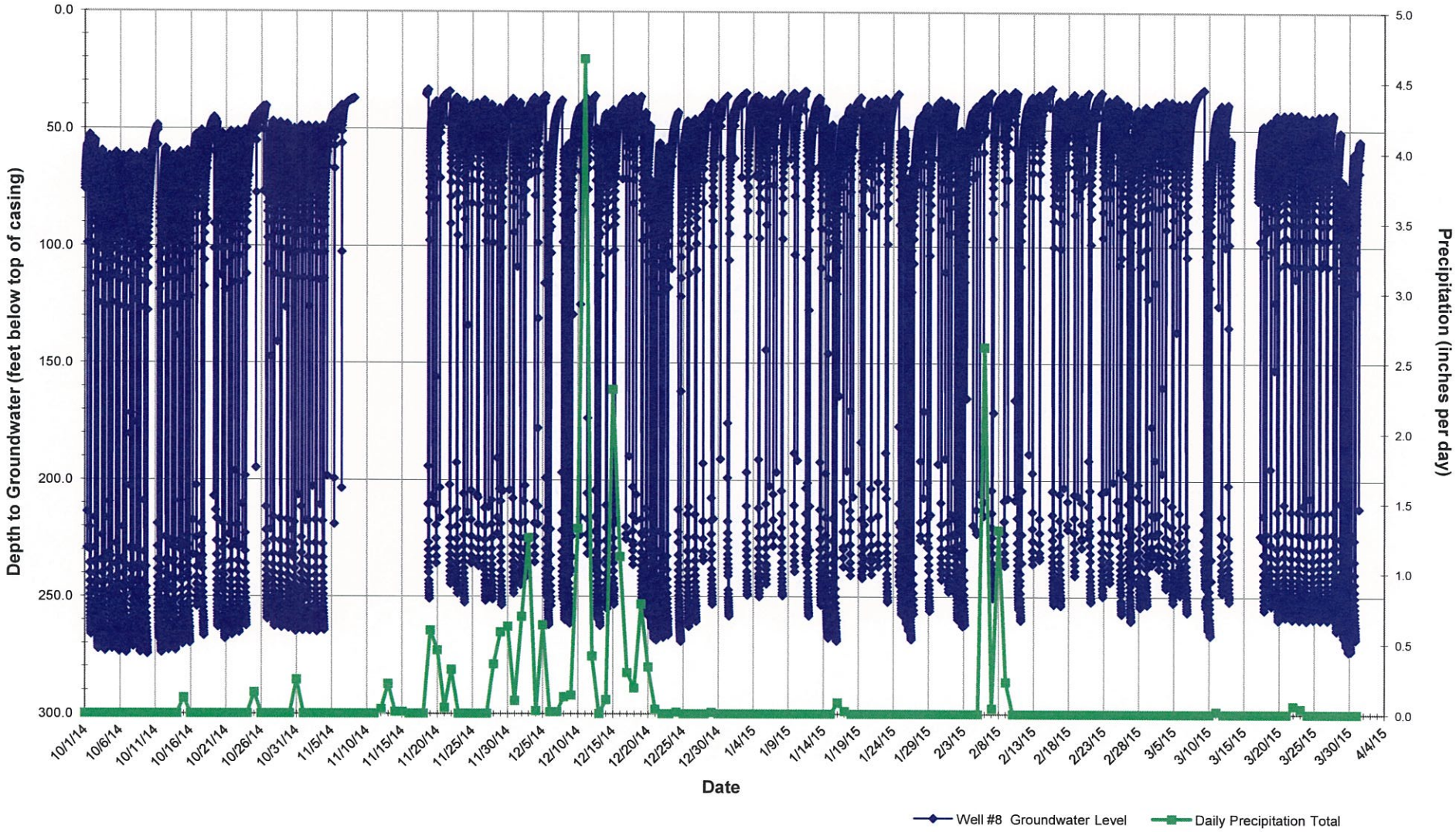


Plate 5
Groundwater Level Hydrograph - Well #8
City of Sebastopol Municipal Wellfield
Sebastopol, California



PES Environmental, Inc.
Engineering & Environmental Services

July 21, 2015

954.001.03.002

Richard Emig
City of Sebastopol
Public Works Department
714 Johnson Street
Sebastopol, California 95472

Re: Groundwater Level Data Transmittal
Second Quarter 2015
City of Sebastopol
Sebastopol, California

Dear Mr. Emig:

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 the second quarter of 2015 (April through June). 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 (April through June) included: (1) recording groundwater levels in five City production wells; (2) summarizing regional precipitation data; (3) performing a site inspection with manual depth-to-water measurements; and (4) preparing groundwater level hydrographs.

Groundwater Level Measurements

Groundwater level data collected for the fourth quarter included groundwater elevations from five City monitoring: inactive municipal Wells #5 and #7, and active municipal Wells #4, #6, 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

were programmed to record pressure-head measurements at 15-minute intervals. Pressure-head measurements stored in each data logger were transmitted to PES' office via telemetry stations installed within the respective pump houses. The pressure-head measurements were then barometrically compensated and correlated to manual groundwater level measurements that were obtained via an electronic water level sounder on June 30, 2015. The respective manual groundwater level measurements on June 30, 2015 for Wells #4, #6, #7, and #8 were 117.9, 63.2, 80.2, and 88.2 feet below top of casing. An accurate groundwater level measurement could not be obtained from Well #5 due to the presence of oil within the well casing. Due to data transmission malfunctions with the telemetry system, pressure-head data is not available for the following brief periods: May 29 through June 1, 2015 (Well #6 only), and April 17 through 22, 2015 (Well #7 only).

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 1.52 inches of rain were recorded during the subject monitoring period, comprising of 1.50 inches and 0.02 inches in April and June, respectively. No measureable precipitation was recorded in May.

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). To facilitate groundwater trend analysis, groundwater data from the previous quarter (January through March) is included on Plates 1 through 5. During the subject monitoring period (April through June), observed groundwater levels generally exhibit a trend of relative stability in Wells #4, #5, #6, and #7, and a slight declining trend in Well #8. These observations appear to correlate with the seasonal precipitation and associated groundwater recharge during the monitoring period.

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: Susan Kelly – City of Sebastopol
Dante Del Prete – City of Sebastopol

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

TABLES

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

Day	Daily Precipitation Totals (inches)		
	Apr-2015	May-2015	Jun-2015
1	T	--	0.01
2	--	--	--
3	--	--	--
4	--	--	--
5	0.18	--	--
6	0.10	--	--
7	0.75	T	--
8	T	--	--
9	--	--	T
10	--	--	0.01
11	--	--	--
12	--	--	--
13	T	--	--
14	T	--	--
15	--	--	--
16	--	--	--
17	T	--	--
18	--	T	--
19	--	T	--
20	--	T	--
21	T	T	--
22	--	--	--
23	--	--	--
24	0.46	--	--
25	0.01	--	--
26	--	T	--
27	--	T	--
28	--	--	--
29	--	--	--
30	--	T	--
31	na	--	na
Total (inches)	1.50	0.00	0.02
Total Precipitation (in inches) for April through June: 1.52			

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 measureable/reported precipitation
T = Trace precipitation event
na = Not Applicable

