CITY OF DULUTH

REQUEST FOR PROPOSALS FOR

GRASSY POINT AND CHAMBERS GROVE PARK PUBLIC ACCESS DESIGN SERVICES

RFP NUMBER 25-99593

ISSUED THURSDAY, JULY 3, 2025

PROPOSALS DUE FRIDAY AUGUST 8TH, 2025

SUBMIT TO

CITY OF DULUTH
ATTN: PURCHASING DIVISION
CITY HALL, ROOM 120
411 WEST 1ST STREET
DULUTH, MN 55802

PART I – GENERAL INFORMATION

I-1. Project Overview. The City of Duluth is seeking a professional design firm to provide full professional Landscape Architectural and Civil Engineering design services for two public access improvement projects at Grassy Point and Chambers Grove Park.

The scope of this project includes a topographic and existing conditions survey, wetland delineation, site design for future public access improvements, probable construction cost estimates, permitting services, construction administration, development of Construction Quality Assurance Plan(s) for implementation of the designed improvements (see Part IV), and completion of necessary report preparation and coordination of environmental review to satisfy federal requirements.

Additional detail is provided in **Part IV** of this RFP.

I-2. Calendar of Events. The City will make every effort to adhere to the following schedule:

Activity	Date
Pre-proposal Conference (Strongly Recommended)	Wednesday July 16th, 2025, at 9am
Deadline to submit Questions via email to purchasing@duluthmn.gov	Tuesday July 22nd, 2025
Answers to questions will be posted to the City website no later than this date.	Wednesday July 30th
Proposals must be received in the Purchasing Office by 4:30 PM on this date.	Friday August 8th, 2025

I-3. Rejection of Proposals. The City reserves the right, in its sole and complete discretion, to reject any and all proposals or cancel the request for proposals, at any time prior to the time a contract is fully executed, when it is in its best interests. The City is not liable for any costs the Responder incurs in preparation and submission of its proposal, in participating in the RFP process or in anticipation of award of the contract. The selected consultant must sign the City of Duluth standard Professional Engineering Services Agreement, a sample of which is available at https://duluthmn.gov/purchasing/forms/. Any questions concerning this agreement should be asked PRIOR to proposal submittal. These questions should be directed to purchaing@duluthmn.gov.

I-4. Pre-proposal Conference. The City will hold a **Strongly Recommended** pre-proposal conference at 9:00 am on Wednesday, July 16th, 2025. Interested architects/engineers (A/E's) can attend via MS TEAMS through the link available at https://www.duluthmn.gov/purchasing/bids-requestfor-proposals/ or in-person at City Hall, 411 West 1st Street, Duluth, MN in the Lakeside Conference Room.

Interested Bidders are to notify Purchasing Agent with their intent to attend.

I-5. Questions & Answers. Any questions regarding this RFP must be submitted by e-mail to the Purchasing Office at purchasing@duluthmn.gov **no later than** the date indicated on the Calendar of Events. Answers to the questions will be posted as an Addendum to the RFP.

I-6. Addenda to the RFP. If the City deems it necessary to revise any part of this RFP before the proposal response date, the City will post an addendum to its website http://www.duluthmn.gov/purchasing/bids-request-for-proposals/. Although an e-mail notification will be sent, it is the Responder's responsibility to periodically check the website for any new information

I-7. Proposals. To be considered, hard copies of proposals must arrive at the City on or before the time and date specified in the RFP Calendar of Events. The City will not accept proposals via email or facsimile transmission. The City reserves the right to reject or to deduct evaluation points for late proposals.

Proposals must be signed by an authorized official. If the official signs the Proposal Cover Sheet attached as Appendix A, this requirement will be met. Proposals must remain valid for 60 days or until a contract is fully executed.

Please submit one (1) unbound paper copy of the Technical Proposal and one (1) unbound paper copy of the Cost Proposal. The Cost Proposal should be in a separate sealed envelope.

All materials submitted in response to this RFP will become property of the City and will become public record after the evaluation process is completed and an award decision made.

I-8. Small Diverse Business Information. The City encourages participation by minority, women, and veteran-owned businesses as prime contractors, and encourages all prime contractors to make a significant commitment to use minority, women, veteran-owned and other disadvantaged business entities as subcontractors and suppliers**.** A list of certified Disadvantaged Business Enterprises is maintained by the Minnesota Unified Certification Program at http://mnucp.metc.state.mn.us/ .

I-9. Award. The agreement award will be based on the time and materials submitted in the proposal, but will be an hourly, not-to-exceed lump-sum agreement.

I-10. Term of Contract. The term of the contract will begin once the contract is fully executed and is anticipated to end by September 30, 2026. The selected Responder shall not start the performance of any work nor shall the City be liable to pay the selected Responder for any service or work performed or expenses incurred before the contract is executed.

I-11. Payment. All compensation will be based on percentage of project completed and will not exceed the amount identified in the agreement. Weekly progress reports will be provided to the City and will include tracking of estimated percentage of overall project scope completed to date. Hourly task breakdown by employee is for evaluation purposes and does not imply that payment will be based on hours worked.

I-12. Prompt Payment of Subconsultants. Per MN Statute 471.425, Subd. 4a., Each contract of a municipality must require the prime contractor to pay any subcontractor within ten days of the prime contractor's receipt of payment from the municipality for undisputed services provided by the subcontractor. The contract must require the prime contractor to pay interest of 1-1/2 percent per month or any part of a month to the subcontractor on any undisputed amount not paid on time to the subcontractor. The minimum monthly interest penalty payment for an unpaid balance of $100 or more is $10. For an unpaid balance of less than $100, the prime contractor shall pay the actual penalty due to the subcontractor. A subcontractor who prevails in a civil action to collect interest penalties from a prime contractor must be awarded its costs and disbursements, including attorney's fees, incurred in bringing the action.

I-13. Mandatory Disclosures. By submitting a proposal, each responder understands, represents, and acknowledges that:

A. Their proposal has been developed by the Responder independently and has been submitted without collusion with and without agreement, understanding, or planned common course of action with any other vendor or suppliers of materials, supplies, equipment, or services described in the Request for Proposals, designed to limit independent bidding or competition, and that the contents of the proposal have not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder.

B. There is no conflict of interest. A conflict of interest exists if a Responder has any interest that would actually conflict, or has the appearance of conflicting, in any manner or degree with the performance of work on the project. If there are potential conflicts, identify the municipalities, developers, and other public or private entities with whom your company is currently, or have been, employed and which may be affected.

C. It is not currently under suspension or debarment by the State of Minnesota, any other state or the federal government.

D. The company is either organized under Minnesota law or has a Certificate of Authority from the Minnesota Secretary of State to do business in Minnesota, in accordance with the requirements in M.S. 303.03.

I-14. Certification Regarding Lobbying. Funding for this project is provided by the Great Lakes Restoration Initiative with funding through the U.S. Environmental Protection Agency. The following certification is required for all contractors hired under this project. By submitting a proposal, each responder certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including sub-contracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31 U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

I-15. Notification of Selection. Responders whose proposals are not selected will be notified in writing.

PART II – PROPOSAL REQUIREMENTS

Proposals not following the specified format or exceeding the page limit will not be reviewed. No additional sections or appendices are allowed. The delivered proposal shall be limited to 14 pages, excluding the front and back covers, the cover letter, and the cost proposal. This would be 14 single-sided 8.5" X 11" pages, 7 double-sided 8.5" X 11" pages, or a mixture thereof. The separate cost proposal can be an 11" X 17" sheet.

Proposers must submit a complete package in order to be considered. The submission package must include each of the sections below, in the following order.

II-1. Technical Proposal.

1. Proposal cover sheet (form provided in Appendix A).
2. Goals and Objectives: Restate the goals and objectives, and the project tasks to demonstrate the responder's view and understanding of the project.
3. Experience: Describe the responder's background and experience with similar projects. Project descriptions shall include a list of key staff and their role. Within the experience, the responder should demonstrate and provide proof of competency in the following areas:

    a. Public water access and/or neighborhood park design
    b. Resilient shoreline landscape design
    c. Producing accurate local market-based cost estimates

4. Personnel: Identify the personnel that will be conduct the project and detail their training and work experience. Clearly identify a single point of contact/overall project manager. Describe personnel qualifications to demonstrate ability to accurately and efficiently complete work for this project.

    The project team must include but not be limited to a licensed Landscape Architect and a licensed Civil Engineer.

    No change in personnel assigned to the project will be permitted without approval of the City.

    List whether or not the responder will be the sole consultant for the entire project. Include any sub-contractors who will be working with your firm on this project, their responsibilities, and a summary of applicable experience and qualifications.

5. Work Plan: Provide a detailed work plan identifying the tasks to be accomplished and the budget hours to be expended on each task. The work plan shall also identify the deliverables at key milestones in the project as well as any other services expected to be provided by the City.
6. Work Schedule: Provide an anticipated project schedule. The work schedule shall identify all key milestone dates. There is a strict completion date for all implementation of September 30, 2026, based on the funding source for this work. There is no possibility of extension.
7. References: Provide a minimum of three (3) non-City references including names, addresses, and telephone numbers, for whom the responder has performed similar services, and the reference can address past performance.

II-2. Cost Proposal. Provide, **in a separate sealed envelope**, one copy of the cost proposal clearly marked on the outside with "Cost Proposal" along with the responder's

official business name and address. The terms of the proposal as stated must be valid for the length of the project.

The responder must also include a lump sum not-to-exceed total project cost, as well as subtotals for design services and bidding, and any sub-consultant fees. The cost proposal shall include all the following:

- A cover/transmittal letter.
- A subtotal of the contract cost for each task.
- A breakdown of the hours by task for each employee.
- Identification of anticipated direct expenses and rates for miscellaneous charges such as mileage and copies.
- Identification of any assumptions made while developing the cost proposal.
- Identification of any cost information related to additional services or tasks. Include this in the cost proposal but identify it as additional costs and do not make it part of the total project cost.
- The responder **must not** include any cost information within the body of the RFP technical proposal response.

PART III – CRITERIA FOR SELECTION

The proposals will be reviewed by City Staff. The intent of the selection process is to review proposals and make an award based upon qualifications as described therein. A 100-point scale will be used to create the final evaluation recommendations. The factors and weighting on which proposals will be judged are:

Qualifications and experience of the personnel and company	30%
Understanding of the project scope and work plan	25%
History of past work with the City of Duluth	25%
Cost to complete the project	20%

Proposals will be evaluated on a best value basis with 80% qualifications and 20% cost consideration. The review committee will not open the cost proposals until after the qualification points have been awarded.

PART IV – PROJECT DETAIL

IV-1. Project Scope. The City of Duluth is seeking a professional design firm to provide full professional Landscape Architectural and Civil Engineering design services for two public access improvement projects at Grassy Point and Chambers Grove Park.

See (Concept Exhibits) in Appendix C for a starting point on what the City is looking for.

Site A – Grassy Point: Located at 4901 Leisure Street, Duluth, MN 55807. The anticipated improvements at Grassy Point will include a new ADA accessible connection from the parking lot to a new observation platform, and a paddle launch.

Site C – Chambers Grove Park: Located at 13404 MN-23, Duluth, MN 55808. The anticipated improvements will include shoreline work to enhance an existing paddle launch site to provide better accessibility, including an adaptive paddle launch and dock system.

This project includes the following services:

1. Project Initiation: Site visits and other meetings as necessary with City staff.

2. Survey and Wetland Delineation: Complete survey of existing conditions with topographic detail, utilities, rights-of-way, property lines for adjacent private ownership, and wetland delineation.

3. Permitting: Consultant to list in the RFP response any anticipated necessary permits (local, state, federal). Preparation and submission of any and all necessary permits shall be included in the scope of services provided. Permitting fees will be paid by the City of Duluth.

4. Market Rate Probable Cost Estimates: The consultant shall prepare a preliminary cost estimate for internal use for budgeting purposes with the preparation of the 30% design plans. Following the completion of the 60%, 90%, and final plans, cost estimates and quantity takeoffs shall be provided. Cost estimates must be based on local markets with at least 15% contingency.

5. Environmental Review: This project is federally funded by the Great Lakes Restoration Initiative. Therefore, an environmental review under the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA Section 106) will be required for both sites. The consultant will prepare necessary report(s) and documentation as required for compliance. Both locations have had previous adjacent project reviews and the City will provide previous materials to the selected consultant.

6. Production of Construction Plans and Specifications (including any necessary Special Provisions).

7. Development of Construction Quality Assurance Plan(s): The consultant shall prepare Construction Quality Assurance Plan(s) for the designed improvements for submission through the City for approval by the EPA for quality assurance specifications and processes that will be utilized during the implementation of designed access improvements. Guidance and detail of the requirements for Quality Assurance Project Plans are provided by the EPA (https://www.epa.gov/quality/epa-qar-5-epa-requirements-quality-assurance-project-plans). An additional guidance document is provided as Appendix B.

8. Bidding Assistance: The consultant will support the bidding phase as needed, including preparation of pre-bid meeting materials and addenda as necessary.

9. Construction Administration: The consultant will review contractor produced materials for conformance with the intent of the contract and proper integration with designs. The consultant shall include construction inspection, staking, payment processing, documentation and recording, and final record of drawings. Assume 8 hours per week of on-site construction observation.

All work shall be performed in accordance with the most recent version of the City Standard Specifications and Engineering Guidelines (available on the City of Duluth website).

IV-2. Background. In 2024, the City of Duluth was awarded a grant from the U.S. Environmental Protection Agency with funding through the Great Lakes Restoration Initiative to support public access improvements along the St. Louis River Estuary. Extensive habitat restoration and remediation along the Estuary supports new opportunities for education and recreation for communities, and improvements funded through this federal award are intended to reconnect communities to the St. Louis River. The design services procured under this request are supported by the grant.

PART V – APPENDICES

Appendix A: Proposal Cover Sheet – this form must be completed and returned with the proposal.

Appendix B: Quality Oversight Guidance for Construction Implementation – this document contains additional guidance for Construction Quality Assurance Project Plans from the EPA.

