

Mayor

Patrick Slayter

City Council

Neysa Hinton, Vice Mayor

Michael Carnacchi

Sarah Glade Gurney

Una Glass



City of Sebastopol

Agenda Report Reviewed by:

City Manager/City Attorney

City Manager/City Attorney

Larry McLaughlin

City Clerk

Mary Gourley

Meeting Date:

April 3, 2018

To:

Mayor and City Council

From:

Kenyon Webster, Planning Director

Dana Morrison, Assistant Planner

Subject:

Annual Level of Service (LOS Report)

Funding:

Currently Budgeted: ___ Yes ___ No X N/A

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.

A new Housing Element was adopted in March 2015.

A new General Plan was adopted on November 15, 2016.

City Population

The Sebastopol population was estimated to be 7,579, as of January 1, 2017, according to the California State Department of Finance. This is an increase of 20 persons from 7,559 in 2016.

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 3-1 of the 2016 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 is dependent on our municipal wells for water to supply customers. 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 an increase of 9% percent in total annual water production 304 million gallons in 2016, to 333 million gallons in 2017. Weather conditions, combined with lesser conservation may explain the increase from 2016. However, water demand remains significantly lower than when production peaked at 500 million gallons in 2004.

Overall per capita production is calculated average of all water produced divided by population. Per capita production increased 9% from 111 gallons/person/day (2016) to 120 gallons/person/day in 2017.

The estimated water demand from projects currently approved by the City but not yet constructed is 4.6 million gallons per year. This represents the equivalent of approximately 1.4% of total production in 2017. The water demand for projects pending approval is estimated at an additional 3.6 million gallons per year, which can be accommodated. This is equivalent to an additional 1% of 2017 annual production. Table 4 shows projects included in these calculations.

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. Overall in 2017, water usage increased by about 9% from the previous year of 2016.

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. The data loggers for each well were replaced in spring 2014. The City has retained the services of consultant to oversee the monitoring of ground water levels, maintain the monitoring equipment, supplement it with hand measurements when needed, and prepare quarterly reports. The City received four (4) such reports during 2017, please find them attached.

California obtains between a third and half of its fresh drinking water from groundwater aquifers accumulated in subsurface basins formed by underlying geologic formations. It has long been recognized that the ability of these aquifers to continue to provide sustainable water supply is critical to the water needs of California as a whole. The Sustainable Groundwater Management

Act become law in 2014 (known as SGMA, but pronounced “sigma”) with the final version of the accompanying regulations issued during 2015. SGMA sets goals for developing Groundwater Sustainability Plans (GSP) for each basin in order to provide a framework to preserve, recharge, and nurture these groundwater basic aquifers. The GSP is to be developed and managed by a newly established Groundwater Sustainability Agency (GSA).

The SGMA Workgroup is developing a budget for a JPA and looking at various funding mechanisms available. State grant money has paid a great part of expense to date. The financial effort is looking at developing a sustainable revenue stream, and at gap funding to bridge between GSA formation and the advent of revenue generation.

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 systems. Water rates should be examined and updated as needed.

Wastewater

Standard: The General Plan requires a reservation of five (5) percent of wastewater treatment capacity, or 0.042 million gallons per day.

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

The City operates a sanitary sewer system in a service area that covers 1.9 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.

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 Sub-regional 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.

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 0.448 million gallons per day (mgd) in 2017, which equates to approximately 53% of the City’s treatment entitlement. This is a 0% increase from 2016 when ADDWF was

measured at 0.448 million gallons per day. ADDWF remains considerably lower than it was 10 years ago and illustrates declining water usage.

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 (attached) provides information about estimated future water and sewer demand attribute to currently Approved Projects and Projects Pending in the planning process.

Project sewer demand (ADDWF) for Approved Projects is 0.006 mgd.

Project sewer demand (ADDWF) for Applications Pending is 0.000 mgd.

Adding 2017 flows, approved and pending projects, and reserve capacity equals 0.496 mgd. Subtracting this from treatment allowances, leaves 0.344 mgd of capacity. This represents 41% of treatment capacity and would be equivalent to projected flows from 2,191 new single-family homes (assumes sewer flow from a typical single-family residential unit is 157 gpd). This is substantial remaining capacity.

The City has an updated Sewer System Management Plan (SSMP) to address strict new regulatory requirements. It is intended to be 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.

Determination: The standard has been met.

Recommendation: Continue to monitor the sewer system to provide wastewater service, promote water conservation, meet regulatory requirements and comply with the legal cap on the volume of wastewater that can be sent to the sub-regional treatment plant.

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.

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 that 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 challenge for the City with increasing regulatory requirements. Some jurisdictions have approved local tax measures to specifically fund these type of activities, which the City should consider.

Parks

Standard: The 2016 General Plan requires one (1) acre of parkland for each 200 residents (which equates to five (5) acres for every 1,000 residents). Developed parkland is calculated at 100% of acreage and dedicated open space areas owned by the City or subject to permanent open space easements are calculated at 25% of acreage.

Annual Review of Parks, Trails, and Open Space Acquisition: Community Services and Facilities Policy CSF 2-3 of the 2016 General Plan requires the provision of an annual report to the City Council and Planning Commission 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 2016 General Plan establishes that the City requires five (5) 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, the Laguna Wetlands Preserve is counted at 25% of acreage.

Under the new General Plan methodology, there are a total of 23.6 acres of developed parkland, and 89.7 acres of dedicated open space in Sebastopol. The most recent addition of parkland was the completion of the Skategarden Expansion Project, which added an additional 0.5 acres to the City's total developed parkland.

With the 25% calculation for open space parks, this equates to 22.4 acres of counted open space area, for a total 'counted' parkland of 46.0 acres. The total parkland ratio is 6.1 acres for each 1,000 residents, which means that the City has met the parkland General Plan standard.

Determination: The overall parkland calculation shows the City has met the General Plan standard.

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. 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; Laguna Preserve improvements would likely cost over \$800,000.

Fire Department

Standard: Per National Fire Protection Agency (NFPA) 1720, Standard for Volunteer Firefighters, volunteer staffed fire departments, shall have a maximum response time of nine (9) minutes and assemble 15 firefighters on the scene of structure fires 90% of the time.

Present Situation: The average response time is 6:30 minutes for 80% of calls, and 7:30 minutes for 100% of calls. This represents an increase from the LOS Standard of time in 2016, when response time was 6:00 minutes for 80% of calls. The average response time in 2015 was 4:55 minutes and 2014 was 4:45 minutes. The Department has a volunteer staff of 30 members, 24 active members and 6 reserve members. The Department is still recruiting new firefighters. This is an area of major concern with increased response times. The Department offers additional paid fire shifts, Monday through Friday, where the highest percentage of emergency calls for service happen during weekdays, 7-5pm. The Department continues to offer paid shifts for every weekend, including holidays. The Department is also applying for a FEMA grant that would help pay for one firefighter for several years to support the increased emergency calls for service and response times.

The Sebastopol Fire Department responded to 1,150 calls for service in 2017, a substantial increase of 94 from 1,056 calls for service in 2016 and a new record for our Fire Department. Calls for service in 2015 were 1,071 and 2014 were 1,055. The four-year average is 1,083 calls for service. Over 60% of our calls for service are medical related. We continue to see increased calls for service on an annual basis.

Calls for Service: 2012-2017

2012	2013	2014	2015	2016	2017
926	861	1,055	1,071	1,056	1,150

The City currently has a fire protection rating from the Insurance Services Office (ISO), of Class 3. Only 5.0% 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 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 Department reduced the hiring age from 21 to 18, and have opened up the boundaries of either living near or working in the City. This change has benefited the department, as younger volunteers and those that do not live in the City have been added to our roster. The City should continue to offer incentives for citizens to volunteer as firefighting staff and to retain those already volunteering.

Since 2005, the department has provided a modest monetary benefit program to the volunteer firefighters based on their number of emergency responses. This program has increased the average number of firefighters per call by 25%.

Traffic conditions and congestion also have an impact on response times.

The Department is continuing to look for way to lessen the number of callouts to false alarms and unwarranted requests for calls for service. We added a False Alarm or "Nuisance" call to our User Fee Schedule of \$1450.00 per incident in hopes that this would reduce the number of false alarms from businesses that have historically been repeat offenders. This has worked over the years. We estimate a number of 50 calls were eliminated based upon this new fee schedule for false alarms.

The new General Plan adopted the National Response Standard, as stated by the National Fire Protection Association (NFPA). The NFPA adopted Standard 1720, Standard for Volunteer Firefighters. This standard stipulates that volunteer staffed fire departments, serving an urban area (1000 + persons per square mile), shall have a maximum response time of 9 minutes and assemble 15 firefighters on the scene of structure fires 90% of the time. The department assembled an average of 16 staff on fires 90% of the time, and was under 9 minutes, as stated in NFPA 1720. The 16 staff members assembled resulted from 10 Sebastopol Staff and 6 Automatic Mutual Aid Staff from Graton and Gold Ridge Fire Protection Districts. The Sebastopol FD is still within compliance to the new NFPA Standard.

Determination: Response time and assembled firefighters are in Compliance and Standard has been met.

Recommendation: Response times are a critical metric within volunteer staffed fire departments. The Department has offered additional paid fire shifts to reduce our response times and are working closely with the City Council Budget Committee to address this issue. The Department will continue to monitor this metric and make the necessary recommendations as needed.

Police Services

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

Present Situation: The Sebastopol Police Department consists of 14 full-time sworn officers, which includes the Police Chief, Police Lieutenant, four (4) Police Sergeants, and eight (8) Police Officers. The Police Department had six (6) non-sworn support staff, which included a Lead Communications Dispatcher, four (4) Communications Dispatchers, and a part-time (.75 FTE) Police Aide to conduct parking and animal control functions and assist with fingerprinting services; a fifth Communications Dispatcher position was in process of being filled following a recent vacancy. The Department also has eight (8) Reserve Police Officers, six (6) Community Service Volunteers, and three (3) Police Explorers.

SPD handled 15,067 incidents in 2017, of which 890 were categorized as Priority 1 (emergencies) – an average of 2.43 per day. The average response for all Priority 1 calls in 2017 was 2:44 minutes, from Time of Dispatch to the Time of Arrival of officers at the scene of emergency. The average time for the Communications Dispatcher to answer an emergency call for service, gather required information from the caller, and dispatch necessary resources to the scene was 0:58 seconds.

During 2017, SPD officers documented 1273 cases that required either a Crime Report, Arrest Report, or Information Report (an average of 3.5 investigative reports each day of the year.) In addition to those reports, Officers issued 925 Traffic Citations, 243 Criminal Citations (for non-bookable misdemeanors or Municipal Code violations), and 1002 Parking Citations.

Determination: It appears the standard has been met.

Recommendation: The metric ("response time of 3 minutes for 70 percent of calls") is no longer calculable due to a change in the CAD/RMS data system used at the Police Department. An

alignment of metrics to current data systems capability would provide a more exact assessment of success.

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 (2) charter schools that are not affiliated with either school district.

Sebastopol Union School District: There are currently two (2) 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 South Main Street, where it hold 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 planning to move to a new campus in the district, just outside City limits near Gravenstein Highway North.

Sebastopol Union School Districts Enrollment Totals: 2011-2017

2011	2012	2013	2014	2015	2016	2017
1,021	871	877	856	796	812	788

2017 Enrollment Levels by Sebastopol Union School District Schools

School Name	Total Enrollment
Park Side	275
Brook Haven	241
Sebastopol Independent Charter School: Grades K to 8	272

The 2017 enrollment in the Sebastopol Union School District decreased by 24 students from 2016. This continues the general trend of decreasing enrollment totals, though 2016 still had a small increase, and overall enrollment totals are still below the totals from 2011 and earlier.

Sebastopol Area Charter Schools: There are also two (2) 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 2017 enrollment of 105 students, which is 10 more than the total enrollment in 2016 of 95. 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 2017 enrollment of 284 students, which is an increase of 1 student from 2016, when total enrollment was 283 students. Total enrollment is not counted towards Sebastopol Union School District enrollment.

West Sonoma County High School District: The High School District operates two (2) schools in Sebastopol: Analy High School and Laguna High School (the Community Day School is closed). The High School District also operates three (3) 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: 2011-2017

2011	2012	2013	2014	2015	2016	2017
1,383	1,445	1,459	1,461	1,393	1,284	1,239

2017 Enrollment Levels for Sebastopol High Schools

School Name	Total Enrollment
Analy High	1,145
Laguna High	94
Community Day School (closed)	0

Total high school enrollment decreased by 45 students from 2016 to 2017.

Total enrollment decreased by 69 students in 2017 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 approach 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.

Currently, due to declining enrollment and other factors, the High School district is facing major budget issues. Classes will be cut, and some layoffs are planned.

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 to encourage more family housing. However, even with additional housing development, young families will face substantial

affordability and availability in the Sebastopol housing market, which along with other demographic trends, appears to likely continue declining enrollment.

Traffic

The new General Plan eliminated the prior plan's Level of Service (LOS) standard, as a metric that did not appropriately express the City's policy intent.

Present Situation: The General Plan Update provided comprehensive data on current traffic conditions. This 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 updated General Plan calls for continued evaluation of the benefits and feasibility of a two-way street system on some or all of SR116. A comprehensive 2-way street analysis for SR 116 is called for in collaboration with Caltrans. The new General Plan also calls for review of by-pass or reliever routes in collaboration with other agencies.

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 updated General Plan calls for the City to provide high quality regular maintenance for existing and future transportation facilities including street, sidewalks and paths by continually seeking opportunities to fund maintenance of and improvement to the circulation network through active pursuit of a wide range of grant sources.

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 updated General Plan calls for the installation of a traffic signal or roundabout at the Gravenstein Highway South/Fircrest Avenue intersection, and at five (5) other locations in the City.

The improvement of Sebastopol Avenue and South Main Street is another objective. The City embarked on the Downtown Core Streetscape Project in early 2016 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. To date no replacement funding has been identified.

The City Council authorized a contract for the Wayfinding Sign Project in 2015 which includes auto and pedestrian wayfinding signs, as well as design for new gateway signs and identification signs for major City facilities, including parks and buildings. The first phase of the project is expected to be implemented this year.

Caltrans completed their replacement of the Highway 12 Bridge, and the bridge is now wider and slighter higher. The City is also collaborating with Caltrans to implement bike lanes along the entire roadway for Highway 116. Caltrans has also begun re-paving Highway 116, including doing spot repairs.

The Class I, II, and III bike trails, connectors, lanes and routes have been completed as part of Sebastopol's Bike and Pedestrian Master Plan. In addition, the City is currently working on a Transportation Fund for Clean Air (TFCA) grant for local bike paths.

Determination: No inconsistencies with the General Plan were identified.

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 improvements objectives.

Residential Dwelling Allocation

Standard: The updated General Plan establishes an annual residential development limit of 50 units. Certain types of residential development, such as second units, are exempt, while affordable housing units and downtown units are not subject to the 50-unit annual limit (until the end of 2016 the annual limit was 25 units).

Present Situation: The Growth Management Program is intended to preserve the small town character of Sebastopol, and manage infrastructure limitations, such as sewage treatment capacity, water supply, and roadway constraints. The Growth Management Plan is in the process being amended to meet the standards of the newly adopted General Plan. The following table outlines dwelling unit allocations based on the 2016 General Plan.

Allocation: Availability Calendar 2017

Total Permit and Approval Activity During 2017	14
Permits issued for exempt units during 2017	5
Permits issued for exempt Category C units during 2017	0
Permits issued for exempt Category D units during 2017	0
Existing residential units annexed during 2017 (Category C)	0
Out-of-service-area agreements approved during 2017 (Category D)	0
Number of Units Removed	0
Permits issued for other non-exempt units during 2017	9
Non-exempt allocations reserved during 2017 for future use	0
Subtotal of Nonexempt Allocations Issued or Reserved in 2017	9
Base year dwelling unit allocations available on 1/1/2017	50
Total non-exempt allocations issued or reserved in 2017	9
Total Carryover Available from 2017	41
New Base Year 2017 Allocations Available 1/1/2018	50
Total Allocations Available 1/1/2018	91

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

- Affordable Housing Units
- Accessory 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
- Residential Units in the Central Core

Accessory units are exempt from annual and total build-out allocations per State regulations, and are not included in any of the housing allocations tables. Five (5) permits were issued for accessory dwelling units in 2017.

Replacement residences are also exempt from the annual allocation limit. No Building Permits were issued for replacement residences in 2017. 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 2017.

In 2017 permits were issued for one (1) manufactured single family residence, and one (1) permit was issued for a mixed-use development which included 8 units. This resulted in use of 9 allocations, leaving 91 to carry over to 2018.

Allocation: Aging Analysis

At present there are 91 total allocations available for use in 2018.

