

CITY OF SANTA ROSA
BOARD OF PUBLIC UTILITIES

TO: BOARD OF PUBLIC UTILITIES
FROM: COLIN CLOSE, SENIOR WATER RESOURCES PLANNER
SUBJECT: WATER SUPPLY ALTERNATIVES PLAN

AGENDA ACTION: MOTION

RECOMMENDATION

It is recommended by Santa Rosa Water that the Board of Public Utilities, by motion, recommend that the City Council accept the Water Supply Alternatives Plan.

EXECUTIVE SUMMARY

The City of Santa Rosa wishes to diversify and increase its potable urban water supply portfolio to enhance its resiliency to climate change, droughts, or Sonoma Water service interruptions that could occur during catastrophic events. As a result, Santa Rosa Water launched the Our Water Future project and undertook development of a Water Supply Alternatives Plan (WSAP) to identify an adaptive approach to diversifying Santa Rosa's water supply portfolio and production capacity over time. Because water supply reliability is essential to our community, this project engaged a wide range of stakeholders throughout the effort, including an interdisciplinary team of Water staff, an external group of leaders from local organizations and agencies, the community at large, and the Board of Public Utilities (BPU). With expertise and assistance from Woodard & Curran, Inc., and with significant stakeholder input, the project team established the study objectives, assessed 18 water supply options, produced a feasibility report, and proposed four portfolios (mixes) of the most feasible water supply options. Based on comments from the various stakeholders and BPU, the feasibility analysis report and portfolios were refined and presented to City Council in a study session to seek input from City Council and the public. The project team developed an early review draft of the Water Supply Alternatives Plan (WSAP) to provide an adaptive approach to achieving water supply resiliency goals and targets. After receiving City Council, BPU and stakeholder input, the WSAP was revised and prepared for presentation to the BPU.

BACKGROUND

Santa Rosa can meet approximately seven percent of its annual urban demand for potable water using city owned and operated wells, and relies on Sonoma Water, a water wholesaler, to provide the remaining 93 percent of potable supply for urban customers. As a result of this dependency, if Sonoma Water has a supply shortage or an interruption in service, Santa Rosa's public water system will have a water supply shortage.

In just the past 20 years the region has experienced three droughts, and each time Santa Rosa has declared a water shortage and required its customers to reduce potable water use by up to 20 percent. Climate change models predict regional droughts will become more severe (hotter, drier, longer) and/or occur with more frequency. Given these realities, Santa Rosa Water

determined it would be prudent to study how to best increase both the diversity and production capacity of its urban potable water supply portfolio.

As a result, Santa Rosa Water launched the Our Water Future project in May of 2022 and undertook development of the WSAP in September 2022 to identify an adaptive approach to diversifying Santa Rosa's water supply portfolio and production capacity over time. This project engaged a wide range of stakeholders throughout the effort, including an interdisciplinary team of Water staff (Water Team), an external group consisting of leaders from a wide range of local organizations and agencies (Stakeholder Group), the community at large, and the BPU. In October of 2022, the project team convened an interdisciplinary committee of Water staff (Water Team) comprised of Deputy Directors and their key staff. The Water Team participated in 5 three-hour working sessions from October 2022 through August of 2023 and conducted document review between meetings. The Water Team provided significant input on the water supply resiliency goal and targets, water supply options, evaluation criteria, feasibility analysis results, draft portfolios, and draft Water Supply Alternatives Plan.

In November of 2022, the project team convened an external Stakeholder Group of leaders from organizations and agencies representing these sectors: business and economy, climate change and the environment, community service and social justice, natural resources, and regional recycled water users. The Stakeholder Group participated in 4 three-hour working sessions and conducted document review between meetings from November 2022 through July 2023. The Stakeholder Group provided significant input on the water supply resiliency goal and targets, water supply options, evaluation criteria, feasibility analysis results, draft portfolios, and draft Water Supply Alternatives Plan. One of the participants, Doug Beretta who is a local dairy farmer and recycled water user, published an article about his experience participating as a member of the Stakeholder Group (see Attachment 2).

