EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 1-01

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-16-003	07/01/2016 To 06/30/2018 Base Option Period Number 1	Water Quality Trading Support

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 07/01/2017 To 06/30/2018

Comments:
No work shall commence on this Work Assignment until July 1, 2107.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period: 07/01/2016 To 06/30/2018 Cost/Fee: LOE:

This Action:

Total:

Work Plan / Cost Estimate Approvals

Contractor WP Dated: Cost/Fee LOE:

Cumulative Approved: Cost/Fee LOE:

Work Assignment Manager Name Amelia Letnes (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-5627 FAX Number:	
Project Officer Name Tangela Cooper (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0369 FAX Number:	
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:	
Contracting Official Name Brad Heath (Signature) 6/30/2017 (Date)	Branch/Mail Code: Phone Number: 513-487-2352 FAX Number:	

PERFORMANCE WORK STATEMENT
CONTRACT EP-C-16-003
WORK ASSIGNMENT 1-01

Title: Water Quality Trading White Papers

Work Assignment Manager:

Amelia Letnes Phone: (202) 564-5627 Fax (202) 564-9544 letnes.amelia@epa.gov	**USPS Mailing Address** Water Permits Division 1200 Pennsylvania Ave., NW Mail Code 4203M Washington, DC 20460	**Courier Address** EPA East Building 1201 Constitution Ave., NW Room 7135D Washington, DC 20004

Period of Performance: July 1, 2017 through June 30, 2018

Background: EPA established its Water Quality Trading Policy in 2003, and further clarified that policy in its 2007 Water Quality Trading Toolkit for Permit Writers. Since those documents were published, many more water quality trading programs have been proposed and implemented. EPA regularly gets inquiries from states and watershed groups about what would or would not be an acceptable water quality trading program. Under this work assignment, the contractor will develop white papers to provide technical clarity to the policy decisions surrounding water quality trading.

Scope of Work:

Task 1: Tradeable Pollutants White Paper

EPA's WQT Policy specifically supports trading nutrients or sediment loads. The Policy also specifically did not support trading of persistent bioaccumulative toxics at that time, but did consider the possibility of some pilot projects. We have also seen a number of longstanding temperature trades in the Pacific Northwest.

This paper would consider the full range of pollutant types found in NPDES permits (including stormwater and other nontraditional dischargers). These pollutants would be grouped into general types (such as: nutrients (which includes a variety of species of N and P); metals; pathogens; toxics; and others) that behave in similar ways.

The next step would be to analyze these pollutant types to consider whether they would be appropriate for trading. This would consider topics such as length of residence in the water column, toxicity, fate and transport, local vs. far field effects, and other such variables. Some pollutants might be inherently untradeable. Typically, these would be ones with immediate toxic effects or with extremely short residence times in a waterbody.

The final step would be to consider for all the pollutant types that could be tradeable, what additional criteria would need to be included beyond those considered for nutrients. There may be smaller

geographic areas, specific waterbody conditions (temperature, pH, etc), or specific uses that would or would not be conducive to trading.

The contractor should assume that EPA will have 2-3 rounds of comments on the paper (NPDES staff, workgroup staff, management) for costing purposes.

Task 1 Deliverables:
A strawman outline of the paper, including pollutant categories and analytic methodology will be due August 15.

A draft paper will be due 4 months from the receipt of EPA comments on the strawman. Subsequent drafts will be due 2-4 weeks from receipt of EPA comments, depending on the complexity of the comments.

A final paper will be due 4 weeks from receipt of final EPA comments.

Level of Effort: EPA estimates 300 hours for this task.

Task 2: Credit Banking White Paper

One of the ongoing challenges in water quality trading is the uncertainty of the trade on the part of the buyer. While they do not have control over the credit generation, they are still legally liable for that credit, and can be enforced against if that credit is not generated.

To address this issue, there are a wide variety of mechanisms that programs consider, including an insurance ratio, attempts to mitigate liability, and credit banking. It is this last option that requires the most scientific research. The first two are financial and legal mechanisms, the last is scientific in nature.

Our current best practice is to utilize a credit in the same compliance period in which it is generated. So if you have an annual limit, the credit would last for a year, then expire. Many programs would like to allow unsold credits to be rolled over to the next year, perhaps at a discounted rate, to allow more flexibility in the market.

This paper would consider if there is an analytical framework for determining if a waterbody could sustain some portion of its credits rolling over between compliance periods. It will consider both temporal and geographic hot spots as well as residence time both of water and of the pollutant of concern in the impacted waterbody. It will consider seasonal and annual variability in loading due to wet weather events and the relative impact of those upon the waterbody as compared to trading variability.

If there is an ability to allow some banking and protect water quality, the paper will lay out a methodology for permitting authorities to determine if their trading program would be able to take advantage of banking while maintaining local and downstream water quality.

Task 2 Deliverables:
A strawman outline of the paper will be due August 15, including a proposed approach to developing an analytic framework.

A draft paper, including pollutant a draft analytic framework will be due within 4 months from the receipt of EPA comments on the strawman. Subsequent drafts will be due 2-4 weeks from receipt of EPA comments, depending on the complexity of the comments.

A final paper will be due 4 weeks from receipt of final EPA comments.

Level of Effort: EPA estimates 620 hours for this task

Task 3: Quality Assurance Project Plan
A quality assurance project plan (QAPP) is required for Tasks 1 and 2 of this work assignment. It should outline the decision criteria that the contractor will use in making recommendations to the EPA WACOR in developing the two white papers. The QAPP will document, and provide the basis for, the use of various case studies, public information, or other secondary data by the contractor. The QAPP should also define the technical bases or principles used by the contractor in providing expert technical recommendations to the EPA WACOR. The contractor shall refer all policy related questions to EPA. The contractor shall provide a QAPP within 15 days of receipt of the work assignment.

The sources of the information collected by the contractor for EPA are primarily from publically available information sources and considered secondary data. The data quality objective for this information is that the white papers factually represent the information contained in the source documentation. These white papers do not directly support any decision being made by EPA but may provide background on potential approaches for EPA to consider in the future.

OTHER REQUIREMENTS

Reporting
Progress Reports shall be submitted in accordance with the reporting requirements of the contract. In addition, the contractor shall maintain contact with the WACOR to advise of progress and problems. All documents shall be delivered in Word, Excel, HTML, and/or PDF format, as requested by the WACOR. The contractor shall notify the EPA immediately when expenditures of 75% and 90% of the work assignment LOE or funding (including pipeline costs) are reached.

The contractor shall be prepared to submit for inspection copies of all work in progress any time as requested by the WACOR. The contractor shall not release information or comments on works performed under this work assignment without the WACOR's prior written authorization. Wherever practicable, all written materials submitted to EPA must be doubled-sided and on recycled paper. All computer disks submitted to the WACOR shall be scanned for, and identified as free from viruses.

Travel
No travel other than local travel is expected under this work assignment.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 1-01

☐ Other ☒ Amendment Number: 000001

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-16-003	07/01/2016 To 06/30/2018 Base Option Period Number 1	Water Quality Trading Support

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- ☐ Work Assignment
- ☒ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 09/12/2017 To 06/30/2018

Comments:
The purpose of this Amendment 1 is to ADD Ginny Kibler (Phone: 202-564-0596; Fax: 202-564-9544; E-mail: kibler.ginny@epa.gov) as the Alternate Work Assignment Contracting Officer's Representative (AWACOR).

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

SFO (*Max 2*) ☐

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
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Authorized Work Assignment Ceiling

Contract Period: 07/01/2016 To 06/30/2018 Cost/Fee: LOE:

This Action:

Total:

Work Plan / Cost Estimate Approvals

Contractor WP Dated: Cost/Fee LOE:

Cumulative Approved: Cost/Fee LOE:

Work Assignment Manager Name: Amelia Letnes (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-5627 FAX Number:	
Project Officer Name: Tangela Cooper (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0369 FAX Number:	
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:	
Contracting Official Name: Brad Heath (Signature) (Date) 9/12/2017	Branch/Mail Code: Phone Number: 513-487-2352 FAX Number:	

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 1-02

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-16-003	07/01/2016 To 06/30/2018 Base Option Period Number 1	Real Time Review (RTR)

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 08/18/2017 To 06/30/2018

Comments:

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
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Authorized Work Assignment Ceiling

Contract Period: 07/01/2016 To 06/30/2018 Cost/Fee: LOE:

This Action:

Total:

Work Plan / Cost Estimate Approvals

Contractor WP Dated: Cost/Fee LOE:

Cumulative Approved: Cost/Fee LOE:

Work Assignment Manager Name Quintin White (Signature) (Date)	Branch/Mail Code: Phone Number: 312-886-0135 FAX Number:	
Project Officer Name Tangela Cooper (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0369 FAX Number:	
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:	
Contracting Official Name Brad Heath (Signature) (Date)	Branch/Mail Code: Phone Number: 513-487-2352 FAX Number:	

Performance Work Statement
Contract EP-C-16-003
Work Assignment 1-02

Title of Project: Real Time Review (RTR) Analysis & Support for Region 5 NPDES Program Branch

Work Assignment Contract Officer's Representative (WACOR):

Quintin White
U.S. EPA, Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604
Phone: 312 886-3572
Email: white.quintin@epa.gov

Period of Performance: August 18, 2017 through June 30, 2018

Quality Assurance: No programmatic quality assurance project plan (PQAPP) necessary. The Performance Work Statement (PWS) does not require collection of environmental data and therefore does not need a PQAPP. Should it be determined that a Quality Assurance (QA) Project plan is required, the contractor must prepare it in conformance with EPA's *Requirements for Quality Assurance Project Plans for Environmental Data Operations (EPA QA/R-5).*

Background: Region 5 selects permits for Real Time Reviews (RTRs) based on the Clean Water Action Plan principle of identifying water quality problems and utilizing EPA's authority and tools to address them. The Clean Water Action Plan directly calls for utilizing one of the most direct tools that EPA has available to ensure NPDES permits issued by states are protective of water quality, that is to review the permits, and when necessary, object to those permits which do not meet federal standards. Region 5 focuses its resources on reviewing those discharges that pose the greatest threat to vulnerable populations and impaired waters. The Region annually undertakes a process to identify the expiring permits which discharge where there may be environmental justice concerns, drinking water sources, impaired waters, interstate issues, or compliance concerns. In all but one state (Ohio), permits are reviewed prior to going out on public notice. In addition, all general permits are reviewed. This selection process was identified as a National Best Practice in FY12. Region 5 always maintains and frequently exercises its right to review any draft or proposed permits beyond those specifically identified through the process.

Region 5 conducts RTRs of draft NPDES Permits while the permits are being developed and finalized rather than reviewing just those permits that have already been finalized. During FY2012 and FY2013, Region 5 reviewed permits consistent with the Memorandum of Agreement (MOA) authorizing Indiana, Ohio, Michigan, Illinois, Wisconsin, and Minnesota's NPDES programs. In addition, the review process requires that a revised copy of the proposed NPDES permit be transmitted to EPA together with a copy of all statements received during the public notice period. EPA's second review ensures that EPA's significant comments are

addressed in the final permit. At that time, the national Permit Quality Review (PQR) checklist is filled out. The RTRs ensure permits that are most critical to solving our Region's water quality problems are issued in a form compliant with the CWA and consistent with solving those problems. Completion of the PQR checklist on the final permit ensures a nationally consistent evaluation of permit quality is implemented.

GOALS AND OBJECTIVES:

The overall objective of the RTR Analysis and Support is the preparation of Fiscal Year (FY) 12/13 RTR reports and for FY14 utilizing existing draft reports and lessons learned from work on the FY12/13 reports, in addition to the review of recent data and information associated with permits reviewed in the FY12 through FY14 timeframe.

TASK DETAILS:

The contractor shall provide expertise in data/IT organization and analysis. In support of this effort the contractor shall identify professional staff chosen to complete TASKS 1 through 4 identified in the Scope of Work including:

- Academic background
- Experience working with NPDES programs, including Section 402 Clean Water Act (Act)
- Experience with NPDES permit writing and regulation
- Essential, knowledge and experience with RTRs
- Familiar with significant environmental issues associated with discharges into watersheds in the Great Lakes Basin
- Understand delegation agreements (State/Agency relationships) as it relates to US EPA National Pollution Discharge Elimination System (NPDES) Program and regulations

Kick-off Conference Call. Within seven (7) calendar days of receipt of the work assignment, the contractor shall contact the WACOR to schedule a Kick-off call. The contractor will participate in the Kick-off call and present the approach to complete TASKS 1 through 4 in the Scope of Work.

Contractor shall provide routine performance updates, estimated costs, level of effort and status reports on deliverables upon request from the WACOR and/or AWACOR.

SCOPE OF WORK:

Task 1: Review existing FY12/13 draft RTR's for Illinois, Michigan, Minnesota, Ohio, and Wisconsin (please note that a draft RTR will NOT be needed for the state of Indiana).

Task 2: Review data and information associated with NPDES permits evaluated in the FY14 timeframe.

Task 3: Prepare draft:

- FY12/13 RTR's for the states of Illinois, Michigan, Minnesota, Ohio and Wisconsin (please note that a draft RTR will NOT be needed for the state of Indiana);
- FY14 RTR's for the states of Indiana, Illinois, Michigan, Minnesota, Ohio and Wisconsin.

Task 4: Prepare final:

- FY12/13 RTR's for the states of Illinois, Michigan, Minnesota, Ohio and Wisconsin (please note that a draft RTR will NOT be needed for the state of Indiana);
- FY14 RTR's for the states of Indiana, Illinois, Michigan, Minnesota, Ohio and Wisconsin.

TASK 1 - Review existing FY12/13 draft RTR's

The contractor shall review draft RTR report components prepared by EPA which includes the list of permits evaluated and the compilation of individual permit evaluation results. The contractor shall edit and organize the report components into an initial Draft report consistent with a final report example (See attachment 1). The draft report components shall consist of state program description and practices, list of permits reviewed, descriptions of the EPA comments generated by each permit review, and identification of systemic issues and concerns. These RTR components shall be provided electronically by the EPA Project Manager. The Contractor shall prepare an initial draft of the RTRs and prepare a 1- to 3- page summary of findings for each RTR. 1 draft report per the following Great Lakes states: Illinois, Michigan, Minnesota, Ohio and Wisconsin plus a 1-2 page(s) executive summary of findings for each RTR (please note that an FY12/13 draft RTR will NOT be needed for the state of Indiana). Existing FY12/13 draft RTR reports for Illinois, Michigan, Minnesota, Ohio, and Wisconsin are attached (attachments 2-6).

TASK 2 - Review data and information associated with NPDES permits evaluated in the FY14 timeframe

The contractor shall review more recent data and information associated with permits reviewed during that timeframe in order to provide a more complete summary, within the RTR's, of status and outcomes associated with the individual permits reviewed (attachments 7-12). All permit specific data and information shall be transmitted by the Region.

The contractor shall organize data and contact the WACOR and EPA Technical Lead, (Technical Lead) for the project Manager to clarify and resolve any data questions, identify data needs and address HQ concerns, and format reports consistent with the provided report format to the degree possible.

Travel may be necessary. (See Section 7 Travel for details).

TASK 3 - Prepare draft RTR's for FY12/13 RTR's for the states of Illinois, Michigan, Minnesota, Ohio and Wisconsin (please note that a draft RTR will NOT be needed for the state of Indiana) and FY14 RTR's for the states of Indiana, Illinois, Michigan, Minnesota, Ohio and Wisconsin.

The Contractor shall provide initial draft RTRs (for FY12/13 and FY14) for each of the specific states listed above, working closely with the WACOR and Technical Lead (Technical Lead). EPA expects no more than two (2) drafts per state. There shall be the need to provide drafts for each of the six states that covers FY14. EPA estimates 18-24 hours per RTR as they will only require re-drafting the comments provided to match the format developed for the FY12/FY13 reports.

TASK 4 – Prepare final RTR's for FY12/13 RTR's for the states of Illinois, Michigan, Minnesota, Ohio and Wisconsin (please note that a draft RTR will NOT be needed for the state of Indiana) and FY14 RTR's for the states of Indiana, Illinois, Michigan, Minnesota, Ohio and Wisconsin.

The Contractor shall provide final RTR's (for FY12/13 and FY14) for each of the specific states listed above, working closely with the WACOR and Technical Lead. These final reports will be generated upon receipt of comments and EPA oversight.

DELIVERABLES AND SCHEDULE:

A list and schedule for project deliverables is provided in Table 1.

Table 1. Schedule of Deliverables for the RTR Analysis and Support

DELIVERABLE	NO. OF COPIES	DUE DATE (calendar days)
Task 1. Initial Draft Report	Electronic	45 days after work assignment awarded
Task 2. Identification of data gaps	Electronic	30 days after task awarded
Task 3: draft RTRs for each of the six states	Electronic	30 days from receipt of state comments
Task 4: Final RTRs for each of the six states	Electronic	30 days from receipt of government comments

Contractor shall notify the CO and WACOR in writing when 75% of the authorized work LOE/labor hours have been expended.

Contractor shall develop and maintain files supporting each task.

GOVERNMENT RESPONSIBILITIES:

EPA Region 5 will review drafts and provide input. Where a written deliverable is required in draft form, EPA Region 5 will complete its review of the draft deliverable, e.g. within 30

calendar days from date of receipt. The contractor shall then have 30 business days to deliver the final deliverable from date of receipt of the government's comments.

DELIVERABLES:

All written deliverables shall be phrased in layperson language. Statistical and other technical terminology shall not be used without providing a glossary of terms.

For each deliverable submitted electronically (MS Word), the contractor shall submit electronic copies to both the EPA Contract Officer and EPA Project Officer in a format that EPA can support. Deliverables shall be submitted through electronic mail, or through another method determined mutually acceptable by the contractor and EPA.

Each deliverable will be submitted in draft by the initial due date unless otherwise noted in this PWS. EPA will review the draft deliverables and provide comments. The contractor shall respond to these comments within one work week but no more than thirty (30) work days or otherwise requested by the WACOR. EPA expects no more than 2 drafts. Initial response to comments can be through electronic mail. Deliverables shall be revised upon direction from the WACOR within a time frame mutually agreed upon by EPA and the contractor, but within at least three (3) work days and no more than 30 work days. EPA will determine whether a deliverable is in an approvable and/or acceptable form. The EPA's determination will be based on the contractor's clarifications and/or revisions, including any necessary re-submittals. Written direction from the EPA can be through electronic mail.

All information and data related to this project that the contractor gathers or obtains shall be both protected from unauthorized release and considered the property of the government. The Contracting Officer will be the sole authorized official to release verbally or in writing, any data, the draft deliverables, the final deliverables, or any other written or printed materials pertaining to this contract. Press releases, marketing material, or any other printed or electronic documentation related to this project, must not be publicized without the written approval of the Contracting Officer.

CONTRACTOR IDENTIFICATION:

Contractor personnel shall always identify themselves as Contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative.

Any questions raised by the public regarding EPA policy should be responded to by EPA representatives, not contractor personnel. If EPA is not available to respond, the contractor shall provide the public with an appropriate agency contact.

