



Title: Selection and Authorization to Purchase Permitting System Software and Maintenance Agreement

Resolution number: 20-006

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Recommended action: Board selection of and authorization to purchase permitting system software and enter into an associated maintenance agreement

Budget considerations: 100-1003 Information Technology
 2020 IT Upgrade Budget: \$181,332
 2020 Expenditures: \$0.00
 Requested Funding: \$61,400

Past Board action:

19-021	Authorization to release RFQ for IT Consulting Services
19-047	Selection and Authorization to Negotiate Contract with IT Consultant
19-052	Approval of Contract with IT Consultant
19-080	Approval of Phase II Amendment to IT Consultant Contract
19-080	Approval of Purchase of GIS Licenses & Maintenance Agreements

Summary:

Background

The Minnehaha Creek Watershed District's (MCWD or District) approach to watershed management, *A Balanced Urban Ecology (BUE)*, recognizes that decisions about land use directly affect water. This link between water and the surrounding landscape emphasizes the importance of guiding built systems in order to improve the overall ecology of its natural systems. Rather than viewing the natural and built environments as a clash of opposing forces, the District understands they are, in fact, interdependent. When natural and built systems work in balance, a triple bottom line of social, economic, and environmental value is created.

However, the District does not own the land needed to make these direct improvements to water quality or quantity, nor does it directly control decisions made regarding how land is used or developed. To effectively carry out its mission, the District emphasizes close partnership with land use decision makers to integrate built and natural systems in ways that create value and enjoyment. These partnerships are built upon the District's use of integrated planning to reveal opportunities that position water as a central organizing element and value added asset. This approach is founded on a base of sound science and systems understanding, and furthered through a layered analysis of intersecting features, which includes, but is not limited to, development trends, infrastructure, parks, public lands, and transportation.

In 2017, the District's Strategic Alignment Plan, aimed at reorienting the organization's programming around the BUE and mission, identified the need for investments in Information Technology (IT). This was, and is, to enhance internal workflows, interaction with the public, and support the work of our programs in pursuit of the organizational mission. In order to continue our standard of excellence through sound science, systems understanding, and integrated planning efforts, the organization requires an updated technology infrastructure to support these pursuits.

Information Technology Update

In July 2018, District staff established an IT team composed of representatives from each program. The purpose of this group was to define the goals for each program and the organization with respect to an IT update. The IT team developed program and organizational workflow documents to better understand how data should move through the organization. A District Board Liaison (Manager Olson) was appointed to the IT team to ensure that the direction of the IT update was in line with goals outlined in the District's 2017 Strategic Alignment Plan.

In February 2019, the District released a Request for Qualifications (RFQ), which was a summary of the IT team's synthesis of the goals and vision of the District's future IT systems. The Board of Managers ultimately selected WSB as its consultant for Phase I of the IT consulting services work, which focused on understanding the needs of each program.

Through Phase I of the IT Plan, WSB worked with the IT Team to understand the organization's functions, technology use, and workflows, by utilizing the business analysis created by District staff. WSB conducted an in-depth discovery process to refine system requirements, identify potential appropriate systems, compile a list of vendors, project budget requirements, and recommend timelines and system phasing. During this analysis it was evident that nearly all data that is utilized by the District is geographic in nature, which means that a geographic information system (GIS) must logically be the foundation of the IT update. Those Phase I efforts outlined the following timeline:

- 2019: Implement an enterprise level geographic information system (GIS) platform as the foundation for the remainder of the IT update.
- 2019: Review and select a permitting system, with Board approval in early 2020.
- 2020: Implement the selected permitting system; begin process to review, select, and eventually implement water quality monitoring technology
- 2020-2021: Evaluate, review, and select an Enterprise Resource Planning (ERP) system.

