

MEETING DATE: April 12, 2018

TITLE: Authorization to Purchase Stormwater Monitoring Equipment

RES. NUMBER: 18-040

PREPARED BY: Kailey Cermak

E-MAIL: kcermak@minnehahacreek.org **TELEPHONE:** 952-641-4501

REVIEWED BY: Administrator Counsel Program Mgr. Kelly Dooley
 Board Committee Engineer Other: Tiffany Schaufler Renae Clark

WORKSHOP ACTION:

<input type="checkbox"/> Advance to Board mtg. Consent Agenda. action.	<input type="checkbox"/> Advance to Board meeting for discussion prior to action.
<input type="checkbox"/> Refer to a future workshop (date):_____	<input type="checkbox"/> Refer to taskforce or committee (date):_____
<input type="checkbox"/> Return to staff for additional work.	<input type="checkbox"/> No further action requested.
<input checked="" type="checkbox"/> Other (specify): <u>Final action at April 12, 2018 Board meeting</u>	

PURPOSE or ACTION REQUESTED:

Staff is requesting authorization to purchase stormwater monitoring equipment from Tech Sales Company in the amount of \$27,235.95.

PROJECT/PROGRAM LOCATION:

- Arden Park Restoration Project
- Minnehaha Creek in Minneapolis

PROJECT TIMELINE:

Purchase Equipment-Mid April 2018
Install Equipment-Late May-early June 2018
Sampling-from installation through summer of 2020

PROJECT/PROGRAM COST:

Fund name and number: Research & Monitoring, 5001
Current fund balance: \$960,767.58
Requested amount of funding: \$27,235.95
Is a budget amendment requested? No
Is additional staff requested? No

PAST BOARD ACTIONS:

February 25, 2016 RBA 16-015 Authorization to purchase stormwater sampling equipment (325 Blake)

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Resolutions are not final until approved by the Board and signed by the Board Secretary.**

SUMMARY:

The Minnehaha Creek Watershed District (District) remains focused on putting high impact capital projects in the ground to improve water quality, enhance ecological conditions, and control flooding issues. In order to better support these projects, the Research and Monitoring Program has shifted its priority from broad baseline monitoring to project-scale monitoring.

Project specific monitoring plans are developed to create a shared understanding between R&M staff and the project manager. The monitoring plan outlines clear accountability and deliverables such as timeline, budget, parameters, collection frequency, and data analysis and reporting. Projects can be assessed using a wide variety of metrics depending on project goals, ranging from capturing pollutant loading to measuring ecological changes; the following information briefly discusses the monitoring plan details for two upcoming District initiatives, Arden Park and Minnehaha Creek Stormwater Management.

Arden Park Monitoring Plan:

The Research & Monitoring and Planning & Projects staff have been working together to develop a pre and post-project monitoring plan that will assess stormwater inputs, habitat diversity, and biodiversity. This data collection will allow the District to communicate performance of the project based on a foundation of sound science.

Pre-project monitoring will take place in 2018, prior to any construction in and around the Minnehaha Creek near Arden Park. This monitoring effort will include measuring E-grade metrics such as dissolved oxygen, macroinvertebrate sampling, instream and riparian habitat assessments, and a continuous stormwater monitoring station. Post-project monitoring will occur over a period of two years beginning in 2019 with the exception of macroinvertebrate sampling which will extend into the third year.

Pre-project stormwater collection will take place at one manhole. This provides the District with valuable data to calibrate the model used to estimate volume and nutrient loads coming from the site which could then be utilized for future restoration sites with similar landscapes. These data also allow staff to fully communicate the performance of the stormwater Best Management Practices (BMPs) installed during the restoration of the Arden Park.

Minnehaha Creek Stormwater Management in Minneapolis:

Stormwater management along Minnehaha Creek has long been a priority for the District. Within Minneapolis alone, there are approximately 100 stormsewer outfalls that discharge directly into Minnehaha Creek. The District just completed a stormwater management study to examine the outfalls along Minnehaha Creek in Minneapolis, and through this study identified 13 outfall locations which could be good candidates to convert into stormwater BMPs in an effort to reduce pollutants and peak volume runoff into Minnehaha Creek.

Pre-project monitoring for the first two of 13 outfalls will begin in 2018, prior to any conversion of these outfalls into potential projects. This monitoring will assess pollutant inputs during storm events at two manholes and three in-stream locations (Xerxes Ave, Cedar Ave, and Hiawatha Ave stations). After the pre-project data set has been obtained, the equipment will transition to other potential outfall project locations along Minnehaha Creek and the process will be repeated.

Pre-project stormwater collection provides the District with valuable data that can calibrate the model used to estimate volume and nutrient loads coming from watersheds at each of the outfalls. The data can inform stormwater BMP prioritization and design along with setting the stage for effectiveness monitoring once the future BMPs have been constructed.

Equipment needs

For both projects, the District will repurpose old ISCO automatic samplers. However, in order to capture low flow events (less than 1 inch) and provide remote communication to staff, upgraded flow modules and

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communication modems are needed. The new flow module is able to measure velocity in as little as 1 inch of flow depth, while the communication module has the capability to immediately alert staff when the ISCO sampler has been enabled (via cell phone) and can also be remotely programmed and triggered to initiate sampling.