TRAVEL:

Travel shall be in compliance with contract requirements. The contractor may plan 1 overnight travel trip for two people (staff working on the contract) for the purpose of meeting face-to-face

with Region 5 staff in Chicago. An additional travel to Chicago is permissible if needed. The additional travel must be discussed, prearranged (based on need) prior to approval. All travel must be approved by the WACOR and/or AWACOR.

WORK ASSIGNMENT MANAGER:

The Contractor shall provide a Work Assignment Manager. The Contractor's Work Assignment Manager shall be responsible for all of the work performed under this contract. This individual will be the primary point of contact for the WACOR.

The Contractor's Work Assignment Manager shall assign contractor personnel to various projects and direct their activities. Normal business hours are typically 7:00am – 5:30pm or as otherwise specified in the contract or work assignment. If the contractor requests to work outside of these hours they shall obtain prior approval from the WACOR. It is anticipated that a weekly meeting will occur between the Contractor's Work Assignment Manager and the WACOR. These meetings should last no more than 10-15 minutes per meeting.

The Contractor's Work Assignment Manager shall inform the WACOR regarding contractor performance and scheduling issues on all contract tasks, and sub-tasks. Written explanation of the problem and recommend resolution shall be made in 5 days.

SECURITY REQUIREMENTS:

This project does not involve security risk requiring background investigation. The contractor shall be responsible for the actions of all individuals provided to work under this contract. If damages arise from work performed by contractor-provided personnel under the auspices of this contract, the contractor shall be responsible for all resources necessary to remedy the incident.

DATA RIGHTS:

The EPA Region 5 shall have unlimited rights to and ownership of all deliverables provided under this PWS, including reports, recommendations, briefings, work plans and all other deliverables. This includes the deliverables provided under the basic PWS and any optional task deliverables exercised by the contracting officer. In addition, it includes any additional deliverables required by contract change. The definition of "unlimited rights" is contained in Federal Acquisition Regulation (FAR) 27.401, "Definitions." FAR clause 52.227-14, "Rights in Data-General," is hereby incorporated by reference and made a part of this contract/order.

CONFLICT OF INTEREST:

The contractor shall immediately notify the WACOR and the Contracting Officer of (1) any actual or potential personal conflict of interest with regard to any of its employees working on or having access to information regarding this contract, or (2) any such conflicts concerning subcontractor employees, consultants working on or having access to information regarding the contract, when such conflicts have been reported to the contractor. A personal conflict of interest is defined as a relationship of an employee, subcontractor employee, or consultant with an entity

that may impair the objectivity of the employee, subcontractor employee, or consultant in performing the contract work. See Section H.4, contract clause EP 1552.209-73 Notification of Conflict of Interest.

CONFERENCE/MEETING GUIDELINES AND LIMITATIONS:

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated $20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, AV and rental of venue costs, etc. The WACOR will then prepare approval internal paperwork for the event and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

SECTION 508 – ELECTRONIC AND INFORMATION TECHNOLOGY STANDARDS:

The contractor shall comply with Section 508 of the Rehabilitation Act (29 U.S.C. § 794d), as amended by the Workforce Investment Act of 1998 (P.L. 105-220), August 7, 1998.

Software Application Files and Accessibility
Software Application Files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, 1194.21 Software applications and operating systems and 1194.22 Web-based intranet and internet information and applications. See: http://www.section508.gov/

Preferred text format:	MS Word 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	PowerPoint, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, Version 6.0

List of Attachments:

1. Final TN Report 2016.pdf
2. MI Draft RTR FY12-13.doc
3. WI Draft RTR FY12-13.doc
4. IL Draft RTR FY12-13.doc
5. MN Draft RTR FY12-13.doc
6. OH Draft RTR FY12-13.doc
7. IL FY14 RTR – Draft Report.doc
8. IN FY14 RTR – Draft Report.doc
9. MI FY14 RTR – Draft Report.doc
10. MN FY14 RTR – Draft Report.doc
11. OH FY14 RTR – Draft Report.doc
12. WI FY14 RTR – Draft Report.doc

PERFORMANCE SURVEILLANCE PLAN			
Performance Requirement	**Measurable Performance Standards**	**Surveillance Methods**	**Incentives/Disincentives**
Management and Communications: During the life of this work assignment, the Contractor shall notify EPA immediately of any issues that may impact the timeliness of deliverables of the problems associated with the development of deliverables.	The Contractor shall maintain contact with the WACOR throughout the performance of the work assignment. The contractor shall identify to the WACOR any delays with regard to deliverables not less than one week prior to the deliverable date that has been established in the work assignment or technical direction document. The contractor shall identify to the WACOR any issues or concerns that have a direct impact on project schedules within three (3) days of occurrence. The contractor shall provide options for EPA's consideration on resolving or mitigating the impacts identified.	WACOR (as necessary) will allocate the time needed to discuss and address all issues identified by the Contractor. The WACOR will document and maintain a complete record of the issues, agreements and outcome. The WACOR will review monthly progress reports for indicators of problems not previously mentioned. The WACOR will also monitor the timely receipt of deliverables. For those that are late without prior notice, the EPA will formally document to the Contracting Officer the late delivery.	If the contractor fails to implement corrective actions after EPA identifies and provided written documentation of performance issues, EPA will rate this performance category "unsatisfactory." If three or more the active work assignments for the period are rated unsatisfactory, EPA will rate the Business Relations category as unsatisfactory in the CPARS Contract Performance System.
Cost Management and Control: The Contractor shall perform all work in an efficient and cost effective manner, applying cost	The Contractor shall monitor, track and accurately report level of effort, labor cost, other direct cost and fee expenditures to EPA through monthly progress reports and approved special reporting	The WACOR will routinely meet with the Contractor's Project Manager to discuss the work progress and contract and individual work assignment level expenditures.	EPA will thoroughly review work assignment funding ceiling overruns to determine the contractor's ability to control the situation. If EPA determines that the contractor failed to control cost, the contractor will be rated "unsatisfactory" in this category.

control measures where practical.	requirements. The Contractor shall assign appropriately leveled and skilled personnel to all tasks. The contractor should not exceed established work assignment ceilings and, in general, should expend dollars and hours at similar ratios. If either the expenditure of hours or dollars deviates significantly, the contractor shall provide an explanation in its Monthly Progress Report.	The WACOR and shall review the Contractor's monthly progress reports to ensure that ceilings are not exceeded, that progress is being made, and that the contractor is effectively utilizing the LOE provided under the work assignment.	Multiple incidents of work assignment overrun that result in an overall cost overrun of greater than 4% of the approved total work assignment funding for the current contract period, will result in an unsatisfactory rating in the CPARS Contract Performance System.
Quality of Product/Services: The contractor shall ensure documents developed under this work assignment are quality products that are factual and based on sound science and engineering principles.	Products delivered under this work assignment must not contain any major factual errors. The analyses provided in each product shall be logical, consistent, and defensible.	The WACOR will review all documents delivered under this work assignment for content accuracy.	If EPA determines that the contractor's analyses is factually inaccurate or if significant technical errors are found in any documents produced by the contractor, EPA may determine that the cost associated with redoing the work shall be borne by the contractor. Multiple incidents of this nature under the contract will result in an unsatisfactory rating for Quality and Manage Control being reported to the CPARS Contract Performance System.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 1-03

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-16-003	07/01/2016 To 06/30/2018 Base Option Period Number 1	NPDES Permitting Nutrients

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: Sections 3.4, 3.5, 3.7, 3.9

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 07/01/2017 To 06/30/2018

Comments:
No Work shall commence on this Work Assignment until July 1, 2017.

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period: 07/01/2016 To 06/30/2018 Cost/Fee: LOE:

This Action:

Total:

Work Plan / Cost Estimate Approvals

Contractor WP Dated: Cost/Fee LOE:

Cumulative Approved: Cost/Fee LOE:

Work Assignment Manager Name Danielle Stephan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-0759 FAX Number:	
Project Officer Name Tangela Cooper (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0369 FAX Number:	
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:	
Contracting Official Name Brad Heath (Signature) 6/3/2017 (Date)	Branch/Mail Code: Phone Number: 513-487-2352 FAX Number:	

PERFORMANCE WORK STATEMENT
CONTRACT EP-C-16-003
WORK ASSIGNMENT 1-03

TITLE: Support for NPDES Permitting Activities for Nutrient Pollution

WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WACOR):

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ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (ALTERNATE WACOR):

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PERIOD OF PERFORMANCE: July 1, 2017 through June 30, 2018

BACKGROUND

Water Permits Division (WPD), within the Office of Wastewater Management (OWM), is responsible for the implementation and oversight of the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates point source discharges of pollutants to surface waters of the United States. To effectively implement the NPDES program, WPD develops national regulations, policies, and guidance, and supports the Environmental Protection Agency (EPA), Regions, Tribes, and States. WPD also provides technical support to the regulated community in assuring compliance with the Clean Water Act (and other statutes as they relate to the NPDES program).

Nutrient pollution consists of excess contributions of nitrogen and phosphorus to the Nation's surface waters and has consistently ranked as one of the top causes of degradation in U.S. waters for more than a decade. Excess nitrogen and phosphorus lead to significant water quality

problems including harmful algal blooms, hypoxia and declines in wildlife and wildlife habitat; as recently seen in places like the Gulf of Mexico and Chesapeake Bay.

Current approaches developed to address permitting for toxic pollutants do not fully address the issues associated with developing nutrient permit limits that protect water quality standards. Many waterbodies do not have numeric criteria for nutrients. The effects of nutrient pollution are widespread and the sources are from both, point and non-point sources. Permitting authorities are often faced with a daunting task of protecting water quality, especially on impaired waters where no TMDL has been developed.

It is essential that WPD effectively communicate information related to nutrient pollution in NPDES permits and how state and regional permitting authorities can address nutrient pollution. Using existing data sources and information about existing state implementation procedures, WPD Developed and implemented a series of in-person trainings *to* ensure the NPDES program effectively and efficiently achieves programmatic goals and protects water quality related to nutrient pollution.

To assist permit writers in determining how to develop permit limits for nutrient pollutants under such conditions, EPA is;

1. Adapt "in-person" training materials that have already been developed and piloted with state and regional permitting authorities to an online version that will be more readily available to permit writers,
2. Support 7 "in person" nutrient trainings/workshops with state permit writers and managers over the next 5 years
3. Support state and regional permitting authorities develop implementation procedures and water quality-based effluent limits for nutrients
4. Reviewing state water quality standards, implementation procedures, permits with nutrient limits, reasonable potential procedures, nutrient reduction strategies, technical documents developed by external stakeholders, and other information sources to inform the development of additional training resources and options for additions nutrient permitting practices.
5. Providing regular updates on the status of nutrient limits and monitoring requirements in NPDES permits.

OBJECTIVE

The objective of this work assignment is to provide technical support to EPA in its continued efforts to communicate information on nutrient pollution to NPDES permit writers on the state of nutrient requirements in NPDES permits, review and summarize state and regional implementation procedures related to nutrients, and update and develop online nutrients

training materials. The target audience is NPDES permit writers, state and regional water program managers and other key NPDES program stakeholders, such as regulated point source dischargers.

As outlined above, technical support will include the following:

1. Nutrient Training Activities
   a. **In-Person Training Materials and instructor** - the contractor shall provide support to EPA NPDES training staff for one instructor for an in person training in June 2017. The location and sate are still to be determined.
   b. **Online Training Materials** -Technical support will include the adaptation of existing training materials used to train state and regional NPDES permit writers to an online version of the training. Support will also entail assisting EPA in informing, educating, and involving key NPDES program stakeholders and permit writers on issues affecting implementation of the NPDES program as it pertains to the training. Reference guidances includes but is not limited to, the Technical Support Document for Water Quality-based Toxics Control (1991), the U.S. EPA NPDES Permit Writers' Manual, Watershed-based NPDES Permitting Technical Guide, and Watershed- based permitting technical and implementation guidance, Water Quality Trading Toolkit for Permit Writers.
2. **White papers related to State nutrient permitting procedures and practices and alternative nutrient permitting practices (e.g. alternative statistics than those presented in the TSD, watershed approaches, predictive models etc.)** – the review and development of summary documents/white paper on the of current state and regional permitting practices related to the implementation of nutrient criteria both numeric and narrative, and additional/alternative permitting approaches, statistics, models and critical conditions identified in various external stakeholder technical documents (to be provided to the contractor from the EPA WACOR) In order to narrow/focus these papers, the contractor and EPA WACOR shall first engage in a scoping meeting to brainstorm what the scope of each of the topic papers will be.

Performance Work Statement: Contract Sections 3.4, 3.5, 3.7, 3.9

The administrative and technical tasks to be provided by the contractor under this work assignment shall support management, technical and logistical tasks associated with developing training materials and delivering the NPDES Permit Writer's nutrients training course, and review and analysis related to implementation procedures for nutrient water quality standards. The contractor will not be involved in Agency policy or decision making.

Task 0: Program Management

The contractor will prepare and submit a work plan and cost estimate that outlines the technical approach, methodology, and resources to be used to complete this work assignment. This work plan will include a list of the key personnel that will participate in the work assignment and an estimate of direct costs such as travel, computer costs, typing, etc.

The program management task also includes preparation and submission of the monthly progress report and invoice. By the 20th of each month, the contractor will electronically submit to the EPA WACOR, CL-COR, and CO a progress report that documents the costs incurred and work performed during the previous accounting period, and work planned for the current accounting period. The progress report will highlight the hours and dollars expended as a percentage of the allocated hours or dollars. The report will also list by task the amount of work completed, include a table of hours by personnel, and identify any problems or difficulties.

This task also provides for contract management, including discussions between the CL-COR and the ERG Program Manager and discussions between the EPA WACOR, and the contractor. The EPA WACOR and appropriate contractor staff will conduct teleconferences and/or meetings with the EPA WACOR to coordinate activities, review schedules, and discuss deliverables.

Task 1: Support and Participate in Workgroup and Work Planning Meetings

The contractor shall participate in up to 20 workgroup meeting/conference calls lasting up to 2 hours with the EPA WACOR and key stakeholders to discuss the training materials and related document and workgroup comments. The contractor shall also participate in up to 8 work planning meetings with the EPA WACOR, program experts and workgroup members. EPA will schedule and initiate each call or meeting. For each conference call, the contractor shall facilitate and provide technical subject matter expertise to these discussions.

Deliverables: Attendance at all calls

Task 2: Support for the NPDES Permit Writer's Training Course on Nutrient Pollution

Pre-course support: The Contractor shall provide technical support for updates to training materials developed for the "NPDES permit writers specialty workshop" under EPA CONTRACT NO. EP-C-11-009 Work Assignment 03. It is not anticipated that there will be an in person training during this Option period, however, this individual should be involved with editing and developing materials in Task 3.

Instructor(s): The Contractor shall provide one qualified instructor to conduct the NPDES Permit Writers' Training Course/workshop on Nutrient Pollution. Instructors will utilize the materials

developed for the "NPDES permit writers specialty workshop" under EPA CONTRACT NO. EP-C-11-009 Work Assignment 03. Contractor will propose a draft list of names, biographical information and a resume for discussion with EPA WACOR prior to submitting a final list to EPA. The instructors selected by the contractor and approved by EPA for a given course shall participate in several practice sessions and training planning sessions with EPA training staff to bring the contractor up to speed about the training ahead of presenting at an in person training. For planning purposes, the contactor should plan on up to 5 half day practice sessions at EPA HQ offices.

Deliverables:

	Deliverable	Due by
1	List of candidate instructors for EPA selection and approval	With work plan submission
2	Updated draft course materials	30 days after EPA WACOR technical direction

Task 3: EPA HQ NPDES Nutrients On-line Course for EPA WPD/OWM's NPDES Website:

Technical Expertise: The Contractor shall provide at least one individual who is an expert in developing online training materials using the "*articulate storyline*" software. In additional, the same individual identified in Task 2 above, should be involved in assisting EPA WACOR in responding to and making updates to the materials for the online training based on comments from the Beta testing reference below

Revise training materials and produce final training: EPA has completed the beta testing phase on an 8 module training for permit writers on how to adapt the TSD procedures for the use of developing water-quality based effluent limits for nutrients. The EPA WACOR, contractor and team were in the process of incorporating edits from comments received during the beta testing phase of this project at the end of the previous option period. This Task is a continuation of the work performed under Task 2 in WA 0-03. Upon consolidation of all comments received during the beta testing process, the contractor, working closely with the EPA WACOR, will review the comments and revise and finalize the on-line Nutrients course, as necessary. Edits shall include, but are not limited to:

- ensuring that the scripts are updated and accurately reflect any changes to script and/or audio,
- the slide animation on all slides matches the audio,
- re-record any sections of the training that require content changes,
- all available resources and hyperlinks are working properly.
- for possible concept refinements for better viewer understanding,
- errors in the visual or narration presentations,

- pacing or clarity of the presentations
- automated toggles or other course exercise features work including the certificate generation.

Upon completion of the beta testing phase, and after all comments selected by the EPA WACOR are addressed, the contractor will deliver a draft final NPDES Nutrients on-line course for EPA WACOR's final review within 30 days of completion and incorporation of beta testing comments.

Upon final review and as directed by EPA WACOR, the contractor shall deliver,

1. the final training electronically though EPA's SharePoint site, or contractor equivalent file transfer site, to post the final on-line course on EPA's WPD/OWM NPDES website which meets all of EPA's format and/or website posting requirements,
2. two compact discs or memory sticks of the final EPA HQ NPDES Nutrients on-line course which includes the flash presentation and the webcast recordings, and
3. A PDF version of the online Training slides and Transcript

Uploading to EPA's Website and development of communication and outreach materials- The contractor shall draft a fact sheet to announce the EPA NPDES **Nutrients** on-line course for use with the EPA's communication strategy, public announcement releases (EPA Regions, states, stakeholders, EPA briefings and public meetings or workshops), and posting on EPA's NPDES website with links to the on-line course. Once the EPA WACOR and EPA HQ managers have approved the final product the contractor will coordinate with the appropriate EPA NPDES website managers to upload the EPA HQ NPDES **Nutrients** on-line course and "go live." If after going live if there are problems the EPA contractor and the EPA WACOR will discuss with the EPA website managers what needs to be fixed or adjusted to ensure proper operation and use by public viewers.