PLATES

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

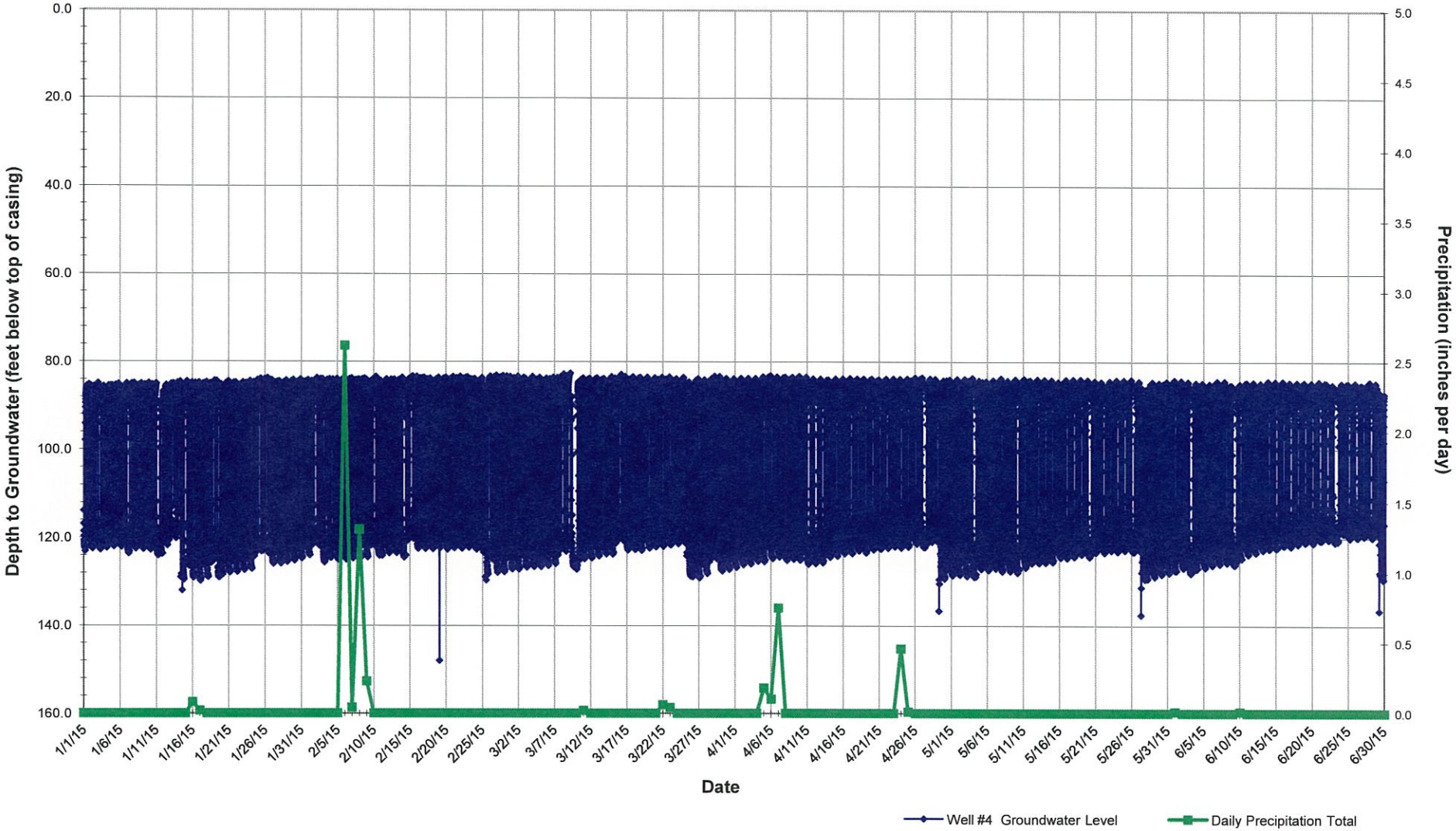


Plate 2
Groundwater Level Hydrograph - Well #5
City of Sebastopol Municipal Wellfield
Sebastopol, California

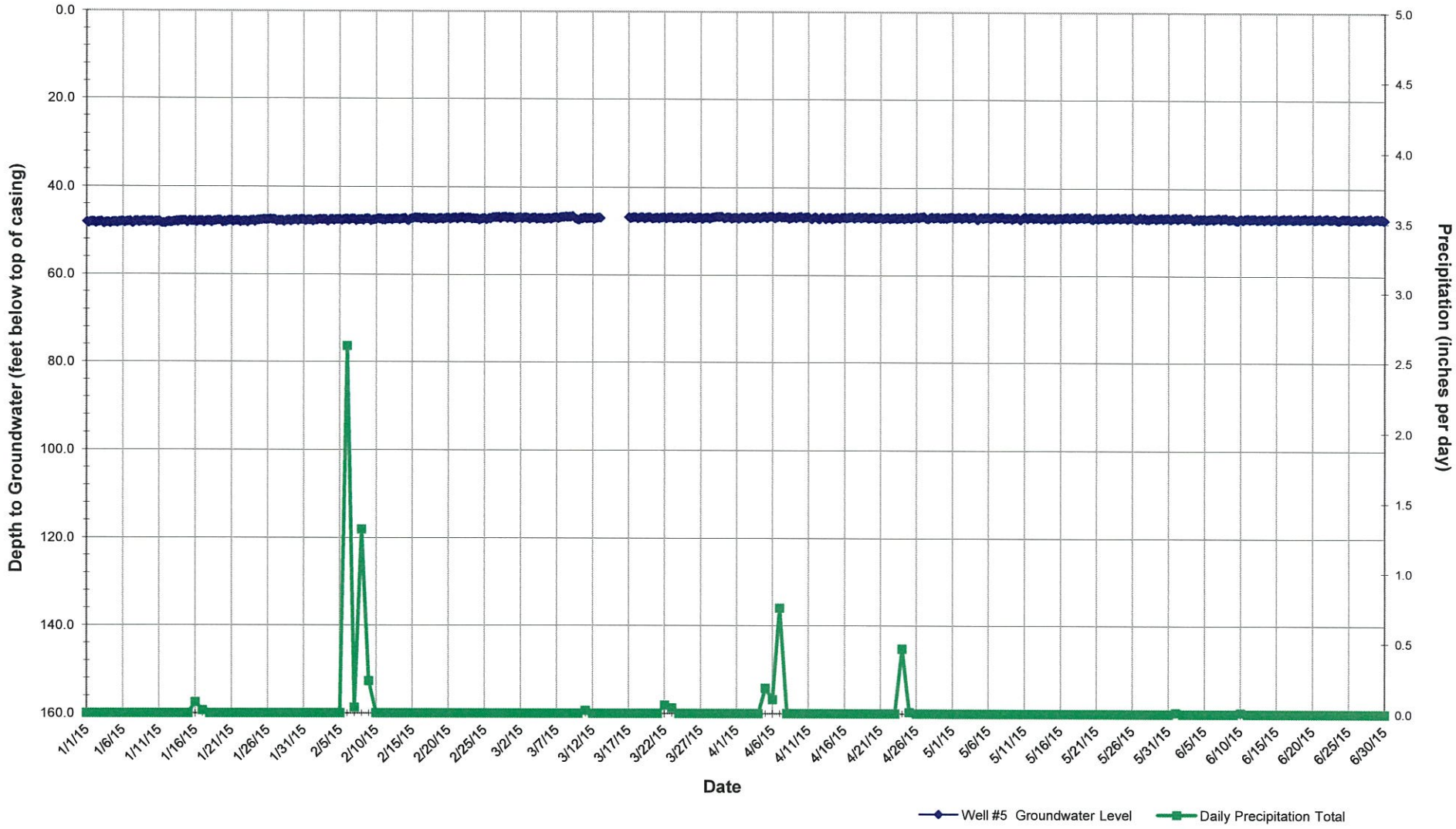


Plate 3
Groundwater Level Hydrograph - Well #6
City of Sebastopol Municipal Wellfield
Sebastopol, California

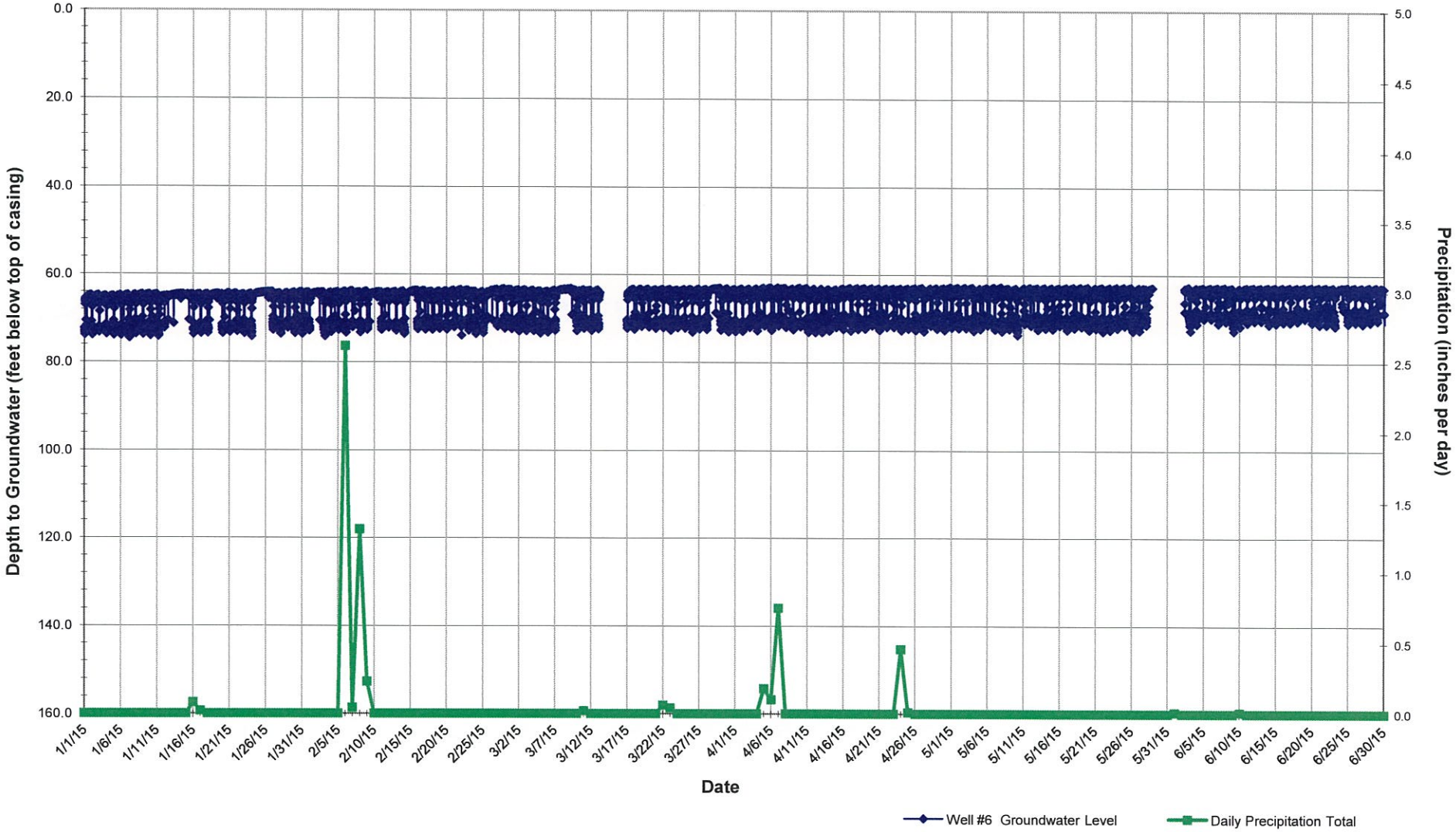


Plate 4
Groundwater Level Hydrograph - Well #7
City of Sebastopol Municipal Wellfield
Sebastopol, California

