



PROPOSAL

Hidden Valley Park Pond and Prairie Hills #1 Pond Dredging Project

City of Northfield | September 3, 2021

Contact:

Tim Olson, PE, CFM

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September 3, 2021

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RE: Proposal for Hidden Valley Park Pond and Prairie Hills #1 Pond Dredging Project

Dear Mr. Simonson:

The City of Northfield has initiated the Hidden Valley Park Pond and Prairie Hills #1 Pond Dredging project to restore the as-constructed condition and water quality capacity of these stormwater ponds. Like you, Bolton & Menk, Inc. takes great pride in maintaining safe, sustainable, and beautiful community amenities. Our approach to project development, design, and construction services makes Northfield's priorities our priorities. We understand what needs to be accomplished to successfully restore the condition of the Hidden Valley Park and Prairie Hills #1 ponds.

Local Expertise – The City of Northfield wants a consultant who is familiar with its community and processes. Through our team's previous work in Northfield, such as the Spring Creek Watershed Assessment (2015), City-Wide Stormwater Pond Assessment (2017), Parmeadow Pond 1 Preliminary Improvements (2017), Stormwater Management Plan (2020), and Golf Course and Parmeadow Pond 1 and 3 Dredging Project (2020/2021), we have extensive knowledge of both the area and specific project needs. We will build on our existing knowledge and relationships with city staff to efficiently move forward with the project, saving you valuable time and resources.

Proven Plan and Delivery – Now that Bolton & Menk has performed all pond assessments and successfully partnered to complete last year's pond dredging project, we know what you need and have established effective templates for bathymetric assessments, construction plans, specifications, and construction observation processes. This is also evident in our team selection, their relationships with city staff, and familiarity with the city's process.

Cost-Effective Solutions – Like any community, we understand the City of Northfield is watching its bottom line. We believe you will find significant cost-savings and efficiencies unique to our approach, as our team has the foundational knowledge needed to hit the ground running with this project. Our solid working relationship is clear and will translate into cost savings through efficient communication, a strong understanding of your needs, direct access to project data, and a unique understanding of the issues surrounding these stormwater ponds.

In continued service to the City of Northfield, we are excited at the opportunity to complete the Hidden Valley Park Pond and Prairie Hills #1 Pond Dredging project. I will serve as your lead client contact and project manager. Please contact me at 651-724-0404 or timothy.olson@bolton-menk.com if you have any questions regarding our proposal.

Respectfully submitted,
Bolton & Menk, Inc.

Timothy J. Olson, PE, CFM
Principal Water Resources Engineer

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A consultant
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UNDERSTANDING AND APPROACH

Fundamental Project Understanding

Bolton & Menk helped the city identify Hidden Valley Park and Prairie Hills #1 ponds as high priority for cleaning. The following is a summary of the information gathered during the Stormwater Pond Assessment Phase.

Unique ID	Pond Name	Year Built	Year Dredged	Sediment Accumulation (cu-ft)	As-Constructed Volume (cu-ft)	Percent Full (%)	Accumulation Per Year (cu-yds/yr)	Total Project Estimate
PND-0015	Hidden Valley Park Pond	1983	NA	101357	218568	46.4%	110.4	\$513,860
PND-0045	Prairie Hills #1	1996	NA	3854	6621	58.2%	6.8	\$104,820

The 2017 Stormwater Pond Assessment project included an estimate of accumulated sediment, sediment quality and contamination testing, and project costs. Overall project costs included potential access points, disturbed areas, traffic control, and restoration. A visual inspection of the pond riparian area, storm sewer connections, and outlet control structures were also performed. We understand this information will be verified in the field to finalize the recommended pond improvements. Preliminary visual inspections identified the following concerns:

- » Sediment deltas at culvert ends
- » Sparse and/or invasive vegetation
- » Evidence of illicit discharge and/or accumulated gross solids
- » Excessive algae
- » Bank erosion
- » Cracking in rock overflow/falls area

Prairie Hills #1 Pond is a small sedimentation basin that serves approximately 4.1 acres of townhomes. The pond discharges through a perched culvert connected to Prairie Hills #3 Pond (PND-0046). Prairie Hills #1 sits relatively low compared to Eveleth Avenue North and has an extended vegetated buffer. Certain areas of the buffer are overgrown with woody vegetation and likely contain excessive cattails and other emergent vegetation along the banks. This may make access challenging during the initial assessment. Construction access is likely best along Eveleth Avenue North and dewatering should be directed downstream to PND-0046.

Hidden Valley Park Pond is a large regional sedimentation basin with a contributing drainage area of approximately 92 acres. This includes single and multi-family residential areas. Hidden Valley Park Pond also currently contains excessive woody vegetation in the buffer area, as well as excessive sediment accumulation, especially near the southern and eastern storm sewer inlets.



Team Selection

Bolton & Menk selected a team and successfully completed preliminary field assessments, plans, specifications, and construction management on the Golf Course and Parmeadow 1 and 3 Dredging project. **While the previous pond dredging project has given the city an effective plan and specification template and certainly presented some learning opportunities, we understand the project team must be strong in terms of expertise and delivery.** Therefore, Tim Olson will serve as quality control (QC) manager and will help direct the project team with his experience in pond assessment and stormwater management planning. Brad Fisher will serve as the lead project manager and work directly with city staff on successful project delivery. Brad and Miranda Etienne will work closely to develop construction plans and specifications, plus guide the bidding and construction process. We have also selected additional survey staff who have extensive surveying experience in Northfield and knowledge of your control point network.

Dewatering Plan

Based on the Golf Course and Parmeadow Pond 1 and 3 Dredging project, we understand the importance of an effective dewatering plan. While groundwater intrusions were a significant factor in last year's project, the soil conditions are expected to be different in terms of groundwater and bedrock elevations. Our team is ready to prepare a robust dewatering plan that includes effective dewatering phasing and timelines during construction considerations based on temperature changes and project specifications.



In our opinion, it may be prudent for the city to consider one soil boring per pond to clearly identify the seasonal groundwater depth and potential depth to bedrock. Not only will this clearly identify the groundwater levels to be expected during construction and proximity to the current normal water level, it may define a different pond bottom elevation and excavation quantities may be adjusted to dig the pond bottom to the bedrock. The boring could be collected this winter around the approximate time of construction next year to identify a seasonal groundwater depth. The recommended boring depth would be 15 feet starting no more than 3 feet above the pond normal water level, or to bedrock refusal. This proposal does not include a quote for a boring, but we would be happy to facilitate a quote with your preferred geotechnical consultant.

Buffer Restoration

Both the Prairie Hills #1 and Hidden Valley Park ponds have extended vegetated buffers. While these buffers are wide, they are also overgrown with woody vegetation in areas. We understand the importance of pond buffers and the city's desire to maintain them. As such, we have included our natural resources project manager, Dan Donayre, to assist with an effective restoration plan. He will work with the city and contractor to define seeding and restoration techniques, as well as near- and long-term maintenance strategies, to ensure the buffer remains healthy for years to come.



WORK PLAN

Task A: Data Gathering

Bolton & Menk will coordinate a kickoff meeting to discuss project details, logistics, schedule, and roles and responsibilities of project and city staff. We will also discuss options for dewatering the ponds, potential for bypass flow diversion, and its potential impact on the project schedule.

Bolton & Menk will supplement the visual inspections performed with the pond assessment project and update any new inspection data. We propose to use digital inspection forms and store them in a GIS-based application. All inspections will include a photo library.

We will establish horizontal and vertical project control (i.e., Rice County coordinates, NAD 83, 1996 Adj./NAVD 88) matching data prepared for adjacent projects, as available, to be used by both Bolton & Menk and the contractor. We will complete a full topographic survey within the anticipated construction limits to be used for plan design. We will also complete additional survey of the pond inlets and outlets and other significant features that may impact construction.



We will verify the 2017 Stormwater Pond Assessment bathymetric surveys to ensure the sediment removal quantities are accurate. Given potential access limitations, vegetation growth, and pond depth, we will finalize our recommendation for bathymetric assessment. Previously, we used a kayak and depth finder/sonar setup with hand measurement verification. We are also prepared to use survey accurate bathymetric equipment which would be conducted using a Sonarmite-DXF dual frequency echosounder. This system combines both low-frequency and high-frequency transducers in one unit, enabling penetration through soft sediments to detect hard bottom as well as detection of the surface layer. This unique design is also a helpful tool for bottom classification. The sonar system will also incorporate an RTK GPS system to achieve a high degree of horizontal and vertical accuracy. This methodology allows underwater elevations to be dynamically recorded and compensated in real-time to achieve an effective bottom elevation.

Task B: Prepare Construction Plans and Specifications

Bolton & Menk will prepare construction plans, specifications, and construction cost estimates for improvements to Hidden Valley Park and Prairie Hills #1 ponds. This will include draft submissions at 50% and 95% completion, including a conference call or meeting at each submittal milestone. Revised plans will be provided to the city electronically.

Our plans will also include a dewatering plan. Since this component may be particularly sensitive to construction timelines, we intend to submit a draft, 50%, 95%, and final plans and specifications for dewatering.

In our last pond dredging proposal, we explained our philosophy regarding the importance of the city's first pond dredging project. The Golf Course and Parmeadow Pond 1 and 3 Dredging project paved the way for the next project. The City of Northfield needs to be confident in the delivery of a successful project and we intend to leverage our successes and challenges to increase our efficiency, improve on your plan and specification template, and guide the contractor to an even more successful project.



