

The individuals signing below certify by their signatures that they are authorized to sign this Agreement on behalf of their agencies and that the parties will fulfill the terms of this Agreement, including any attached appendices, as set forth herein.

FOR THE GRANTEE:



Signature
John Calhoun, Chairman
Name/Title

1-5-2022
Date

FOR THE STATE:



Signature
Teresa Seidel, Director, Water Resources Division
Name/Title

1/5/22
Date

I. PROJECT SCOPE

This Agreement and its appendices constitute the entire Agreement between the State and the Grantee and may be modified only by written agreement between the State and the Grantee.

(A) The scope of this project is limited to the activities specified in Appendix A and such activities as are authorized by the State under this Agreement. Any change in project scope requires prior written approval in accordance with Section III, Changes, in this Agreement.

(B) By acceptance of this Agreement, the Grantee commits to complete the project identified in Appendix A within the time period allowed for in this Agreement and in accordance with the terms and conditions of this Agreement.

II. AGREEMENT PERIOD

Upon signature by the State, the Agreement shall be effective from the Start Date until the End Date on page 1. The State shall have no responsibility to provide funding to the Grantee for project work performed except between the Start Date and the End Date specified on page 1. Expenditures made by the Grantee prior to the Start Date or after the End Date of this Agreement are not eligible for payment under this Agreement.

III. CHANGES

Any changes to this Agreement, other than budget line item revisions less than 10 percent of the total grant, shall be requested by the Grantee or the State in writing and implemented only upon approval in writing by the State. The State reserves the right to deny requests for changes to the Agreement or to the appendices. No changes can be implemented without approval by the State.

IV. GRANTEE DELIVERABLES AND REPORTING REQUIREMENTS

The Grantee shall submit deliverables and follow reporting requirements specified in Appendix A of this Agreement.

(A) The Grantee must complete and submit quarterly financial and progress reports according to a form and format prescribed by the State and must include supporting documentation of eligible project expenses. These reports shall be due according to the following:

Reporting Period	Due Date
January 1 – March 31	April 30
April 1 – June 30	July 31
July 1 – September 30	Before October 10*
October 1 – December 31	January 31

*Due to the State’s year-end closing procedures, there will be an accelerated due date for the report covering July 1 – September 30. If the Grantee is unable to submit a report in early October for the quarter ending September 30, an estimate of expenditures through September 30 must be submitted to allow the State to complete its accounting for that fiscal year.

The forms provided by the State shall be submitted to the State’s contact at the address on page 1. All required supporting documentation (invoices, payroll journals, etc.) for expenses must be included with the report.

(B) The Grantee shall provide a final project report in a format prescribed by the State. The Grantee shall submit the final status report, including all supporting documentation for expenses, along with the final project report and any other outstanding products within 30 days from the End Date of the Agreement.

(C) The Grantee must provide copies of all products and deliverables in accordance with Appendix A.

(D) If 12% or more of the grant amount is expended in a single quarter, payment requests may be submitted once monthly during that quarter.

V. GRANTEE RESPONSIBILITIES

(A) The Grantee agrees to abide by all applicable local, state, and federal laws, rules, ordinances, and regulations in the performance of this grant.

(B) All local, state, and federal permits, if required, are the responsibility of the Grantee. Award of this grant is not a guarantee of permit approval by the State.

(C) The Grantee shall be solely responsible to pay all applicable taxes and fees, if any, that arise from the Grantee's receipt or execution of this grant.

(D) The Grantee is responsible for the professional quality, technical accuracy, timely completion, and coordination of all designs, drawings, specifications, reports, and other services submitted to the State under this Agreement. The Grantee shall, without additional compensation, correct or revise any errors, omissions, or other deficiencies in drawings, designs, specifications, reports, or other services.

(E) The State's approval of drawings, designs, specifications, reports, and incidental work or materials furnished hereunder shall not in any way relieve the Grantee of responsibility for the technical adequacy of the work. The State's review, approval, acceptance, or payment for any of the services shall not be construed as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement.

(F) The Grantee acknowledges that it is a crime to knowingly and willingly file false information with the State for the purpose of obtaining this Agreement or any payment under the Agreement, and that any such filing may subject the Grantee, its agents, and/or employees to criminal and civil prosecution and/or termination of the grant.

VI. USE OF MATERIAL

The State, and federal awarding agency, if applicable, retains a royalty-free, nonexclusive and irrevocable right to reproduce, publish, and use in whole or in part, and authorize others to do so, any copyrightable material or research data submitted under this grant whether or not the material is copyrighted by the Grantee or another person. The Grantee will only submit materials that the State can use in accordance with this paragraph.

VII. ASSIGNABILITY

The Grantee shall not assign this Agreement or assign or delegate any of its duties or obligations under this Agreement to any other party without the prior written consent of the State. The State does not assume responsibility regarding the contractual relationships between the Grantee and any subcontractor.

VIII. SUBCONTRACTS

The State reserves the right to deny the use of any consultant, contractor, associate, or other personnel to perform any portion of the project. The Grantee is solely responsible for all contractual activities performed under this Agreement. Further, the State will consider the Grantee to be the sole point of contact regarding contractual matters, including payment of any and all charges resulting from the anticipated Grant. All subcontractors used by the Grantee in performing the project shall be

subject to the provisions of this Agreement and shall be qualified to perform the duties required.

IX. NON-DISCRIMINATION

The Grantee shall comply with the Elliott Larsen Civil Rights Act, 1976 PA 453, as amended, MCL 37.2101 *et seq.*, the Persons with Disabilities Civil Rights Act, 1976 PA 220, as amended, MCL 37.1101 *et seq.*, and all other federal, state, and local fair employment practices and equal opportunity laws and covenants that it shall not discriminate against any employee or applicant for employment, to be employed in the performance of this Agreement, with respect to his or her hire, tenure, terms, conditions, or privileges of employment, or any matter directly or indirectly related to employment, because of his or her race, religion, color, national origin, age, sex, height, weight, marital status, or physical or mental disability that is unrelated to the individual's ability to perform the duties of a particular job or position. The Grantee agrees to include in every subcontract entered into for the performance of this Agreement this covenant not to discriminate in employment. A breach of this covenant is a material breach of this Agreement.

X. UNFAIR LABOR PRACTICES

The Grantee shall comply with the Employers Engaging in Unfair Labor Practices Act, 1980 PA 278, as amended, MCL 423.321 *et seq.*

XI. LIABILITY

(A) The Grantee, not the State, is responsible for all liabilities as a result of claims, judgments, or costs arising out of activities to be carried out by the Grantee under this Agreement, if the liability is caused by the Grantee, or any employee or agent of the Grantee acting within the scope of their employment or agency.

(B) Nothing in this Agreement should be construed as a waiver of any governmental immunity by the Grantee, the State, its agencies, or their employees as provided by statute or court decisions.