Effectiveness monitoring has been a growing need for the District, as such, the District needs to invest in new equipment and supplies to help support this priority moving forward. As District staff become more familiar and experienced with this equipment it will result in cost-savings to the District due to District staff no longer relying on consultant assistance to operate.

Due to the manhole locations, confined space is needed for installation. Staff has arranged this work to be done by Wenck Associates using existing budgeted funds not to exceed \$5,000.

Recommendation

Staff is requesting Board authorization to purchase stormwater monitoring equipment from Tech Sales Company for \$27,235.95.

At the upcoming Board meeting, staff will provide a presentation outlining the needs for the stormwater monitoring equipment and how it will be used at the Arden Park Restoration site and in Minneapolis along Minnehaha Creek.

ATTACHMENTS:

1. Tech Sales, Co. quotation for equipment

RESOLUTION

RESOLUTION NUMBER: 18-040

TITLE: Authorization to Purchase Stormwater Monitoring Equipment

- WHEREAS, pursuant to its watershed management plan, the Minnehaha Creek Watershed District (“District”) has worked to develop projects that improve the quality and manage the quantity of stormwater runoff, enhance the ecological integrity of the stream system, and facilitate broader community goals of public partners throughout the urban corridor region of the District;
- WHEREAS, through the District’s strategic planning process, the Research and Monitoring (“R&M”) Department has reprioritized its monitoring to be focused on project identification and support;
- WHEREAS, the R&M staff have been working closely with Planning and Project staff to develop project specific monitoring plans to measure project performance by collecting pre and post project data;
- WHEREAS, in Edina, the Arden Park restoration project has an established pre-project monitoring plan that includes parameters to assess stormwater inputs, biodiversity, and instream and riparian habitat diversity;
- WHEREAS, in Minneapolis, the Minnehaha Creek outfall study has identified specific outfalls as effective locations for BMP retrofit, and pre-project stormwater monitoring is necessary to validate modeling assumptions and support design;
- WHEREAS, the District requires additional monitoring equipment in order to perform the identified pre- and post-project monitoring, and the ongoing need for such monitoring supports purchase of the requisite equipment;
- WHEREAS, Tech Sales Company offers the equipment at a competitive price through the State of Minnesota cooperative purchasing venture as MN State Contract #78637.
- NOW, THEREFORE, BE IT RESOLVED, that the District Administrator is authorized to purchase the described stormwater monitoring equipment from Tech Sales Company in the amount of \$27,235.95.

Resolution Number 18-040 was moved by Manager _____, seconded by Manager _____.
Motion to adopt the resolution ___ ayes, ___ nays, ___ abstentions. Date: _____.

Secretary Date: _____

QUOTATION

Quotation From:

TECH SALES CO.
311 W. 44TH STREET
MINNEAPOLIS MN 55409
Ph: (612) 823-8238 Fx: (612) 823-4272

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Quotation For:

Minnehaha Creek Watershed
15320 Minnetonka Blvd
Minnetonka MN 55345
Ph: (952) 641-4501 Fx: (952) 471-0682

Quotation#: 2171505
Revision#: 1
Date: 04/04/18

Attn: Kailey Cermak E-Mail: kcermak@minnehahacreek.org
Ref: Isco 2150 Flow Meter and 2105ci Modem

Please Address Order To:

TECH SALES CO.
311 W. 44TH STREET
MINNEAPOLIS MN 55409

FOB: Destination
Shipment: 3-4 Weeks ARO
Salesman: Travis DeGroot
Validity: 30 Days
Terms: NET 30 DAYS

Pricing per MN State Contract #78637 & Free Shipping

Item	Qty	Part#/Description	Unit Price	Total Price
1	3	682050001 Isco Model 2150 Flow Module. Includes Area Velocity Sensor w/33' cable, Also includes instruction manual & coupon for free Isco Open Channel Flow Measurement Handbook.	4,181.90	12,545.70
2	3	602004262 2100 Series Module Mounting Plate. ABS plastic plate for mounting 2100 systems to wall.	127.30	381.90
3	3	605314429 Isco SPA 1429. 2100 non-Isco Battery Connect Cable. Built to length, per foot. Maximum length is 25 feet. For connection of 2100, via bottom connector, to customer supplied deep cycle battery. Not for use with 2108. Includes 6ft of cable.	262.60	787.80
4	3	682000099 Isco 2105ci CDMA Serial Over IP modem module with dual band magnetic mount antenna. Requires customer-supplied static IP address service contract with Verizon.	3,130.25	9,390.75
5	3	692004584 Y-cable from 2105 to Sampler, 25 ft	315.40	946.20
6	3	683000043 Standard Scissors Ring for 16 inch to 36 inch diameter pipes. Includes base section, scissors mechanism, one pair of 7.5 inch extensions, and one pair of 20 inch extensions.	609.90	1,829.70
7	3	603204029 Sensor carrier for attaching Low Profile Area Velocity Sensor to Isco mounting rings.	51.30	153.90

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Q U O T A T I O N

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Quotation#: 2171505
Revision#: 1
Date: 04/04/18

Item	Qty	Part#/Description	Unit Price	Total Price
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8	1	S&T 1-Day Start-up & Training	1,200.00	1,200.00
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Quote Total: 27,235.95

Prices shown do include freight but NOT sales tax. MasterCard/Visa payments are accepted but may be subject to a 4% surcharge. Please review this quotation and let us know if you have any questions.

By: Travis DeGroot