Minnehaha Creek Watershed District   *REQUEST FOR BOARD ACTION*

MEETING DATE: February 28, 2019

TITLE: Authorization to Release RFQ for IT Consulting Services

RESOLUTION NUMBER: 19-021

PREPARED BY: Cathy Reynolds

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REVIEWED BY: ☐Administrator   ☐ Counsel   ☐ Program Mgr. (Name):_____
                  ☐ Board Committee   ☐ Engineer   ☐ Other:

WORKSHOP ACTION:

☐ Advance to Board mtg. Consent Agenda.	☐ Advance to Board meeting for discussion prior to action.
☐ Refer to a future workshop (date):_____	☐ Refer to taskforce or committee (date):_____
☐ Return to staff for additional work.	☐ No further action requested.
☒ Other (specify): **Final Action on February 28, 2019**	

PURPOSE or ACTION REQUESTED:
Staff request the authorization to release the RFQ for an IT Consultant to assist the District in conducting a comprehensive IT update.

PAST BOARD ACTIONS:
The IT Team provided updates to the OPC on September 13, 2018 and January 10, 2019. Feedback received in these meetings has been incorporated into this request for action. This is the first time the IT work is being brought to the Board.

SUMMARY:
The District's 2017 Strategic Alignment Plan identified the need for IT investment planning to enhance internal workflow and interaction with the public. In furtherance of this strategic goal, the District established a cross-functional IT team in July 2018 to develop a course of action to improve the District's information technology usage.

In September, District staff consulted with the League of Minnesota Cities, and Hennepin County IT professionals regarding the goals and vision for the IT update. Based on the feedback received, District staff determined that implementation of the IT vision would be best served by a solicitation of proposals for a virtual chief information officer (vCIO). The primary purpose of the vCIO would be to provide consulting services and assist with the overall planning and implementation of the IT update.

On September 13, 2018 staff provided an update to the OPC regarding the IT Plan and the intent to solicit proposals for a vCIO. Managers Shekleton and Olson were appointed as Board Liaisons for this initiative.

Following the September 13, 2018 meeting, the IT Team began a business analysis to evaluate the District technology use to inform the RFQ process. The purpose of the business analysis was to identify current business function workflows, how the workflows currently use technology, and how they could be improved with additional technological investment. This analysis produced wire diagrams and flow charts showing the process steps for each function, the intersection of the functions to support organizational collaboration and were used to develop a flow chart to show how data and information moves through the organization. The results of the business analysis were used to further refine the goals and needs of the organization and to develop the RFQ. The materials from the analysis will be further utilized to onboard the IT Consultant.

Through the business analysis process the goals for the IT update were refined and established as:

- Improve the quality of analysis, planning, and decision making of the organization;
- Streamline business processes and improve efficiency;
- Integrate and align intradepartmental workflow; and,
- Improve transparency, accountability and customer service.

On November 1, 2018, the Board Liaisons received an update on the status of the business analysis and the draft plan that the IT Team developed for the ongoing project. This included an update on the forthcoming GIS Technician position.

On January 10, 2019, the IT Team met with the Board Liaisons and provided an overview of the IT Team's work to date. The overview summarized the results of the business analysis, the refined goals for the IT update, the GIS Technician hiring process, and the next steps on the IT Consultant RFQ. The OPC received an update later that evening covering similar items and provided feedback on the goals and the proposed process.

On January 31, 2019, the IT Team reviewed the business analysis and workflow products along with the goals, objectives and process for the RFQ with the Board Liaisons. A written summary of the meeting was provided to both liaisons for additional comment and feedback. An additional meeting was held with Manager Shekleton on February 25, 2019 to review the materials and the IT Teams process.