XII. CONFLICT OF INTEREST

No government employee, or member of the legislative, judicial, or executive branches, or member of the Grantee's Board of Directors, its employees, partner agencies, or their families shall benefit financially from any part of this Agreement.

XIII. ANTI-LOBBYING

If all or a portion of this Agreement is funded with federal funds, then in accordance with OMB Circular A-21, A-87, or A-122, as appropriate, the Grantee shall comply with the Anti-Lobbying Act, which prohibits the use of all project funds regardless of source, to engage in lobbying the state or federal government or in litigation against the State. Further, the Grantee shall require that the language of this assurance be included in the award documents of all subawards at all tiers.

If all or a portion of this Agreement is funded with state funds, then the Grantee shall not use any of the grant funds awarded in this Agreement for the purpose of lobbying as defined in the State of Michigan's lobbying statute, MCL 4.415(2). "Lobbying" means communicating directly with an official of the executive branch of state government or an official in the legislative branch of state government for the purpose of influencing legislative or administrative action." The Grantee shall not use any of the grant funds awarded in this Agreement for the purpose of litigation against the State. Further, the Grantee shall require that language of this assurance be included in the award documents of all subawards at all tiers.

XIV. DEBARMENT AND SUSPENSION

By signing this Agreement, the Grantee certifies that it has checked the federal debarment/suspension list at www.SAM.gov to verify that its agents, and its subcontractors:

- (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or the state.
- (2) Have not within a three-year period preceding this Agreement been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction, as defined in 45 CFR 1185; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
- (3) Are not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) with commission of any of the offenses enumerated in subsection (2).
- (4) Have not within a three-year period preceding this Agreement had one or more public transactions (federal, state, or local) terminated for cause or default.
- (5) Will comply with all applicable requirements of all other state or federal laws, executive orders, regulations, and policies governing this program.

XV. AUDIT AND ACCESS TO RECORDS

The State reserves the right to conduct a programmatic and financial audit of the project, and the State may withhold payment until the audit is satisfactorily completed. The Grantee will be required to maintain all pertinent records and evidence pertaining to this Agreement, including grant and any required matching funds, in accordance with generally accepted accounting principles and other procedures specified by the State. The State or any of its duly authorized representatives must have access, upon reasonable notice, to such books, records, documents, and other evidence for the purpose of inspection, audit, and copying. The Grantee will provide proper facilities for such access and inspection. All records must be maintained for a minimum of five years after the final payment has been issued to the Grantee by the State.

XVI. INSURANCE

(A) The Grantee must maintain insurance or self-insurance that will protect it from claims that may arise from the Grantee's actions under this Agreement.

(B) The Grantee must comply with applicable workers' compensation laws while engaging in activities authorized under this Agreement.

XVII. OTHER SOURCES OF FUNDING

The Grantee guarantees that any claims for reimbursement made to the State under this Agreement must not be financed by any source other than the State under the terms of this Agreement. If funding is received through any other source, the Grantee agrees to delete from Grantee's billings, or to immediately refund to the State, the total amount representing such duplication of funding.

XVIII. COMPENSATION

(A) A breakdown of costs allowed under this Agreement is identified in Appendix A. The State will pay the Grantee a total amount not to exceed the amount on page 1 of this Agreement, in accordance with Appendix A, and only for expenses incurred and paid. All other costs necessary to complete the project are the sole responsibility of the Grantee.

(B) Expenses incurred by the Grantee prior to the Start Date or after the End Date of this Agreement are not allowed under the Agreement, unless otherwise specified in Appendix A.

(C) The State will approve payment requests after approval of reports and related documentation as required under this Agreement.

(D) The State reserves the right to request additional information necessary to substantiate payment requests.

(E) Payments under this Agreement may be processed by Electronic Funds Transfer (EFT). The Grantee may register to receive payments by EFT at the SIGMA Vendor Self Service web site (<https://sigma.michigan.gov/webapp/PRDVSS2X1/AltSelfService>).

(F) An amount equal to **10 percent (10%)** of the last year of the grant award, **\$5,000**, will be withheld by the State until the project is completed in accordance with Section XIX, Closeout, and Appendix A.

(G) The Grantee is committed to the match percentage on page 1 of the Agreement, in accordance with Appendix A. The Grantee shall expend all local match committed to the project by the End Date on page 1 of the Agreement.

XIX. CLOSEOUT

(A) A determination of project completion, which may include a site inspection and an audit, shall be made by the State after the Grantee has met any match obligations, satisfactorily completed the activities, and provided products and deliverables described in Appendix A.

(B) Upon issuance of final payment from the State, the Grantee releases the State of all claims against the State arising under this Agreement. Unless otherwise provided in this Agreement or by State law, final payment under this Agreement shall not constitute a waiver of the State's claims against the Grantee.

(C) The Grantee shall immediately refund to the State any payments in excess of the costs allowed by this Agreement.

XX. CANCELLATION

This Agreement may be canceled by the State, upon 30 days written notice, due to Executive Order, budgetary reduction, other lack of funding, upon request by the Grantee, or upon mutual agreement by the State and Grantee. The State may honor requests for just and equitable compensation to the Grantee for all satisfactory and eligible work completed under this Agreement up until 30 days after written notice, upon which time all outstanding reports and documents are due to the State and the State will no longer be liable to pay the grantee for any further charges to the grant.

XXI. TERMINATION

(A) This Agreement may be terminated by the State as follows.

(1) Upon 30 days written notice to the Grantee:

- a. If the Grantee fails to comply with the terms and conditions of the Agreement, or with the requirements of the authorizing legislation cited on page 1, or the rules promulgated thereunder, or other applicable law or rules.
 - b. If the Grantee knowingly and willingly presents false information to the State for the purpose of obtaining this Agreement or any payment under this Agreement.
 - c. If the State finds that the Grantee, or any of the Grantee's agents or representatives, offered or gave gratuities, favors, or gifts of monetary value to any official, employee, or agent of the State in an attempt to secure a subcontract or favorable treatment in awarding, amending, or making any determinations related to the performance of this Agreement.
 - d. If the Grantee or any subcontractor, manufacturer, or supplier of the Grantee appears in the register of persons engaging in unfair labor practices that is compiled by the Michigan Department of Licensing and Regulatory Affairs or its successor.
 - e. During the 30-day written notice period, the State shall withhold payment for any findings under subparagraphs a through d, above and the Grantee will immediately cease charging to the grant and stop earning match for the project (if applicable).
- (2) Immediately and without further liability to the State if the Grantee, or any agent of the Grantee, or any agent of any subcontract is:
- a. Convicted of a criminal offense incident to the application for or performance of a State, public, or private contract or subcontract;
 - b. Convicted of a criminal offense, including but not limited to any of the following: embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or attempting to influence a public employee to breach the ethical conduct standards for State of Michigan employees;
 - c. Convicted under State or federal antitrust statutes; or
 - d. Convicted of any other criminal offense that, in the sole discretion of the State, reflects on the Grantee's business integrity.
 - e. Added to the federal or state Suspension and Debarment list.