Task C: Permitting

Based on anticipated disturbance area and potential dredging methods, we will verify the need for and secure Minnesota Pollution Control Agency (MPCA) construction stormwater and other permitting, as needed. It is not anticipated that wetland permitting is applicable, but we will verify any MnDNR coordination during the preliminary planning and 50% plan design phases. *We understand the city is responsible for the costs of all permits.*

Task D: Public Engagement

Bolton & Menk will facilitate and lead one public meeting, accompanied by city staff, to be conducted around the 50% plan milestone. We will also present the final plans at a regularly scheduled city council meeting, in preparation for authorization of bids.



Task E: Bidding

The city can rely on Bolton & Menk's vast experience in managing the bidding process. As part of these bidding services, we will

- » Prepare the advertisement and invitation for bid
- » Prepare contract documents
- » Respond to bid inquiries
- » Issue addendums, as needed
- » Facilitate bid opening and tabulation
- » Award contract

Task F: Construction Services

Bolton & Menk will perform construction-related survey including construction staking, verification of dredging elevations and storm sewer improvements (as needed), and completing an as-built survey per city requirements. This will include submittals in AutoCAD or Civil3D to the contractor and city. We assume one as-built survey for the base of this proposal. If additional as-built survey is required based on results of construction, we will inform the city and discuss additional fees. Field staking will include:

- » Stake limits of construction
- » Stake for grading
- » Stake alignment and grade for trail replacement
- » Stake alignment for new storm sewer replacement and/or repairs, if applicable
- » Stake alignment for silt fence and other applicable erosion and sediment controls
- » Stake elevation for adjustment of storm structures
- » Stake for other facilities, as necessary

The city indicated that construction administration tasks will be primarily performed by city staff. Bolton & Menk will be available to assist with construction administration tasks at the direction of the city, within the budgeted hours described below, such as the following:

- » Attend preconstruction meeting
- » Attend on-site construction meetings
- » Prepare and issue change orders
- » Approve contractor payment
- » Coordinate with residents
- » Approve shop drawings and materials

Bolton & Menk will be responsible for construction observation. The city requested an assumption of 20 hours per week for 16 weeks. Additionally, there is an assumption that the project engineer will be available on site for 4 hours per week for 16 weeks.



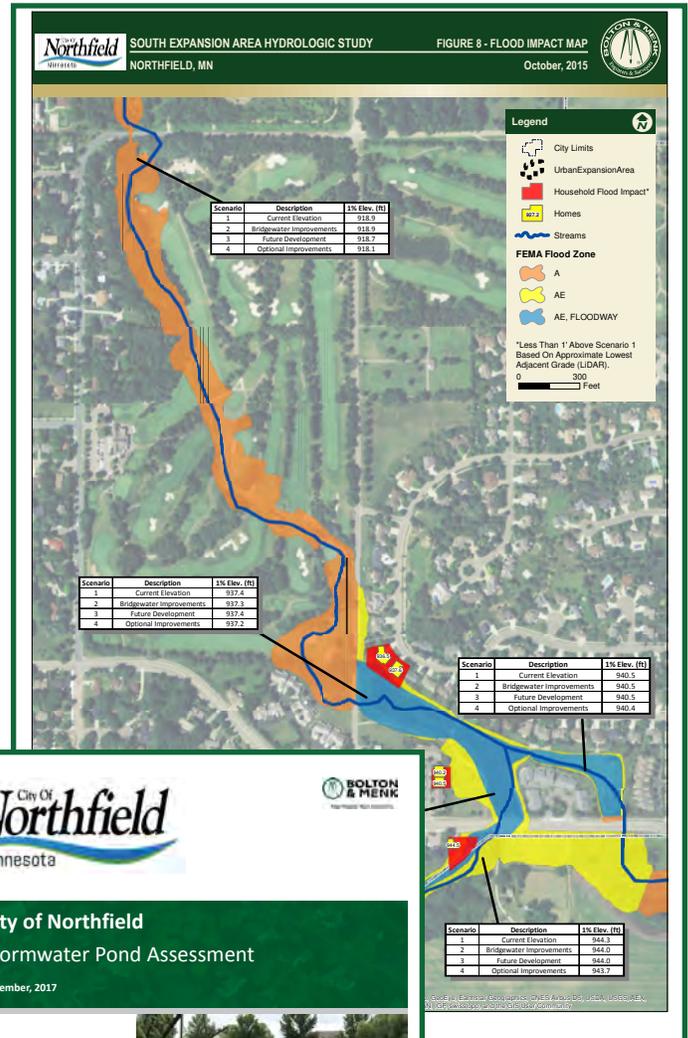
BACKGROUND AND EXPERIENCE

A sampling of recent projects in Northfield and with similar tasks and challenges to the Hidden Valley Park and Prairie Hills #1 Pond project follows. Client satisfaction through quality deliverables, cost-effective rates, and timely project delivery are top priorities for Bolton & Menk. Please contact the references on page 10 to evaluate our performance on similar projects.

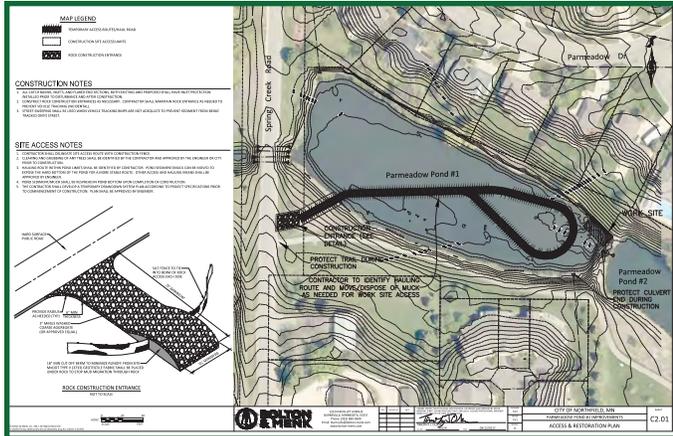
History of Partnership and Collaboration

The City of Northfield and Bolton & Menk have a rich history in and mutual understanding of the city's stormwater ponds. We are ready to see this collaboration through construction. To date, Bolton & Menk has assisted the city in developing the following related projects:

- » **Spring Creek Watershed Analysis**—This project included comprehensive modeling and assessment of flooding conditions throughout Spring Creek within Northfield. The modeling included the Parmeadow series of ponds, triple barrel culvert outlet, and discharge into and out of the Golf Course Pond. Our critical knowledge of the area hydraulics under a number of rainfall scenarios gives us a head start on understanding potential pond retrofits that would help protect adjacent homes.
- » **City-Wide Stormwater Pond Assessment**—Using a kayak and depth finder, Bolton & Menk worked with city staff to conduct bathymetric assessments, collect field data, and prioritize pond cleaning for 50 ponds in town. Total suspended solids (TSS) and total phosphorus (TP) treatment effectiveness and estimate pond cleaning costs were also completed for the top eight priority ponds. The Parmeadow 1 and 3 and Golf Course ponds were recommended for cleaning. This assessment put us in the ponds, literally. Our staff has floated through each pond, collected sediment depth measurements, walked the perimeter looking for maintenance deficiencies, and extensively photographed and documented the overall conditions. This gives us foundational knowledge that will translate into cost savings and efficiencies for the city.



- » **Parmeadow Pond 1 Preliminary Improvement Plan**—In 2017, Bolton & Menk worked with city staff to develop preliminary construction plans to correct an erosion issue in the northeast corner of Parmeadow Pond 1. This included additional bathymetric survey of a scour hole near the erosion site, preliminary cross sections of the current conditions and proposed corrections, site access locations, and restoration. With a 30% design in place, our base files can easily be translated into final design files for this project.



- » **MS4 Program Assistance and Stormwater Ordinance Development**—While not directly related to this pond improvement project, Bolton & Menk assisted the city in developing stormwater, erosion control, and shoreline and floodplain ordinances to comply with the city's MS4 permit and program. This collaboration has allowed us to better understand your specific MS4 needs, goals for regulation, and commitment to environmental protection.

- » **Stormwater Management Plan and Regional Stormwater Modeling**—Our knowledge of your stormwater system was exemplified through our collaboration in developing a regional stormwater management system model, stormwater management plan document, and neighborhood flooding assessments. We will use this information to make additional recommendations for regional drainage improvements based on these results, which will translate to construction cost savings for the city.

- » **Golf Course and Parmeadow Pond 1 and 3 Pond Dredging**—In 2020/2021, Bolton & Menk assisted the city in completing construction plans, specifications, bidding assistance, and construction observation on the first phase of pond dredging projects. We are excited to leverage an effective plan and specification template and lessons learned to make the Hidden Valley Park and Prairie Hills #1 projects even better.



- » **Continued Survey Services**—We are actively engaged in various projects in the City of Northfield, which include the Street Department Salt Shed, Riverside Lions Park Pickle Ball Court, 2021 Mill and Overlay, and Spruce Court Utility Replacement. For these projects, we performed topographic surveys and have or are currently performing construction staking. A few past projects include the Woodley Street Improvement; 2017, 2019, and 2020 Reclamation Street Improvements; along with many other past projects.



