

Ms. Charlotte B. Theobald
New York State Department of Environmental Conservation, Region 8
6274 East Avon-Lima
Avon, NY 14414-9519

Re: Goulds Pumps Facility Site (C850013)
Sediment Sampling Work Plan

Date September 21, 2022

Dear Ms. Theobald:

This letter presents the proposed Sediment Sampling Work Plan on behalf of ITT for the Goulds Pumps Facility Site (Site #C850013) as requested in a June 8, 2022 letter from the New York State Department of Environmental Conservation (NYSDEC).

Ramboll
333 West Washington Street
Syracuse, NY 13202
USA

T 315-956-6100
F 315-463-7554
<https://ramboll.com>

Introduction

On May 19, 2015, ITT submitted a Remedial Investigation Report (RIR) for the Goulds Pumps facility site (Site) located at 240 Fall Street, Town of Seneca Falls, Seneca County, New York (**Figure 1**) to the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) for review and approval. On June 8, 2022, NYSDEC provided comments to the RIR and conditionally approved the RIR pending agreement by ITT to incorporate NYSDEC comments into the RIR. On June 17, 2022, ITT notified NYSDEC that ITT will accept and modify the RIR.

During a July 9, 2022 call, NYSDEC indicated that the future Remedial Alternatives Analysis Report (RAAR) would need to address impacts to sediment in the Cayuga-Seneca Canal (canal) south of the Site. During the 2015 RIR, 14 sediment samples were collected at five locations at depths ranging from 0 to 2 feet below mudline (bml, i.e., the surface water/sediment interface) (**Figure 2**). Sediment metal concentrations were categorized based on the sediment classification categories (i.e., Class A, Class B, and Class C) described in

NYSDEC's 2014 *Screening and Assessment of Contaminated Sediment* guidance document. In general, these sediment categories indicate the following (see NYSDEC 2014 for more details):

- Class A – If the concentration of a contaminant in sediment is below the Class A Sediment Guidance Value (SGV), the contaminant can be considered to present little or no potential for risk to aquatic life.
- Class B - If the concentration of a contaminant lies between the SGVs that define Class A and Class C, additional information is needed to determine the potential risk to aquatic life.
- Class C - If the concentration of a contaminant is above the SGV that defines this class, there is a higher potential for the sediments to impact aquatic life.

As shown on **Figure 2**, concentrations of copper, lead, mercury, nickel and zinc were detected above Class C thresholds at Outfall 001.

The goal of this Sediment Sampling Work Plan is to further characterize impacted sediment upstream, adjacent to, and downstream of location SED-001. Samples will also be collected from the SED-001 location at depths greater than 2 ft bml.

Utility Markout, Health and Safety Plan, and Quality Control Plan

A public utility markout of subsurface utilities on the land adjacent to the proposed sample locations will be completed prior to initiating intrusive activities in the canal. The markout will be completed by UDIG NY. If a private utility is identified that leaves shore and heads in the general direction of a proposed sampling location, the sample location will be moved so that the potential utility pathway is judged to be at least 10 feet from the sample location.

Prior to the start of work activities, Ramboll will augment the existing Site Health and Safety Plan (HASP) with a Job safety Analysis (JSA) to account for the proposed field activities. This HASP and JSA will be followed during all field work.

Sampling procedures will be in accordance with applicable state guidance, the January 2013 Remedial Investigation Work Plan (RIWP) and the associated Quality Control Plan (QCP) (Appendix B of the RIWP, Ramboll 2013). The method detection limits and quantitation limits will be verified with the lab and updated as necessary.

Investigation Sample Collection and Handling

Sediment samples will be collected from seven (7) locations. The SED-001 location (sampled in April 2015) will be sampled at deeper depth intervals than during the 2015 RI and six (6) new locations will be sampled to further evaluate sediment upstream, adjacent to, and downstream of location SED-001 (**Figure 2**).