(B) If a grant is terminated, the State reserves the right to require the Grantee to repay all or a portion of funds received under this Agreement.

XXII. IRAN SANCTIONS ACT

By signing this Agreement, the Grantee is certifying that it is not an Iran linked business, and that its contractors are not Iran linked businesses, as defined in MCL 129.312.

PROGRAM-SPECIFIC SECTION

XXIII. DISCLOSURE OF INFORMATION

All reports and other printed or electronic material prepared by or for the Grantee under the Agreement will not be distributed without the prior written consent of the State except for items disclosed in response to a Freedom of Information Act request, Court Order or subpoena.

XXIV. ADVANCES

Upon written request by the Grantee, the State will make an advance payment for the purchase of conservation easements. An advance payment does not require a financial status report form but does require a letter requesting the specific dollar amount of the payment as stated in the Agreement.

XXV. QUALITY ASSURANCE/QUALITY CONTROL

A project-specific Quality Assurance Project Plan (QAPP) must be submitted to the State in accordance with guidance provided by the EGLE project administrator. Monitoring conducted prior to final EGLE approval of the QAPP will not be reimbursed.

XXVI. PREVAILING WAGE

This project is subject to the Davis-Bacon Act, 40 U S C 276a, *et seq*, which requires that prevailing wages and fringe benefits be paid to contractors and subcontractors performing on federally funded projects over \$2,000 for the construction, alteration, repair (including painting and decorating) of public buildings or works.

XXVII. PREVENTING SPREAD OF INVASIVE SPECIES

The Grantee, their contractors and volunteers will take steps to minimize the risk of spreading terrestrial and aquatic invasive species during this project and will take measures to prevent spread, where feasible. Selection of project-appropriate measures should be dependent on the type of work being conducted and the specific situation. Examples of such measures may include:

- Avoiding infested areas when possible.
- Conducting field work in upstream areas before downstream areas to decrease the likelihood of carrying species further up into the watershed or visiting highest quality/least invaded sites before invaded sites during a trip.
- Performing basic decontamination steps such as:
 - Visually inspecting and removing any plants or mud from footwear (boots, hip-boots, and waders).
 - Visually inspecting and removing and properly disposing of any plants and mud from field equipment (nets, shovels, rakes, etc.) and vehicles (cars, boats, ATVs, etc.).
 - Draining all water from boats (motor, live well, bilge, transom well) and equipment, prior to leaving the site and before entering a new waterbody.
 - Thoroughly drying boats and equipment (5-7 days, if possible) between sites.
 - Disinfecting boats and equipment between sites (e.g. diluted bleach solution, heated pressure washer). Disinfection should be conducted away from surface waters, where the disinfecting solution will not enter any storm sewers and/or surface waters.
 - Typical diluted bleach solution treatment is ½ cup (4 fluid ounces) bleach to 5 gallons of water, applied by spraying or sponge so surface is thoroughly exposed to bleach solution for 10 minutes.
 - Typical heated pressure wash is 140° water temperature, sprayed for 5-10 seconds.
 - Thoroughly washing vehicles and boats between sites (e.g. drive-through car wash).
- Using only native plants and seed for restorations and best management practices.

If invasive aquatic or terrestrial plants are collected from a site, the grantee will take steps to minimize the spread of these species. Dispose of invasive plant material by bagging and transporting to a landfill, composting, or burning, as appropriate and in compliance with local and state laws.

The Water Resources Division is asking all grantees to be on the lookout for invasive species that have limited distribution or are not yet to be known to be established in Michigan. A “Watch List” of Michigan’s high priority aquatic invasive species along with how to report sightings can be found at www.michigan.gov/aquaticinvasives.

FEDERALLY FUNDED PROGRAM-SPECIFIC SECTION

XXVIII. FEDERAL FUNDING REQUIREMENTS

A maximum of \$100,967 or 100% of total disbursements, is funded with Federal Funding. The Catalog of Federal Domestic Assistance (CFDA) title is Water Quality Management Planning and the CFDA number is 66.454. The federal grant number is C600E72721. The Grantee agrees to fulfill conditions that the Federal Government has imposed on the State as a condition of Federal funding as indicated herein and in all appendices. By accepting this Agreement, the Grantee shall comply with all applicable Federal statutes and regulations in effect with respect to the period during which it receives grant funding. These regulations include, but are not limited to, the following:

(A) Single Audit. Grantees spending \$750,000 or more in federal funds in their fiscal year shall have a single audit performed in compliance with 2 CFR 200.501(a). This audit must be performed and submitted to the Federal Audit Clearinghouse (<https://harvester.census.gov/facweb/>) within nine months from the end of the grantee's fiscal year, or 30 days after receiving the report from the auditors. It is the responsibility of the Grantee to report the expenditures related to this grant on the Grantee's annual Schedule of Expenditures of Federal Awards. **Please fill out attached Certification of Federal Audit Requirements form and return with this signed Agreement.**

(B) The Grantee will comply with the **Hatch Political Activity Act**, as amended, 5 USC §§ 1501-1508, and the Intergovernmental Personnel Act of 1970 as amended by Title (6) of the Civil Service Reform Act, 42 USC § 4728, which states that employees working in programs financed with federal grants may not be a candidate for elective public office in a partisan election, use official authority or influence to affect the result of an election, or influence a state or local officer to provide financial support for a political purpose.

(C) Payment to consultants. USEPA participation in the salary rate (excluding overhead) paid to individual consultants by recipients or by a recipient's contractors or subcontractors shall be limited to the maximum daily rate for a Level IV of the Executive Schedule, to be adjusted annually. This limit applies to consultation services of designated individuals with specialized skills who are paid at a daily or hourly rate. As of January 1, 2021, the limit is \$661.24 per day and \$82.65 per hour. This rate does not include transportation and subsistence costs for travel performed. (The recipient will pay these in accordance with their normal travel reimbursement practices.)

Subrecipients with firms for services that are awarded using the procurement requirements in Subpart D of 2 CFR 200, are not affected by this limitation unless the terms of the Agreement provided the recipient with responsibility for the selection, direction, and control of the individuals who will be providing services under the Agreement at an hourly or daily rate of compensation. See 2 CFR 1500.9

(D) Minority Business Enterprises (MBE)/Women's Business Enterprises (WBE) Requirements and Disadvantaged Business Enterprise Rule (DBE).

MBE/WBE REPORTING, 40 CFR, Part 33, Subpart E

MBE/WBE reporting is required in annual reports. Reporting is required for assistance agreements where there are funds budgeted for procuring construction, equipment, services and supplies, including funds budgeted for direct procurement by the recipient or procurement under subawards or loans in the "Other" category.