Deliverables:

	Deliverable	Due by
1	Updated matrix of comments and proposed resolutions	within 15 days of receiving comments from EPA WACOR
2	Draft NPDES Nutrients on-line course for EPA's final review after editing to incorporate comments from Beta test	Within 30 days of final comments from EPA WACOR.
3	Final NPDES Nutrients on-line course: • deliver electronically via EPA SharePoint site • two compact discs or memory sticks (including flash presentation and the webcast recordings) • PDF file of course slides and transcript compliant with all EPA web posting	Within 15 days of final comments from EPA WACOR

	requirements (i.e. 508 compliant etc.)	
4	Communication and outreach materials	15 days after EPA WACOR technical direction

Task 4 (Contract PWS 3.4, 3.5, 3.7): Review of State nutrient permitting procedures and alternative nutrient permitting practices

The contractor shall research and develop a series of white papers about various aspects of the NPDES program as it related to nutrient permitting. The contractor shall continue to develop white papers identified in WA 0-03. The whitepapers are as follow:

- Framework for Conducting an Impracticability Analysis for Effluent Limitations with Alternative Averaging Periods under 40 C.F.R. § 122.45(d)(2)
- Adapting Probability Basis Values in the Water Quality-Based Effluent Limitations (WQBELs) Calculations for Nutrient Criteria

The contractor and EPA WACOR shall engage in a scoping meeting to brainstorm content for 1-3 additional white papers. Topics for these white papers may include, but are not limited to:

- implementation procedures of numeric nutrient criteria numeric
- implementation procedures of narrative criteria numeric,
- review of alternative critical conditions selection to support the adapted TSD approach to support content of the nutrient training developed under task 2
- technical review and policy impacts of alternative permitting approaches (alternative to TSD approach) identified in various external stakeholder technical documents (to be provided to the contractor from the EPA WACOR)
    - Technology based approaches to permitting for nutrients
    - Watershed approaches to permitting for nutrients
    - Alternative statistical methods
    - Use of dynamic, predictive models

For each white paper, the contractor shall deliver a detailed outline for the paper concept and, upon review and comments from EPA WACOR, develop a draft white paper on each selected topic.

For planning purposes, the contractor shall assume each paper will be no more than 10 pages in length and will contain a combination of technical analysis and policy/guidance review for impacts on existing regulations, policy and guidance.

Deliverables:

	Deliverable	Due by
1	For each whitepaper, a draft outline of the major concepts in the paper	within 15 days of receiving comments from EPA WACOR
2	Draft white paper	Within 30 days of final comments from EPA WACOR.
3	Final white paper incorporating comments from WACOR	Within 15 days of final comments from EPA WACOR

Task 5: Analyze and Compile Effluent Data on Nutrient Pollution

In accordance with EPA's protocol, for fiscal year ending September 2017, the contractor shall pull data on any parameter code related to nutrient pollution for all 50 states and major territories from the Integrated Compliance Information System (ICIS-NPDES). In addition to data pulled from ICIS-NPDES, the contractor shall pull equivalent data from the EPA's Discharge Monitoring Report (DMR) Pollutant Loadings Tool. The purpose of this data pull is to aid in the comparison of data pulled directly from ICIS-NPDES with data pulled from the Loadings Tool. This analysis will help ensure the consistency of EPA's Office of Waste Management's nutrients data with data that is used by EPA's Office of Oceans Wetlands and Watershed (OWOW) data pulls on behalf of the Hypoxia Task Force. The DMR Loadings Tool can be found at: http://cfpub.epa.gov/dmr/

The contractor shall deliver up to 15 reports that summarize trends in the permit limit data with a focus on permit limit characteristics and monitoring requirements for individual permits and general permits. These reports will include a set of data reports using the data pull from ICIS with facilities outside of the Mississippi/Atchafalaya River Basin (MARB) filtered out, and a set of data reports using the data pull from the DMR Loadings Tool with facilities outside of the MARB filtered out. The contractor shall also deliver a table of NPDES nutrient monitoring and limits data, using the data from the ICIS data pull, and formatted in accordance with EPA's web format.

The requirements of each report and table will be provided through written technical direction from the EPA WACOR and deliverables will generally be due 14 working days after technical direction is given. EPA's permitting protocol, and the format for the nutrients table that is on EPA's website are each attached.

The contractor shall analyze available data ICIS-NPDES for the following data field for individually and general permitted dischargers:

Appendix 1 – List of fields to pull from ICIS SAP Business Intelligence for permits with nutrient monitoring/limits

Region Code
State Code
NPDES ID
Facility Type Code
Facility Type Desc
Permit Name
Facility Name
Location Address
Supplemental Address
City
State
Code
Zip
County Name
Section Township Range
Latitude in Decimal
Degrees Longitude in
Decimal Degrees
Horizontal Accuracy
Measure
Source Map Scale Number
Reference Point Desc
Geometric Type Desc
Horizontal Collect Method
Desc
Horizontal Reference
Datum Desc
HUC Code
Tribal Land Code
Tribal Land Name
USBC Tribal Land Code
Permit Type Code
Permit Type Desc
Facility Type Indicator
Curr. Major Minor Status
Total App. Design Flow
(MGD)
Total Actual Average Flow
(MGD)
Permit Status Code
Permit Status Desc

Issue Date
Effective Date
Expiration Date
State Water Body
State Water Body Name
Perm Feature Type Desc
Perm Feature Desc
Perm Feature
Latitude/Longitude.
Latitude in Decimal
Degrees
Perm Feature
Latitude/Longitude.
Longitude in Decimal
Degrees Perm Feature
Latitude/Longitude.
Horizontal Accuracy
Measure (Meter) Perm
Feature
Latitude/Longitude. Source
Map Scale Number Perm
Feature
Latitude/Longitude.
Reference Point Desc Perm
Feature
Latitude/Longitude.
Geometric Type Desc
Perm Feature
Latitude/Longitude.
Horizontal Collect
Method Desc
Perm Feature
Latitude/Longitude.
Horizontal Reference
Datum Desc
Perm Feature Water Body.
RAD Reach ID
Perm Feature Water Body.
RAD HUC Code based on
Reach ID

Perm Feature Water Body.
RAD Water Body Name
Perm Feature Water Body.
State Water Body Code
Perm Feature Water Body.
State Water Body Name
Perm Feature ID
Perm Feature Flow. App
Actual Average Flow
(MGD) Perm Feature Flow.
Application Design Flow
Limit Set Designator
Limit Set Name
Limit Set Type Desc
Limit Set DMR Comments
Change of Limit Status
Desc Parameter Code
Parameter Desc
Monitoring Location Code
Monitoring Location Desc
Limit Season ID All Months
Limit Applies - Short Basis
Of Limit Code Basis Of
Limit Desc
Eligible for Burden
Reduction?
Any Effluent Trade in
Place?
Limit Type Code
Limit Type Desc
Limit Start Date
Limit End Date
Limit Frequency of Analysis
Desc
Limit Sample Type Desc
Limit Unit Short Desc
Limit Unit Desc
Limit Value Type Code
Limit Value Type Desc
Limit Value

Limit Value Consolidation
Limit Value Requirement
Short Statistical Base Short
Desc Statistical Base Long
Desc Limit Value Qualifier
Code Primary Permit SIC
Code Primary Permit SIC
Desc Permit SIC Code
Permit SIC Desc
Permit SIC Primary
Indicator
Primary Permit NAICS Code
Primary Permit NAICS Desc
Permit NAICS Code
Permit NAICS Desc
Permit NAICS Primary
Indicator Primary Facility
SIC Code
Primary Facility SIC Desc
Facility SIC Code
Facility SIC Desc
Facility SIC Primary
Indicator Primary Facility
NAICS Code Primary
Facility NAICS Desc Facility
NAICS Code
Facility NAICS Desc
Facility NAICS Primary
Indicator
Component Type Code
Component Type Desc
Curr. Compl. Track. Status
Curr. Compl. Track. Status
Start Dt
Curr. Compl. Track. Status
End Dt
Dmr Non Receipt Flag
Rnc Tracking Flag MGP
NPDES ID MGP Gen. Perm.
Industrial Cat. Desc.
FRS Facility UIN
FRS HUC Code
ICIS Facility Interest ID

Raw data reports for individual and general permitted facilities should be provided to EPA in separate files.

Deliverables:

	Deliverable	Due by
1	Nutrient permitting data analysis report from ICIS-NPDES	Within 14 days of receipt of Technical Direction from the EPA WACOR
2	Nutrient permitting data analysis report from ICIS-NPDES and the DMR Loadings Tool, filtering out all of the facilities outside of the Mississippi River Basin watershed	Within 14 days of receipt of Technical Direction from the EPA WACOR
3	Table of nutrient permitting data from ICIS-NPDES, using EPA's web format	Within 14 days of receipt of Technical Direction from the EPA WACOR

ESTIMATED LEVEL OF EFFORT:

EPA estimates the additional level of effort ordered in this Statement of Work is 790

REPORTING:

Reports shall be submitted in accordance with the reporting requirements of the contract. In addition, the contractor shall maintain contact with the EPA WACOR to advise the WACOR of progress and problems. All documents shall be delivered in a format compatible with Microsoft Office 2013, HTML, and/or PDF format, as requested by the EPA WACOR. The contractor shall notify the EPA WACOR immediately when expenditures of 75% and 90% of the work assignment LOE or funding (including pipeline costs) are reached.

The contractor shall be prepared to submit for inspection copies of all work in progress any time as requested by the EPA WACOR. The contractor shall not release information or comments on works performed under this work assignment without the EPA WACOR's prior written authorization. Wherever practicable, any written materials submitted to EPA must be doubled-sided and on recycled paper. Any computer disks submitted to the EPA WACOR shall be scanned for and identified as free from viruses.

ANTICIPATED TRAVEL REQUIREMENTS:

Some limited local travel may be necessary to attend meetings with the EPA WACOR.

ADDITIONAL REQUIREMENTS:

Upon issuance of written technical direction, the contractor shall submit for inspection all work in progress at any time under this work assignment. The contractor shall develop and maintain files supporting each task. The contractor shall contact the EPA Contract-Level Contracting Officer's Representative (CL-COR) and/or WACOR by telephone to discuss any problems that may adversely affect the work on this Work Assignment. Within five (5) calendar days the contractor shall follow the phone call with a brief written explanation of the problem, including any actions already taken, and/or recommended solutions to correct the problem. Written explanation shall be made available to the EPA CL-COR and the WACOR.

CONTRACTOR IDENTIFICATION:

To avoid any perception that contractor personnel are EPA employees, the contractor shall assure that contractor personnel are clearly identified as independent contractors of EPA when attending meetings with outside parties or visiting field sites.

CONTROL REQUIREMENTS:

1. Quality Assurance Project Plan (QAPP):

A quality assurance project plan (QAPP) is not required for Tasks 0, 1, 2, and 3 of this work assignment. However, Task 4 will require a Quality Assurance Project Plan (QAPP) which outlines the contractor's decision criteria that the contractor used in developing data analysis and summary charts for nutrient permitting data. The sources of the information collected by the contractor for EPA are primarily from publicly available information sources and considered secondary data. The data quality objective for this information is that the nutrient permitting data analysis factually represent the information contained in the source documentation.
The contractor shall refer all policy related questions to EPA. The contractor shall provide QAPP for tasks 4, within 15 days of receipt of work assignment.

2. Organizational Conflict of Interest:

The contractor shall warrant that, to the best of the contractor's knowledge and belief, there are no relevant facts or circumstances which could give rise to an organizational conflict of interest, as defined in FAR Subpart 9.5, or that the contractor has disclosed all such relevant information. See contract clause 1552.209-71 Organization of Conflict of Interest.

3. Notification of Conflicts of Interest Regarding Personnel:

The Contractor shall immediately notify the Contract-Level Contracting Officer's Representative (CL-COR) and the Contracting Officer of (1) any actual or potential personal conflict of interest with regard to any of its employees working on or having access to information regarding this contract, or (2) any such conflicts concerning subcontractor employees or consultants working

on or having access to information regarding the contract, when such conflicts have been reported to the Contractor. A personal conflict of interest is defined as a relationship of an employee, subcontractor employee, or consultant with an entity that may impair the objectivity of the employee, subcontractor employee, or consultant in performing the contract work. See Section H.4, contract clause EPAAR 1552.209-73 Notification of Conflict of Interest.

4. Enforcement Sensitive Information:

The contractor recognizes that contractor employees in performing tasks specified by this WA may have access to data/information, either provided by the government or first generated during contract performance, of enforcement sensitive nature which should not be released to the public without Environmental Protection Agency (EPA) approval. Enforcement sensitive refers to records or information compiled for law enforcement purposes (whether administrative, civil or criminal), the disclosure of which could reasonably be expected to interfere with the enforcement action. It is imperative that all contractor personnel, including but not limited to, subcontractor and consultant personnel assigned to work on this contract and/or WA, or with access to materials developed pursuant to such efforts, understand that this information is confidential and any disclosure or misuse of the information may result in prosecution to the fullest extent of the law. All contractor personnel are expected to exercise due diligence in safeguarding, handling or disposing of any such information.

5. Project Employee Confidentiality Agreement

The contractor agrees that the contractor employee will not disclose, either in whole or in part, to any entity external to the EPA, the Department of Justice, or the contractor, any information or data (as defined in FAR Section 27.401) provided by the government or first generated by the contractor under this contract, any site-specific cost information, or any enforcement strategy without first obtaining the written permission of the EPA CL-COR. If a contractor, through an employee or otherwise, is subpoenaed to testify or produce documents, which could result in such disclosure, the contractor must provide immediate advance notification to the EPA so that the EPA can take action to prevent such disclosure. Such agreements shall be effective for the life and for a period of five (5) years after completion of the contract.

6. Handling of Confidential Business Information (CBI)

Contractor's access to TSCA CBI must comply with the procedures set forth in the TSCA CBI Security Manual. Likewise, access to FIFRA CBI shall follow the security procedures set forth in the FIFRA Information Security Manual.

To the extent that the work under this contract requires access to proprietary or confidential business or financial data of other companies, and as long as such data remains proprietary or confidential, the contractor shall protect such data from unauthorized use and disclosure.

All files or other information identified as Confidential Business Information (CBI) shall be treated

as confidential and kept in a secure area with access limited to only contractor personnel directly involved in the case or special project assignment. The contractor, subcontractor, and consultant personnel are bound by the requirements and sanctions contained in their contracts with the EPA and in EPA's confidentiality regulations found at 40 CFR Part 2, Subpart B. Subcontractors and consultants must adhere to EPA-approved security plans which describe procedures to protect CBI, and are required to sign non-disclosure agreements before gaining access to CBI.

All official data, findings, and results of investigations and studies completed by the contractor shall be available for EPA and DOJ internal use only. The contractor shall not release any part of such data without the written direction of the WACOR.

7. Conference/Meeting Guideline and Limitations

The contractor shall immediately alert the EPA WACOR to any anticipated event under the work assignment which may result in incurring an estimated $05,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, AV and rental of venue costs, etc. The EPA WACOR will then prepare approval internal paperwork for the event and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

NUTRIENT POLLUTION DATA COMPILATION AND ANALYSIS

CONTRACT EP-C-11-009, WORK ASSIGNMENT 5-03, TASK 2, TECHNICAL DIRECTIVE #1

LAST UPDATED: APRIL 15, 2016 (VERSION 3)

Process for Extracting Information from ICIS on NPDES Permits with Nutrient Requirements (Monitoring and/or Limits):

1. **Extract permit, facility, and limits data from ICIS SAP Business Intelligence**
    a. Query Logic
        i. Fields to pull

        ii. Constraints/Caveats
            1. Current Version Only filter
            2. Parameter Code In List:

            3. Permit Status Code In List: ADC (Admin Continued); EFF (Effective); EXP (Expired)
            4. Permit Type Code In List: NPD (NPDES Individual Permit); GPC (General Permit Covered Facility)
            5. Limit Value Type Code Is Not Null
               OR
               [Limit Value Type Code Is Null
               AND
               State Code In List: IA (Iowa)]
    b. Report Logic
        i. Reports to Populate
            1. Limit Records (Limit and Monitoring-only Records)
            2. Facilities
            3. Outfalls
            4. Limit Sets
            5. Params by State
            6. DMR Comments (preprinted comments on DMR form)
            7. Components
            8. Ref Tables
            9. Query Summary (general information about ICIS Business Intelligence query)
        ii. Constraints/Caveats
            1. Add user-defined variable "PTYP (PCS Legacy)", which pulls the third character of the "NPDES ID". Used for filtering out non-wastewater or non-NPDES facilities.
    c. Issues with downloading Business Intelligence documents in .xlsx format.

2. **Filtering and preparing extracted data for analysis**
    a. Framework for screening data in Access
        i. Import Limit Records tab from Excel to Access
        ii. Add the following columns to the imported permit universe table
            :

Field Name	Data Type
ReasonForDeletion	Short Text
IndustryCat	Short Text
ParamCat1	Short Text
ParamCat2	Short Text
ParamCat3	Short Text
LimitOrMonitor	Short Text
UnitType	Short Text
LimitUnit_stdized	Short Text
NumericLimitValue_stdized	Number (Double)
FreqStatbaseCombo	Short Text
LimitExpression	Short Text
DataTranslated	Long Text

        iii. Translate any records that appear to have data migration issues
            1. 279 facilities (All in Michigan) from the Limits/Monitoring Pull (February 2015) were identified with "NPD" Permit Types but had NPDES IDs consistent with ones linked to a General Permit (MIG08, MIG57, MIG58, MIG96)
        iv. Filter out the following records:
            1. Have Permit Type "NPD" (NPDES Individual Permit)
               AND have "NPDES IDs" used for CAFOs, stormwater facilities, general permit covered facilities, and unpermitted facilities (Use "PTYP (PCS Legacy)" field for filtering)
            2. Have Permit Type "GPC" (General Permit Covered Facility)
               AND facility is covered under a State-Issued Non-NPDES General Permit (run SELECT query that matches the facility's "MGP NPDES ID" to the State Non-NPDES General Permit "NPDES ID")
            3. Have Permit Type "GPC" (General Permit Covered Facility)
               AND facility is covered under an NPDES General Permit
               AND have "NPDES IDs" used for CAFOs, stormwater facilities, or unpermitted facilities (Use "PTYP (PCS Legacy)" field for filtering)
            4. Permitted Feature Type not equal to "External Outfall" or "Sum"
            5. Monitoring Location Code not equal to:

Monitoring Location Code	Monitoring Location Description
1	Effluent Gross
2	Effluent Net
A	Disinfection, Process Complete
B	Prior to Disinfection
EG	Effluent Gross
SC	See Comments
Y	Effluent Gross (Supplementary)

6. Measuring units that are neither concentration-based nor mass-based (e.g., percent, ratio, yes/no, pass/fail, descriptive)

v. Copy and paste the filtered-out records into a new worksheet, then delete the filtered-out records from the Limit Records worksheet.

b. Framework for manipulating data in Access

i. Update Table Limit Records with predefined formula for Column "FreqStatbaseCombo"

ii. Update Table Limit Records with predefined steps and formulas for the following columns: "IndustryCat"; "ParamCat1"; "ParamCat2"; "ParamCat3"; "LimitOrMonitor"; "UnitType"; "LimitUnit_stdized"; "NumericLimitValue_stdized"; "FreqStatbaseCombo"; "LimitExpression"

Process for Developing the Total NPDES Individual and General Permitted Facility Universe:

3. Extract permit data from ICIS SAP Business Intelligence

a. Query Logic

i. Fields to pull

ii. Query filters

1. Current Version Only filter
2. Permit Status Code In List: ADC (Admin Continued); EFF (Effective); EXP (Expired)
3. Permit Type In List: NPD (NPDES Individual Permit); GPC (General Permit Covered Facility); SNN (State Non-NPDES Master General Permit)
   NOTE: Due to errors with pulling large data sets in SAP Business Intelligence, might have to run separate queries for the three permit types to be pulled.

b. Report Logic

i. Reports to Populate

1. Basic Universe Info
2. Permit SIC Codes
3. Permit NAICS Codes
4. Facility SIC Codes
5. Facility NAICS Codes
6. Components
7. Ref Table
8. Query Summary (general information about ICIS Business Intelligence query)

ii. Constraints/Caveats

1. Add user-defined variable "PTYP (PCS Legacy)", which pulls the third character of the "NPDES ID". Used for filtering out non-wastewater or non-NPDES facilities.

c. Issues with downloading Business Intelligence documents in .xlsx format.