RFQ- IT Consultant

Goals
The RFQ incorporates the goals of the IT update. These goals include:
- Improve the quality of analysis, planning, and decision making of the organization
- Streamline business processes and improve efficiency
- Integrate and align intradepartmental workflow
- Improve transparency, accountability and customer service

Objectives
The consultant will work collaboratively with the IT Team to help the District with the IT update. The consultant will be utilized to identify systems and software that meet the Districts needs and goals and to bring vendors in to do a demonstration of their product. The consultant will then work with the District to determine the best systems for selection and implementation. The use of the consultant will help to ensure system compatibility and integration across the breadth of the organization. The identified objectives for the consultant include:
- Identification of systems/software to support the organization's identified business functions and processes
- Testing, selection and development of the systems in conjunction with District staff
- Phasing of implementation

- Integration of systems in a cohesive manner ensuring project integration and coordination
- Implementation and sustainment budget planning
- User/staff training on the processes and procedures for integration of the systems

Project Phases

The work under the RFQ is identified in two phases. Phase one will be implemented on an aggressive timeline to inform the 2020 budget. This phase will be facilitated by the business analysis that the IT Team has conducted. This work must be completed by July 31, 2019 and will include:
- Understand the business analysis, goals and scope of project
- Develop timeline and initial system phasing recommendations
- Develop an estimate for the 2020 budget for implementation and ongoing consulting work
- Present recommendations to the MCWD Board.

Phase 2 will begin in August 2019 and continue into 2020 as needed. This phase will focus on system identification, selection and implementation. Phase 2 will include:
- System identification and selection
- System implementation
- Coordination with parallel implementation of website and GIS systems
- Develop long range budget plan.

Selection Criteria and Timeline

The vendors Statements of Qualifications will be reviewed based on the qualifications of the vendor, proposed approach, and fees. The final scope of work will be negotiated after the qualification based selection.

The IT Team has identified the following timeline for the RFQ process. This maintains a fairly aggressive timeline in order to bring the consultant onboard by mid-May to provide the maximum amount of time to meet the phase one deadline of July 31, 2019.

- Board Approval of RFQ: February 28, 2019
- RFQ Posted: March 4, 2019
- Informational Meeting: March 12, 2019
- RFQ Submissions Due: March 26, 2019
- Review Proposals: March 27-28
- Summary and Recommendation to Liaisons: March 29, 2019
- Interviews: April 3, 2019
- Summary and Recommendation to Liaisons: April 4, 2019
- Selection and Recommendation to Board: April 11, 2019
- Contract Approved by Board: May 9, 2019

The RFQ will be posted to our website, posted on the League of Minnesota Cities and Minnesota Department of Administration websites and provided to interested firms in our area.

Attached:
RFQ for Information Technology Consultant

RESOLUTION

RESOLUTION NUMBER: <u>19-021</u>

TITLE: **Authorization to Release RFQ for IT Consulting Services**

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,   the goals of the comprehensive IT update are as follows:
- Improve the quality of analysis, planning, and decision making of the organization
- Streamline business processes and improve efficiency
- Integrate and align intradepartmental workflow
- Improve transparency, accountability and customer service

WHEREAS,   at the May 7, 2018 Operations and Programs Committee, staff presented a proposal to address organization IT needs by contracting with an IT consultant to facilitate the evaluation and implementation of IT systems; and

WHEREAS,   in July 2018 staff assembled a cross-functional 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,   in September 2018, the MCWD Board of Managers appointed Managers Shekleton and Olson to serve as liaisons to the IT team; and

WHEREAS,   in November 2018 the IT team completed a comprehensive business analysis which evaluated inter- and intra-departmental workflow and movement of information to identify the areas where investment in IT will enhance organizational efficiency; and

WHEREAS,   the Board Liaisons have been briefed on the results of the business analysis process as well as the approach for solicitation, evaluation, and selection of an IT consultant to implement a comprehensive IT update.

NOW, THEREFORE, BE IT RESOLVED, the Minnehaha Creek Watershed District, Board of Managers hereby authorizes the staff to solicit statements of qualifications for IT Consulting Services.

Resolution Number 19-021 was moved by Manager _____, seconded by Manager _____.
Motion to adopt the resolution ___ ayes, ___ nays, ___abstentions. Date: _____.

_____ Date:_____
Secretary

REQUEST FOR QUALIFICATIONS
Information Technology Consultant

Organizational Background

The Minnehaha Creek Watershed District (MCWD) is a local unit of government responsible for managing and protecting water resources within the 178 square miles that drain into Lake Minnetonka, the Minneapolis Chain of Lakes, Minnehaha Creek and ultimately the Mississippi River. Over the past 50 years, the MCWD has collected and maintained extensive water and natural resource data which have supported implementation of over 70 capital projects resulting in the conservation and restoration of over 700 acres of land. MCWD employs a dedicated professional staff of 26 who specialize in natural resource planning, project development, land conservation, land use policy, water quality monitoring, permitting, education, and communication.