The subrecipient agrees to complete and submit a "MBE/WBE Utilization Under Federal Grants, Cooperative Agreements and Interagency Agreements" report (EPA Form 5700-52A) on an annual basis. All procurement actions are reportable.

When completing the annual report, subrecipients are instructed to check the box titled “annual” in section 1B of the form. For the final report, subrecipients are instructed to check the box indicated for the “last report” of the project in section 1B of the form. Annual reports are due by October 20th of each year. Final reports are due by October 20th or 60 days after the end of the project period, whichever comes first.

The reporting requirement is based on total procurements. Subrecipients with expended and/or budgeted funds for procurement are required to report annually whether the planned procurements take place during the reporting period or not. If no budgeted procurements take place during the reporting period, the recipient should check the box in section 5B when completing the form. MBE/WBE reports should be sent to:

EGLE-WRD-Sigma@michigan.gov

or

EGLE WRD Administration

PO Box 30458

Lansing, MI 48909-7958

The current EPA Form 5700-52A can be found at the EPA Office of Small Business Program’s Home Page at http://www.epa.gov/osbp/dbe_reporting.htm.

This provision represents an approved deviation from the MBE/WBE reporting requirements as described in 40 CFR, Part 33, Section 33.502; however, the other requirements outlined in 40 CFR Part 33 remain in effect, including the Good Faith Effort requirements as described in 40 CFR Part 33 Subpart C detailed below.

SIX GOOD FAITH EFFORTS, 40 CFR, Part 33, Subpart C

Pursuant to 40 CFR, Section 33.301, the recipient agrees to make the following good faith efforts whenever procuring construction, equipment, services and supplies under an EPA financial assistance agreement, and to require that sub-recipients, loan recipients, and prime contractors also comply. Records documenting compliance with the six good faith efforts shall be retained:

(a) Ensure DBEs are fully made aware of contracting opportunities 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.

(f) If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs (a) through (e) of this section.

(E) Civil Rights. The Grantee agrees to comply fully with applicable civil rights statutes.

(F) Subawards. The grantee agrees to:

- (1) Establish all subaward agreements in writing;
- (2) Ensure that any subawards comply with the standards in 2 CFR 200 Subpart D and are not used to acquire commercial goods or services for the recipient;
- (3) Ensure that any subawards are awarded to eligible subrecipients and that proposed subaward costs are necessary, reasonable, and allocable;

- (4) Ensure that any subawards to 501(c)(4) organizations do not involve lobbying activities;
- (5) Monitor the performance of their recipients and ensure that they comply with all applicable regulations, statutes, and terms and conditions which flow down in the subaward;
- (6) Obtain EGLE's consent before making a subaward to a foreign or international organization, or a subaward to be performed in a foreign country; and
- (7) Obtain approval from EGLE for any new subaward work that is not outlined in the approved work plan.
- (8) Be responsible for selecting its subrecipients and, if applicable, for conducting subaward competitions.

(G) Conflict of Interest Notification. Grantees will contact their EGLE Project Administrator within 5 days of becoming aware of a conflict of interest. A conflict of interest is an actual or potential situation that undermines or may undermine, the impartiality of an individual or entity because their self-interest conflicts, or may conflict, with their duty and obligations in performing a grant. The term also includes situations that create, or may create, an unfair competitive advantage, or the appearance of such, for an applicant in competing for a grant.

(H) Copyrighted Materials. In accordance with 2 CFR 200.315, the USEPA has the right to reproduce, publish, use, and authorize others to reproduce, publish, and use copyrighted works or other data developed under this assistance agreement for Federal purposes. Examples of Federal purpose include but are not limited to: (1) Use by the USEPA and other Federal employees for official Government purposes; (2) Use by Federal contractors performing specific tasks for the Government; (3) Publication in USEPA documents provided the documents do not disclose trade secrets (e.g. software codes) and the work is properly attributed to the recipient through citation or otherwise; (4) Reproduction of documents for inclusion in Federal depositories; (5) Use by State, tribal and local governments that carry out delegated Federal environmental programs as "co-regulators" or act as official partners with the USEPA to carry out a national environmental program within their jurisdiction; and (6) Limited use by other grantees to carry out Federal grants provided the use is consistent with the terms of the USEPA's authorization to the grantee to use the copyrighted works or other data.

Under Item 6, the grantee acknowledges that EPA may authorize other grantee(s) to use the copyrighted works or other data developed under this grant as a result of a. the selection of another grantee by EPA to perform a project that will involve the use of the copyrighted works or other data or; b. termination or expiration of this agreement. In addition, EPA may authorize another grantee to use copyrighted works or other data developed with Agency funds provided under this grant to perform another grant when such use promotes efficient and effective use of Federal grant funds.

(J) Electronic and Information Technology Accessibility. Grantees developing electronic and information technology products, which includes but is not limited to information kiosks and Worldwide Websites, must meet accommodation standards in Section 508 of the Rehabilitation Act, 36 CFR Part 1194, unless such causes undue hardship to the entity involved.

(K) Light Refreshments and/or Meals. The Grantee agrees to obtain prior approval from the EGLE project administrator for the use of grant funds for light refreshments and/or meals served at meetings, conferences, training workshops and outreach activities (events). The Grantee must send requests for approval to the EGLE Project Administrator and include:

- (1) An estimated budget and description for the light refreshments, meals, and/or beverages to be served at the event(s).
- (2) A description of the purpose, agenda, location, length and timing for the event.
- (3) An estimated number of participants in the event and a description of their roles.

EPA funding for meals, light refreshments and space rental may not be used for any portion of an event where alcohol is served, purchased, or otherwise available as part of the event or meeting, even if the EPA funds are not used to purchase the alcohol.

Note: U.S. General Services Administration regulations define light refreshments for morning, afternoon or evening breaks to include, but not be limited to, coffee, tea, milk, juice, soft drinks, donuts, bagels, fruit, pretzels, cookies, chips, or muffins. (41 CFR 301-74.11)

(L) Drug-Free Workplace. The recipient organization of this USEPA 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.

(M) Hotel-Motel Fire Safety. Pursuant to 15 USC 2225a, if applicable and 15 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 <http://www.usfa.dhs.gov/applications/hotel> to see if a property is in compliance.

(N) 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 the USEPA. This requirement does not apply to reports prepared on forms supplied by the USEPA, or to Standard Forms, which are printed on recycled paper and are available through the General Services Administration.

(O) Recycled Products. 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 200.322, 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; fail to meet reasonable performance standards; or are only available at an unreasonable price.

(P) Trafficking. Grantees, contractors, and subcontractors may not engage in severe forms of trafficking in persons, procure a commercial sex act, or use forced labor in the performance of the grant or subcontracts.

(Q) Permits. The grantee must obtain all necessary permits prior to implementation of any grant funded activity that may fall under applicable federal, state or local laws. The grantee must keep documentation regarding necessary permits in their project files.

(R) Geospatial Data Standards. All geospatial data created must be consistent with Federal Geographic Data Committee endorsed standards. Information on these standards may be found at www.fgdc.gov.