ANNUAL POND CLEANING PROJECTS

City of Woodbury, Minnesota



Municipal Separate Storm Sewer System (MS4) communities are challenged with assessing, prioritizing, and cleaning their stormwater ponds. Not only do ponds fill with sediment over time, but the sediment has the potential to be contaminated, which increases disposal costs. The City of Woodbury has several hundred stormwater ponds that require maintenance; the city realizes that stormwater ponds that have filled over time are less effective in managing pollutant discharge and have a higher potential to impact their local surface water resources. The City of Woodbury has adopted an effective approach to prioritize cleaning these ponds.

The city has created a cost-effective approach to assess the sediment loading in their numerous stormwater ponds and systematically clean them in conjunction with capital improvement projects. Bolton & Menk works directly with the city to identify the costs associated with pond cleaning projects, conduct field assessments of the basins to determine other maintenance needs, understand the pond hydraulics to determine if other retrofits are required to minimize flooding conditions, and understand the potential efficiencies associated with coupling the pond projects with local roadway improvements.

The City of Woodbury and Bolton & Menk have worked closely since 2014 to identify pond improvement projects. These projects included construction oversight, sediment testing and removal, pond shoreline reconstruction and restoration, outfall structure improvements, hydraulics assessments and emergency overflow analyses, and erosion and sediment control. By coupling these improvement projects with local roadway projects and a single contractor, the permitting, mobilization, and construction costs are significantly reduced.



FOREST LAKE POND IMPROVEMENTS

City of Forest Lake, Minnesota

The City of Forest Lake has over 100 stormwater ponds, many of which were constructed 30 or more years ago. Sediment has accumulated in the ponds, restricting their capacity to improve water quality. For city staff to prioritize pond sediment cleaning and understand capital costs, a city-wide assessment of the pond sediment accumulation was proposed.

In 2018, Bolton & Menk performed a city-wide bathymetric assessment of 104 ponds in Forest Lake. This assessment included measurement of the total accumulated sediment in each pond using a kayak and sonar equipment and visual inspections of the pond area and outlet control structures. The city and Bolton & Menk developed a pond cleaning priority schedule focused around capital improvement projects near the highest priority basins.

The city completed its third pond cleaning project in 2020 and intends to clean one high-priority pond per year, while budgets allow. The city is now able to accelerate its pond assessment and cleaning schedule and meet the requirements of its MS4 permit.

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PULASKI POND IMPROVEMENTS

City of Buffalo, Minnesota



Pulaski Pond is a shallow detention basin that discharges directly into Lake Pulaski. It was constructed by the Pulaski Ponds Development in 1992. In 2006, the pond was surveyed, and the average depth was only 2.5 feet. The Lake Pulaski Improvement District (LID) requested the City of Buffalo investigate the effectiveness of Pulaski Pond in treating stormwater runoff prior to discharge into the lake. The LID and city were concerned about an increase in algae blooms in Lake Pulaski over the previous few years. They also felt that algae blooms were occurring earlier in the summer than normal. Further, a sediment plume had established near the discharge connection from Pulaski Pond to the lake over the last several years, and was growing during heavy rain events.

Bolton & Menk partnered with the LID, City of Buffalo, and Aquatic Restoration Services to conduct sediment sampling, develop an improvement plan, and clean the pond. Several options were considered to improve water quality, including deepening the pond, adding an aerator, constructing iron-enhanced sand filters, and/or implementing additional best management practices in the agricultural land uses upstream.

The city and LID completed a dredging project in partnership with Aquatic Restoration Services. Approximately 740 cubic yards of sediment were removed and disposed. This project was the first phase in restoring sedimentation capacity in the pond, helped the City of Buffalo implement its MS4 requirements, and initiated a long-term approach to helping clean Lake Pulaski.



REFERENCES

Past performance serves as a great indicator of future performance. Our clients tell us we are doing a great job, and they will tell you, too!

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we've done this **HUNDREDS** of times



KEY PERSONNEL

The Bolton & Menk team serves as an extension of city staff, maintaining close coordination between the city and project team. The proposed team provides the optimum combination of accessibility, community knowledge, and specialized expertise. Our project manager, Brad Fisher, will be supported by key individuals and support staff. Bolton & Menk can draw upon nearly 700 other team members throughout our firm, as needed, to meet your needs. Project team member bios are included below. Full résumés are available in an appendix at the end of this proposal.



Tim Olson, PE, CFM
Principal-in-Charge,
QA/QC Manager

Tim will direct personnel and resources to accomplish the project work plan within your schedule. He will monitor progress, schedule, and budget to ensure critical issues are addressed in a timely manner. Tim will maintain consistent communication with city staff and project partners. Tim has been a water resources engineer with Bolton & Menk since 2006. His experience includes project management in both design and construction of complex water resources and environmentally sensitive projects. He specializes in comprehensive surface water management planning; innovative best management practice design; detailed hydraulic and hydrologic modeling; drainage design and construction plan review; NPDES Phase I & II MS4 and construction stormwater permitting requirements; and coupling GIS techniques with water resources design and analysis. Tim has a passion for stormwater and water quality education and participates in several stormwater-related steering committees and stakeholder groups. He enjoys facilitating partnerships, developing new relationships, and collaborating with stakeholders to define a common vision and work toward shared goals.

Relevant Project Experience

- » **City-Wide Stormwater Pond Assessment, City of Northfield, MN**—Tim managed the project, directed field staff, reviewed project deliverables, and communicated project information with city staff.
- » **Stormwater Improvements, City of Monticello, MN**—Tim led the water resources team to develop hydraulic modeling for pond improvements and direct bathymetric assessments.
- » **Stormwater Pond Assessments and Improvements, City of Forest Lake, MN**—Tim directed field staff in bathymetric and MS4 data collection for 104 ponds in town and developed plans, specifications, and cost estimates for the first two high-priority pond cleaning projects.



Brad Fisher, PE
Project Manager

Bolton & Menk understands delivering a sensitive project like this requires exceptional management. Brad has the qualifications and experience to monitor progress, schedule, and budget while working closely with the city and project team to ensure critical issues are addressed in a timely manner. Brad is a project engineer who began his career in 2014. He has worked on many municipal projects consisting of roadway design, including municipal state aid design and utilities such as sanitary sewer, watermain, and storm sewer. Brad is passionate about listening to his clients' needs and delivering their visions. He completes project planning, design, and preparation of construction plans and specifications. His design experience includes preliminary and final design, preliminary layout and design, preparation of feasibility reports, preparation of construction plans and specifications, preparation of quantity take-offs and cost estimates, and project documentation. In addition to his design experience, Brad has experience providing construction inspection and documentation services on various projects. He has significant experience in the evaluation of concrete pavement, determination of rehabilitation feasibility, and the implementation of CPR methods and repairs.

Relevant Project Experience

- » **2021 Reclamation and Overlay, City of Northfield, MN**—The City of Northfield rehabilitated streets in two different areas of the city, including pedestrian sidewalk improvements, sidewalk and trail connections, and trail rest areas. Brad teamed with city staff to lead the design effort and manage the project construction. He met with city staff on a regular basis to teach them the fundamentals of Civil3D throughout the design process to ensure conformance between city and Bolton & Menk plan sheets.



- » **2020 Mill and Overlay, City of Northfield, MN**—The City of Northfield rehabilitated streets in three different areas of the city, including pedestrian sidewalk improvements, intersection bumpouts, and new bicycle facilities. Brad led the design and construction teams for the street project. He developed various design options along with their specific considerations for implementation and presented them to the city council and the public to educate and foster support for the improvements.
- » **2019 Street Reclamation, City of Northfield, MN**—Bolton & Menk provided preliminary engineering, final design, and construction administration services for this State Aid street rehabilitation project which included select utility replacements, pedestrian sidewalk improvements, intersection bumpouts, sidewalk connections, new bicycle facilities, an improved railroad crossing, and streetscaping elements through the city's Arts Corridor. Brad led the project team to ensure conformance of the various plan elements and carried that attention to detail through construction administration with the city's construction observers. He helped the city progress a unique design to make their Arts Corridor stand out and was diligent in working with the railroad to ensure improvements and access were kept on schedule.



Miranda Etienne, EIT
Design Engineer

Miranda will work closely with Tim and Brad to develop construction plans and specifications. She will rely on the city's previous pond dredging project as a template to expedite plan and specification development. Miranda is a design engineer for Bolton & Menk beginning her career in 2017. She is responsible for preparing preliminary engineering reports, preliminary and final design, and developing construction plans. She also assists with design calculations and cost estimates. Miranda is proficient in AutoCAD Civil 3D and Storm and Sanitary Analysis (SSA). In addition to her design knowledge, Miranda has gained valuable experience in the field on projects ranging from new residential developments to full reconstructs, as well as mill and overlay and reclamation projects.

Relevant Project Experience

- » **Tonka-Woodcroft Improvements, City of Minnetonka, MN**—The City of Minnetonka will be reconstructing all streets within the project area, including adding concrete curb and gutter, storm sewer and stormwater best management practices, spot sanitary sewer replacements, and watermain replacements. Miranda worked as part of our water resources team on the storm sewer modeling and design. She played a vital role in the analysis of the proposed storm

sewer system and drainage patterns to help the team create a design that best meets the needs of the community as well as fulfill the stormwater requirements set by the watershed district.