Project Overview

MCWD seeks qualifications from firms to provide information technology consulting services. MCWD has undergone a comprehensive organizational review and strategic planning effort to realign the organizational priorities and operations. One key area identified for change and improvement through this process was the information technology systems, including software, processes, and procedures, utilized by the District.

Based on the findings from the strategic planning effort, the District conducted a business analysis to identify the primary business functions (of the organization and constituent departments), the processes utilized by each function, and the points of intersection across functional areas. The business analysis has helped the District identify the systemic gaps and deficiencies with the current IT systems and identify desired system capabilities we want to achieve with a comprehensive update.

MCWD is seeking the services of a consultant to help the District develop and implement a comprehensive technology update. Desired services include: 1) identification of systems/software to support the organization's identified business functions and processes, 2) testing, selection and implementation of the systems, 3) phasing of the implementation, 4) integration of systems, 5) implementation and sustainment budget planning, and 6) user/staff training.

Goals of the Technology Update

Through the business analysis MCWD has identified several organizational goals for the comprehensive technology update.

- *Improve the quality of analysis, planning and decision making of the organization.*

- *Streamline business processes and improve efficiency.*
- *Integrate and align interdepartmental workflow.*
- *Improve transparency, accountability and customer service.*

MCWD Business Functions

Through the business analysis the following areas have been identified as high level business functions of the organization. Each of these areas have been broken down with additional functions and process steps in preparation for the technology update. More detailed information on the business functions and needs are identified in Attachment 1.

The high level business functions include:

- *Data collection and analysis*: Collection and analysis of data to assess the state of water and natural resources within the District. Data collection methods include real-time data collection, biological data collection, and discrete water quality sample collection.

- *Permitting*: Review and processing of applications for construction activity to assess their conformance with district rules and administer applicable permits. Additionally, to ensure projects are constructed as approved, the department implements a field compliance program to respond to concerns, complaints, and violations as appropriate.

- *Planning*: Integration and analysis of internal and external data to inform project and program implementation by identifying, evaluating, and prioritizing opportunities. Planning is performed at multiple spatial scales (e.g. watershed, subwatershed, project) and across multiple departments.

- *Project implementation*: Development and implementation of capital improvement projects, including partnership development, securing funding and land rights, conducting feasibility, design, and construction.

- *Project maintenance and land management*: Inspection, evaluation, and maintenance of district projects, lands, and infrastructure to ensure their long term functionality and operation.

- *Evaluation and reporting:* Tracking and evaluating progress toward District goals across the various programs and reporting the information to internal and external audiences.

- *Education and Communications*: Informing and engaging internal and external audiences to build awareness and support for the District's work and influence the actions of others.

- *Operations*: Supporting the organization as a whole in the areas of financial management, budget, human resources, information technology, facility management, asset management, and records retention.

MCWD Current Technology Structure

MCWD uses several disparate systems and processes to conduct routine daily business. These systems do not currently communicate with each other and generally involve the use of manual processes to move information through the organization. An overview of the current systems includes:

- Monitoring data are collected and stored in WISKI, which is a water quality relational database developed by Kisters North America. Multiple spreadsheets and manual processes are necessary to enter monitoring data into the WISKI database.

- Permitting data are primarily housed in a custom built SQL database. The database does not communicate with other sources and does not provide comprehensive processing or reporting functionality. Multiple spreadsheets and manual processes are maintained to supplement the database.

- Project planning, implementation, maintenance, and evaluation data are tracked through Smartsheets and Excel spreadsheets.

- Geospatial data are developed and utilized by multiple departments. Current GIS utilization and systems are outdated and need to be integrated with the overarching data collection, permitting, planning, and communication functions of the organization. The District recently hired a full-time GIS technician who will work closely with the IT consultant to inform geospatial system development.

- The District's website is a key component of the education and communication function. It also serves as a frontline for the permitting function and public access to data, including the interactive map. The MCWD is conducting a separate RFP for the redesign of its website that will occur in tandem with the broader technology update.

Detailed information on the systems utilized by MCWD are contained in Attachment 2.

