



Title: Authorization to Award Contract for Stormwater Infrastructure Data Standardization

Resolution number: 22-076

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Reviewed by: Name/Title: Brian Beck/Research and Monitoring Program Manager

Recommended action: Authorize contract execution for stormwater infrastructure data standardization

Schedule: 12/1/22: Award Contract
Early December: Contract negotiations
Late December: Project kickoff
May 1, 2023: anticipated completion date

Budget considerations: Fund name and code: Research and Monitoring-Contracted Services 5-5001-4320
Fund budget: \$421,468
Expenditures to date: \$149,355.39
Requested amount of funding: disclosed under separate cover

Past Board action:

Res # 22-064	Title: Authorization to Release RFP for Stormwater Infrastructure Data Standardization
Res # 22-056	Title: Authorization to Contract for Pilot Model Scenario File Development
Res # 22-038	Title: Authorization to Submit Proposal to LCCMR for Development of 2D Watershed Model
Res # 21-091	Title: Authorization to Execute Contract for 2D Pilot Model
Res # 21-051	Title: Authorization to Execute Memorandum of Understanding (MOU) with the City of Edina
Res # 21-024	Title: Authorization to Submit Proposal to LCCMR for Development of a 2D Watershed Model

Background:

In early 2021, the Minnehaha Creek Watershed District (District or MCWD) identified the need to conduct a pilot two-dimensional (2D) watershed model (pilot model), which was largely centered around mitigating technical risks associated with building a watershed-wide 2D model. One of the technical challenges that the pilot model was designed to address was developing a method for assembling, processing, and incorporating unique stormwater infrastructure datasets from multiple cities and agencies within the District. A key objective of the pilot model was to establish repeatable and scalable automated geospatial workflows, including processes for stormwater infrastructure that can be scaled for the District's upcoming watershed-wide 2D model build.

The pilot model is in its final stages, which has established a general data workflow structure, and automated processes to convert the stormwater infrastructure datasets within the pilot's test geographies (parts of Cities of Edina and Victoria) to a structure that can easily be imported into watershed models. Early on it was recognized that a standard geodatabase structure was essential for scaling beyond one community's data. The District chose the MetroGIS draft stormwater geodata transfer standard (MGIS Standard) since it has been vetted by industry experts and has thorough documentation.

Project Overview:

A key learning from the pilot model's automated process development is that standardizing raw stormwater infrastructure data into the MGIS format is a discrete process that is separate from additional processes focused on data cleaning. However, understanding and defining each original dataset's structure is a prerequisite to automating datasets into the MGIS standard. In anticipation of this work, and as part of a broader effort to collect datasets for opportunity screening, District staff have requested stormwater datasets from all the public agencies within District's boundaries. The data have been organized and internally screened to help guide the data standardization project's scope of work.

The goals of this data standardization project are to characterize stormwater infrastructure datasets from each municipal, regional, and state agency within MCWD and map them into the MGIS standard. This project's scope of work is a critical first step in creating a watershed-wide stormwater infrastructure dataset that is comprehensive, centralized, and standardized. This watershed-wide stormwater infrastructure dataset, and a process to routinely update it, will serve the District and its partners in many ways. The dataset will be incorporated into the District's upcoming 2D watershed-wide model, which will provide an understanding of how water is moving through stormwater infrastructure and across the landscape. The standardized geospatial dataset will also provide immediate access to standardized data to utilize for spatial data analysis and future modeling applications.

The outputs from this data standardization project will be utilized during the first stage of the District's upcoming watershed-wide model build project, which as of now is projected to receive full funding from Legislative-Citizen Commission on Minnesota Resources (LCCMR), with funds becoming available in July, 2023.

Stormwater Infrastructure Data Standardization RFP Process:

Scope:

On October 20, 2022 the Board of Managers authorized the release of the RFP, with a scope of work designed to (1) characterize the stormwater infrastructure datasets from each municipal, regional, and state agency within MCWD and (2) develop mapping tables that link each dataset's fields and values to the MGIS standard to support future automation work. The deadline for submittal was Friday, November 11th. The District received proposals from five firms: Bolton & Menk, Geosyntec, Kimley-Horn, Stantec, and WSB.

Proposal Evaluation:

In the RFP, firms were advised that the District would select a consultant on the basis of proposed methodology, experience, and cost. The Board may consider these factors as it chooses and select a consultant for the work on the basis of its judgment.

The written proposal evaluation was conducted by three District staff. The team evaluated the firms based on the following:

- Project understanding
- Methods and approach
- Team composition and experience
- Relationships with municipalities/familiarity with project datasets
- Cost

Learnings and deliverables from the pilot model project allowed staff to include a high-level of specificity within the RFP in terms of process and deliverables. Because of this, staff did not disclose the project budget within the RFP to

encourage consultants to think critically about their time allocation and identify consultants that didn't fully understand project tasks or deliverables. Overall, all five firms approached the work with similar steps, however, there was a large range in proposed costs.