Appendix C: EXAMPLE Construction Quality Assurance Plan – QAP for Perch Lake project

City of Duluth
Supplementary Provisions – State & Federal Funding

1. Disbursements
   a. No money under this Contract shall be disbursed by the City to any Contractor unless the Contractor is in compliance with the Federal Agency requirements with regard to accounting and fiscal matters to the extent they are applicable.
   b. Unearned payments under this Contract may be suspended or terminated upon the Contractor's refusal to accept any additional conditions that may be imposed by the Federal Agency at any time; or if the grant, if applicable, to the City under which this Contract is made is suspended or terminated.

2. Subcontracting Requirements
   a. The Contractor shall include in any subcontract the clauses set forth in these City of Duluth Supplementary Provisions in their entirety and shall also include a clause requiring the subcontractors to include these clauses in any lower tier subcontracts which they may enter into, together with a clause requiring this insertion in any further subcontracts that may in turn be made.
   b. The Contractor shall not subcontract any part of the work covered by this Contract or permit subcontracted work to be further subcontracted without the City's prior written approval of the subcontractors. The City will not approve any subcontractor for work covered by this Contract who is at the time ineligible under the provisions of any applicable regulations issued by a Federal Agency or the Secretary of Labor, United States Department of Labor, to receive an award of such subcontract.

3. Breach of Contract.

The City may, subject to the Force Majeure provisions below and in addition to its other rights under the Contract, declare the Contractor in breach of the Contract by written notice thereof to the Contractor, and terminate the Contract in whole or in part, in accordance with Section 4, Termination, for reasons including but not limited to any of the following:

   a. Failure to begin the Work within the time specified in the Contract;
   b. Failure to perform the Work with sufficient labor, equipment, or material to insure the completion of the specified Work in accordance with the Contract terms;
   c. Unsatisfactory performance of the Work;
   d. Failure or refusal to remove material, or remove and replace any Work rejected as defective or unsatisfactory;
   e. Discontinuance of the Work without approval;
   f. Failure to resume the Work, which has been discontinued, within a reasonable time after notice to do so;
   g. Insolvency or bankruptcy;
   h. Failure to protect, to repair, or to make good any damage or injury to property;
   i. Breach of any provision of the Contract;
   j. Misrepresentations made in the Contractor's bid/proposal; or
   k. Failure to comply with applicable industry standards, customs, and practice.

4. Termination

If the Contractor is in breach of the Contract, the City, by written notice to the Contractor, may

terminate the Contractor's right to proceed with the Work. Upon such termination, the City may take over the Work and prosecute the same to completion, by contract or otherwise, and the Contractor and its sureties shall be liable to the City for any additional cost incurred by the City in its completion of the Work and they shall also be liable to the City for liquidated damages for any delay in the completion of the Work as provided below. If the Contractor's right to proceed is terminated, the City may take possession of and utilize in completing the Work such materials, tools, equipment, and plant as may be on the site of the Work and necessary therefore.

City shall have the right to terminate this contract immediately without other cause in the event that all or a portion of the funds that the City intends to use to fund its obligations under the contract have their source with the State or Federal government or any agency thereof and said source reduces or eliminates their obligation to provide some or all of the funds previously committed by it to fund City's payment obligations under the Contract. The City agrees that termination hereunder will not relieve the City of its obligation to pay Contractor for Work satisfactorily performed and reasonable costs incurred prior to the effective date.

Notwithstanding anything herein to the contrary, the City may terminate this Contract at any time upon written notice given by the City (for any reason, including the convenience of the City) to the Contractor at least thirty (30) days prior to the effective date of the termination of this Contract. The City agrees that termination hereunder will not relieve the City of its obligation to pay Contractor for Work satisfactorily performed and reasonable costs incurred prior to the effective date of the termination provided that Contractor has not committed a breach of this Contract. Nothing contained in this section shall prevent either party from pursuing or collecting any damages to which it may be entitled by law.

5. Force Majeure.

The right of the Contractor to proceed shall not be terminated nor shall the Contractor be charged with liquidated damages for any delays in the completion of the Work due to any acts of the Government, including controls or restrictions upon or requisitioning of materials, equipment, tools, or labor by reason of war, National Defense, or any other national emergency; any acts of the City; causes not reasonably foreseeable by the parties to this Contract at the time of the execution of the Contract which are beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God or of the public enemy, acts of another Contractor in their performance of some other contract with the City, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and weather of unusual severity such as hurricanes, tornadoes, cyclones, and other extreme weather conditions; nor to any delay of any Subcontractor occasioned by any of the causes specified above. The Contractor shall promptly notify the City in writing within ten (10) days of the delay. Upon receipt of such notification, the City shall ascertain the facts and the cause of the delay. If, upon the basis of facts and the terms of the Contract, the delay is properly excusable, the City shall extend the time for completing the Work for a period of time commensurate with the period of excusable delay.

6. Contracting with Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms.

Per 2 CFR 200.321, prime contractor must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms (collectively referred to as socioeconomic firms) are used when possible. The affirmative steps must include:

a. Placing qualified socioeconomic firms on solicitation lists;

b. Assuring that socioeconomic firms are solicited whenever they are potential sources;

c. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit

maximum participation by socioeconomic firms;

d. Establishing delivery schedules, where the requirements permit, which encourage participation by socioeconomic firms; and
e. Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

7. Good Faith Efforts.

For purposes of this section, a DBE means an entity owned or controlled by a socially and economically disadvantaged individual as described by Public Law 102-389 (42 U.S.C. 4370d) or as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note); a Small Business Enterprise (SBE); a Small Business in a Rural Area (SBRA); or a Labor Surplus Area Firm (LSAF, a Historically Underutilized Business (HUB) Zone Small Business Concern, or a concern under a successor program.

Per 40 CFR 33.301, prime contractor must make the following good faith efforts whenever procuring construction, equipment, services and supplies:

a. Ensure Disadvantaged Business Enterprises (DBEs) are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
b. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
c. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
d. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
e. Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.

Additional contract administrative requirements per 40 CFR 33.302 are:

a. Prime contractor must notify the City in prior to any termination of a DBE subcontractor for convenience by the prime contractor.
b. If a DBE subcontractor fails to complete work under the subcontract for any reason, the prime contractor must employ the six good faith efforts summarized above if soliciting a replacement subcontractor.
c. Prime contractor must provide EPA Form 6100-2 - DBE Program Subcontractor Participation Form to all of its DBE subcontractors. EPA Form 6100-2 gives a DBE subcontractor the opportunity to describe the work the DBE subcontractor received from the prime contractor, how much the DBE subcontractor was paid and any other concerns the DBE subcontractor might have, for example reasons why the DBE subcontractor believes it was terminated by the prime contractor. DBE subcontractors may send completed copies of EPA Form 6100-2 directly to the appropriate EPA DBE Coordinator.
d. Prime contractor must have its DBE subcontractors complete EPA Form 6100-3 - DBE Program Subcontractor Performance Form, and include all completed forms as part of the prime

contractor's bid or proposal package.

e. Prime contractor must complete and submit EPA Form 6100-4 - DBE Program Subcontractor Utilization Form as part of the prime contractor's bid or proposal package.

f. Copies of EPA Form 6100-2 - DBE Program Subcontractor Participation Form, EPA Form 6100-3 - DBE Program Subcontractor Performance Form and EPA Form 6100-4 - DBE Program Subcontractor Utilization Form may be obtained from EPA OSDBU's Home Page on the Internet or directly from EPA OSDBU.

8. Energy Standards.

Contractor shall comply with all mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. 6201).

9. Suspension and Debarment.

This contract is a covered transaction for purposes of 49 CFR Part 29. As such, the contractor is required to verify that none of the contractor, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945. The contractor is required to comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into. A contract award must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM.gov), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 19898 Comp., p. 235), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

10. Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352 (as amended)

Contractors must certify that that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352.

11. Procurement of Recovered Materials

In the performance of this contract, the Contractor shall comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. This shall include making maximum use of products containing recovered materials as designated by the Environmental Protection Agency (EPA) unless (i) the materials cannot be acquired competitively and within the timeframe required by the contract performance schedule; (ii) the materials designated by the EPA do not meet contract performance requirements; or (iii) the materials cannot be acquired for a reasonable price. Information about this requirement, along with the list of EPA- designated items, is available at the EPA’s Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program .

12. Telecommunications and Video Surveillance Services or Equipment

In the performance of this contract, Contractor/Supplier shall comply with Public Law 115-232, Section 889, which prohibits the procurement or use of covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is

telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, use of video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities) is prohibited.

In addition, telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country is prohibited.

13. Domestic Preferences for Procurements

As appropriate and to the extent consistent with law, Contractor shall, to the greatest extent practicable under a Federal award, supply and/or use goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). For purposes of this section, "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

Contractors shall include the preceding language in all subcontracts.

CITY OF DULUTH
ADDITIONAL CONDITIONS PER GRANT AGREEMENT
Grassy Point and Chambers Grove Park Public Access Design Services
58-99593

The Recipient, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that for any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

Drug-Free Workplace

The recipient organization of this EPA assistance agreement must make an ongoing, good faith effort to maintain a drug-free workplace pursuant to the specific requirements set forth in Title 2 CFR Part 1536 Subpart B. Additionally, in accordance with these regulations, the recipient organization must identify all known workplaces under its federal awards and keep this information on file during the performance of the award.
Those recipients who are individuals must comply with the drug-free provisions set forth in Title 2 CFR Part 1536 Subpart C.
The consequences for violating this condition are detailed under Title 2 CFR Part 1536 Subpart E. Recipients can access the Code of Federal Regulations (CFR) Title 2 Part 1536 at www.ecfr.gov/.

Hotel-Motel Fire Safety

Pursuant to USC 2225a, the recipient agrees to ensure that all space for conferences, meetings, conventions, or training seminars funded in whole or in part with federal funds complies with the protection and control guidelines of the Hotel and Motel Fire Safety Act (PL 101-391, as amended). Recipients may search the Hotel-Motel National Master List at https://apps.usfa.fema.gov/hotel/ to see if a property is in compliance, or to find other information about the Act.

Recycled Paper

When directed to provide paper documents, the recipient agrees to use recycled paper and double-sided printing for all reports which are prepared as a part of this agreement and delivered to EPA. This requirement does not apply to reports prepared on forms supplied by EPA.

Resource Conservation and Recovery Act

Consistent with goals of section 6002 of RCRA (42 U.S.C. 6962), State and local institutions of higher education, hospitals and non-profit organization recipients agree to give preference in procurement programs to the purchase of specific products containing recycled materials, as identified in 40 CFR Part 247.
Consistent with section 6002 of RCRA (42 U.S.C. 6962) and 2 CFR 200.323, State agencies or agencies of a political subdivision of a State and its contractors are required to purchase certain items made from recycled materials, as identified in 40 CFR Part 247, when the purchase price exceeds $10,000 during the course of a fiscal year or where the quantity of such items acquired in the course of the preceding fiscal year was $10,000 or more. Pursuant to 40 CFR 247.2 (d), the recipient may decide not to procure such items if they are not

reasonably available in a reasonable period of time; fail to meet reasonable performance standards; or are only available at an unreasonable price.

Trafficking in Persons

a) Provisions applicable to a recipient that is a private entity.

i. The recipient, the recipient's employees, subrecipients under this award, and subrecipients' employees may not –

1) Engage in severe forms of trafficking in persons during the period of time that the award is in effect;

2) Procure a commercial sex act during the period of time that the award is an effect; or

3) Use forced labor in performance of the award or subawards under the award.

ii. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if the recipient or a subrecipient that is a private entity –

1) Is determined to have violated a prohibition in paragraph a of this award term; or

2) Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph a of this award term through conduct that is either –

a. Associated with performance under this award; or

b. Imputed to the recipient or subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR Part 180, ''OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Non- procurement),'' as implemented by our Agency at 2 CFR Part 1532.

b) Provision applicable to a recipient other than a private entity. EPA may unilaterally terminate this award, without penalty, if a subrecipient that is a private entity –

i. Is determined to have violated an applicable prohibition in paragraph a. of this award term; or

ii. Has an employee who is determined by the agency official authorized to terminate the award to have violated an applicable prohibition in paragraph a of this award term through conduct that is either

1) Associated with performance under this award; or

2) Imputed to the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR Part 180, ''OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," as implemented by EPA at 2 CFR Part 1532.

c) Provisions applicable to any recipient

i. The recipient must inform the EPA immediately of any information received from any source alleging a violation of a prohibition in paragraph a of this award term.

ii. Our right to terminate unilaterally that is described in paragraph a and b:

1) Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and

2) Is in addition to all other remedies for noncompliance that are available to us under this award.

iii. The recipient must include the requirements of paragraph a of this award term in any subaward made to a private entity.

d) Definitions. For purposes of this award term:

i. "Employee" means either:

1) An individual employed by you or a subrecipient who is engaged in the performance of the project or program under this award; or

2) Another person engaged in the performance of the project or program under this award and not compensated by you including, but not limited to, a volunteer or individual whose services are contributed by a third party as an in-kind contribution toward cost sharing or matching requirements.

ii. "Forced Labor" means labor obtained by any of the following methods: the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.

iii. "Private Entity"

1) Means any entity other than a State, local government, Indian tribe, or foreign public entity, as those terms are defined in 2 CFR 175.25.

2) Includes:

a. A nonprofit organization, including any nonprofit institution of higher education, hospital, or tribal organization other than one included in the definition of Indian tribe at 2 CFR 175.25(b).

b. A for-profit organization

iv. "Severe forms of trafficking in persons," ''commercial sex act,'' and ''coercion'' have the meanings given at section 103 of the TVPA, as amended (22 U.S.C. 7102).

Build America, Buy America – Required Use of American Iron, Steel, Manufactured Products, and Construction Materials (effective October 23, 2023, and forward)

***Buy America Preference*.** Recipients of an award of Federal financial assistance from a program for infrastructure are hereby notified that none of the funds provided under this award may be used for an infrastructure project unless:

(1) All iron and steel used in the project are produced in the United States—this means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States;

(2) All manufactured products used in the project are produced in the United States— this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard that meets or exceeds this standard has been established under applicable law or regulation for determining the minimum amount of domestic content of the manufactured product; and

(3) All construction materials are manufactured in the United States—this means that all manufacturing processes for the construction material occurred in the United States. The construction material standards are listed below.