GIS

As recommended in Phase I, GIS serves as the foundation of the IT update, and was implemented as the first, and most essential, component of the IT plan in October of 2019. GIS' importance stems from its ability to serve as the central technology hub, from which data can be stored, shared, and analyzed across programs throughout the organization. Further it provides the District with the ability to perform the previously mentioned layered analyses, allowing the organization to more deeply understand the patterns and interactions of natural and built environments, informing our capital project opportunities and land-use/water policy changes. Underpinning all of this, GIS provides a medium to bolster and enhance communication with the general public. Collectively, these features allow the District to most effectively pursue its mission across all facets of the organization.

As the IT plan proceeds, each investment in technology across the District's program's must support that program's work, but also must be capable of pushing information to, and pulling information from GIS (i.e. efficient and effective information sharing across the organization). Aligning technology investments with GIS is preferred, as its capabilities ensure that there will be continuity across improvements, allowing the organization to efficiently and effectively pursue its mission through all programs.

Permitting

In working to realign its programming with the organizational mission and BUE, Permitting has made its primary focus on:

- Promoting early coordination and partnership to identify opportunities leading to greater natural resource benefits
- Improving the baseline efficiency of regulation to:
 - Align staff time with natural resource risk and/or partnership opportunities; and,
 - Improving customer service

One of the greatest barriers to implementing the District's vision for BUE is the inability to quantify and predict how our landscape is changing due to ongoing development activities. The District has a steady stream of permits from partner agencies and the land-use development community that provide insight on how the landscape around us will change in the future. Unfortunately, all permits submitted to the District are in paper format, which make it nearly impossible to develop a robust, real-time, dataset to help identify early coordination and partnership opportunities.

In pursuit of these goals, Permitting has developed a scope of work to critically examine and reimagine its regulations, mechanisms, and process. A significant component of accomplishing these goals relies on acquiring and implementing a suitable technology platform that meets departmental and organizational needs. In updating Permitting's technology infrastructure, thoughtful, thorough analysis will be able to be conducted, placing a project or permit within the context of the landscape in real-time. Additionally, it will allow organizational accessibility to data that has been traditionally silo-ed within the department, providing the means to analyze trends and inform other initiatives. In whole, filling the technology gap within the department facilitates the District's goals of implementing projects and changing policy through providing a more efficient means to store, track, and analyze data, while improving work flow efficiency, customer service, and transparency.

With the centrality of GIS to the IT plan and to the success of the organization in mind, any permitting platform that is selected and implemented must be closely integrated with our enterprise GIS system. When considering the District's Permitting Department, and its goals for realignment, a chosen vendor and technology platform must:

- Make baseline permitting more efficient by:
 - Allowing applicants to apply for permits, track progress, interact with staff, pay fees, and view data online through a client portal;
 - Eliminating touch points, reducing coordination costs, and mitigating the potential for conflict that is inherently engrained in the development review process; and,
 - Improving the efficiency of review, the mobility and accessibility of information, and the retention of data.
- Allow staff to screen for public-private partnership opportunities through real-time placement of a permit application into the landscape with freely available context as to:
 - Potential to benefit or expand natural resources
 - Connection to other public lands and investments
 - Water quality data
- Push information and data from permit applications into GIS, supporting broader planning analyses that can inform policy change and project planning.

Vendor Selection Process

In considering these high-level criteria, a core, cross-functional review team was formed to assess vendors and platforms identified by WSB through Phase I of the IT plan. WSB and the core review team then began a process to narrow down the pool of potential vendors and platforms by:

1. Performing a high-level credential and product review, which narrowed the pool to five candidates.
2. Observing 90 minute product demonstrations. Vendors and products were assessed on: availability and functionality of online client portal access; online payment availability; integration of their platform with GIS; availability of (and integration to) electronic plan review software; mobile access; and, integration with record retention software. This narrowed the pool to two finalist vendors.
3. Full day product demonstrations and interviews of the finalist vendors.
 - a. An expanded review team was formed to include all staff members of permitting. Vendor's demonstrated products in detail, and were assessed on: core system functions, client portals, mobile inspection capabilities, electronic plan review, GIS integration, reporting capabilities, integration with other systems and software, and, system administration.