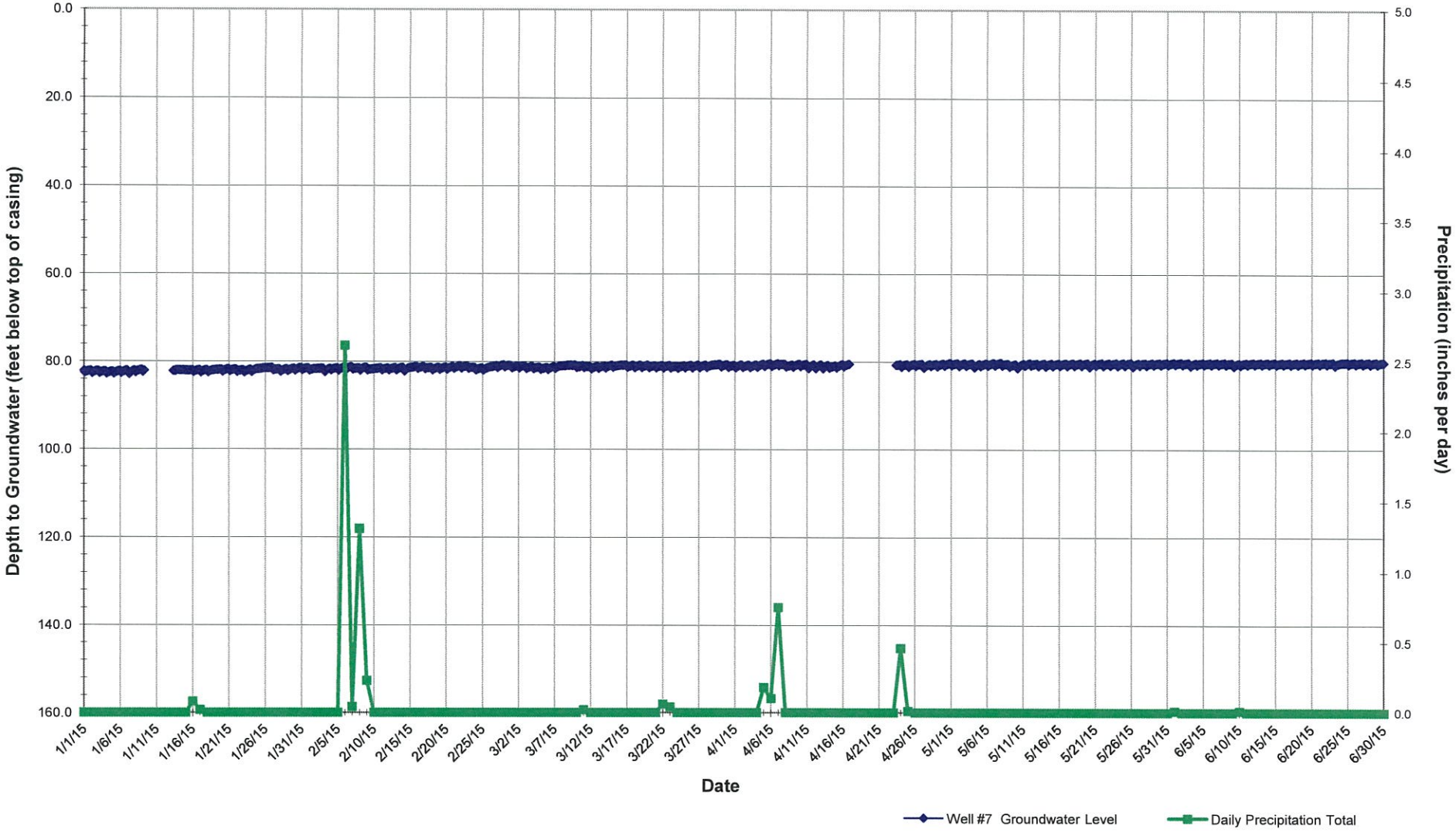
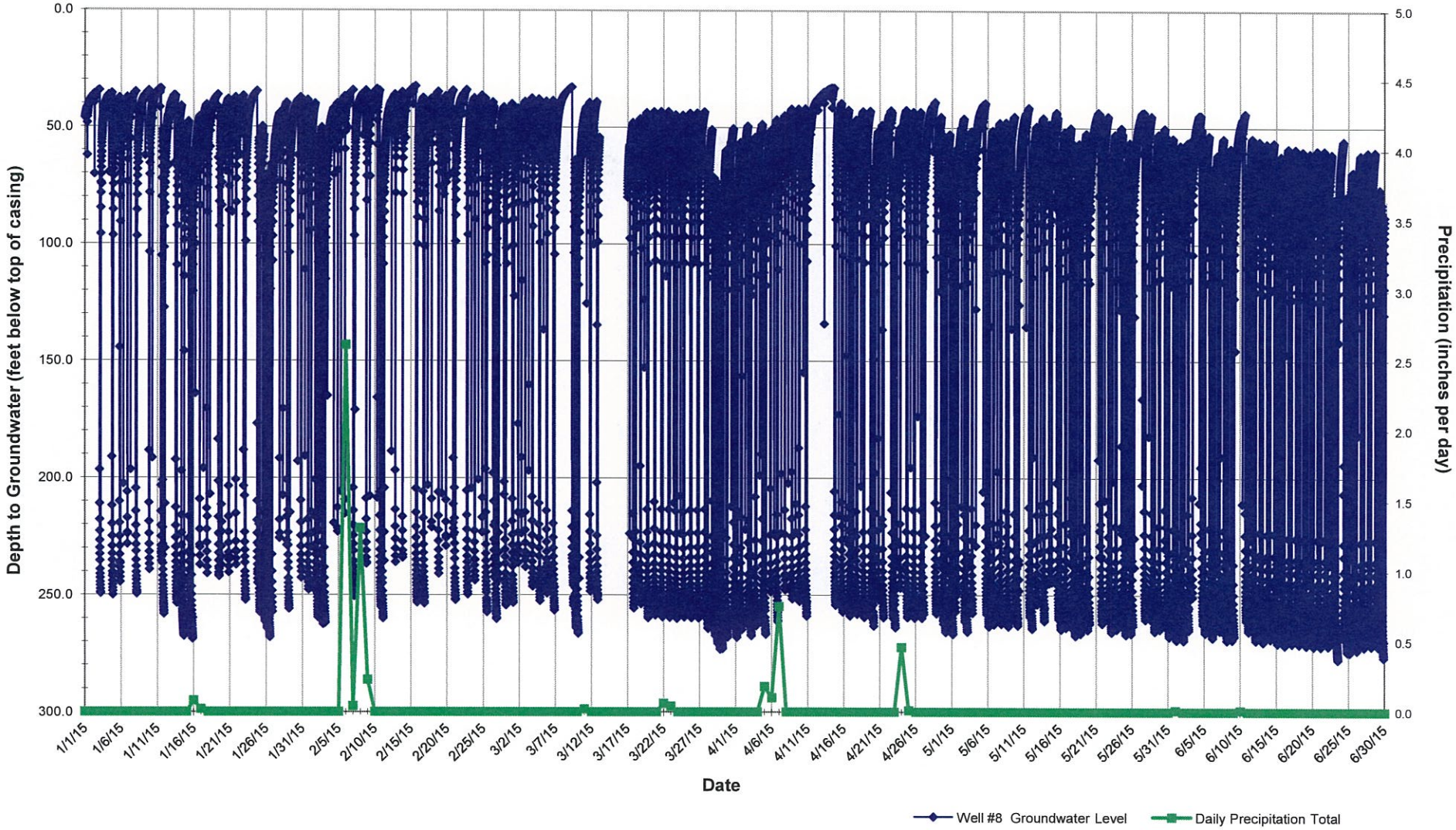


Plate 5
Groundwater Level Hydrograph - Well #8
City of Sebastopol Municipal Wellfield
Sebastopol, California



PES Environmental, Inc.
Engineering & Environmental Services

November 5, 2015

954.001.03.002

Richard Emig
City of Sebastopol
Public Works Department
714 Johnson Street
Sebastopol, California 95472

Re: Groundwater Level Data Transmittal
Third Quarter 2015
City of Sebastopol
Sebastopol, California

Dear Mr. Emig:

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 the third quarter of 2015 (July through September). 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 (July through September) included: (1) recording groundwater levels in five City production wells; (2) summarizing regional precipitation data; (3) performing a site inspection with manual depth-to-water measurements; and (4) preparing groundwater level hydrographs.