***Incorporation into an infrastructure project*.** The Buy America Preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does a Buy America Preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project, but are not an integral part of the structure or permanently affixed to the infrastructure project.

***Categorization of articles, materials, and supplies*.** An article, material, or supply should only be classified into one of the following categories: (i) Iron or steel products; (ii) Manufactured products; (iii) Construction materials; or (iv) Section 70917(c) materials. An article, material, or supply should not be considered to fall into multiple categories. In some cases, an article, material, or supply may not fall under any of the categories listed in this paragraph. The classification of an article, material, or supply as falling into one of the categories listed in this paragraph must be made based on its status at the time it is brought to the work site for incorporation into an infrastructure project. In general, the work site is the location of the infrastructure project at which the iron, steel, manufactured products, and construction materials will be incorporated.

***Application of the Buy America Preference by category*.** An article, material, or supply incorporated into an infrastructure project must meet the Buy America Preference for only the single category in which it is classified.

Determining the cost of components for manufactured products. In determining whether the cost of components for manufactured products is greater than 55 percent of the total cost of all components, use the following instructions:

(a) For components purchased by the manufacturer, the acquisition cost, including transportation costs to the place of incorporation into the manufactured product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(b) For components manufactured by the manufacturer, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (a), plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the manufactured product.

***Construction material standards*.** The Buy America Preference applies to the following construction materials incorporated into infrastructure projects. Each construction material is followed by a standard for the material to be considered "produced in the United States." Except as specifically provided, only a single standard should be applied to a single construction material.

(1) Non-ferrous metals. All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States.

(2) Plastic and polymer-based products. All manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form, occurred in the United States.

(3) Glass. All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States.

(4) Fiber optic cable (including drop cable). All manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-based products, or any others.

(5) Optical fiber. All manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States.

(6) Lumber. All manufacturing processes, from initial debarking through treatment and planing, occurred in the United States.

(7) Drywall. All manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States.

(8) Engineered wood. All manufacturing processes from the initial combination of constituent materials until the wood product is in its final form, occurred in the United States.

Waivers. When supported by rationale provided in IIJA §70914, the recipient may submit a waiver request in writing to EPA. Recipients should request guidance on the submission instructions of an EPA waiver request from the EPA Project Officer for this agreement. A list of approved EPA waivers (general applicability and project specific) is available on the EPA Build America, Buy America website.

EPA may waive the application of the Buy America Preference when it has determined that one of the following exceptions applies:

(1) applying the Buy America Preference would be inconsistent with the public interest;
(2) the types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality; or
(3) the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent.

For questions regarding the Build America, Buy America Act requirements for this assistance agreement or to determine if there is an approved waiver in place, please contact the EPA Project Officer for this agreement.

Definitions. For legal definitions and sourcing requirements, the recipient must consult the EPA Build America, Buy America website, 2 CFR Part 184, and the Office of Management and Budget's (OMB)

Memorandum M-24-02 Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure.

Whistleblower Protections

This award is subject is to whistleblower protections, including the protections established at 41 U.S.C. 4712 providing that an employee of the recipient or a subrecipient may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing to a covered person or body information that the employee reasonably believes is evidence of gross mismanagement of a Federal grant or subaward, a gross waste of Federal funds, an abuse of authority relating to a Federal grant or subaward, a substantial and specific danger to public health or safety, or a violation of law, rule, or regulation related to a Federal grant or subaward. These covered persons or bodies include:

a. A member of Congress or representative of a committee of Congress.
b. An Inspector General.
c. The Government Accountability Office.
d. A Federal employee responsible for contract or grant oversight or management at the relevant agency.
e. An authorized official of the Department of Justice or other law enforcement agency.
f. A court of grand jury.
g. A management official or other employee of the contractor, subcontractor, or grantee who has the responsibility to investigate, discover, or address misconduct.

Consistent with 41 U.S.C. 4712(d), the recipient and subrecipients shall inform their employees in writing, in the predominant language of the workforce or organization, of employee whistleblower rights and protections under 41 U.S.C. 4712. Additional information about whistleblower protections, including protections for such employees may be found at the EPA Office of Inspector General's Whistleblower Protection page.

Access to Records

In accordance with 2 CFR 200.337, EPA and the EPA Office of Inspector General (OIG) have the right to access any documents, papers, or other records, including electronic records, of the recipient and subrecipient which are pertinent to this award in order to make audits, examinations, excerpts, and transcripts. This right of access also includes timely and reasonable access to the recipient and subrecipient's personnel for the purpose of interview and discussion related to such documents. This right of access shall continue as long as the records are retained.

APPENDIX A - PROPOSAL COVER SHEET
CITY OF DULUTH
RFP# 25-99593

Bidder Information:	
Bidder Name	
Mailing Address	
Contact Person	
Contact Person's Phone Number	
Contact Person's E-Mail Address	
Federal ID Number	
Authorized Signature	
Name & Title of Authorized Signer	
Email of Authorized Signer	

APPENDIX B

U.S. EPA Great Lakes National Program Office

Guidance for Planning Quality Oversight During the Ecological Restoration Construction and Implementation Phases

December 2023

Approved by:

6/6/2024

Louis Blume, EPA GLNPO Quality Manager Date

Mark Loomis, EPA GLLA Quality Manager Date

Acknowledgements

This document was prepared with support by General Dynamics Information Technology (GDIT) under their Scientific and Technical Support contract with EPA (contract number 68HERC23D0002). Material was drafted by Dr. Timothy Lewis, Dr. Craig Palmer, Molly Middlebrook, Brick Fevold, and Doran Stegura of GDIT.

We wish to acknowledge the contributions of EPA, and in particular, Louis Blume for funding and overseeing development of this guidance. Additionally, we recognize the technical reviews conducted by the following individuals, whose thoughtful comments contributed greatly to the quality of the guide.

Technical Reviewer	Affiliation
• Danielle Algazi • Kelly Krock • Michael Mansolino	U.S. EPA Region 3
• Caroline Keson • Leah Clark • Dana Strouse	Michigan Department of Environment, Great Lakes, and Energy (EGLE)
• Joshua Unghire • Kathleen Lewis • Brian Steils	U.S. Army Corps of Engineers (USACE)
• Donalea Dinsmore	Wisconsin Department of Natural Resources (WI DNR)
• Zachary Jorgenson	Bureau of Indian Affairs
• Peter C. Smiley Jr.	U.S. Department of Agriculture, Agricultural Research Service (USDA ARS)

We also wish to acknowledge the support provided by members of the Interagency Ecological Restoration Quality Committee (IERQC). Members of this committee provided valuable review and feedback during its development and assisted us in identifying additional reviewers.

Disclaimer

These guidelines were developed to promote effective quality assurance and quality control (QA/QC) strategies for implementing ecological restoration projects conducted under the Great Lakes Restoration Initiative (GLRI). This document does not impose legally binding requirements on EPA, states, tribes, or the regulated community. Specific quality oversight procedures may or may not be applicable to a particular situation depending on the circumstances. Federal and state decision makers retain the discretion to adopt approaches on a case-by-case basis that may differ from this guidance where appropriate. Any decisions regarding a particular restoration project should be made based on the applicable statutes and regulations. Therefore, interested parties are free to raise questions and objections about the appropriateness of the application of this guide to a particular situation, and the project sponsor will consider whether the recommendations or interpretations in this guide are appropriate in that situation based on the law and regulations.

Mention of trade names, products, or services does not convey official approval, endorsement, or recommendation by the U.S. EPA.

Contact Information

For additional information, questions, or comments about this document, please contact Louis Blume (EPA) using the information provided below.

Louis Blume
EPA GLNPO Quality Manager
U.S. EPA 77 West Jackson Boulevard
Chicago, IL 60604-3507
Tel: 312-353-2317
blume.louis@epa.gov

Table of Contents

Guidance for Planning Quality Oversight During the Ecological Restoration Project Construction and Implementation Phases

I. Introduction

The purpose of this guidance is to provide the principal components of quality documentation fundamental to the planning of effective quality oversight during construction, installation, or implementation phases of an ecological restoration project. This guidance integrates applicable components of the EPA Quality Assurance Project Plan (QAPP) Standard - Directive No: CIO 2105-S-02.0 (EPA, 2023), Guidance on Quality Assurance for Environmental Technology Design, Construction, and Operation - EPA QA/G-11 (EPA, 2005), Uniform Federal Policy (UFP) for QAPPs (UFP, 2005), USACE Construction Quality Management policies and guidelines for contracts (USACE, 1995), Quality Management Systems for Environmental Information and Technology Programs - ANSI/ASQ E4-2014 (ASQ, 2014), Application of Quality Assurance and Quality Control Principles to Ecological Restoration Project Monitoring (EPA, 2019), and other construction-related quality assurance (QA) and quality control (QC) documents developed by state and federal agencies and the private sector supporting ecological restoration construction projects (e.g., stream restoration, wetland construction).

The primary audience for this guidance includes individuals responsible for the preparation and implementation of quality documents supporting the construction or installation phase of ecological restoration projects funded by the Great Lakes Restoration Initiative (GLRI). This guidance is not intended for use in projects requiring the treatment or handling (i.e., remediation) of environmental contaminants, as additional details in quality documents are required for these projects. However, post-remediation activities often require construction and habitat modification/alteration for restoring ecological integrity. This document provides specifications for conducting both QA and QC activities during the construction and implementation of restoration projects. This guidance can be used in such projects that require additional QA/QC documentation to ensure efficient and effective implementation of ecological restoration activities.

II. Concepts and Terminology

The terms quality assurance and quality control are often used interchangeably. Although related, they address different aspects of quality management. For the purpose of this document, we have adopted the following definitions: 1) ***Quality Assurance***: quality management focused on providing confidence that quality requirements will be fulfilled; and 2) ***Quality Control***: quality management focused on fulfilling quality requirements (ISO, 2015). Quality control includes technical activities that measure the attributes and performance of a process, item, or service against defined standards to verify that they meet the stated requirements established by the customer (ASQ, 2014).

The goal of a QA program is to control measurement uncertainty to an acceptable level using various QC and assessment techniques. The QA program applies to all phases of the restoration project: problem formulation, project design, implementation, construction, and monitoring restoration effectiveness.

> *Historically, agencies used the term QA/QC with QC referring to the contractor's role and QA to the agency's role. This usage implied that QA and QC are separate functions. In contrast, QA refers to the overall system for assuring project quality, with QC being one element of a comprehensive QA program. (NAS, 2022)*

QC is an integral part of the QA program (NAS, 2022) and involves testing and inspection to confirm compliance with technical specifications of: 1) materials, and 2) constructed and restored ecological features. QA often involves both internal and independent assessment or audits to verify that all QC measures were implemented, and specifications were met.

III. How to Use This Guidance

This guidance describes the principal components of quality documentation necessary for effective quality oversight during the construction, installation, and implementation phases of an ecological restoration project. It covers: 1) activities conducted to ensure construction efforts are implemented according to the design and technical specifications; and 2) oversight activities to ensure the organization(s) performing the construction activities meet applicable design and technical specifications. All components described in this guidance should be addressed within the project documentation.

Since each ecological restoration project is unique and the application of quality documentation may vary, the framework outlined in this guidance should be adapted in accordance with EPA's graded approach to QA, to meet the specific needs and complexities of each project. As such, organizations providing quality oversight may format their quality documentation in a manner that suits the size, scope, ecological context, and regulatory requirements associated with their ecological restoration projects. Referring to and appending existing quality documentation is acceptable and encouraged. For example, an organization may develop their own quality document detailing: 1) roles and responsibilities (e.g., quality oversight within their organization, reporting to the funding entity); 2) planned actions to ensure construction activities are being implemented in accordance with the design and technical specifications; and 3) procedures for identifying and addressing corrective actions (including documentation and communication protocols). Subsequently, they may reference any relevant existing documentation summarizing QA/QC activities being performed by the organization conducting the construction work (often referred to as a Quality Control Plan). Alternatively, an organization may create a single consolidated document detailing the QA/QC activities for the construction work and the quality oversight.

This guidance document integrates key components from multiple quality documentation sources, providing a comprehensive approach to QA and QC in ecological restoration projects. These integrated components serve as a foundation for creating effective quality documentation for the construction and implementation phases of a restoration project and lay the groundwork for oversight and verification of the quality of a restoration project's work elements.

IV. Quality Documentation Elements

SECTION A – PROJECT MANAGEMENT

A.1 Project Title and Approval Sheet; include the following:

- □ Project title
- □ Organization name
- □ Effective date of plan
- □ Names, titles, signatures, and signature dates of approving officials

Approving officials may include the construction company's project manager and quality assurance/control officer, other federal (e.g., US Army Corps of Engineers) or state (e.g., Minnesota Department of Natural Resources) officials, and U.S. EPA (Environmental Protection Agency) Project Officer and QA Manager.

A.2 Table of Contents

Prepare a table of contents for all documents longer than 10 pages. Include each section of this quality documentation guidance, lists of tables and figures, list of acronyms, cited references, and appendixes. Incorporation of hypertext links in the table of contents to each section facilitates navigation by readers and reviewers.

A.3 Distribution List

Include all key project team members and their affiliations. Explain who is responsible for distribution of approved quality documentation and the way it will be delivered (e.g., electronically via email, posted on a SharePoint site).

A.4 Project/Task Organization

A.4.1 Roles, Responsibilities, and Certifications

- □ Identify the key project team members, including federal and state agency representatives, nonfederal sponsors, subcontractors, field managers, and stakeholders.
- □ Provide job titles of each team member and describe their roles in relation to the project.
- □ Specify any required training or certifications needed for team members to perform their respective duties.

A.4.2 Organization Chart and Communications

- □ Provide a concise organization chart showing the relationships and lines of communication and authority among all members of the project team. Illustrate team members involved with QA/QC oversight and their independence from construction project personnel.
- □ Describe the responsibilities, authority, qualifications, and interrelation of personnel responsible for managing, performing, or verifying inspections or assessments to evaluate the quality of the restoration work.
- □ Define the scope of authority of assessors, including the ability to issue stop work orders and the circumstances under which they are authorized to act.