Following the initial review period, District staff issued additional follow up questions, to obtain clarification and specificity where needed.

District staff also provided the proposals and an overview of staff's assessment to the Board-appointed 2D Model project liaisons, Managers Hejmadi and Miller, in advance of staff's formal recommendation to the full Board of Managers.

Recommendation:

Based on the evaluation of proposals, answers to supplemental questions, and reference calls, staff is recommending that Bolton & Menk be selected as the consultant and awarded the contract for services detailed in the Bolton & Menk proposal, which is provided under separate cover to the Board of Managers.

Bolton & Menk had a concise and well-written proposal that demonstrated a strong understanding of the importance and challenges of this work. Bolton & Menk also brings a strong project team with extensive GIS experience and a unique relational advantage since they manage and oversee stormwater datasets of 11 cities within MCWD. As described in their proposal and project budget, this familiarity with many municipal datasets will lead to efficiency and a deeper understanding of the datasets, and mitigate the District's relational risk.

In accordance with Minnesota Statutes 13.591, subdivision 3(b), the submitted proposals will not be part of the public record until the contract has been executed. A copy of all submitted proposals will have been distributed to the Board of Managers, via email, for review prior to the December 1, 2022 meeting.

Next Steps

Following authorization to award the contract, staff will work closely with Bolton & Menk's project manager to finalize the scope of work and contract. Staff do not anticipate the scope of work needing much refinement but during the negotiations staff may find a need to add clarity or identify an opportunity to strengthen the scope. The final contract will not exceed 115% of the amount set forth in the proposal. Work is expected to kick off at the end of December.



RESOLUTION

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- WHEREAS, climate change is measurably changing the distribution, frequency and intensity of rainfall in Minnesota;
- WHEREAS a key pillar in Minnehaha Creek Watershed District's (MCWD or District) climate action framework is to understand and predict the impacts of climate change using new data analytical and planning tools;
- WHEREAS to support this strategy, the District has identified the need to develop a watershed-wide two-dimensional (2D) model that incorporates high resolution stormwater infrastructure and land surface data to improve our ability to inform current and future water resource management decisions in the face of climate change;
- WHEREAS in June 2022, the Board of Managers authorized staff to submit a proposal for \$738,000 to the Legislative-Citizen Commission on Minnesota Resources to develop a watershed-wide model;
- WHEREAS in advance of the watershed-wide build, the District has chosen to pursue a pilot 2D model build to guide the broader model development work and constrain the technical and relational risk associated with a large scale, high-resolution model build;
- WHEREAS one of the technical purposes of the pilot model is to develop a method to assemble, process, and integrate unique stormwater infrastructure datasets from the multiple cities and public agencies within the District;
- WHEREAS in December, 2021, the Board of Managers authorized a contract with Kimley-Horn to perform the pilot model scope of work, including developing an automated and repeatable process for transforming stormwater infrastructure datasets into the MetroGIS draft stormwater geodata transfer standard (MGIS standard) that will be used to build the watershed wide 2D model;
- WHEREAS A prerequisite to implementing the automated geospatial data processing system watershed-wide is to characterize the unique features of each dataset, and map each dataset to the MGIS standard;
- WHEREAS on October 20, 2022, the Board of Managers approved a staff-developed scope of work for stormwater infrastructure data standardization and authorized the release of a request for proposals for consulting services;
- WHEREAS in response to the RFP, the District received written proposals from Bolton & Menk, Geosyntec, Kimley-Horn, Stantec, and WSB, which District staff have evaluated based on project understanding, approach, team composition and experience, relationships with municipalities and familiarity with project datasets, and cost;
- WHEREAS in the course of its review District staff has coordinated with Board-appointed 2D Model project liaisons Managers Hejmadi and Miller;

WHEREAS on the basis of its evaluation, staff recommends the selection of Bolton & Menk, based on its strong project understanding, its experienced team, and its role managing stormwater datasets for 11 municipalities within the District;

WHEREAS the Board of Managers finds that the evaluation has been thorough and properly structured, and that the work proposed by Bolton & Menk is demonstrated to be competitive and within budget;

NOW, THEREFORE, BE IT RESOLVED that the Minnehaha Creek Watershed District Board of Managers authorizes the District Administrator, on advice of legal counsel, to execute a contract with Bolton & Menk for consultant services for stormwater infrastructure data standardization, in accordance with the developed scope of work as the Administrator may refine it, and in an amount not to exceed 115 percent of the amount set forth in the proposal.

Resolution Number 22-076 was moved by Manager _____, seconded by Manager _____. Motion to adopt the resolution ___ ayes, ___ nays, ___ abstentions. Date: 12/1/2022

Secretary Date: _____

DRAFT