MCWD System Needs Overview

MCWD seeks solutions to eliminate the disparate nature of current systems, and streamline high level business functions throughout the organization. Overall organizational system needs include: ability to query data and build customizable reports, mobile integration for field access and data collection, project tracking capabilities, document management and record retention compliance, and the ability to seamlessly share data across implemented systems. Department specific needs include: public-facing permit application interface with process tracking, financial management software, and a facility/asset management system. More detail on system needs can be found in Attachment 1.

All systems must natively integrate with GIS. A GIS database will serve as a central repository for organizational spatial data. Specific data generated within proposed systems will be updated, either automatically or through automated processes, into the GIS database, which will be served to online interactive maps and specialized apps, both internally and externally.

All systems with public-facing components that need to be incorporated into the redesigned website must be coordinated with the selected website designer to ensure easy integration. The website designer will be selected shortly after the IT consultant, allowing for coordination and feedback between the IT consultant and website designer on identified systems.

MCWD Project Timeline

MCWD seeks to move expeditiously with this process and as such has set out an aggressive timeline for the first phase.

Phase 1 -Onboarding and Project Scoping
This phase includes the onboarding and scoping of the project to develop a baseline to inform 2020 budget planning. This phase will involve:
- Understand the business analysis, goals and scope of project
- Develop timeline and initial system phasing recommendations
- Develop an estimate for the 2020 budget for implementation and ongoing consulting work
- Present recommendations to the MCWD Board.

This phase must be completed by **July 31, 2019**.

Phase 2 – Mid-Long Range Implementation
This phase will commence in August of 2019 and will consist of:
- System identification and selection
- System implementation
- Coordination with parallel implementation of website and GIS systems
- Develop long range budget plan

It is anticipated that this phase will run through December 31, 2019 and will continue into 2020 as needed.

Deliverables

The Scope of Work including exact deliverables will be developed in consultation with the selected firm. When the scope of the project is finalized, the deliverables will be more specifically defined.

MCWD Budget
MCWD currently has $100,000 budgeted in 2019 for the comprehensive IT update. This includes consultant work for Phase 1 and 2 and any initial system/licensing purchases to start implementation in 2019.

Submittal Requirements

Statements of Qualifications (SOQ) should not exceed ten (10) pages in length. Staff resumes may be included in an appendix and not included in the page limit.

SOQs shall be submitted in electronic format by 4:00 P.M., March 25, 2019 to creynolds@minnehahacreek.org.

SOQs must include:

1) Your experience in providing consulting services to identify and comprehensively update an organization's technology systems ensuring the integration and collaborative functioning of the systems. Primary focus should be on experience providing similar services to local governmental entities.

2) Your experience with systems to support each of the identified business functions.

3) The approach your firm would use in providing the services, including your plan for onsite time in the development and implementation of the comprehensive update. Your approach should include coordination with the selected website designer throughout the system identification process. Include information about the individuals or team members that would be leading this project. Describe the availability of the personnel assigned and how this fits into the time management structure of your overall customer base.

4) Proposed timeline for Phase 1 of the project understanding the deadline to have 2020 budget recommendations by July 31, 2019.

5) Corporate Information: Provide a brief description of your firm, including but not limited to the following:

    a. Name, telephone number and email address of a representative of the firm authorized to discuss your SOQ.
    b. Length of time in business.
    c. Length of time providing the proposed services.
    d. Number of full time employees involved in providing the proposed services.
    e. Name of any subcontractors to be utilized in providing the proposed services.
    f. Location of the office providing services under this SOQ.
    g. Fee structure
        ○ *Hourly rate:* Include the skill set, rate and the anticipated work each would perform under the contract.
        ○ *Cost Estimate*: Include an estimate of the cost to complete Phase 1 of the project.

Skill Set	Rate	Work Performed

6) Firm References. Provide three references, including the contact name and telephone number, for organizations or businesses for whom you have performed similar work. Please indicate which references are current customers.

Selection Criteria

Firms will be evaluated based on the following criteria:

1. *Company Experience*: What other similar projects has the consultant performed that are directly related to the proposed work?
2. *Staff Experience*: What qualifications and work experience do the proposed staff members or subcontractors bring to the project?
3. *Area Knowledge*: Does the company or any of the project team have specific knowledge about systems utilized to support the MCWD's identified needs?
4. *General Approach*: What is the company's general approach to completing the comprehensive IT update?
5. *Fee Structure*

Informational Meeting

An informational meeting will be held at _____ on March 12, 2019 (15320 Minnetonka Blvd., Minnetonka, MN 55345) to answer any questions about the project or process. At this time, MCWD staff will present an overview of the current infrastructure and a summary of the goals and focus areas to any consultants interested. **Please RSVP** and submit any questions via email in advance of the meeting to creynolds@minnehahacreek.org. A conference call line can be established for the informational meeting upon request.