- □ Include any parties responsible for warranties or post-project maintenance agreements related to the project.
- □ State how communication with the public will be performed. This includes methods of alerting the public about activities like noisy pile drivers, river/beach section closures, and disruptions to recreation.
- □ List emergency personnel, emergency response agencies, or emergency protocols that may need to be engaged, in case of a worker accident or a project failure that could potentially impact lives or property (e.g., dam removal).

A.5 Problem Definition/Background

- □ Describe the historical, natural resource, regulatory, and socioeconomic context of the ecological restoration project.
- □ Clearly state the specific problem(s) to be solved, the action(s) or treatment(s) to be implemented to rectify the problem, and decision to be made or outcome to be achieved.
- □ Describe the way the final treatment(s) was (were) chosen (e.g., modeling of alternatives, past successful outcomes using similar treatment(s)).

A.6 Project/Task Description

A.6.1 Project/Task Goals and Objectives

- □ State the overall goals and quantitative objectives of the project.
- □ List the tasks, work elements, or definable features of work required to achieve the goals and objectives in the order they will be executed.
- □ It is highly recommended that a conceptual model or diagram be included that shows the construction elements and the environmental or ecological response(s) intended to be achieved by each element.
- □ Cite applicable and exact technical, regulatory, or program-specific quality standards, criteria, or objectives that must be met.

Overall goals should include 1) the subject or resource of concern; 2) attributes of interest for that subject or resource; 3) conceptual target or condition for that the specified attributes; and 4) an action or effort to be made to achieve the target.

Quantitative objectives should be Specific, Measurable, Achievable, Results-oriented, and Time-sensitive (SMART)

Refer to Chapter 3 of EPA-905-K19-001 for more detail on developing goals and objectives.

- □ Provide evidence (e.g., a list with dates of approval) that all required permits to execute the project have been secured and landowner authorization has been granted.

A.6.2 Project/Task Location

- □ Describe the project location(s) and associated conditions. Descriptions of the site should include site conditions/specifications and the route(s) for site access and any easements (if applicable).

- □ Include a diagram (e.g., map, layout) of the location(s) and associated components of the location, such as the restoration area, staging area, material storage facilities, and derived waste treatment areas (if applicable).
- □ Include maps, aerial imagery (e.g., aerial photos, satellite images), and latitudinal and longitudinal coordinates, as well as citations for the source material supporting the spatial information.
- □ Explain the impact of the site design on existing land use and aquatic resources, if applicable.

A.6.3 Project Schedule

- □ Provide a schedule for project implementation showing the execution sequence for each task, work element, or definable feature of work.
- □ Describe any component of the work that is dependent upon weather or life history stages of biota.
- □ Discuss contingencies due to weather or other delays and if there are environmental windows for various threatened, endangered, or sensitive species that must be observed.

When developing the schedule consider questions such as:

- Does seasonality affect optimal detection and control/eradication of invasive species?
- Is dredging scheduled to minimize impacts on vulnerable life history stages of threatened, endangered, or sensitive species?
- Will a delay in the schedule impose a threat to threatened, endangered, or sensitive species?

- □ Include in the schedule any post-project maintenance, monitoring, or inspections that will be performed as part of construction and any warranties, if applicable.

SECTION B – INSPECTION, TESTING, CONTROL, AND TRACKING

B.1 Site Preparation and Management

B.1.1 Materials and Construction Equipment

- □ Include a list of all materials and equipment needed to implement the restoration design.
- □ Explain the process of developing and reviewing acquisition orders (including responsible parties) to verify the quantity and quality of materials and equipment prior to purchase. Indicate which materials must arrive onsite with a certificate provided by the vendor ensuring quality.
- □ Outline the steps taken and testing requirements to determine whether the materials that were acquired without quality certification are of acceptable quantity and quality.
- □ Provide control, verification, and acceptance procedures for each specific test to include the test name, a description of the test, feature of work to be tested, test frequency, and person responsible for each test (UFGS, 2022).
- □ Provide the names of any laboratories that will be used for testing of construction materials and any relevant laboratory certifications/accreditations (UFGS, 2022).
- □ Describe corrective actions if materials fall outside of tolerance limits and what precautions are in place to avoid inadvertent use of failed materials.

- □ To prevent damage, loss, and deterioration describe the handling, storage, cleaning, packaging, and shipping of materials (including biological materials such as native plants and fish), and the maintenance of equipment, components, and parts (ASQ, 2014).

B.1.2 Measuring and Testing Equipment

- □ List the tools, gauges, instruments, and other sampling, measuring, and testing equipment (collectively referred to as M&TE) (ASQ, 2014) necessary to measure and test whether each task meets design specifications and falls within acceptable tolerance limits (e.g., survey equipment, turbidity meters, flowmeters, clinometers).
- □ Describe the schedule and frequency of inspection, maintenance, and calibration of any M&TE used for QC measurements and explain how results of inspections and calibrations will be documented (e.g., logs, reports, photographs).
- □ For each measurement, if specialized instruments are used, describe required training to use the instruments and whether a license, certification, or other personal qualifications are needed (e.g., state licensed surveyor, registered professional forester, certified herbicide applicator).
- □ Explain what safeguards will be in place to prevent the inadvertent use of M&TE that are not registered and calibrated.
- □ Describe the calibration procedures for any out-of-calibration M&TE (e.g., return device to manufacture or recalibrate in-house).
- □ For critical, high-risk components of the construction project, explain how calibration will be traced to national or international standards.

B.1.3 Waste Management and Disposal

- □ Provide details on the environmentally safe storage of potentially toxic or hazardous materials that may be used on site (e.g., oil and gas for machinery, pesticides).
- □ Describe how soils, sediments, and biological material infested with invasive species and pests (e.g., zebra mussels (*Dreissena polymorpha)*, Eurasian watermilfoil (*Myriophyllum spicatum*), emerald ash borer (*Agrilus planipennis*)) will be disposed of according to federal, state, and local regulations.
- □ Discuss decontamination methods for all materials and equipment before they are moved to and/or from the site.
- □ Specify how, during field activities, boots and other equipment will be cleaned in a way that prevents invasive species (plants and animals) from spreading to other locations.
- □ Describe measures used to dispose of excess materials left over after the project is completed (e.g., pesticides).

B.2 Quality Practices During Construction

B.2.1 Confirmatory Measurements of Quality

- □ Explain the process to test and confirm all installed components and systems meet design specifications.
- □ Clearly state the design specification and the variability (tolerance limit) acceptable to meet the quality requirements[1] for each task.
- □ Cite industry standards[2] (as applicable).
- □ State the location(s) (e.g., latitudinal and longitudinal coordinates) for the confirmatory measurements, the number of measurements, the schedule, the frequency of measurements, and who is responsible for the measurements (e.g., state licensed surveyor, certified botanist).
- □ Specify the target values and acceptable tolerance limits for relevant data quality indicators, such as precision, accuracy, representativeness, comparability, completeness, and/or sensitivity.
- □ If physical samples (e.g., sediment samples for particle size analysis, plant voucher specimens for species identification) are collected for on- or off-site confirmatory analysis, describe the sampling methods, sample handling and custody, and analytical methods as described in Sections B2 and B3 of the EPA *Quality Assurance Project Plan Standard* (EPA, 2023). Additionally, as appropriate, describe the quantitation limits, and field blanks and duplicates to be collected.
- □ Describe photo documentation methods used for plant identification or to document other observations or measurements or, as an option, provide a reference to a procedure for performing such photography.
- □ Provide references for all methods and procedures used in measurements and analyses. If the methods or procedures are published and can be cited, then they should be cited in the reference section. If they are not readily available in-print or on-line, then they should be included in the appendix.

Examples of confirmatory measurements that might be made during the construction phase of an ecological restoration project:

- Elevations and cross sections of altered habitats (e.g., channels, wetlands, floodplains)
- Substrate quantity/quality and proper placement
- Slopes, water levels, and stream flow
- Large woody debris size and placement
- Invasive species treatment efficacy
- Occurrence of native plant species and spacing between planted specimens, correct species for the geographic area

[1] Quality requirements are set forth in engineering/design plans. Whether these requirements are met is determined by observations and measurements of each task; verification of satisfactory task completion can be accomplished by developing acceptance criteria (e.g., 2% grade for stream gradient) along with an associated tolerance limit (e.g., ±0.5% grade).

[2] Industry standards are criteria within a particular field of business and are generally the "minimal accepted requirements" followed by the members of that industry. The standards address product performance, safety, reliability, and the methods for evaluating these topics. There are organizations within industries and across industries that oversee the development and revision of standards. For example, ASTM and ANSI have developed standards that would apply to certain materials that may be used in a restoration project.

When assessing whether the technical specifications of an ecological restoration project have been met, direct observations or qualitative assessments may sometimes be used rather than instrumental measurements. In such cases the following information should be documented.[3]

- □ Specific technical specifications for the ecological restoration project that will be evaluated by observation or qualitative measures.
- □ How these visual observations will be compared to predefined criteria in the project design plan and whether the observed conditions align with the specified targets.
- □ Tolerance limits for any measurements based on observational or qualitative data.

B.2.2 Maintenance of Constructed Features

- □ Describe how constructed components and systems will be maintained during project implementation to prevent deterioration of tasks or work features that were completed earlier in project construction (e.g., monitoring and treating invasive species, controlling erosion issues and sediment accumulation).
- □ Describe how post-project outcomes (e.g., up to two years after project completion) will be ensured by citing any warranties in workmanship that can be used.

B.3 Daily Inspections

- □ Provide details on daily site inspections to determine adherence to design specifications and quality plans.
- □ State what items will be included on a daily inspection checklist.
- □ Identify who is responsible for the conduct of daily site inspections. If known, state the organization that will be performing any on-site audits and the frequency of the audits (e.g., at the completion of each definable feature of work or after meeting a major milestone).

B.4 Nonconformances and Corrective Actions

B.4.1 Documenting Nonconformances

- □ Explain how nonconformances will be confirmed, verified, validated, and documented.
- □ Describe the notification process for approval of changes, including who will be informed and how, and how any existing documentation will be updated and distributed.

Examples of nonconformances:

- Construction/installation not completed as per given design/drawing
- Approved M&TE or procedure not used during confirmatory testing
- M&TE not calibrated
- Approved inspection and testing plan for construction not followed
- Different material(s) or plant(s) used instead of those approved
- Material tests failed

[3] To avoid biases in qualitative assessments of design specifications it is recommended that one individual conduct all these assessments. Alternatively, a standardized training of multiple observers or inspectors should be conducted to minimize within- and between-observer variability.

B.4.2 Corrective Action

- □ Describe the process on how corrective action will be undertaken to remedy deficiencies or nonconformances.
- □ Include the form (commonly referred to as a punch list) that will be used in the project to verify that corrective actions have been executed, the person(s) responsible for administering the corrective action, and the date the corrective action was administered.

B.5 Data Management

B.5.1 Project-Specific (Primary) Data

- □ Explain who will be responsible for oversight and maintenance of stored QC data (e.g., results from confirmatory measurements, calibration data, as-built survey) that are collected during project construction.
- □ Describe the format for data storage and how the QC data will be made readily accessible to project personnel during project execution.
- □ Provide details on how non-digital information, including completed hardcopy forms, photographs, field journals, and logbooks will be managed, and converted to digital formats as needed.
- □ Discuss the control mechanism for detecting and correcting errors and for preventing loss of data during data reduction, data reporting, and data entry to forms, reports, and databases.

B.5.2 Existing Data

- □ List the types and sources of existing data that will be used for the project.
- □ Describe the intended use and relevance of the existing data.
- □ Discuss any limitations or acceptance criteria for these sources, and if applicable, whether there are any QC data associated with existing data to characterize its quality.
- □ Describe individuals responsible for oversight and maintenance of existing data, how it will be stored, and how it will be made readily available for project personnel during the project.

SECTION C – ASSESSMENT AND REPORTING

C.1 Assessments

- □ Describe QA assessments that will provide oversight of QC activities such as management system reviews, technical systems audits, and other assessments outside of the aforementioned inspections (Section B).
- □ Discuss the information expected from QA verifications of QC inspections and the acceptance criteria for each assessment.
- □ List the type of assessment, the responsible party, the completion schedule and how the outcome of the assessment will be documented and reported.

- □ Describe any planned self-assessments involving personnel from within the project groups, identify the potential participants, and their relationship with the project organization.
- □ Identify any independent assessments that will be conducted by personnel outside the project groups. List the name(s) of the person(s) that will perform these assessments and their organization.
- □ Specify who will perform independent QA verification sampling or testing (If applicable) and how discrepancies between QA verification and QC results will be resolved.
- □ Describe how and to whom the results of independent assessments will be reported.

Examples of independent QA assessments of QC inspections in Section B:

- Confirm all QC tests were performed.
- Check results of QC tests for meeting specification requirements.
- Verify that complete records are maintained of all QC tests and inspections.
- Assess whether proper M&TE were used and calibrated.
- Confirm that all corrective actions were implemented and that nonconformances were resolved.
- Compare verification test results to QC test results and reconcile discrepancies.

- □ Identify who will be responsible for reviewing all QC data and verifying that it was collected using specified and calibrated M&TE.
- □ Discuss how corrective actions in response to assessment findings will be addressed and by whom and how the effectiveness of corrective actions will be verified and documented.
- □ Ensure quality assurance documentation specifies how adaptive management decisions will be made based on QA assessment findings.

C.2 Reports to Management

The frequency of reporting will be highly dependent upon the nature of the work and how it is executed. The organization performing the construction and the agency that provided the project funding will have their own requirements for the type of reports and the reporting frequency. General guidance for project-specific daily, weekly/monthly, and closeout reports is provided below.

C.2.1 Daily Reports

- □ Describe who is responsible for recording the minutes from each day's meetings, the preparation of the reports from these daily meetings, the content of these reports, and to whom and how these reports will be delivered.
- □ Include in daily reports the minutes from project team meetings, results of inspections performed, permit compliance monitoring data (e.g., turbidity, NPDES discharge data), and any immediate response actions.
- □ Provide an example of the daily report format that will be completed at the end of each workday and will be reviewed at the start of the next workday by on-site personnel.