Groundwater Level Measurements

Groundwater level data collected for the fourth quarter included groundwater elevations from five City monitoring: inactive municipal Wells #5 and #7, and active municipal Wells #4, #6, 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 were programmed to record pressure-head measurements at 15-minute intervals. Pressure-head measurements stored in each data logger were transmitted to PES' office via

telemetry stations installed within the respective pump houses. The pressure-head measurements were then barometrically compensated and correlated to manual groundwater level measurements that were obtained via an electronic water level sounder on September 10, 2015. The respective manual groundwater level measurements on September 10, 2015 for Wells #4, #6, #7, and #8 were 130.1, 64.3, 80.9, and 83.1 feet below top of casing. An accurate groundwater level measurement could not be obtained from Well #5 due to the presence of oil within the well casing. Due to data transmission errors with the telemetry system, pressure-head data is not available for the following brief periods: July 27 through 30, 2015 (Wells #5, #6, and #8), and August 8 through 9, 2015 (Well #7 only).

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 0.50 inches of rain were recorded during the subject monitoring period, comprising of 0.05, 0.03, and 0.42 inches in July, August, and September, respectively.

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). To facilitate groundwater trend analysis, groundwater data from the previous quarter (April through June) is included on Plates 1 through 5. During the subject monitoring period (July through September), observed groundwater levels generally exhibit slight declining trends, which appear to correlate with the low seasonal precipitation totals and regional drought conditions.

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: Henry Mikus – City of Sebastopol
Dante Del Prete – City of Sebastopol

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

TABLES

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

Day	Daily Precipitation Totals (inches)		
	Jul-2015	Aug-2015	Sep-2015
1	--	--	--
2	T	--	--
3	--	T	--
4	--	T	--
5	--	--	--
6	--	T	--
7	--	T	--
8	--	--	--
9	0.05	--	--
10	T	--	--
11	--	--	--
12	--	T	--
13	--	--	T
14	--	--	0.01
15	--	--	--
16	T	--	0.41
17	--	--	--
18	--	T	--
19	--	--	--
20	--	--	--
21	--	--	--
22	--	--	--
23	--	--	--
24	--	--	--
25	--	--	--
26	--	--	--
27	--	--	--
28	--	--	--
29	T	0.03	--
30	--	--	--
31	T	--	na
Total (inches)	0.05	0.03	0.42
Total Precipitation (in inches) for July through September: 0.50			

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 measureable/reported precipitation

T = Trace precipitation event

na = Not Applicable

PLATES

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

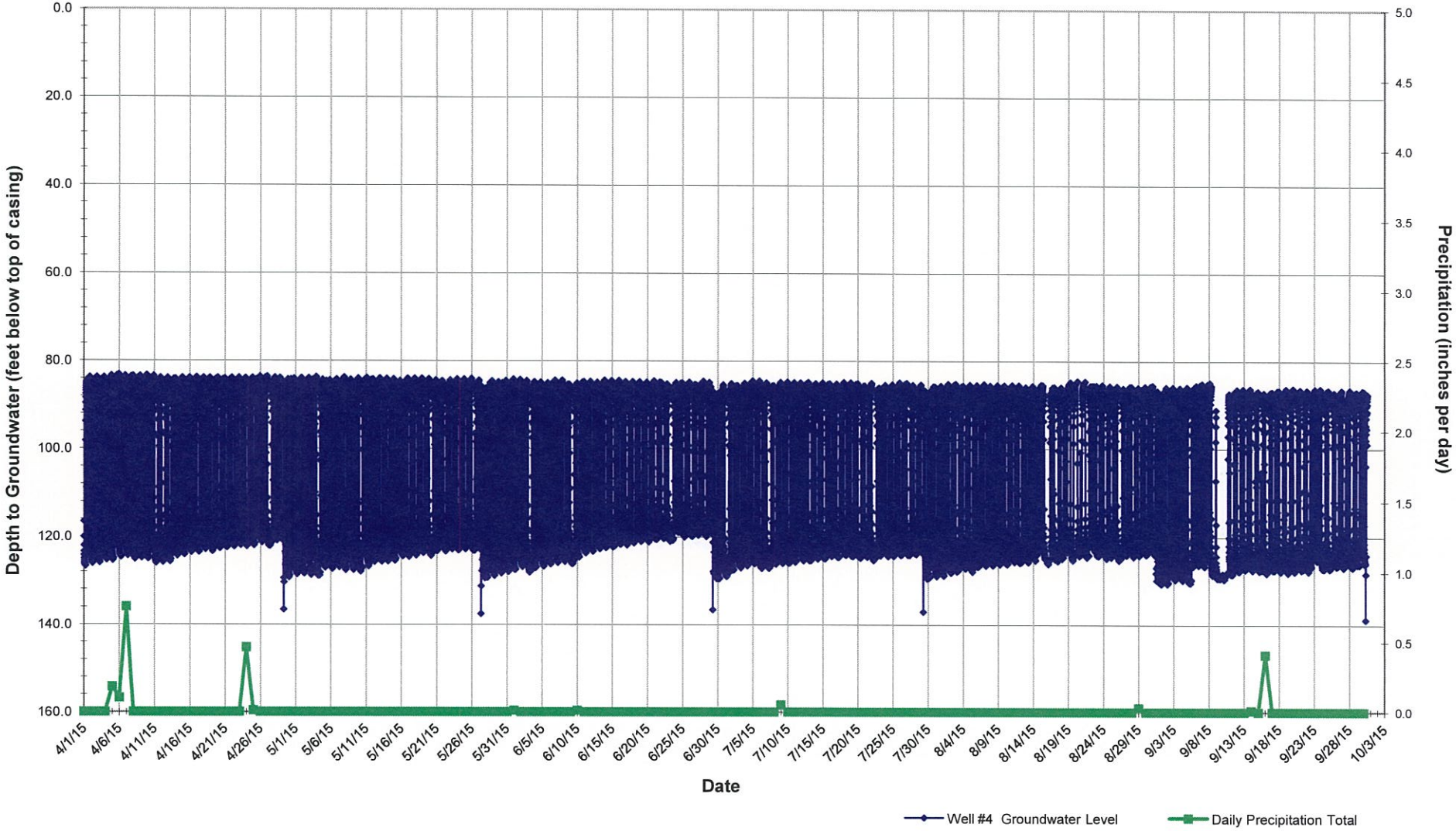


Plate 2
Groundwater Level Hydrograph - Well #5
City of Sebastopol Municipal Wellfield
Sebastopol, California

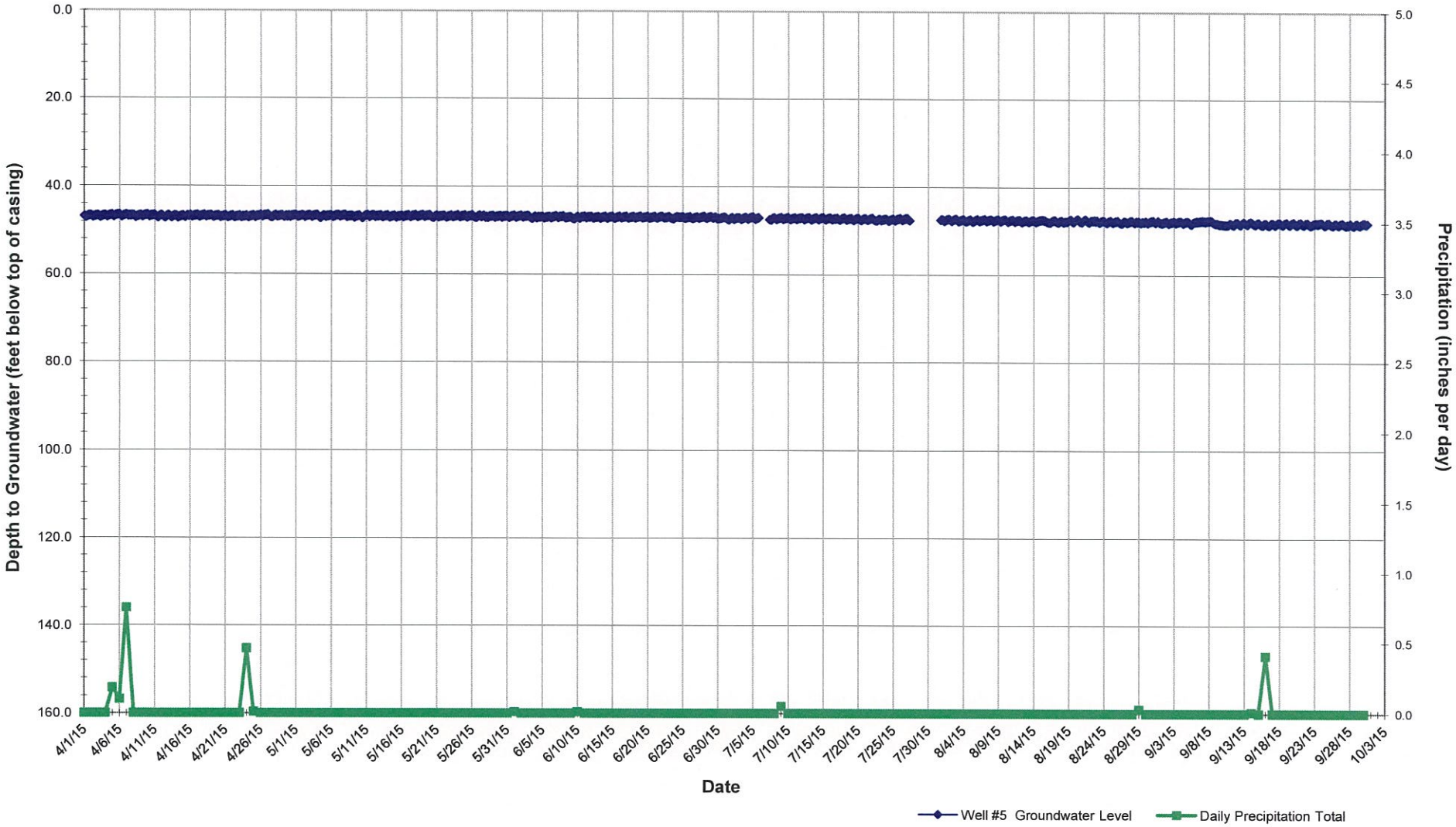


Plate 3
Groundwater Level Hydrograph - Well #6
City of Sebastopol Municipal Wellfield
Sebastopol, California