There has been very low housing development activity in Sebastopol over the past few years, with only nine (9) allocations for non-exempt units in 2017 and only three (3) in 2016. A maximum of 91 allocations are available for new, non-exempt Building Permits in 2018. It may be a number of years before the limit of the program is approached based on the generally low rate of development experience in recent years. However, a few large project could cause the City to reach the limit more quickly. The limits of the program also have implications regarding housing needs and the housing productions 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.

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 156 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 action, 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 2016 meeting. The City Council took final action on

the amendments in 2016. Additional amendments were made in 2017 and further changes are in progress in 2018.

There was a slight increase in housing development activity in 2017, though overall it is still very low. There were five (5) applications for accessory dwelling units. In addition, one manufactured single-family dwelling was approved. Construction was completed on the previously-approved mixed-use development at 961 Gravenstein Highway South, which includes commercial spaces and eight (8) condominiums. This increase in housing development and general interest in 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, Sebastopol residents, as well as the real estate, development, and construction industries.

The Planning Department is divided into two functional units: Current Planning and Development Review, and Advanced Planning. The Planning Department has just three (3) staff persons: Planning Director, Assistant Planner, and Senior Administrative Assistant.

Planning Department Permit Activity

Application Type	07	08	09	10	11	12	13	14	15	16	17
Use Permit	7	6	7	8	12	17	31	10	20	5	7
Design Review (DRB)	13	13	10	7	8	10	11	11	8	15	10
Design Review (CC)	X	X	X	X	X	X	X	X	X	X	1
Design Review (Staff)	0	1	3	0	3	2	5	4	7	1	2
Variance	0	0	0	0	0	0	0	2	3	0	0
Tree Removal Permit	16	12	14	9	12	10	13	12	19	21	16
Administrative Sign Review	13	8	12	11	10	9	27	19	20	24	26
Preliminary Review	1	1	0	0	1	1	0	1	2	3	3
Annexation / Pre-Zone	0	0	0	1	0	0	0	0	1	0	0
Rezone / Text Amendment	0	1	0	0	0	0	0	0	1	3	0
General Plan Amendment	0	0	0	0	0	0	0	0	0	0	0
Minor Subdivision	0	2	0	1	0	0	0	0	0	0	0
Major Subdivision	0	1	0	0	0	0	0	0	0	0	0
Lot Line Adjust. / Cert. Of Compliance	1	0	21	0	1	2	0	1	3	0	1
Environmental Review: Negative Dec.	1	1	0	1	1	0	2	0	0	0	0
Appeal	2	2	0	0	5	2	2	1	2	4	0
ABC Transfer / Admin. Alcohol UP	X	X	X	X	X	X	X	7	3	5	5
Antenna Use Permit	X	X	X	X	X	X	X	6	1	1	0
Temporary Use Permit	X	X	X	X	X	X	X	12	10	12	12
Zoning Determination	X	X	X	X	X	X	X	1	0	2	0

Village Building Convergence	X	X	X	X	X	X	X	1	0	0	0
Administrative Permit Review	X	X	X	X	X	X	X	4	12	6	4
Time Extension (Staff and DRB)	X	X	X	X	X	X	X	1	1	1	2
Film Permit	X	X	X	X	X	X	X	X	2	2	3
Public Art Review	X	X	X	X	X	X	X	X	1	1	0
Façade Improvement	X	X	X	X	X	X	X	X	X	X	1
Park Project/Monument Review	X	X	X	X	X	X	X	X	X	X	2
Total	53	48	77	38	53	53	91	93	126	106	95

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

Administrative Level Review

Planning Department staff approved the following applications administratively:

- Administrative Permit Review: 4
- ABC License Transfer / Alcohol Use Permit (<50 seats): 5
- Design Review: 2
- Film Permit: 3
- Administrative Sign Review: 26
- Temporary Use Permit: 12
- Time Extension: 1
- Tree Removal Permit: 16
- Façade Improvement: 1

Notable 2017 Accomplishments

- Annexation of Tomodachi/Village Park to City of Sebastopol
- Completion of the 961 mixed-use development
- Completion of Voluntary Collection Agreement for Transient Occupancy Taxes with Airbnb
- Urgency Ordinance for Trailers for Fire Victims
- Comprehensive Cannabis Ordinance

Expected Special 2018 Planning Department Activities

- Annexation of the Railroad Forest property
- Completion of Zoning Ordinance updates and revisions to the Zoning Map
- Updates to Housing Impact Fees
- Update of Cannabis Ordinance to meet with new State regulations
- Update of the Telecommunications Ordinance

Environmental Issues

Reduction of greenhouse gases is a stated goal of the City of Sebastopol. As a responsible environmental steward the City of Sebastopol is committed to policies and programs that conserve and use natural resources wisely. Since solar photovoltaic technology and equipment have become reasonable available the City requires that new commercial or residential buildings, and specific alterations, additions and remodels require the installation of a photovoltaic energy generation system.

The City of Sebastopol's projected future growth has led to concern over the City's sewage treatment capacity share in the Santa Rosa Subregional Sewerage System. At the same time, the City depends solely upon the underground water supply and wishes to conserve that finite resource. Therefore, the City requires that water saving devices can be, shall be, incorporated into all new construction, and in remodeling of existing kitchens and bathrooms, and that the use of such device will help conserve water and preserve the City's sewage treatment capacity.

The City of Sebastopol encourages sound land use that promotes proactive, forward-thinking environmental protection, it is considered a cornerstone of Sebastopol's identity. The City requires the implementation of policies and actions to provide for progressive, effective and forward-thinking strategies to protect the natural environment and promote sustainability to the greatest extent feasible.

Other environmental protections of note within the updates General Plan:

1. Protect and Enhance Sebastopol's ecosystem and natural habitats.
2. Protect and Enhance water resources in local creeks, riparian habitat, wetlands, the Laguna De Santa Rosa Watershed, Atascadero Creek, and aquatic habitat.
3. Proactively manage, protect, and restore the Laguna De Santa Rosa.
4. Protect, manage, and enhance groundwater as a valuable and limited shared resource.
5. Conserve, protect and enhance trees and native vegetation.
6. Improve air quality in Sebastopol and reduce air quality impacts from future development.
7. Reduce emissions of greenhouse gasses from City operations and community sources.
8. Promote conservation of energy and other natural resources.
9. Ensure the provision and preservation of diverse and accessible open space throughout the City.

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 conservation 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 2017**

March 13, 2018

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 2008, these annual reports also include information on groundwater levels in our City wells.

This portion of the report will summarize data obtained during 2017. 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 increased from 304 million gallons in 2016 to 333 million gallons in 2017, an increase of about 9%. Water year 2017 (October 1, 2016 to September 30, 2017) dramatically illustrated the variability in California's annual precipitation, ending the state's 5-year drought and coming in at second place for statewide runoff, behind the wettest year of 1983. Following unprecedented water conservation and plentiful winter rain and snow, on April 7, Governor Edmund G. Brown Jr. ended the drought State of Emergency in most of California, while maintaining water reporting requirements and prohibitions on wasteful practices such as watering during or right after rainfall. The 9% increase in water consumption is presumably due to these restrictions being ended. 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 20, from 7,559 (2016) to 7,579 as of January 1, 2017.

Overall Per Capita Production is a calculated average of all water produced divided by population. Per Capita Production increased 9% from 111 gallons/person/day (2016) to 120 gallons/person/day in 2017.

Rainfall received during 2017 was 46.23 inches, above 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.

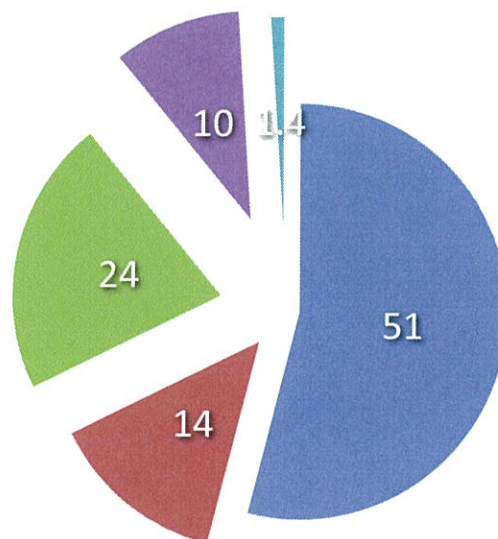
Table 2 shows the contribution of various classes of customers to total water sales in Sebastopol over the past 10 years. Figure 2 shows this information in graphic form.

The chart below shows the contribution of various classes of customers to total water sales in Sebastopol during Calendar Year 2017. 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 65% of all water used in Sebastopol in 2017. Though *water produced* in 2017 for all uses averaged 120 gallons/person/day, actual billing records show that residential customers

- SF RESIDENTIAL
- COMM'L/INDUSTRIAL
- OTHER (CORP YARD SALES)
- MF RESIDENTIAL
- LANDSCAPE IRRIGATION



in Sebastopol use substantially less water on a per capita basis. Per capita *residential usage* was 69 gallons per day in 2017, up from 67 gallons per day in 2016.

Commercial and Institutional: 24% of water sold in 2017 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. In 2017, separately metered irrigation usage was 30.7 million gallons. This represents about 10% of all water sold. This amount increased 1% from 2016, presumably in part due to the previous emergency water conservation requirements being removed by the state.

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 2017, about 4.2 million gallons were sold from the Corp Yard stand, or about 1.4% of all water produced. This was about .1% less than 2016.

Future Water Demand

The estimated water demand from projects currently approved by the City but not yet constructed is 4.6 million gallons per year. This represents the equivalent of approximately 1.5% of total production in 2017. The water demand for projects pending approval is estimated at an additional 0 million gallons per year. This is equivalent to an additional 0% of 2017 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 2017, 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

California obtains between a third and half of its fresh drinking water from groundwater aquifers accumulated in subsurface basins formed by underlying geologic formations. It has long been recognized that the ability of these aquifers to continue to provide sustainable water supply is critical to the water needs of California as a whole. The Sustainable Groundwater Management Act became law in 2014 (known as SGMA, but pronounced "sigma") with the final version of the accompanying regulations issued within the last year. SGMA sets goals for developing Groundwater Sustainability Plans (GSP) for each basin in order to provide a framework to preserve, recharge, and nurture these groundwater basin aquifers. The GSP is to be developed and managed by a newly established Groundwater Sustainability Agency (GSA).

Sebastopol obtains 100% of its municipal water supply from groundwater via multiple producing wells. SGMA stipulates that GSA members must be local government entities, and either provide/supply water, or regulate water, or have land use responsibilities.

The collaborative regional effort to get set for Sustainable Groundwater Management Act (SGMA) compliance has been progressing. Recent efforts have had as their focus both the prospective GSA governance arrangement, and program financing and cost estimates.

The work Group recommendations are that the GSA entities form a GSA for the SRP that would be a Joint Powers Authority (JPA). The basic proposal is for a two-tier set-up, with a governing Board supported by a second tier Advisory Committee. The governing Board would have as its members one representative each from the county, SCWA, SRCD, each of the four cities, and a single seat for the PUC/Mutuals for a total of 9 Board seats. The expectation would be that each member entity appoint both a serving Board member, and an alternate.

The SGMA Workgroup is also developing a budget for a JPA and looking at various funding mechanisms available. State grant money has paid a great part of expense to date. The financial effort is looking at developing a sustainable revenue stream, and at gap funding to bridge between GSA formation and the advent of revenue generation.

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 Sub-regional 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 2017, Average Daily Dry Weather Flow (ADDWF) was 0.0448 mgd, or about 53% of our treatment entitlement. This was an increase of about 0% in ADDWF from 2016.

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 0.006 mgd.
Projected sewer demand (ADDWF) for Applications Pending is 0.000 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, 2016 (Table 3)	0.448
Treatment Capacity Reserve per General Plan (5% of entitlement)	0.042
Estimated Flows from Approved Projects (Table 4)	+0.006
Subtotal – Treatment Capacity Used, Reserved and Committed	0.496

Current Capacity Entitlement in Sub-regional Treatment System	0.840
Less Treatment Capacity Used, Reserved and Committed	-0.496
Remaining Treatment Capacity Available for future Growth	0.344
Less Treatment Capacity Demand from Pending Applications (Table 4)	-0.000
Remainder Available for New Projects	0.344

0.344 mgd represents approximately 41% of our total treatment capacity and would be equivalent to projected flows from 2,191 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 2017, water usage increased by about 13% from the previous year of 2016.

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.)

- 2017 1st Quarter, April 11, 2017
- 2017 2nd Quarter; July 14, 2017
- 2017 3rd Quarter; November 14, 2017
- 2017 4th Quarter; February 14, 2018

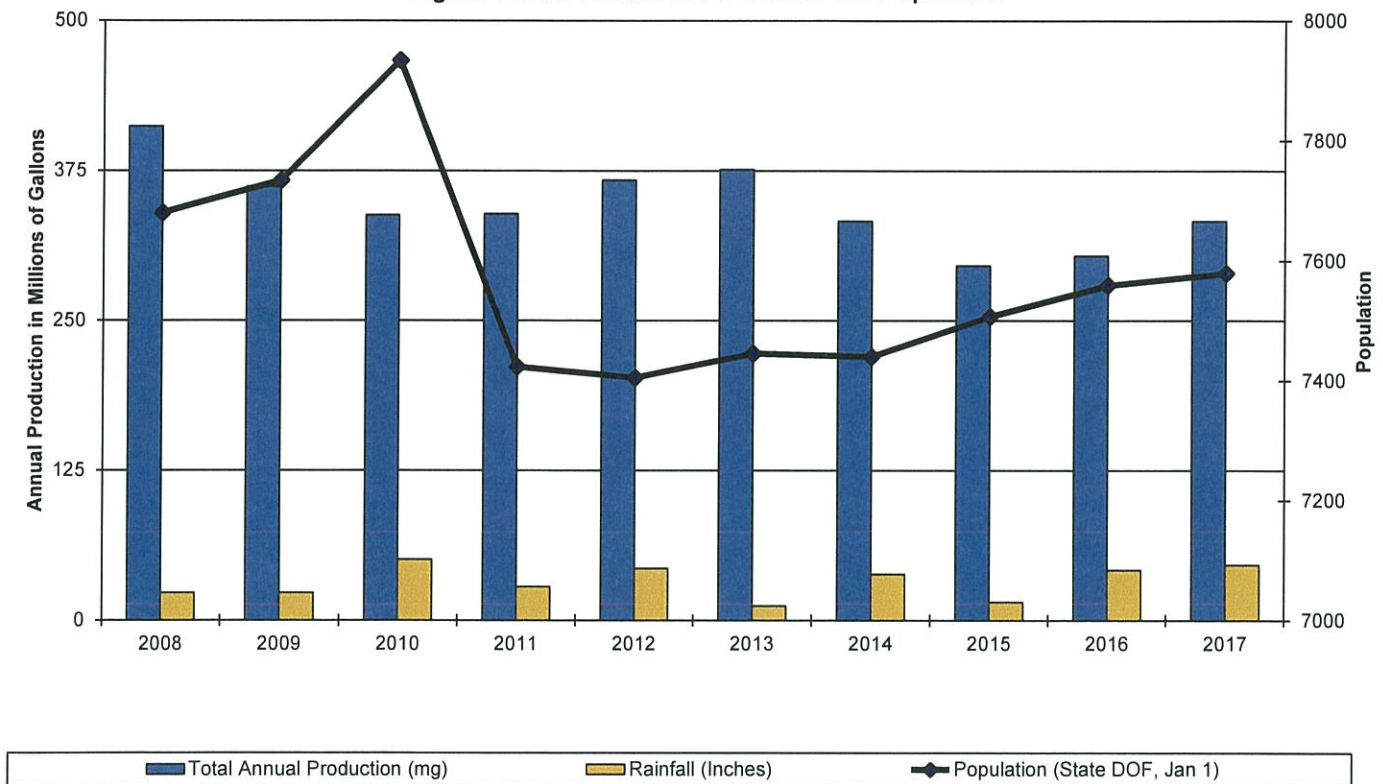
**Table 1
Water Production**

CALENDAR YEAR	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	10-YR Average
Total Annual Production (mg)	412	362	338	339	367	376	333	296	304	333	346
Average Day (mg)	1.1	1.0	0.9	0.9	1.0	1.0	0.9	0.8	0.8	0.9	0.9
Population (State DOF, Jan 1)	7,680	7,734	7,943	7,423	7,405	7,445	7440	7507	7527	7579	
Average Production Per Capita Per Day (gallons)	147	128	117	125	136	138	123	108	111	120	125
Maximum Month (mg)	37	41	39	38	45	40	43	35	40	44	40
Maximum Day (mg)	1.7	2.1	1.7	1.6	1.8	1.5	2.1	1.3	1.4	2.1	1.7
Average Day in Maximum Month (mg)	1.2	1.4	1.3	1.3	1.5	1.3	1.4	1.2	1.3	1.5	1.3
Maximum Well Capacity* (gpm)	3400	2,200	2,200	2,200	2,550	1800	1800	2257	2257	2300	
% Total Production to Max Production	36%	31%	29%	29%	27%	40%	35%	25%	26%	28%	
Amount of Water Billed (mg)	377	344	313	309	338	350	311	277	286	296	320
Un-metered Water Usage**(mg)	1.6	2.5	2.9	5.2	2.1	3	1.5	0	0	.5	1.9
Total Reported Use	378.6	346.5	315.9	314.2	340.1	353.0	313	277	286.1	296.5	322
Unaccounted-for Water (mg)	33.4	15.5	22.1	24.8	26.9	23	20	19	17.9	36.5	24
Unaccounted-for Water % of Total Production	8%	4%	7%	7%	7%	6%	6%	6%	6%	11%	7%
Rainfall (Inches)	23.12	22.91	50.80	28.07	43.3	11.83	38.63	15.01	41.98	46.23	32

*Based on pumping capacity of active wells in operation during the Calendar year.