Selection Process

MCWD will review SOQs and recommend a firm to the MCWD Board of Managers for selection. Interviews may be conducted on April 3, 2019 if MCWD determines they are necessary to make a selection. Once a firm is selected a scope of work, budget and schedule will be negotiated and incorporated into a contract approved by the Board of Managers.

The following section details the major functions of the organization, and the current systems and identified needs for each, as identified through the internally conducted business analysis. As context to the outline below, the systems and general state of technology supporting the major functions of the organization exist as a loose patchwork of tools and resources that operate independently.

1) **Monitoring data collection and analysis**: The primary function of monitoring data collection and analysis is to assess the water quality and biological conditions within the MCWD. The deliverables from this function provides MCWD with the ability to identify and implement projects for water quality and ecological improvement based on resource needs.

   Current Systems and Processes:

   - Monitoring Data Collection - Monitoring collects data detailing the state of water and natural resources within the district. Monitoring data collection comprises three distinct collection methods including real-time data collection, biological data collection, and discrete water quality sample collection. The processes, and the tools used to complete them, have been outlined below.

     o The real time collection of data such as flow, water level, and water quality largely involves direct observation or collection in the field.

       ▪ The water quality field data collection process involves a variety of devices including specialized water quality instrument, iPads, water level loggers, storm samplers, and flow meters. Data from this equipment is synced with office computers manually and subsequently edited, ultimately being uploaded to the WISKI database.

     o The collection of biological monitoring data involves field assessments to quantify the state of vegetation, fish, and macroinvertebrate health in lakes, rivers, and wetlands.

       ▪ The biological field data collection process simply utilizes pen and paper. Collected biological field data are entered into and permanently stored in spreadsheets.

     o Discrete water quality sample collection involves direct sampling within streams and lakes to quantify nutrient cycling and sediment transport.

       ▪ Water quality samples are bottled, stored, and shipped to a consulting analytical laboratory. The raw data is then sent to

MCWD in spreadsheet format. Water quality data spreadsheets are formatted for uploading into the WISKI database.

- Geospatial Data (GIS) – Geospatial data are data used for the creation of spatially oriented figures for reports, the identification of monitoring locations, characterization of watershed drainage areas, assessments of specific watershed characteristics, and the creation of hydrologic/water quality models, among many other functions.

  o Geospatial data specific to monitoring (process noted above) are housed in several locations including Kisters WISKI and ArcGIS. Miscellaneous data (still of import, but not specific to monitoring) are saved in multiple locations on the MCWD server. No structured database currently exists to organize the wide-ranging geospatial data possessed by MCWD.

- Data Analysis and Reporting – Data analysis and reporting is the dissemination of results from monitoring efforts (noted above).

  o Data analysis is primarily utilized to diagnose water quality issues and determine strategic locations for best management practices.

    ▪ Data analysis is conducted primarily utilizing Microsoft Excel and R (statistical analysis program).

  o Reports and memorandums are used to communicate technical data analysis and hydrologic/water quality modeling.

    ▪ Reports and memorandums are written with Microsoft Word. Our website is also used to publish some information such as lake grades or water quality trends.

System Needs:

- A seamless method of data collection and entry to reduce the amount of manual data entry and spreadsheet formatting.

  o Field equipment and data entry that automatically syncs to a central database to reduce task redundancy.

- A centralized geospatial database that houses permitting, water quality, biological, project, and landscape data (pipesheds, watersheds, land use, city boundaries, flood data, etc). This database will serve as a hub for internal and external access to information.

- Internal GIS interface that provides the location of monitoring locations, potential and implemented projects, and permit information.

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- A website with interactive capability.

    o Interactive infographic capabilities to provide a medium for communicating data in a visually-appealing way.

