



A Division of SET Environmental, Inc.
5005 Boone Avenue North
New Hope, MN 55428

May 22, 2024

Nancy Heskett, Environmental Specialist
Municipal Wastewater Section
Minnesota Pollution Control Agency
7381 Airport View Dr SW
Rochester, MN 55902

Subject: **Comments: Draft Permit MN0021440 for Spring Grove Wastewater Treatment Plant**
Public Comment Period: March 25, 2024 through May 24, 2024
NEC/Dayforce Remediation of TCE contamination, MPCA ID SA0000168

Dear Ms. Heskett:

Northern Engraving Corporation and Dayforce US, Inc. (NEC/Dayforce) submit the following comments in response to Minnesota Pollution Control Agency's (MPCA) Public Notice of intent to reissue the above-referenced permit.

The City of Spring Grove submitted a reapplication for a permit under the National Pollution Discharge Elimination System and State Disposal System (NPDES/SDS) program administered by MPCA for the continued operation of a municipal wastewater treatment plant. The draft permit follows the format of MPCA's NPDES/SDS General Permit (MN00221440) and includes regulation of a discharge to surface water of contaminated groundwater pumped from one municipal well, CW-1. The pumping at CW-1 is part of the remediation activities required by MPCA and undertaken by NEC/Dayforce for reduction of trichloroethylene (TCE) contamination in groundwater in the vicinity of Spring Grove. NEC/Dayforce are providing these comments and proposed revisions to the NPDES permit as interested parties for the CW-1 discharge to surface water.

As detailed below, the correct sampling location for the point of compliance for TCE is after the water flows over the MPCA-approved treatment system, i.e., the cascade aeration system, and the permit should be revised to appropriately identify this location as the point of compliance.

BACKGROUND

NEC/Dayforce (including predecessor companies) have been conducting certain response actions to the presence of TCE contamination in groundwater since 1986. The continuous pumping of CW-1 as an element of remediation activities began in 1989. The water from CW-1 is directed into a subsurface storm sewer line that daylights in Roverud Park.

NEC/Dayforce's remediation work has included installation of a cascade aeration system to treat the contaminated groundwater. The cascade aerator system consists of a concrete stair-step structure at the storm sewer pipe, which dissipates the storm sewer pipe's flow into a riprap-lined hillside channel that leads downslope to an

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intermittent stream channel. This cascade system was upgraded in 2020 to include an engineered roughened concrete channel instead of riprap, constructed using Flexamat brand pillowed concrete/geogrid composite to provide improved treatment via aeration of the dissolved TCE prior to discharge into the intermittent stream. Flexamat was also installed at the intermittent stream, a natural surface water feature, to reduce erosion caused by high-flow storm events scouring the channel. The natural watercourse is an unnamed tributary of North Bear Creek, and its channel continues downslope to the south. The City of Spring Grove discharges its treated municipal wastewater to this watercourse approximately ½ mile downstream of the NEC/Dayforce cascade system discharge.

The treatment of the pumped water from CW-1 by this cascade aeration system is part of the MPCA-approved remediation activities to address the TCE contamination, and this approval is documented in that certain Agreement Between the Minnesota Pollution Control Agency, Ceridian Corporation and Northern Engraving Corporation, for Completion of Remedial Action, dated May 19, 2003.

The previous NPDES permit was issued to the City on August 12, 2008 and renewed via MPCA administrative continuance. This 2008 permit included surface water discharge stations, including (now terminated) lift station bypasses, SD004 for the wastewater treatment plant outfall, and SD005 for the discharge of water from CW-1. Early correspondence regarding the surface water (Unnamed Creek to North Bear Creek) referred to it as a “dry run” though the channel has been provided continuous flow due to the CW-1 discharge to the upstream treatment channel that discharges into this watercourse. The 2008 NPDES permit stated:

The city of Spring Grove may discharge ground water (SD00S) at a rate of 200 gallons per minute (288,000 gallons per day) from city Well No. 1 to an unnamed creek to North Bear Creek to the Upper Iowa River. From the city well, the discharge is first piped via an underground four-inch pipe to the city catch basin No. 2; the discharge then flows via a 12-inch storm sewer pipe to the storm sewer outfall, which has a cascade system followed by course stone riprap, to accelerate the removal of volatile organics. The pump out activity is part of a gradient control/monitoring well system, designed to restore the contaminated ground water to drinking water standards.

Attached Figure 1 illustrates key features of the NEC/Dayforce-designed remedial pumping of CW-1, from supply well through the storm sewer components mentioned, and discharge via pipe to the treatment works (cascade system) prior to its discharge into surface water.