(S) Executive Pay. Grantees whose gross income in the previous tax year was \$300,000 or more will verify in writing to the EGLE Project Administrator that they are exempt from reporting total compensation of Executives required under the federal Transparency Act, as defined in 2 CFR

170.320. This verification is due by the end of the month following the month EGLE made the grant award. In so doing, the grantee is stating that:

1. They did not in the preceding tax year receive:
 - 80 percent or more of their annual gross revenues from federal procurement contracts (and subcontracts) and federal financial assistance subject to the Transparency Act; and
 - \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act; and
2. The public has access to information about the compensation of executives through periodic reports filed under Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a),78o(d)) or Section 6104 of the Internal Revenue Code of 1986.

(T) Management Fees. Consistent with EPA's prohibition on management fees, the Grantee will not include management fees in project budgets. Such fees or similar charges refer to expenses added to the direct costs in order to accumulate and reserve funds for ongoing business expenses, unforeseen liabilities or for other similar costs not allowable under the agreement.

(U) Patents and Inventions. Rights to inventions made under this agreement are subject to federal patent and licensing regulations which are codified at Title 37 CFR Part 401 and Title 35 USC Sections 200-212.

Pursuant to Bayh-Dole Act (set forth in 35 USC 200-212), EPA and EGLE retain the right to worldwide, nonexclusive, nontransferable, irrevocable, paid-up license to practice the invention owned by the agreement holder, as defined in the Act. To streamline the invention reporting process and to facilitate compliance with the Bayh-Dole Act, the recipient must utilize the Interagency Edison extramural invention reporting system at <http://iEdison.gov>. Annual utilization reports must be submitted through the system. The grantee is required to notify the EGLE Project Administrator when an invention report, patent report, or utilization report is filed at <http://iEdison.gov>.

(V) Human Subjects. No research involving human subjects will be conducted under this agreement without prior written approval of the EPA to proceed with that research. If engaged in human subjects' research as part of this agreement, the Grantee agrees to comply with all applicable provisions of EPA Regulation 40 CFR 26 (Protection of Human Subjects). This includes, at Subpart A, the Basic Federal Policy for the Protection of Human Research Subjects, also known as the Common Rule. It also includes, at Subparts B, C, and D, prohibitions and additional protections for children, nursing women, pregnant women, and fetuses in research conducted or supported by EPA.

The Grantee further agrees to comply with EPA's procedures for oversight of the recipient's compliance with 40 CFR 26, as given in EPA Order 1000.17 Change A1 (Policy and Procedures on Protection of Human Research Subjects in EPA Conducted or Supported Research). As per this order, no human subject may be involved in any research conducted under this assistance agreement, including recruitment, until the research has been approved or determined to be exempt by the EPA Human Subjects Research Review Official (HSRRO) after review of the approval or exemption determination of the Institutional Review Board(s) (IRB(s)) with jurisdiction over the research under 40 CFR.

(W) Cybersecurity Condition.

(a) The recipient agrees that when collecting and managing environmental data under this assistance agreement, it will protect the data by following all applicable State law cybersecurity requirements.

(b) (1) EPA must ensure that any connections between the recipient's network or information system and EPA networks used by the recipient to transfer data under this agreement, are secure.

For purposes of this Section, a connection is defined as a dedicated persistent interface between an Agency IT system and an external IT system for the purpose of transferring information. Transitory, user-controlled connections such as website browsing are excluded from this definition.

If the recipient's connections as defined above, do not go through the Environmental Information Exchange Network or EPA's Central Data Exchange, the recipient agrees to contact the EPA Project Officer (PO) and work with the designated Regional/Headquarters Information Security Officer to ensure that the connections meet EPA security requirements, including entering into Interconnection Service Agreements as appropriate. This condition does not apply to manual entry of data by the recipient into systems operated and used by EPA's regulatory programs for the submission of reporting and /or compliance data.

(2) The recipient agrees that any subawards it makes under this agreement will require the subrecipient to comply with the requirements in (b)(1) if the subrecipient's network or information system is connected to EPA networks to transfer data to the Agency using systems other than the Environmental Information Exchange Network or EPA's Central Data Exchange. The recipient will be in compliance with this condition: by including this requirement in subaward agreements; and during subrecipient monitoring deemed necessary by the recipient under 2 CFR 200.331(d), by inquiring whether the subrecipient has contacted the EPA Project Officer. Nothing in this condition requires the recipient to contact the EPA Project Officer on behalf of a subrecipient or to be involved in the negotiation of an Interconnection Service Agreement between the subrecipient and EPA.

APPENDIX A

Upper Wolf Creek Watershed Management Plan 2021-0104

Project Description

A. Statement of water quality concerns/issues:

Recent water quality sampling of Loch Erin (Lake Erin) and its drains in the immediate watershed have revealed significant water quality concerns such as the presence of high nutrients, *E. coli* bacteria, and cyanobacteria blooms. This is of great concern as Loch Erin is a tributary to Lake Adrian via Wolf Creek. Lake Adrian serves as a drinking water source to the City of Adrian in Lenawee County, Michigan and the connected River Raisin serves the villages of Blissfield and Deerfield. The State of Michigan Integrated Report, developed by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) lists impaired water bodies under CWA Section 303(d) that do not meet designated uses. For this project, the focus will be on Loch Erin and all upstream tributaries, which are part of the broader River Raisin watershed management plan. This drainage area includes two watercourses that fall within HUC 041000020204 -- the Wolf Creek subwatershed within the larger River Raisin watershed. Both watercourses were added to the list of impaired waterbodies in EGLE's 2020 Integrated Report. A summary of the impaired waterbodies that will be considered as part of this watershed management plan are listed in the table below.

AUID	Waterbodies	Unsupported Uses	Causes of Impairment
041000020204-05	Wolf Creek and Unnamed Tributaries to Erin Lake	Fish Consumption/Total Body Contact/Partial Body Contact	Polychlorinated Biphenyls (PCBs)/ <i>Escherichia coli</i> (<i>E. coli</i>)
041000020204-06	Loch Erin	Other Indigenous Aquatic Life and Wildlife	Phosphorus

The first course is Wolf Creek and unnamed tributaries to Erin Lake (AUID M104100020204-05) which was determined by EGLE to be not supporting for both partial and full-body contact and for *E. coli* per the River Raisin TMDL set in 2008. In addition, it is not supporting for PCBs in fish for consumption and in fish tissue. TMDLs for PCBs were established in 2017 by EGLE. The second course is Loch Erin (AUID M1041000020204-06). Loch Erin was deemed not supporting for Other Indigenous Aquatic Life and Wildlife. Under Rule 60 of the water quality standards for Michigan (R 323.1060), nutrients shall be limited to the extent necessary to prevent growths of aquatic rooted, attached, suspended, and floating plants, fungi or bacteria which are or may become injurious to the designated uses. Due to increases in nuisance algal growth in Loch Erin in recent years, Loch Erin was listed as impaired for Phosphorus under this designated use in the 2020 Integrated Report.