At each location, sediment samples will be collected from multiple depth intervals. Samples from the SED-001 location will be collected in 1-ft intervals from 2 ft to 5 ft bml or refusal. The 0-ft to 2-ft bml

interval at this location was previously sampled during the April 2015 sampling event. Sediment samples from the six new locations will be collected at 1-ft intervals down to approximately 5-ft bml or refusal. Thus, a total of 33 sediment samples may be collected as a part of this effort: three samples from location SED-001 and five samples at each of the six proposed locations.

Where the sample location is accessible by boat, samples will be collected via a boat utilizing a vibracore sampling device. Sampling at locations that are not accessible by boat will be completed utilizing hand sampling equipment (e.g., Macro-Core® sampling system and/or slide hammer). All sample locations will be documented using a Trimble GeoXH Geographic Positioning System (GPS) unit or equivalent.

Sediment analyses will be conducted using a stepwise approach. The upper sample from each location will be analyzed for percent moisture and the metals that exceeded the Class B and Class C criteria (NYSDEC 2014) as documented in the RIR (cadmium, copper, lead, mercury, nickel, and zinc). The remainder of the samples will be placed on hold pending receipt of results. If sample results indicate that the concentration of one or more of the above-listed metals exceed the Class B sediment category standard, the next deeper sample will be released for analysis of that elevated metal. This stepwise analysis will continue at each location until the “bottom” of the affected sediment is reached (all of the above-listed metals have concentrations that fall into the Class A sediment category) or the last sample is analyzed.

Laboratory Analyses

Cadmium, copper, lead, nickel, and zinc will be analyzed via USEPA Method 6010C. Mercury will be analyzed via USEPA Method 7471B. Bulk sediment samples will be analyzed for percent moisture via SM2540G. Sample turnaround time will be expedited to meet holding times for samples that have been placed on hold.

Analyses will be conducted by Eurofins Environmental Testing Northeast in Buffalo, NY, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory, under proper chain-of-custody procedures.

Field Quality Control Sampling

Field duplicates, field blanks (also called equipment blanks), and matrix spikes/matrix spike duplicates (MS/MSD) will be analyzed to assess the quality of the data resulting from this sampling plan. Quality Control (QC) samples will be collected in accordance with the QCP and packaged and shipped to the laboratory at the same time as the “parent” sediment samples. Sediment QC samples are as follows:

Field Duplicates: Field duplicate samples are analyzed to check for sampling and analytical reproducibility. The general frequency will be one field duplicate for every 20 investigative samples collected (frequency of 5%).

Field Blanks: Field blanks are analyzed to check for procedural contamination at the Site that may cause sample contamination or contamination of sampling equipment obtained from equipment providers and check decontamination methods of non-disposable sampling equipment (i.e., stainless steel mixing bowl). Field blanks will be prepared in the field, using laboratory-grade deionized water, by allowing the

water to flow over/through the samplers and into sample containers with the appropriate preservative. The general frequency of field blank will be one field blank per day of sampling.

Matrix Spikes/Matrix Spike Duplicates: Matrix spikes provide information about the effect of the sample matrix on the preparation and measurement methodology. For organics, the matrix spikes are performed in duplicate and are hereinafter referred to as MS/MSD samples. For inorganic parameters, one matrix spike is collected and analyzed. One MS/MSD or matrix spike will be collected for every 20 sediment samples.

Sampling Equipment Decontamination Procedures

All non-disposable field sampling equipment will be field decontaminated at the start of each day, after each sample, and at the end of each day. Sediment sampling equipment will be decontaminated in the field in accordance with the following procedures:

1. Laboratory grade detergent (e.g., Alconox®) and tap water; scrub to remove visual contamination;
2. Generous tap water rinse;
3. 10% nitric acid solution rinse; and
4. Distilled/deionized water rinse.