C.2.2 Weekly/Monthly Reports

- □ A description of the process for preparing these reports, including task and subtask activities, project milestones, and adherence to the project schedule.

- □ The frequency and distribution of reports issued to inform management (e.g., U.S. EPA or other state/federal agencies) of the project status, and the findings of periodic quality assessments, any significant quality problems encountered and solutions to these problems.
- □ The preparer(s) and the recipient(s) of the reports and any specific actions recipients are expected to take as a result of the reports.
- □ An example of the format that will be used for the weekly/monthly reports.

C.2.3 Project Completion and Closeout

- □ Describe the overall procedures for maintaining the cumulative documentation of the project which provides factual evidence that all required QC activities and/or tests have been performed and all nonconformances have been resolved (e.g., items on a punch list).
- □ Include in these records the work of subcontractors and suppliers.
- □ Explain who is responsible for the preparation and content of a final report (if required prior to contract closeout) and the recipient(s) of the report.
- □ List the contents of the cumulative project file which will also serve as a repository for such quality documentation as:
  - training certificates
  - field logs
  - construction material certifications
  - sampling data
  - M&TE calibration records
  - daily and weekly/monthly reports
  - nonconformance reports
  - requests for information (RFIs)
  - applicable permits
  - as-built drawings
  - the original and any modifications of the project design (e.g., Basis of Design Report)
  - any additional information used in project tracking, completion, and final closeout of the project
- □ Describe where this project file will be stored, the length of time the file will be archived after project completion and closeout, and how the project file can be made available to all stakeholders and the public (e.g., via email, webpage, upon request).
- □ Provide details on any mechanisms for post-project protection, such as deed restrictions and/or conservation easements.

SECTION D – VERIFICATION/VALIDATION AND ACCEPTANCE OF COMPLETED PROJECT

D.1 Verification and Validation of QC Data

- □ Describe the process to confirm that results obtained from project activities are accepted, verified, validated, and qualified according to their intended use.
- □ Outline the methods used for analyzing QC data to determine possible anomalies or departures from technical specifications (e.g., QC charts, Pareto charts).

D.2 Acceptance of Completed Project

- □ Outline the procedure for the conduct of an as-built survey (if applicable) and a project completion inspection, including when conducted, who is responsible, what will be checked (e.g., verification according to design specifications), etc.
- □ Present how any limitations of the constructed restoration structure or technological feature and the expected performance of the workmanship will be expressed quantitatively or qualitatively and how it will be documented within the project record.
- □ Specify who will prepare a project verification statement that covers both conforming and nonconforming (deficient) features of the completed project. This statement should include what equipment and materials were incorporated into the work and that the workmanship complies with the technical specifications of the project design.

D.3 Post-Project Maintenance and Warranties

- □ If applicable, include information about management and maintenance plans for the restored site after the project has been completed, such as details on the available funding for ongoing monitoring, adaptive management strategies, and individuals or entities responsible for ensuring the sustained success of the restoration project.
- □ Describe any warranties included in the execution of the construction or restoration phases of the project.
- □ Explain what required inspection(s) or post-project monitoring activities are needed to exercise any warranty-related corrective action(s).

V. References

American Society for Quality (ASQ). 2014. ASQ/ANSI E4:2014: Quality Management Systems for Environmental Information and Technology Programs. Milwaukee, WI: ASQ Quality Press.

International Organization for Standardization (ISO). 2015. ISO 9000:2015, Quality Management Systems – Fundamentals and Vocabulary. Geneva, Switzerland: International Organization for Standardization.

National Academies of Sciences, Engineering, and Medicine. 2022. Agency Use of Quality Control Plans for Administering Quality Assurance Specifications. Washington, DC: The National Academies Press. https://doi.org/10.17226/26664

Unified Facilities Guide Specifications (UFGS). 2022. Technical Specification 01 45 00 – Quality Control. https://www.wbdg.org/ffc/dod/unified-facilities-guide-specifications-ufgs.

Unified Federal Policy (UFP). 2005. Uniform Federal Policy for Quality Assurance Project Plans: Evaluating, Assessing, and Documenting Environmental Data Collection and Use Programs, Part 1: UFP-QAPP Manual. Publication No. EPA-505-B-04-900A. U.S. Environmental Protection Agency. Washington, DC. https://www.epa.gov/sites/default/files/documents/ufp_qapp_v1_0305.pdf

U.S. Army Corps of Engineers (USACE). 1995. Construction Quality Management. Engineer Regulation No. 1180-1-6. U.S. Army Corps of Engineers. Washington, DC. https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/er_1180-1-6.pdf

U.S. Environmental Protection Agency (EPA). 2005. Guidance on Quality Assurance for Environmental Technology Design, Construction, and Operation (EPA QA/G-11). Publication No. EPA/240/B-05/001. Washington, DC. https://www.epa.gov/sites/default/files/2015-06/documents/g11-final-05.pdf

U.S. Environmental Protection Agency. 2019. Application of Quality Assurance and Quality Control Principles to Ecological Restoration Project Monitoring. Publication No. EPA/905/K-19/001. Chicago, IL: Great Lakes National Program Office. https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P100XC2E.txt

U.S. Environmental Protection Agency (EPA). 2023. *Quality Assurance Project Plan Standard*. Issued by the EPA Chief Information Officer pursuant to Delegation 1-19. Directive No: CIO 2105-S-02.0. July 2023 https://www.epa.gov/system/files/documents/2023-07/quality_assurance_project_plan_standard.pdf

APPENDIX C

Construction Quality Assurance Plan
Perch Lake Phase 3

Prepared for

U.S Environment Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3507

EPA Grant Number: GL-00E02356

Prepared by

Jeramy Pinkerton
Minnesota Department of Natural Resources
525 South Lake Ave #415
Duluth, MN 55802

Version 3

July 17, 2024

This construction quality assurance plan (CQAP) was prepared according to guidance provided in guidance for Quality Assurance Project Plans (EPA QA/G5), EPA/240/R-02/009, December 2002 (http://www.epa.gov/quality/qs-docs/g5-final.pdf) and EPA requirements for Quality Assurance Plans (EPA QA/R-5, EPA/240/B-01/003, U.S. Environmental Protection Agency, Office of Environmental Information, Washington, D.C., March 2001, to ensure that environmental and related data collected, compiled, and/or generated for this project are complete, accurate, and of the type, quantity, and quality required for their intended use.

TITLE AND APPROVAL PAGE

Construction Quality Assurance Plan for
Perch Lake Aquatic Habitat Restoration Project

_____ Date:_____
Blake Spitz, EPA GLNPO Quality Assurance Manager

_____ Date:_____
Noel Vargas, EPA GLNPO Project Officer

_____ Date:_____
Katie Rinker, State Quality Assurance Coordinator

_____ Date:_____
Jeramy Pinkerton, MNDNR Project Manager

_____ Date:_____
Daryl Peterson, MLT Project Manager

_____ Date:_____
Natalie White, SEH Project Manager

_____ Date:_____
Cory Ascheman, SEH Quality Assurance Manager

_____ Date:_____
TBD, Construction Project Manager

Page

Table of Contents

LIST OF FIGURES

LIST OF TABLES

LIST OF ACRYNOMS AND ABBREVIATIONS

AOC	Area of Concern
BMPs	Best Management Practices
CQA	Construction Quality Assurance
CQAP	Construction Quality Assurance Plan
CQC	Construction Quality Control
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GLNPO	Great Lakes National Program Office
HASP	Health and Safety Plan
HWY 23	State Highway 23
LGU	Local Government Unit
MLT	Minnesota Land Trust
MN	Minnesota
MNDOT	Minnesota Department of Transportation
MNDNR	Minnesota Department of Natural Resources
MNSHPO	Minnesota State Historic Preservation Office
MPCA	Minnesota Pollution Control Agency
NPDES	National Pollutant Discharge Elimination System
NWP 27	Nationwide Permit 27
OHF	Outdoor Heritage Fund
OHWL	Ordinary High-Water Lever
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
QAPrR	Quality Assurance Program Plan
QC	Quality Control
QMPS	Quality Management Plans
SEH	Short Elliot Hendrickson
SDS	State Disposal System
SLRAOC	St. Louis River Area of Concern
SLRE	St. Louis River Estuary
SWPPP	Stormwater Prevention Pollution Plan
TBD	To Be Decided
USACE	United States Army Corp of Engineers
UDP	Unanticipated Discoveries Plan

1. INTRODUCTION

The St. Louis River Area of Concern (SLRAOC) was listed as an Area of Concern (AOC) in 1987. One of the nine beneficial use impairments identified for delisting of this AOC was loss of fish and wildlife habitat. A project that revitalizes biological connection between St. Louis River Estuary (SLRE) and Perch Lake and restores optimum bathymetry to Perch Lake is listed as one of the management actions necessary to remove the loss of fish and wildlife habitat impairment. The Minnesota Pollution Control Agency's (MPCA) SLRAOC Quality Assurance Program Plan covers this project, along with all projects that generate data within the SLRAOC (QAPrP, MPCA 2015),

The Perch Lake Habitat Restoration Project (Project) will restore aquatic and wetland habitat in the SLRE, a waterbody designated by the Minnesota Department of Natural Resources (MNDNR) as a resource of Outstanding Biological Significance that is also located within the SLRAOC. The Project has been identified as an action required to mitigate legacy environmental degradation, restore beneficial uses, and delist the SLRAOC. The Minnesota Land Trust (MLT) is supporting MNDNR in managing this project and has contracted with Short Elliot Hendrickson Inc. (SEH) as a consultant in preparation of environmental review and permitting documents. SEH will also be responsible for construction management and leading and performing quality assurance (QA) activities during construction at Perch Lake. This project will be completed in three phases with Phase 1 restoring optimum bathymetry to Perch Lake, previously completed, Phase 2 initiating the revitalization of the connection between the SLRE, and Perch Lake by installing a culvert under State Highway 23 (HWY 23), construction in progress, and Phase 3 completing the revitalization of the connection between the SLRE and Perch Lake by installing a pedestrian bridge on the old railroad causeway that is located between HWY 23 and the SLRE. The U.S. Army Corp of Engineers (USACE), Detroit District completed the Phase 1 design, while SEH is completing the designs for Phase 2 and Phase 3 funded by Minnesota Outdoor Heritage Fund Grants (OHF).

The MNDNR has prepared this Construction Quality Assurance Plan (CQAP) to outline the roles and responsibilities for QA, lines-of-communication, and the details of QA activities for compliance with permits and performance of work per the requirements for Phase 3 of the Perch Lake restoration project (Figure 1-1) Engineering Drawings and Technical Specifications (Appendix B). The Contract Documents for Phase 3 include the Project Permits and restoration designs with the associated Engineering Drawings and Technical Specifications contracted from SEH (Minnesota Department of Natural Resources 2024).

QA for this project includes the overall objective that all work elements are performed in accordance with the Contract Documents (defined above), and that the specified quality control (QC) is performed by the construction contractor. This CQAP outlines the specific tasks, lines of communication, and reporting requirements specific to the Phase 3 work components.

The standard for this project will follow the Minnesota Department of Transportation Standard Specifications 2020 Edition (Minnesota Department of Transportation 2021).

1.1 PHASE 3 OVERVIEW

Restoration of Perch Lake (Figure 1-2) requires three construction phases and is planned to be completed by December 31, 2024. Dredging and associated site restoration were included in Phase 1, which was completed in 2022/2023 and was partially funded by EPA grant GL-00E02356. Phase 2, which includes the construction of a box culvert under HWY 23 is currently being constructed and is being partially funded by EPA grant GL-00E02356. Phase 3, also partially funded by EPA grant GL-00E02356, will include mobilization and site preparation activities including development of support facilities and staging areas. The following work elements are anticipated in Phase 3 (Minnesota Department of Natural Resources 2024):

- Construction of Pedestrian Bridge Abutments
- Fabricate Pedestrian Bridge
- Mobilization and Site Preparations
- Excavation
- Bridge Installation
- Site Restoration
- Demobilization

These components are a subset of the overall Project. Design,permitting, and planning work in support of Phases 1 and 2 were addressed in a separate CQAPs for EPA grant GL-00E02356 (Minnesota Department of Natural Resources 2022, Minnesota Department of Natural Resources 2023).

1.2 PURPOSE

The purpose of this CQAP is to establish standard procedures so that the restoration implementation is completed in accordance with the Contract Documents. As Construction Manager, SEH will observe the contractor activities to verify that restoration construction activities are performed with the appropriate level of QA and QC. The contractor will be the primary party responsible for QC, and SEH will observe the contractor's activities for compliance with their Construction Quality Control (CQC) Plan approved by the MNDNR and MLT, as well as the Contract Documents. The SEH Construction Services Practice - Central Region follows a Quality Control/Quality Assurance Plan to maintain quality and consistency in work. The plan outlines staff roles and responsibilities, preparation of project-specific Quality Management Plans (QMPs), procedures for quality control checking, forms/checklists, procedures for quality assurance audits, and closeout procedures and documentation.

This CQAP is intended to provide the overarching structure for quality monitoring for Phase 3 of the Project, and appropriately complement other critical quality and management documents such as the Engineering Drawings and Technical Specifications; the Construction Contractor's CQC Plan, Health and Safety Plan (HASP), and Survey Plan. It not intended to be a step-by-step procedure for each activity. Instead, this document outlines activities, procedures and requirements for SEH's oversight of construction activities throughout the construction phase of the project.

1.3 CONSTRUCTION QUALITY ASSURANCE PLAN ORGANIZATION

This CQAP is organized into the following sections, a brief description of the content of each section is provided below:

Section 1 – Introduction: This section provides an overview of Phase 3 of the Project, the CQAP objectives and an introduction to the document.

Section 2 – Roles and Responsibilities: This section describes Phase 3 roles and responsibilities of key personnel, including qualifications and critical QA procedures.

Section 3 – Phase 3 Quality Assurance and Quality Control Tasks: This section describes the general tasks covered by the Phase 3 CQAP. This section also includes a list of permits and reporting requirements, as well as testing and inspection procedures for project elements, including required confirmation sampling and testing, monitoring, documentation and survey controls.