At the conclusion of the process, the expanded review team unanimously agreed that the ElementsXS system by Novotx most comprehensively met the functional requirements of the Permitting Program and technical requirements of the organization. Additionally, the review team agreed that the electronic plan review functional requirement was best met by separate software, Bluebeam, utilized in conjunction with ElementsXS. These decisions are based upon three key technical considerations.

1. The ElementsXS system by Novotx is built on ESRI GIS technology. Because of this, the system is able to seamlessly integrate into our GIS, and provide two-way movement of data. This means that data captured or used within the permit review or opportunity screening process is able to be accessed, analyzed, and utilized by other departments, and vice-versa. This close-knit GIS integration will allow staff to efficiently and effectively opportunity screen incoming projects, and push/pull data from GIS to support broader planning analyses organization-wide.
2. The workload management capabilities, customizable workflow, online client portal, and system administration features available through the core platform package provide substantial efficiencies within the permitting process. Additionally, and importantly, it also maintains staff's ability to modify and configure the system. The features showcased in the ElementsXS system provide the ability to automate a number of time consuming steps within our process, but ultimately allows staff to customize our workflow, and adapt the systems capabilities to our process. Other products and systems that were reviewed required our permit process to be adapted to a standardized process, rather than leaving staff in ultimate control of how the permit process unfolds.
3. The functionality provided by Bluebeam transforms the current manual and paper-based plan review process into an electronic and streamlined workflow. Through Bluebeam, permitting staff can share plan sets electronically with the District Engineer for real-time review and collaborative mark-up sessions. The flexibility and workflow customization in ElementsXS can be designed to incorporate and save mark-ups and final plan sets from Bluebeam into the official permit record.

Once the technical evaluation of the vendors concluded, the review team convened to evaluate budget proposals provided by the finalist vendors. The team found that the lowest quote was for the ElementsXS system by Novotx. Considering that the expanded review team had unanimously selected ElementsXS on its technical merits, and ElementsXS had the low quote, the core team concluded the best system for the District was ElementsXS. The core team acknowledges that the ElementsXS quote is above budget for the permit system, but believes the use of the permitting contingency and a portion of the general 2020 IT upgrade contingency to offset the costs and still remain within the 2020 IT upgrade budget is in the best interest of the IT upgrade process.

Through the budget analysis the core team discussed the option to review the ElementsXS platform for use as an asset management system for the District. The asset management system through ElementsXS could be implemented with no additional software purchases and the annual maintenance fees would not change with the addition of the asset management system. This possibility could reduce the scope of services needed form a potential ERP system, and, in turn, reduce future IT expenses.

Recommendation

Based on the findings of the functional review, the quote comparison, and the possibility for greater system implementation in the future at no additional software costs, the review team unanimously concluded that the permitting system that most comprehensively addresses the District's needs is ElementsXS by Novotx. Therefore, staff recommends the purchase and implementation of the ElementsXS system by Novotx. Further, staff recommends that the District purchase Bluebeam electronic plan review software to fully realize the functional gains of the IT update.

Recommended System - ElementsXS		Budget	
Software/Implementation	\$ 46,000	Permitting Software/Implem	\$ 34,800
Data Migration/Travel	\$ 12,500	Permitting Contingency	\$ 15,000
Bluebeam	\$ 2,900	General Contingency	\$ 15,000
Total Yr-1	\$ 61,400		\$ 64,800
Annual Software Maintenance	\$ 10,600		

*Data Migration and travel expenses will be billed based on an actual hours/travel expenses and may vary from the quoted amount.

Next Steps

GIS

ArcGIS Enterprise will continue to be built-out, including the development, testing and publishing of web maps and apps. Following staff-wide testing and refinement, an interactive map with updated data will be published to the public, an internal map to support permitting will go-live, and internal apps to support organizational initiatives like opportunity screening and responsive model will be deployed. Staff will receive training on best practices, data sharing and content management. Additional maps and apps, such as Paddling Minnehaha Creek and field data collection will be developed and deployed during the 1st quarter of 2020.

