

**Project Name** | Groundwater Monitoring and Program**Date** | 03/05/2025**To / Contact info** | BCWD Board of Managers**Cc / Contact info** | Karen Kill, District Administrator**From / Contact info** | Stu Grubb, PG**Regarding** | 2025 Groundwater Monitoring Scope of Work

## Background

The BCWD has been monitoring groundwater levels in a network of 16 residential wells and 7 golf course wells since 2012. By sponsoring this data collection effort, the BCWD has started to accumulate a significant database of changing groundwater elevations over time in different aquifers and in different parts of the district. This data has been helpful in documenting and understanding the very low baseflow observed in Brown's Creek in 2013 and the extraordinarily high water levels recently observed in the Kimbro Basin. The data has also been useful in calibrating regional groundwater models, such as the model recently produced by consultants for 3M. The key value to this data has been the consistency in data collection and the duration. The data will continue to be useful in the future, but only if BCWD continues to implement its groundwater monitoring program.

Groundwater is a regional resource that requires management on a regional level. Activities outside the watershed can have a significant impact to groundwater resources within the watershed district. State, county, and regional government agencies all have active groundwater management programs that affect the watershed district. In order to effectively manage groundwater within the BCWD, watershed district staff and engineers must be engaged in water management activities outside the watershed district. We recommend that a budget be approved for EOR staff to attend meetings and engage with other groundwater management organizations on behalf of BCWD.

## Scope of Services

This scope of services includes both the work related to monitoring groundwater elevations as well as the activities related to management of the District's groundwater resources.

## Groundwater Monitoring

It is recommended that the BCWD continue to implement the groundwater monitoring program in 2025. EOR and Washington Conservation District staff will continue to work together on the monitoring and reporting of water levels from the current network. Project costs presented in the table below represent only EOR staff time and do not include Washington Conservation District staff time.

## Expanding the Well Network

The BCWD Board of Managers approved the expansion of the well network to include other areas in the district where groundwater data will likely be important in the future. The work was not completed in 2024 but will be completed in 2025. The previously approved budget will be used to complete the work.

As a reminder, the purpose for this expansion of the well network is to collect groundwater level information in those portions of the watershed that are likely more sensitive to flooding due to groundwater under wetter than normal conditions. The BCWD has a long history of dealing with flooding issues in closed basins. Often these basins have a relatively small watershed, and much of the flooding is due to rising groundwater elevations. Addressing these types of flooding issues requires an understanding of past groundwater levels and trends.

The critical monitoring areas were identified using the District's landlocked basin evaluation. Some areas are covered by the current well network, but others could benefit from additional groundwater data. Four to five additional residential wells will be targeted for monitoring. Acceptable wells are located near the areas of interest, have an existing well log, are completed in an aquifer of interest, and have a willing well owner.

EOR has identified 19 candidate wells for expanding the network. WCD mailed letters to the well owners asking if they would consider being part of the monitoring network. EOR will follow up on the letters and work with the willing well owners to get the necessary information and agreements in place so we can begin collecting data on the four to five additional wells.

### Groundwater Management

It is recommended that the BCWD approve a budget for EOR staff to attend meetings and participate in regional groundwater management activities on behalf of the watershed district. Most of these activities have not yet been scheduled and are often quickly organized to address new groundwater issues that arise throughout the year. Examples of past BCWD groundwater management activities include:

- Participation in meetings for the North and East Metro Groundwater Management Area sponsored by DNR.
- Contributions to development of the Metro Model groundwater model developed by the Metropolitan Council. This includes gathering information about infiltration and aquifer recharge rates in the watershed. The model is also being used to research the effects of climate change on groundwater resources.
- Engagement with Washington County programs such as the Water Consortium and the Individual Septic Treatment System regulatory program.
- Working with DNR to expand their observation well network in BCWD.
- Scheduling a water quality testing clinic in collaboration with the Minnesota Well Owners Organization.

The following table summarizes the cost for EOR to perform these tasks in 2025.

Task	Hours	Cost
1. Monitoring the existing well network, including coordination with landowners and the WCD and producing a final report	20	\$4,160
2. Expanding the well network to include 4-5 additional wells, including coordination with landowners and the WCD	36	\$5,576*
3. Groundwater management	38	\$8,500

<b>TOTALS</b>	<b>86</b>	<b>\$18,236</b>
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\* Budget amount approved previously.

### **Requested Action**

Task 2 was approved in 2024 and will be carried forward to 2025. Approve this scope of services in the amount of \$12,660 for Tasks 1 and 3 as follows: \$4,160 from account number 942-0004 and \$8,500 from account number 942-0011.