**Un-metered Water Usage is reported by Public Works (for testing of new mains, hydrant flushing, estimated losses from main breaks and leaks, Ives Pool, street sweeping and sewer maintenance activities) and by the Fire Department (for fire suppression, hydrant testing and training activities).

Figure 1 Water Production v. Rainfall and Population



TABLES
Annual Sewer and Water Statistics
For Level of Service Report
City of Sebastopol

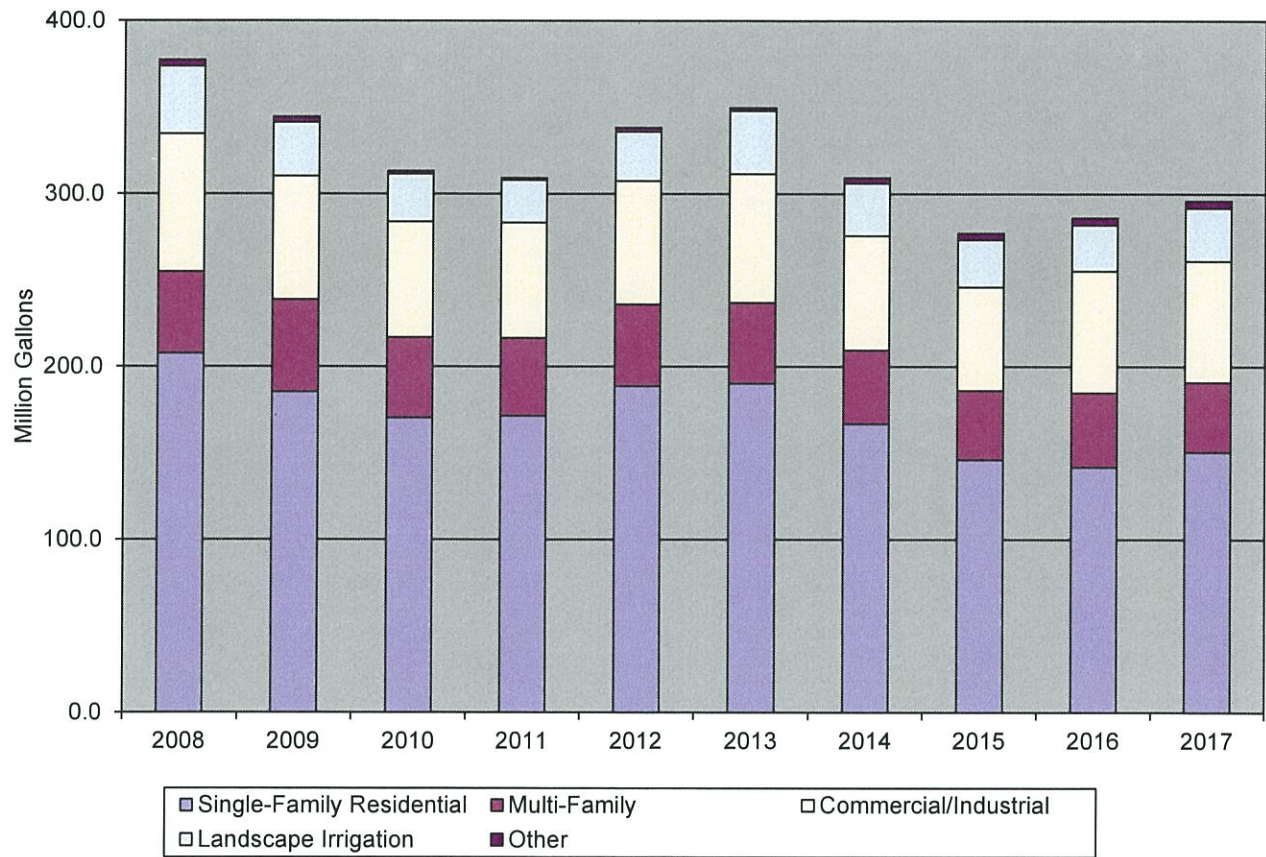
Table 2
WATER SALES by CUSTOMER CLASS
(In Million Gallons)

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
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	209.4	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	277.4	7507	68	108
2016	141.8	42.9	184.7	70.6	26.6	4.2	286.1	7527	67	111
2017	150.6	40.3	190.9	70.1	30.7	4.2	296	7579	69	120

Notes:

- 1 Population figures adjusted per corrected State DOF Table 2: E-4 Population Estimates for Cities Counties and State, 2001-2009, with 2000 Benchmark. This resulted in downward adjustment from population figures in prior
- 2 years' reports.
- 3 Prior to 2002, Corporation Yard Water Sales were included in Commercial/Institutional totals.
- Prior to 2006, Multi-family and Commercial/Institutional Irrigation meters were included in those categories' totals.

Figure 2 WATER SALES BY CUSTOMER CLASS

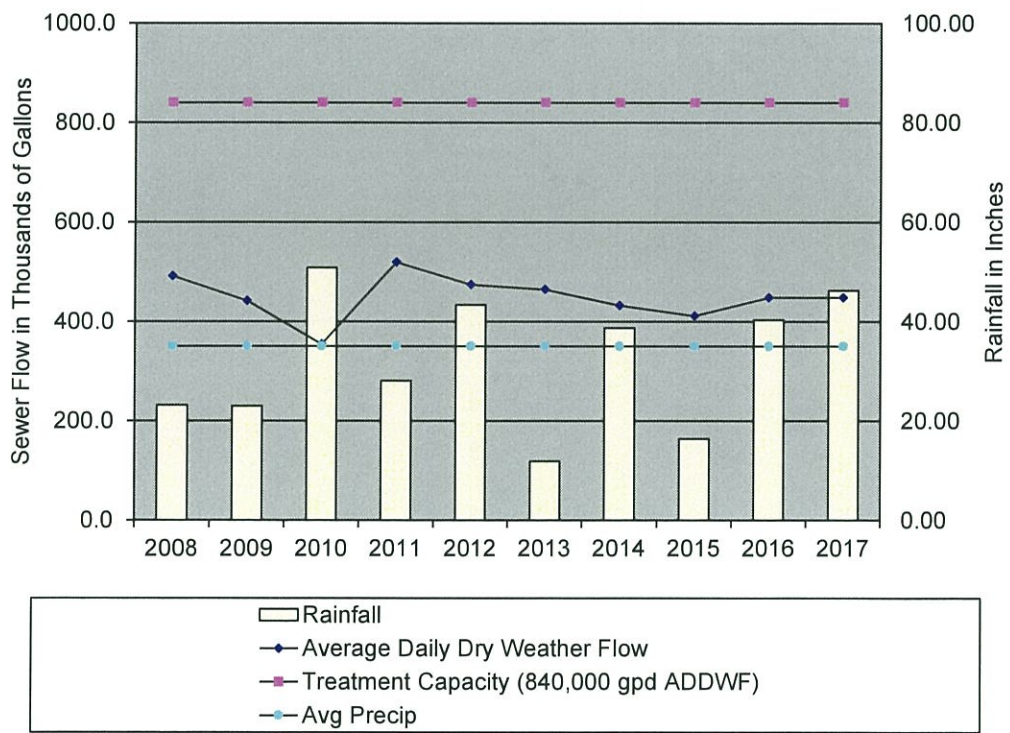


TABLES
Annual Sewer and Water Statistics
For Level of Service Report
City of Sebastopol

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

Calendar Year	2008	2009	2010 [5]	2011	2012	2013	2014	2015	2016	2017
Dry Weather Flow (MGD) [1]										
May					0.489					0.468
June	0.501	0.471	0.388		0.467		0.438	0.410	0.463	0.455
July	0.503	0.427	0.336	0.515	0.465	0.467	0.428	0.404	0.438	0.426
August	0.507	0.424	0.337	0.516	0.47	0.461	0.430	0.419	0.443	0.445
September	0.453			0.527	0.48	0.467			0.449	
October						0.463				
Average Daily Dry Weather Flow (MGD)	0.491	0.441	0.354	0.519	0.474	0.464	0.432	0.411	0.448	0.448
Treatment Capacity Used [2]	58%	53%	42%	62%	56%	55%	51%	49%	53%	53%
Population [3]	7,680	7,734	7,943	7,423	7,405	7,445	7,440	7,507	7,527	7,579
Per Capita ADDWF(GPD) [4]	64	57	45	70	64	60	58	55	60	60
Rainfall (Inches)	23.12	22.91	50.80	28.07	43.3	11.83	38.63	15.01	41.98	46.23

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



Updated February 2016 for 2017 LOS Report

APPROVED PROJECTS		TABLE 4															
PROJECT INFORMATION		ESTIMATED WATER DEMAND								ESTIMATED SEWER DEMAND							
		Single Family Residential Units	Multi-Family Residential Units	Motel Rooms	Office, Commercial, Industrial (See Notes)	Single-family Residential at 270 gallons/day	Multi-family Residential at 175 gallons/day	Commercial/Office at 0.134 gallons/sq. foot/day	Motel rooms at 80 gallons/room/day	TOTAL ANNUAL WATER DEMAND (gallons)	Single-family Residential at 157 gallons per day	Multi-family Residential at 102 gallons per day	Commercial/Office at 0.134 gallons per square foot per day	Motel rooms at 80 gallons/room/day	TOTAL ANNUAL SEWER DEMAND (gallons)	TOTAL SEWER DEMAND IN MGD	Notes
Project Name	Street Address																
Oak Grove Subdivision	7601 Starline	1				98,550	0	0	0	98,550	57,305	0	0	0	57,305		
Woodland Estates	7401-7440 Guitt	6				591,300	0	0	0	591,300	343,830	0	0	0	343,830		
Schoch Minor Subdivision	763 First Street	4				394,200	0	0	0	394,200	228,220	0	0	0	228,220		
Doughly CCC	327 Murphy	1				98,550	0	0	0	98,550	57,305	0	0	0	57,305		
Clarke Minor Subdivision	7584 Washington	2				197,100	0	0	0	197,100	114,610	0	0	0	114,610		
Accessory unit	405 Florence	0	1			0	63,875	0	0	63,875	0	37,230	0	0	37,230		
Accessory unit	7605 Washington	0	1			0	63,875	0	0	63,875	0	37,230	0	0	37,230		
Mixed-use	7631 Healdsburg	1	1		1,592	98,550	0	77,865	0	176,415	57,305	0	77,865	0	135,170		
Mixed-use	845 Grav. North		13		10,645		830,375	520,647		1,351,022		483,990	520,647		1,004,637		
Unit	7147 Burnett		1			0	63,875	0	0	63,875	0	37,230	0	0	37,230		
Accessory unit	570 Ellis Court		1			0	63,875	0	0	63,875	0	37,230	0	0	37,230		
House, accessory unit	7424 Calver	1	1			98,550	63,875	0	0	162,425	57,305	37,230	0	0	94,535		
Accessory unit	7864 Swartz		1				63,875	0	0	63,875		37,230	0	0			
Accessory unit	7821 Covert Lane		1				63,875	0	0	63,875		37,230	0	0			
Accessory unit	1041 McFarlane		1			0	63,875	0	0	63,875	0	37,230	0	0	37,230		
Hotel Sebastopol	6828 Depot Street			68		0	0	0	1,927,200	0	0	0	0	1,927,200	0		
French Garden Hotel	5050 Bodega Avenue			18		0	0	0	525,600	0	0	0	0	525,600	0		
										0							
Subtotal Approved		16	22	84	12,237	1,576,800	1,341,375	598,512	2,452,800	3,368,937	916,880	781,830	598,512	2,452,800	2,222,762	0.0061	
Add 5% for Irrigation										3,558,384							
PROJECTS PENDING						0	0	0	0	0	0	0	0	0	0		
						0	0	0	0	0	0	0	0	0	0		
						0	0	0	0	0	0	0	0	0	0		
Subtotal Pending		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	
Add 5% for Irrigation										0							
Total Approved and Pending										3,558,384					2,222,762	0.0061	

ASSUMPTIONS

SEWER DEMAND (Ref. Sewer Master Plan, Coastland Engineering, 2008)

Residential (1) 157 gallons per unit per day

Commercial/Office/Retail (2) 0.134 gallons per day/square foot*

Industrial (2) 0.42 gallons per day/square foot*

Motel 80 gallons per room per day

WATER DEMAND (Ref. Water Master Plan, Coastland Engineering, 2008)

Residential 270 gallons per day, per unit

Commercial/Office 0.134 gallons per day/square foot

Industrial 0.42 gallons per day/square foot

Irrigation Masters (3) Assume additional 5% of total

Motel 80 gallons per room per day

(1) This figure is conservative in that it is used here for all residential units regardless of size. For multi-family developments, irrigation is metered and separately.

(2) This is based on Master Plans assumption that 100% of water goes to sewer for these uses. Irrigation is metered separately.

(3) Demand figures are included here for projects that were completed and placed online prior to January 2017.



April 11, 2017

954.001.03.002

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

**Re: Groundwater Level Data Transmittal
First Quarter 2017
City of Sebastopol
Sebastopol, California**

Dear Mr. Del Prete:

This data transmittal has been prepared by PES Environmental, Inc. (PES) on behalf of the City of Sebastopol (City) to summarize the results of the groundwater level monitoring program performed in the first quarter of 2017 (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; and (3) 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, and #8. These wells are equipped with Solinst Inc., electronic submersible “LT Edge Levellogger” absolute (i.e., un-vented) pressure transducers and data logger systems. Additionally, a Solinst Inc., “LT Edge Barologger” is installed within Well #4 to provide baseline data for barometric compensation. The pressure transducers/data loggers are programmed to record pressure-head measurements at 20-minute intervals for active wells and at 60-minute intervals for inactive wells.

Mr. Dante Del Prete
April 11, 2017
Page 2 of 3

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 21, 2016. The respective manual groundwater level measurements on December 21, 2016 for Wells #5, #6, #7, and #8 were 45.9, 66.9, 111.65, and 32.8 feet below top of casing¹.

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 37.09 inches of rain were recorded during the subject monitoring period, comprising of 18.96, 14.69, and 3.44 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 level trend analysis, groundwater level data from the previous quarter (October through December 2016) is included on Plates 1 through 5. During the subject monitoring period (January through March), observed groundwater levels generally exhibit a trend of stability and/or recovery, which appear to correlate with the seasonal increase in precipitation and associated groundwater recharge.

¹ Manual groundwater level measurements could not be obtained from Well #4 (sounding tube not accessible).

