



CITY COUNCIL STAFF REPORT

TO: Honorable Mayor and City Council **DATE:** January 9, 2017

FROM: Matthew Bronson, City Manager

PREPARED BY: Greg Ray, Public Works Director/City Engineer
Gayla Chapman, Administrative Services Director

SUBJECT: Water Supply Update and Utility Rate Study Findings and Recommendations

RECOMMENDATION

Receive update and provide comments on water supply information; provide feedback and direction to develop a final Letter of Intent for the Recycled Groundwater Sustainability Project for Council action on February 6, 2017; and receive Utility Rate Study findings and recommendations and provide direction to implement the Proposition 218 noticing process for holding a public hearing on March 6, 2017 on changes to Water and Wastewater utility rates.

BACKGROUND: WATER SUPPLY

The City has two principal water sources: Lopez Lake and the Santa Maria Groundwater Basin. At present, the total amount of water legally or contractually available to the City is 2,207 acre-feet per year. This amount is comprised of the following:

<u>Water Source</u>	<u>Acre-Feet</u>
Groundwater allocation	1,407
County Zone 3 (Lopez Lake)	<u>800</u>
Total	2,207

In 2007, the City's annual water demand peaked at nearly 2,100 acre-feet. Demand gradually declined until the Council enacted Stage 3 water shortage mandatory conservation measures in 2014 due to drought conditions. Demand subsequently decreased sharply in 2014 and is trending toward approximately 1,100 acre-feet per year which is approximately 50% of the City's total allocation. The City is continuing to realize significant reductions in water demand primarily as a result of Council's adoption of water conservation incentives and regulations such as a mandatory 10% reduction in water use and a number of water use prohibitions and incentives including the Cash-for-Grass and Toilet Retrofit programs.

The Council has adopted long-range water supply policies designed to assure adequate water supply is available for anticipated future development and population growth. Given current demand trends, it appears the City will have sufficient water supply for all anticipated future growth scenarios. However, current and persistent drought conditions have reduced the short-term reliability of the City's water supply. The status of each supply source is discussed in detail in the following sections.

Lopez Lake. Recent lake level measurements indicate that storage in Lopez Lake is at just over 11,000 acre-feet, or 22.3% of the total storage capacity. Recent rains have not produced any additional storage but have slowed the decline in storage. It is anticipated the lake will reach 10,000 acre-feet of storage in early 2017 which triggers a 20% reduction in supply in accordance with the Low Reservoir Response Plan (LRRP). The LRRP is an adaptive management plan approved by the Zone 3 agencies and the County that reduces water deliveries and downstream releases in response to various reservoir storage levels. The intent of the LRRP is to conserve lake storage for an extended period allowing agencies to rely on that storage as part of their emergency supply planning. The County has estimated the City will carry over approximately 180 acre-feet of its allocation at the beginning of the 2017 water year (April 1, 2017). The County is also estimating the City may receive 100 acre-feet of new allocation resulting in approximately 280 acre-feet of City allocated storage. Based on these allocations and current City deliveries of Lopez water, the City can rely on water from Lopez Lake until approximately July 2017. The Zone 3 agencies and the County are working together to identify measures to make remaining supplies available beyond that date and additional rainfall in early 2017 could also extend the remaining supply.

Groundwater Supply. On behalf of the City, and as required by the Santa Maria Groundwater Basin Adjudication, consultants have completed extensive monitoring of the groundwater basin and prepared the Northern Cities Management Area (NCMA) Annual Report that is filed with the Court. The monitoring is conducted to document how the groundwater system is responding to annual rainfall and the extraction of water by urban and agricultural entities. The monitoring includes four wells located near the coast and is intended to provide early warning of seawater intrusion. More detail is provided in the NCMA Annual Report which is available at the customer service counter at City Hall and on the City's website at:

<http://www.grover.org/DocumentCenter/Home/View/1893>.