COMMENTS PROVIDED

NEC/Dayforce submit the following comments to the draft permit and requested revisions to the draft permit before final issuance. The comments are intended to support compliance with the permit requirements that pertain to the discharge of contaminated water from pumping CW-1. These comments consist of this narrative, supporting figures and photographs, and a copy of the draft permit in Word document format, with requested revisions identified using “Track Changes” and highlighted to facilitate your efficient review of the proposed edits.

SD005 (CW-1 raw water)

As described in the draft permit, SD005 is the water being pumped from CW-1, prior to any conveyance or treatment. NEC/Dayforce agrees this is an appropriate interim sample location because the TCE concentration of the water from CW-1 is needed for reporting to the MPCA Remediation Program. TCE concentration data is used as part of the remediation process to calculate total TCE removal, to evaluate the contaminant plume geometry, and to assess TCE concentration trends over time.

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Proposed Additional Monitoring Station

NEC/Dayforce requests the permit be revised to add an additional sampling location, identified in the attached documents as "SD005a." The actual naming of this proposed additional monitoring station is left to the MPCA's discretion and experience.

The location of this additional sampling station is at the end of the treatment cascade system channel, just upstream of the point where it discharges into the natural, intermittent stream channel. The coordinates of this station would be (UTM NAD83) as follows: X: 609965.470386 Y: 4823767.759141

NEC/Dayforce submits that this sampling location is the appropriate location for the TCE compliance monitoring point and that the permit be revised accordingly. Proposed sampling location SD005a is at the downgradient end of the engineered system constructed and approved by the MPCA for treating the TCE-containing water from CW-1; this station would be prior to its entry into the surface water feature, Unnamed Creek tributary to North Bear Creek. NEC/Dayforce has invested in the construction and upgrade of the cascade because it provides treatment of the groundwater discharged from CW-1. Using this point for TCE compliance monitoring is consistent with the original purpose and intent of this constructed channel.

The constructed channel resembles a stream when CW-1 is pumping. It is, however, a purpose-built treatment structure conveying water to the unnamed creek where the discharge to surface water occurs. Recently, CW-1 experienced a catastrophic pump and motor failure, and pumping did not occur from February 20 to February 29, 2024. This provided an opportunity to inspect the cascade system, which was totally "dry," and the unnamed creek bed was dry to a point approximately 0.2 miles downstream from the cascade system discharge. Water could be seen entering the intermittent stream channel from tile lines and snow melt, so the channel had a small flow once it reached station SD004 by the wastewater treatment plant. The photographs provided with these comments help to illustrate this.

Using SD005a as the TCE compliance point is consistent with NPDES practices and as set forth in US EPA's NPDES Permit Writer's Manual. Section 8.1.2 of the Manual addresses the appropriate monitoring location for a discharge. Since the NPDES regulations do not prescribe exact monitoring locations, the permit writer is responsible for determining the most appropriate monitoring location(s) and indicating the location(s) in the permit. Ultimately, the compliance sampling point must be representative of the discharge. See 40 CFR § 122.41(j)(1).

Section 8.1.2.3 of the Manual requires that the effluent monitoring location of the final effluent be established at a discharge point "*after all treatment processes.*" (Emphasis added). Effluent monitoring locations should be established to "*provide a representative sample of the effluent being discharged into the receiving water.*" (Emphasis added). More importantly, the Manual provides that compliance monitoring locations "*should be established after all industrial uses and treatment processes.*" (Emphasis added). Here, that location is after the treatment cascade system channel, at proposed sampling location SD005a.

The interpretation set forth in US EPA's NPDES Permit Writer's Manual is supported by the MPCA direction in section 13 of the transmittal form (MPCA # wq-wwprm7-03). The MPCA instructions for section 13 state "The location of the surface water discharge is defined as the location where a wastewater discharge enters a surface water (not where the pipe leaves the wastewater facility structure)," which is consistent with Clean Water Act practices and the US EPA's NPDES Permit Writer's Manual.

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Therefore, NEC/Dayforce requests the permit be revised to identify SD005a as the TCE compliance monitoring location for meeting the TCE concentration limit for remediation activities undertaken by NEC/Dayforce. Monitoring the discharge of water treated via cascade aeration generated by the pumping of CW-1 as part of the MPCA-approved Response Action is the appropriate point of compliance for the TCE limit.

To ensure compliance with the Federal and State requirements, and to prevent any sampling bias from dilution or mixing with other waste streams, NEC/Dayforce agrees that the permit should also be revised to require that the sample from SD005a only be collected when there are no other flows present in the storm sewer that could dilute the CW-1 waste stream, or introduce other contaminants.