4. **Filtering and preparing extracted data for analysis**
    a. Framework for manipulating data in Access
        i. Combine the Permit Type "NPD" and "GPC" data into one spreadsheet.
        ii. Import downloaded ICIS data from Excel to Access
        iii. Add the following columns to the imported permit universe table:

Field Name	Data Type
ReasonForDeletion	Short Text
DataTranslated	Long Text

        iv. Translate any records that appear to have data migration issues
            1. 376 facilities (All in Michigan) from the Limits/Monitoring Pull (February 2015) were identified with "NPD" Permit Types but had NPDES IDs consistent with ones linked to a General Permit (MIG08, MIG57, MIG58, MIG96)
        v. Run a delete query to remove any MS4 permits with "MS4", "stormwater", or "storm water" in their ICIS Permit Name or Facility Name (this is done to remove any MS4 permits that do not have "S" as the third character of the NPDES ID)
        vi. Run a delete query to remove all general permitted facilities whose Master General Permit NPDES ID is for a State Non-NPDES General Permit.
        vii. Run a delete query to remove all other permits with non-numeric 3rd characters, except for general permitted facilities with third character "F" or "G", regardless of major/minor status with a letter as the third character in the NPDES ID (intended to remove CAFO, stormwater, and non-NPDES permits such as pretreatment, groundwater, etc., that have been entered into ICIS incorrectly)
        viii. Run a delete query to remove permits with no date information in any field

Process for Analyzing Nutrient Requirement Data:

5. **Analyze Potential Discharging Universe for Industrial Facilities**
    a. Based on two lists of SIC codes: the first was developed by WPD in 2010 and the other was developed by OECA for the DMR Pollutant Loading Tool.
    b. The two lists were merged together into one and are considered to be the potential universe of industrial facilities for this task.
    c. Current list contains 411 SIC codes

    d. General Query Logic for Defining the Potential Universe
        i. "INNER JOIN" data table (i.e., Limit/Monitoring Records data, Permit Universe data) to reference table (i.e., Potential Universe SICs)
    e. Example SQL code for defining the Potential Universe in a table (using the Limit/Monitoring Records data table `[LimitRecords]` and the reference potential universe SIC table `[Ref_SIC Code_Potential Industrials]`):

```
UPDATE LimitRecords INNER JOIN [Ref_SIC Code_Potential Industrials] ON
       LimitRecords.[Primary Permit SIC Code] = [Ref_SIC Code_Potential
       Industrials].[SIC Code] SET LimitRecords.IndustryCat = "P"
WHERE (((LimitRecords.IndustryCat) Is Null));
```

6. **Analyzing extracted data for <u>Individual Permit</u> Universe – the following reports were developed from the raw data above (II = Individual Potential Industrial facilities; IM = Individual Municipal [Domestic WWTF] facilities):**
    a. **Report II-1:** Universe of Individual Industrial Permits with Nutrient Requirements (potential discharging universe only)
        i. Rows: State | EPA Region
        ii. Columns:
            1. Total Potential Nutrient Discharging Universe | Number of Permits with Limits | Number of Permits with Monitoring Requirements| Number of Permits with Any Requirement
            2. # Majors | # Non-Majors | # Total | % Majors | % Non-Majors | % Total
    b. **Report IM-1:** Universe of Individual WWTF Permits with Nutrient Requirements
        i. Rows: State | EPA Region
        ii. Columns:
            1. Total WWTF Universe | Number of Permits with Limits | Number of Permits with Monitoring Requirements | Number of Permits with Any Requirement
            2. # Majors | # Non-Majors | # Total | % Majors | % Non-Majors | % Total
    c. **Report II-2:** Number of Individual Industrial Permits with Numeric Limits by Parameter Category (potential discharging universe only)
        i. Rows: State | EPA Region
        ii. Columns:
            1. Total Universe of potential Nutrient discharging Permits | Parameter Category Level 1 | Total Permits with Nutrient Limits
                a. Parameter Category (Nitrogen only | Phosphorus only | Dual Control)
            2. Majors | Non-Majors
            3. # of Permits | % of Total Universe
    d. **Report IM-2:** Number of Individual WWTF Permits with Numeric Limits by Parameter Category
        i. Rows: State | EPA Region
        ii. Columns:
            1. Total Universe of Permits | Parameter Category Level 1 | Total Permits with Nutrient Limits
        iii. Parameter Category (Nitrogen only | Phosphorus only | Dual Control)
            1. Majors | Non-Majors
            2. # of Permits | % of Total Universe
    e. **Report II-3:** Number of Individual Industrial Permits with Monitoring Requirements by Parameter Category (potential discharging universe only)
        i. Rows: State | EPA Region
        ii. Columns:
            1. Total Universe of Potential Nutrient Discharging Permits | Parameter Category Level 1 | Total Permits with Required/Optional Monitoring-only
        iii. Parameter Category (Nitrogen only | Phosphorus only | Dual Control)
            1. Majors | Non-Majors
            2. # of Permits | % of Total Universe

f. **Report IM-3:** Number of Individual WWTF Permits with Monitoring Requirements by Parameter Category
    i. Rows: State | EPA Region
    ii. Columns:
        1. Total Universe of Permits | Parameter Category Level 1 | Total Permits with Required/Optional Monitoring-only
    iii. Parameter Category (Nitrogen only | Phosphorus only | Dual Control)
        1. Majors | Non-Majors
        2. # of Permits | % of Total Universe
g. **Report II-4:** Number of Individual Industrial Permits with Any Permit Requirement by Parameter Category (potential discharging universe only)
    i. Rows: State | EPA Region
    ii. Columns:
        1. Total Universe of Potential Nutrient Discharging Permits | Parameter Category Level 1 | Total Permits with Any Permit Requirement
    iii. Parameter Category (Nitrogen only | Phosphorus only | Dual Control)
        1. Majors | Non-Majors
        2. # of Permits | % of Total Universe
h. **Report IM-4:** Number of Individual WWTF Permits with Any Permit Requirement by Parameter Category
    i. Rows: State | EPA Region
    ii. Columns:
        1. Total Universe of Permits | Parameter Category Level 1 | Total Permits with Any Permit Requirement
    iii. Parameter Category (Nitrogen only | Phosphorus only | Dual Control)
        1. Majors | Non-Majors
        2. # of Permits | % of Total Universe
i. **Report II-5:** Number of Individual Industrial Permits with numeric limits by Major Parameter Type (potential discharging universe only)
    i. Rows: State|Region
    ii. Columns:
        1. Parameter Category Level 3 ("ParamCat3")
        2. Majors | Non-Majors
j. **Report IM-5:** Number of Individual WWTF Permits with numeric limits by Major Parameter Type
    i. Rows: State|Region
    ii. Columns:
        1. Parameter Category Level 3 ("ParamCat3")
        2. Majors | Non-Majors
k. **Report II-6:** Number of Individual Industrial Permits with monitoring requirements by Major Parameter Type (potential discharging universe only)
    i. Rows: State|Region
    ii. Columns:
        1. Parameter Category Level 3 ("ParamCat3")
        2. Majors | Non-Majors

l. **Report IM-6:** Number of Individual WWTF Permits with monitoring requirements by Major Parameter Type
    i. Rows: State|Region
    ii. Columns:
        1. Parameter Category Level 3 ("ParamCat3")
        2. Majors | Non-Majors
m. **Report II-7:** Number of Nutrient Limits by Limit Expression (individual industrial permits—potential discharging universe only)
    i. Rows: State|Region
    ii. Columns:
        1. Limit Expression (e.g., daily, monthly)
        2. Limit Type (i.e., concentration, mass)
n. **Report IM-7:** Number of Nutrient Limits by Limit Expression (individual WWTF permits)
    i. Rows: State|Region
    ii. Columns:
        1. Limit Expression (e.g., daily, monthly)
        2. Limit Type (i.e., concentration, mass)
o. **Report II-8:** Range of Numeric Nutrient Limits (Nationwide, individual industrial permits—potential discharging universe only)
    i. Minimum Range of Concentration-based Permit Limits for N and P
        1. Rows:
            a. Limit Unit
            b. Parameter Category Level 3 ("ParamCat3")
        2. Columns: Limit Expression
    ii. Maximum Range of Concentration-based Permit Limits for N and P
        1. Rows:
            a. Limit Unit
            b. Parameter Category Level 3 ("ParamCat3")
        2. Columns: Limit Expression
    iii. Mode(s) of Concentration-based Permit Limits for N and P
        1. Rows:
            a. Limit Unit
            b. Parameter Category Level 3 ("ParamCat3")
        2. Columns: Limit Expression (exclude "OTHER" limits)
    iv. Maximum and Minimum Concentration-based Permit Limits for TN and TP by Limit Expression
        1. Rows:
            a. Limit Expression
            b. Parameter Category Level 3 ("N, total" and "P, total" only)
        2. Columns: Maximum Limit (mg/L) | Minimum Limit (mg/L)
    v. Maximum and Minimum Concentration-based Permit Limits for TN by Limit Expression
        1. Rows: Maximum Limit (mg/L) | Minimum Limit (mg/L)
        2. Columns: Limit Expression
    vi. Maximum and Minimum Concentration-based Permit Limits for TP by Limit Expression

        1. Rows: Maximum Limit (mg/L) | Minimum Limit (mg/L)
        2. Columns: Limit Expression
    vii. Frequency of Concentration-based Permit Limits for TN and TP

p. **Report IM-8:** Range of Numeric Nutrient Limits (Nationwide, individual WWTF permits)
    i. Minimum Range of Concentration-based Permit Limits for N and P
        1. Rows:
            a. Limit Unit
            b. Parameter Category Level 3 ("ParamCat3")
        2. Columns: Limit Expression
    ii. Maximum Range of Concentration-based Permit Limits for N and P
        1. Rows:
            a. Limit Unit
            b. Parameter Category Level 3 ("ParamCat3")
        2. Columns: Limit Expression
    iii. Mode(s) of Concentration-based Permit Limits for N and P
        1. Rows:
            a. Limit Unit
            b. Parameter Category Level 3 ("ParamCat3")
        2. Columns: Limit Expression (exclude "OTHER" limits)
    iv. Maximum and Minimum Concentration-based Permit Limits for TN and TP by Limit Expression
        1. Rows:
            a. Limit Expression
            b. Parameter Category Level 3 ("N, total" and "P, total" only)
        2. Columns: Maximum Limit (mg/L) | Minimum Limit (mg/L)
    v. Maximum and Minimum Concentration-based Permit Limits for TN by Limit Expression
        1. Rows: Maximum Limit (mg/L) | Minimum Limit (mg/L)
        2. Columns: Limit Expression
    vi. Maximum and Minimum Concentration-based Permit Limits for TP by Limit Expression
        1. Rows: Maximum Limit (mg/L) | Minimum Limit (mg/L)
        2. Columns: Limit Expression
    vii. Frequency of Concentration-based Permit Limits for TN and TP

q. **Report II-9:** Number of Limits (Mass and Concentration) (potential nutrient discharging industrial NPDES permits)
    i. Rows: State|Region
    ii. Columns:
        1. Majors | Non-Majors
        2. Limit Type (Concentration | Mass | Total)

r. **Report IM-9:** Number of Limits (Mass and Concentration) (WWTF NPDES permits)
    i. Rows: State|Region
    ii. Columns:
        1. Majors | Non-Majors
        2. Limit Type (Concentration | Mass | Total)

7. **Analyzing extracted data for <u>General Permit</u> Universe – the following reports were developed from the raw data above (GI = General Potential Industrial facilities; GM = General Municipal [Domestic WWTF] facilities):**
    a. **Report GI-1:** Universe of General Industrial Permits with Nutrient Requirements (potential discharging universe only)
        i. Rows: State | EPA Region
        ii. Columns:
            1. Total Potential Nutrient Discharging Universe | Number of Permits with Limits | Number of Permits with Monitoring Only | Number of Permits with Any Requirement
            2. # Majors | # Non-Majors | # Total | % Majors | % Non-Majors | % Total
    b. **Report GM-1:** Universe of General Domestic WWTF Permits with Nutrient Requirements
        i. Rows: State | EPA Region
        ii. Columns:
            1. Total WWTF Universe | Number of Permits with Limits | Number of Permits with Monitoring Only | Number of Permits with Any Requirement
            2. # Majors | # Non-Majors | # Total | % Majors | % Non-Majors | % Total
    c. **Report GI-2:** Number of General Industrial Permits with Numeric Limits by Parameter Category (potential discharging universe only)
        i. Rows: State | EPA Region
        ii. Columns:
            1. Total Universe of potential Nutrient discharging Permits | Parameter Category Level 1 | Total Permits with Nutrient Limits
                a. Parameter Category (Nitrogen only | Phosphorus only | Dual Control)
            2. Majors | Non-Majors
            3. # of Permits | % of Total Universe
    d. **Report GM-2:** Number of General WWTF Permits with Numeric Limits by Parameter Category
        i. Rows: State | EPA Region
        ii. Columns:
            1. Total Universe of Permits | Parameter Category Level 1 | Total Permits with Nutrient Limits
                b. Parameter Category (Nitrogen only | Phosphorus only | Dual Control)
            2. Majors | Non-Majors
            3. # of Permits | % of Total Universe
    e. **Report GI-3:** Number of General Industrial Permits with Monitoring Requirements by Parameter Category
        i. Rows: State | EPA Region
        ii. Columns:
            1. Total Universe of Potential Nutrient Discharging Permits | Parameter Category Level 1 | Total Permits with Required/Optional Monitoring-only
                c. Parameter Category (Nitrogen only | Phosphorus only | Dual Control)
            2. Majors | Non-Majors
            3. # of Permits | % of Total Universe

f. **Report GM-3:** Number of General WWTF Permits with Monitoring Requirements by Parameter Category
    i. Rows: State | EPA Region
    ii. Columns:
        1. Total Universe of Permits | Parameter Category Level 1 | Total Permits with Required/Optional Monitoring-only
            d. Parameter Category (Nitrogen only | Phosphorus only | Dual Control)
        2. Majors | Non-Majors
        3. # of Permits | % of Total Universe
g. **Report GI-4:** Number of General Industrial Permits with Any Permit Requirement by Parameter Category (potential discharging universe only)
    i. Rows: State | EPA Region
    ii. Columns:
        1. Total Universe of Potential Nutrient Discharging Permits | Parameter Category Level 1 | Total Permits with Any Permit Requirement
            e. Parameter Category (Nitrogen only | Phosphorus only | Dual Control)
        2. Majors | Non-Majors
        3. # of Permits | % of Total Universe
h. **Report GM-4:** Number of General WWTF Permits with Any Permit Requirement by Parameter Category
    i. Rows: State | EPA Region
    ii. Columns:
        1. Total Universe of Permits | Parameter Category Level 1 | Total Permits with Any Permit Requirement
            f. Parameter Category (Nitrogen only | Phosphorus only | Dual Control)
        2. Majors | Non-Majors
        3. # of Permits | % of Total Universe

Change Log

Version	Date	Notes
1	2/19/2016	Initial version of document for WA 5-03, Task 2
2	3/10/2016	Updates from Danielle
3	4/15/2016	Updates from Greg S. to Potential Discharging Universe process

Appendix 1 – List of fields to pull from ICIS SAP Business Intelligence for permits with nutrient monitoring/limits