Section 4 – Phase 3 Corrective Actions and Closure Documentation: This section describes Phase 3 communication and documentation requirements. Related forms and report templates will be added as an appendix as they are developed)

Section 5 – This section includes references used during the Phase 3 CQAP development.

2. ROLES AND RESPOSIBILITIES

Phase 3 QA activities focus on SEH and oversight of construction activities to verify that the Project is completed in accordance with the Contract Documents and overall project goals. SEH was contracted by the MLT and will routinely coordinate with the MLT. MLT will routinely coordinate with the MNDNR. SEH has the authority to have the contractor address deficiencies that fall within the scope of the design and construction documents. Corrective action outside of this scope should be taken to the MNDNR, who will coordinate with the MLT.

QA/QC sampling, testing and other independent monitoring activities such as survey will be provided by SEH and the contractors throughout restoration. SEH will provide oversight of restoration activities and project management throughout construction. SEH will observe the contractors QC activities, obtain and review data and verify adequate and proper functioning of the contractors QC system.

Figure 2-1 shows the organization of the MNDNR, MLT and the SEH/contractor project team. Table 2-1 Key Personnel and Distribution List presents the responsibilities and contact information for key personnel involved in Phase 3 restoration.

The Project Schedule for Phase 3 activities is documented in Table 2-2.

Table 2-1 Key Personnel and Distribution List

Name	Organization	Role	Responsibilities	Contact Information
Noel Vargas	EPA	Project Officer	The EPA Project Officer will provide technical oversight for the project and will be responsible for coordinating with the overall project team to ensure technical quality throughout the project and to ensure that contract objectives were met.	United States Environmental Protection Agency 77 West Jackson Boulevard Chicago, IL 60604 (312) 353-3575 Vargas.Noel@epa.gov
Blake Spitz	EPA	Quality Manager	The EPA Quality Manager will provide technical oversight for the project including review and approval of the CQAP.	United States Environmental Protection Agency 77 West Jackson Boulevard Chicago, IL 60604 (312) 353-7645 Spitz.Blake@epa.gov
Jeramy Pinkerton	MNDNR	Project Manager	The MNDNR is the project owner. The MNDNR will provide oversight and guidance during construction. SEH will discuss any issues that have a substantial impact on the projects overall ability to meet objectives with the MNDNR and MLT. The MNDNR is also responsible for developing the CQAP. Mr. Pinkerton will compile and submit all progress reports to the EPA and act as the primary liaison between the MNDNR and the funding entities.	Minnesota Department of Natural Resources 535 Lake Avenue South #415 Duluth, MN 55802 (218) 302-3253 Jeramy.Pinkerton@state.mn.us
Daryl Peterson	MLT	Project Manager	The MLT is an agent for the MNDNR and Phase 3 design and construction oversight contract administrator. The MLT will provide oversight and guidance during construction. SEH will discuss any issues that have a substantial impact on the projects overall ability to meet objectives with the MLT who will determine the appropriate response in consultation with the MNDNR.	Minnesota Land Trust 394 Lake Ave Ste 404 Duluth, MN 55802 (218) 722-1416 dpeterson@mnland.org
Kate Rinker	MPCA	Quality Assurance Coordinator	The MPCA Quality Assurance Coordinator will provide State of Minnesota review of the QAPP.	Katie Rinker 520 Lafayette Road North St. Paul, MN 55155 651-757-2794 Katie.rinker@state.mn.us
Natalie White	SEH	Project Manager	The SEH project manager is responsible for overall management of the quality program for the construction is effectively implemented. The Project Manager will assist SEH's Design/Field Engineer and Construction Manager and the contractor in identifying quality issues that might arise during the Project. The Project Manager will report all quality or performance issues to the MNDNR and MLT and serves as the Contractor's point-of-contact for construction related issues	SEH 418 W Superior St., Suite 200 Duluth, MN 55802 (218) 279-3003 nwhite@sehinc.com
Jeremy Walgrave	SEH	Engineer of Record/ Design Engineer	The SEH engineer of record will provide engineering services as authorized by the MNDNR. The Design Engineer directs design changes and modifications to the project design. The Design Engineer will work with the Project Manager and Construction Manager to review progress during construction and potential modifications, and to address questions or issues that may arise during implementation, including technical aspects of any issues identified as part of SEH's QA activities.	SEH 401 East 8th Street, Suite 309 Sioux Falls, SD 57103 (605) 330-7018 jwalgrave@sehinc.com
Cory Ascheman	SEH	Quality Assurance Manager	The Quality Assurance Manager is responsible for QA and QC review of SEH deliverables related to Construction Administration. The Quality Assurance Manager supervises monitoring, assessment, and reporting on quality systems (QC and QA) used at the site through review, coordination, and inspection. The Quality Assurance Manager will also review SEH oversight daily reports and execute quality checks on all implementation QC data to confirm compliance with Contract Drawings and Technical Specifications. The Quality Assurance Manager will supervise and certify the close-out reports.	SEH 418 W Superior St., Suite 200 Duluth, MN 55802 (218) 260-0798 cascheman@sehinc.com
Troy Shold	SEH	Construction Manager/Resident Project Representative	The Resident Project Representative is responsible for independent onsite surveillance and observation of the contractor's construction, assessment, and oversight of construction activities, and documenting if restoration work is being done in accordance with the Contract Documents. The Resident Project Representative supports monitoring, assessment, and reporting on quality systems (QC and QA) used at the site through review, coordination, and inspection. The Resident Project Representative will also provide oversight to verify that restoration is completed in a manner that is protective of human health and the environment and complies with the Contract Documents and overall project objectives.	SEH 418 W Superior St., Suite 200 Duluth, MN 55802 (218) 279-3000 tshold@sehinc.com
Connor Houle	Northland Constructors of Duluth	Project Manager	The contractors Project Manager provides overall leadership to the construction team and is responsible for ensuring that construction is completed in accordance with the Contract Documents and overall project objectives. The Contractor's Project Manager will communicate regularly with SEH's Project Manager and Construction Manager, and other onsite personnel as needed to monitor progress of the work, schedules, submittals, and reports. The contractor's Project Manager will report to SEH's Project Manager.	Northland Constructors of Duluth 4843 Rice Lake Road Duluth, MN 55803 (218) 625-3182 Connor.Houle@northlandconstructors.us

Name	Organization	Role	Responsibilities	Contact Information
Don Renne	Northland Constructors of Duluth	Superintendent	The Superintendent will direct, coordinate, and oversee all field construction operations, working closely with SEH's team to develop and maintain the construction schedule, monitor the performance and quality of field operations, coordinate with subcontractors, and verify compliance with health and safety requirements.	Northland Constructors of Duluth 4843 Rice Lake Road Duluth, MN 55803 (218) 606-2260 Don.Renne@northlandconstructors.us
Jeff Smith	Northland Constructors of Duluth	Field Safety Manager	The Field Safety Manager is responsible for implementing the HASP, for determining appropriate site control measures and personal protection levels and confirming air monitoring and other procedures for worker safety are implemented effectively.	Northland Constructors of Duluth 4843 Rice Lake Road Duluth, MN 55803 (218) 349-9219 Jeffery.Smith@northlandconstructors.us

Table 2-2 Anticipated Phase 3 Schedule

Task Name	Duration	Start Date [(1)]	Finish Date [(1)]
Combined Phase 3 Totals	**197**	**5/15/2024**	**5/15/2024**
Contract Award	0	5/15/2024	5/15/2024
Notice to Proceed	0	5/16/2024	5/16/2024
Preconstruction Submittals	15	5/16/2024	5/31/2024
Bridge Fabrication	75	6/1/2024	9/15/2024
Mobilization	2	9/16/2024	9/17/2024
Clearing and Grubbing	3	9/16/2024	9/19/2024
Pre-Construction Survey	1	9/19/2024	9/19/2024
Site Preparation	7	9/18/2024	9/25/2024
Bridge Abutment/Bridge Installation	38	9/25/2024	11/1/2024
Trail Grading	1	11/2/2024	11/2/2024
Demobilization & Project Closeout	14	11/2/2024	1/16/2024
- Site Restoration, Seeding	5	11/17/2024	11/22/2024
- Demobilization	7	11/23/2024	11/30/2024
- Weather Float	8	12/1/2024	12/8/2024
Closeout Submittals and Reports	21	12/9/2024	12/30/2024

(1) Task start and finish dates are approximate. Actual dates will depend on a variety of factors such as completion of permitting, and other agreements, bidding and contracting schedules, and weather.

3. PHASE 3 QUALITY ASSURANCE AND QUALITY CONTROL TASKS

This section identifies the construction QA/QC tasks and procedures specific to each work element of the design. The Phase 3 CQAP is intended to outline QA responsibilities and describe the activities and planned sample frequency for Phase 3 activities.

This section describes the general tasks covered by the Phase 3 CQAP as they relate to permit compliance and construction monitoring. Permits and related requirements are described in Table 3-1. Table 3-2 includes the QA testing and inspection procedures organized by Phase 3 work element, including the required confirmation sampling and specified testing, monitoring, documentation, and survey requirements. This section, and the summary tables included herein, include discussion of significant contractor QC activities as they relate to SEH's QA oversight activities. The CQAP is not intended to capture the complete scope of the contractor's QC requirements; these details are documented in the Contract Documents and the contractor's CQC Plan (will be provided after a contractor is selected).

3.1 PROJECT PERMITS, MONITORING AND REPORTING REQUIREMENTS

Restoration at Perch Lake will be completed in accordance with the permits identified in Table 3-1. In addition to the detailed list of permits, Table 3-1 also includes specific permit compliance monitoring and reporting requirements to address the requirements of individual permits for Phase 3.

Table 3-1 Permits and Requirements

Permit	Unit of Government	Status	Work Element	Phase 3 Monitoring Requirements
Environmental Assessment Worksheet	MNDNR	ROD received June 2022	Approves impact assessment for all project components	There are no reporting or monitoring requirements for this permit.
Special Use Permit for Construction	City of Duluth	To be submitted, if needed	Authorizes placement of fill in the Duluth general floodplain area.	There are no reporting or monitoring requirements for this permit.
Fill and Grading	City of Duluth	To be Submitted	Authorizes all fill placement and grading in remedial areas and for site access above OHWL.	There are no reporting or monitoring requirements for this permit.
Shoreland Use	City of Duluth	To be Submitted	Approves land disturbance in a designated shoreland area. Evaluate if project design complies with shoreland zoning policies. Applicable to all work above OHWL.	There are no reporting or monitoring requirements for this permit.
Erosion & Sediment Control Permit & MS4 Compliance Statement	City of Duluth	To be Submitted	Approves erosion and sediment control measures for all work areas above OHWL including shoreline stabilization methods.	Final permit will include any reporting or monitoring requirements.
No Rise Certification and / or Letter of Map Revision	City of Duluth, MNDNR, FEMA	No Rise Certification signed 6/16/2022	Certifies there will be no change to 100-year flood elevation	There are no reporting or monitoring requirements for this permit.
Work on Trunk Highway Right-of-Way	MnDOT	To be submitted by contractor	Authorizes work performed in the right-of-way of a trunk highway	Final permit will include restoration requirements.
Public Waters Work Permit	MNDNR	To be Submitted	Authorizes work performed in state public waters.	Final permit will include any reporting or monitoring requirements.
Prohibited Invasive Species Permit	MNDNR	To be Submitted	Allows for the movement of dredged material that potentially contains invasive species	There are no reporting or monitoring requirements for this permit.
Lake Superior Coastal Zone federal consistency review letter (Coastal Zone Consistency Certification)	MNDNR	To be Submitted	Approves all work in the coastal zone	There are no reporting or monitoring requirements for this permit.
Water Appropriations Permit	MNDNR	To be submitted by contractor, if needed	Dewatering	A water use permit needs to be submitted annually
Section 106 Consultation - National Historic Preservation Act	MNSHPO	Submitted	All on land and in water work.	Should any previously unknown cultural resources be discovered during the implementation of the project, the permittee will cease all work near the discovery and contact the State Historic Preservation Office and the Fond Du Lac Band of Lake Superior Chippewa within two working days of the discovery. The permittee will follow all procedures as outlined in the Unanticipated Discoveries Plan for the project.
401 Water Quality Certification	MPCA	Included with NWP 27 approval	included in with NWP 27 at bottom	included in with NWP 27 at bottom
NPDES General Construction Stormwater Permit with a Stormwater Pollution Prevention Plan (SWPPP)	MPCA	To be submitted by contractor	Approves plan for stormwater management. Required before soil disturbance occurs. Applicable to all work above OHWL.	Final permit will include any reporting or monitoring requirements. At a minimum, SEH will verify compliance during construction with the contractor's Stormwater Pollution Prevention Plan (SWPPP).
CWA Section 10/404 Permit – Nationwide Permit 27 (NWP 27)	USACE	Authorized March 2022	Authorizes all work components that impact Minnesota aquatic resources both above and below OHWL. Authorizes water treatment requirements including wastewater treatment plant effluent sampling and operations, and in-water work water quality monitoring requirements and BMPs during construction.	SEH will review the contractor's Erosion Control Plan and/or other relevant construction document (maintained on site), to confirm installation of in-water BMPs to minimize total suspended solids and sedimentation for any work conducted below the OHWL; SEH will complete visual monitoring of BMPs. SEH will confirm that copies of certifications, permit requirements, and documentation of BMPs will be shared with all contractors and subcontractors and be available at or near the project site as a requirement of the permit. These documents are required to be available to MPCA staff within 72 hours when requested.

This page was intentionally left blank

3.2 QUALITY ASSURANCE MONITORING

Phase 3 construction quality assurance (CQA) activities that will be performed to verify that the design is being implemented in accordance with the Contract Documents and as permitted are discussed in the following sections. These sections are intended to provide a general overview of the CQA activities performed by SEH, MLT and DNR.

3.2.1 Documentation and Records

This section defines the records that are critical to the project, identifies information to be included in the reports and describes the reporting format and document control procedures to be used. Project information generated by SEH, MLT and DNR will be documented in a format that is usable by all project personnel. Project data and information will be tracked and managed from its creation in the field to its final storage area.