Other Requested Changes

The draft permit with tracked changes provided herein shows the above-requested changes as well as other additional revisions to clarify the requirements associated with the CW-1 water discharge. These are offered to provide consistency with the above-mentioned clarification of SD005 and proposed additional monitoring station SD005a. Further, additional revisions are included that reflect the current MPCA Remediation Program reporting requirement of quarterly updates and Annual Monitoring Report submittal.

Lastly, all references to “Ceridian” in the permit should be replaced with “Dayforce.” As previously reported to the MPCA, Ceridian recently went through a corporate rebranding and the legal name of Ceridian HCM, Inc. is now “Dayforce US, Inc.” As such, we have made this change in the draft permit.

On behalf of NEC/Dayforce, we appreciate your consideration of these comments. If you have any questions regarding these comments, you may contact me at scarlson@wcec.com.

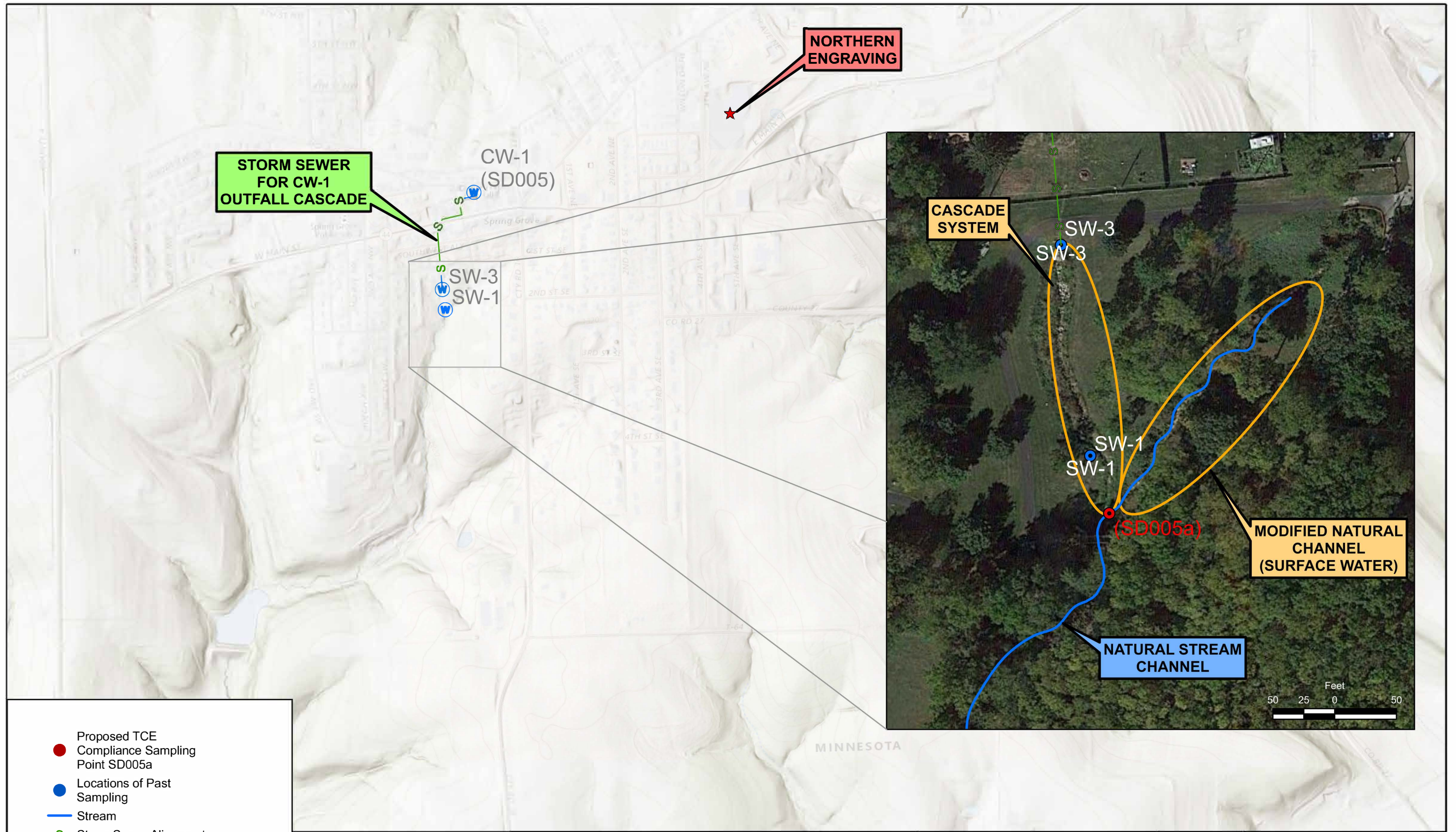
Sincerely,

WEST CENTRAL ENVIRONMENTAL CONSULTANTS, LLC

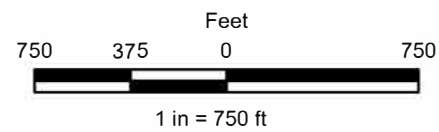


Steve Carlson
Senior Project Manager

- Enclosures:
1. Figure 1
 2. Photographs 1-9
 3. Requested changes to draft permit in “track-changes” mode



