

Memorandum

To: Randy Anhorn, Nine Mile Creek Watershed District
From: Janna Kieffer
Subject: Data-sharing web map — proposed scope of work
Date: March 4, 2020

Per your request, we have prepared a proposed scope of work to develop a web mapping tool to share data collected by NMCWD. At this time, the primary objectives of the data-sharing web map will be to provide the public with easy access to groundwater and lake level data collected monthly by the Nine Mile Creek Watershed District (District) and to provide links to available water quality information/reports. In the future, the web map could be enhanced to include sharing of additional monitoring or programmatic information. The following sections summarize the proposed scope of work, including anticipated tasks, estimated costs, and a proposed schedule.

Proposed Scope of Work

Task 1. Design and creation of GIS database for historical and ongoing data collection

Historical lake level and groundwater well data will be compiled into a GIS database. This database will be designed for use in a web mapping application and in a web-based charting tool used for reporting lake levels and groundwater levels. This database will also include references (e.g., web links) to other data as requested from the District, such as water quality fact sheets and/or links to other existing information on the District's website (reports, projects, etc.).

Task 2. Design and development of data-sharing application tool

The web map tool will consist of two independent components, mapping and charting, linked together through the map navigation functionality. This task includes design, development, testing, and deployment for both components of the data-sharing tool. Included in this task are communications with the District for scoping out the desired data to share within the tool, as described in Task 1.

Task 3. Application maintenance and hosting for one year

The database will be updated with new lake level and groundwater well survey data each month. It is recommended to set aside budget for approximately two hours a month for these data updates and for occasional necessary maintenance to the data sharing tool components in order to maintain a consistent web mapping performance.

Task 4. Consideration of additional enhancements to data-sharing web map application (optional)

As the data-sharing web map application is being developed, the District may wish to include additional data sources and web-based information in the tool beyond what is included in Tasks 1 and 2, based on

feedback from staff, District board members and/or other stakeholders. This optional task provides additional flexibility for discussing, exploring feasibility of, and/or including additional features in the application.

Estimated Cost

The total estimated cost to complete Tasks 1-4 is \$9,000. Table 1 summarizes the estimated costs associated with each task described in the scope of work.

Table 1. Estimated cost, by task

Task	Description of Task	Amount
1	Design and creation of GIS database for historical and ongoing data collection	\$1,000
2	Data-sharing application tool design and development	\$4,000
3	Application maintenance and hosting for one year	\$2,000
4	Consideration of additional enhancements to data-sharing application (<i>optional</i>)	\$2,000
Total Estimated Cost		\$ 9,000

Schedule

We anticipate that development of the data-sharing web map will take four to six weeks upon approval by the District.