- » **2021 Pavement Management Program Street and Utility Improvements, City of Arden Hills, MN**—The City of Arden Hills sought the help of Bolton & Menk to improve the infrastructure within this project area through a combination of street reclamation and reconstruction, the addition of curb and gutter, the addition of storm sewer, and sanitary sewer and watermain improvements. Miranda worked as part of the design team, focusing on all street and storm sewer design and plan production. She worked through the challenges of creating a street and storm sewer system with good drainage for this existing neighborhood with flat grades to create a product that will better serve the community.
- » **Maple Island Road Sanitary Sewer and Trail Improvements, City of Burnsville, MN**—The City of Burnsville enlisted Bolton & Menk in the design of a shared use trail, retaining walls, and sanitary sewer forcemain along Maple Island Road. Miranda acted as the design engineer on the proposed trail, worked with our structural engineering group on the retaining wall designs, and assisted in plan production. After plans were finalized, she coordinated with all private utility companies to ensure facilities in conflict with the project were relocated to a suitable location prior to the beginning of construction to keep the city's planned project schedule.



Derek Benoy, EIT
Water Resources
Design Engineer

Derek will use his intrinsic knowledge of Northfield's stormwater pond system to evaluate field data and translate the technical project information to the plan. Derek is a water resources design engineer, starting his career at Bolton & Menk in 2016 as an intern and beginning full-time in 2017. His primary responsibilities include developing hydrologic and hydraulic modeling for preliminary project layouts, storm sewer design, sanitary sewer design, water quality modeling, stormwater plan implementation, general stormwater planning, reviewing development plans, and preparing Stormwater Pollution Prevention Plans for a variety of civil engineering-related construction projects. Derek has experience using Autodesk Civil 3D design software and ArcMap 10 analysis. He has additional experience in hydraulic design using HydroCAD, Autodesk Storm and Sanitary Analysis, XPSWMM, HEC-RAS, and HEC-HMS.



Relevant Project Experience

- » **City-Wide Stormwater Pond Assessment, City of Northfield, MN**—Derek was responsible for bathymetric information and field inspections, including the Parmeadow Ponds, for the city.
- » **Stormwater Pond Assessments and Improvements, City of Forest Lake, MN**—Derek collected bathymetric and MS4 pond inspection data for 104 ponds in Forest Lake.
- » **MS4 Construction Site Inspections, Cities of Cottage Grove and Maple Grove, MN**—Derek performs and manages MS4 construction site inspections. He is responsible for meeting with contractors on site and reporting on SWPPP and erosion control deficiencies.



Alexander Poore
Construction Services
Representative

Alex worked with city staff during the previous pond dredging project as resident project representative. Alex understands what the city needs to execute a successful construction project. Alex began his engineering career full-time in 2018 and is involved with various aspects of the design and construction process for municipal, transportation, and site development projects. He is responsible for preparing detailed engineering drawings from working sketches and field data as well as routine testing and construction observation.

Relevant Project Experience

- » **Golf Course and Parmeadow Pond, City of Northfield, MN**—The City of Northfield rehabilitated/ dredged three ponds in early 2021, including improvements and inspections to an aging pond overflow weir and bypass channel. Alex assumed the resident project representative role for Northfield's previous three acre pond dredging project. Through detailed communication with Northfield city staff and Bolton & Menk engineers, the project was successfully completed on time and within budget.
- » **Bridge Avenue Street Reconstruction, City of Albert Lea, MN**—Starting in spring of 2020 through the fall of 2021, Freeborn County and the City of Albert Lea fully reconstructed 1.5 miles of city/county roadway. This project was conducted over two full construction seasons and with a budget of \$14 million. Alex served as the lead utility inspector on the project for the entire duration of the two year project. His inspections covered utility, concrete, road building, and paving crews, all the while accommodating to resident questions and concerns. His inspections and keen communication efforts ensured plan conformance and a positive public perception.

- » **190th Street Agricultural Ditch Project, Empire Township, MN**—Empire Township commissioned preliminary drainage planning for agricultural ditches. Alex drafted drainage plans and coordinated preliminary survey/locating efforts for multiple private utility companies. His timely efforts and acute field experience allowed the successful completion of Empire Township's preliminary engineering services before an early spring thaw prevented the efforts.



Eric Wilfahrt, LS
Survey Manager

Eric will provide survey oversight and guide field crews to collect all information necessary for design.

He will also ensure construction staking is clear and accurate.

Eric likes to complete projects that have complex and challenging right-of-way and boundary determinations. He manages survey operations for the firm's south metro locations and began his surveying career in 2004. He is responsible for managing, researching, preparing, calculating, interpreting, and writing legal descriptions related to ALTA, topographic, plats, boundary, and engineering surveys. He has additional quality control and oversight duties. Eric is proficient in AutoCAD, AutoCAD Map, COGO, CG-Survey for AutoCAD, Eagle Point Software, Civil 3D, Trimble Business Center, Leica Cyclone 9, and Leica Topo II Software.

Relevant Project Experience

- » **Flood Zone Survey at Parmeadow Drive, City of Northfield, MN**—Eric performed topographic survey to identify flood issues for use in design for flood mitigation. Work included full topographic survey up to the rear of a house located at 1300 Parmeadow Drive along with obtaining low opening of house.
- » **2013 Street Improvements, City of West St. Paul, MN**—Eric and his survey crew performed topographic survey of a pond bottom to conduct a pond cleaning project. He managed the coordination, data gathering, and drafting.
- » **Marie Avenue Improvements, City of West St. Paul, MN**—Eric managed survey of a pond bottom for use in design of a pond cleaning and dredging project.





Doug Bisek
Senior Survey Field Technician

Doug will assist Eric with survey tasks for the project.

Doug joined Bolton & Menk in 1999.

He is a survey crew chief responsible for field operation of municipal and private surveying services including construction staking, topographic, boundary, and ALTA surveys. He is proficient in the use of survey instrumentation, including Trimble Robotic Total Station, Trimble Survey Controllers, Trimble GPS Equipment, and Trimble Dini Level. Doug has experience with a variety of civil, municipal, and transportation projects. He enjoys working with clients to provide real solutions to their projects.

Relevant Project Experience

- » **Flood Zone Survey at Parmeadow Drive, City of Northfield, MN**—Doug led the survey field work in conjunction with Eric and the survey crew.
- » **Marie Avenue Improvements, City of West St. Paul, MN**—Doug managed all field aspects of the survey and coordinated data with the city and project team.
- » **2013 Street Improvements, City of West St. Paul, MN**—Doug led the survey crew in collecting all field data.



Dan Donayre, WDCP
Senior Natural Resources Specialist

Dan will be responsible for securing all natural resources permitting,

conducting TEP meetings as needed, and coordinating all critical natural resources impacts with regulatory agencies.

Dan leads our natural resources team and is responsible for coordinating with state and federal agencies to work through difficult aquatic resource delineations and permitting. He began his duties in 2006 and has conducted hundreds of wetland delineations, GPS surveys, and MnRAM analyses. Dan has successfully completed Wetland Conservation Act (WCA), Minnesota Department of Natural Resources, and U.S. Army Corps of Engineers permitting processes related to type and boundary applications, replacement plans, de minimis applications, exemption applications, no loss applications, and banking plans. He also acts as the local government unit (LGU) for several client communities. His duties as LGU include reviewing applications under the WCA, organizing and leading technical evaluation panel meetings, and issuing notices of decision.

Relevant Project Experience

- » **Wentworth Avenue Reconstruction, City of West St. Paul, MN**—This project included grading in and around a public water wetland. Dan managed all natural resources permitting surrounding the disturbance and wetland restoration. He also managed delineation of numerous other wetlands impacted by the project.
- » **64th Street Reconstruction and Ravine Restoration, City of Inver Grove Heights, MN**—Dan managed the delineation and permitting of potential wetland impacts associated with a ravine restoration. He also secured MnDNR permitting for a new connection to a lake.
- » **Duck Lake Road Improvements, City of Eden Prairie, MN**—Dan performed wetland and natural resources delineations for Duck Lake and developed permitting for fill within the lake.

WE DELIVER THE RIGHT SOLUTIONS.

Through client collaboration, we identify the best solutions for each project, incorporating innovation based on client/project objectives.



COST BREAKDOWN

The following tables summarize the hours and cost breakdown for each major work task item. The estimated fee includes labor, general business, and other normal and customary expenses associated with operating a professional business. Unless otherwise noted, the fees include vehicle and personal expenses, mileage, telephone, survey stakes, and routine expendable supplies; no separate charges will be made for these activities and materials. Expenses beyond the agreed scope of services and non-routine expenses, such as large quantities of prints, extra report copies, out-sourced graphics and photographic reproductions, document recording fees, outside professional and technical assistance, and other items of this general nature will be invoiced separately.

For your convenience, we have separated Design (Tasks A through D) and Construction (Tasks E and F). We have included the recommended construction observation and survey as identified in the RFP. However, these construction times could be reduced. Should construction timelines differ from the city’s original assumptions, our fee will also be adjusted. We have also included a proposal from PSI Intertek to conduct sediment sampling and testing. PSI conducted sampling during the 2017 Stormwater Pond Assessment and the verification testing performed during last year’s pond dredging project. If the city wishes to use a different testing consultant, or would like to see additional quotes, we would be happy to accommodate.