The River Raisin Watershed Council (RRWC) and its partners for this proposed upper Wolf Creek watershed management plan, recognize that conflicts with land use may arise with the intended plan development and future improvements, given the prevalence of abundant agricultural lands and activities within this subwatershed. The partners further recognize that collaboration and parity will be key to the success of future watershed protection. This project is proposed to develop an upper Wolf Creek watershed management plan so that future implementation of BMPs to reduce NPS pollutants to Wolf Creek, Loch Erin, Lake Adrian, and Lake Erie can be realized.

B. Project goals and objectives:

The RRWC and its partners would like to achieve the following goals:

1. Develop and complete a detailed upper Wolf Creek watershed management plan that supports primary goals within the larger River Raisin watershed including the attainment of water quality standards, achieving all designated uses, and protecting source water supply for Adrian, Blissfield and Deerfield.

2. Within the upper Wolf Creek subwatershed plan, identify specific Critical Source Areas (CSAs) that are contributing to elevated *E. coli* bacteria, nutrients, and cyanobacteria blooms within Loch Erin and Lake Adrian via Wolf Creek. This could include but is not limited to leaking septic fields, farm runoff, stormwater drainage pipes, and tile drains. This will help target future implementation efforts which will save time, money, and allow for better management outcomes.
3. Develop a GIS story map to highlight the watershed management plan project and assist with community outreach and involvement efforts. The final product will be shared on the River Raisin Watershed Council's website and used as a tool at stakeholder meetings to help educate the public concerning watershed health and potential improvement projects.

The objectives to complement the aforementioned goals include the following (note: these will be completed during the development of the upper Wolf Creek subwatershed plan):

1. Prepare a summary table of the watershed management plan and all necessary elements utilizing the state (CMI checklist) and federal (319 WMP Checklist) guidance documents.
2. Develop a detailed field sampling QAPP and collect additional water quality data to assess CSAs.
3. Perform a ground-based agricultural survey of farmlands within the subwatershed using ArcGIS Field Maps and an ArcGIS online database. Utilize LiDAR and available GIS watershed data in conjunction with ground surveys to help identify CSAs.
4. Utilize collected water quality and flow data to develop average concentrations for each pollutant and evaluate the relative impact that the CSAs have on the watershed.
5. Recommend Best Management Practices (BMPs) for CSAs and discuss strategies for implementation.
6. Establish a community outreach program and develop ties with relevant local interest groups as well as the local farmer led group to share and exchange information concerning the health of the watershed.

Anticipated water quality benefits relative to the project cost include the following:

1. Plan for a reduction in *E. coli* bacteria which have been exceeding TMDL levels established by EGLE. This is important for public health and body contact in the Wolf Creek subwatershed waterways.
2. Plan for a reduction of nutrients and cyanobacteria biomass in Loch Erin and ultimately Lake Adrian, as the latter serves as a drinking water supply for the City of Adrian, and the ongoing River Raisin supplies the villages of Blissfield and Deerfield. Protecting downstream source water from cyanobacteria is an important public health benefit for the drinking water customers.
3. A plan for improvements in lake health with improved biodiversity of good phytoplankton to support a healthy lake food chain.

Once the project (plan) is completed, the partnering Loch Erin Property Owners Association (LEPOA) will continue monitoring Loch Erin and its tributary drains to assure that improvements are maintained. Continued water quality monitoring will help assess the impacts of future BMP implementation on water quality.

C. Organization Information:

The River Raisin Watershed Council's (RRWC) mission is to partner with others to protect and preserve the River Raisin Watershed. RRWC partners with many organizations to educate people about local natural resources and how to keep the river clean. RRWC frequently teaches in classrooms, at community events, organizes river cleanups, and monitors macroinvertebrates in the river.

Steve May has been Executive Director since 2015. Steve was the Lenawee County Drain Commissioner for 20 years. Among his many tasks is grant administration with the ERB foundation as primary contributor and with GLRI "Cooling the Hotspots" grant, in which RRWC is a partner.

Meija Knafl is a full-time Outreach Coordinator. Meija has a BS in Wildlife Ecology from the University of Maine. She previously worked at the City of Ann Arbor in a similar outreach role.

The RRWC completed a 319 administered grant to develop the CMI/319 approved watershed plan. 2005-0117.

D. Partners and Related Funding:

RRWC will be teaming with LEPOA, a property owners association that has continuously been responsible for managing Loch Erin and the community development. Their intimate knowledge of the Loch Erin watershed and historical water sampling experience makes them a well suited to perform the sampling efforts. LEPOA will support project management by providing volunteers to coordinate project efforts and perform field sampling.

RRWC will also be partnering with LimnoTech to assist with multiple elements of the work plan. LimnoTech will perform grant administration and closeout requirements, facilitate various aspects of field work, develop the outlined technical tools, perform data analysis, and develop the final watershed management plan. LimnoTech will provide professional environmental consulting services and help lead the project to developing an approvable Watershed Management Plan.

Dr. Heather Moody at Siena Heights University has committed to providing two environmental interns that will assist RRWC and LEPOA by performing water quality sampling as well as collect data for the agricultural survey. As part of a research project, the interns plan on developing a living shoreline project on a selected tributary to Loch Erin to help with treating runoff. This effort will be partially funded by LEPOA.

The Lenawee Conservation District will continue their effort of enrolling more farms into the voluntary Michigan Agriculture Environmental Assurance Program and continue providing education regarding best management practices for stakeholders. The Conservation District will be responsible for collecting the tillage/residue data component of the Ag Inventory process for the entire Wolf Creek Watershed.

The Farmer-Led Conservation Group, led by local farmers, Lenawee Conservation District, RRWC, Michigan Association of Conservation Districts, and Michigan Department of Agriculture and Rural Development, will continue their effort of farmer-to-farmer outreach and educational events to promote best management practices on the farms within the Western Lake Erie Basin, including the Loch Erin and Wolf Creek Watersheds.

The City of Adrian will provide laboratory services and perform sample analysis for E Coli and nutrients collected in Loch Erin and the tributaries at their material cost.