- Proposed TCE Compliance Sampling Point SD005a
- Locations of Past Sampling
- Stream
- Storm Sewer Alignment



Note:

CASCADE SYSTEM AND SURFACE WATER DISCHARGE

NEC/Dayforce TCE Remediation Project
Spring Grove, MN 55974

DRAWN BY: CH
DATE: 04/01/2024
SCALE: 1:262



PROJECT NUMBER: 24-15455-30

IMAGE SOURCE: Google Imagery

FIGURE 1



PHOTO NO. 1: View from storm sewer outfall (SW-3) facing south during cascade channel construction in 2020. The surface water (un-named stream) is beyond the far end of the flexamat-lined flow channel, past the trees and upstream of the bridge in the background.



PHOTO NO. 2: View of the cascade channel in 2024, photo was taken from near SW-3 and facing downslope along the aeration cascade system.

PHOTOGRAPHS:
Comments on Draft NPDES Permit,
Spring Grove Wastewater Treatment Facility
MN0021440: Spring Grove, Minnesota

DATE: May, 2024 | SCALE: N/A

PROJECT NO: 2311-0854





PHOTO NO. 3: View of water from pumping CW-1 entering the cascade aeration channel at sampling location SW-3.

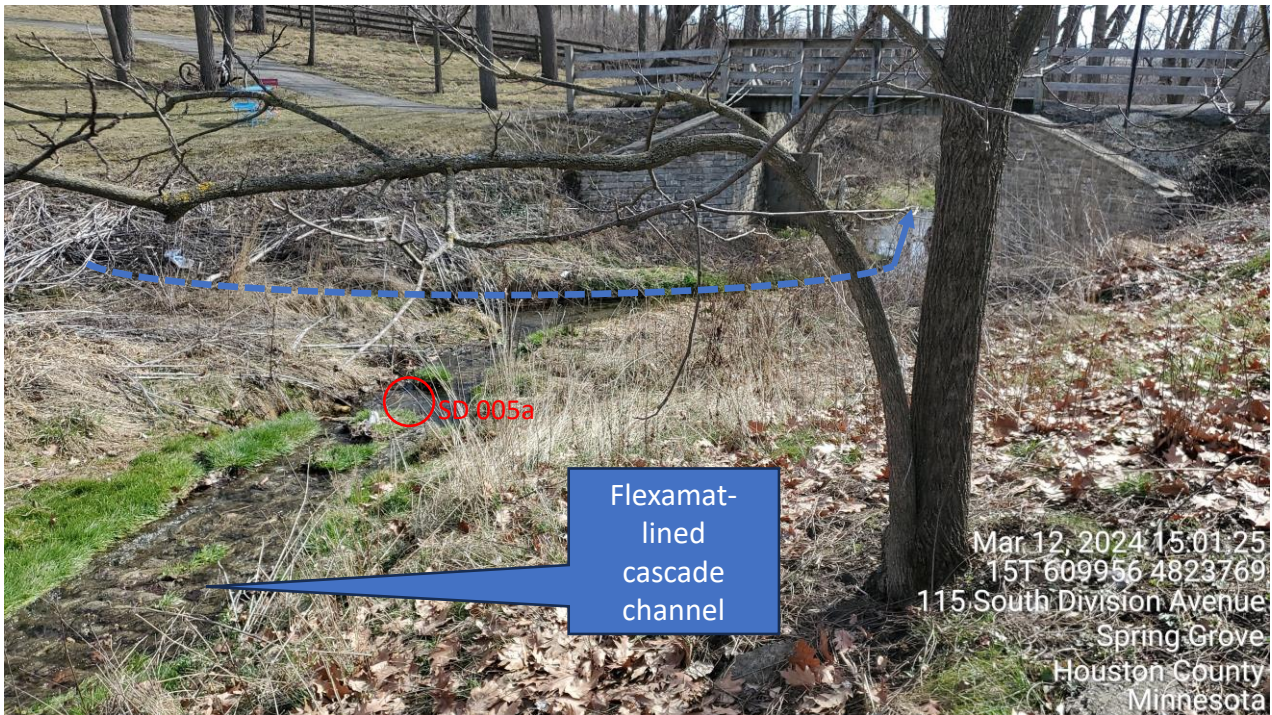


PHOTO NO. 4: Photo facing south, taken at base of cascade aeration channel just before it discharges to the natural stream channel (dashed line) which would flow from left to right in this picture. The proposed sampling station SD 005a is depicted. This photo was taken just upstream of a recreational trail bridge crossing the channel.