Mr. Dante Del Prete
April 11, 2017
Page 3 of 3

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

Attachments: Table 1 – Summary of Precipitation Totals

- Plate 1 – Groundwater Level Hydrograph, Municipal Well #4
- Plate 2 – Groundwater Level Hydrograph, Municipal Well #5
- Plate 3 – Groundwater Level Hydrograph, Municipal Well #6
- Plate 4 – Groundwater Level Hydrograph, Municipal Well #7
- Plate 5 – Groundwater Level Hydrograph, Municipal Well #8

TABLE

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

Day	Daily Precipitation Totals (inches)		
	Jan-2017	Feb-2017	Mar-2017
1	--	T	--
2	0.07	1.71	--
3	2.05	0.84	--
4	0.22	0.06	0.17
5	--	0.56	0.25
6	0.02	1.44	0.21
7	1.80	1.60	0.01
8	3.58	1.22	--
9	1.22	1.74	--
10	2.27	0.01	--
11	0.07	0.01	--
12	0.37	--	--
13	--	--	--
14	--	--	--
15	--	T	T
16	--	0.84	--
17	--	1.29	--
18	3.10	0.02	T
19	0.34	1.06	T
20	1.44	2.07	0.60
21	0.73	0.14	0.47
22	1.58	0.08	0.17
23	0.09	--	0.01
24	0.01	--	1.29
25	--	T	--
26	--	T	0.26
27	--	--	--
28	--	--	--
29	--	na	--
30	--	na	T
31	--	na	--
Total (inches)	18.96	14.69	3.44
Total Precipitation (in inches) for January through March: 37.09			

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

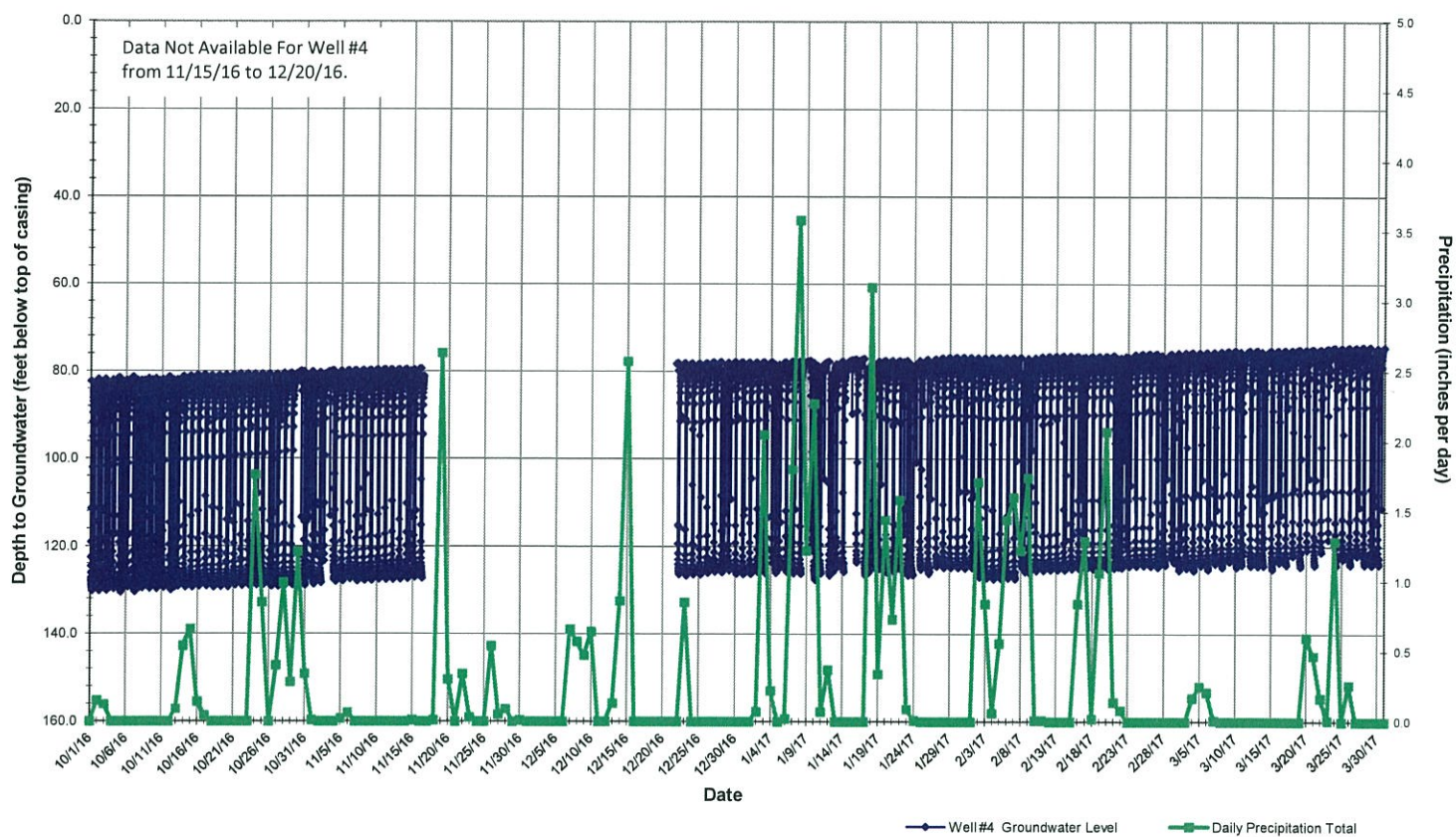


Plate 2
Groundwater Level Hydrograph - Well #5
City of Sebastopol Municipal Wellfield
Sebastopol, California

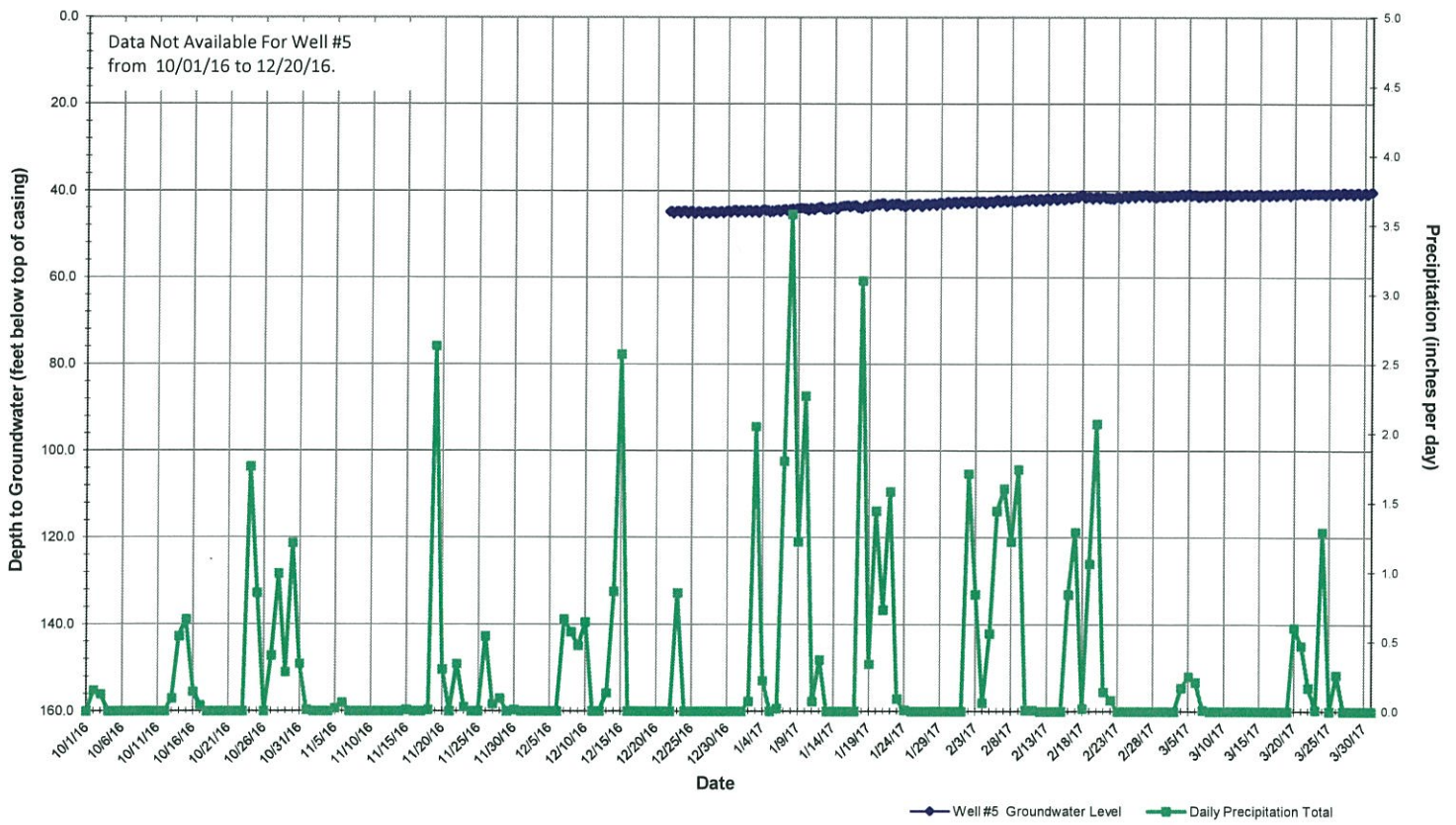


Plate 3
Groundwater Level Hydrograph - Well #6
City of Sebastopol Municipal Wellfield
Sebastopol, California

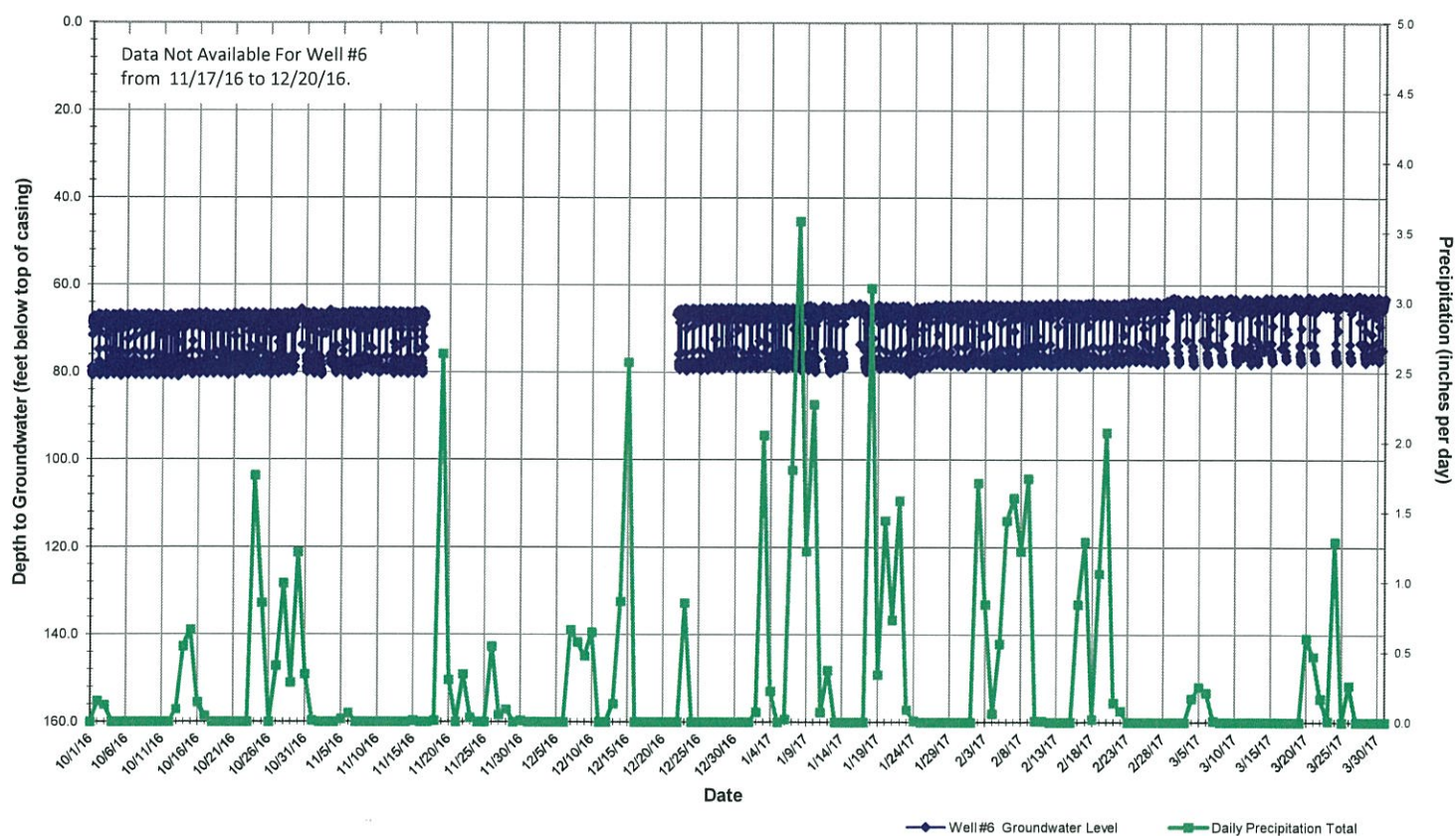


Plate 4
Groundwater Level Hydrograph - Well #7
City of Sebastopol Municipal Wellfield
Sebastopol, California

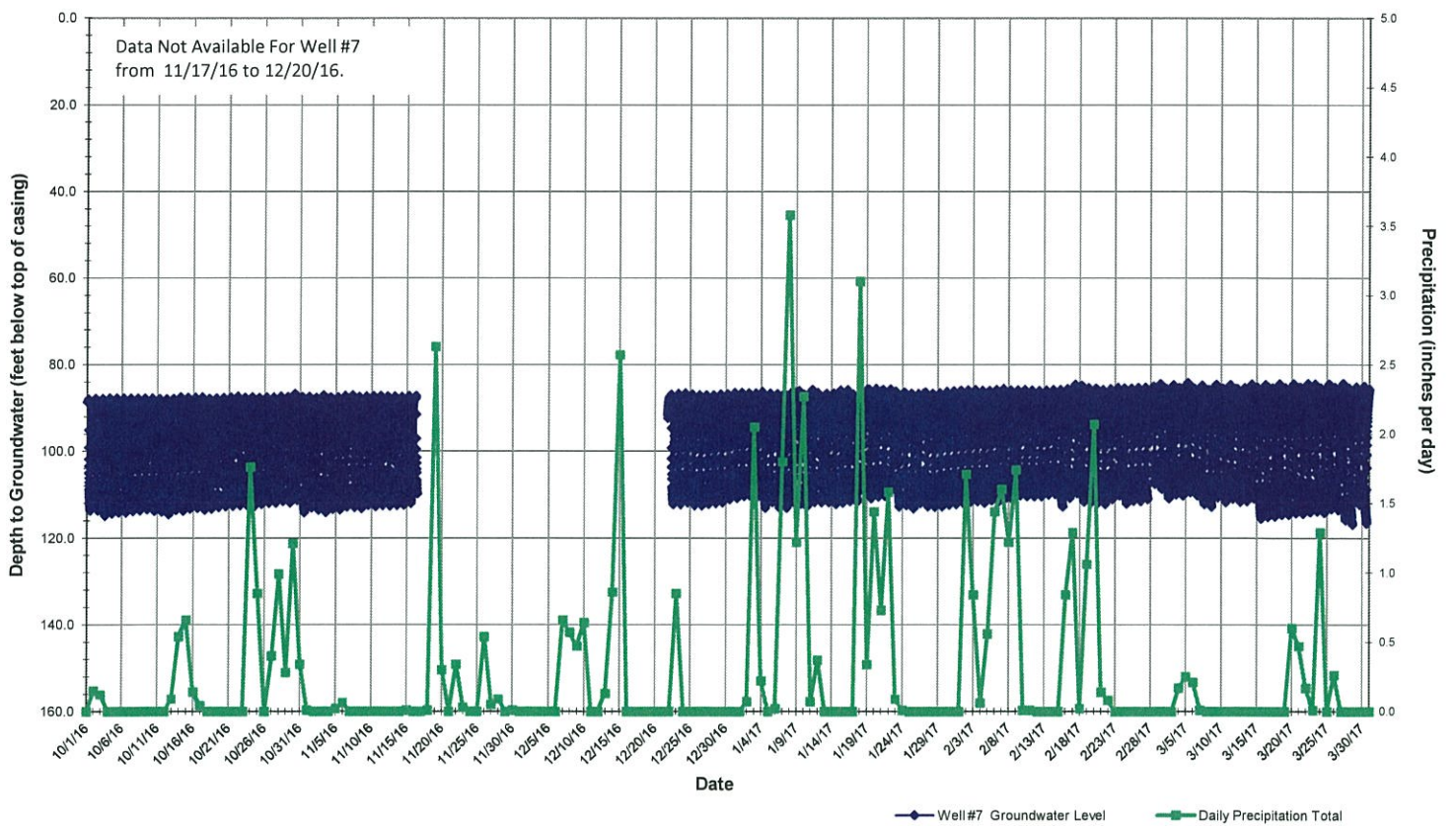
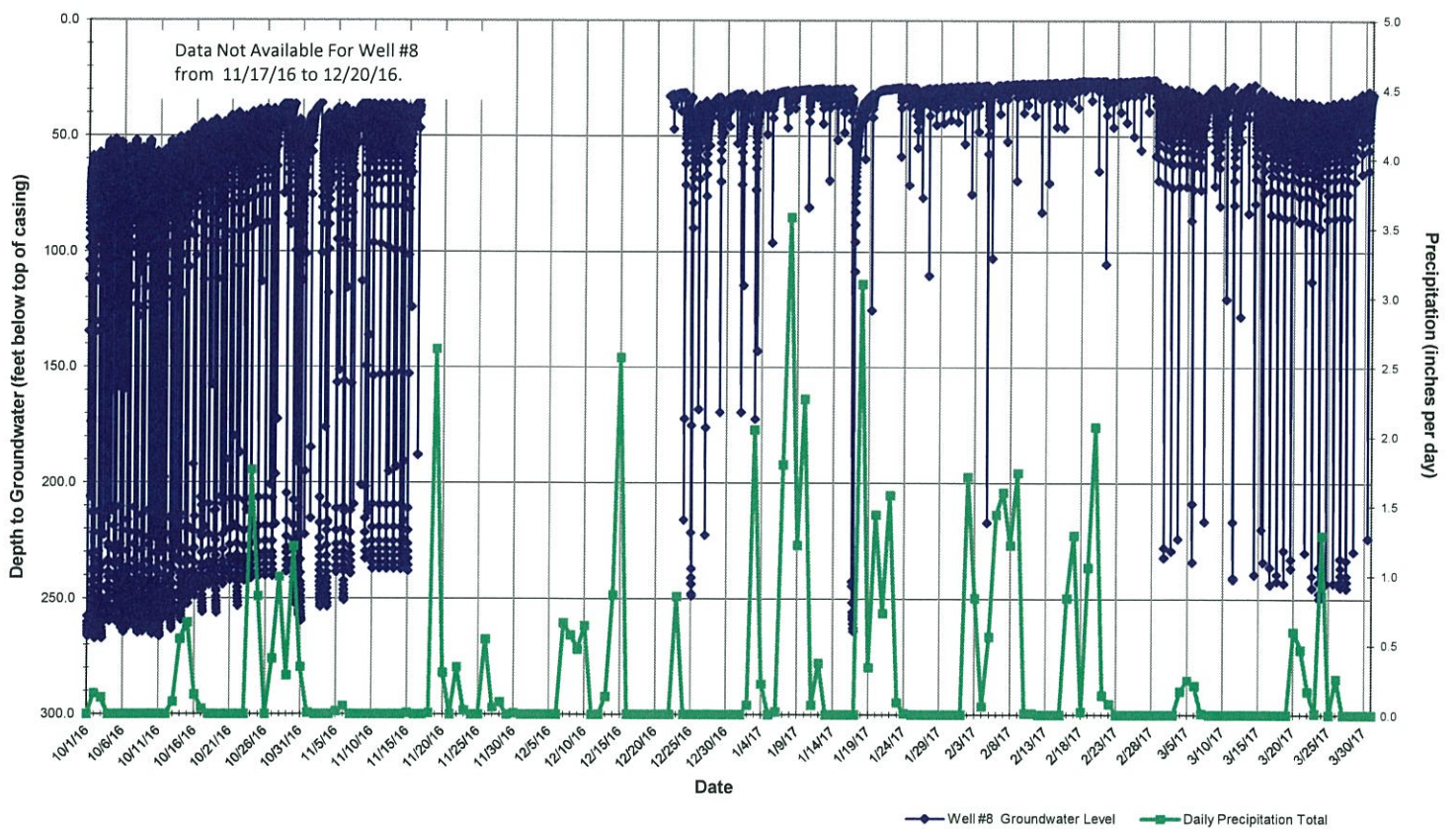