Residual Management and Investigation Derived Waste

Disposable field sampling equipment will be collected in plastic garbage bags and disposed of as non-hazardous industrial waste in a receptacle at the ITT Goulds Pumps facility. Decontamination fluids will be collected and stored in a DOT-approved (or equivalent) container(s) for appropriate disposal.

Unused sediment will be containerized in a DOT-approved (or equivalent) container(s), analyzed to determine waste classification, and disposed of in accordance with applicable federal and state regulations.

DOT-approved (or equivalent) containers will be stored on ITT property in a location that is accessible for pick-up and approved by ITT staff.

Sample Management, Validation, Data Deliverables, and Reporting

Samples will be collected following the guidelines outline in the Site QCP. Samples will be labeled in the field with the sample identification, date collected, time collected, analytical parameters requested, preservative used, and sampler's name or initials. Sediment sample identification for nomenclature will generally be derived from the sample location (starting at SED-004), followed by the depth interval in feet bml and then the date the sample was collected (e.g., SED-004-0-1-093022). The information provided on the sample label will also be recorded on a field form and on the sample chain-of-custody form.

Data validation will be completed on the samples and a Data Usability Summary Report (DUSR) will be generated based on the QA/QC results.

Following receipt of the complete analytical data package and DUSR, a letter report will be prepared for submittal to NYSDEC presenting the sampling results. This letter report will document the sampling activities, provide the completed field forms, and field measurements, and summarize the results of the analyses. The complete analytical data packages and the DUSR will be provided in appendices to the report.

Bathymetric Map

A near shore bathymetric map of the canal side channel will be developed. This map will be developed using a castable sonar device in the general area of sample location SED-002 to SED-DNST (**Figure 2**).

Implementation Schedule

Sampling will be scheduled after NYSDEC approval of this work plan and approval of New York State Canal Corporation permits. Ramboll will provide notice to NYSDEC 10 business days prior to sampling. The letter report will be submitted upon completion of validation, approximately 1 month after receipt of validated data.

If you have any questions, please contact Jeff Stanek of ITT at 949-562-7401.