2) **Permitting**: The primary function of permitting is to review and process land-use applications, assessing their conformance with district rules, and administering the applicable public process. Additionally, to ensure projects and permits are constructed as approved, the department implements a field compliance program to respond to concerns, complaints, and violations as appropriate. These processes allow the district to protect key resources from degradation through regulation of land-use. The district also utilizes permitting to scan land-use applications for potential opportunities to expand natural resource benefits through partnership with public and private entities.

Current Systems and Processes:

- Administration of permits: The administration of permits is comprised of several processes including, application reception, risk analysis, plan set review, public notification, and finally issuance. These processes have been described below. Several of the processes outlined below utilize the same tools, therefore, the tools and resources have been described in a single, distinct section following the process outline.

    o Reception of permit applications involves the physical or electronic delivery of a permit application and associated plans to the district.

    o Natural resource risk and opportunity analysis is the assessment of incoming permit applications for potential partnership opportunities and/or risk imposed to natural resources. Applications are routed to appropriate staff based on the opportunity or risk they present.

    o Permit application and plan set review involves the detailed examination of a plan set (hardcopy and electronic) to determine conformance with district rules.

    o Public notification is the collection of parcel data and distribution of mailings to provide the public an opportunity to comment on permits under review.

    o Permit issuance involves securing financial assurances, maintenance declarations, and other punch list items before distributing an issued permit to the applicant and appropriate municipal staff.

    o The tools utilized to complete the processes outlined above include: Microsoft Outlook (electronic applications), physical record books, credit

card processor, custom SQL database, Laserfiche, consultant accessible server drives, a physical filing system, district geo-spatial data (ArcGIS, ArcMAP, ArcONLINE), external geo-spatial data (Hennepin County Natural Resources Maps, Carver County natural resources maps, FEMA Map Service Centers/FIS, municipal CIP maps, Adobe Acrobat Pro, Microsoft Office, postage meter, and certified mail.

- Compliance: the function of compliance (as a subset of permitting) is to field assess a project site's conformance with district rules, and take remedial action as necessary.

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  - o Site inspections are chosen utilizing a staff designed prioritization tool in Microsoft Excel. Site research, data entry, and the physical site inspection utilize: District's custom SQL database, server records, Laserfiche, Adobe Acrobat Pro, district geo-spatial data, external geo-spatial data, iPad/iPhone (field notes and photos), and Microsoft Office.

- Wetland Conservation Act Administration – administration of the wetland conservation act (WCA) is a state delegated authority to local agencies (like MCWD) for the purposes of protecting and conserving wetland resources, consistent with state regulation. The administration of WCA consists of review of plans and applications, field verification of boundaries, application processing, and the issuance of decisions.

  - o Review, field verification, and processing of applications is accomplished using: Microsoft Office (tracking sheets & email), iPad/iPhone, district geo-spatial data, external geo-spatial data, Adobe Acrobat Pro, custom SQL database, consultant accessible server, and Laserfiche.

  - o The issuance of decisions is accomplished using: Microsoft Office, SQL database, consultant accessible server, and Laserfiche.

System Needs:

- Clear and effective file management and record retention systems that remain accessible to district consultants.

- An electronic application and plan set review system that allow applicants to track staff progress of a given permit review.

- A geo-spatially oriented database that is able to process queries, robustly captures land-use information, is remotely accessible, and is compatible with the needs of other departments.

- Synchronization of mobile devices to the above referenced geo-spatial database and records retention system.

3) **Planning**: The function of planning is the integration and analysis of internal and external data sources to inform implementation. Planning is performed at multiple spatial scales (e.g. watershed, subwatershed, project) and across multiple departments.

Current Systems and Processes:

- Watershed Management Plan – development of the MCWD's 10-year plan requires compilation and analysis of internal data (monitoring, permits, studies, policy, etc.) and external data (city/partner plans and priorities) to identify water resource issues, management strategies, priorities, and implementation actions.

- GIS/interactive map –GIS and the internal interactive map are used within the planning department to compile geospatial data from internal (monitoring, modeling, permits, studies, past projects, etc.) and external (political and hydrologic boundaries, parcels, roads, land use, etc.) sources to identify and evaluate project opportunities.

- Project priority lists – the project priority lists track District projects and external project requests through use of Microsoft Excel. The priority lists are used to evaluate and prioritize projects using established criteria (alignment with goals, benefits, cost, etc.), and predict staff and financial capacity needs.