Compared to this time last year, groundwater levels in most of the monitoring wells are currently an average of 0.5 feet higher. Reductions in groundwater pumping by the NCMA water purveyors which includes Grover Beach, Arroyo Grande, Pismo Beach and Oceano appear to have stabilized the decline in groundwater elevations. The NCMA agencies identified an average monitoring well level of 7 feet as the trigger point for concern of seawater intrusion and the current average well level is 5.64 feet. The average level has remained below the 7 foot trigger for approximately six months in each of the last three years which is cause for additional concern. Groundwater levels are not expected to rebound without several years of above average rainfall. The NCMA Technical Group has implemented a strategy to reduce groundwater pumping by shifting to the extent possible to utilization of surface water. This regional strategy was employed by the NCMA municipal water purveyors beginning in 2014.

The 2016 NCMA Annual Report will be available in May 2017. The 2015 Annual Report indicated that total water use in the basin was at 42% of the estimated 9,500 acre-feet per year safe yield. It is likely that overall demand has been approximately the same in 2016. However, even with the reduced demand, water elevations in some areas of the basin have remained below sea level and in 2015 were at record lows. Typically, when pumping is less than the safe yield, it results in increased groundwater in storage which results in higher groundwater levels. The current condition, with groundwater extractions at only 42% of the safe yield and yet record low groundwater elevations, illustrates the impacts of the ongoing drought that has significantly reduced recharge. This condition will be exacerbated if the NCMA agencies are required to increase their dependency on groundwater withdrawals due to reductions or interruptions in other water supplies or if excessive pumping continues in the Nipomo Mesa area.

Water Conservation. Water conservation is the most cost effective and feasible water supply option currently available. Conservation reduces demand on existing water supplies and can include permanent measures designed to assure adequate water is available for planned development and short-term measures designed to address short-term supply deficiencies such as drought. Recent conservation efforts have yielded an average reduction of 35% in the City's water production compared to 2013 which amounts to a water use savings of approximately 730 acre-feet per year. This is particularly significant considering the City's normal Lopez Lake supply is just 800 acre-feet per year.

The current conservation efforts were initiated as a short term water supply action in accordance with the City's Water Shortage Contingency Plan based on four stages of action:

- Stage 1 which is primarily educational;
- Stage 2 which identifies voluntary water conservations measures and use prohibitions;
- Stage 3 which mandates a 10% reduction in water use, mandatory water conservation measures and use prohibitions; and
- Stage 4 which mandates a 25% reduction in water use, mandatory water conservation measures and use prohibitions.

Stage 3 was enacted by City Council in 2014 and the effects of this declaration have stabilized. During the last eight months, residential water use on a per-capita basis has ranged between 70 and 80 gallons per person per day. 55 gallons per person per day is considered to be the low threshold for water use and is generally only achieved through severe restrictions on water use. It is unlikely a Stage 4 declaration would reduce per-capita water use significantly unless there were additional restrictions on outdoor water use and more severe restrictions that could affect businesses.

Emergency Water Supply Options. Given the City's record low water levels, there is greater risk of a water supply interruption. In response to a sudden loss of water supply, the Council would either need to enact severe restrictions on water use or secure an emergency water supply. The most feasible short-term option would be the purchase of temporary water supplies from other local water purveyors. City staff has been meeting with representatives of all of the municipal water purveyors in San Luis Obispo County to discuss the mechanics and advanced arrangements necessary to allow for water transfers between agencies. On May 16, 2016, the Council provided direction to work with County staff to secure an emergency allocation of state water from the County. The County has made significant progress toward making an emergency allocation available and is currently estimating the final steps will be completed in March 2017. The final cost to the City has yet to be determined but early discussions with the County suggest the water may be available for approximately \$2,000 per acre-foot compared to the current cost of groundwater production which is approximately \$350 per acre-foot and Lopez water which is approximately \$1,430 per acre-foot. It is still unclear whether the City would need to commit to and purchase the water in advance or if water could be charged based only on actual delivery.

Staff is recommending the Council consider the purchase of between 600 and 900 acre-feet to replace existing supplies if needed and in order to avoid severe water use restrictions. If the City had to commit to and purchase the water in advance, the result would be a cost of between \$1.2 million and \$1.8 million per year but would be partially offset by reduced production from other sources. The actual impact to ratepayers was reflected in the Utility Rate Study conducted by Willdan Financial Services.