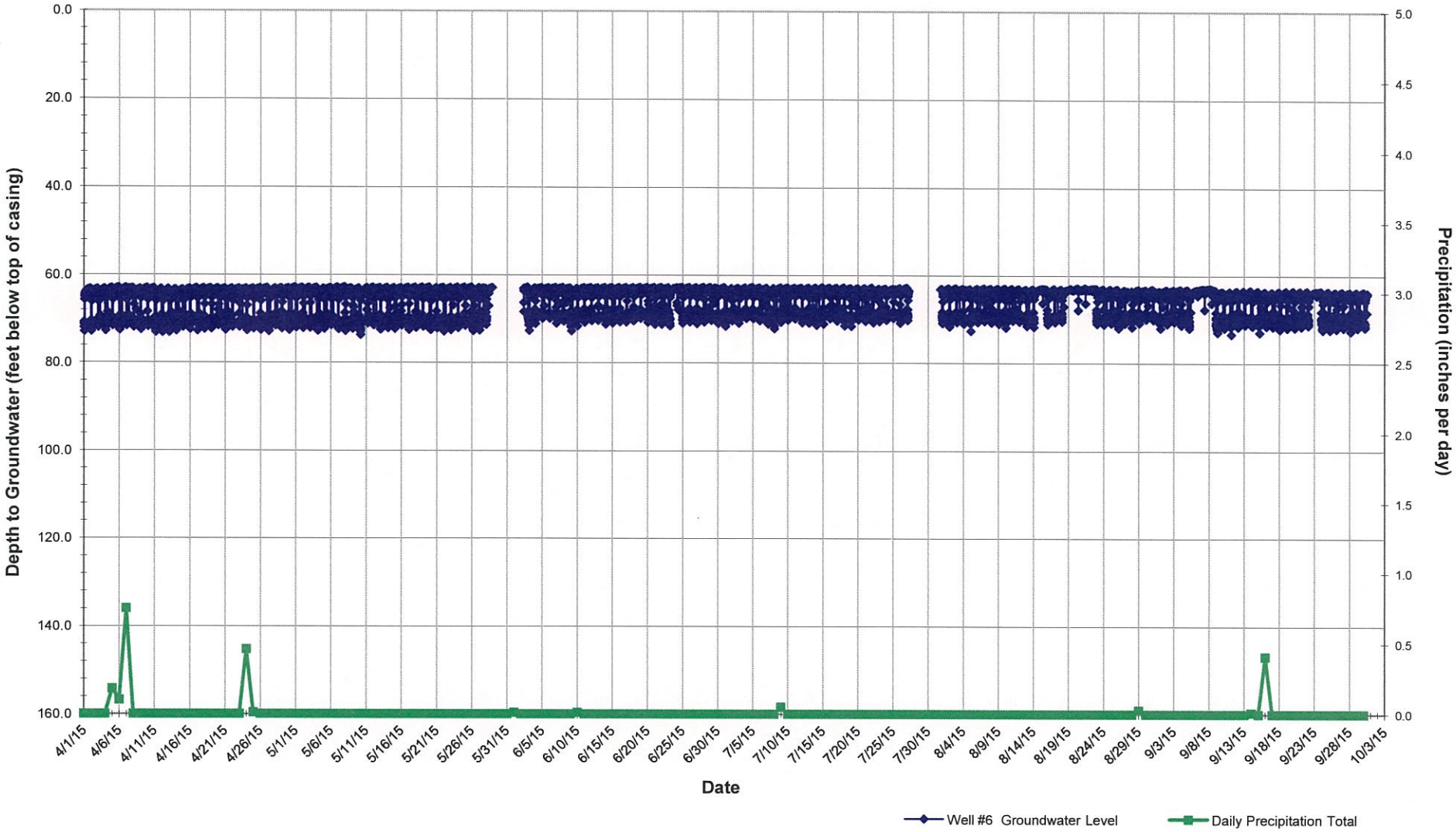


Plate 4
Groundwater Level Hydrograph - Well #7
City of Sebastopol Municipal Wellfield
Sebastopol, California