The list of participating agencies and organizations include the following:

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| 1. Calpine | 12. Russian River Water Protection Committee |
| 2. Community Action Partnership | 13. Santa Rosa Metro Chamber of Commerce |
| 3. Los Cien Sonoma County | 14. Santa Rosa Plain Groundwater Sustainability Agency |
| 4. NAACP Santa Rosa | 15. Santa Rosa Subregional Technical Advisory Committee |
| 5. North Bay Black Chamber of Commerce | 16. Sonoma Clean Power |
| 6. North Coast Builders Exchange | 17. Sonoma County Alliance |
| 7. Recycled Water User – Agriculture | 18. Sonoma Resource Conservation District |
| 8. Recycled Water User – Municipal | 19. Sonoma Water |
| 9. RED Housing Fund | |
| 10. Regional Climate Protection Authority | |
| 11. Russian River Watershed Association | |

The community at large was invited to participate in 4 two-hour interactive community meetings held via Zoom from October of 2022 through August of 2023. The meetings were promoted with bill inserts to water customers, announcements in the City Connections electronic newsletter, public meetings, webpage (srcity.org/OurWaterFuture), and presentations at community organizations and events. The community had opportunities to ask questions and provide feedback on the water supply resiliency goal, list of water supply options, evaluation criteria, feasibility analysis, and the draft portfolios.

WATER SUPPLY ALTERNATIVES PLAN

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Staff solicited additional public input from October of 2022 through September of 2023, through presentations at General Plan open house events, Santa Rosa Subregional Technical Advisory Committee meetings, committee and general membership meetings of the Sonoma County Alliance, Advocacy Committee meeting of the Santa Rosa Metro Chamber, and the Advisory Committee of the Santa Rosa Plain Groundwater Sustainability Agency.

After receiving input from the stakeholders and the BPU, the feasibility analysis report and portfolios were refined and presented to City Council on September 26, 2023. The project team also developed a review draft of the WSAP to seek input from stakeholders. Based on their comments and questions, the WSAP was revised and prepared for presentation to the BPU.

PRIOR BOARD OF PUBLIC UTILITIES REVIEW

On May 19, 2022, the BPU approved issuance of a Request for Proposals (RFP) to solicit proposals from qualified consultants to complete a study of potential water supply sources and develop a WSAP for increasing water supply resiliency and reliability.

On September 15, 2022, the BPU received a staff briefing on the consultant selection process, final scope of work, budget, anticipated timeline and milestones, the key deliverables, stakeholder engagement strategy, and next steps.

On January 19, 2023, the BPU held a study session in which staff and the consulting team presented the water supply feasibility study parameters and received input from BPU and public.

On August 17, 2023, the BPU held a study session in which staff and the consulting team presented the feasibility analysis, proposed portfolios, and received input from BPU and the public.

ANALYSIS

The WSAP was developed to provide an adaptive guide to help Santa Rosa consider future infrastructure investment decisions for increasing water supply resiliency and reliability. Because water supply reliability is essential to our community, this effort engaged a wide range of stakeholders, including an interdisciplinary team of Water staff, a diverse Stakeholder Group of community leaders, the community at large, the BPU, and the City Council. Each step of this effort has included significant and meaningful input from these participants, culminating in the development of the WSAP. The project team developed an early review draft WSAP for stakeholder input and revised the WSAP based on their comments and questions.

The BPU held a study session on August 17, 2023, to review the results of the feasibility analysis and draft portfolios. The BPU directed staff to provide additional information and analysis, particularly related to the desalination supply options evaluation. In response, the project team developed a memorandum to provide a fuller discussion and analysis of desalination options, which was added as an appendix to the feasibility report and the WSAP.

City Council held a study session on September 26, 2023, to review the updated feasibility analysis and portfolios and provide input.

The following table provides an overview of the options that are included in each portfolio. Each of the four portfolios is built around a theme that represents the portfolio's primary focus: economics, speed, effectiveness, and flexibility, respectively. Portfolios 3 and 4 incorporate adaptive flexibility strategies that allow the city to proceed on specified supply options, while the performance and yield of other options are better defined over time. Portfolio 4 maximizes adaptability more than Portfolio 3 and phases implementation to balance between water now and cost implications later. Currently the state's direct potable reuse regulation framework is not yet finalized, and stormwater capture and reuse and aquifer storage and reuse opportunities are not yet well defined in the region. As the regulations and performance of these options are better established, the city would revisit and again evaluate these projects and the mix of options based on the actual expected water yield, current and projected demand changes, regional partnership opportunities, and relative cost changes associated with the options. These options are denoted as "consider" in the portfolio table.