Other municipalities, along with the Lenawee County Health Department and Drain Commission, will assist with providing key information, data and meeting space. Proposed partners for this watershed planning project include the following:

i. Steve May, Executive Director at the River Raisin Watershed Council

Steve May is the Executive Director at the River Raisin Watershed Council with over 25 years of experience in the River Raisin Watershed. For 20 years he worked as the Lenawee County Drain Commissioner and has extensive knowledge and expertise in the River Raisin watershed. His range of experience includes monitoring, mitigation efforts, grant application, and project management. He earned his bachelor’s degree in Business Administration and Management from Spring Arbor University, and his master’s degree in Clinical, Counseling, and Applied Psychology from Spring Arbor University.

ii. Meija Knafl, Outreach Coordinator at the River Raisin Watershed Council

Meija Knafl, AWB, is the Outreach Coordinator at the River Raisin Watershed Council with 7 years of professional experience in natural resources and public engagement. For 3 years she worked as an

Explorer Guide for the Michigan Department of Natural Resources and, among other programs, led aquatic macroinvertebrate surveys. For the last 3 years she worked with the City of Ann Arbor Natural Area Preservation where she participated in land management, wetland project permitting, and managed volunteers. She earned her bachelor's degree in Wildlife Ecology from the University of Maine.

iii. Derek Schlea, PE, Project Manager at LimnoTech

Derek Schlea, PE, is an agricultural engineer at LimnoTech with 10 years of consulting experience in agricultural watershed assessments, green infrastructure, eutrophication modeling, and water resources management. His project experience includes development and application of watershed models using multiple frameworks, creating conceptual designs for treatment wetlands and other green infrastructure, siting and evaluating the impacts of various agricultural best management practices, and modeling harmful algal blooms in Lake Erie and other waterbodies. Derek received his bachelor's degree in Agricultural and Biological Engineering and master's degree in Ecological Engineering from the Ohio State University.

iv. Additional LimnoTech subject matter experts

As needed, the planning project will be able to access LimnoTech experts including the following:

- **Carrie Turner, PE**, is a senior project engineer and environmental chemist with over 20 years of experience in evaluating impacts of pollutant sources on watersheds and in waterways using innovative data and modeling analyses.
- **John Bratton, PhD, P.G.**, has over 30 years of experience in environmental science including expertise in sediment biogeochemistry and nutrient management of rivers and lakes.

v. Philip Kittredge, RRWC Executive Committee Member and LEPOA Board Member

Phil is a retired engineering manager with 40 years' experience with testing, simulation, and validation. For 15 years he directed a global team of over 80 engineers and technicians supporting the development of heavy truck components. He received his bachelor's degree in mechanical engineering from Michigan State University and holds a master's degree in mechanical engineering from the University of Michigan.

vi. Christian Malcolm, President of the Loch Erin Property Owner Association board

Christian is a local community member and qualified Biologist and Senior Calibration Engineer for 10 plus years. For 5 years he worked as a Biologist Technician for the Wyoming Fish and Game and the North Carolina Wildlife Resources Commission with a focus on Inland Fisheries. For the last 8 years, Christian has been in the automotive Industry working as a Senior Calibration Engineer. He received his bachelor's degree from Michigan State University.

E. Evaluation and Monitoring

For this project, the standard goal and evaluation is the production and approval of the upper Wolf Creek watershed management plan. There will not be social monitoring; however, there will be environmental

monitoring which will include physical, chemical and biological water quality parameters of major tributaries and water bodies within the Loch Erin watershed.

Purpose of Monitoring	Determine specific problem areas (CSAs) where nutrients and <i>E. coli</i> contributing to recreational use impairments, cyanobacteria blooms, and nuisance aquatic plant growth in Loch Erin may be originating from.		
Parameters to be Measured	At all locations, <i>E. Coli</i> bacteria counts (collected in triplicate), Temperature, DO, PH, turbidity, and nutrients including nitrogen and phosphorus will be collected and analyzed. At lake stations (Loch Erin), cyanobacteria abundance and toxins present will be measured from July-September, only if a visible bloom is present. Three locations have been selected to collect flow rates using long term deployment level logger sensors (Two major streams and the Loch Erin outlet)		
Number of locations to be sampled	At this time, 6-8 sampling locations are proposed. Three additional locations will have level logger sensors installed to calculate flow.	Sampling Frequency	Semimonthly sampling at selected sites for all parameters listed above (April-October). Algae data will be collected semimonthly during July-September, if a visible bloom is present. -Flow data will be continuously collected.

Water quality sampling has been performed by LEPOA in the upper Wolf Creek watershed for 3 years (Sample data has been provided as an attachment). Based on the major tributaries to Loch Erin and past sampling efforts, eight total sampling stations will be selected for identifying CSAs. This could include six upstream tributary locations and two in lake locations. Stream flows will be evaluated in two upstream tributaries and the outlet of Loch Erin by installing in-situ level logger sensors. Samples will be collected twice monthly and Algal samples will be collected from July through September (if a visible bloom is present). The weather will be monitored and sampling dates may be shifted to capture both wet and dry conditions during each month if possible. The combination of sampling and flow data will provide the necessary information to evaluate pollutant inputs to Loch Erin and Wolf Creek. This in combination with other project efforts (agricultural survey, land coverage maps, wetland evaluation, and septic tank evaluation) will help identify pollutant sources and prioritize CSAs for future implementation efforts.

F. Project Summary

The proposal herein is intended to include Loch Erin and all its upstream tributaries. The upper Wolf Creek watershed is approximately 11,600 acres in size and its primary land use is agriculture. This watershed is not within a Phase II stormwater area. Pollutants including nitrogen, phosphorus, total suspended solids, and *E. coli* data are proposed to be collected at eight key areas within the Loch Erin watershed to help identify and prioritize Critical Source Areas. The goal for this project is to develop an approvable watershed management plan and to make recommendations for further monitoring and BMP implementation after this planning phase. This project is unique in that it helps add critical information to the existing River Raisin Watershed Plan that will allow mitigation efforts to be targeted in specific areas that provide the most benefit to the streams.

Upper Wolf Creek Watershed Management Plan 2021-0104 WORK PLAN

A. Project Management (6%)

Responsible Agency: RRWC and LimnoTech

Sub Task #1: Participate in project meetings, coordinate with partners, and direct project workflow to ensure consistent and efficient progress is being made towards project goals.

Sub Task #2: Review and provide feedback on all project deliverables and the final watershed management plan.

Sub Task #3: The RRWC will host the developed GIS story map summarizing the project on their website and utilize the final product as an education and community outreach tool.

Sub Task #4: The RRWC will convene focus groups specific to individual CSAs to allow relevant stakeholders to collaborate and mutually decide on BMPs for future watershed implementation. This will allow for the development of mutual trust of landowners such as farmers and allow them to work closely with the local RRWC for a long-term sustainable program.

Products: Relevant stakeholder list for each identified CSA

B. Critical Source Area Water Quality Sampling (11%)

Responsible Agency: LEPOA

Sub Task #1: Collect additional water quality samples as needed to identify CSAs not previously sampled for the parameters listed in Section E above. Deliver all collected nutrient and *E. Coli* samples to the City of Adrian laboratory for analysis. All cyanobacteria samples will be shipped to BSA Environmental (or a more local lab if discovered) for analysis.

Sub Task #2: All data will be submitted in an electronic format. Water quality data will be recorded and submitted using the EGLE template.