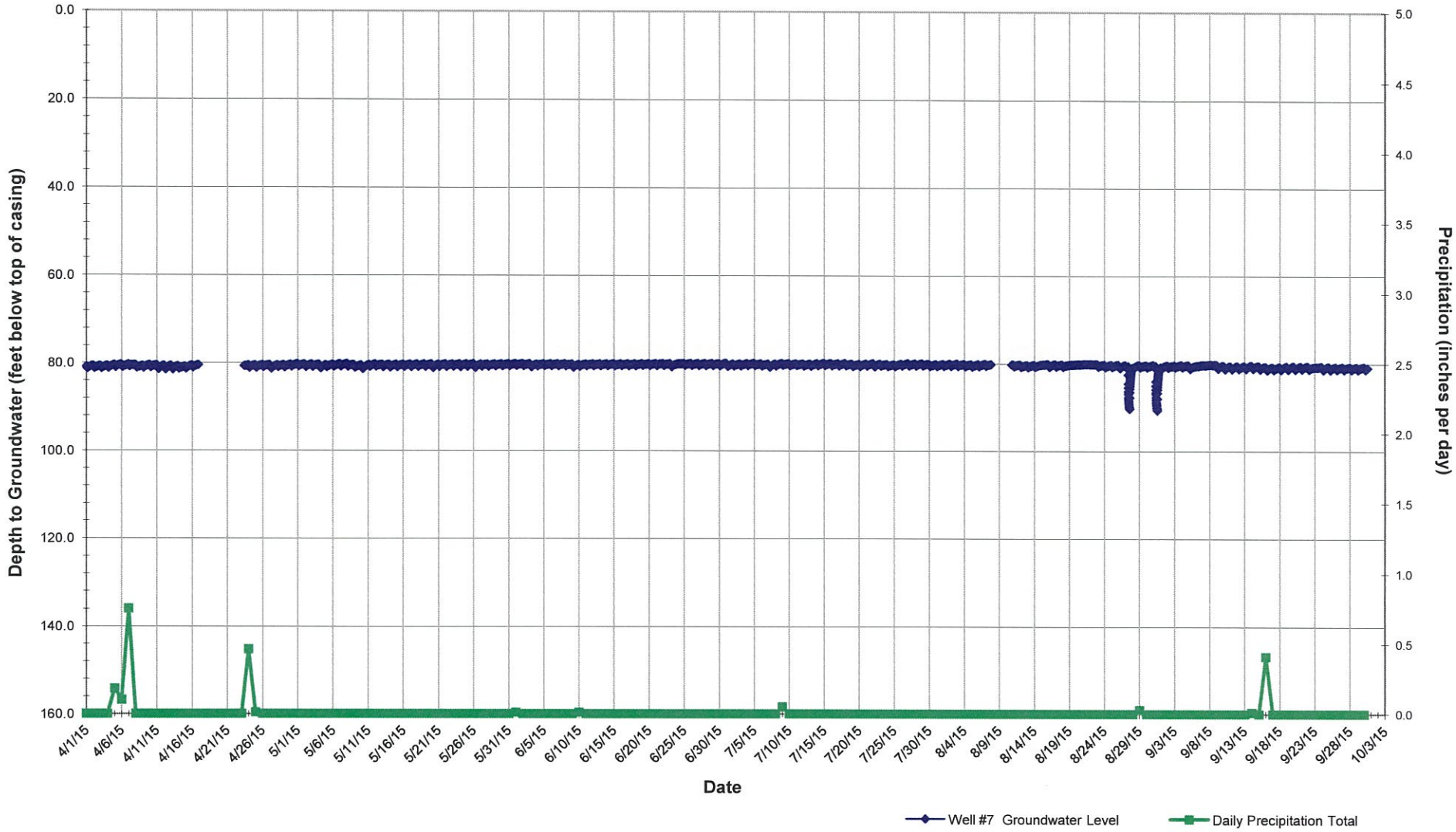
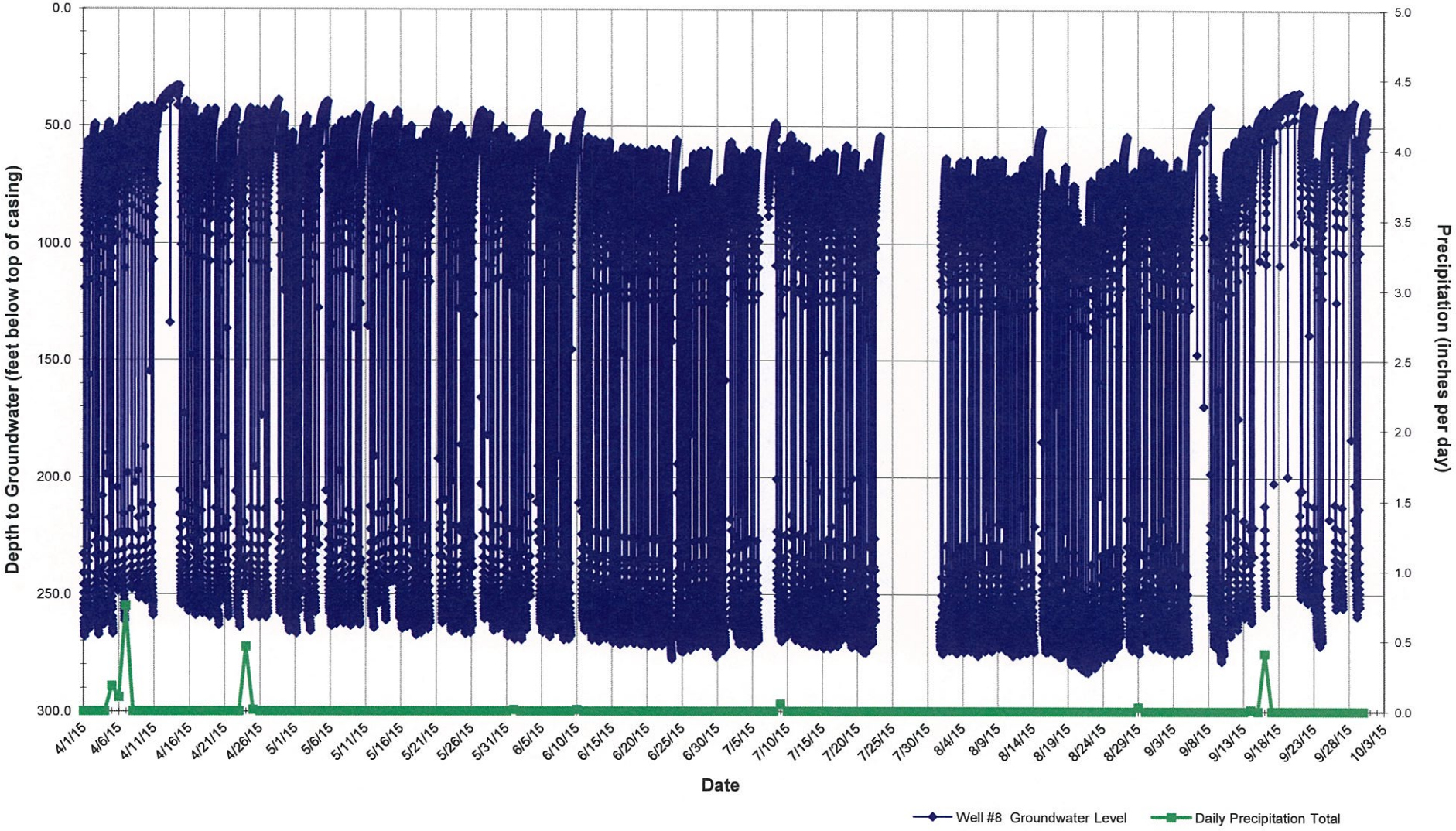


Plate 5
Groundwater Level Hydrograph - Well #8
City of Sebastopol Municipal Wellfield
Sebastopol, California



PES Environmental, Inc.
Engineering & Environmental Services

February 2, 2016

954.001.03.002

Richard Emig
City of Sebastopol
Public Works Department
714 Johnson Street
Sebastopol, California 95472

Re: Groundwater Level Data Transmittal
Fourth Quarter 2015
City of Sebastopol
Sebastopol, California

Dear Mr. Emig:

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 the fourth quarter of 2015 (October 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 (October through December) included: (1) recording groundwater levels in five City production wells; (2) summarizing regional precipitation data; (3) performing a site inspection with manual depth-to-water measurements; and (4) preparing groundwater level hydrographs.

Groundwater Level Measurements

Groundwater level data collected for the fourth quarter included groundwater elevations from five City production wells: inactive municipal Well #5, and active municipal Wells #4, #6, #7[1], and #8. These wells are equipped with Solinst Inc., electronic submersible "LT Edge Levellogger" absolute (i.e., un-vented) pressure transducers and data logger

[1] Active pumping at Well #7 resumed on October 6, 2015.

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 were programmed to record pressure-head measurements at 15-minute intervals. Pressure-head measurements stored in each data logger were transmitted to PES' office via telemetry stations installed within the respective pump houses. The pressure-head measurements were then barometrically compensated and correlated to manual groundwater level measurements that were obtained via an electronic water level sounder on December 1, 2015. The respective manual groundwater level measurements on December 1, 2015 for Wells #4, #5, #6, #7, and #8 were 80.9, 49.5, 66.4, 109.2, and 43.8 feet below top of casing. Due to data transmission errors with the telemetry system, pressure-head data is not available for the following brief periods: October 15 through 18, 2015 (Wells #5, #6, and #8), November 2 through 30, 2015 (Well #6 only), and December 8 through 14, 2015 (Well #7 only).

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 8.58 inches of rain were recorded during the subject monitoring period, comprising of 0.09, 1.48, and 7.01 inches in October, November, and December, respectively.

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). To facilitate groundwater trend analysis, groundwater data from the previous quarter (July through September) is included on Plates 1 through 5. During the subject monitoring period (October through December), observed groundwater levels: (1) exhibit slight declining trends in Wells #6 and #7, which appear to correlate with the resumption of pumping at Well #7; and (2) exhibit slight recovery trends in Wells #4, #5, and #8, which appear to correlate with the onset of seasonal precipitation and less frequent pumping (Wells #4 and #8).

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: Henry Mikus – City of Sebastopol
Dante Del Prete – City of Sebastopol

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Plate 4 – Groundwater Level Hydrograph, Municipal Well #7
Plate 5 – Groundwater Level Hydrograph, Municipal Well #8

TABLES

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

Day	Daily Precipitation Totals (inches)		
	Oct-2016	Nov-2016	Dec-2016
1	T	0.18	--
2	--	0.26	T
3	--	--	0.82
4	--	--	0.12
5	--	--	--
6	--	--	0.85
7	--	--	--
8	--	0.01	--
9	--	0.49	0.43
10	--	--	0.56
11	--	--	0.06
12	--	--	0.20
13	--	--	0.88
14	--	--	--
15	--	0.43	--
16	--	--	--
17	--	--	0.02
18	--	--	0.73
19	--	--	0.10
20	--	--	0.69
21	--	--	1.16
22	--	--	0.14
23	--	--	--
24	0.01	0.11	0.21
25	--	--	--
26	0.01	--	--
27	T	--	0.02
28	0.07	--	T
29	--	--	--
30	--	T	0.02
31	--		--
Total (inches)	0.09	1.48	7.01
Total Precipitation (in inches) for October through December: 8.58			

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 measureable/reported precipitation
T = Trace precipitation event
na = Not Applicable