Description	Portfolio 1 Most Economical	Portfolio 2 Fastest	Portfolio 3 Most Water	Portfolio 4 Most Adaptive
Add Extraction Wells (Up to 12)		✓	✓	✓
Convert Emergency Wells to Production Wells	✓	✓	✓	✓
Add Aquifer Storage & Recovery Wells				Consider
Satellite Direct Potable Reuse			✓	Consider
Regional Direct Potable Reuse at Laguna Treatment Plant				Consider
Stormwater Storage in Aquifer			Consider	Consider
Efficiency Programs	✓	✓	✓	✓
<i>Desalination</i>				<i>Reconsider</i>

The resulting WSAP provides an adaptive guide for increasing Santa Rosa's water supply resiliency and reliability. It includes acknowledgements, an executive summary, six chapters, and nine appendices, which are briefly describe below. The Acknowledgements page recognizes the numerous stakeholders who generously committed their time and energy to contribute to this effort from October 2022 through September 2023. The Executive Summary

provides a concise summary of the WSAP. Chapter 1 provides background information and a description of the purpose of this effort. Chapter 2 describes the processes used to engage stakeholders and provides the water supply resiliency goal and targets, list of supply options considered, and criteria for the study. Chapter 3 describes how the feasibility analysis was conducted to assess a wide range of water supply sources and to develop alternative portfolios (mixes) of the most feasible options for achieving Santa Rosa Water's long-term urban water supply goal. Chapter 4 discusses the feasibility analysis results. Chapter 5 discusses four supply portfolio alternatives. Chapter 6 discusses next steps that Santa Rosa Water may wish to undertake as it moves forward toward achieving its water supply resiliency and reliability goals. Appendix A is the final version of the Feasibility Analysis Technical Memorandum. Appendix B provides links to recorded public meetings related to this effort. Appendix C through G provide example schedules for the four portfolios and iterations of Portfolio 4. Appendix H provides five recent years of budgets for Santa Rosa Water's operations and capital projects. Appendix I is a memorandum discussing the desalination options and analysis in more detail.

FISCAL IMPACT

There is no fiscal impact from this item. Any future projects would be funded through the annual Water budgeting process, grant opportunities, and/or debt instruments as recommended by the Board of Public Utilities and approved by the City Council.

ENVIRONMENTAL IMPACT

The project has been reviewed in compliance with the California Environmental Quality Act and qualifies for a Class 6, Section 15306, Informational Collection categorical exemption. Class 6 consists of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. These may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded.

Further, the project is statutorily exempt under Title 14 § 15262 of the California Code of Regulations because it involves only feasibility or planning studies for possible future actions which the agency, board, or commission has not approved, adopted, or funded. As such, the study parameters for this project do not require the preparation of an Environmental Impact Report (EIR) or negative declaration but do require consideration of environmental factors, which have been included in the criteria and study methodology.

BOARD/COMMISSION/COMMITTEE REVIEW AND RECOMMENDATIONS

On April 28, 2022, the City Council/Board of Public Utilities Liaison Subcommittee, by motion, approved the staff recommendation to (1) solicit proposals and ask the BPU to award a contract, (2) conduct the study and prepare the draft plan, (3) review the draft plan in a BPU study session to solicit input from the BPU and public, revise the plan as needed, and finalize the plan, and (4) execute the plan over time and report progress to the BPU periodically.

On October 13, 2022, the Santa Rosa Subregional Wastewater Technical Advisor Committee reviewed the project and appointed a Committee member to participate in the Stakeholder Group.

On February 9, 2023, the Santa Rosa Subregional Wastewater Technical Advisor Committee

received an update on the project.

On September 26, 2023, the City Council held a study session on the water supply feasibility study parameters and received input from City Council and the public.

NOTIFICATION

Not applicable.

ATTACHMENTS

- Attachment 1 - Water Supply Alternatives Plan
- Attachment 2 - Farm Bureau Article, Water Future by Doug Beretta
- Attachment 3 - Public Comment

PRESENTER

Colin Close, Senior Water Resources Planner