Yours sincerely



Brad Kubiak, PE

PROJECT OFFICER

M 315-882-2755

brad.kubiak@ramboll.com

References

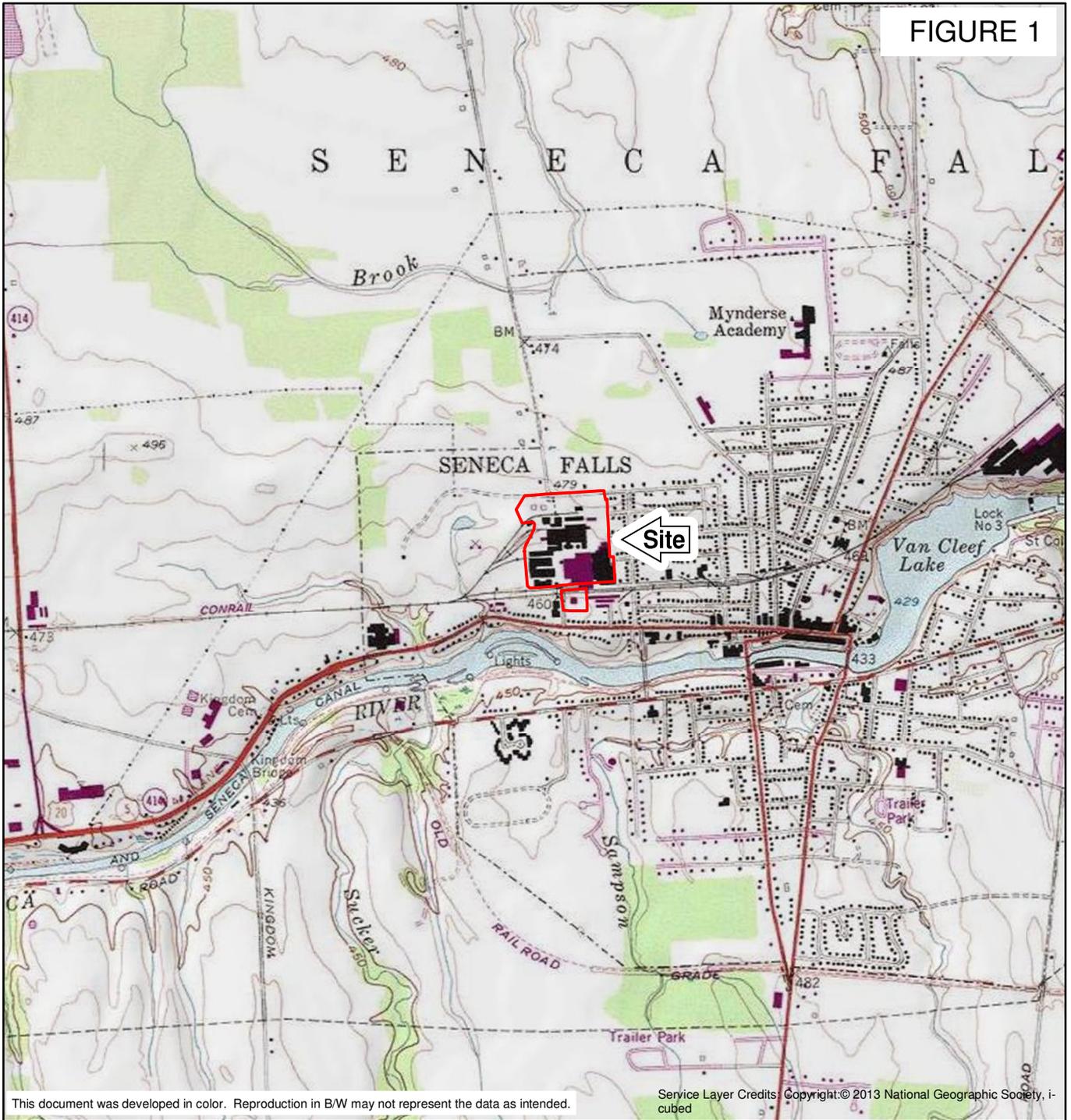
New York State Department of Environmental Conservation (NYSDEC). 2014. Screening and Assessment of Contaminated Sediment. June 24, 2014.

O'Brien & Gere. 2013. Remedial Investigation Work Plan, Goulds Pumps Administration Inc., Seneca Falls, New York, Site No. C850012. January 2013.

FIGURES

FIGURE 1

I:\tt-3356\50706.implementation\Docs\DWG\IMXD\Facility_R\Introduction-1\SITE LOCATION.mxd
Newton, JM
PLOT DATE: 9/19/2014 12:51:19 PM



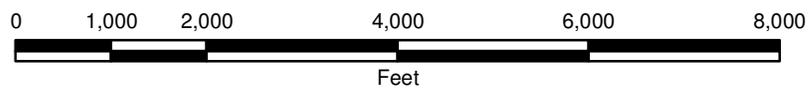
ADAPTED FROM: SENECA FALLS USGS QUADRANGLE **LEGEND**