PLATES

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

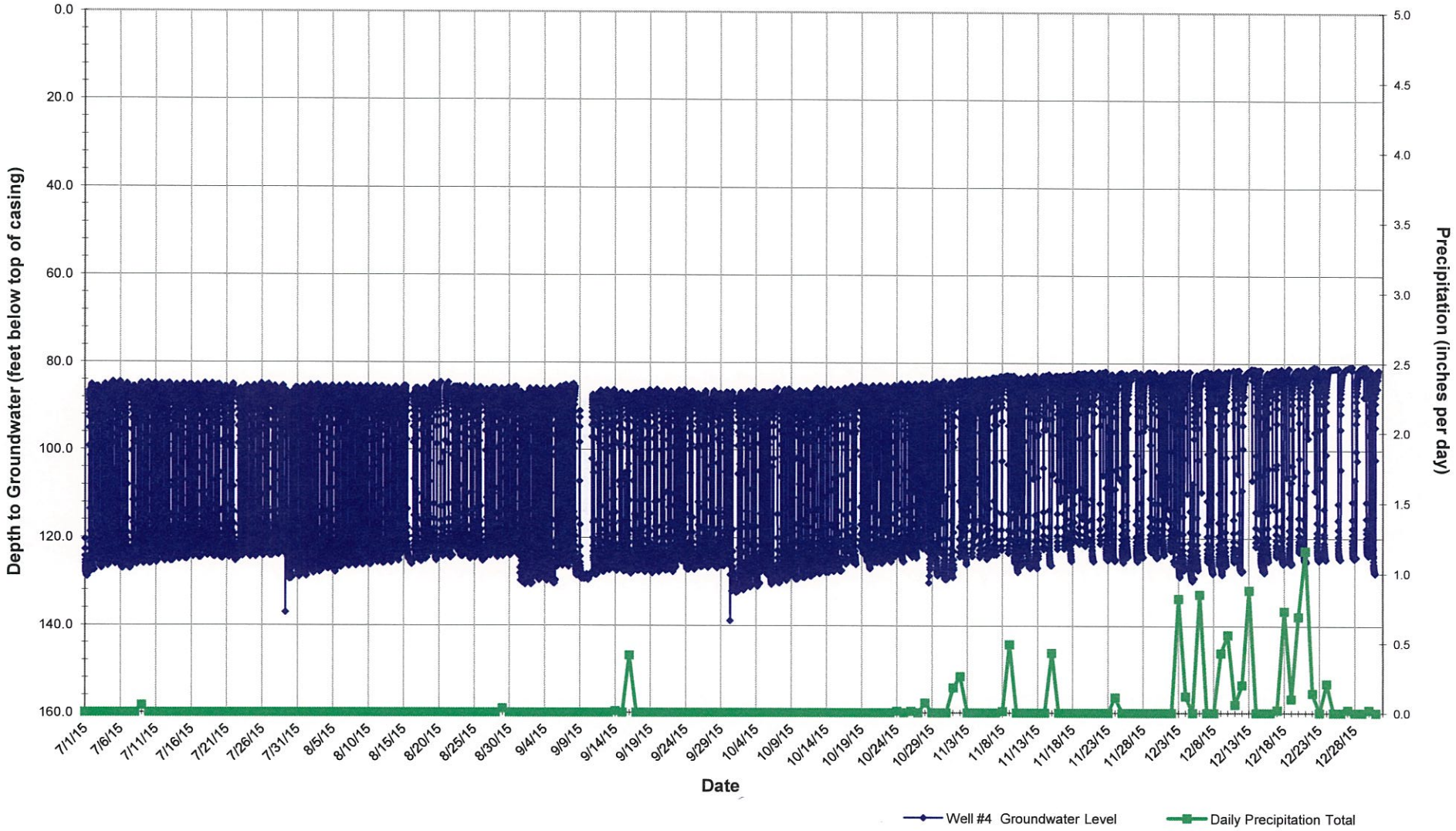

Plate 2
Groundwater Level Hydrograph - Well #5
City of Sebastopol Municipal Wellfield
Sebastopol, California

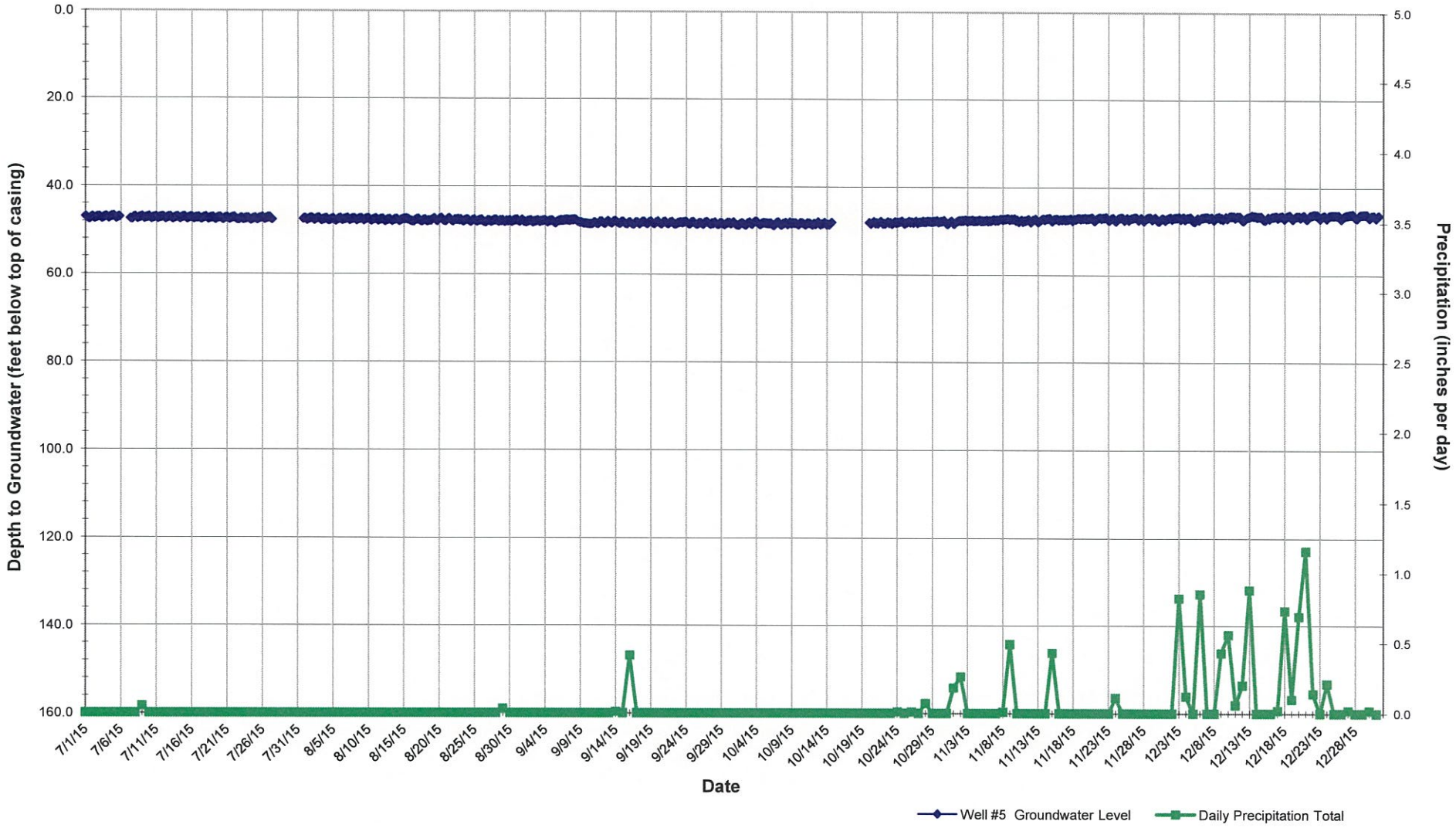

Plate 3
Groundwater Level Hydrograph - Well #6
City of Sebastopol Municipal Wellfield
Sebastopol, California

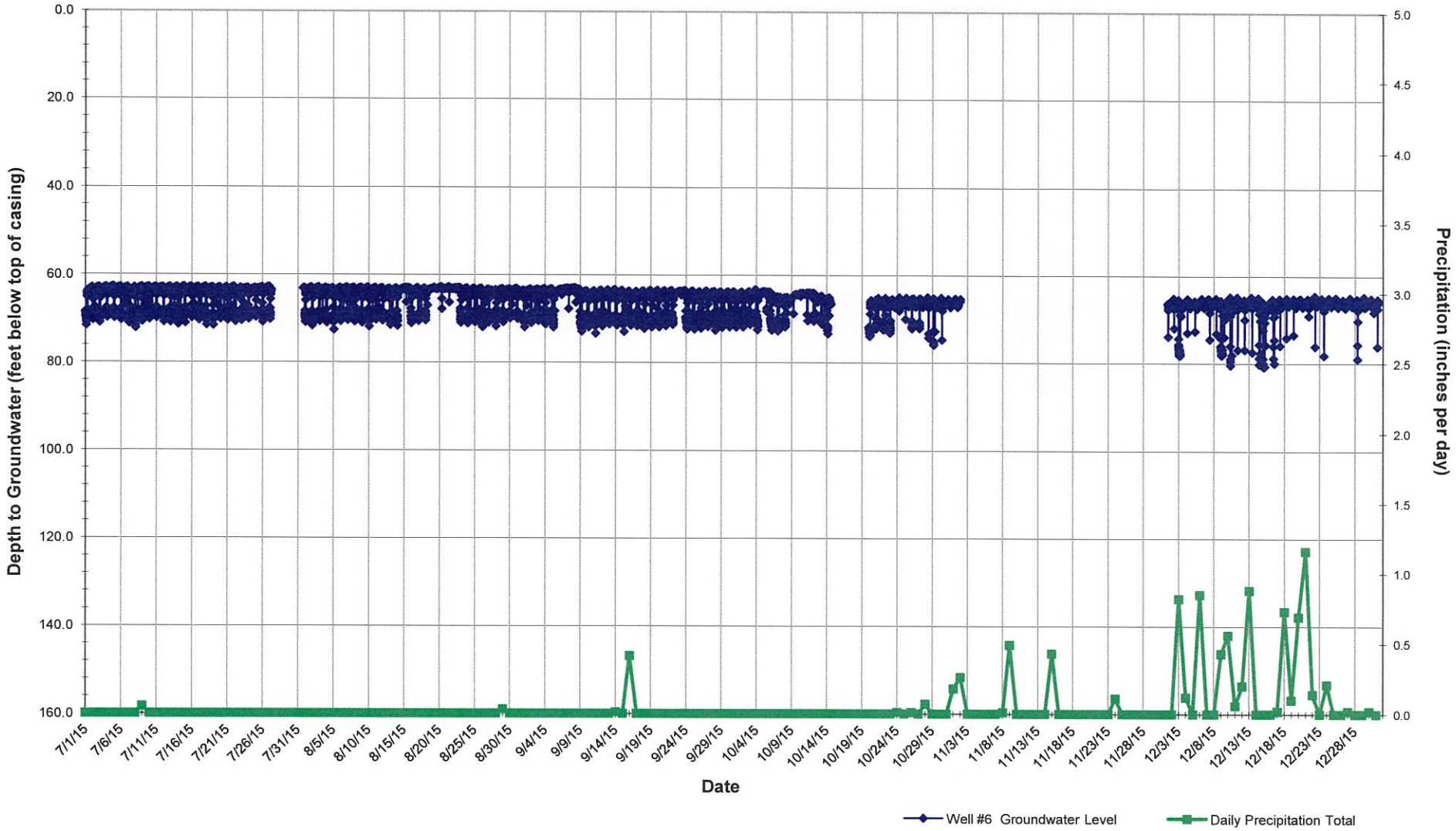

Plate 4
Groundwater Level Hydrograph - Well #7
City of Sebastopol Municipal Wellfield
Sebastopol, California