System Needs:

- GIS/interactive map – a system that is more easily maintained and auto-populated with data from the various programs/databases (e.g. permit data, monitoring data, project requests). Refer to *System Needs* in *Monitoring Data Collection and Analysis* and *Permitting* for more detailed information.

- Project database – a system for tracking and organizing project data throughout the stages of planning, development and implementation, maintenance, and evaluation.

4) **Project development and implementation**: The primary function of project development and implementation is to prioritize, design, and build high-impact capital projects. To do so, the MCWD assembles internal data, builds project partnerships, negotiates legal and financial agreements, leads internal and external project teams, and oversees the capital construction of the organization's investments.

Current Systems and Processes:

- Project Management – project management consists of the establishment and oversight of a scope, schedule, and budget for a given activity.

- To accomplish and track this, project managers utilize Smartsheets to establish project scope and schedule and to integrate internal and external project teams. Relevant legal documents and agreements supporting a given project are stored using Laserfische Client 10.0 and server drives.

- Project feasibility – project feasibility involves the utilization of internal and external data analysis to develop concept level plans for weighing the cost-benefit of a potential project.

  - To accomplish this, internal data (derived from processes outlined in *Research and Monitoring* and *Permitting*) and consultant-led modeling are used to build report forms, maps, and tables detailing both qualitative and quantitative cost-benefit analysis of advancing a project. Relevant documentation and data is saved on consultant accessible server drives and archived in Laserfische Client 10.0.

- Project design – project design consists of taking the results of project feasibility and concept design and advancing through iterations of construction drawings, moving towards implementation.

  - To accomplish this, project managers communicate and transfer feasibility reports, technical data, and drawing iterations between consultants. Outputs typically include CAD drawings, maps, and additional modeling data. Documents and draft plans are archived using consultant accessible servers and Laserfische Client 10.0; project updates, scheduling, scope, and budget adjustments are tracked through Smartsheets.

- Implementation – implementation consists of tracking, monitoring, and overseeing project construction.

  - To accomplish this, project managers track updates and changes utilizing Smartsheets. Essential project files and documents are archived using server drives and Laserfische Client 10.0.

System Needs:

- A centralized geospatial database to draw on information from water quality, permitting, and project planning to inform project prioritization. Refer to the *System Needs* section of *Monitoring Data Collection and Analysis* and *Permitting* for more detailed information.

- A centralized geospatial database to store project data (which may include maps, agreements, and plan sets) and report project outcomes and metrics.

- Integration of project management program (Smartsheets) with other departments' workflow.

5) **Project Maintenance and Land Management:** The primary function of project maintenance is to inspect, evaluate, and take preventative action on District investments to ensure their long term functionality and operation.

Current Systems and Processes:

- Project maintenance and land maintenance (PMLM) inventory – the PMLM program uses Microsoft Excel to track past capital projects, easements, properties, infrastructure, and other District assets and the associated long-term obligations. Upon completion of capital project construction or property acquisition, information is transferred to the PMLM inventory.

- Inspections and performance assessment – inspections and performance assessments consist of field review of District investments to evaluate system functionality, work completed, and recommendations for new maintenance activities.

    o To complete this work, field inspections, documentation, and recommendations are tracked in Microsoft Excel, hard copy paper reports and photos, and the WISKI database utilized by the Research and Monitoring Department.

- Maintenance – maintenance is the oversight of actual work performed, by internal staff or contractors, as tracked and prioritized by the processes above.

    o Ongoing activities are tracked in Microsoft Excel spreadsheets and other paper-based systems.

- Dam operations - MCWD operates the dam at Grays Bay according to an established management plan based on flow data and lake response models.

    o Dam operations are tracked in Microsoft Excel, and flow data from the dam is published on the District's website.

System Needs:

- An integrated geospatial project database which can transition project information to operations and maintenance, track ongoing maintenance and inspection data for projects and District properties (infrastructure to be inspected, past inspection data, pictures, maintenance activities, etc.), and is field/remotely accessible.

6) **Evaluation and Reporting:** The function of evaluation and reporting is to track and evaluate progress toward MCWD goals across the various programs and report the information to internal and external audiences.

Current Systems and Processes:

- District goals are summarized in the Watershed Management Plan (as outlined in the *Planning* section) and Total Maximum Daily Load (TMDL) reports.