Long-Term Supplemental Water Supply Options. Based on Council direction, staff is continuing to pursue cooperative efforts on regionally focused and long-term supplemental water supply options. The following is an update on the options being considered:

Regional Groundwater Sustainability Project. In 2015, the City of Pismo Beach began preparing a preliminary design and an environmental impact report for an advanced treatment upgrade to its existing Wastewater Treatment Plant (WWTP). The preliminary design includes construction of a distribution system that could inject treated water into the groundwater basin. This proposed project could allow Pismo Beach and other local agencies to increase the recharge to the basin, improve water supply reliability and help prevent seawater intrusion. The projected yield is 700 acre-feet per year initially but could be expanded to 1,000 or more acre-feet per year. Options for location of an advanced treatment facility include the existing site of the Pismo Beach wastewater treatment plant, the South San Luis Obispo County Sanitation District (SSLOCSD) wastewater treatment plant site and locations within Oceano and Grover Beach. The advanced treatment plant could be completed as early as 2019.

Over the past several months, the Pismo Beach efforts have been combined with work being conducted by the SSLOCSD which are now identified as Phase 1 of a regional recycled water project called the Regional Groundwater Sustainability Project (RGSP). Mayor Shoals, Council Member Lee, and City staff have participated in stakeholder meetings with representatives from Pismo Beach, Arroyo Grande, and SSLOCSD along with outside consultants. The NCMA technical group has also solicited and received a commitment from the County to support development of a groundwater model that will provide information necessary to complete the recycled water project. In addition, the Regional Water Quality Control Board has approved a plan to use Supplemental Environmental Project (SEP) funds from the SSLOCSD wastewater violation settlement toward development of the model. On December 20, 2016, Mayor Shoals, Council Member Nicolls and City staff toured an advanced treatment facility located in Marina to see such a facility in person and to become informed on how local agencies in the Monterey area combined their efforts to develop a project similar to the RGSP.

As the next step in this project, Pismo Beach has developed a draft Letter of Intent (see Attachment 1) for other local agencies to formalize their participation in the RGSP. The letter seeks a commitment of cooperation and coordination from participating agencies and assurances that Pismo Beach would be reimbursed for costs associated with development of the groundwater model in the event the costs are not reimbursed by the County and/or the SEP funds. The letter also identifies agency support for development of a regional governance structure and cost-sharing agreement. City staff is working with staff in other agencies to review the draft letter and is seeking feedback and direction from Council to continue this work in developing a final Letter of Intent for Council action on February 6, 2017.

SSLOCSD Recycled Water Facilities Planning Study. The SSLOCSD and the City of Arroyo Grande partnered on a Recycled Water Facilities Planning Study (RWFPS) to evaluate potential opportunities to upgrade the SSLOCSD wastewater treatment process to provide water for agriculture irrigation or groundwater recharge. The RWFPS began to evaluate construction of upgrades at the existing SSLOCSD treatment plant or developing an offsite advanced treatment facility, co-located with the previously mentioned project led by the City of Pismo Beach. According to the Regional Recycled Water Study (Cannon 2014), a combined advanced treatment facility could possibly provide 2,400 acre-feet per year of water to recharge the groundwater basin. The amount of water that could be drawn from the basin as a result has yet to be determined but initial estimates are in the range of 70% or approximately

1,700 acre-feet per year. For comparison, the total groundwater demand in the NCMA portion of the groundwater basin is currently at approximately 3,980 acre-feet per year. Staff is recommending that this study effort be modified to support development of the RGSP.

Diablo Desalinization. The County of San Luis Obispo was previously working with PG&E and the Zone 3 member agencies to evaluate the feasibility of utilizing the existing desalination infrastructure at the Diablo Canyon Power Plant to produce additional water that could be delivered to the Lopez pipeline. The initial evaluation indicated that it is feasible to construct a pipeline from the desalination facility to the Lopez pipeline and deliver up to 1,300 acre-feet per year of water to the Zone 3 member agencies. As part of the announced closure of the plant, PG&E indicated that the desalinization project would not proceed as planned and thus the County has notified the City that the project is on hold.

BACKGROUND: UTILITY RATE STUDY

In 2016, the City contracted with Willdan Financial Services following a Request for Proposals process to conduct a Utility Rate Study for both water and wastewater rates. The last rate study was conducted in 2010 by Tuckfield and Associates and the last wastewater study in the mid-1990s. A rate study should be conducted at least every five years to ensure the City will have sufficient water and wastewater revenues to meet ongoing operational and capital obligations. The City will adhere to such a schedule for future studies.