Client: City of Northfield
 Project: Hidden Valley Park Pond and Prairie Hills #1 Pond Dredging Project

Task No.	Work Task Description	QC Manager	Project Manager	Design Engineer	Water Resources Design Engineer	Resident Project Representative	Office/Field Survey Technician	Natural Resources Specialist	Total Hours	Total Cost
A	Data Gathering	4	3	0	10	0	70	5	92	\$14,179
B	Prepare Construction Plans and Specifications	10	34	133	16	0	0	10	203	\$26,377
C	Permitting	0	0	8	0	0	0	0	8	\$1,000
D	Public Engagement	14	0	4	0	0	0	0	18	\$2,698
E	Bidding	0	18	12	0	0	0	0	30	\$4,056
F	Construction Services	0	66	0	0	324	48	0	438	\$54,312
Total Hours		28	121	157	26	324	118	15	789	
Average Hourly Rate		\$157	\$142	\$125	\$124	\$115	\$160	\$137		
Subtotal		\$4,396	\$17,182	\$19,625	\$3,224	\$37,260	\$18,880	\$2,055		
Total Fee									\$102,622	



Fee Scope

Client: City of Northfield									
Project: Hidden Valley Park Pond and Prairie Hills #1 Pond Dredging Project									
Task No.	Work Task Description	QC Manager	Project Manager	Design Engineer	Water Resources Design Engineer	Resident Project Representative	Office/Field Survey Technician	Natural Resources Specialist	Totals
A Data Gathering									
A.1	Coordinate/Facilitate Kickoff Meeting	3	3						6
A.2	Wetland Verification							5	5
A.3	Perform On-Site Field Inspections				10				10
A.4	Coordinate Pond Sediment Testing	1							1
A.5	Conduct Field Survey - Inlets/Outlets, Low Opening						70		70
Subtotal Hours - Task 1		4	3	0	10	0	70	5	92
B Prepare Construction Plans and Specifications									
B.1	Prepare Draft Construction Plans	1	3	40					44
B.2	Prepare Draft Dewatering Plan		2	16					18
B.3	Prepare 50% Construction Plans, Specifications, and Estimated Costs		3	20	2			4	29
B.4	Prepare 50% Dewatering Plan		2	6	2				10
B.5	Prepare 95% Construction Plans, Specifications, and Estimated Costs		6	35	2			4	47
B.6	Prepare 95% Dewatering Plan	1	2	6	2				11
B.7	Facilitate 50% Review Meeting	3	3						6
B.8	Facilitate 95% Review Meeting	3	3						6
B.9	Revise Final Contract Documents	2	10	10	8			2	32
Subtotal Hours - Task 2		10	34	133	16	0	0	10	203
C Permitting									
C.1	Determine and Obtain MPCA Permits for Construction			4					4
C.2	Determine and Obtain MnDNR Permitting			4					4
Subtotal Hours - Task 3		0	0	8	0	0	0	0	8
D Public Engagement									
D.1	Conduct One Neighborhood Meeting	10		2					12
D.2	Present Project at City Council Meeting	4		2					6
Subtotal Hours - Task 4		14	0	4	0	0	0	0	18
Design Total Hours		28	37	145	26	0	70	15	293
Average Hourly Rate		\$157	\$142	\$125	\$124	\$115	\$160	\$137	
Design Subtotal		\$4,396	\$5,254	\$18,125	\$3,224	\$0	\$11,200	\$2,055	\$44,254
E Bidding									
E.1	Prepare Advertisement for Bid		2	4					6
E.2	Prepare Contract Documents		2	4					6
E.3	Respond to Pre-Bid Inquiries		4						4
E.4	Issue Addendum		2	4					6
E.5	Conduct Bid Opening and Tabulation		6						6
E.6	Award Contract		2						2
Subtotal Hours - Task 5		0	18	12	0	0	0	0	30
F Construction Services									
F.1	Perform Construction Survey - Single Verification						32		32
F.2	Construction Administration Assistance								0
F.3	Construction Observation					320			320
F.4	Construction Observation - Project Engineer		64						64
F.5	Create Punch List					4			4
F.6	Issue Letter of Final Acceptance		2						2
F.7	Create As-Built Information and Record Drawings						16		16
Subtotal Hours - Task 6		0	66	0	0	324	48	0	438
Construction Total Hours		0	84	12	0	324	48	0	468
Average Hourly Rate		\$157	\$142	\$125	\$124	\$115	\$160	\$137	
Construction Subtotal		\$0	\$11,928	\$1,500	\$0	\$37,260	\$7,680	\$0	\$58,368
Total Fee									\$102,622





Intertek-PSI
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Eagan, Minnesota 55121

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August 30, 2021

Bolton & Menk, Inc.
111 Washington Avenue South, Suite 650
Minneapolis, Minnesota 55401

Attention: Mr. Timothy Olson
Principal Water Resources Engineer

Subject: Proposal for Limited Sediment Re-Sampling of Two (2) Ponds in Northfield, Minnesota
PSI Proposal 0673-352821

Dear Mr. Olson:

Thank you for giving us the opportunity to propose our services to you. Professional Service Industries, Inc. (PSI) is submitting this proposal to conduct limited environmental re-sampling of sediment from ponds PND-0015 and PND-0045 located in Northfield, Minnesota. Presented below is a review of furnished project information, along with our proposed scope of services, schedule and fee information.

PROJECT UNDERSTANDING

The proposed area of sampling includes two (2) ponds, both less than 0.5-acre in size. PSI understands that Bolton & Menk has requested that sediment from these ponds be sampled and analyzed for Poly-Aromatic Hydrocarbons (PAHs), copper and arsenic.

SCOPE OF SERVICES

The limited sediment sampling will be conducted to evaluate whether hazardous substances or petroleum products (specifically PAHs) have been disposed or released into the pond. PSI will conduct the pond samplings in general accordance with the Minnesota Pollution Control Agency (MPCA) Managing Storm-water Sediment Best Management Practices Guidance document.

The general scope of the pond sampling will consist of the following activities: site safety and health plan preparation, sediment sampling, laboratory analysis of sediment samples, data analysis and interpretation, and report preparation.

Sampling operations will be directed by a PSI field supervisor, and field personnel will be OSHA trained in accordance with 29 CFR 1910.120. Equipment decontamination, sample collection, field documentation, sample custody and laboratory analyses will be in general accordance with methods prescribed by the Minnesota Pollution Control Agency (MPCA).

The specific scope of the sediment sampling is described below.

- Four (4) sediment samples, two (2) sets from each pond, plus one replicate sample, will be collected from the ponds and presented to the laboratory for chemical analysis of Polynuclear Aromatic Hydrocarbons (PAHs), copper and arsenic.
- Eight (8) sediment samples, four (4) sets from each pond, will be collected and submitted for sieve analysis.



REPORT

A report with the laboratory data will be presented to Bolton & Menk upon completion of laboratory analysis. Additionally, if any support is needed by the Engineer on the project for which these ponds are a part of, PSI will assist with figures and limited reporting as appropriate.

SCHEDULE

PSI proposes to complete the assessment and report within 21 working days of written notice to proceed. Completion of the project may be affected by access to the property, the availability of information, and other factors. Arrangements for access, including notification of tenants, will be the responsibility of the client.

SPECIAL INSTRUCTIONS

PSI will use the signed proposal from Bolton & Menk as authorization and permission to access the pond sites. If there are special access requirements (land owner coordination), Bolton & Menk will be responsible for assisting PSI in gaining access to the property.

THIRD PARTY RELIANCE

Third party reliance letters may be issued upon request and upon the payment of a reliance fee. All third parties relying on PSI's reports, by such reliance, agree to be bound by this proposal and PSI's General Conditions. No reliance by any party is permitted without such agreement, regardless of the content of the reliance letter itself.

FEES

The proposed fee for this limited environmental sampling is **\$4,500.00**, which includes a laboratory standard turnaround time (TAT) of ten (10) business days. Sediment analysis may be rushed for a 6-9 day TAT or 5-day TAT for an additional fee.

This proposal does not include the handling, storage, transportation, or disposal of hazardous substances or wastes.

Additional work required beyond the scope of services included in this proposal, or as caused by factors beyond PSI's control, will be invoiced on a time and expense basis. Additional work will not be performed without prior authorization.



AUTHORIZATION

To authorize our services, please sign and complete the attached Proposal Authorization and Instructions for Payment form, and return one complete copy of the authorized proposal to our office. We will proceed with the work upon receipt of proposal authorization. PSI will perform the work in accordance with the attached General Conditions, which are incorporated into and made a part of this proposal.

Please call with any questions you may have, or if PSI can be of additional service. We look forward to working with you on this and future projects.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Jacob Frahm, GIT (MN)
Environmental Services Manager

Patricia St. Peter, LPG
Principal Consultant

Attachments: Proposal Authorization & Payment Instructions
Contact Information Sheet
General Conditions



APPENDIX

Résumés



Timothy J Olson, PE, CFM
Principal Water Resources Engineer



Real People. Real Solutions.

Education

Bachelor of Science - Civil Engineering
South Dakota School of Mines and Technology

Master of Science - Civil Engineering
South Dakota School of Mines and Technology

Registration

- Professional Engineer, IA
- Professional Engineer, MN
- Professional Engineer, WI
- Professional Engineer, ND

Certifications

- Association of State Floodplain Managers Inc. (ASFPM)
- Certified Flood Plain Manager - CFM

Summary

Tim is a principal water resources engineer who joined Bolton & Menk in 2006. His experience includes project management in both design and construction of complex water resources and environmentally sensitive projects. He specializes in comprehensive surface water management planning, innovative best management practice design, hydrologic and hydraulic modeling, drainage design and construction plan review, and NPDES Phase I & II MS4 and construction stormwater permitting requirements. He couples GIS techniques with water resources design and analysis. Tim has a passion for stormwater and water quality education and participates in several stormwater-related steering committees and stakeholder groups. He enjoys facilitating partnerships, developing new relationships, and collaborating with stakeholders to define a common vision and work toward shared goals.