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PHOTO NO. 5: Alternate view of the cascade aeration system discharge into the un-named stream channel, tributary to North Bear Creek. The natural intermittent stream would flow down from the background, toward the left of this photo. Station SD 005a is depicted.

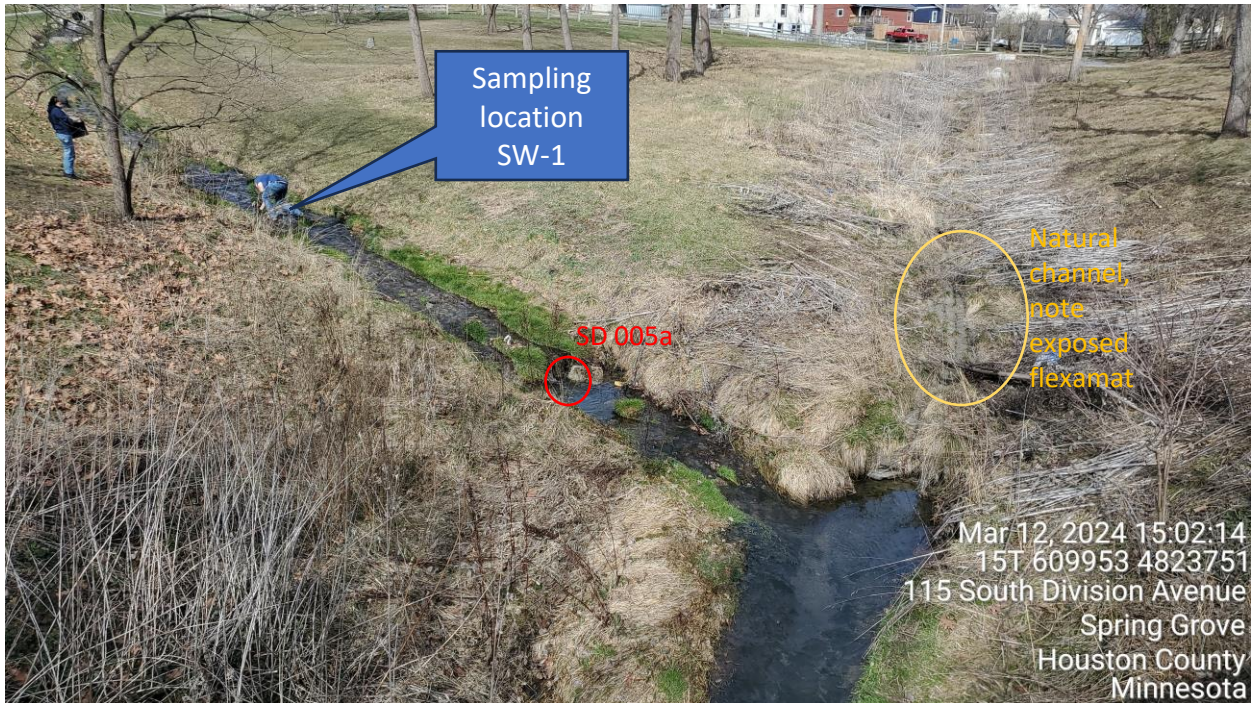


PHOTO NO. 6: View of station SD 005a taken from the trail bridge. The storm sewer outlet is visible at the far upper left of photo, the sampling team is collecting a sample from existing cascade system sample location SW-1. Note the natural stream channel was protected with Flexamat in the past.

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PHOTO NO. 7, top: Inspection of the CW-1 storm sewer outfall and cascade aeration system was conducted February 27, 2024 during a period when CW-1 was not pumping due to failure of the motor and pump stack.



PHOTO NO. 8, middle: Without flow coming from CW-1, there was no flow exiting the storm sewer and the cascade aeration channel dried up.

The channel was in good condition.



PHOTO NO. 9, bottom: Photo view faces upstream from a point just downstream of the trail bridge.

Observations made along the natural stream channel indicated the stream was dry for a reach of approximately 1000 feet downstream of the bridge, at which point snow melt and small hillside seeps contributed some water to the stream channel.

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