All documents and records generated for this project will be retained in electronic and paper formats by Minnesota Department of Natural Resources, Area Fisheries Office, 5351 North Shore Drive, Duluth, Minnesota, 55804, contact Melissa Sjolund, AOC Coordinator (218) 302-3245. Project documents will be retained indefinitely.

Document Control

Document control is the maintenance of restoration implementation project files. Official and original documents relating to the Project must be placed in the official project files. Evidentiary files (relevant hard and electronic records, reports, correspondence, logs, field logbooks, photographs, Construction Contractor reports, data, training records, etc.) will be maintained by the SEH Project Manager, and the SEH Construction Manager as applicable, in a secured, limited access area in accordance with SEH's records retention policy. These materials will be used to prepare the reports that are submitted to the MNDNR and MLT as deliverables defined in the technical proposal.

Pre-Construction Meeting

An in-person or virtual pre-construction meeting will be conducted for the Construction Contractor following the contract award. Attendees of this meeting will include, at a minimum, the SEH Project Manager, SEH Construction Manager, SEH Design/Field Engineer, MNDNR and MLT representatives, and the Construction Contractor project leadership team (including key field staff).

This meeting will be used to present the schedule for submittals, foster open communication, and discuss project expectations and QA/QC program in relation to the Construction Contractor's work. The minimum agenda for the Pre-Construction Meeting will include:

- Roles and responsibilities
- Lines of communication
- Schedule
- Change management
- Submittals
- Progress payments
- Quality assurance
- Public communications
- As-built drawings
- Warranty period
- Logistics plan
- Access agreements
- Permits
- Utility management
- Other items as needed

Weekly Progress Meetings

Beginning shortly after the Construction Contractor's Pre-Construction Meeting, weekly construction progress meetings will occur approximately once every seven days throughout restoration implementation field activities. These meetings are to review the project status, facilitate coordination and address issues. Topics to discuss may include, but are not limited to:

- Safety update
- Work completed
- 1-week look ahead
- Schedule updates
- Submittals
- Inspections and testing
- Permit compliance
- Changed conditions
- Public communications
- Action items
- Other business

The Weekly Construction Progress Meeting may be attended by the SEH Project Manager, SEH Construction Manager, SEH Design/Field Engineer, key Construction Contractor staff, MNDNR, City of Duluth and MLT representatives and other critical government stakeholders. Meeting minutes will be prepared and stored on the project online document storage site with 5 business days.

Field Documentation

Field records collected during Project implementation will document field procedures and any QA/QC activities performed during the restoration implementation.

Field Log and Daily Field Activities and QA Summary Report

A bound field logbook or bound observation sheets will be maintained by the SEH construction manager for the restoration implementation to provide a daily record of significant events, observations, and measurements taken during the field activities. The field log is intended to provide sufficient data and observations to enable the field team to reconstruct events that occur during the project. The field logbooks will contain the following as a minimum:

- Name of field personnel conducting construction oversight
- Date and military time of collection
- Weather conditions, including temperature
- Site number and name
- Location of daily restoration activities
- Field observations
- References such as maps of photographs of the sampling site

Information from the field log will be used to help generate a Daily Field Activity Summary Report that documents the construction observations and activities for the day, including weather, work performed, material quantities used in the construction, staff onsite, equipment used, and coordination or direction provided/received for each day that oversight is completed. The report will also report QA activities, deficiencies and corrective action, results and whether those results met criteria and documentation from the Construction Contractor. The Daily Field Activity Summary Report is to

be completed by the SEH construction manager for any day that construction oversight activities are performed on site by SEH and will be provided to the MNDR and MLT when completed. An example this report is attached as Appendix A.

Photographic Documentation

Photographs taken to document observations, issues, deficiencies and work-in-progress will be maintained in electronic format and filed on the project's online document storage site by the SEH construction manager.

The following information will be documented in a photo log form for select photos for photographic documentation: date and time, location where the photograph was taken, description of the subject matter, and unique identifying number (i.e., digital photo file number) for reference in other reports. The photo log form will be updated as-needed and kept on the project online document storage site for access by the project team.

3.2.2 Construction Survey

Prior to construction, the contractor will establish survey control points and complete all survey work in compliance with the Contract Documents. Surveys will be performed to assess pre-construction conditions and as needed during construction. The contractor will complete a survey of final site grades for construction activities that are completed during Phase 2 to confirm compliance with project drawings and specifications.

SEH's QA activities for the pre-construction survey effort will include a review of data in AutoCAD files, and progress documentation in figures/maps/screen shots. SEH surveyors will check that onsite control points have been established and referenced (or existing points resurveyed in reference to offsite geodetic monuments and that equipment requiring periodic calibration has been recently calibrated). The SEH design/field engineer will verify conformance with project drawings and specifications. SEH surveyors will document observation of the pre-construction survey activities in the Daily Field Activity Summary Report.

3.2.3 Erosion Prevention, Noise, Dust, Odor and Invasive Species Monitoring

Erosion Prevention

The SEH design/field engineer will be responsible for reviewing the contractor's Stormwater Pollution Prevention Plan (SWPPP) to verify compliance with Minnesota Storm Water Regulations (https://www.pca.state.mn.us/water/construction-stormwater) and project permit requirements.

The SEH construction manager will verify compliance with the Minnesota 401 Certification for Nationwide Permits and periodically inspect erosion prevention and sediment controls best management practices (BMPs).

Additionally, the SEH construction manager will conduct independent oversight observations in addition to the contractor's inspections as part of their CQC Plan (as a part of daily inspections) to document the installation of erosion and sediment controls to ensure compliance with the SWPPP and document conditions of erosion controls requiring repair by the contractor. The SEH construction manager will document these inspections and observations in the Daily Field Activity Summary Report.

Noise

The SEH construction manager will provide periodic oversight of noise reduction measures (e.g., locate equipment to minimize noise) and controls during construction. The SEH construction manager will assess compliance with local noise ordinances and variances in accordance with the Contract Documents during the first week of construction and at the beginning of each new major activity, in response to complaints and following changes in equipment use or construction activities thereafter. The SEH construction manager will document these inspections and observations in the Daily Field Activity Summary Report.

Dust

Dust control will be performed by the contractor as described in the Contract Documents. The contractor will also be responsible for routine inspections of all active work areas.

The SEH construction manager will review the contractor dust monitoring measurements to confirm compliance with criteria. The contractor will monitor dust levels during dust producing activities. If dust concentrations exceed 1 milligram per cubic meter or create visible "clouds" of dust that persist around active work areas, additional dust suppression (i.e., applying water) shall be employed to reduce levels below 1 milligram per cubic meter. The SEH construction manager will complete periodic observations and visual observations for dust, document the implementation of dust control measures and assess dust control measure effectiveness. Observed instances of visible dust made during oversight activities will be immediately brought to the contractor's attention to allow for immediate adjustments in dust control measures. If the contractor fails three times to control dust, SEH may initiate a written corrective action process. The SEH construction manager will document observations in the Daily Field Activity Summary Report.

If requested in writing by the contractor, The SEH design/field engineer will assess and approve/disapprove the use of dust control agents after appropriate coordination and consultation with the project team.

Odor

The contractor will perform and document inspections of all active work areas for nuisance odors. Inspections will include evaluation of odors and assessment of odor control measure effectiveness. The contractor will perform control measures to mitigate nuisance odors if SEH provides notification that the magnitude of odors is unacceptable; control measures to mitigate odors may also triggered by a complaint from an adjacent property owner.

The SEH construction manager will complete periodic observation and documentation of unusual odors. The SEH construction manager will immediately bring unusual odor detection to the contractor's attention. The SEH construction manager will document observations in the Daily Field Activity Summary Report. If the contractor fails multiple times to control odor, SEH will initiate a written corrective action process.

Invasive Species

The contractor will minimize the risk of spreading invasive species. The Contractor must follow MNDNR's Operational Order 113, which requires active steps preventing or limiting the introduction, establishment and spread of invasive species during activities on public waters and MNDNR-administered lands. This applies to all activities performed on all lands under this grant agreement and is not limited to lands under DNR control or public waters. Duties are listed under Sections II and III (p. 5-8) of Operational Order 113.

3.2.4 Section 106 Site Disturbance Requirements

Site disturbance activities will require coordination with the State Historic Preservation Office and Section 106 Consulting Parties. SEH will prepare an Unanticipated Discoveries Plan (UDP), if deemed necessary, and will verify the contractor's compliance with the UDP during construction activities. The Fond du Lac Band of Lake Superior Chippewa will also have an independent observer on site during times when excavation activities are occurring.

3.2.5 Product Material Verification

Imported soil and aggregate materials, concrete, seed mixes, and miscellaneous products identified in Contract Documents, to be used for restoration must meet the requirements of the Contract Documents. Prior to the use of any imported soil and aggregate materials the contractor will submit to the SEH design/field engineer a Certificate of Aggregate Production form for review and approval. The contractor will be required to provide certified analytical results, and/or credentials such as Minnesota Department of Transportation (MNDOT) approved commercial suppliers from the soils and aggregate provider for review by the SEH design/field engineer. If materials are sourced from offsite borrow material or if the provider cannot supply certified results meeting the requirements of the Contract Documents, samples will be collected and analyzed.

For offsite material sources, the contractor will provide containerized bulk samples from the supplier and SEH will perform sample and data management. The SEH design/field engineer will review the results for consistency with the Contract Documents and provide data reporting.

The SEH design/field engineer will be responsible for reviewing the contractor's work plan and Certificate of Aggregate Production form. During Phase 3 construction, the SEH design/field engineer will confirm conformance with Contract Documents, review documentation, verify specified physical properties, verify chemical properties conform to requirements, and review gradation of imported materials.

3.2.6 Site Grading

Prior to remedial construction the contractor will be responsible for establishing survey control points and completing all survey work in compliance with the Contact Documents. Following culvert installation, the contractor with complete as survey to confirm compliance with project drawings and specifications and will restore all disturbed areas.

3.2.7 Water Quality Monitoring

Water quality monitoring is required during construction to meet the intent of the MPCA and USACE environmental permits to protect surface water during construction. The contractor will be responsible for complying with the requirements of the permits. SEH will be responsible for verifying compliance with permit conditions.

During restoration activities during Phase 3, the contractor will be responsible for minimizing construction impacts to water quality and implementing and maintaining effective erosion, sediment, and turbidity control throughout the duration of the project in accordance with the Contract Documents and the SWPPP.

In addition, the SEH construction manager will make daily visual observations throughout construction operations and provide oversight during any actions resulting from observation of visible erosion or sedimentation. The SEH construction manager will discuss operations with the contractor and review observation findings.

3.2.8 Contaminated Soils/Groundwater

Soil borings and analysis did not indicate that there are contaminants in the soils in the area. If the contractor encounters contaminated materials, based on changes in soil characteristics that may indicate the presence of contaminated materials, in areas not previously identified, an MNDNR hired Environmental Consultant will be provided to collect and analyze soil and/or groundwater samples to determine contaminant levels, work with the landfill for disposal of the soil waste and provide oversight of any soil and groundwater handling and disposal. The contractor will not excavate any contaminated soil unless the Environmental Consultant is present.

3.2.9 Structural Inspection

The City of Duluth and MNDNR are preparing an agreement stating that the City of Duluth will take ownership and maintenance obligation of the bridge on the pedestrian trail once the installation project is complete. The City is currently developing its program to determine the frequency at which they inspect bridges (Jim Shoberg, City of Duluth, personal communication). Any maintenance needs will be documented in these inspections.

3.3 SPECIAL TRAINING/CERTIFICATION

All project staff will have training and certifications required for specific jobs they will be performing. All field and laboratory technicians should be trained and competent to perform the work assigned to them or work directly under an experienced professional. All employees must have received Occupation Safety & Health Administration required safety training if working in contaminated media. Laboratory technicians must be trained in analytical techniques and remain competent to perform the assigned duties. Field technicians must be trained in water safety, sampling, sample handling, and sample storage protocols and any other training required to perform the assigned work. All materials testing must comply with contract specifications. The entity hiring the staff is responsible for keeping records of all training and certification, which will be available for inspection by MNDNR staff.