- Evaluation and reporting tracks progress and metrics from all departments and utilizes all available data repositories, including:

  o WISKI database (described in the *Monitoring Data Collection and Analysis* section)

  o Custom Permitting SQL database (described in the *Permitting* section)

    ▪ The current database is limited in the queries that it can process, therefore information is not easily extracted and translated into metrics.

  o Project tracking lists via Microsoft Excel and Smartsheets (described in *Project Development and Implementation* and *Project Maintenance*)

  o Education/communications tracking lists via Microsoft Excel, which tracks information on education/outreach events, publications, newsletters, etc.

  o External progress includes tracking information on projects, permitting, and programs by cities or other agencies, and is obtained through various reports or meetings and summarized in Microsoft Excel spreadsheets.

- Reporting information is compiled from the various sources annually to produce required reports for the state and other stakeholders.

System Needs:

- A centralized system that can aggregate metrics from across various programs, measure total progress toward goals, and allow for analysis and reporting based on different parameters (e.g. phosphorus reduction by city, volume reduction by subwatershed).

7) **Communications and Education**: The function of communications and education is to communicate and engage internal and external audiences.

Current Systems and Processes:

- Communications – communication involves the creation and maintenance of both print and electronic outreach materials.

  - Create and maintain communication and outreach materials (print and electronic) using Adobe Creative Cloud, Microsoft Office, and online applications (Dropbox, Google Drive, etc).

  - Manage public and media relations using Microsoft Office and online applications (social media, Mailchimp).

  - Update and maintain website functionality using Drupal, Jira, Adobe Creative Cloud, and Microsoft Office.

- Education – education involves working with internal and external stakeholders to build engagement around MCWD priorities and provide general education to watershed residents.

  - Organize trainings, engagement activities, events, and volunteer programs using Acrobat, Microsoft Office, Drupal, and online applications (Dropbox, Google Drive, social media, SurveyMonkey, etc)

  - Create and update educational signage, materials, and displays using Adobe Creative Cloud, Microsoft Office, and online applications (Google Drive, Dropbox).

  - Manage current and past grants using Microsoft Office, Acrobat, and online applications (Google Drive, Dropbox).

System Needs:

- Website update and redesign to support publicly available robust data visualizations and maps, online permit applications and payment, forms, and other information. Specific technical website requirements include mobile responsiveness, Section 508 and WCAG 2.1 AA accessibility requirements, and integration of GIS data. **An RFP for a website designer will be issued separately from the IT consultant and will work in collaboration with the IT consultant to ensure system compatibility.**

- GIS database with internal display to aggregate and display data from all departments. It should also be capable of pushing data externally to the website for use interactively online (website, interactive map and graphics, and social media) and in publications.

- Contacts database that is connected across the organization to aggregate interactions and communications with external individuals to support project planning and engagement.

8) **Operations:** The operational functions support the organization as a whole. These functional areas include financial management, budget, human resources, information technology, facility management, asset management, and records retention.

Current Systems and Processes:

- Information Technology: IT managed services provided by Corporate Technologies. We have an onsite server and Barracuda backup server which further backs up to the cloud.

- Financial Management/Budget: We utilize Sage 50 accounting software and multiple spreadsheets for our financial management and budgeting processes.

- Facility/Asset Management: Multiple spreadsheets are used to track these items.

- Records Retention: We utilize Laserfiche for records management.

- Human Resources: Manual processes are utilized in the human resources area.

System Needs:

- Financial management software and allows program access to build budget and track real time expenditures.

- Review of the IT infrastructure to ensure it supports organizational update.

- Facility/Asset Management software that can be also be utilized by program land management personnel to track land management.

Figure 1 depicts the processes and the interrelation of each of the functions through the lifecycle of the organization.

ATTACHMENT 2

IT Managed Services Contractor: Corporate Technologies

Server: Microsoft Windows Server 2012 Standard

Backup: Barracuda Backup Server and Cloud

Records Management: Laserfiche, version 10.3

Permitting: SQL Database, multiple spreadsheets, shared drive storage, Laserfiche retention

Water Quality Data: Kisters WISKI

Financial Management: Spreadsheets

Project Management: Smartsheets

Accounting: Sage 50

Website hosting and maintenance: Fjorge

GIS: ArcGIS Desktop version 10.2.1, ArcGIS online, Webhosted GIS Server version 10.2.1

VPN: Firefox