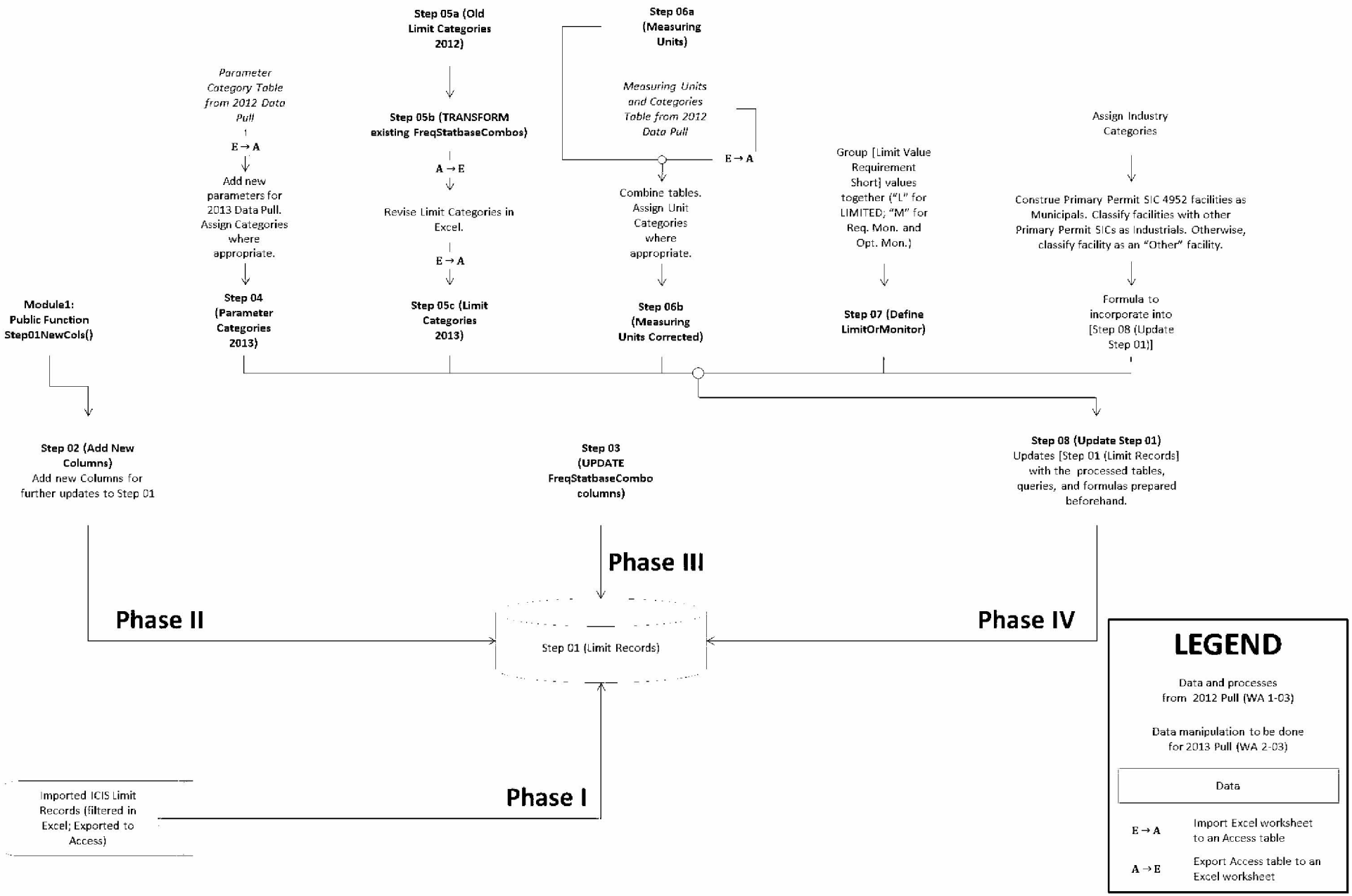
Region Code
State Code
NPDES ID
Facility Type Code
Facility Type Desc
Permit Name
Facility Name
Location Address
Supplemental Address
City
State Code
Zip
County Name
Section Township Range
Latitude in Decimal Degrees
Longitude in Decimal Degrees
Horizontal Accuracy Measure
Source Map Scale Number
Reference Point Desc
Geometric Type Desc
Horizontal Collect Method Desc
Horizontal Reference Datum Desc
HUC Code
Tribal Land Code
Tribal Land Name
USBC Tribal Land Code
Permit Type Code
Permit Type Desc
Facility Type Indicator
Curr. Major Minor Status
Total App. Design Flow (MGD)
Total Actual Average Flow (MGD)
Permit Status Code
Permit Status Desc
Issue Date
Effective Date
Expiration Date
State Water Body
State Water Body Name
Perm Feature Type Desc
Perm Feature Desc
Perm Feature Latitude/Longitude. Latitude in Decimal Degrees
Perm Feature Latitude/Longitude. Longitude in Decimal Degrees
Perm Feature Latitude/Longitude. Horizontal Accuracy Measure (Meter)
Perm Feature Latitude/Longitude. Source Map Scale Number
Perm Feature Latitude/Longitude. Reference Point Desc
Perm Feature Latitude/Longitude. Geometric Type Desc
Perm Feature Latitude/Longitude. Horizontal Collect Method Desc
Perm Feature Latitude/Longitude. Horizontal Reference Datum Desc
Perm Feature Water Body. RAD Reach ID
Perm Feature Water Body. RAD HUC Code based on Reach ID
Perm Feature Water Body. RAD Water Body Name
Perm Feature Water Body. State Water Body Code
Perm Feature Water Body. State Water Body Name
Perm Feature ID
Perm Feature Flow. App Actual Average Flow (MGD)
Perm Feature Flow. Application Design Flow
Limit Set Designator
Limit Set Name
Limit Set Type Desc
Limit Set DMR Comments
Change of Limit Status Desc
Parameter Code
Parameter Desc
Monitoring Location Code
Monitoring Location Desc
Limit Season ID
All Months Limit Applies - Short
Basis Of Limit Code
Basis Of Limit Desc
Eligible for Burden Reduction?
Any Effluent Trade in Place?
Limit Type Code
Limit Type Desc
Limit Start Date
Limit End Date
Limit Frequency of Analysis Desc
Limit Sample Type Desc
Limit Unit Short Desc
Limit Unit Desc
Limit Value Type Code
Limit Value Type Desc
Limit Value
Limit Value Consolidation
Limit Value Requirement Short
Statistical Base Short Desc
Statistical Base Long Desc
Limit Value Qualifier Code
Primary Permit SIC Code
Primary Permit SIC Desc
Permit SIC Code
Permit SIC Desc
Permit SIC Primary Indicator
Primary Permit NAICS Code
Primary Permit NAICS Desc
Permit NAICS Code
Permit NAICS Desc
Permit NAICS Primary Indicator
Primary Facility SIC Code
Primary Facility SIC Desc
Facility SIC Code
Facility SIC Desc
Facility SIC Primary Indicator
Primary Facility NAICS Code
Primary Facility NAICS Desc
Facility NAICS Code
Facility NAICS Desc
Facility NAICS Primary Indicator
Component Type Code
Component Type Desc
Curr. Compl. Track. Status
Curr. Compl. Track. Status Start Dt
Curr. Compl. Track. Status End Dt
Dmr Non Receipt Flag
Rnc Tracking Flag
MGP NPDES ID
MGP Gen. Perm. Industrial Cat. Desc.
FRS Facility UIN
FRS HUC Code
ICIS Facility Interest ID

Appendix 2 – Parameter Codes Used for Pulling NPDES Permits with Nutrient Requirements (Limits and/or Monitoring-only)

Parameter Code	Parameter Description	Pollutant Code	Chemical Abstract Service No.	Notes
New Parameters in 2016 Pull				
00601	Nitrogen, total	2817	7727-37-9	Other mass per area parameter codes were pulled in 2015—both for Kjeldahl Nitrogen (81639 and 82539)
0600A	Nitrogen, total [as N] [adjusted]	2817	7727-37-9	
0600C	Nitrogen, total [as N] [credit]	2817	7727-37-9	Used in Chesapeake Bay states
0600D	Nitrogen, total [as N] [delivered]	2817	7727-37-9	such as MD and NY
0665C	Phosphorus, total [as P] [credit]	5889	7723-14-0	
51794	Nitrite + Nitrate total [as N]	10354		KS is still using this code for some permits
71855	Nitrogen, nitrite total [as NO2]	2806	14797-65-0	Used in several states. A similar code for nitrates was pulled in 2015 (71850).
Existing Parameters in 2016 Pull				
00600	Nitrogen, total [as N]	2817	7727-37-9	
00602	Nitrogen, Dissolved	99999		
00605	Nitrogen, organic total [as N]	2817	7727-37-9	
00607	Nitrogen, organic, dissolved [as N]	2817	7727-37-9	
00613	Nitrite nitrogen, dissolved [as N]	2806	14797-65-0	
00615	Nitrogen, nitrite total [as N]	2806	14797-65-0	
00618	Nitrogen, nitrate dissolved	5713	14797-55-8	
00620	Nitrogen, nitrate total [as N]	5713	14797-55-8	
00621	Nitrate nitrogen, dry weight	5713	14797-55-8	
00623	Nitrogen, Kjeldahl, dissolved [as N]	2817	7727-37-9	
00625	Nitrogen, Kjeldahl, total [as N]	2817	7727-37-9	
00630	Nitrite + Nitrate total [as N]	10354		
00631	Nitrite plus nitrate dissolved 1 det.	10354		
00640	Nitrogen, inorganic total	2817	7727-37-9	
00650	Phosphate, total [as PO4]	5878	14265-44-2	
00653	Phosphate total soluble	5878	14265-44-2	
00655	Phosphate, poly [as PO4]	5878	14265-44-2	
00660	Phosphate, ortho [as PO4]	5878	14265-44-2	
00662	Phosphorous, total recoverable	5889	7723-14-0	
00664	Dock discharge of phosphorus	5889	7723-14-0	
00665	Phosphorus, total [as P]	5889	7723-14-0	
00666	Phosphorus, dissolved	5889	7723-14-0	
00667	Phosphorus, dissolved reactive [drp as P]	5889	7723-14-0	
00670	Phosphorous, total organic [as P]	5889	7723-14-0	
00671	Phosphate, ortho, dissolved [as P]	5878	14265-44-2	
01299	Nitrogen-nitrate in water, [pct]	5713	14797-55-8	
04157	Phosphorus [reactive as P]	5889	7723-14-0	
04175	Phosphate, ortho [as P]	5878	14265-44-2	

Parameter Code	Parameter Description	Pollutant Code	Chemical Abstract Service No.	Notes
0625D	Nitrogen, Kjeldahl, total [as N] [per discharge]	2817	7727-37-9	
0665S	Phosphorus, total [as P] [per season]	5889	7723-14-0	
49579	Nitrogen, total Kjeldahl	2817	7727-37-9	
50785	Phosphorus, ortho	5889	7723-14-0	
51084	Nitrogen, total available [water]	2817	7727-37-9	
51086	Nitrogen, nitrate [NO3], [water]	5713	14797-55-8	
51087	Nitrogen, Kjeldahl, total [TKN] [water]	2817	7727-37-9	
51092	Phosphate, total [P2O5], water	11195	17101-36-9	
51100	Nitrogen, total, as NO3, [water]	5713	14797-55-8	
51425	Nitrogen, Total As N	99999		
51426	Phosphorus, Total As P	99999		
51445	Nitrogen, Total	2817	7727-37-9	
51447	Nitrogen, Nitrite Total	2806	14797-65-0	
51448	Nitrogen, Nitrate Total	5713	14797-55-8	
51449	Nitrogen, Kjeldahl Total	2817	7727-37-9	
51450	Nitrite Plus Nitrate Total	10354		
51451	Phosphorus, Total	5889	7723-14-0	
51489	Nitrogen, Total as NO3 + NH3	12586		
51622	Limiting Nutrient [Nitrogen or Phosphorus]	99999		
51662	Nitrogen, Kjeldahl, Total [TKN], insoluble	2817	7727-37-9	
51663	Phosphorus, insoluble	5889	7723-14-0	
51675	Annual Nitrate Nitrogen Discharged	5713	14797-55-8	
51699	Phosphorus, Total [Avg Seasonal Load Cap]	5889	7723-14-0	
51764	Phosphorus Adsorption	5889	7723-14-0	
70505	Phosphate, total, color method [as P]	5889	7723-14-0	
70506	Phosphate, dissolved color method [as P]	5878	14265-44-2	
70507	Phosphorous, in total orthophosphate	5889	7723-14-0	
71850	Nitrogen, nitrate total [as NO3]	5713	14797-55-8	
71888	Phosphorus, total soluble [as PO4]	5878	14265-44-2	
81639	Nitrogen Kjeldahl, total [TKN]	2817	7727-37-9	
82386	Nitrogen, oxidized	2817	7727-37-9	
82539	Nitrogen, Kjeldahl	2817	7727-37-9	

Appendix 3 – Flow chart for manipulating data in Access

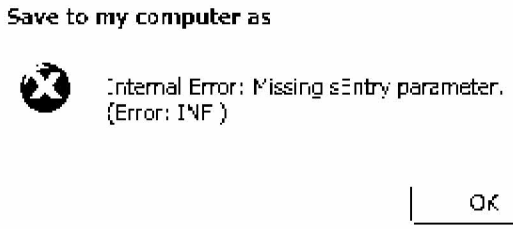


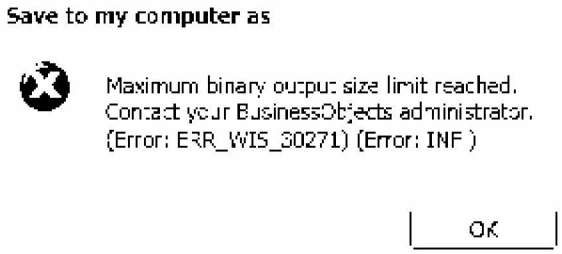
Appendix 4 – List of fields to pull permit universe data from ICIS SAP Business Intelligence

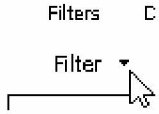
Region Code
State Code
NPDES ID
Permit Name
Facility Name
Permit Type Code
Permit Type Desc
Facility Type Indicator
Facility Type Code
Facility Type Desc
Curr. Major Minor Status
Issuing Agency Type Desc
MGP NPDES ID
MGP Gen. Perm. Industrial Cat. Desc.
Issue Date
Effective Date
Expiration Date
App. Received Date
Complete App Received Date
Primary Permit SIC Code
Primary Permit SIC Desc
Permit SIC Code
Permit SIC Desc
Permit SIC Primary Indicator
Primary Permit NAICS Code
Primary Permit NAICS Desc
Permit NAICS Code
Permit NAICS Desc
Permit NAICS Primary Indicator
Primary Facility SIC Code
Primary Facility SIC Desc
Facility SIC Code
Facility SIC Desc
Facility SIC Primary Indicator
Primary Facility NAICS Code
Primary Facility NAICS Desc
Facility NAICS Code
Facility NAICS Desc
Facility NAICS Primary Indicator
Component Type Code
Component Type Desc
FRS Facility UIN
ICIS Facility Interest ID

Appendix 5 – Troubleshooting Errors with Downloading Business Intelligence Documents

1. The most recent version of SAP Web Intelligence installed on ICIS has had issues with exporting Business Intelligence documents into Excel format (.xls or .xlsx). Depending on the size and complexity of the documents constructed, the following errors may appear when exporting the entire Business Intelligence document or just one of the reports contained in the document:





2. If either of these errors occurs when exporting the entire document into .xlsx format, try exporting one of the reports contained in the Business Intelligence document into .xlsx format (“Export Current Report As”). Repeat this step for all the reports contained in the document and compile the reports into a single Excel workbook.
3. If the above item is not successful, do the following:
   a. Navigate to the “Analysis” tab in Web Intelligence, and in the “Filters” sub-tab, click 

   and then click

   .
   b. When adding filters, use a field that can filter the pulled data down into an appreciable size. Fields such as “Permit Status Code” or “Region Code” are recommended for filtering reports covered under this task.
   c. After applying the appropriate filters, try exporting the current report into .xlsx format. Repeat **Step 3** until all the filter choices have been exhausted.
   (If Web intelligence still produces errors with exporting the data, trying limiting the selections to the field being filtered to one selection at a time [e.g., if filtering by EPA region, try filtering by one region at a time instead of by multiple regions]. Otherwise, note the issue, use a second field for filtering the report, and export the current report as directed in **Step 3** until the above errors no longer appear.)

Appendix 6 – List of SIC Codes (Potential Nutrient-Discharging Industrial Facilities)

ID	SIC Code	ID	SIC Code	ID	SIC Code	ID	SIC Code	ID	SIC Code
	0112		2047		2819		3334		3694
	0174		2048		2821		3339		3699
	0175		2051		2822		3341		3711
	0182		2052		2823		3353		3713
	0212		2062		2824		3354		3715
	0251		2066		2833		3363		3721
	0253		2075		2834		3365		3724
	0254		2077		2836		3399		3729
	0259		2082		2841		3411		3731
	0272		2084		2842		3443		3743
	0279		2085		2844		3444		3751
	0711		2087		2861		3449		3764
	0742		2091		2865		3451		3795
	0752		2092		2869		3469		3841
	0971		2096		2873		3471		3842
	1031		2099		2874		3479		3851
	1094		2211		2875		3489		3965
	1311		2258		2879		3491		3996
	1400		2262		2891		3494		3999
	1422		2269		2892		3511		4013
	1479		2273		2895		3519		4111
	1481		2282		2899		3523		4213
	1499		2295		2911		3531		4215
	1522		2299		2952		3533		4226
	1542		2392		2999		3534		4231
	1611		2419		3011		3544		4311
	1623		2426		3052		3545		4412
	1629		2431		3081		3548		4581
	1711		2434		3089		3552		4612
	1794		2435		3111		3555		4724
	1795		2451		3211		3559		4812
	1799		2491		3221		3561		4900
	2000		2514		3241		3562		4911
	2011		2599		3255		3563		4923
	2015		2611		3262		3565		4925
	2021		2621		3271		3569		4931
	2022		2631		3274		3585		4939
	2023		2653		3275		3589		4941
	2024		2672		3295		3612		4961
	2026		2676		3297		3613		5012
	2032		2679		3312		3622		5013
	2035		2711		3313		3633		5052
	2037		2812		3315		3639		5082
	2038		2813		3316		3671		5092
	2044		2816		3317		3674		5142
	2046		2818		3325		3675		5146

ID	SIC Code
	5159
	5182
	5191
	5211
	5331
	5411
	5461
	5499
	5541
	5712
	5812
	5941
	5942
	5947
	5989
	5999
	6022
	6141
	6512
	6513
	6514
	6515
	6519
	6531
	6552
	7011
	7021
	7032
	7033
	7041
	7215
	7218
	7219
	7261
	7299
	7353
	7359

ID	SIC Code
	7374
	7389
	7513
	7514
	7532
	7542
	7694
	7699
	7911
	7933
	7941
	7948
	7991
	7992
	7997
	7999
	8011
	8051
	8052
	8059
	8062
	8063
	8069
	8071
	8082
	8092
	8099
	8211
	8221
	8222
	8249
	8322
	8331
	8361
	8412
	8422
	8641

ID	SIC Code
	8699
	8731
	8733
	8734
	8741
	8744
	8748
	8811
	8999
	9111
	9199
	9221
	9222
	9223
	9511
	9512
	9531
	9611
	9621
	9661
	9711
	0133
	0181
	0241
	0273
	0921
	1011
	1021
	1041
	1061
	1099
	1221
	1222
	1321
	1429
	1442
	1446

ID	SIC Code
	1459
	1475
	1541
	2013
	2033
	2034
	2061
	2063
	2086
	2141
	2221
	2231
	2252
	2257
	2261
	2281
	2421
	2436
	2493
	2499
	2511
	2512
	2754
	2851
	2951
	3061
	3069
	3083
	3229
	3231
	3321
	3465
	3483
	3499
	3541
	3564
	3568

ID	SIC Code
	3621
	3679
	3714
	3732
	3822
	3861
	3949
	4011
	4225
	4491
	4493
	4512
	4613
	4619
	4922
	4924
	4953
	4959
	5093
	5144
	5169
	5171
	5172
	5192
	5399
	5551
	5813
	6732
	7371
	7549
	7996
	8661
	9999

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 1-03

☐ Other ☒ Amendment Number: 000001

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-16-003	07/01/2016 To 06/30/2021 Base Option Period Number 1	NPDES Permitting Nutrients

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- ☐ Work Assignment
- ☒ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 03/07/2018 To 06/30/2018

Comments:

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period: 07/01/2016 To 06/30/2021 Cost/Fee: LOE:

This Action:

Total:

Work Plan / Cost Estimate Approvals

Contractor WP Dated: Cost/Fee LOE:

Cumulative Approved: Cost/Fee LOE:

Work Assignment Manager Name Danielle Stephan (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-0759 FAX Number:	
Project Officer Name Tangela Cooper (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0369 FAX Number:	
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:	
Contracting Official Name Brad Heath (Signature) 3/7/2018 (Date)	Branch/Mail Code: Phone Number: 513-487-2352 FAX Number:	

PERFORMANCE WORK STATEMENT
CONTRACT EP-C-16-003
WORK ASSIGNMENT 1-03
AMENDMENT 1

TITLE: Support for NPDES Permitting Activities for Nutrient Pollution

WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WACOR):

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ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (ALTERNATE WACOR):

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Washington, DC 20460
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Email: bathersfield.nizanna@epa.gov

PERIOD OF PERFORMANCE: March 7, 2018 through June 30, 2018

BACKGROUND

Water Permits Division (WPD), within the Office of Wastewater Management (OWM), is responsible for the implementation and oversight of the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates point source discharges of pollutants to surface waters of the United States. To effectively implement the NPDES program, WPD develops national regulations, policies, and guidance, and supports the Environmental Protection Agency (EPA), Regions, Tribes, and States. WPD also provides technical support to the regulated community in assuring compliance with the Clean Water Act (and other statutes as they relate to the NPDES program).