Table 3-2 Construction Tasks and Quality Assurance Monitoring Summary Activities

Phase 3 Task	Summary of Contractor's Construction Activities and QC Monitoring	SEH Quality Assurance Monitoring Summary
Pre-Construction/Construction survey	Performance of survey; documentation of instrument precision and accuracy.	Check that onsite control points have been established (or existing points resurveyed in reference to offsite geodetic monuments). Verify activities are in accordance with contractor's respective work plan, and the Contract Documents. Check that equipment requiring periodic calibration has been recently calibrated. Check that control points are referenced during work. Review of contractor's documentation and survey data. Conduct periodic direct observation of survey. Document observations on CQA Forms. Independent surveying as necessary.
Erosion prevention and sediment control	Comply with National Pollutant Discharge Elimination System Construction Permit; implement erosion prevention and sediment control BMPs; prepare and comply with SWPPP; regrade and vegetate disturbed soil areas for site restoration	Review the contractors SWPPP; confirm compliance with permit conditions through observation of work areas and BMPs; document observations on CQA Forms. Verify activities are in accordance with the contractor's respective work plan, and the Contract Documents.
Noise monitoring and control	Comply with contract requirements for noise monitoring. Manage noise levels by maintaining equipment, e.g., mufflers, engine braking of trucks coming and going; comply with work hour requirements.	Compliance with Contract Documents will be verified through periodic oversight and documentation of monitoring activities during construction. Additionally, compliance will be verified during the first week of construction and at the beginning of each new major activity or in response to complaints and following changes in equipment use or construction activities thereafter.
Dust monitoring and control	Performance and documentation of dust control activities.	Compliance with Contract Documents will be verified through periodic observation of work areas. Documentation of visual dust observations, as well as the implementation and effectiveness of dust control measures on CQA Forms.
Odor monitoring and control	Performance and documentation of odor control activities.	Compliance with Contract Documents will be verified through periodic observation of work areas. Documentation of odor observations, as well as the implementation and effectiveness of odor control measures on CQA Forms.
Invasive species control	Conduct equipment decontamination in accordance with contract requirements.	Review of contractor's documentation; periodic direct observation. Documentation of observations on CQA Forms. Verify activities are in accordance with the contractor's respective work plan, and the Contract Documents.
Section 106 site disturbance requirements	Comply with UDP	Confirm compliance with UDP in the field and document results on CQA Forms. Verify activities are in accordance with the contractor's respective work plan, and the Contract Documents.
Clearing and Grubbing	Clearing and grubbing completed in accordance with contract requirements while monitoring for bats. Clearing trees larger than 3" diameter breast height occurred in the winter of 2022/2023.	Review of contractor's documentation; periodic direct observation. Documentation of observations on CQA Forms. Verify activities are in accordance with the contractor's respective work plan, and the Contract Documents.
Construction of on-site storage/stockpile area	Construction of storage/stockpile area in accordance with contract requirements.	Review of contractor's documentation; periodic direct observation. Documentation of observations on CQA Forms. Verify activities are in accordance with the contractor's respective work plan, and the Contract Documents.
Construction of Bridge Abutments	Conduct bridge abutment construction in accordance with contract requirements.	Review of contractor's documentation; periodic direct observation. Documentation of observations on CQA Forms. Verify activities are in accordance with the contractor's respective work plan, and the Contract Documents.
Bridge Fabrication and Installation	Conduct bridge fabrication and installation in accordance with contract requirements.	Review of contractor's documentation; periodic direct observation. Documentation of observations on CQA Forms. Verify activities are in accordance with the contractor's respective work plan, and the Contract Documents.
Products/materials verification	Proper storage per manufacturer recommendations; QC inspection; imported materials and onsite borrow materials must meet the requirements of the Contract Documents.	SEH will verify that all materials meet the specification in the Contract Documents. Documentation of observations on CQA Forms. Verify activities are in accordance with the contractor's respective work plan, and the Contract Documents. Review of the contractor's work plan and Borrow Material Management Plan. Review of contractor's documentation; periodic visual inspection of materials. Documentation of activities on CQA Forms. Verify activities are in accordance with the contractor's respective work plan, and the Contract Documents.
Site Restoration/Seeding	Restore and seed all disturbed areas in accordance with contract documents.	Review of contractor's documentation, seed mixes, labels and tags; periodic direct observation. Documentation of observations on CQA Forms. Verify activities are in accordance with the contractor's respective work plan, and the Contract Documents.

This page was intentionally left blank

4. PHASE 3 CORRECTIVE ACTIONS AND CLOSURE DOCUMENTATION

4.1 PHASE 3 CORRECTIVE ACTIONS

Corrective actions may be required to bring work back into contract compliance. If a non- conformance is discovered during CQA activities described in Section 3 or other means and, in the opinion of SEH, MLT, the City of Duluth or MNDNR the non-conformance will affect the quality, safety, or continuity of the project, MNDNR will issue a narrative of non-conformance in a letter or email to the contractor with their requirements to address. Written notifications of non-conformance will be logged to track follow-up and resolution. Once the contractor has addressed the non-conformance, the written notice should be updated to document the corrective action and should reflect the resolution of the non-conformance.

If the contractor fails to complete the corrective action in a manner and timeframe acceptable to the Project Owner (MNDNR), which is dependent on the type of non-conformance, payment for that work will be withheld. If the non-conformance is noticed first by the contractor, they should begin corrective action without prompting, and they are required to notify SEH immediately. SEH will notify MLT and DNR of all non-conformance issues. If a non-conformance is identified during CQA observations or if confidence in the Contractor work and provided test results do not conform to industry standards, additional collection of samples for CQA testing may be performed. This would include, but not be limited to, observations of erratic, unusual, non-uniform, or unconventional construction procedures and/or test results provided by the Contractor which are beyond results that are generally accepted by the profession. Documentation of the non-conformance will be recorded in the daily report.

In the event non-conforming materials are identified during inspection, SEH's Field Staff will mark or tag the non-conforming material where reasonable to prevent the unintentional use of those materials. All non-conforming materials will be removed from the site in a timeframe acceptable to the Project Owner. This also applies to identification of non-conforming work and delineation of this work for mitigation consistent with the identified corrective action.

4.2 PHASE 3 CLOSURE DOCUMENTATION

SEH will prepare an independent Closure Report following Phase 3 activities. The Phase 3 Closure Report should serve as a supplement to the as-built drawings (and record drawings where applicable) prepared by the contractor and provide a summary of all other pertinent information and data collected throughout the execution of Phase 3 of restoration. SEH will verify that the Phase 3 Closure Report at a minimum, contains the following information:

- Site conditions and cleanup criteria
- Visual inspection observations
- Quantities (material excavated and removed, material excavated and reused, import materials, other restoration materials)
- Summary of as-built materials limits
- Description of unanticipated events
- Change orders/amendments
- Incident reports
- Non-conformance and corrective actions
- Photographs with descriptions
- Procedural changes/lessons learned

Lessons learned should summarize all lessons that can impact future projects, including but not limited to dust and odor control, QC of meeting restoration objectives, etc. Upon completion of review and incorporation of additional construction information and data, SEH's Project Manager will submit the completed and certified Phase 3 Closure Report to MLT and MNDNR. The Phase 3 Closeout Report will include a certification signed by Cory Ascheman (Construction Engineering and Administration) who will supervise the preparation of that report.

REFERENCES

Minnesota Department of Natural Resources. 2022. Construction Quality Assurance Plan Perch Lake Restoration Site Phase 1. Minnesota Department of Natural Resources. St. Paul, Minnesota.

Minnesota Department of Natural Resources. 2023. Construction Quality Assurance Plan Perch Lake Restoration Site Phase 2. Minnesota Department of Natural Resources. St. Paul, Minnesota.

Minnesota Department of Natural Resources. 2024. Project Manual and Request for Bid for State Project Number 2024-549-8F139 St. Louis River Perch Lake Restoration Pedestrian Bridge. Minnesota Department of Natural Resources. St. Paul, Minnesota.

Minnesota Department of Transportation. 2021 Standard Specifications for Construction 2020 Edition. Minnesota Department of Transportation. St. Paul. Minnesota.

Minnesota Pollution Control Agency. 2015. St. Louis River Area of Concern Quality Assurance Program Plan for Minnesota Based Projects. Minnesota Pollution Control Agency. St. Paul, Minnesota.

FIGURES

Figure 1-1. Project Location Map

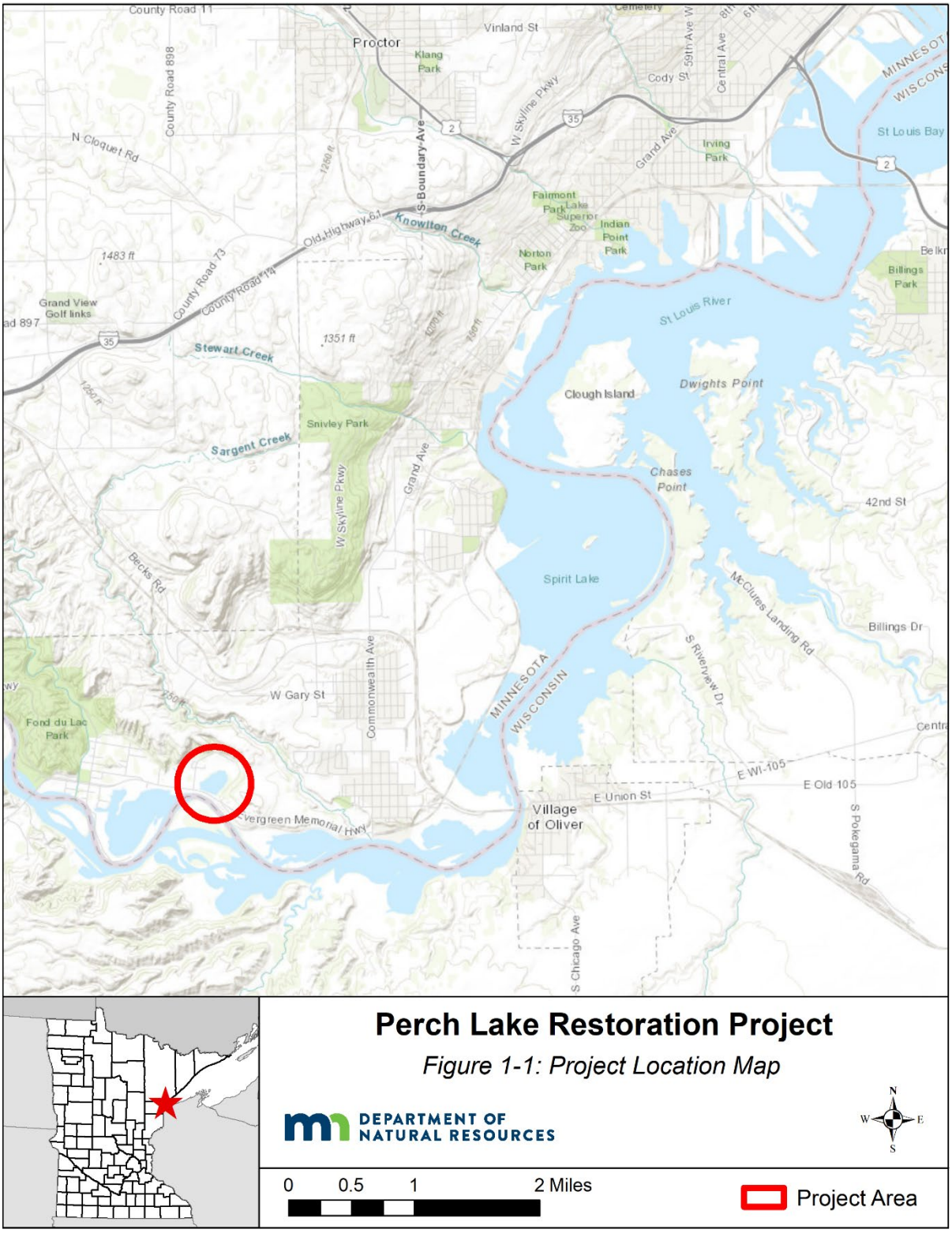
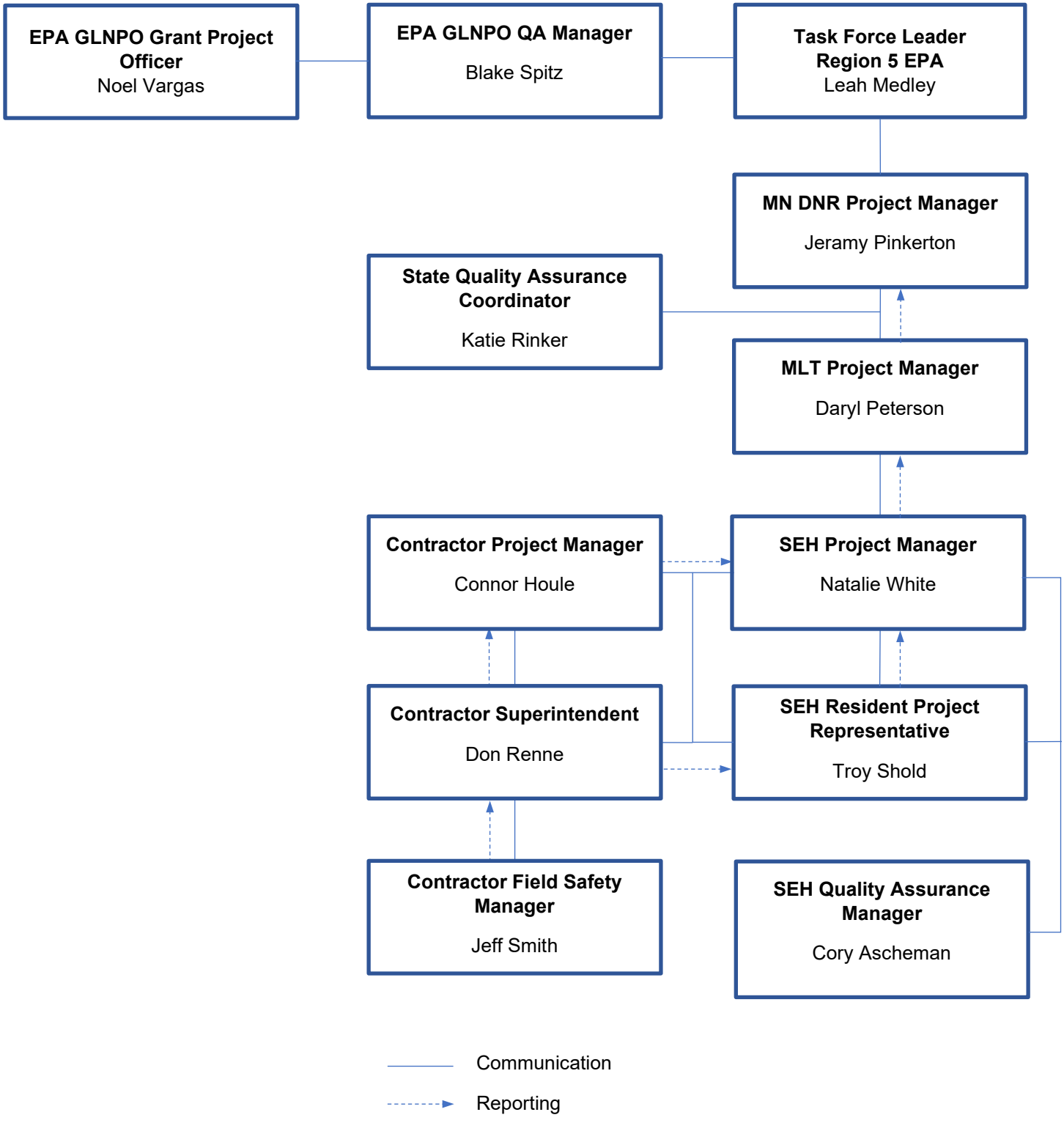


Figure 1-2. Design Summary and Work Elements of Phase 3.

Figure 2-1. Project Organization Chart.



Appendix A

Example Daily Field Activity Summary Report

Appendix B

Engineer Drawings and Technical Specifications