Plate 5
Groundwater Level Hydrograph - Well #8
City of Sebastopol Municipal Wellfield
Sebastopol, California





July 14, 2017

954.001.03.002

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

**Re: Groundwater Level Data Transmittal
Second Quarter 2017
City of Sebastopol
Sebastopol, California**

Dear Mr. Del Prete:

This data transmittal has been prepared by PES Environmental, Inc. (PES) on behalf of the City of Sebastopol (City) to summarize the results of the groundwater level monitoring program performed in the second quarter of 2017 (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; and (3) preparing groundwater level hydrographs.

Groundwater Level Measurements

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

Mr. Dante Del Prete
July 14, 2017
Page 2 of 3

provide baseline data for barometric compensation. The pressure transducers/data loggers are programmed to record pressure-head measurements at 20-minute intervals for active wells and at 60-minute intervals for inactive wells.

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 July 6, 2017. The respective manual groundwater level measurements on July 6, 2017 for Wells #4, #5, #6, and #8 were 72.7, 49.5, 74.0, 109.7, and 205.6 feet below top of casing.

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 4.86 inches of rain were recorded during the subject monitoring period, comprising of 4.56, 0.03, and 0.27 inches in April, May, and June, 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 level trend analysis, groundwater level 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 stability and/or slight decline, which appear to correlate with the seasonal decrease in precipitation and associated decline in groundwater recharge.

Mr. Dante Del Prete
July 14, 2017
Page 3 of 3

CLOSURE

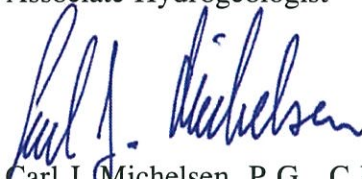
PES appreciates the opportunity to be of service to the City and in providing assistance with the subject Groundwater Level Monitoring Program. Should you have any questions regarding this information, please call PES at (415) 899-1600.

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

Attachments: Table 1 – Summary of Precipitation Totals

- Plate 1 – Groundwater Level Hydrograph, Municipal Well #4
- Plate 2 – Groundwater Level Hydrograph, Municipal Well #5
- Plate 3 – Groundwater Level Hydrograph, Municipal Well #6
- Plate 4 – Groundwater Level Hydrograph, Municipal Well #7
- Plate 5 – Groundwater Level Hydrograph, Municipal Well #8

TABLE

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

Day	Daily Precipitation Totals (inches)		
	Apr-2017	May-2017	Jun-2017
1	--	--	--
2	--	--	--
3	--	--	--
4	--	--	--
5	--	T	--
6	2.36	T	--
7	0.41	--	T
8	0.20	--	0.26
9	--	--	0.01
10	0.01	--	--
11	0.18	--	T
12	0.57	--	--
13	0.07	--	--
14	--	--	--
15	--	--	--
16	0.34	T	--
17	0.16	--	--
18	0.07	--	--
19	0.17	--	--
20	--	--	T
21	--	--	--
22	T	--	--
23	--	--	--
24	T	T	--
25	--	0.03	--
26	0.02	--	--
27	--	--	--
28	--	--	--
29	--	--	--
30	--	--	--
31	na	--	na
Total (inches)	4.56	0.03	0.27
Total Precipitation (in inches) for April through June: 4.86			

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

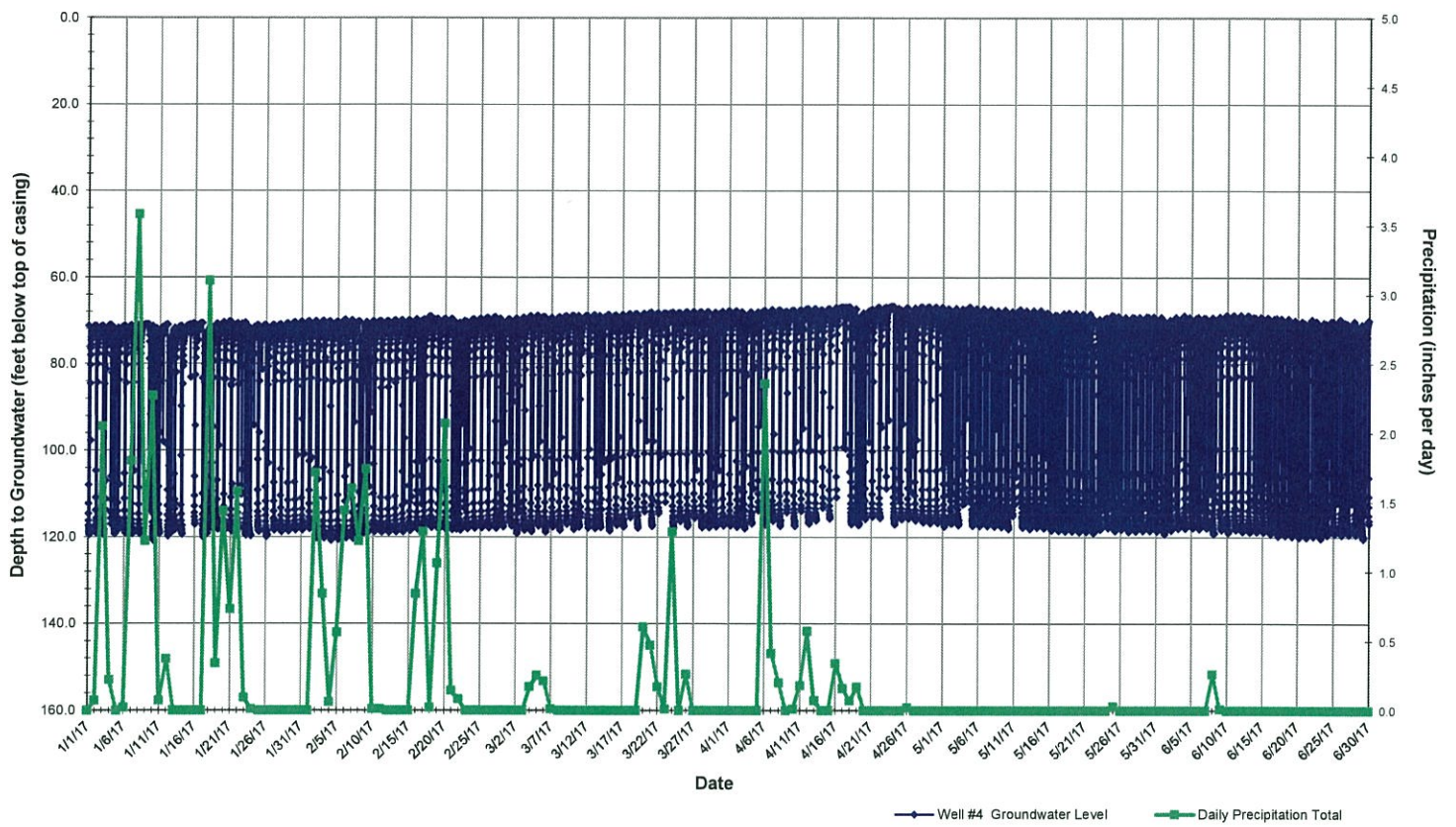


Plate 2
Groundwater Level Hydrograph - Well #5
City of Sebastopol Municipal Wellfield
Sebastopol, California

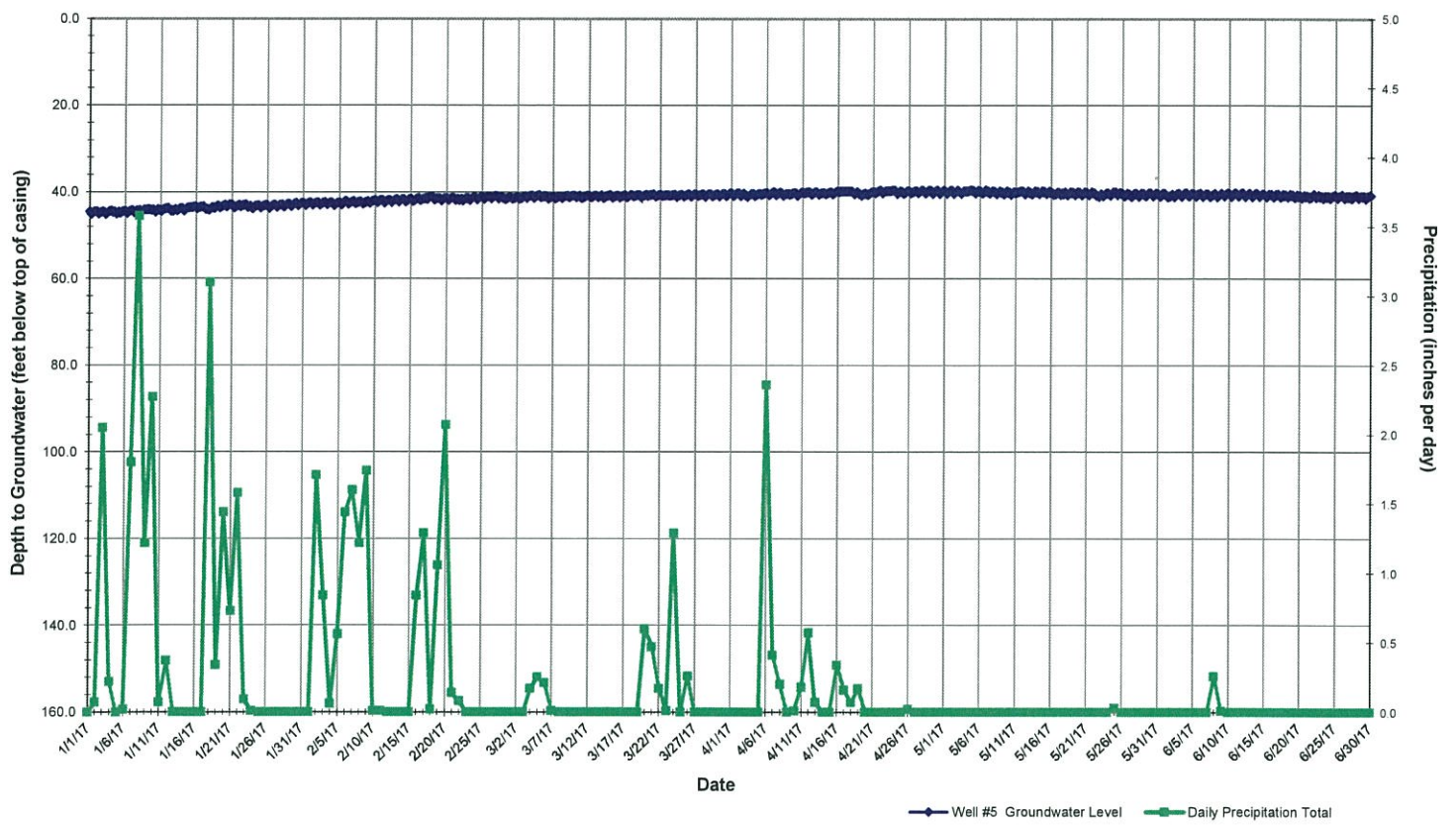


Plate 3
Groundwater Level Hydrograph - Well #6
City of Sebastopol Municipal Wellfield
Sebastopol, California