Experience

Stormwater Pond Assessment, City of Northfield, Minnesota

As part of the city's MS4 permit, a comprehensive stormwater pond inspection, as well as a total suspended solids and total phosphorus treatment effectiveness assessment was completed. Tim managed the data collection and analysis process to help the city prioritize pond cleaning projects. The city has already begun implementing the plan by cleaning the three highest priority ponds in winter of 2020 and 2021.

Golf Course and Parmeadow Ponds 1 and 3 Dredging, City of Northfield, Minnesota

The City of Northfield and Bolton & Menk inspected over 40 stormwater ponds to understand their current rate of sedimentation and prioritize pond cleaning projects. Tim managed the development of construction plans and sediment removal for three high-priority ponds. The project resulted in nearly 8,000 cubic yards of sediment removed and restoration of three important sedimentation basins.

Stormwater Modeling, City of Northfield, Minnesota

The City of Northfield has a complex stormwater management network and has identified climate adaptation and resiliency as a high priority. Tim led the development of a city-wide hydraulic model and stormwater planning document to understand the system's current and future capacities and identify critical improvement projects. The report and hydraulic model will help the city manage their system and be more proactive in understanding and fixing critical flood issues.

Timothy J Olson, PE, CFM, Principal Water Resources Engineer

Stormwater Improvements, City of Monticello, Minnesota

Tim led the water resources team to develop hydraulic modeling for pond improvements and direct bathymetric assessments.

Forest Lake Pond Improvements, City of Forest Lake, Minnesota

The City of Forest Lake is an MS4 community that is responsible for inspecting its stormwater ponds and understanding the capacity lost due to sedimentation. Tim directed field staff in bathymetric and MS4 data collection for 104 ponds in town and developed plans, specifications, and cost estimates for the first two high-priority pond cleaning projects. The city has conducted pond cleaning projects each year in conjunction with the prioritization plan Tim helped develop.

Annual MS4 Program Implement, City of Forest Lake, Minnesota

The City of Forest Lake is an MS4 and subject to a number of permit requirements. Tim works consistently with public works staff to manage the program, assist with inspection needs, coordinate educational needs, and update the stormwater pollution prevention plan. His assistance in the program helps the city prioritize their water quality goals and frees up public works staff to complete other critical tasks.

Clear Lake Water Quality Project, City of Forest Lake, Minnesota

Tim presented a new design concept to a previously proposed project that increased pollutant removal by using an innovative treatment train approach. He also assisted the city in actively promoting the project with informational signs, video kiosks, and brochures available at the city center.

High School Stormwater Reuse Project, Forest Lake Area Schools

The City of Forest Lake and Rice Creek Watershed District have a strong partnership and have implemented numerous water quality projects in the city. Tim helped grow the partnership to include Forest Lake Area Schools to secure a grant to construct a regional stormwater capture and reuse for irrigation project on the high school campus. The project also included development of curriculum surrounding the practice. The high school reuse project won numerous awards for innovation and environmental protection and has become the cornerstone for environmental education on campus.

CSAH 66 Water Quality Improvements, City of Crosslake, Minnesota

A strong partnership was developed between the City of Crosslake and Crow Wing County Soil and Water Conservation District to secure grant funding for a series of water quality improvements along CSAH 66. Tim led the preliminary design, funding effort, and final construction plan development. As a result, the project will improve water quality to Cross Lake, an iconic vacation destination in northern Minnesota and regionally important water resource.

MS4 Program Management, City of Lake City, Minnesota

The City of Lake City is an MS4 and subject to a number of permit requirements. Tim works consistently with public works staff to manage the city's MS4 program, assist with inspection needs, coordinate educational needs, and update the stormwater pollution prevention plan. His assistance in the program helps the city prioritize their water quality goals and frees up public works staff to complete other critical tasks.



Bradley J Fisher, PE
Project Engineer



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Education

Bachelor of Science - Civil Engineering
University of Minnesota - Twin Cities

Registration

- Professional Engineer, MN

Certifications

Minnesota Department of Transportation (MnDOT)

- Aggregate Production
- Concrete Field I
- Concrete Field II

American Concrete Institute

- ACI Field Testing Tech I

Summary

Brad is a project engineer beginning his career in 2014. He has worked on many municipal projects consisting of roadway design, including municipal state aid design and utilities such as sanitary sewer, watermain, and storm sewer. Brad is passionate about listening to his clients' needs and delivering their visions. He completes project planning, design, and preparation of construction plans and specifications. His design experience includes preliminary and final design, preliminary layout and design, preparation of feasibility reports, preparation of construction plans and specifications, preparation of quantity take-offs and cost estimates, and project documentation. In addition to his design experience, Brad has experience providing construction inspection and documentation services on various projects. He has significant experience in the evaluation of concrete pavement, determination of rehabilitation feasibility, and the implementation of CPR methods and repairs.

Experience

2021 Reclamation and Overlay, City of Northfield, Minnesota

The City of Northfield rehabilitated streets in two different areas of the city, including pedestrian sidewalk improvements, sidewalk and trail connections, and trail rest areas. Brad teamed with city staff to lead the design effort and manage the project construction. He met with city staff on a regular basis to teach them the fundamentals of Civil3D throughout the design process to ensure conformance between city and Bolton & Menk plan sheets.

2020 Mill and Overlay, City of Northfield, Minnesota

The City of Northfield rehabilitated streets in three different areas of the city, including pedestrian sidewalk improvements, intersection bumpouts, and new bicycle facilities. Brad led the design and construction teams for the street project. He developed various design options along with their specific considerations for implementation and presented them to the city council and the public to educate and foster support for the improvements.

2019 Street Reclamation, City of Northfield, Minnesota

Bolton & Menk provided preliminary engineering, final design, and construction administration services for this State Aid street rehabilitation project which included select utility replacements, pedestrian sidewalk improvements, intersection bumpouts, sidewalk connections, new bicycle facilities, an improved railroad crossing, and streetscaping elements through the city's Arts Corridor. Brad led the project team to ensure conformance of the various plan elements and carried that attention to detail through construction administration with the city's construction observers. He helped the city progress a unique design to make their Arts Corridor stand out and was diligent in working with the railroad to ensure improvements and access were kept on schedule.

2019 Street Improvements, City of West St. Paul, Minnesota

Bolton & Menk provided design and construction services to the City of West St. Paul to fully reconstruct the street and utilities along one mile of Livingston Avenue. Brad was part of the design team and focused on the utility/street designs and plan production for the project. The project was completed on schedule and on budget.

Riverfront Renaissance Project, City of Hastings, Minnesota

The City of Hastings sought design and construction services from Bolton & Menk to provide improvements to the riverfront and downtown areas of the city. The project included a riverside amphitheater, new trails, interactive art features, landscaping improvements, a new park, water feature, bumpouts added to the downtown area, wayfinding signs, entry monuments, and lighting improvements. Brad provided construction observation and project representative services on the project, taking time out of his day to regularly meet with downtown business owners, communicate the changing access requirements, and assist with the special requests and needs of the businesses to coordinate construction accordingly. Through upfront communication and detailed construction plans followed in the field, the project was an overwhelming success for the city and was recognized as the 2018 APWA Project of the Year.

Downtown South Reconstruction, City of Prior Lake, Minnesota

The City of Prior Lake planned to reconstruct their Downtown South area to replace failing infrastructure, maximize available parking, increase pedestrian safety, and improve the user experience throughout the downtown business area while planning for future development. Brad managed the design and construction project teams from beginning to end, working hand-in-hand with city staff, the city council, the general public, and potential developers through an assertive public engagement plan to ensure the wants and needs of the community were recognized and implemented as part of the project.

2019 Street Improvements, Empire Township, Minnesota

Bolton & Menk provided full project services for the rehabilitation of two areas within Empire Township, including improvements to a railroad crossing. Brad managed the design team and provided construction administration on the project. His proactive, clear communication helped keep the project on schedule while working through gas pipeline easement requirements and coordinating improvements and access with the railroad to make the project a success.

Waite Park Concrete Pavement Rehabilitation, City of Minneapolis, Minnesota

The City of Minneapolis needed eight miles of concrete pavement rehabilitated, including significant public and private utility coordination. Brad brought his concrete pavement rehabilitation expertise to evaluate the existing pavement, layout necessary repairs, provide construction observation, and spend a significant amount of time communicating expectations with residents. He helped the city develop innovative methods to apply concrete pavement rehabilitation to residential streets on this inaugural project that guided the city on an annual CPR program.