Nutrient pollution consists of excess contributions of nitrogen and phosphorus to the Nation's surface waters and has consistently ranked as one of the top causes of degradation in U.S. waters for more than a decade. Excess nitrogen and phosphorus lead to significant water quality

problems including harmful algal blooms, hypoxia and declines in wildlife and wildlife habitat; as recently seen in places like the Gulf of Mexico and Chesapeake Bay.

Current approaches developed to address permitting for toxic pollutants do not fully address the issues associated with developing nutrient permit limits that protect water quality standards. Many waterbodies do not have numeric criteria for nutrients. The effects of nutrient pollution are widespread and the sources are from both, point and non-point sources. Permitting authorities are often faced with a daunting task of protecting water quality, especially on impaired waters where no TMDL has been developed.

It is essential that WPD effectively communicate information related to nutrient pollution in NPDES permits and how state and regional permitting authorities can address nutrient pollution. Using existing data sources and information about existing state implementation procedures, WPD Developed and implemented a series of in-person trainings *to* ensure the NPDES program effectively and efficiently achieves programmatic goals and protects water quality related to nutrient pollution.

To assist permit writers in determining how to develop permit limits for nutrient pollutants under such conditions, EPA is;

1. Adapt "in-person" training materials that have already been developed and piloted with state and regional permitting authorities to an online version that will be more readily available to permit writers,
2. Support 7 "in person" nutrient trainings/workshops with state permit writers and managers over the next 5 years
3. Support state and regional permitting authorities develop implementation procedures and water quality-based effluent limits for nutrients
4. Reviewing state water quality standards, implementation procedures, permits with nutrient limits, reasonable potential procedures, nutrient reduction strategies, technical documents developed by external stakeholders, and other information sources to inform the development of additional training resources and options for additions nutrient permitting practices.
5. Providing regular updates on the status of nutrient limits and monitoring requirements in NPDES permits.

OBJECTIVE

The objective of this work assignment is to provide technical support to EPA in its continued efforts to communicate information on nutrient pollution to NPDES permit writers on the state of nutrient requirements in NPDES permits, review and summarize state and regional implementation procedures related to nutrients, and update and develop online nutrients training materials. The target audience is NPDES permit writers, state and regional water program managers and other key NPDES program stakeholders, such as regulated point source dischargers.

As outlined above, technical support will include the following:

1. Nutrient Training Activities
   a. **In-Person Training Materials and instructor** - the contractor shall provide support to EPA NPDES training staff for one instructor for an in person training in June 2017. The location and sate are still to be determined.
   b. **~~Online~~ Training Materials** -Technical support will include updating existing training materials used to train state and regional NPDES permit writers in PowerPoint and adapt~~ation of~~ these materials to an online version of the training. Support will also entail assisting EPA in informing, educating, and involving key NPDES program stakeholders and permit writers on issues affecting implementation of the NPDES program as it pertains to the training. Reference guidance's includes but is not limited to, the Technical Support Document for Water Quality-based Toxics Control (1991), the U.S. EPA NPDES Permit Writers' Manual, Watershed-based NPDES Permitting Technical Guide, and Watershed- based permitting technical and implementation guidance, Water Quality Trading Toolkit for Permit Writers.
2. **Data collection and analysis for NPDES permits with Nutrient requirements**
3. **Nutrient Compendium – Support the development of a State compendium of nutrient permitting practices.**
4. ~~**White papers related to State nutrient permitting procedures and practices and alternative nutrient permitting practices (e.g. alternative statistics than those presented in the TSD, watershed approaches, predictive models etc.)** – the review and development of summary documents/white paper on the of current state and regional permitting practices related to the implementation of nutrient criteria both numeric and narrative, and additional/alternative permitting approaches, statistics, models and critical conditions identified in various external stakeholder technical documents (to be provided to the contractor from the WACOR). In order to narrow/focus these papers, the contractor and WACOR shall first engage in a scoping meeting to brainstorm what the scope of each of the topic papers will be.~~

Performance Work Statement: Contract Sections 3.4, 3.5, 3.7, 3.9

The administrative and technical tasks to be provided by the contractor under this work assignment shall support management, technical and logistical tasks associated with developing training materials and delivering the NPDES Permit Writer's nutrients training course, and review and analysis related to implementation procedures for nutrient water quality standards. The contractor will not be involved in Agency policy or decision making.

Task 0: Program Management

The contractor will prepare and submit a work plan and cost estimate that outlines the

technical approach, methodology, and resources to be used to complete this work assignment. This work plan will include a list of the key personnel that will participate in the work assignment and an estimate of direct costs such as travel, computer costs, typing, etc.

The program management task also includes preparation and submission of the monthly progress report and invoice. By the 20th of each month, the contractor will electronically submit to the WACOR, CL-COR, and CO a progress report that documents the costs incurred and work performed during the previous accounting period, and work planned for the current accounting period. The progress report will highlight the hours and dollars expended as a percentage of the allocated hours or dollars. The report will also list by task the amount of work completed, include a table of hours by personnel, and identify any problems or difficulties.

This task also provides for contract management, including discussions between the CL-COR and the ERG Program Manager and discussions between the WACOR, and the contractor. The WACOR and appropriate contractor staff will conduct teleconferences and/or meetings with the WACOR to coordinate activities, review schedules, and discuss deliverables.

Task 1: Support and Participate in Workgroup and Work Planning Meetings

No change to this task

Task 2: Support for the NPDES Permit Writer's Training Course on Nutrient Pollution
we do not anticipate needing an instructor for this period of performance so we have removed the requirement for an instructor.

Pre-course support: The Contractor shall provide technical support for updates to training materials developed for the "NPDES permit writers specialty workshop" under EPA CONTRACT NO. EP-C-11-009 Work Assignment 03. The contractor shall support reorganization, drafting, editing and scripting/ developing talking points for the 11 modules used for the in person training. These materials will be adapted to an online version in Task 3. the contractor shall provide individuals with experience with permitting for nutrient pollution, the basic NPDES permit writers course as well as familiarity with the various flexibilities within the clean water act such as, Watershed-based permitting, Water Quality Trading, Compliance schedules and Water Quality Standards variances, to assist in the development of online training materials.

~~**Instructor(s):** The Contractor shall provide one qualified instructor to conduct the NPDES Permit Writers' Training Course/workshop on Nutrient Pollution. Instructors will utilize the materials developed for the "NPDES permit writers specialty workshop" under EPA CONTRACT NO. EP-C-11-009 Work Assignment 03. Contractor will propose a draft list of names, biographical information and a resume for discussion with WACOR prior to submitting a final list to EPA. The instructors selected by the contractor and approved by EPA for a given course shall participate in several practice sessions and training planning sessions with EPA training staff to bring the contractor up to speed about the training ahead of presenting at an in-person training. For~~

~~planning purposes, the contactor should plan on up to 5 half day practice sessions at EPA HQ offices.~~

~~It is not anticipated that there will be an in person training during this Option period, however, this individual should be involved with editing and developing materials in Task 2.~~

Deliverables:

	Deliverable	Due by
~~1~~	~~List of candidate instructors for EPA selection and approval~~	~~With work plan submission~~
2	Updated draft course materials	30 days after WACOR technical direction

Task 3: EPA HQ NPDES Nutrients On-line Course for EPA WPD/OWM's NPDES Website:

The contractor has completed this task for the initial 8 modules ordered.

This amendment adds 3 additional modules to the work plan. This task is being modified to include all the work needed to update 3 additional training modules and adapt them to an-online training platform. The topics of the 3 training modules are:

- Permit compliance schedules and Water Quality Standards Variances
- Watershed-based Permitting for Nutrients
- Water Quality Trading

These modules will become "Part 3" of the online nutrient training. The WACOR shall send the contractor the current version of the files to work from.

The contractor shall participate in a 1-day work planning sessions, where EPA staff will present the 3 training modules. The contractor should be prepared to record (Both written and audio) the day in order to have the information they need to produce scripts of the 3 remaining modules. This session should occur on or before March 1, 2018.

Technical Expertise: The Contractor shall provide at least one individual who is an expert in developing online training materials using the "*articulate storyline*" software. In addition, the contractor shall provide individuals with experience with Watershed-based permitting, Water Quality Trading, Compliance schedules and Water Quality Standards variances, to assist in the development of online training materials.

Revise training materials: EPA has developed 3 "flexibilities" modules in PowerPoint for the in-person trainings, that now need to be adapted to the online platform in storyline. The contractor shall provide technical and administrative support for the development and review of 3 additional training modules. The contractor shall provide document production support

including drafting technical components, editing existing text or text provided by stakeholders, creating graphics to illustrate various concepts in the training, and formatting the supporting document and, when necessary, the training materials using appropriate desktop publishing software. Additional updates to these files may include; restructuring the order of existing slides for better flow and continuity, editing slide content to ensure it is consistent with current EPA policy, rules and regulations, develop test questions, developing scripts for each slide.

In developing the draft scripts and overall online structure, the contractor shall facilitate collection of, compile, summarize and provide draft responses to comments on training materials. EPA will review and identify comments to be incorporated into the supporting document. The contractor shall incorporate EPA's comments and edits into the training materials. For planning purposes the contractor shall assume up to 5 drafts of training materials.

In order to finalize scripts for each module, the contractor shall participate in up to 5 one-day working sessions to finalize draft scripts. Upon completion of the working session(s) with WACOR, the contractor shall incorporate comments into the draft training materials and finalize the scripts for the 3 modules.

The contractor shall format the graphics and text of the training materials so that the "look and feel" is consistent with the "US EPA NPDES Permit Writers' Course," and 8 modules previously completed under this task.

These modules will become "Part 3" of the online nutrient training. The EPAWACOR shall send the contractor the current version of the files.

Record audio for 3 modules: once the scripts for each of the 3 modules are finalized, the contractor shall assist EPA in recording the audio for each slide for the online training.

Converting power point training materials to an online platform: The contractor shall convert training materials into an online media using the "Storyline" (or comparable software) presentation development software and delivered part of all of the training modules to the WACOR via an EPA internal only (not live) intra-agency link or site for selected EPA HQ staff and the contractor to *Alpha and Beta test* the draft final on-line EPA HQ NPDES Nutrients on-line course prior to it being posted "live."

Deliverables:

	Deliverable	Due by
1	The contractor shall participate in 1 all day planning meeting where WACOR and team will present what they intend to be covered/scripted for each of the 3 modules to be updated	TBD via TD from WACOR

2	The contractor shall prepare draft training materials reflecting suggested updates to structure and language, draft scripts, and graphics for 3 modules	Up to 30 days after WACOR and contractor working session.
3	The contractor shall participate comment resolution meetings on web based training materials.	Up to 3 -one day working sessions to be scheduled after WACOR approves draft scripts
4	The contractor shall prepare final draft training materials based on WACOR comments	Up to 30 days after receipt of WACOR comments
5	The contractor shall adapt training PowerPoint materials into web-based training and provide draft materials to WACOR for review	Up to 30 days after receipt of WACOR comments
6	The contractor shall provide draft web-based training materials for Alpha testing phase.	Up to 30 days after receipt of WACOR comments

Task 4 has been removed, EPA will no longer be doing this work.

~~**Task 4 (Contract PWS 3.4, 3.5, 3.7)**: **Review of State nutrient permitting procedures and alternative nutrient permitting practices**~~

~~The contractor shall research and develop a series of white papers about various aspects of the NPDES program as it related to nutrient permitting. The contractor shall continue to develop white papers identified in WA 0-03. The whitepapers are as follow:~~

- ~~Framework for Conducting an Impracticability Analysis for Effluent Limitations with Alternative Averaging Periods under 40 C.F.R. § 122.45(d)(2)~~
- ~~Adapting Probability Basis Values in the Water Quality-Based Effluent Limitations (WQBELs) Calculations for Nutrient Criteria~~

~~The contractor and WACOR shall engage in a scoping meeting to brainstorm content for 1-3 additional white papers. Topics for these white papers may include, but are not limited to:~~

- ~~implementation procedures of numeric nutrient criteria numeric~~
- ~~implementation procedures of narrative criteria numeric,~~
- ~~review of alternative critical conditions selection to support the adapted TSD approach to support content of the nutrient training developed under task 2~~

- ~~technical review and policy impacts of alternative permitting approaches (alternative to TSD approach) identified in various external stakeholder technical documents (to be provided to the contractor from the WACOR)~~
    - ~~Technology based approaches to permitting for nutrients~~
    - ~~Watershed approaches to permitting for nutrients~~
    - ~~Alternative statistical methods~~
    - ~~Use of dynamic, predictive models~~

~~For each white paper, the contractor shall deliver a detailed outline for the paper concept and, upon review and comments from WACOR, develop a draft white paper on each selected topic.~~

~~For planning purposes, the contractor shall assume each paper will be no more than 10 pages in length and will contain a combination of technical analysis and policy/guidance review for impacts on existing regulations, policy and guidance.~~

~~**Deliverables:**~~

	~~Deliverable~~	~~Due by~~
~~1~~	~~For each whitepaper, a draft outline of the major concepts in the paper~~	~~within 15 days of receiving comments from WACOR~~
~~2~~	~~Draft white paper~~	~~Within 30 days of final comments from WACOR.~~
~~3~~	~~Final white paper incorporating comments from WACOR~~	~~Within 15 days of final comments from WACOR~~

Task 5: Analyze and Compile Effluent Data on Nutrient Pollution

The contractor has completed the following under this task:

- In accordance with EPA's protocol, for fiscal year ending September 2017, the contractor has pulled individual permitting data for any parameter code related to nutrient pollution for all 50 states and major territories from the Integrated Compliance Information System (ICIS-NPDES).
- The contractor has also pulled equivalent data from the EPA's Discharge Monitoring Report (DMR) Pollutant Loadings Tool.
- The contractor has delivered reports that summarize trends for individual permit limit data with a focus on permit limit characteristics and monitoring requirements for individual permits. These reports included a set of data reports using the data pull from ICIS with facilities outside of the Mississippi/Atchafalaya River Basin (MARB) filtered out, and a set of data reports using the data pull from the DMR Loadings Tool with facilities outside of the MARB filtered out.

- The contractor has also delivered a table of NPDES nutrient monitoring and limits data, using the data from the ICIS data pull.

In accordance with EPA's protocol, for fiscal year ending September 2017, the contractor shall pull general permitting data for any parameter code related to nutrient pollution for all 50 states and major territories from the Integrated Compliance Information System (ICIS-NPDES). In addition to data pulled from ICIS-NPDES, the contractor shall pull equivalent data from the EPA's Discharge Monitoring Report (DMR) Pollutant Loadings Tool. The purpose of this data pull is to aid in the comparison of data pulled directly from ICIS-NPDES with data pulled from the Loadings Tool. This analysis will help ensure the consistency of EPA's Office of Waste Management's nutrients data with data that is used by EPA's Office of Oceans Wetlands and Watershed (OWOW) data pulls on behalf of the Hypoxia Task Force. The DMR Loadings Tool can be found at: http://cfpub.epa.gov/dmr/

The contractor shall produce up to 10 reports summarizing the general permitting data, similar to those developed under this task for the individual permitting data. The requirements of each report and table will be provided through written technical direction from the WACOR and deliverables will generally be due 14 working days after technical direction is given. EPA's permitting protocol, and the format for the nutrients table that is on EPA's website are each attached.

The contractor shall analyze available data ICIS-NPDES for the following data field for general permitted dischargers:

Appendix 1 – List of fields to pull from ICIS SAP Business Intelligence for permits with nutrient monitoring/limits

Region Code
State Code
NPDES ID
Facility Type Code
Facility Type Desc
Permit Name
Facility Name
Location Address
Supplemental Address
City
State
Code
Zip
County Name
Section Township Range
Latitude in Decimal Degrees Longitude in Decimal Degrees

Horizontal Accuracy Measure
Source Map Scale Number
Reference Point Desc
Geometric Type Desc
Horizontal Collect Method Desc
Horizontal Reference Datum Desc
HUC Code
Tribal Land Code
Tribal Land Name
USBC Tribal Land Code
Permit Type Code
Permit Type Desc
Facility Type Indicator

Curr. Major Minor Status
Total App. Design Flow (MGD)
Total Actual Average Flow (MGD)
Permit Status Code
Permit Status Desc
Issue Date
Effective Date
Expiration Date
State Water Body
State Water Body Name
Perm Feature Type Desc
Perm Feature Desc
Perm Feature Latitude/Longitude.
Latitude in Decimal Degrees

Perm Feature Latitude/Longitude. Longitude in Decimal Degrees Perm Feature Latitude/Longitude. Horizontal Accuracy Measure (Meter) Perm Feature Latitude/Longitude. Source Map Scale Number Perm Feature Latitude/Longitude. Reference Point Desc Perm Feature Latitude/Longitude. Geometric Type Desc Perm Feature Latitude/Longitude. Horizontal Collect Method Desc Perm Feature Latitude/Longitude. Horizontal Reference Datum Desc Perm Feature Water Body. RAD Reach ID Perm Feature Water Body. RAD HUC Code based on Reach ID Perm Feature Water Body. RAD Water Body Name Perm Feature Water Body. State Water Body Code Perm Feature Water Body. State Water Body Name Perm Feature ID Perm Feature Flow. App Actual Average Flow (MGD) Perm Feature Flow. Application Design Flow Limit Set Designator Limit Set Name Limit Set Type Desc Limit Set DMR Comments Change of Limit Status Desc Parameter Code Parameter Desc Monitoring Location Code Monitoring Location Desc Limit Season ID All Months Limit Applies - Short Basis of Limit Code Basis of Limit Desc Eligible for Burden Reduction? Any Effluent Trade in Place? Limit Type Code Limit Type Desc Limit Start Date Limit End Date Limit Frequency of Analysis Desc Limit Sample Type Desc Limit Unit Short Desc Limit Unit Desc Limit Value Type Code Limit Value Type Desc Limit Value Limit Value Consolidation Limit Value Requirement Short Statistical Base Short Desc Statistical Base Long Desc Limit Value Qualifier Code Primary Permit SIC Code Primary Permit SIC Desc Permit SIC Code Permit SIC Desc Permit SIC Primary Indicator Primary Permit NAICS Code Primary Permit NAICS Desc Permit NAICS Code Permit NAICS Desc Permit NAICS Primary Indicator Primary Facility SIC Code Primary Facility SIC Desc Facility SIC Code Facility SIC Desc Facility SIC Primary Indicator Primary Facility NAICS Code Primary Facility NAICS Desc Facility NAICS Code Facility NAICS Desc Facility NAICS Primary Indicator Component Type Code Component Type Desc Curr. Compl. Track. Status Curr. Compl. Track. Status Start Dt Curr. Compl. Track. Status End Dt Dmr Non Receipt Flag Rnc Tracking Flag MGP NPDES ID MGP Gen. Perm. Industrial Cat. Desc. FRS Facility UIN FRS HUC Code ICIS Facility Interest ID

Raw data reports for individual and general permitted facilities should be provided to EPA in separate files.