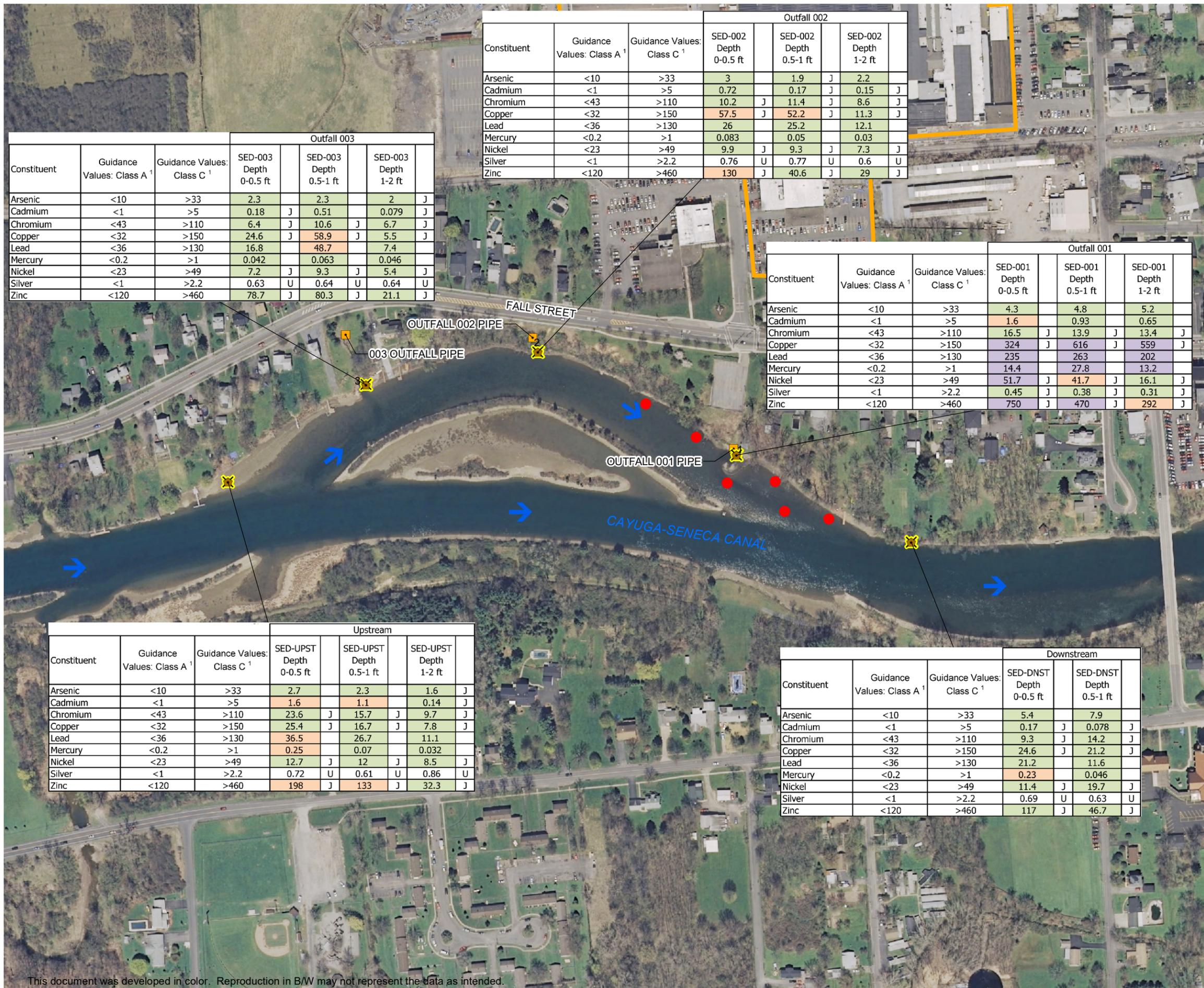
GOULDS PUMPS FACILITY SITE
240 FALL STREET
SENECA FALLS, NEW YORK
SITE NO. C850013

GOULDS PUMPS FACILITY SITE BOUNDARY



SITE LOCATION





Constituent	Guidance Values: Class A ¹	Guidance Values: Class C ¹	Outfall 002			
			SED-002 Depth 0-0.5 ft	SED-002 Depth 0.5-1 ft	SED-002 Depth 1-2 ft	
Arsenic	<10	>33	3	1.9	J	2.2
Cadmium	<1	>5	0.72	0.17	J	0.15
Chromium	<43	>110	10.2	J	11.4	J
Copper	<32	>150	57.5	J	52.2	J
Lead	<36	>130	26	25.2	J	12.1
Mercury	<0.2	>1	0.083	0.05	J	0.03
Nickel	<23	>49	9.9	J	9.3	J
Silver	<1	>2.2	0.76	U	0.77	U
Zinc	<120	>460	130	J	40.6	J