Miranda L Etienne, EIT
Design Engineer



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Education

Bachelor of Science - Civil Engineering
North Dakota State University

Certifications

Rescue Resources

- Confined Space Entry

Minnesota Department of Transportation (MnDOT)

- Aggregate Production
- Bituminous Street I
- Bituminous Street II
- Concrete Field I
- Grading and Base I
- Grading and Base II

Minnesota Board of AELSLAGID

- Engineer In Training - EIT

Summary

Miranda is a design engineer for Bolton & Menk beginning her career in 2017. She is responsible for preparing preliminary engineering reports, preliminary and final design, and developing construction plans. She also assists with design calculations and cost estimates. Miranda is proficient in AutoCAD Civil 3D and Storm & Sanitary Analysis (SSA). In addition to her design knowledge, Miranda has gained valuable experience in the field on projects ranging from new residential developments to full reconstructs, as well as mill and overlay and reclamation projects.

Experience

Tonka-Woodcroft Improvements, City of Minnetonka, Minnesota

The City of Minnetonka will be reconstructing all streets within the project area, including adding concrete curb and gutter, storm sewer and stormwater best management practices, spot sanitary sewer replacements, and watermain replacements. Miranda worked as part of our water resources team on the storm sewer modeling and design. She played a vital role in the analysis of the proposed storm sewer system and drainage patterns to help the team create a design that best meets the needs of the community as well as fulfill the stormwater requirements set by the watershed district.

2021 Pavement Management Program Street and Utility Improvements, City of Arden Hills, Minnesota

The City of Arden Hills sought the help of Bolton & Menk to improve the infrastructure within this project area through a combination of street reclamation and reconstruction, the addition of curb and gutter, the addition of storm sewer, and sanitary sewer and watermain improvements. Miranda worked as part of the design team, focusing on all street and storm sewer design and plan production. She worked through the challenges of creating a street and storm sewer system with good drainage for this existing neighborhood with flat grades to create a product that will better serve the community.

Maple Island Road Sanitary Sewer and Trail Improvements, City of Burnsville, Minnesota

The City of Burnsville enlisted Bolton & Menk in the design of a shared use trail, retaining walls, and sanitary sewer forcemain along Maple Island Road. Miranda acted as the design engineer on the proposed trail, worked with our structural engineering group on the retaining wall designs, and assisted in plan production. After plans were finalized, she coordinated with all private utility companies to ensure facilities in conflict with the project were relocated to a suitable location prior to the beginning of construction in order to keep the city's planned project schedule.



Derek T Benoy, EIT
Water Resources Design Engineer



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Education

Bachelor of Science - Civil Engineering
Michigan Technological University

Master of Science - Environmental Engineering
Michigan Technological University

Certifications

Minnesota Board of AELSLAGID
• Engineer In Training - EIT

Summary

Derek is a water resources design engineer, starting his career at Bolton & Menk, Inc. in 2016 as an intern and beginning full time in 2017. His primary responsibilities include developing hydrologic and hydraulic modeling for preliminary project layouts, storm sewer design, sanitary sewer design, water quality modeling, stormwater plan implementation, general stormwater planning, reviewing development plans, and preparing Stormwater Pollution Prevention Plans for a variety of civil engineering related construction projects. Derek has experience using Autodesk Civil 3D design software and ArcMap 10 analysis. He has additional experience in hydraulic design using HydroCAD, Autodesk Storm and Sanitary Analysis, XPSWMM, HEC-RAS, and HEC-HMS.

Experience

City-Wide Stormwater Pond Assessment, City of Northfield, Minnesota

Derek was responsible for bathymetric information and field inspections, including the Parmeadow Ponds, for the city.

Stormwater Pond Assessments and Improvements, City of Forest Lake, Minnesota

Derek collected bathymetric and MS4 pond inspection data for 104 ponds in Forest Lake.

MS4 Construction Site Inspections, Cities of Cottage Grove and Maple Grove, Minnesota

Derek performs and manages MS4 construction site inspections. He is responsible for meeting with contractors on site and reporting on SWPPP and erosion control deficiencies.

Bridlewood Farms 6th Addition, City of Woodbury, Minnesota

The City of Woodbury developed the Bridlewood Farms subdivision, including the construction of city sanitary sewer, storm sewer, and water main. Derek served as the lead SWPPP designer and oversaw the design of the storm sewer and water quality features. Through proper plan development, Derek ensured that the project was in compliance with stormwater regulations resulting in improved water quality during and after construction.



Alexander J Poore
Engineering Technician



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Education

AIAS - Civil Engineering Technology
Dakota County Technical College

Certifications

Rescue Resources

- Confined Space Entry

Minnesota Department of Transportation (MnDOT)

- Aggregate Production
- Bituminous Street I
- Bituminous Street II
- Grading and Base I
- Grading and Base II

National Association of Sewer Services Companies -
NASSC

- CIPP Certified
- Manhole Rehabilitation Inspector

University of Minnesota

- Construction Installer

Summary

Alex began his engineering career full time in 2018 and is involved with various aspects of the design and construction process for municipal, transportation, and site development projects. He is responsible for preparing detailed engineering drawings from working sketches and field data as well as routine testing and construction observation.

Experience

Golf Course and Parmeadow Pond, City of Northfield, Minnesota

The City of Northfield rehabilitated/ dredged three ponds in early 2021, including improvements and inspections to an aging pond overflow weir and bypass channel. Alex assumed the resident project representative role for Northfield's previous three acre pond dredging project. Through detailed communication with Northfield city staff and Bolton & Menk engineers, the project was successfully completed on time and within budget.

Bridge Avenue Street Reconstruction, City of Albert Lea, Minnesota

Starting in spring of 2020 through the fall of 2021, Freeborn County and the City of Albert Lea fully reconstructed 1.5 miles of city/county roadway. This project was conducted over two full construction seasons and with a budget of \$14 million. Alex served as the lead utility inspector on the project for the entire duration of the two year project. His inspections covered utility, concrete, road building, and paving crews, all the while accommodating to resident questions and concerns. His inspections and keen communication efforts ensured plan conformance and a positive public perception.

190th Street Agricultural Ditch Project, Empire Township, Minnesota

Empire Township commissioned preliminary drainage planning for agricultural ditches. Alex drafted drainage plans and coordinated preliminary survey/locating efforts for multiple private utility companies. His timely efforts and acute field experience allowed the successful completion of Empire Township's preliminary engineering services before an early spring thaw prevented the efforts.



Eric R Wilfahrt, PLS
Survey Manager



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Education

Associate of Applied Science - Land Surveying Technology
South Central College

Associate of Applied Science - Civil Engineering
Technology
South Central College

Bachelor of Science - Land Surveying and Mapping
Science
Saint Cloud State University

Registration

- Registered Land Surveyor, MN

Summary

Eric began his surveying career in 2004 with Bolton & Menk after three summer internships with the company. He manages survey operations for the firm's south metro locations. He likes to complete projects that have complex and challenging right-of-way and boundary determinations. Eric is very detail orientated, and he strives to produce the best possible product for clients while keeping budget in mind. He is responsible for crew scheduling and coordination; professional reviews and determinations; research; and preparing, calculating, interpreting, and writing legal descriptions. He also provides quality assurance and quality control on projects to ensure project scopes are complete. Eric is proficient in Civil 3D and Trimble Business Center.

Experience

Flood Zone Survey at Parmeadow Drive, City of Northfield, Minnesota

Eric performed topographic survey to identify flood issues for use in design for flood mitigation. Work included full topographic survey up to the rear of a house located at 1300 Parmeadow Drive along with obtaining low opening of house.

Woodley Street Improvements, City of Northfield, Minnesota

Eric served as the project survey manager. He assisted others, provided guidance and input on critical items including, but not limited to document research, right-of-way determination, staff coordination, and data collection to ensure thoroughness and deadlines were met. He coordinated construction staking of the roadway, sidewalk, utilities and as-built survey for the project. He oversaw quality assurance and quality control to ensure an exceptional product was delivered.

2013 Street Improvements, City of West St. Paul, Minnesota

Eric and his survey crew performed topographic survey of a pond bottom to conduct a pond cleaning project. He managed the coordination, data gathering, and drafting.

2014 and 2015 Marie Avenue Improvements, City of West St. Paul, Minnesota

Eric managed survey of a pond bottom for use in design of a pond cleaning and dredging project.

North Creek Regional Greenway, Dakota County, Minnesota

As the project survey manager, Eric compiled various data sources and coordinated additional topographic survey data to be incorporated. He led the construction staking of the approximate 1-mile trail through the Minnesota Zoo along with a pedestrian bridge crossing a county highway. He ensured swift action when called upon by the contractor regarding trail alignment modification and bridge construction schedule, keeping the project on track.

Lyndale Avenue Reconstruction, City of Richfield, Minnesota

The City of Richfield wanted to improve mobility, access, non-motorized travel, and public utilities along Lyndale Avenue. The improvements required easement acquisition and navigating complex right-of-way. Eric completed extensive research and coordinated Gopher State One Call work. He provided project oversight and construction staging. The project resulted in implementable improvements to create a safer corridor.

Cedar Lake Road Improvements, City of St. Louis Park, Minnesota

The City of St. Louis Park is transforming their transportation system from a focus on motorists to an emphasis on multimodal travel. To help the city add multimodal facilities to Cedar Lake Road, Bolton & Menk completed a controlled survey, research, and documentation including existing deeds and easements for the roads, topographic survey of the corridor, right-of-way determination, and document review to ensure the city understood existing easements and their rights for the roadway. Eric worked with the design team to understand these easements prior to construction. He oversaw construction staking calculations, managed survey crews and schedule, and responded to requests from the city and contractor to ensure project milestones were met. Near project completion, Eric also oversaw the as-built survey, measuring depths and coordinating MnDOT and railroad right-of-way to ensure tight accuracy for elevation of control.