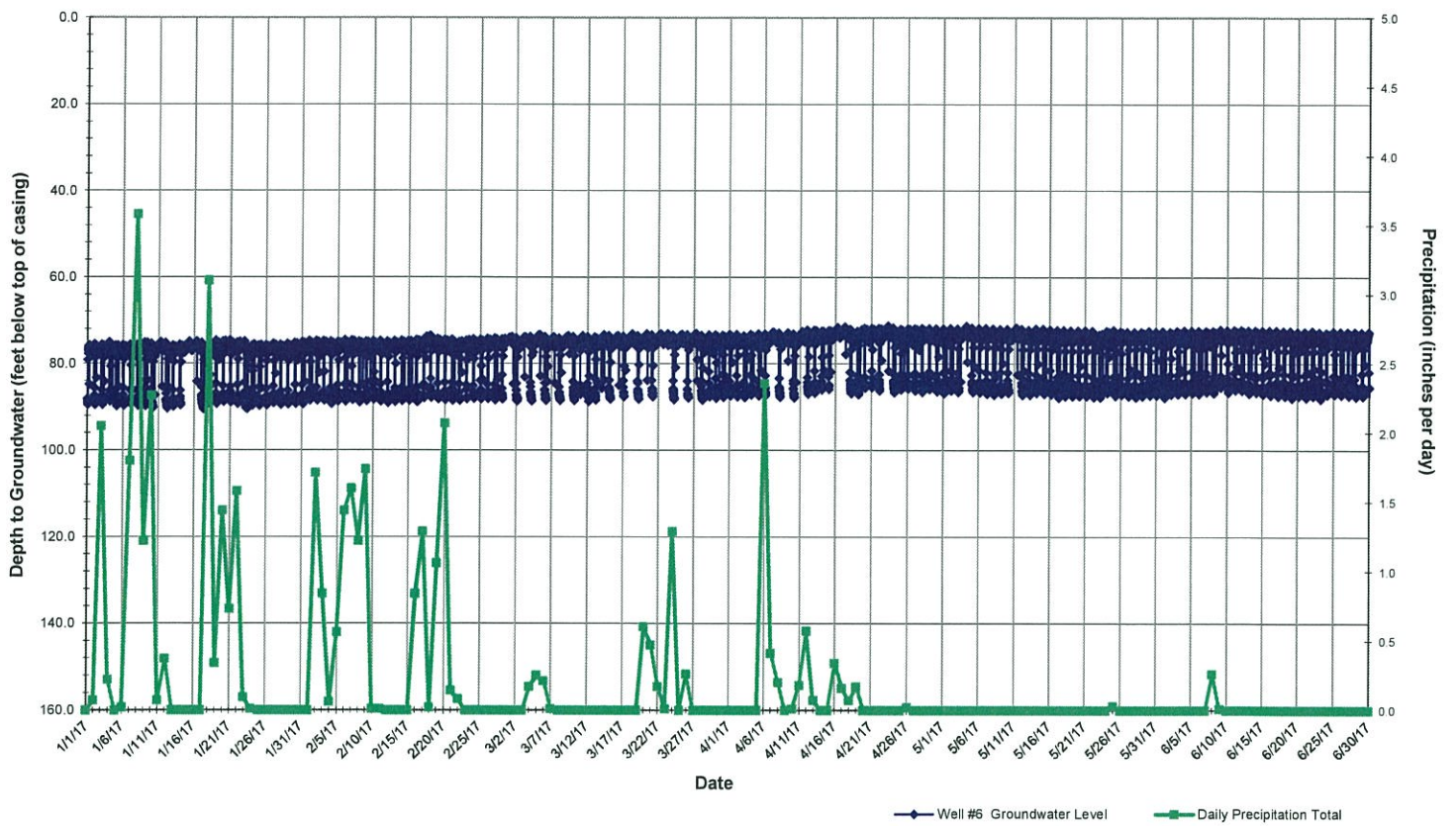
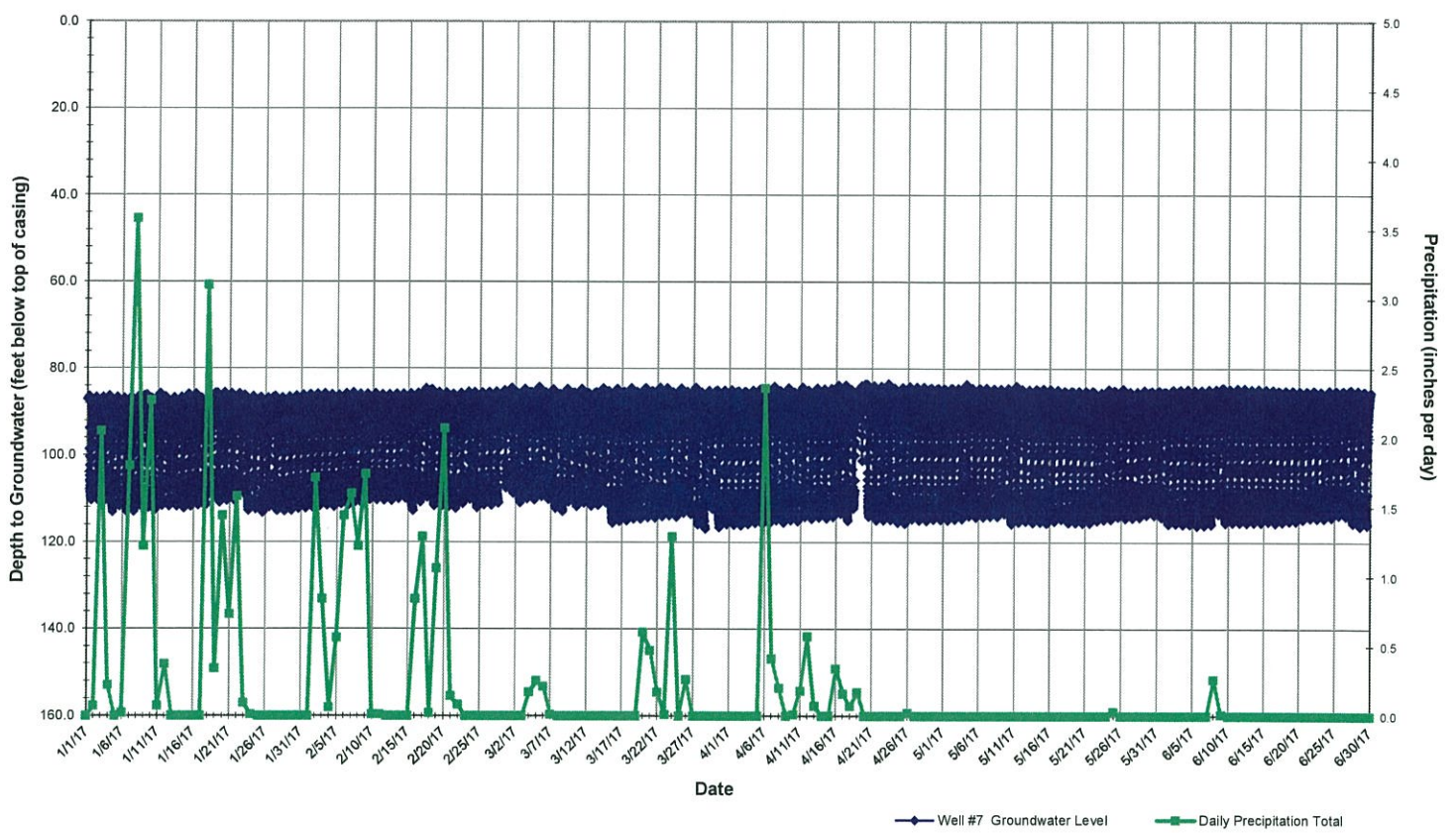
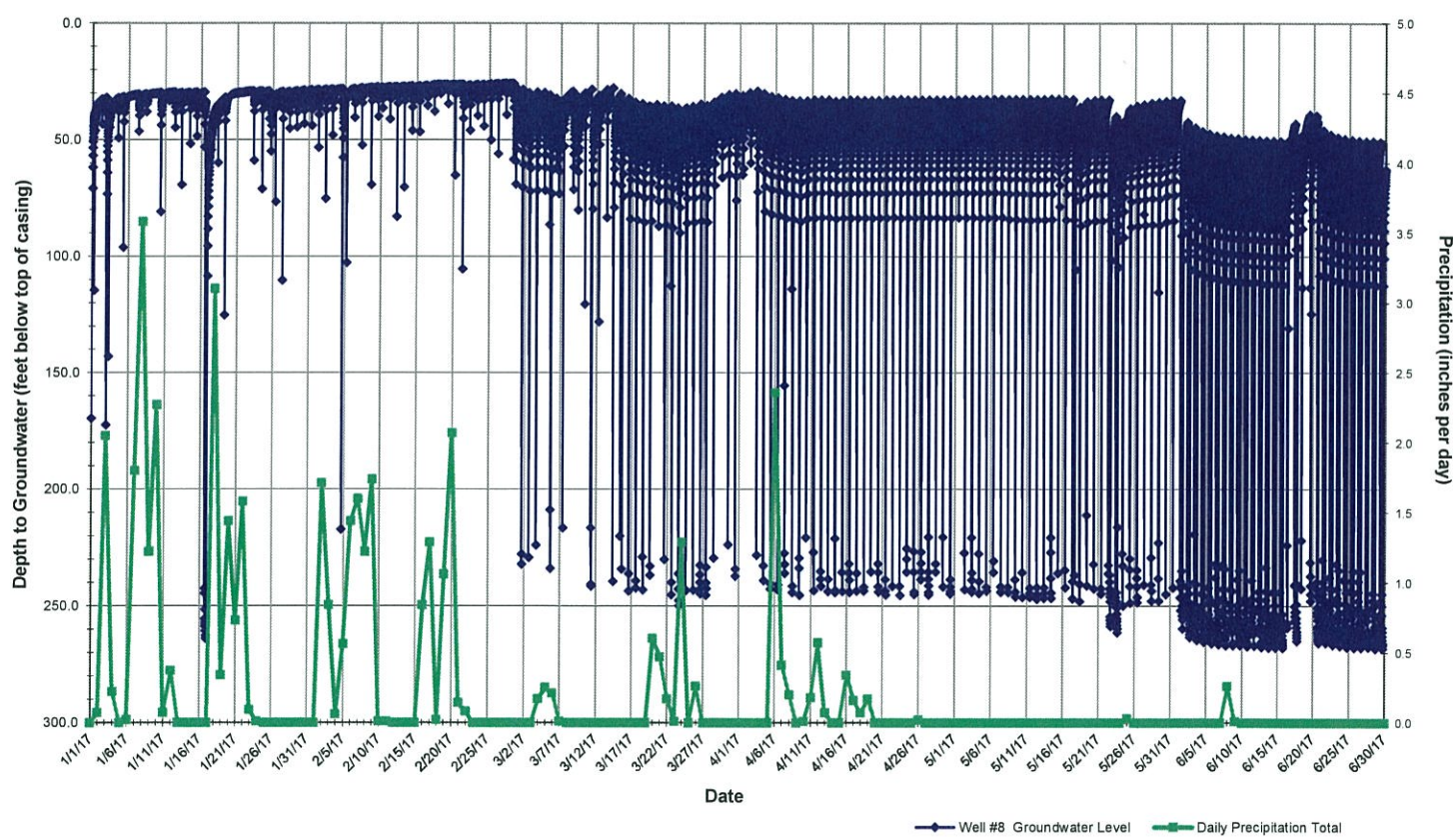


Plate 4
Groundwater Level Hydrograph - Well #7
City of Sebastopol Municipal Wellfield
Sebastopol, California







November 14, 2017

954.001.03.002

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

**Re: Groundwater Level Data Transmittal
Third Quarter 2017
City of Sebastopol
Sebastopol, California**

Dear Mr. Del Prete:

This data transmittal has been prepared by PES Environmental, Inc. (PES) on behalf of the City of Sebastopol (City) to summarize the results of the groundwater level monitoring program performed in the third quarter of 2017 (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; and (3) preparing groundwater level hydrographs.

Groundwater Level Measurements

Groundwater level data collected for the third quarter included groundwater elevations from five City production wells: inactive municipal Well #5, and active municipal Wells #4, #6, #7, and #8. These wells are equipped with Solinst Inc., electronic submersible "LT Edge Levellogger" absolute (i.e., un-vented) pressure transducers and data logger systems. Additionally, a Solinst Inc., "LT Edge Barologger" is installed within Well #4 to provide baseline data for barometric compensation. The pressure transducers/data loggers are programmed to record pressure-head measurements at 20-minute intervals for active wells and at 60-minute intervals for inactive wells.

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 July 6, 2017. The respective manual groundwater level measurements on July 6, 2017 for Wells #4, #5, #6, and #8 were 72.7, 49.5, 74.0, 109.7, and 205.6 feet below top of casing.

Mr. Dante Del Prete
November 14, 2017
Page 2 of 2

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, no measurable precipitation was recorded in July and August, and a total of 0.03 inches of rain was recorded in September.

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 level trend analysis, groundwater level 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 a trend of stability and/or slight decline, which appear to correlate with the seasonal decrease in precipitation and associated decline in groundwater recharge.

CLOSURE

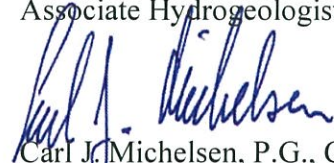
PES appreciates the opportunity to be of service to the City and in providing assistance with the subject Groundwater Level Monitoring Program. Should you have any questions regarding this information, please call PES at (415) 899-1600.

Yours very truly,

PES ENVIRONMENTAL, INC.



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



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

cc: Henry Mikus – 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

TABLE

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

Day	Daily Precipitation Totals (inches)		
	Jul-2017	Aug-2017	Sep-2017
1	--	--	--
2	--	T	--
3	--	--	--
4	--	T	T
5	--	--	--
6	--	--	--
7	--	--	0.02
8	--	--	--
9	--	--	--
10	--	--	--
11	--	--	T
12	--	--	T
13	--	--	0.01
14	--	--	--
15	--	--	--
16	--	--	--
17	--	--	--
18	--	--	--
19	--	--	--
20	--	--	--
21	--	--	--
22	--	--	--
23	--	--	--
24	--	T	--
25	--	--	--
26	--	--	--
27	--	--	--
28	--	--	--
29	--	--	--
30	--	--	--
31	--	--	na
Total (inches)	0.00	0.00	0.03
Total Precipitation (in inches) for July through September: 0.03			

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

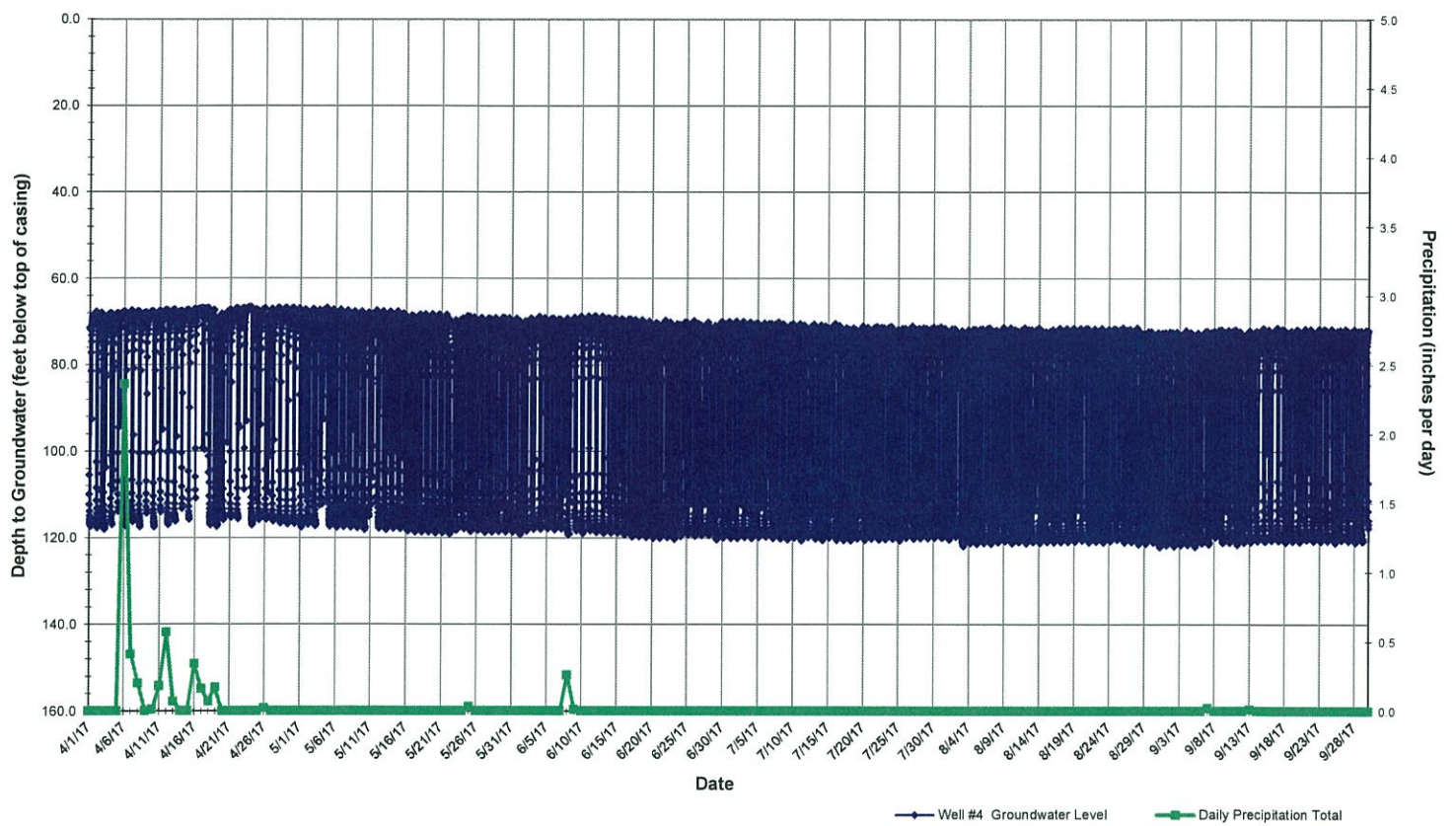


Plate 2
Groundwater Level Hydrograph - Well #5
City of Sebastopol Municipal Wellfield
Sebastopol, California