Constituent	Guidance Values: Class A ¹	Guidance Values: Class C ¹	Outfall 003			
			SED-003 Depth 0-0.5 ft	SED-003 Depth 0.5-1 ft	SED-003 Depth 1-2 ft	
Arsenic	<10	>33	2.3	2.3	J	2
Cadmium	<1	>5	0.18	J	0.51	J
Chromium	<43	>110	6.4	J	10.6	J
Copper	<32	>150	24.6	J	58.9	J
Lead	<36	>130	16.8	J	48.7	J
Mercury	<0.2	>1	0.042	J	0.063	J
Nickel	<23	>49	7.2	J	9.3	J
Silver	<1	>2.2	0.63	U	0.64	U
Zinc	<120	>460	78.7	J	80.3	J

Constituent	Guidance Values: Class A ¹	Guidance Values: Class C ¹	Outfall 001			
			SED-001 Depth 0-0.5 ft	SED-001 Depth 0.5-1 ft	SED-001 Depth 1-2 ft	
Arsenic	<10	>33	4.3	4.8	J	5.2
Cadmium	<1	>5	1.6	0.93	J	0.65
Chromium	<43	>110	16.5	J	13.9	J
Copper	<32	>150	324	J	616	J
Lead	<36	>130	235	J	263	J
Mercury	<0.2	>1	14.4	J	27.8	J
Nickel	<23	>49	51.7	J	41.7	J
Silver	<1	>2.2	0.45	J	0.38	J
Zinc	<120	>460	750	J	470	J

Constituent	Guidance Values: Class A ¹	Guidance Values: Class C ¹	Upstream			
			SED-UPST Depth 0-0.5 ft	SED-UPST Depth 0.5-1 ft	SED-UPST Depth 1-2 ft	
Arsenic	<10	>33	2.7	2.3	J	1.6
Cadmium	<1	>5	1.6	1.1	J	0.14
Chromium	<43	>110	23.6	J	15.7	J
Copper	<32	>150	25.4	J	16.7	J
Lead	<36	>130	36.5	J	26.7	J
Mercury	<0.2	>1	0.25	J	0.07	J
Nickel	<23	>49	12.7	J	12	J
Silver	<1	>2.2	0.72	U	0.61	U
Zinc	<120	>460	198	J	133	J

Constituent	Guidance Values: Class A ¹	Guidance Values: Class C ¹	Downstream	
			SED-DNST Depth 0-0.5 ft	SED-DNST Depth 0.5-1 ft
Arsenic	<10	>33	5.4	7.9
Cadmium	<1	>5	0.17	J
Chromium	<43	>110	9.3	J
Copper	<32	>150	24.6	J
Lead	<36	>130	21.2	J
Mercury	<0.2	>1	0.23	J
Nickel	<23	>49	11.4	J
Silver	<1	>2.2	0.69	U
Zinc	<120	>460	117	J

- LEGEND**
- HISTORICAL SEDIMENT SAMPLE LOCATION
 - OUTFALL
 - PROPOSED SAMPLING LOCATIONS
 - GOULDS PUMPS FACILITY SITE BOUNDARY
 - CLASS A SEDIMENT
 - CLASS B SEDIMENT
 - CLASS C SEDIMENT
 - RIVER FLOW DIRECTION



HISTORICAL AND PROPOSED SEDIMENT SAMPLE LOCATIONS

GOULDS PUMPS FACILITY SITE
 240 FALL STREET
 SENECA FALLS, NEW YORK
 SITE NO. C850013

FIGURE 2

SEPTEMBER 2022

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 A RAMBOLL COMPANY



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