Deliverables:

	Deliverable	Due by
1	Nutrient general permitting data analysis report from ICIS-NPDES	Within 14 days of receipt of Technical Direction from the WACOR
2	Nutrient general permitting data analysis report from ICIS-NPDES and the DMR Loadings Tool, filtering out all of the facilities outside of the Mississippi River Basin watershed	Within 14 days of receipt of Technical Direction from the WACOR

Task 6: Compendium of State NPDES Nutrient Practices

EPA has been working on a compendium of state practices, policies and procedures targeted to reducing nutrients from point sources. The purpose of the compendium is to facilitate state-to-state sharing about different methods of addressing the adverse effects of nutrient pollution in NPDES permits. Several states have developed practices and procedures for nutrient pollution, while others are still discerning how to address nutrients. This compendium will serve as a "clearing house" for the various procedures, and open dialog on the different approaches.

The compendium may include information on the following procedures and practices:

- Mixing Zone Policies for Nutrients
- Variance Policies
- Critical Low Flows
- Critical Effluent Concentrations
- Background Concentrations
- State Performance Based Approaches
- Water Quality Trading for Nutrients
- Watershed-Based Permitting

The contractor shall assist the WACOR with finalizing the compendium materials once EPA staff have written the narratives for each of the compendium topics. Finalizing the document shall include formatting, graphic work and technical editing. The contractor shall make sure that the document looks professional and consistent with the "look and feel" of other compendium documents produced by EPA. The WACOR shall send example documents to the contractor so they can see other compendiums that EPA has produced. The contractor shall use Microsoft word, publisher other compatible publishing software as long as the WACOR has access to the program and can make edits once the final document is delivered.

Deliverables:

	Deliverable	Due by
1	Final compendium document	Within 30 days of receipt of Technical Direction from the WACOR

ESTIMATED LEVEL OF EFFORT:

EPA estimates the additional level of effort ordered in this Performance Work Statement is 515 hours.

REPORTING:

Reports shall be submitted in accordance with the reporting requirements of the contract. In addition, the contractor shall maintain contact with the WACOR to advise the WACOR of progress and problems. All documents shall be delivered in a format compatible with Microsoft Office 2013, HTML, and/or PDF format, as requested by the WACOR. The contractor shall notify the WACOR immediately when expenditures of 75% and 90% of the work assignment LOE or funding (including pipeline costs) are reached.

The contractor shall be prepared to submit for inspection copies of all work in progress any time as requested by the WACOR. The contractor shall not release information or comments on works performed under this work assignment without the WACOR's prior written authorization. Wherever practicable, any written materials submitted to EPA must be doubled-sided and on recycled paper. Any computer disks submitted to the WACOR shall be scanned for and identified as free from viruses.

ANTICIPATED TRAVEL REQUIREMENTS:

Some limited local travel may be necessary to attend meetings with the WACOR.

ADDITIONAL REQUIREMENTS:

Upon issuance of written technical direction, the contractor shall submit for inspection all work in progress at any time under this work assignment. The contractor shall develop and maintain files supporting each task. The contractor shall contact the EPA Contract-Level Contracting Officer's Representative (CL-COR) and/or WACOR by telephone to discuss any problems that may adversely affect the work on this Work Assignment. Within five (5) calendar days the contractor shall follow the phone call with a brief written explanation of the problem, including any actions already taken, and/or recommended solutions to correct the problem. Written explanation shall be made available to the CL-COR and the WACOR.

CONTRACTOR IDENTIFICATION:

To avoid any perception that contractor personnel are EPA employees, the contractor shall assure that contractor personnel are clearly identified as independent contractors of EPA when attending meetings with outside parties or visiting field sites.

CONTROL REQUIREMENTS:

Quality Assurance Project Plan (QAPP):

A quality assurance project plan (QAPP) is not required for Tasks 0, 1, 2, and 3 of this work assignment. However, Task 4 will require a Quality Assurance Project Plan (QAPP) which outlines the contractor's decision criteria that the contractor used in developing data analysis and summary charts for nutrient permitting data. The sources of the information collected by the contractor for EPA are primarily from publicly available information sources and considered secondary data. The data quality objective for this information is that the nutrient permitting data analysis factually represent the information contained in the source documentation.
The contractor shall refer all policy related questions to EPA. The contractor shall provide QAPP for tasks 4, within 15 days of receipt of work assignment.

Organizational Conflict of Interest:

The contractor shall warrant that, to the best of the contractor's knowledge and belief, there are no relevant facts or circumstances which could give rise to an organizational conflict of interest, as defined in FAR Subpart 9.5, or that the contractor has disclosed all such relevant information. See contract clause 1552.209-71 Organization of Conflict of Interest.

Notification of Conflicts of Interest Regarding Personnel:

The Contractor shall immediately notify the Contract-Level Contracting Officer's Representative (CL-COR) and the Contracting Officer of (1) any actual or potential personal conflict of interest with regard to any of its employees working on or having access to information regarding this contract, or (2) any such conflicts concerning subcontractor employees or consultants working on or having access to information regarding the contract, when such conflicts have been reported to the Contractor. A personal conflict of interest is defined as a relationship of an employee, subcontractor employee, or consultant with an entity that may impair the objectivity of the employee, subcontractor employee, or consultant in performing the contract work. See Section H.4, contract clause EPAAR 1552.209-73 Notification of Conflict of Interest.

Enforcement Sensitive Information:

The contractor recognizes that contractor employees in performing tasks specified by this WA may have access to data/information, either provided by the government or first generated

during contract performance, of enforcement sensitive nature which should not be released to the public without Environmental Protection Agency (EPA) approval. Enforcement sensitive refers to records or information compiled for law enforcement purposes (whether administrative, civil or criminal), the disclosure of which could reasonably be expected to interfere with the enforcement action. It is imperative that all contractor personnel, including but not limited to, subcontractor and consultant personnel assigned to work on this contract and/or WA, or with access to materials developed pursuant to such efforts, understand that this information is confidential and any disclosure or misuse of the information may result in prosecution to the fullest extent of the law. All contractor personnel are expected to exercise due diligence in safeguarding, handling or disposing of any such information.

Project Employee Confidentiality Agreement

The contractor agrees that the contractor employee will not disclose, either in whole or in part, to any entity external to the EPA, the Department of Justice, or the contractor, any information or data (as defined in FAR Section 27.401) provided by the government or first generated by the contractor under this contract, any site-specific cost information, or any enforcement strategy without first obtaining the written permission of the CL-COR. If a contractor, through an employee or otherwise, is subpoenaed to testify or produce documents, which could result in such disclosure, the contractor must provide immediate advance notification to the EPA so that the EPA can take action to prevent such disclosure. Such agreements shall be effective for the life and for a period of five (5) years after completion of the contract.

Handling of Confidential Business Information (CBI)

Contractor's access to TSCA CBI must comply with the procedures set forth in the TSCA CBI Security Manual. Likewise, access to FIFRA CBI shall follow the security procedures set forth in the FIFRA Information Security Manual.

To the extent that the work under this contract requires access to proprietary or confidential business or financial data of other companies, and as long as such data remains proprietary or confidential, the contractor shall protect such data from unauthorized use and disclosure.

All files or other information identified as Confidential Business Information (CBI) shall be treated as confidential and kept in a secure area with access limited to only contractor personnel directly involved in the case or special project assignment. The contractor, subcontractor, and consultant personnel are bound by the requirements and sanctions contained in their contracts with the EPA and in EPA's confidentiality regulations found at 40 CFR Part 2, Subpart B. Subcontractors and consultants must adhere to EPA-approved security plans which describe procedures to protect CBI, and are required to sign non-disclosure agreements before gaining access to CBI.

All official data, findings, and results of investigations and studies completed by the contractor

shall be available for EPA and DOJ internal use only. The contractor shall not release any part of such data without the written direction of the WACOR.

Conference/Meeting Guideline and Limitations

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated $20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, AV and rental of venue costs, etc. The WACOR will then prepare approval internal paperwork for the event and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 1-04

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-16-003	07/01/2016 To 06/30/2018 Base Option Period Number 1	Support for WIIN Act Long-Term

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 08/18/2017 To 06/30/2018

Comments:

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period: 07/01/2016 To 06/30/2018 Cost/Fee: LOE:

This Action:

Total:

Work Plan / Cost Estimate Approvals

Contractor WP Dated: Cost/Fee LOE:

Cumulative Approved: Cost/Fee LOE:

Work Assignment Manager Name Caroline Klos (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-3029 FAX Number:	
Project Officer Name Tangela Cooper (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0369 FAX Number:	
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:	
Contracting Official Name Brad Heath (Signature) 8/18/2017 (Date)	Branch/Mail Code: Phone Number: 513-487-2352 FAX Number:	

PERFORMANCE WORK STATEMENT
CONTRACT EP-C-16-003
WORK ASSIGNMENT 1-04

TITLE: Support for WIIN Act Long-Term Monitoring Program

WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WACOR):

Caroline Klos
USEPA
1200 Pennsylvania Ave NW
(Mail Code 4502-T)
Washington DC 20004
Phone: 202-564-3029
Email: klos.caroline@epa.gov

ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (AWACOR):

Shera Reems
USEPA
1595 Wynkoop Street
Mail Code 8WP-CWQ
Denver, CO 80202-1129
Phone: 303-312-6888
Email: reems.shera@epa.gov

PERIOD OF PERFORMANCE: August 18, 2017 through June 30, 2018

BACKGROUND: On August 5, 2015, EPA was conducting an investigation of the Gold King Mine (GKM) near Silverton, Colorado to assess the on-going water releases from the mine, treat mine water, and assess the feasibility of further mine remediation. While excavating above an old adit, pressurized water began leaking above the mine tunnel, spilling about three million gallons of water stored behind the collapsed material into Cement Creek, a tributary of the Animas River (http://www2.epa.gov/goldkingmine). The Animas River originates in the mountain peaks northeast of Silverton in San Juan County, Colorado. It ends in Farmington, New Mexico, where it flows into the San Juan River, which terminates in Lake Powell, Utah. This incident occurred in a watershed shared by Colorado, Southern Ute Indian Tribe, New Mexico, Ute Mountain Ute, Navajo, Utah and Arizona.

The Water Infrastructure Improvement for the Nation (WIIN) Act was enacted in December, 2016 and provides for "improvements to the rivers and harbors of the United States, to provide for the conservation and development of water and related resources, and for other purposes." The Act includes numerous and wide-ranging water related provisions.

Section 5004(d) of the WIIN Act provides that EPA, "in conjunction with affected States, Indian tribes and local governments, shall, subject to the availability of appropriations, develop and implement a program for long-term water quality monitoring of rivers contaminated by the Gold King Mine release." This work assignment will support EPA in the development and initial implementation of the long-term monitoring program. supports EPA Strategic Goal 2 Protecting America's Waters.

PURPOSE AND OBJECTIVE

During the period of performance, the contractor under this Work Assignment, will provide technical support to the National Water Program for the development and initial implementation of the long-term monitoring program for rivers impacted by the Gold King Mine spill. Technical support includes: (1) updating, consolidating and synthesizing existing information for 3 major areas impacted by the spill – Animas River, San Juan River and Lake Powell, (2) Providing technical and logistical support for a 2 day program planning meeting at a central location (NM, AZ or UT) of the impacted jurisdictions to identify the goals and priorities for the long-term monitoring program, discuss data gaps and an approach for assessing the long-term impact of the GKM spill, and (3) Develop documents to support program activities such as a Quality Assurance Project Plan (QAPP), ambient water quality monitoring strategy to address data gaps and watershed plan (if needed) for the program area. The contractor will ensure compliance with Agency standards.

SCOPE OF WORK

TASK 0: WORK ASSIGNMENT MANAGEMENT

The contractor shall routinely provide performance updates, estimated costs, level of effort (LOE) and key deliverables upon request from EPA's Work Assignment Contracting Officer's Representative (WACOR) and/or Alternative WACOR for all ongoing tasks. Regularly scheduled bi-weekly conference calls and in-person meetings, as needed, will be coordinated between EPA's WACOR and the contractor to discuss the work assignment and progress of tasks. In addition, the contractor shall provide a monthly progress report that includes implementation plan(s); issues encountered and lessons learned regarding the progress of all tasks, the tracking of expenditures, and any other administrative activities, as requested.

Deliverables: The contractor shall provide a monthly progress report. The contractor shall maintain a cumulative list of all technical directives. The contractor shall report in accordance with Contract Reporting Requirements.

TASK 1: Update, Consolidate and Synthesize Existing Water Quality Information

After the initial GKM spill in August of 2015, EPA, USGS, states, tribes and local jurisdictions collected water quality samples to assess the impact of the spill. Additional information was collected in the months after the spill to determine the baseline water quality of the watershed. Initial data summary documents have been developed in 2016.

The WACOR will provide the contractor with all sources of water quality information available and any past data summaries and assessments. The contractor will identify any additional information for the area impacted by the GKM spill along with existing watershed information. The contractor will consolidate and update the water quality information and identify data gaps.

Subtask 1.1 – Development of a data quality assurance project plan
The contractor shall develop a secondary data quality assurance project plan (QAPP) necessary for analyzing existing water quality data prior to analyzing available data. This secondary QAPP will be submitted to EPA for review and approval.

Deliverables: The contractor shall develop and submit to EPA, at a minimum 1 draft and 1 final QAPP document for approval. The contractor shall provide a summary document of water quality data highlighting new data and data gaps. In consultation with the WACOR, the contractor will group the data geographically (e.g., Animas River, San Juan River, Lake Powell) and identify similarities and differences in the data collected and data gaps. Differences could include, parameters analyzed, methods used, and predominant geographic water quality concern.

TASK 2: Technical Support for Program Planning Meeting

EPA will be conducting a 2-day technical meeting with the jurisdictions impacted by the GKM spill to consult on the development of the long-term monitoring plan, as required by the WIIN Act authorization. The 2-day workshop will focus on identifying priorities for geographic areas along the spill course, reviewing data gaps, discussing a framework for a monitoring strategy and watershed based approach for the long-term monitoring program, identifying approach for determining needed focus in each area over the 5-year project period and identifying how local jurisdictions should be engaged in the overall program. The contractor shall provide technical and facilitation support for the meeting including logistical support, and developing, revising and delivering materials. It is estimated that approximately 40 participants (EPA and non-EPA) will participate in the meeting with 16 to 24 being the jurisdictions. The meeting will be held in the late September/October 2017 timeframe.

Subtask 2.1 – Identifying and Consolidating Priorities with the Jurisdictions
The contractor shall provide technical and facilitative support to the jurisdictions prior to the in-person meeting including: identifying each jurisdictions' priorities for the program; facilitating 2-3 conference calls with jurisdictions and the WACOR to consolidate shared priorities; and develop a summary document of the discussions to use as a discussion tool in the in-person meeting.

Deliverables: The contractor shall provide conference call notes after each discussion. The contractor shall develop a summary document of the outcomes of the discussions regarding jurisdiction priorities prior to the in-person meeting.

Subtask 2.2 – Logistical and Presentation Support for Meeting
The contractor shall provide technical, logistical and presentation support prior to the in-person meeting, including: participating in 2-3 conference calls to develop the meeting agenda, selecting a meeting venue and AV equipment that complies with EPA's Green Meeting requirements

(including identifying locations and negotiating room rates); conducting one 45-minute presentation summarizing the existing water quality data and data gaps; coordination among the States, Tribes, and EPA; preparing session agendas and support materials; securing audio/visual equipment, facilitating sessions, taking notes and preparing a final meeting summary.

Deliverables: The contractor shall provide conference call notes after each pre-meeting discussion. The contractor shall develop draft and final agendas. EPA will identify a city for the meeting. The contractor will the identify 4-5 locations to hold the meeting and prepare a cost comparison for the WACOR. The contractor will make final meeting arrangements based on the location selected by the WACOR. The contractor will provide final meeting summary notes including next steps.

Subtask 2.3 – Identification of National Experts
The contractor, with guidance from the jurisdictions and EPA, will identify one or two technical experts per jurisdiction to participate in the 2-day program planning meeting. Final technical experts will be selected, in consultation with the WACOR, based on any gaps in expertise in the agenda. The contractor shall provide travel support, as needed.

Deliverables: The contractor shall provide a list of technical experts and provide travel support.

TASK 3: Develop Program Implementation Supporting Documents

The contractor will develop documents to support long-term water quality monitoring program activities such as a Quality Assurance Project Plan (QAPP), ambient water quality monitoring strategy to address data gaps and watershed plan (if needed) for the program area. These documents will be identified during the 2-day meeting. The contractor should plan to develop at least 1 of these documents. Documents will be developed in consultation with the WACOR and will be compiled and developed based on similar, existing documents.

Deliverables: The contractor shall develop, at a minimum, 1 draft and 1 final document.

DELIVERABLES REQUIRED AND SCHEDULE FOR COMPLETION OF TASKS

Task	Item Require	Due Date	Number of Copies and Format Requirements
0	Monthly progress report	Last week day of each month	1 copy - Word Format or PDF

1	Draft QAPP document Final QAPP document Draft data summary document Final data summary document	Within 1 month of WA approval Within 2 weeks of WACORs comments Within 1 month of WA approval Within 2 weeks of WACORs comments	1 copy - Word Format or PDF 1 copy - Word Format or PDF 1 copy – Word, Excel, Access or other appropriate data viewing format or PDF 1 copy - Word, Excel, Access or other appropriate data viewing format or PDF
2.1	Conference call notes Final Jurisdiction priority summary document for in-person meeting	3 business days after call 1 week of WACORs comments	1 copy - Word Format or PDF 1 copy - Word Format or PDF
2.2	Conference call notes Draft agenda Final agenda Identify 4-5 meeting locations and prepare a cost comparison Finalize meeting arrangements Meeting summary notes	3 business days after call Within 1 weeks of final planning call Within 1 weeks of WACORs comments Within 2 weeks of EPA providing city Within 1 week of EPA selecting facility Within 2 weeks of meeting	1 copy - Word Format or PDF 1 copy - Word Format or PDF 1 copy - Word Format or PDF 1 copy - Word Format or PDF Email confirmation 1 copy - Word Format or PDF
2.3	List of technical experts Provide travel support	Within 1 week of finalizing agenda Within 1 week of receiving reimbursement request	1 copy - Word Format or PDF Email confirmation when complete

3	Draft document Final document	Within 1 month of WACOR technical direction Within 2 weeks of WACOR comments	1 copy - Word Format or PDF 1 copy - Word Format or PDF

The Contractor shall notify the CO and WACOR in writing when 75% of the authorized work assignment LOE/labor hours have been expended.

CONTRACT PWS REFERENCE

See Contract PWS page 9 – 12 of 28 for Task 1: Update, Consolidate and Synthesize Existing Water Quality Information and Task 3: Develop Program Implementation Supporting Documents [3.4]. See Contract PWS page 15 - 16 of 28 for Task 2: Technical Support for Program Planning Meeting [3.9].

ANTICIPATED TRAVEL REQUIREMENTS

All travel shall be approved in advance by the Contract-Level Contracting Officer's Representative (CL-COR) and shall be in accordance with the Contract.

