



STAFF REPORT

DATE: June 13, 2023

DISCUSSION

AGENDA ITEM: Water Supply Strategies – Next Steps

SUBMITTED BY: Jack Griffin, City Engineer

REVIEWED BY: Kristina Handt, City Administrator

ISSUE BEFORE COUNCIL: Should the city council consider a change in the city's water supply infrastructure plan, to relocate Well 6 and 7 to the southern growth region of the city with the expectation that both wells would be treated for PFAS?

BACKGROUND: In September of 2022, the city council authorized the preliminary design and site acquisition services for Well 6 to be constructed in the northern part of the city, along the Rock Point Church/Keats Avenue Trunk Watermain line. Staff had identified two potential sites for Well 6 including 5825 Kelvin Avenue (Rock Point Church) and at 5435 Keats Avenue. The well locations are consistent with the current Water Supply Infrastructure Plan, that proposed the development of two additional Jordan aquifer production wells in the northern regions of the city with the expectation that the new wells would remain free from PFAS contamination and would not require treatment.

PROPOSAL DETAILS/ANALYSIS: In more recent developments, the city is receiving updated information on the new and more stringent EPA standards for PFAS, has received additional testing results for PFAS in Well 2, and has learned of a private well advisory in the tri-lakes area. Together, this information has given staff sufficient concern to pause on the work for Well 6, and to consider a pivot toward a revised Water Supply Infrastructure Plan. A shift in the plan would require the site location for Well 6 (and future Well 7) to be moved to the southern growth region of the city together with a proposed treatment plant. In addition, a change in the water system plan would require a review/evaluation(s) of the city's water system to identify the infrastructure changes needed to accompany the revised water supply strategy. Staff has prepared 4 separate technical evaluations, as outlined under Option 2 below, for council consideration.

While the city is able to pursue an increase in its water appropriations amount for the next four years, council should discuss whether or not surface water should be explored further. The water appropriation limits in place due to the Ramsey County District Order on White Bear Lake only apply to groundwater, not surface water such as St Paul Regional Water System (SPRWS). In addition, these restrictions are placed on any groundwater permit that the DNR finds could have an impact on the level of water in White Bear Lake; it is not limited to a five-mile radius.

OPTIONS:

- 1) Direct staff to continue with the implementation of Well 6 consistent with the current Water Supply Infrastructure Plan; pursuing the next production well in the northern part of the city, along the Rock Point Church/Keats Avenue Trunk Watermain line.
- 2) Direct staff to bring forward to a future council meeting, the necessary engineering Task Order(s) for council authorization, to evaluate and pursue a revised Water Supply Infrastructure Plan, with the city's future production wells to be located in the southern growth area of the city with treatment for PFAS. The Task Order(s) should be prepared to address the following topics:
 1. Preparation of Water supply/Delivery Plan to develop South Area Production Wells (Well 6 and 7) with treatment. The plan will serve to identify land area needs for each well and treatment plant. Treatment plant footprint will be based on high level evaluation from previous

- treatment plant projects and will assume the need for pretreatment. The Task Order will include the evaluation for the potential use of Well 3. The plan will advise on the optimal well site locations with consideration of PFAS concentrations in groundwater, contingency treatment, and long-term operation of potential facilities.
2. Preparation of a PFAS Treatment contingency plan for Wells 4 and 5. Task Order will include the identification of the land and easement acquisition to be acquired and preserved for plan implementation. Treatment plant footprint will be based on high level evaluation from previous treatment plant projects and will assume the need for pretreatment. The plan will include the extension of sanitary sewer to the site of the future treatment plant.
 3. Prepare and evaluate a connection to St. Paul Regional Water Service (SPRWS). It is assumed for the purposes of this task that the capital costs for infrastructure outside of Lake Elmo to access SPRWS would be fully funded through grant funds. The evaluation would look at the comparative user rates and future maintenance and operation costs, and would consider a full changeover to surface water vs. a partial changeover with separate north and south water systems.
 4. Prepare a technical memorandum to outline the feasibility and potential uses for Well 2 should the well exceed PFAS standards. Evaluate if the well should be taken offline and abandoned; or if the well can be used effectively as a backup well to establish firm capacity and meet peak demands; or can the well supply be treated for PFAS for either permanent or temporary use.
 5. Complete modeling and evaluation of the water distribution system based on revised water supply source locations, including new Well 6 and 7; a combined point source for Well 4 and 5; and a point source connection to SPRWS. Include a feasibility review of operating independent North (Well 4 and 5) and South (either future Well 6 and 7 or SPRWS) water supply systems with emergency interconnects.
- 3) Direct staff to take no action and to schedule a future workshop for additional and continuation of council discussion.