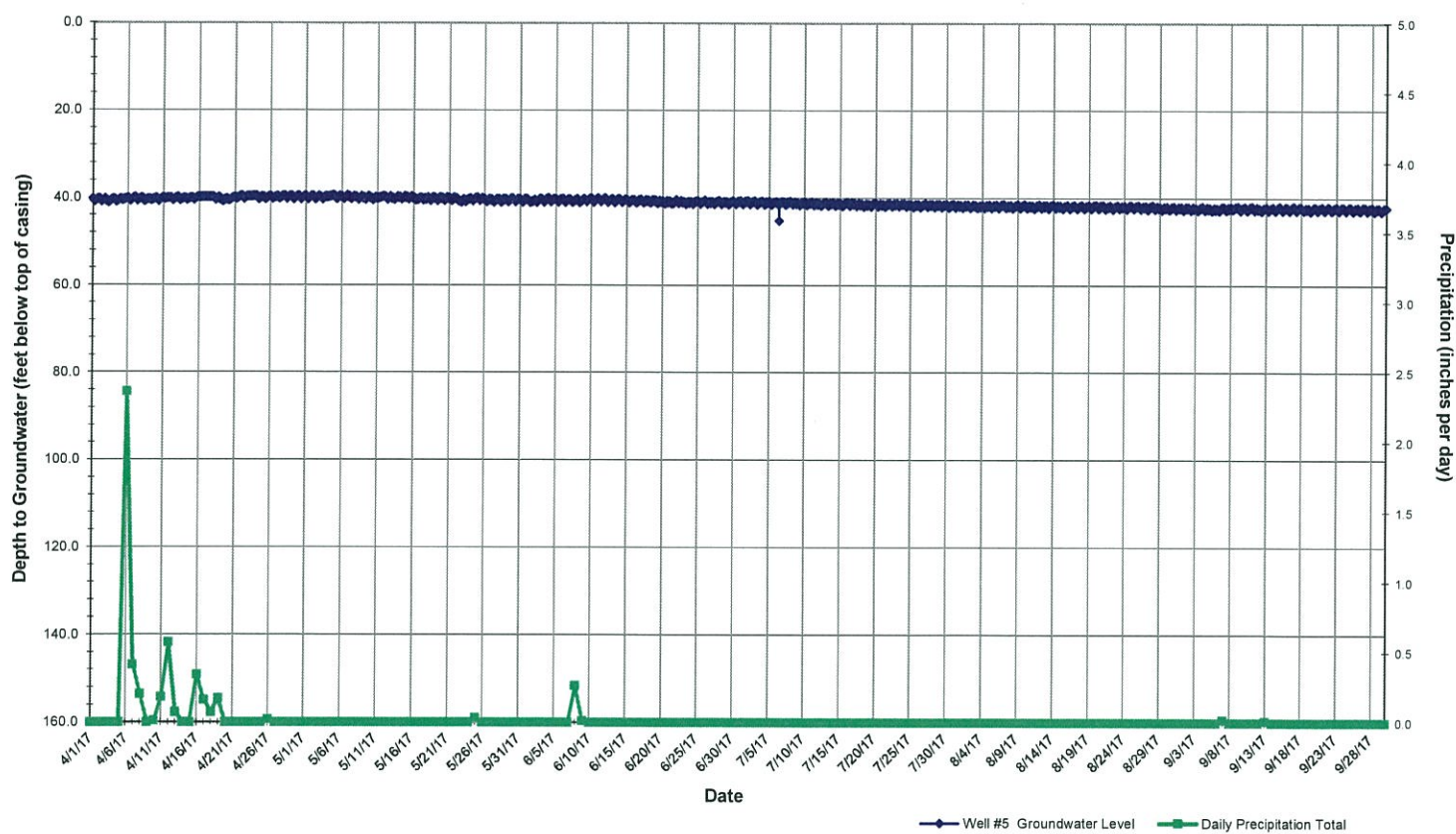


Plate 3
Groundwater Level Hydrograph - Well #6
City of Sebastopol Municipal Wellfield
Sebastopol, California

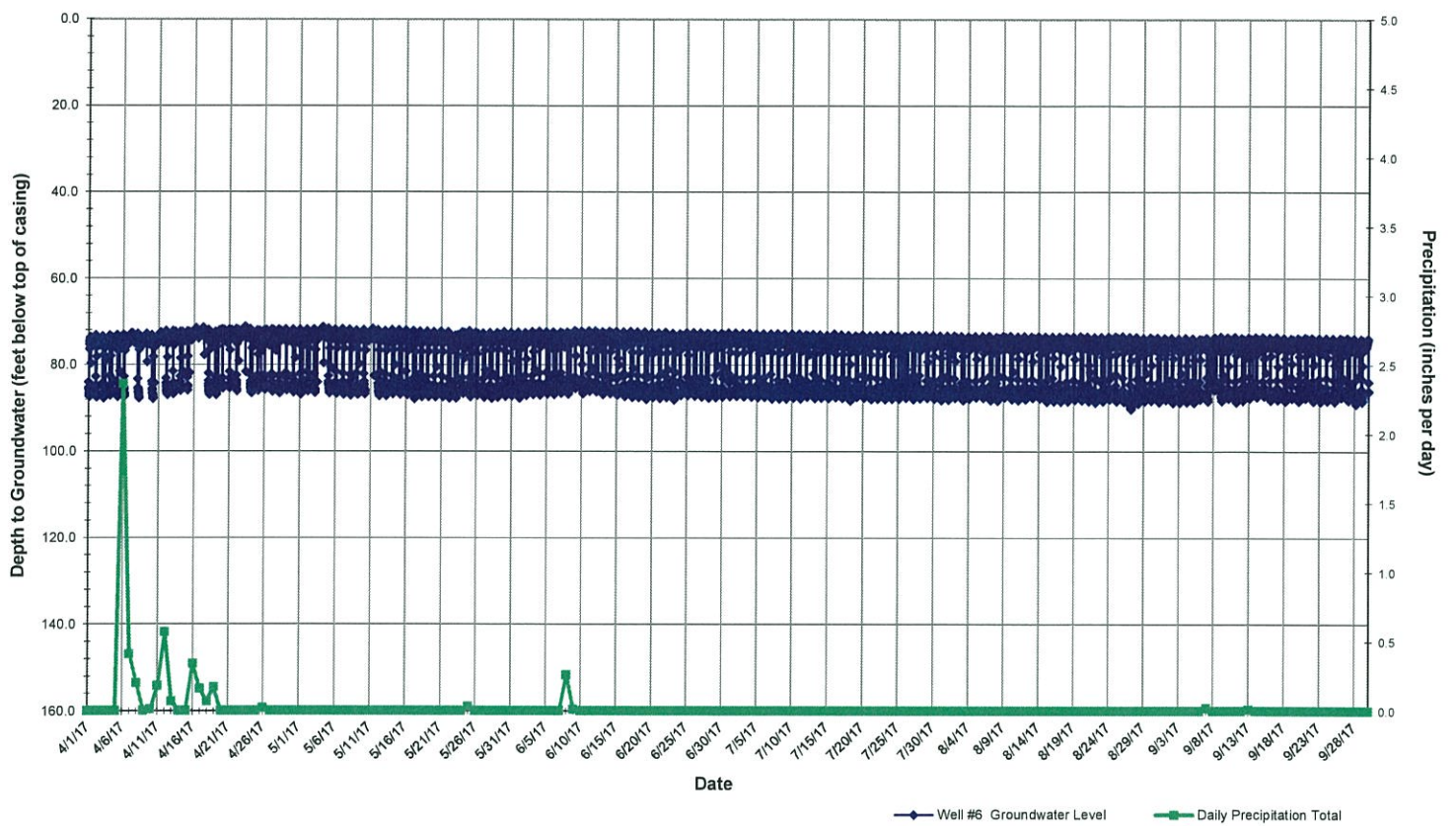


Plate 4
Groundwater Level Hydrograph - Well #7
City of Sebastopol Municipal Wellfield
Sebastopol, California

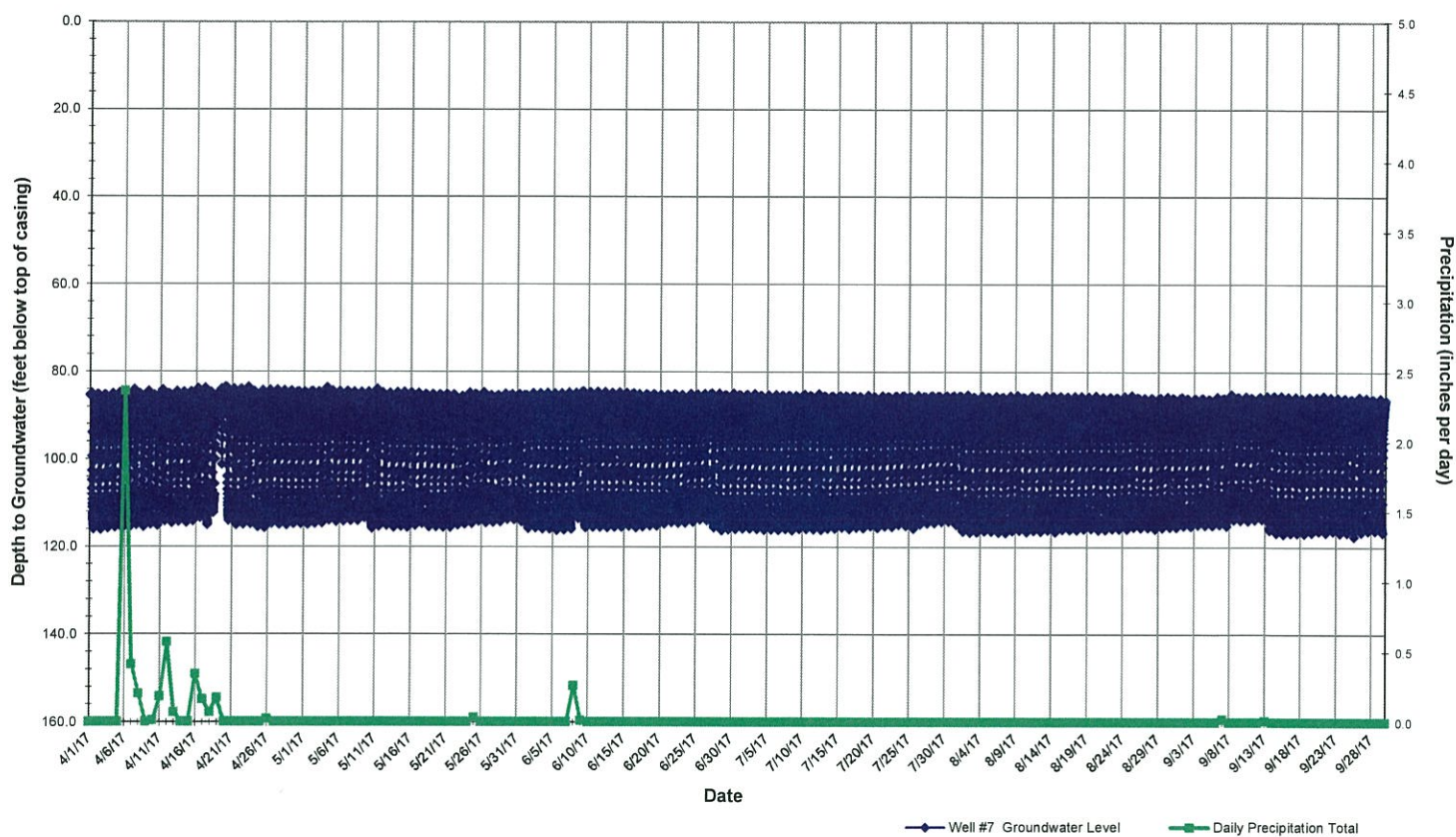
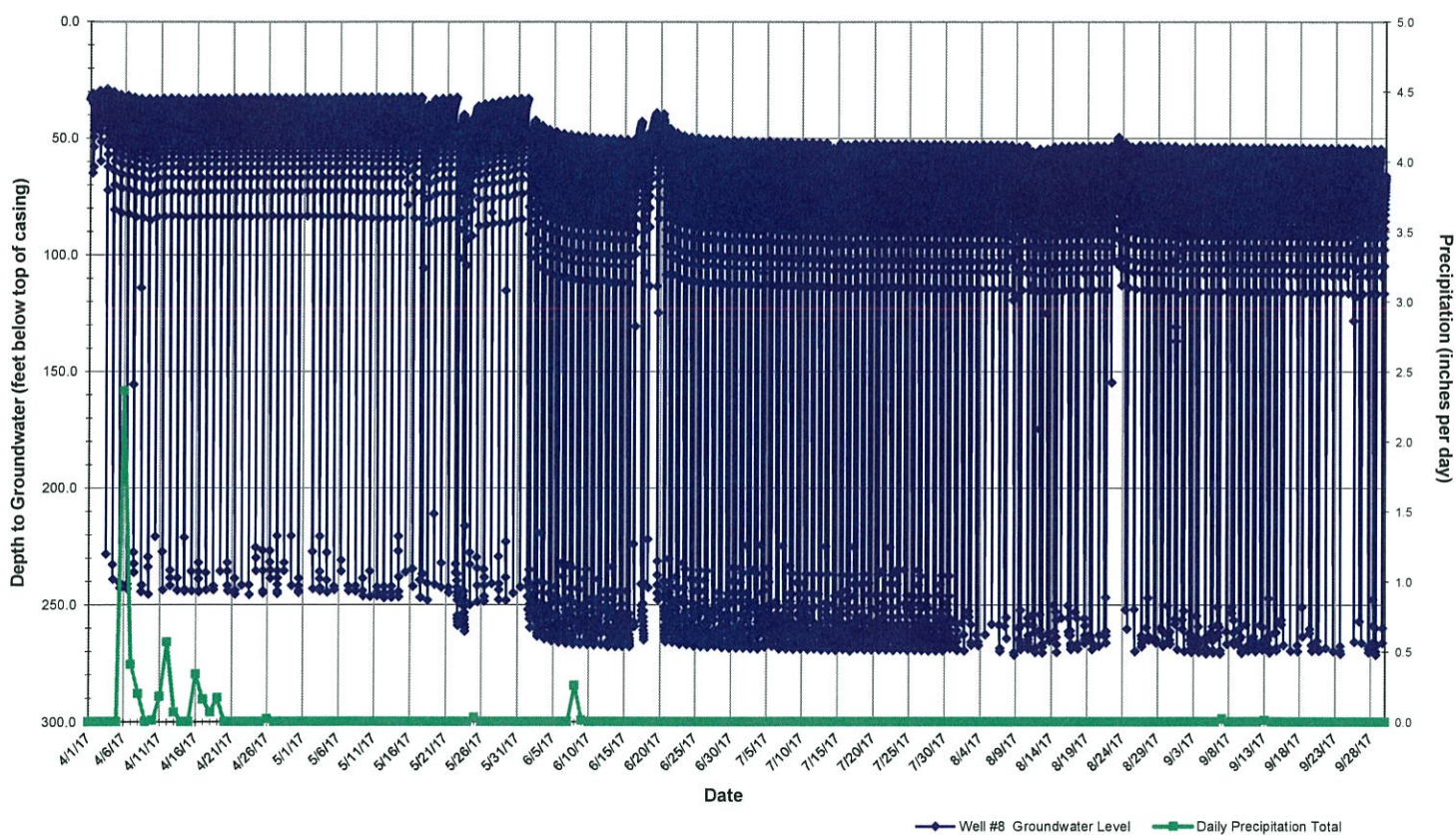


Plate 5
Groundwater Level Hydrograph - Well #8
City of Sebastopol Municipal Wellfield
Sebastopol, California





February 14, 2018

954.001.03.002

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

**Re: Groundwater Level Data Transmittal
Fourth Quarter 2017
City of Sebastopol
Sebastopol, California**

Dear Mr. Del Prete:

This data transmittal has been prepared by PES Environmental, Inc. (PES) on behalf of the City of Sebastopol (City) to summarize the results of the groundwater level monitoring program performed in the fourth quarter of 2017 (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; and (3) preparing groundwater level hydrographs.

Groundwater Level Measurements

Groundwater level data collected for the third quarter included groundwater elevations from five City production wells: inactive municipal Well #5, and active municipal Wells #4, #6, #7, and #8. These wells are equipped with Solinst Inc., electronic submersible "LT Edge Levellogger" absolute (i.e., un-vented) pressure transducers and data logger systems. Additionally, a Solinst Inc., "LT Edge Barologger" is installed within Well #4 to provide baseline data for barometric compensation. The pressure transducers/data loggers are programmed to record pressure-head measurements at 20-minute intervals for active wells and

Mr. Dante Del Prete
February 14, 2018
Page 2 of 3

at 60-minute intervals for inactive wells. 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 groundwater level measurements obtained manually using an electronic water level sounder.

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 6.31 inches of rain was recorded during the monitoring period, including 0.21 inches in October, 6.02 inches in November, and 0.08 inches in December.

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 level trend analysis, groundwater level 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 generally exhibit a trend of recovery, which appear to correlate with the seasonal increase in precipitation and associated increase in groundwater recharge.

CLOSURE

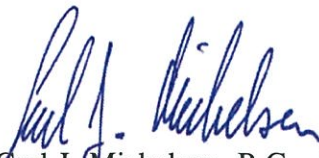
PES appreciates the opportunity to be of service to the City and in providing assistance with the subject Groundwater Level Monitoring Program. Should you have any questions regarding this information, please call PES at (415) 899-1600.

Yours very truly,

PES ENVIRONMENTAL, INC.