Products: Data tables of all collected water quality data and replicates

C. Laboratory Services (11%)

Responsible Agency: City of Adrian and LEPOA

Sub Task #1: The City of Adrian has offered to provide in-kind services and analyze the collected nutrient and *E. Coli* samples at their material cost. They have committed to providing services for this task up to \$5,000.

Sub Task #2: LEPOA will be submitting the collected cyanobacteria samples to BSA Environmental (Or a local certified lab for algal sampling if uncovered) for analysis. LEPOA will continue to perform and fund their annual water quality sampling on Loch Erin and its tributaries. This data will be used to identify CSAs, serve as additional sampling data at overlapping CSA sites and support the WMP development.

Products: Raw Data Lab Results

D. Level Sensor installation and Watershed Management Plan Development (88%)

Responsible Agency: RRWC, LimnoTech, Lenawee Conservation District and LEPOA

Sub Task #1: Develop and submit water quality monitoring (*E. coli*, nutrients, algae, and flow) and Agricultural Inventory QAPPs to EGLE for review and approval at least nine (9) weeks prior to monitoring. Monitoring will not begin until EGLE approval.

Products: 2 QAPPs for submittal to EGLE

Sub Task #2: Identify all Critical Source Areas based on historical and newly collected water quality data and the agricultural inventory data. The agricultural inventory will include the Agricultural Conservation Planning Framework (ACPF) model, a desktop analysis component, and a windshield inventory component.

Products: Map of all identified CSA locations

Sub Task #3: The Agricultural Inventory process will be completed for the entire Wolf Creek watershed.

- EGLE will provide the ACPF results and train partners on how to utilize the results.
- The Lenawee Conservation District will collect the tillage and residue data, along with crops being grown, use of cover crops, use of filter strips and evaluation of any livestock operations. EGLE will train conservation district staff along with other partners who will participate in the data collection.

Products: GIS Field Maps , GIS database of agricultural inventory results

Sub Task #4: LimnoTech will install three continuous level sensors to develop flow rating curves of two major tributaries to Loch Erin and the outlet and compute flow estimates to assist with evaluating pollutant inputs.

Products: Processed level and flow data for all monitored tributaries

Sub Task #5: Utilize the EGLE developed Landscape-Level Wetland Functional Assessment to:

-
- Define wetland goals and objectives for the watershed.
- Develop a wetland restoration and preservation strategy.

Products: Wetland restoration strategy for final management plan.

Sub Task #6: The upper Wolf Creek watershed is just outside the coastal nonpoint pollution control program watershed boundary. However, it is believed that On Site Disposal Systems (OSDS) may be a contributing factor to the water quality issues in Loch Erin. The coastal pollution control program will be used as a guide to assess OSDS impacts on water quality within the watershed.

- Perform an OSDS analysis within the watershed that will assess distribution and density, summarize any pertinent water quality data, and review relevant OSDS codes and ordinances to support a comprehensive approach. An OSDS map of the watershed will be developed with the gathered data.
- Develop a set of maintenance and inspection recommendations for OSDS systems within the watershed with the help of LEPOA and explore voluntary and regulatory actions as possible mitigation strategies.

Products: A set of recommendations for OSDS maintenance and inspection

Sub Task #7: Assess the need for a Hydrologic and Geomorphic analysis. Based on historical sampling and site visits, qualitative indicators within the watershed suggest that stream bank stability is not likely the cause of any current impairment issues. As a result, a full hydrologic and geomorphic analysis is not required. This will be verified through future sampling efforts and site visits. If it is determined that a full hydrologic and geomorphic analysis is needed, EGLE staff will be consulted on developing the approach of the analysis.

Sub Task #8: Develop the nine elements recommended by the USEPA in the “Handbook for Developing Watershed Plans to Restore and Protect Our Waters” as a critical framework structure for the Loch Erin

Watershed Management Plan. A draft watershed management plan that will meet Section 319 and CMI criteria, will be submitted at least 90 days prior to the end of the contract, for EGLE review and approval.

- Compile information from all nine elements and develop the watershed management plan for submittal.

Products: Fully Developed 319/CMI Approvable Watershed Management Plan. Site specific locational information for each proposed physical BMP will be displayed on a map in the watershed management plan. Inventory site-specific GPS information (e.g. latitude/longitude) will be provided to EGLE along with the watershed management plan.

Sub Task #9: Develop an Arc GIS Story map to educate public on the project and promote cooperation among landowners and RRWC. The final product will be shared on the RRWC website for public viewing.

Products: ArcGIS Story Map summarizing project

E. Grant Administration/Closeout (9%)

Responsible Agency: RRWC and LimnoTech

Sub Task #1: Develop and submit quarterly reports consistent with EGLE guidance. Reports will be submitted within 30 days of the end of each quarter. (LimnoTech)

Sub Task #2: Provide draft and final products and deliverables as specified in the Nonpoint Source Grant Administrative Summary. All GIS data will be submitted according to USEPA guidance. All products will be submitted to EGLE for review and approval prior to printing/distribution. Acknowledgement of EGLE on Information/Education (I/E) products will be done in accordance with the Acknowledgement on I/E Products Guidance. (LimnoTech)

Sub Task #3: Develop and submit the final report following EGLE guidance and submit the final report within 30 days of the end of the grant. (LimnoTech)

Sub Task #4: Submit a project fact sheet utilizing the EGLE template. The project fact sheet will be submitted with the final report. (LimnoTech)

Sub Task #5: Submit an electronic copy of all project-related photos with the final report. (LimnoTech)

Products: Quarterly reports, copies of all products and deliverables in the quantities and format specified, draft and final project report, project and fact sheet. Data will be collected in electronic format according to the Providing Electronic Versions of Grant Products Guidance.

Upper Wolf Creek Watershed Management Plan 2021-0104 Timeline

Tasks/Subtasks	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
	A. Project Management							
Sub-Task #1	X	X	X	X	X	X	X	X
Sub-Task #2	X	X	X	X	X	X	X	X
Sub-Task #3							X	X
Sub-Task #4					X	X	X	X
B. Critical Source Area Water Quality Sampling								
Sub-Task #1			X	X	X	X		
Sub-Task #2			X	X	X	X		
C. Laboratory Services								
Sub-Task #1				X	X	X		
Sub-Task #2			X	X	X	X		
D. Level Sensor Installation and Watershed Management Plan Development								
Sub-Task #1	X	X						
Sub-Task #2			X					
Sub-Task #3	X	X	X	X	X	X	X	
Sub-Task #4				X	X	X		
Sub-Task #5	X	X	X	X				
Sub-Task #6	X	X						
Sub-Task #7	X	X						
Sub-Task #8		X	X	X	X	X	X	
Sub-Task #9						X	X	
E. Grant Administration/Closeout								
Sub-Task #1	X	X	X	X	X	X	X	X
Sub-Task #2	X	X	X	X	X	X	X	X
Sub-Task #3							X	X
Sub-Task #4							X	X
Sub-Task #5							X	X

