

CITY OF SANTA ROSA
BOARD OF PUBLIC UTILITIES

TO: BOARD OF PUBLIC UTILITIES
FROM: JENNIFER BURKE, DEPUTY DIRECTOR – WATER AND
ENGINEERING RESOURCES
WATER DEPARTMENT

SUBJECT: EMERGENCY GROUNDWATER PROGRAM UPDATE

AGENDA ACTION: STUDY SESSION

RECOMMENDATION

This item is provided for the Board's information and no action will be taken. The Board may discuss this item and give direction to staff.

EXECUTIVE SUMMARY

Staff will present an update on the implementation of the Emergency Groundwater Program.

BACKGROUND

Prior to 1959, Santa Rosa's water supply was primarily groundwater. Since then, the City has contracted with the Sonoma County Water Agency (SCWA) for water supply from the Russian River. Currently, approximately 90-95% of Santa Rosa's water supply is purchased from SCWA with the remaining 5-10% coming from the City's Farmers Lane wells and recycled water.

In September 2003, the City Council directed Water Department staff to ask the Board of Public Utilities (BPU) to evaluate the role of local supply in meeting current and future water supply needs. In 2003, the BPU adopted Resolution No. 776 which directed Water Department staff to pursue development of water resources to provide reliable water supply through the General Plan Building Horizon; include development of local groundwater, additional recycled water use, additional supplies from SCWA and other sources as they become available; and evaluate water sources based on supply reliability, timing and environmental impact. After the passage of Resolution No. 776, Water Department staff developed a program to investigate and evaluate potential future emergency and production well sites, including funding groundwater planning, investigation studies, and the drilling of test borings.

In October 2011, the BPU approved the development of a Groundwater Master Plan to provide direction and recommended policies on Santa Rosa's use of current and future groundwater resources. In September 2013, the BPU adopted the City's Groundwater Water Master Plan (Master Plan) and associated Mitigated Negative Declaration and Mitigation Monitoring Program. The Master Plan provides a strategic road map for the City regarding how available groundwater resources could be most effectively used in a sustainable manner to meet the needs of the City's current and future customers. The Master Plan recommends implementation of near term actions in the first five years following adoption of the Plan, including:

- Providing and maintaining emergency groundwater pumping capacity to meet existing and future health and safety demands should the City's other water supplies become restricted or be shut down due to an emergency. The Master Plan initially identified the need to develop an additional 3.9 million gallons per day (MGD) of additional emergency groundwater supply to meet current health and safety needs in the event of an emergency and 8.4 MGD to meet buildout demands.
- Continuing the City's Emergency Test Well Siting Program
- Evaluating the feasibility of Aquifer Storage and Recovery (ASR) in localized areas of the City to meet localized needs.
- Constructing four emergency wells (two in Central City Master Zone, one in the vicinity of Martha and Slater test well sites to serve Central City Master Zone, and one in Oakmont/S-12 Master Zone) within the next 2 to 3 years.

On July 24, 2014, the BPU awarded a Master Professional Services Agreement (MPSA) to West Yost Associates for Emergency Groundwater Supply investigation, Well Siting, Design and Construction Management (CM) Services. Also on July 24, 2014, the BPU approved Project Work Order 1 for design of the first emergency well. On December 16, 2014, the BPU awarded PWO 2 under this MPSA for the preparation of three individual siting studies that focused on Oakmont, the Southwest Aquifer Zone and the Southeast Aquifer Zone and authorized the City Manager to sign future PWOs under this MPSA of up to \$500,000 and the Directors of Water and Transportation and Public Works to sign future PWOs under this MPSA of up to \$250,000.

PRIOR BOARD OF PUBLIC UTILITIES REVIEW

On September 19, 2013, the Board, by Resolution No. 1054, approved the Groundwater Master Plan and adopted a Mitigated Negative Declaration and Mitigation Monitoring Program for the Groundwater Master Plan.

On July 24, 2014, the Board, by motion, awarded a Master Professional Services Agreement (MPSA) to West Yost Associates for Emergency Groundwater Supply investigation, Well Siting, Design and Construction Management (CM) Services and approved Project Work Order 1 for design of the first emergency well.

On December 16, 2014, the Board, by motion, awarded PWO 2 under this MPSA for the

preparation of three individual siting studies that focused on Oakmont, the Southwest Aquifer Zone and the Southeast Aquifer Zone.

On December 15, 2016, the Board, by Resolution No. 1131, approved the acquisition of 618 Speers Road and adopted a mitigation and monitoring program.

ANALYSIS

Water Department staff began implementation of the Master Plan in 2014. Discussions began with Santa Rosa City Schools regarding the possibility of an easement to construction an emergency well at Montgomery High School. The School Board had several questions and concerns and Water Department staff began analyzing other potential locations in the vicinity of the Martha Way test boring. Water Department staff joined the discussions regarding the Southeast Greenway and is looking at the possibility of an emergency groundwater well(s) at the greenway, which is in the vicinity of Martha Way.

Water Department staff, working with our consultant West Yost Associates, has conducted siting studies for Oakmont, Southwest, Southeast and Rincon Valley areas. Based on the siting studies, there are limited options for siting an emergency well. During that time, additional analysis of 2014 and 2015 water demands was conducted and it was determined that an additional 7.1 MGD of emergency groundwater supply is needed to meet current health and safety needs in the event of an emergency and an additional 4.9 MGD, for a total of 12 MGD is needed to meet buildout demands.

Working with the BPU Groundwater Ad Hoc subcommittee in November 2015, Water Department staff identified a new strategy to convert four existing test borings located at A Place to Play, Madrone School, North West Community Park and Slater that showed decent production capacity to emergency groundwater wells. Conversion of these 4 test wells could provide approximately 2.3 MGD of emergency groundwater supply. Water Department and Transportation and Public Works staff are currently working on the design to convert A Place to Play test boring to an emergency well and working with the Rincon Valley School District to convert the Madrone School test boring to an emergency well.

Based on the Rincon Valley siting study, a parcel along Speers Road was identified as a possible location for an emergency well. Based on the siting study, this appears to be a good water bearing area of the aquifer, however until a test boring is drilled we don't know what the potential production capacity will be. On December 15, 2016, the Board adopted resolution no. 1131, approving the acquisition of 618 Speers Road and adopted a mitigation and monitoring program. An initial letter describing the proposed emergency groundwater well project was sent to residents within a 300-foot radius of 618 Speers Road on March 27, 2017. Based on the comments and questions received in response to the initial letter, the City hosted a community meeting on May 3, 2017. Based on continuing concerns expressed by the residents in the area of the proposed

emergency well, a second community meeting is being scheduled on June 21st from 6 to 8:30PM at the Rincon Valley Library.

Staff will provide an update on the current status of the projects related to the Emergency Groundwater Program.

FISCAL IMPACT

The Study Session is for information only and no action is being taken. Therefore, there is no fiscal impact from the Study Session.

ENVIRONMENTAL IMPACT

On September 19, 2013, the Board adopted Resolution 1054 which adopted the City's Mitigated Negative Declaration (MND) and Mitigation Monitoring Program for the Santa Rosa Groundwater Master Plan and approved the City of Santa Rosa Groundwater Master Plan.

BOARD/COMMISSION/COMMITTEE REVIEW AND RECOMMENDATIONS

Not applicable.

ATTACHMENTS

- Attachment 1 – Board of Public Utilities Resolution No. 1054
- Attachment 2 - Board of Public Utilities Resolution No. 1131

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