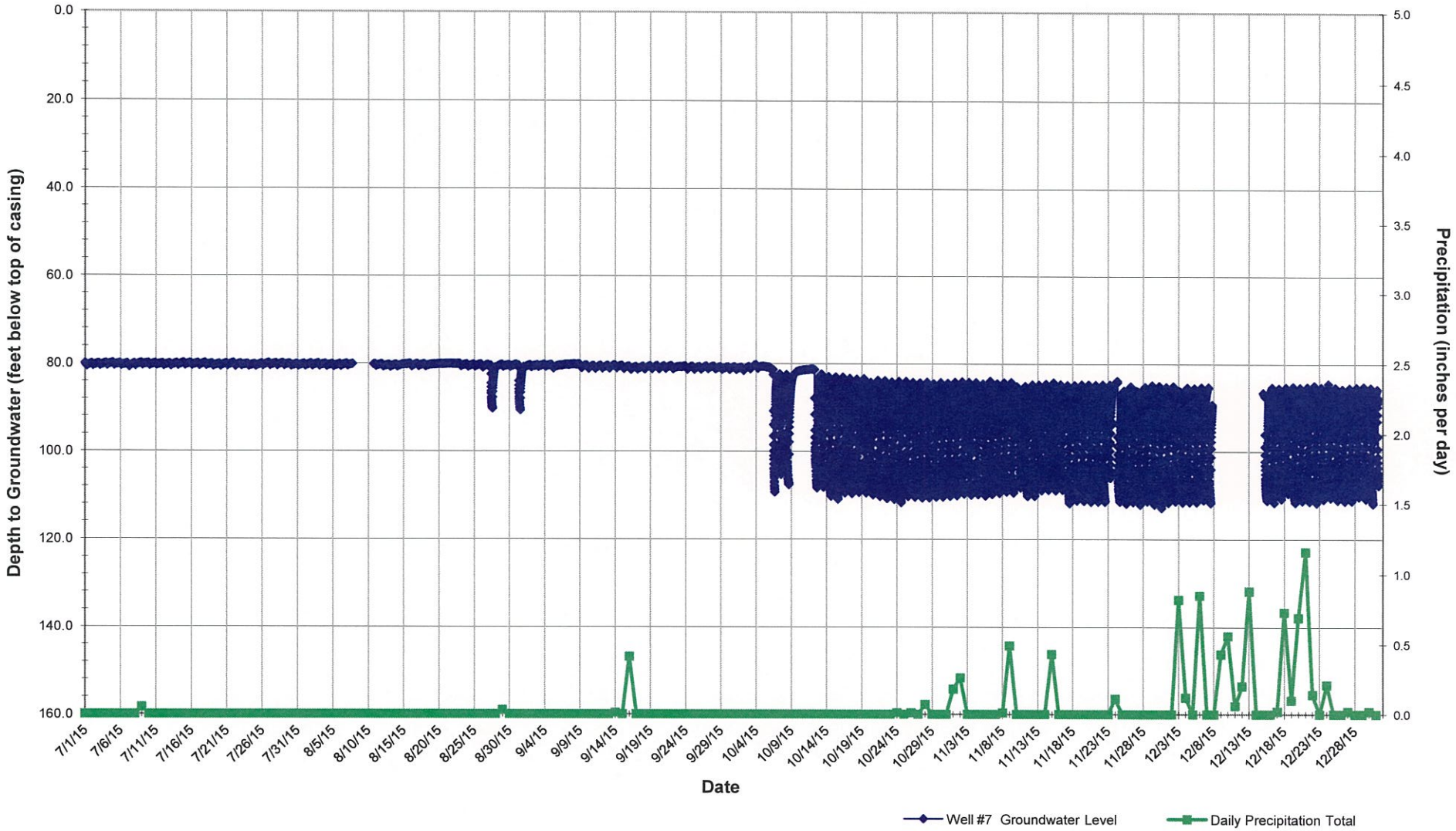
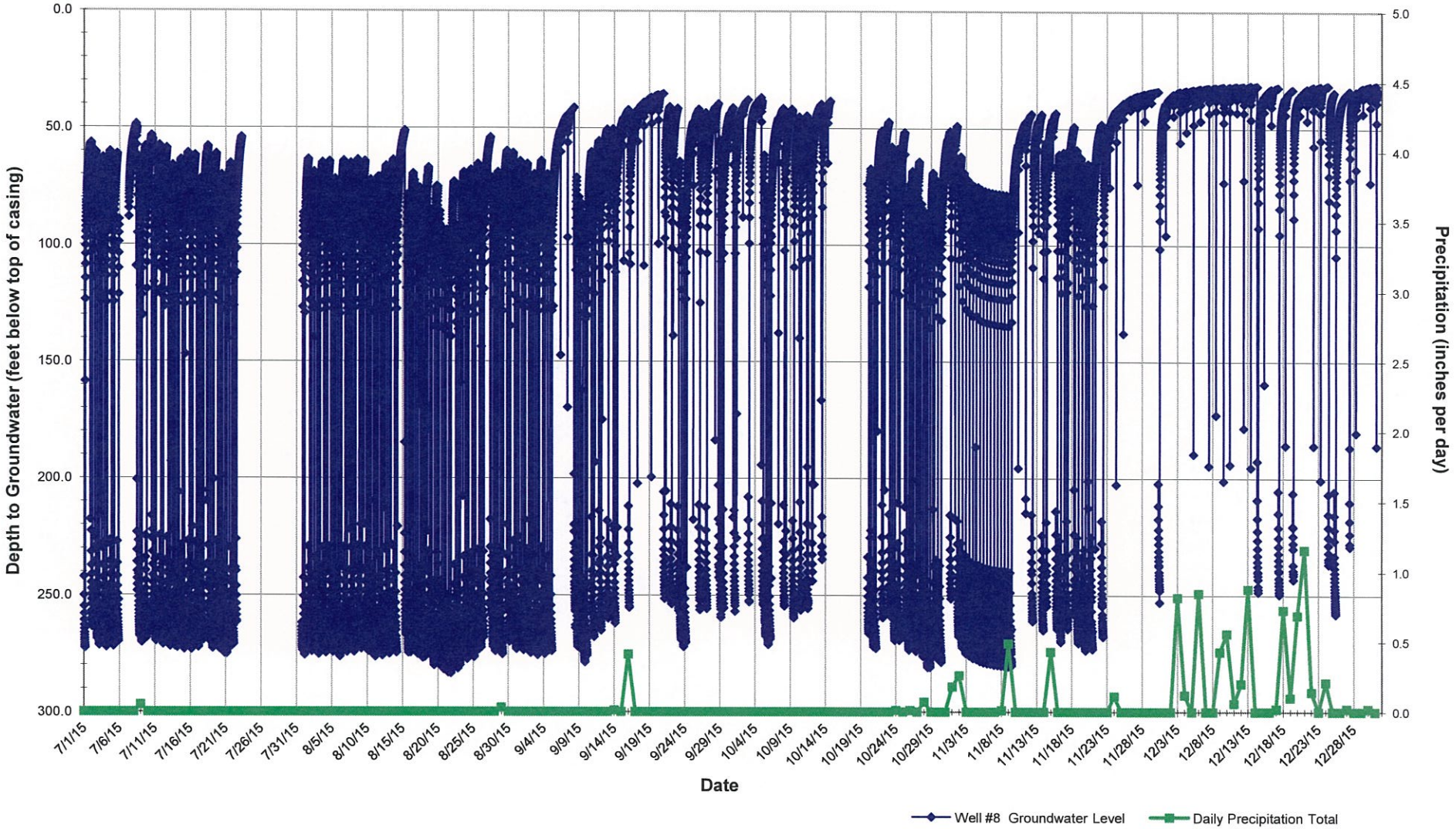
Plate 5
Groundwater Level Hydrograph - Well #8
City of Sebastopol Municipal Wellfield
Sebastopol, California