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



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

cc: Henry Mikus – City of Sebastopol

Mr. Dante Del Prete
February 14, 2018
Page 3 of 3

Attachments: Table 1 – Summary of Precipitation Totals

Plate 1 – Groundwater Level Hydrograph, Municipal Well #4

Plate 2 – Groundwater Level Hydrograph, Municipal Well #5

Plate 3 – Groundwater Level Hydrograph, Municipal Well #6

Plate 4 – Groundwater Level Hydrograph, Municipal Well #7

Plate 5 – Groundwater Level Hydrograph, Municipal Well #8

TABLE

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

Day	Daily Precipitation Totals (inches)		
	Oct-2017	Nov-2017	Dec-2017
1	--	--	--
2	--	--	0.04
3	--	0.34	--
4	--	0.11	--
5	--	T	--
6	--	--	T
7	--	--	T
8	--	1.02	--
9	--	0.11	--
10	--	0.39	--
11	--	--	--
12	--	0.01	--
13	--	0.85	--
14	--	--	--
15	--	1.53	T
16	--	0.33	--
17	--	T	--
18	--	--	--
19	0.21	0.01	0.04
20	--	0.22	T
21	--	--	--
22	--	--	--
23	--	0.01	--
24	--	--	T
25	--	T	--
26	--	0.96	--
27	--	0.13	--
28	--	--	--
29	--	--	--
30	--	--	--
31	--	na	T
Total (inches)	0.21	6.02	0.08
Total Precipitation (in inches) for October through December: 6.31			

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

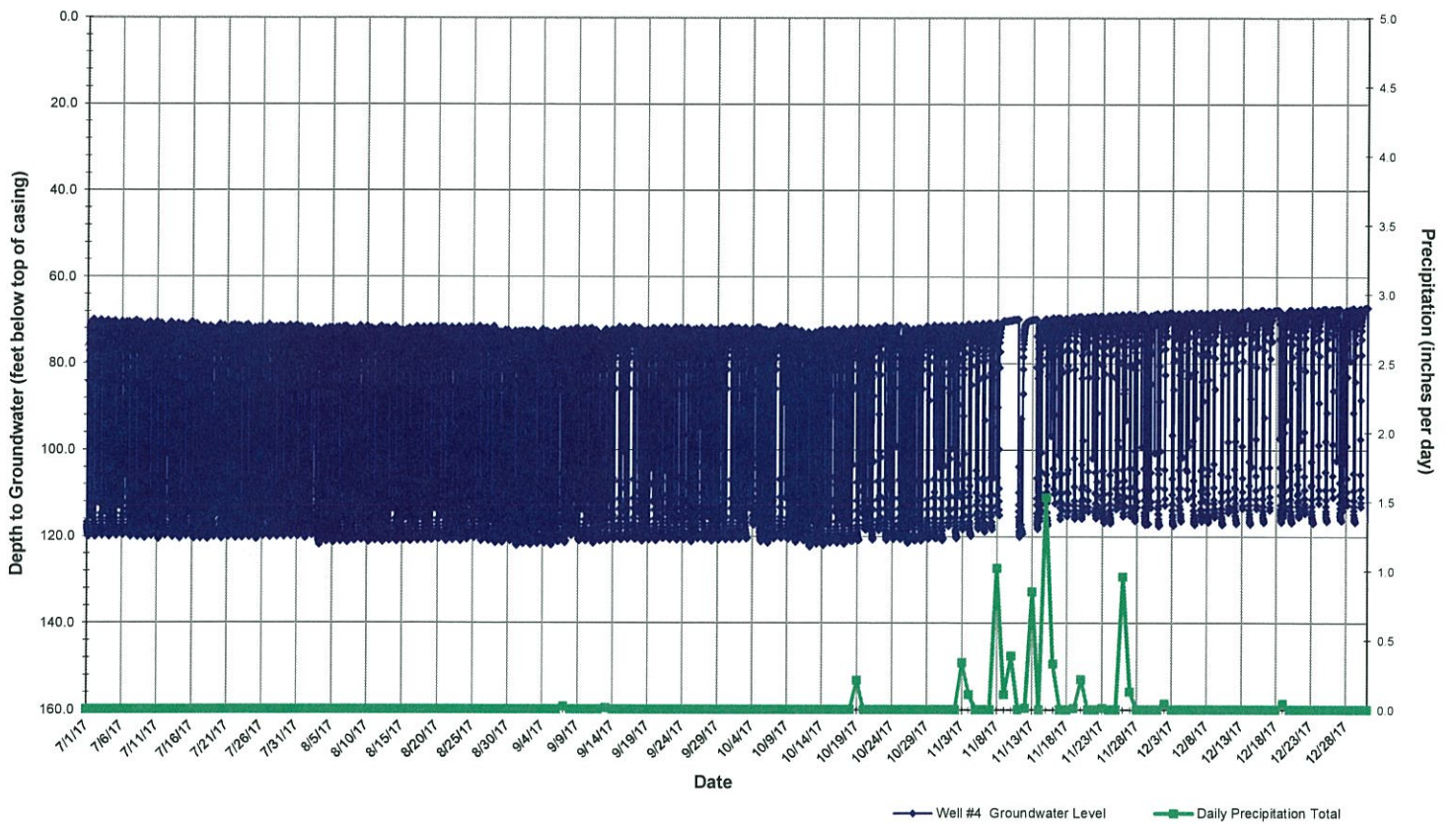


Plate 2
Groundwater Level Hydrograph - Well #5
City of Sebastopol Municipal Wellfield
Sebastopol, California

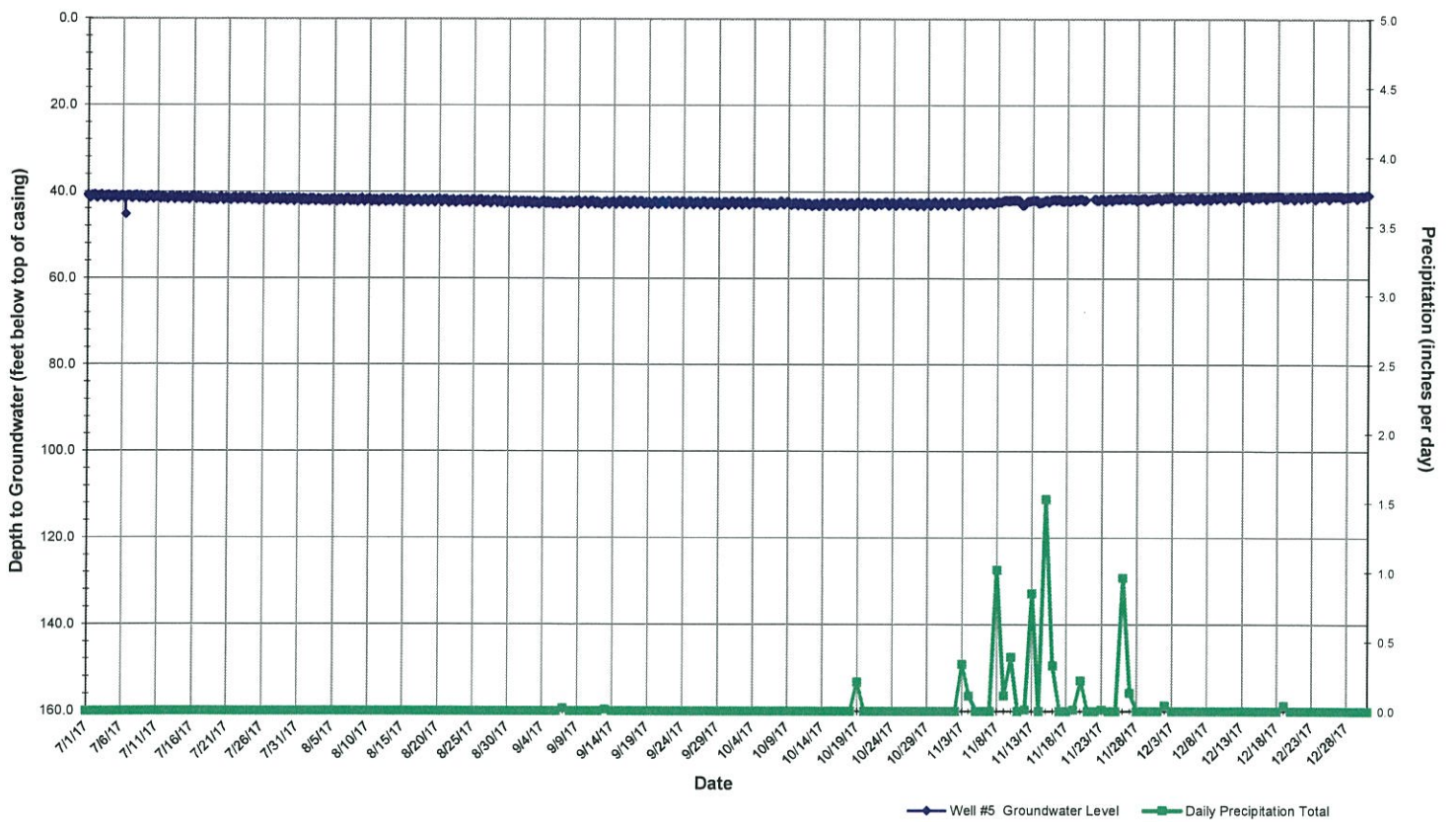


Plate 3
Groundwater Level Hydrograph - Well #6
City of Sebastopol Municipal Wellfield
Sebastopol, California

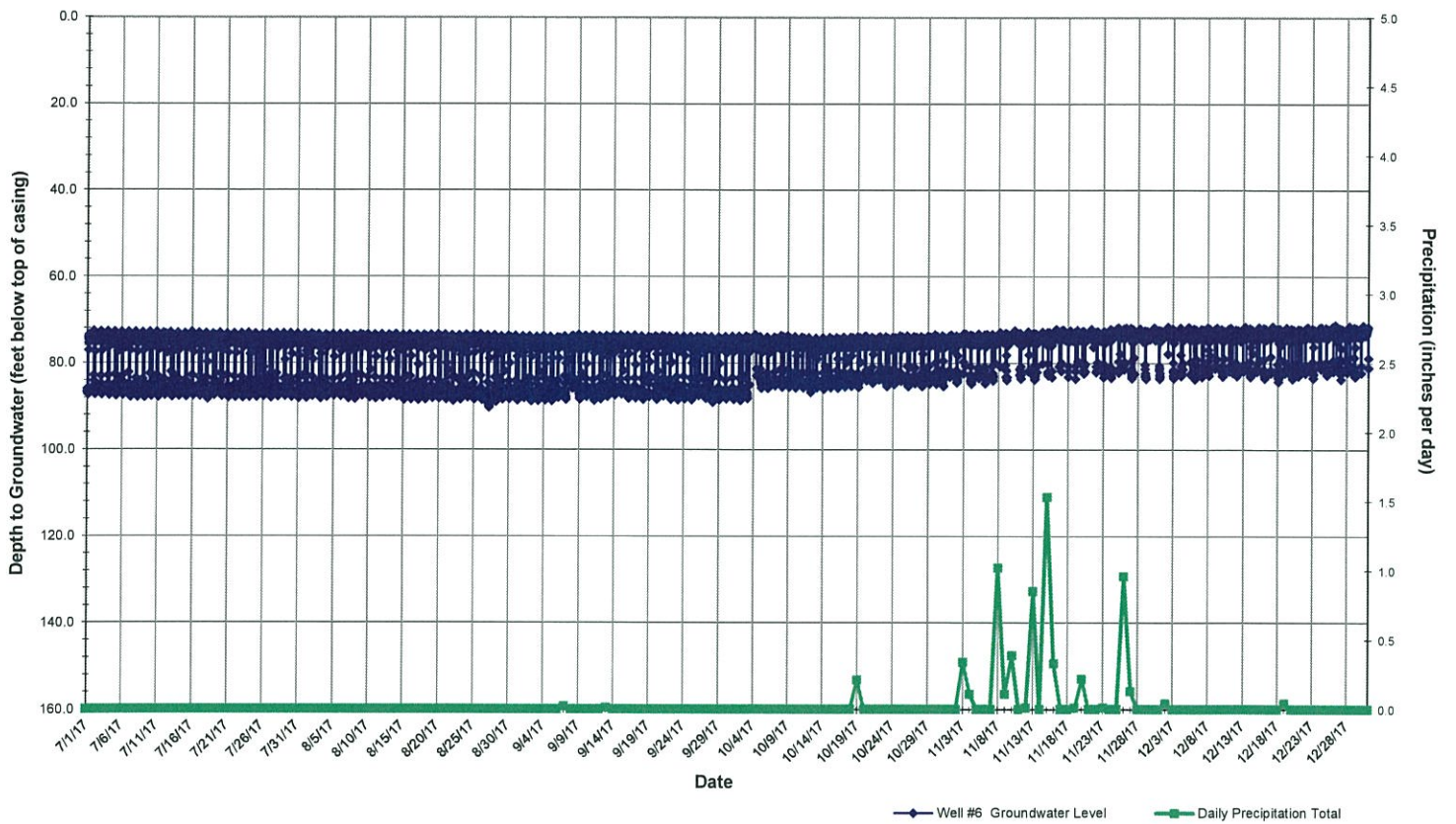


Plate 4
Groundwater Level Hydrograph - Well #7
City of Sebastopol Municipal Wellfield
Sebastopol, California

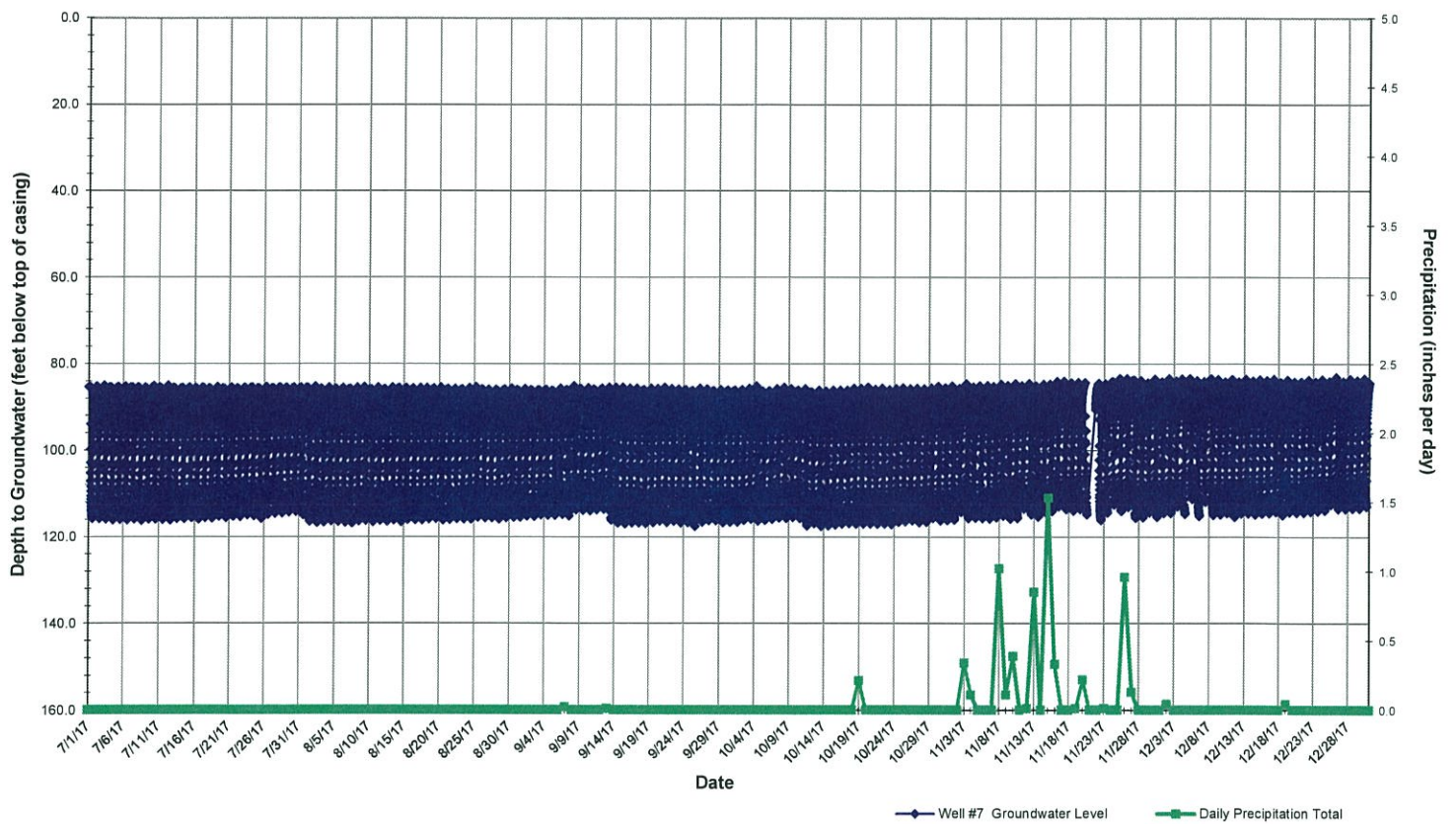


Plate 5
Groundwater Level Hydrograph - Well #8
City of Sebastopol Municipal Wellfield
Sebastopol, California