City staff has worked with Robert Ryall from Willdan Financial Services to produce this comprehensive review of the City's utility rates. The work has been extensive in reviewing current water and wastewater rates and identifying future operating and capital costs needed for the Water and Wastewater Enterprise Funds. The desired outcome of this study was to ensure that the rates are sufficient to cover costs associated with ongoing maintenance and operations of the enterprise funds, cover anticipated capital improvement costs, and create reserves equal to at least six months of annual maintenance and operations expenditures which is an industry standard.

The study report is included as Attachment 2 and Mr. Ryall will be at the Council meeting to present the findings and recommendations. The key elements of the study included: 1) Revenue Requirements Analysis; 2) Cost of Service; and 3) Rate Design. The initial results of the study indicated that revenues generated from existing water rates have not kept up with operating and capital improvement needs as rates have not increased beyond a standard inflationary factor (e.g. 2-3%) based on the Consumer Price Index since 2010. There is an estimated \$5.4 million in infrastructure needs in the water system with no funding source identified. Furthermore, water conservation and the related reductions in water sales have resulted in reduced income to the Water Fund. Fixed costs for operations and maintenance have been reduced to the extent practicable but an unfortunate outcome of water conservation is that fixed costs are becoming an increasingly larger proportion of customer water bills. The impacts of conservation and emergency water supplies are considered in the Utility Rate Study.

As a result, the study recommends multi-year increases in water rates beginning at 25% in April 2017 and then another 25% increase in October 2017 before 5% increases in each of the subsequent three years. Each of the two 25% increases will cost the average residential customer approximately \$10 more per month. The recommended rates are also based on flat volumetric rates given recent case law requiring costs justification for use of tiered water rates. The recommended rates include both a meter charge to reflect the fixed costs of operation and

maintenance and a usage charge based on variable costs per 100 cubic feet. In addition, wastewater rates are recommended to increase by 5% annually over the five-year period to provide funding for \$1.9 million in wastewater infrastructure needs.

The study report identifies how current and recommended utility rates in Grover Beach compare with other cities in the county. Bi-monthly utility rates are currently \$126 for the average residential customer which is the lowest rate in the county and significantly below the bi-monthly countywide average of \$180. While the recommended 25% water rate increases are sizeable, the bi-monthly utility rates in October 2017 after these two increases would remain below the countywide average at \$172.

Staff is requesting Council direction to proceed with implementing the Proposition 218 noticing process for holding a public hearing on changes to the Water and Wastewater utility rates. Notices would be sent out to customers to inform them of the recommended rate increases and the date of the public hearing, which is scheduled for the March 6, 2017 Council meeting. Pending the public hearing and subsequent Council action, the new rates would go into effect on April 1, 2017. While the emergency state water supply rates would also be included in the noticing process, these rates would not go into effect on April 1 as staff would return to the Council in late spring/early summer to consider formal purchase of state water and implementation of related rates.

FISCAL IMPACT

The Utility Rate Study has identified insufficient revenues in the water and wastewater funds. Willdan Financial Services is recommending customer rate increases to address the existing revenue deficiencies, legal requirements including Proposition 218, and the impacts of conservation and emergency water supply. The recommended rate increases would result in additional water fund revenue of approximately \$146,000 in FY 17 and \$1,136,000 in FY 18. There would also be an increase in the wastewater fund of approximately \$9,000 in FY 17 and \$68,000 in FY 18.

ALTERNATIVES

The City Council has the following alternatives to consider:

1. Provide staff with direction to develop a final Letter of Intent for the Recycled Groundwater Sustainability Project for Council action on February 6, 2017 and direction to implement the Proposition 218 noticing process for holding a public hearing on March 6, 2017 on changes to the Water and Wastewater utility rates; or
2. Provide alternate direction to staff.

PUBLIC NOTIFICATION

The agenda was posted in accordance with the Brown Act.

ATTACHMENTS

1. Draft Letter of Intent for Recycled Groundwater Sustainability Project
2. Utility Rate Study