Permitting

Once the permitting system is approved staff will move forward with the purchase and implementation of the permitting system and Bluebeam software. It is anticipated that the recommended vendor will be able to begin implementation within about 30 days of the contract being signed. The review team and the permitting department will all have roles in the implementation process once it begins. WSB will continue to provide support and project management services for the system implementation, GIS, and website integration coordination.

IT Update

As the permitting system implementation begins the IT team will form a core review team for the water quality monitoring technology and begin the analysis of the systems and processes utilized and the use of the WISKI database.



RESOLUTION

Resolution number: 20-006

Title: Selection and Authorization to Purchase Permitting System Software and Maintenance Agreement

- WHEREAS, in February of 2017 the Minnehaha Creek Watershed District adopted a strategic plan to achieve its mission of protecting and improving land and water by building green infrastructure, and changing local, regional and state policy to further integrate land and water planning; and
- WHEREAS, a critical component in operationalizing this strategy is the effective deployment of technology; and
- WHEREAS, in July 2018 staff assembled a cross-functional information technology (IT) team to analyze the District's IT needs, facilitate the development of a request for qualifications (RFQ) for IT consulting, and inform implementation priorities; and
- WHEREAS, on February 28, 2019 the MCWD Board of Managers approved the release of a RFQ for an IT Consultant; and
- WHEREAS, on April 3, 2019 the IT Team, District Administrator and Board Liaison interviewed selected vendors; and
- WHEREAS, on April 11, 2019 the Board selected WSB as the IT Consultant and authorized the District Administrator to enter into contract negotiations; and
- WHEREAS, on May 9, 2019 the Board approved the IT Consultant contract with WSB for Phase I of the IT update; and
- WHEREAS, on August 8, 2019 the IT Team and WSB presented Phase I findings, recommendations, and budget estimates for Phase II of the IT update to the Operations and Programs Committee; and
- WHEREAS, on September 12, 2019 the Board approved the IT Consultant contract amendment with WSB for Phase II of the IT update; and
- WHEREAS, on October 24, 2019 the Board approved the purchase of GIS software to form the backbone of the overall IT update; and
- WHEREAS, following the purchase of GIS software, staff and WSB began a detailed and robust review of permitting vendors against the District's functional requirements; and
- WHEREAS, based on independent functional reviews and subsequent budget analysis of various permitting systems, staff and the IT consultant unanimously identified ElementsXS by Novotx as most completely and comprehensively fulfilling the District's functional requirements; and
- WHEREAS, staff and the IT consultant recommend that the District select ElementsXS by Novotx to support the District's functional and technology needs; and

WHEREAS, to further enhance and support programmatic efficiencies and collaboration, staff recommends the District purchase Bluebeam electronic plan review software, which will work in cooperation with Novotx's ElementsXS system; and

WHEREAS, the estimated cost to purchase and implement ElementsXS by Novotx is \$58,500; and

WHEREAS, the estimated cost to purchase Bluebeam electronic plan review software is \$2,900; and

WHEREAS, the combined use of these two systems will support the overall goals of the IT update and meet the functional requirements of the Permitting Program.

NOW, THEREFORE, BE IT RESOLVED that the Minnehaha Creek Watershed District Board of Managers hereby approves the purchase of software and maintenance agreements with ElementsXS by Novotx for a permitting system for an amount not to exceed \$58,500.

BE IT FURTHER RESOLVED that the Minnehaha Creek Watershed District Board of Manager hereby approves the purchase of software and maintenance agreements for Bluebeam, electronic plan review software for an amount not to exceed \$2,900.

Resolution Number 20-006 was moved by Manager _____, seconded by Manager _____.
Motion to adopt the resolution ___ ayes, ___ nays, ___ abstentions. Date: January 23, 2020.

Secretary Date: _____