Interlachen Park Street and Utility Improvements, City of Hopkins, Minnesota

The City of Hopkins' Interlachen Park neighborhood streets were deteriorating, and underground utilities had reached the end of their life span. Eric assisted with survey for preliminary and final design of the neighborhood reconstruction that spanned two construction seasons. He completed right-of-way determination and mapped existing easements, completing a significant amount of research through the Hennepin County records department. He worked with the Minneapolis Park Board on the survey for the Meadowbrook and Interlachen golf courses. Eric's construction staking work and coordination with city staff ensured the project progressed on schedule.

Rice Street Visioning Study, Ramsey County, Minnesota

Ramsey County is developing a plan to improve the Rice Street/CSAH 49 corridor in St. Paul to make it safer and more appealing for different modes of transportation. Eric is leading supplemental topographic survey and boundary and right-of-way determination for the complex corridor. He put together a right-of-way map that required heavy research and review of old records. The final result will be a CADD file containing important corridor information, helping the county make informed decisions for future improvements.

Samatar Crossing Bridge Rehabilitation, City of Minneapolis, Minnesota

As the project survey manager, Eric guided survey operations through to project completion. He aided in records research at the city, county, and state level for determining the existing right-of-way and easement rights for each entity. He performed quality assurance and quality control on project control network together with overall topographic and boundary survey data collection. Eric analyzed property and right-of-way monuments to complete boundary determination(s). He managed and coordinated construction staking of the roadway, sidewalk, trail, and utilities. He provided right-of-way turnback exhibit(s) and directed the collection of as-built data of utility structures and trail segments.



Douglas A Bisek
Senior Survey Field Technician



Real People. Real Solutions.

Education

Associate of Applied Science - Business Administration
University of Minnesota - Waseca

Certifications

Rescue Resources

- Confined Space Entry

eRailSafe Railways

- eRailSafe System Badge

Bolton Menk Authorized Trainer

- Fall Protection Authorized Person

Summary

Doug joined Bolton & Menk in 1999. He is a survey crew chief responsible for field operation of municipal and private surveying services including construction staking, topographic, boundary, and ALTA surveys. He is proficient in the use of survey instrumentation, including Trimble Robotic Total Station, Trimble Survey Controllers, Trimble GPS Equipment, and Trimble Dini Level. Doug has experience with a variety of civil, municipal, and transportation projects. He enjoys working with clients to provide real solutions to their projects.

Experience

Woodley Street Improvements, City of Northfield, Minnesota

Doug served as the lead field technician. He coordinated multiple crews in the field for timely completion of the topographic and boundary survey. Doug established an accurate and precise control network for which the project was to be built on. He led the construction staking of the project and upon completion of the project, he performed an as-built survey of the utility structures.

Flood Zone Survey at Parmeadow Drive, City of Northfield, Minnesota

Doug led the survey field work in conjunction with Eric and the survey crew.

River to River Greenway, Dakota County, Minnesota

Doug served as the lead field technician. He performed control verification and collected supplemental topographic information in conjunction with Dakota County data. Doug coordinated with project representatives to complete accurate construction staking of proposed improvements. Upon project completion, he aided in collecting as-built data of improvements.

Highway 42 Bikeway/Walkway Connection, Dakota County, Minnesota

As the lead field technician, Doug established an accurate and precise control network to be later used by Dakota County for construction staking. He ensured topographic data was accurately collected along with utility data provided through Gopher State One Call tickets.

North Creek Regional Greenway, Dakota County, Minnesota

As the lead field technician, Doug verified existing control network and set additional control to ensure accurate collection of project data. He collected topographic data to be incorporated with various other sources to complete a comprehensive topographic survey. Upon completion of final design, Doug was the construction staking lead. He staked for construction the trail and pedestrian bridge. Doug coordinated with the project representative and contractor to ensure accurate, precise and timely data was provided for the construction of the pedestrian bridge crossing the county highway.



Dan Donayre
Senior Natural Resources Specialist



Real People. Real Solutions.

Education

Bachelor of Arts - Environmental Studies
University of North Carolina

Certifications

Minnesota Department of Transportation (MnDOT)

- Aggregate Production

University of Minnesota

- Ecological Restoration Certificate

Society of Wetland Scientists Certification Program

- Professional Wetland Scientist

MN Board of Water Soil Resources (BWSR)

- MN Wetland Professional Certification Program (MWPCP)

Summary

Dan leads Bolton & Menk's natural resources team and is responsible for coordinating with state and federal agencies to work through difficult aquatic resource delineations and permitting. He began his duties in 2005 and has conducted hundreds of wetland delineations, GPS surveys, and MnRAM analyses. Dan has successfully completed Wetland Conservation Act (WCA), Minnesota Department of Natural Resources, and U.S. Army Corps of Engineers permitting processes related to type and boundary applications, replacement plans, de minimis applications, exemption applications, no loss applications, and banking plans. He also acts as the local government unit (LGU) for several client communities. His duties as LGU include reviewing applications under the WCA, organizing and leading technical evaluation panel meetings, and issuing notices of decision.

Experience

Duck Lake Road Improvements, City of Eden Prairie, Minnesota

Dan performed wetland and natural resources delineations for Duck Lake and completed permitting for fill within the lake.

Wentworth Avenue Reconstruction, City of West St. Paul, Minnesota

This project included grading in and around a public water wetland. Dan managed all natural resources permitting surrounding the disturbance and wetland restoration. He also managed delineation of numerous other wetlands impacted by the project.

64th Street Reconstruction and Ravine Restoration, City of Inver Grove Heights, Minnesota

Dan managed the delineation and permitting of potential wetland impacts associated with a ravine restoration. He also secured MnDNR permitting for a new connection to a lake.

SAH 83 Reconstruction, Shakopee Mdewakanton Sioux Community

Dan completed the permitting of impacts to Mystic Lake to update the roadway to meet current and future capacity needs. Dan successfully permitted the 5 acres of impacts to the public water and mitigation plan. Mitigation was completed through the restoration of a 32-acre wetland located several miles south of the site. The wetland restoration included restoring hydrology by blocking existing tiles and planting native herbaceous species. The restored wetland also restored a hydrologic connection to two public water lakes. The site is currently being monitored with wetland hydrology completely restored and a native plant community flourishing.

Minnesota River Greenway Eagan Segment Feasibility Study, Dakota County, Minnesota

Dan led the identification of natural resources and defined restoration and connection opportunities in conjunction with trail development. He also

completed delineation services for the Minnesota River Greenway Trail located in Fort Snelling State Park. More than 300 acres were investigated--Type 3/4 wetlands and calcareous fens were identified. Included in this role was coordination with the LGU, Minnesota DNR, and U.S. Army Corps of Engineers for final type/boundary approval.

Lever Street NE Improvements, City of Blaine, Minnesota

This project was put into motion to accommodate future development along the existing Lever Street corridor. Open green space along the corridor was limited; substantial coordination occurred between Bolton & Menk, the city, and future developers which resulted in a cooperative agreement to treat Lever Street drainage on the developer's site. Dan oversaw the delineation and completed the permit application for the project.

Troy Lane Improvements, City of Plymouth, Minnesota

Troy Lane was reconstructed from a rural section to an urban section. The improvements upgraded the corridor to state aid standards, meeting the requirements of the Local Road Wetland Replacement Program (LRWRP). Bolton & Menk completed an aquatic resource delineation, identifying all waterbodies, wetlands, and incidental wetlands. Dan oversaw the delineation and completed the permit application.

Sibley Meadows Wetland Bank, Sibley County, Minnesota

Dan is the project manager for the Sibley Meadows Wetland Bank, a 158-acre wetland restoration located at the top of the JD 12 watershed. The wetland was heavily degraded through agricultural production, severely damaging native vegetation and draining wetland hydrology. Dan and his team designed a site that will hold wetland hydrology and keep the hydrology off neighboring properties while meeting the requirements of the Wetland Conservation Act and Section 404 of the Clean Water Act. The site has been constructed; monitoring of the site began in the spring of 2020. This includes fauna and flora species surveys and hydrology monitoring to ensure regulatory requirements are met.

Square Lake Park, Washington County, Minnesota

Dan and the natural resources team are conducting aquatic vegetation, terrestrial vegetation, and tree surveys for this project. Dan is also delineating all aquatic and terrestrial resources. This information will be used to find ways to enhance park amenities, develop a plan to remove invasive species, and enhance native habitats.

TH 112 Turnback, Le Sueur County, Minnesota

Dan completed wetland delineation and permitting related to the CSAH 22 (formerly TH 112) reconstruction project. The project included the design of rural and urban county roadway reconstruction and new trail. Wetland delineation and permitting was required due to roadway widening for an upgraded shoulder width.

Kingman Wetland Bank, Mike McNamara, Renville County, Minnesota

Dan is the project manager for Kingman Wetland Bank, a 310-acre wetland restoration located in Renville County. The wetland was heavily degraded through agricultural production, severely damaging native vegetation and draining wetland hydrology. Dan and his team designed a site that will hold wetland hydrology and keep the hydrology off neighboring properties while meeting the requirements of the Wetland Conservation Act and Section 404 of the Clean Water Act. The site has been constructed; monitoring the site began in the spring of 2021. This includes fauna and flora species surveys and hydrology monitoring to ensure regulatory requirements are met.