ADDITIONAL REQUIREMENTS

Office direct costs (ODCs) for copying, postage/courier, supplies, computer usage, and graphics are allowed. No other ODCs are allowable as a direct charge to this delivery order without the prior written approval of the Contracting Officer.

Upon issuance of written technical direction, the Contractor shall submit for inspection of all work in progress at any time under this work assignment. The Contractor shall develop and maintain files supporting each task.

The contractor shall contact the Contracting Officer (CO) and/or the CL-COR by telephone to discuss any problems that may adversely affect the work on this Work Assignment. Within five (5) calendar days the contractor shall follow the phone call with a brief written explanation of the problem, including any actions already taken, and/or recommended solutions to correct the problem. Written explanation shall be made available to the CO and the CL-COR.

CONTRACTOR IDENTIFICATION

To avoid any perception that contractor personnel are EPA employees, the contractor shall assure that contractor personnel are clearly identified as independent contractors of EPA when attending meetings with outside parties or visiting field sites.

CONTROL REQUIREMENTS

Quality Assurance Project Plan (QAPP):

A QAPP will be needed for to conduct a data gaps analysis.

Organizational Conflict of Interest:

The Contractor shall warrant that, to the best of the Contractor's knowledge and belief, there are no relevant facts or circumstances which could give rise to an organizational conflict of interest, as defined in FAR Subpart 9.5, or that the contractor has disclosed all such relevant information. See contract clause 1552.209-71 Organization of Conflict of Interest.

Notification of Conflicts of Interest Regarding Personnel:

The Contractor shall immediately notify the CL-COR and the Contracting Officer of (1) any actual or potential personal conflict of interest with regard to any of its employees working on or having access to information regarding this contract, or (2) any such conflicts concerning subcontractor employees or consultants working on or having access to information regarding the contract, when such conflicts have been reported to the Contractor. A personal conflict of interest is defined as a relationship of an employee, subcontractor employee, or consultant with an entity that may impair the objectivity of the employee, subcontractor employee, or consultant in performing the contract work. See Section H.4, contract clause EPAAR 1552.209-73 Notification of Conflict of Interest.

Enforcement Sensitive Information:

The contractor will not collect or be provided enforcement sensitive information.

Project Employee Confidentiality Agreement

The contractor agrees that the contractor employee will not disclose, either in whole or in part, to any entity external to the EPA, the Department of Justice, or the contractor, any information or data (as defined in FAR Section 27.401) provided by the government or first generated by the contractor under this contract, any site-specific cost information, or any enforcement strategy without first obtaining the written permission of the CL-COR. If a contractor, through an employee or otherwise, is subpoenaed to testify or produce documents, which could result in such disclosure, the contractor must provide immediate advance notification to the EPA so that the EPA can take action to prevent such disclosure. Such agreements shall be effective for the life and for a period of five (5) years after completion of the contract.

Handling of Confidential Business Information (CBI)

This work assignment does not require access to proprietary or confidential business or financial data.

Conference/Meeting Guidelines and Limitations

The WACOR will prepare internal paperwork for Task 2 and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

PERFORMANCE SURVEILLANCE PLAN			
Performance Requirement	**Measurable Performance Standards**	**Surveillance Methods**	**Incentives/Disincentives**
Management and Communications: During the life of this work assignment, the Contractor shall notify EPA immediately of any issues that may impact the timeliness of deliverables of the problems associated with the development of deliverables.	The Contractor shall maintain contact with the WACOR throughout the performance of the work assignment. The contractor shall identify to the WACOR any delays with regard to deliverables not less than one week prior to the deliverable date that has been established in the work assignment or technical direction document. The contractor shall identify to the WACOR any issues or concerns that have a direct impact on project schedules within three (3) days of occurrence. The contractor shall provide options for EPA's consideration on resolving or mitigating the impacts identified.	WACOR and CL-COR (as necessary) will allocate the time needed to discuss and address all issues identified by the Contractor. The WACOR and CL-COR will document and maintain a complete record of the issues, agreements and outcome. The WACOR and CL-COR will review monthly progress reports for indicators of problems not previously mentioned. The WACOR will also monitor the timely receipt of deliverables. For those that are late without prior notice, the EPA will formally document to the Contracting Officer the late delivery.	If the contractor fails to implement corrective actions after EPA identifies and provided written documentation of performance issues, EPA will rate this performance category "unsatisfactory." If three or more the active work assignments for the period are rated unsatisfactory, EPA will rate the Business Relations category as unsatisfactory in the CPARS Contract Performance System.

Cost Management and Control: The Contractor shall perform all work in an efficient and cost effective manner, applying cost control measures where practical.	The Contractor shall monitor, track and accurately report level of effort, labor cost, other direct cost and fee expenditures to EPA through monthly progress reports and approved special reporting requirements. The Contractor shall assign appropriately leveled and skilled personnel to all tasks. The contractor should not exceed established work assignment ceilings and, in general, should expend dollars and hours at similar ratios. If either the expenditure of hours or dollars deviates significantly, the contractor shall provide an explanation in its Monthly Progress Report.	The CL-COR will routinely meet with the Contractor's Project Manager to discuss the work progress and contract and individual work assignment level expenditures. The CL-COR and WACOR shall review the Contractor's monthly progress reports and request the Work Assignment Contracting Officer's Representative to ensure that ceilings are not exceeded, that progress is being made, and that the contractor is effectively utilizing the LOE provided under the work assignment.	EPA will thoroughly review work assignment funding ceiling overruns to determine the contractor's ability to control the situation. If EPA determines that the contractor failed to control cost, the contractor will be rated "unsatisfactory" in this category. Multiple incidents of work assignment overrun that result in an overall cost overrun of greater than 4% of the approved total work assignment funding for the current contract period, will result in an unsatisfactory rating in the CPARS Contract Performance System.
Quality of Product/Services: The contractor shall ensure documents developed under this task order are quality products that are factual and based on sound science and engineering principles.	Products delivered under this work assignment must not contain any major factual errors. The analyses provided in each product shall be logical, consistent, and defensible.	The WACOR will review all documents delivered under this work assignment for content accuracy.	If EPA determines that the contractor's analyses is factually inaccurate or if significant technical errors are found in any documents produced by the contractor, EPA may determine that the cost associated with redoing the work shall be borne by the contractor. Multiple incidents of this nature under the contract will result in an unsatisfactory rating for Quality and Manage Control being reported to the CPARS Contract Performance System.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 1-04

☐ Other ☒ Amendment Number: 000001

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-16-003	07/01/2016 To 06/30/2018 Base Option Period Number 1	Support for WIIN Act Long-Term

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- ☐ Work Assignment
- ☒ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 01/25/2018 To 06/30/2018

Comments:
The purpose of this Amendment 1 is to change the Work Assignment Contracting Officer's Representative (WACOR) to Shera Reems and the Alternate Work Assignment Contracting Officer's Representative (Alternate WACOR) to Caroline Klos.

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
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Authorized Work Assignment Ceiling

Contract Period: 07/01/2016 To 06/30/2018 Cost/Fee: LOE:

This Action:

Total:

Work Plan / Cost Estimate Approvals

Contractor WP Dated: Cost/Fee LOE:

Cumulative Approved: Cost/Fee LOE:

Work Assignment Manager Name Shera Reems (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-1264 FAX Number:	
Project Officer Name Tangela Cooper (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0369 FAX Number:	
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:	
Contracting Official Name Brad Heath (Signature) 1/25/2018 (Date)	Branch/Mail Code: Phone Number: 513-487-2352 FAX Number:	

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 1-04

☐ Other ☒ Amendment Number: 000002

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-16-003	07/01/2016 To 06/30/2021 Base Option Period Number 1	Support for WIIN Act Long-Term

Contractor: EASTERN RESEARCH GROUP, INC.

Specify Section and paragraph of Contract SOW: See PWS

Purpose:
- ☐ Work Assignment
- ☒ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 03/06/2018 To 06/30/2018

Comments:

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

SFO (*Max 2*) ☐

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period: 07/01/2016 To 06/30/2021 Cost/Fee: LOE:

This Action:

Total:

Work Plan / Cost Estimate Approvals

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Project Officer Name Tangela Cooper (Signature) (Date)	Branch/Mail Code: Phone Number: 202-566-0369 FAX Number:	
Other Agency Official Name (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:	
Contracting Official Name Brad Heath (Signature) 3/6/2018 (Date)	Branch/Mail Code: Phone Number: 513-487-2352 FAX Number:	

PERFORMANCE WORK STATEMENT
CONTRACT EP-C-16-003
WORK ASSIGNMENT 1-04
AMENDMENT 2

TITLE: Support for WIIN Act Long-Term Monitoring Program

WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (WACOR):

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1200 Pennsylvania Avenue, N. W.
Mail Code: 4502-T
Washington, DC 20460
Phone: 202-564-1264
Email: reems.shera@epa.gov

ALTERNATE WORK ASSIGNMENT CONTRACTING OFFICER'S REPRESENTATIVE (ALTERNATE WACOR):

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USEPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N. W.
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Washington, DC 20460
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PERIOD OF PERFORMANCE: March 6, 2018 through June 30, 2018

BACKGROUND: On August 5, 2015, EPA was conducting an investigation of the Gold King Mine (GKM) near Silverton, Colorado to assess the on-going water releases from the mine, treat mine water, and assess the feasibility of further mine remediation. While excavating above an old adit, pressurized water began leaking above the mine tunnel, spilling about three million gallons of water stored behind the collapsed material into Cement Creek, a tributary of the Animas River (http://www2.epa.gov/goldkingmine). The Animas River originates in the mountain peaks northeast of Silverton in San Juan County, Colorado. It ends in Farmington, New Mexico, where it flows into the San Juan River, which terminates in Lake Powell, Utah. This incident occurred in a watershed shared by Colorado, Southern Ute Indian Tribe, New Mexico, Ute Mountain Ute, Navajo, Utah and Arizona.

The Water Infrastructure Improvement for the Nation (WIIN) Act was enacted in December,

2016 and provides for "improvements to the rivers and harbors of the United States, to provide for the conservation and development of water and related resources, and for other purposes." The Act includes numerous and wide-ranging water related provisions.

Section 5004(d) of the WIIN Act provides that EPA, "in conjunction with affected States, Indian tribes and local governments, shall, subject to the availability of appropriations, develop and implement a program for long-term water quality monitoring of rivers contaminated by the Gold King Mine release." This work assignment will support EPA in the development and initial implementation of the long-term monitoring program. supports EPA Strategic Goal 2 Protecting America's Waters.

PURPOSE AND OBJECTIVE

During the period of performance, the contractor under this Work Assignment, will provide technical support to the National Water Program for the development and initial implementation of the long-term monitoring program for rivers impacted by the Gold King Mine spill. Technical support includes: (1) update, consolidate and synthesize existing information for 3 major areas impacted by the spill – Animas River, San Juan River and Lake Powell, and develop documents to support program activities, such as a Quality Assurance Project Plan (QAPP), ambient water quality monitoring strategy to address data gaps and/or long-term watershed plan for the program area (2) Provide technical and logistical support for two 2-day program planning meetings at a central location (NM, AZ or UT) of the impacted jurisdictions to identify the goals and priorities for the long-term monitoring program, discuss data gaps and an approach for assessing the long-term impact of the GKM spill, and (3) Develop communication materials, which may include: communication strategy, fact sheet, and story map. The contractor will ensure compliance with Agency standards.

SCOPE OF WORK

TASK 0: WORK ASSIGNMENT MANAGEMENT

The contractor shall routinely provide performance updates, estimated costs, level of effort (LOE) and key deliverables upon request from EPA's Work Assignment Contracting Officer's Representative (WACOR) and/or Alternative WACOR for all ongoing tasks. Regularly scheduled bi-weekly conference calls and in-person meetings, as needed, will be coordinated between EPA's WACOR and the contractor to discuss the work assignment and progress of tasks. In addition, the contractor shall provide a monthly progress report that includes implementation plan(s); issues encountered and lessons learned regarding the progress of all tasks, the tracking of expenditures, and any other administrative activities, as requested.

Deliverables: The contractor shall provide a monthly progress report. The contractor shall maintain a cumulative list of all technical directives. The contractor shall report in accordance with Contract Reporting Requirements.

TASK 1: Update, Consolidate and Synthesize Existing Water Quality Information

After the initial GKM spill in August of 2015, EPA, USGS, states, tribes and local jurisdictions collected water quality samples to assess the impact of the spill. Additional information was collected in the months after the spill to determine the baseline water quality of the watershed. Initial data summary documents have been developed in 2016.

The WACOR will provide the contractor with all sources of water quality information available and any past data summaries and assessments. The contractor will identify any additional information for the area impacted by the GKM spill along with existing watershed information. The contractor will consolidate and update the water quality information and identify data gaps.

Subtask 1.1 – Development of a long-term water quality monitoring plan and quality assurance project plan

The contractor shall develop a long-term water quality monitoring plan and develop a quality assurance project plan (QAPP) for the monitoring of water chemistry and sediment, as well as biology. The long-term monitoring plan and QAPP will be submitted to EPA for review and approval.

Deliverables: The contractor shall develop and submit to EPA, at a minimum 1 draft and 1 final long-term water quality monitoring plan, as well as 1 draft and 1 final QAPP document for approval. The development of a QAPP specific to biology will be a subcomponent of the water chemistry and sediment QAPP, and will be submitted at different times. A draft and final QAPP for biology, will also be recommended.

TASK 2 – Technical Support for Program Planning Meeting

EPA will conduct two 2-day technical meetings with the jurisdictions impacted by the GKM spill to consult on the development of the long-term monitoring plan, as required by the WIIN Act authorization. The first 2-day workshop will focus on identifying priorities for geographic areas along the spill course, reviewing data gaps, discussing a framework for a monitoring strategy and watershed based approach for the long-term monitoring program, identifying approach for determining needed focus in each area over the 5-year project period and identifying how local jurisdictions should be engaged in the overall program. The contractor shall provide technical and facilitation support for the meeting including logistical support, and developing, revising and delivering materials. It is estimated that approximately 40 participants (EPA and non-EPA) will participate in the meeting with 16 to 24 being the jurisdictions. The meeting will be held in the late September/October 2017 timeframe. The second two- day meeting will occur in the Spring/Summer 2018 timeframe. This meeting will focus on how to distribute the FY 18 WIIN appropriation (currently in EPA's FY 18 draft budget) amongst the priorities identified by the jurisdictions. It is estimated that approximately 30 participants (EPA and non-EPA) will participate in the meeting with 12 to 16 being the jurisdictions The contractor shall provide technical and facilitation support for the meeting include: logistical support and develop, revise, and deliver materials for the meeting.

Subtask 2.1 – Identifying and Consolidating Priorities with the Jurisdictions

The contractor shall provide technical and facilitative support to the jurisdictions prior to the in-person meeting including: identifying each jurisdictions' priorities for the program; facilitating 2-3 conference calls with jurisdictions and the WACOR to consolidate shared priorities; and develop a summary document of the discussions to use as a discussion tool in the in-person meeting.

Deliverables: The contractor shall provide conference call notes after each discussion. The contractor shall develop a summary document of the outcomes of the discussions regarding jurisdiction priorities prior to the in-person meeting.

Subtask 2.2 – Logistical and Presentation Support for Meeting

The contractor shall provide technical, logistical and presentation support prior to the in-person meeting, including: participating in 2-3 conference calls to develop the meeting agenda, selecting a meeting venue and AV equipment that complies with EPA's Green Meeting requirements (including identifying locations and negotiating room rates); conducting one 45-minute presentation summarizing the existing water quality data and data gaps; coordination among the States, Tribes, and EPA; preparing session agendas and support materials; securing audio/visual equipment, facilitating sessions, taking notes and preparing a final meeting summary.

Deliverables: The contractor shall provide conference call notes after each pre-meeting discussion. The contractor shall develop draft and final agendas. EPA will identify a city for the meeting. The contractor will the identify 4-5 locations to hold each meeting and prepare a cost comparison for the WACOR. The contractor will make final meeting arrangements based on the location selected by the WACOR. The contractor will provide final meeting summary notes including next steps.

Subtask 2.3 – Identification of National Experts

The contractor, with guidance from the jurisdictions and EPA, will identify one or two technical experts per jurisdiction to participate in each 2-day program planning meeting. Final technical experts will be selected, in consultation with the WACOR, based on any gaps in expertise in the agenda. The contractor shall provide travel support, as needed.

Deliverables: The contractor shall provide a list of technical experts and provide travel support for each meeting.

TASK 3: Develop Program Implementation Supporting Documents

The contractor will support the EPA and jurisdictions in the development of communications materials to inform the public about the San Juan Watershed Monitoring Program, which was an outcome of the first 2-day meeting in October 2018. The communication materials, which may include: communication strategy, fact sheet, and story map. In addition, the contractor will participate in regularly scheduled meetings with the communications team. For these regular

meetings, the contractor shall support EPA in capturing notes and action items. Documents will be developed in consultation with the WACOR and the jurisdictions.
In the original work assignment, the contractor was tasked with the development of the QAPP, which was also outlined under Task 1. This amendment removes the duplication of the QAPP work under Task 1 and Task 3.

Deliverables: The contractor shall develop, at a minimum, 1 draft and 1 final document communications strategy and fact sheet about the San Juan Watershed Monitoring Program.

DELIVERABLES REQUIRED AND SCHEDULE FOR COMPLETION OF TASKS

Task	Item Require	Due Date	Number of Copies and Format Requirements
0	Monthly progress report	Last week day of each month	1 copy - Word Format or PDF
1	Draft QAPP document for water chemistry and sediment	Within 1 month of WA approval	1 copy - Word Format or PDF
	Final QAPP document for water chemistry and sediment	Within 2 weeks of WACORs comments	1 copy - Word Format or PDF
	Draft QAPP document for biology	Within 1 month of WA approval	1 copy - Word Format or PDF
	Final QAPP document for biology	Within 2 weeks of WACORs comments	1 copy - Word Format or PDF
	Draft Long-term water quality monitoring plan	Within 1 month of WA approval	1 copy – Word Format or PDF
	Final Long-term water quality monitoring plan	Within 2 weeks of WACORs comments	1 copy – Word Format or PDF

2.1	Conference call notes Final Jurisdiction priority summary document for in-person meeting	3 business days after call 1 week of WACORs comments	1 copy - Word Format or PDF 1 copy - Word Format or PDF
2.2	Conference call notes Draft agenda Final agenda Identify 4-5 meeting locations and prepare a cost comparison Finalize meeting arrangements Meeting summary notes	3 business days after call Within 1 weeks of final planning call Within 1 weeks of WACORs comments Within 2 weeks of EPA providing city Within 1 week of EPA selecting facility Within 2 weeks of meeting	1 copy - Word Format or PDF 1 copy - Word Format or PDF 1 copy - Word Format or PDF 1 copy - Word Format or PDF Email confirmation 1 copy - Word Format or PDF
2.3	List of technical experts Provide travel support	Within 1 week of finalizing agenda Within 1 week of receiving reimbursement request	1 copy - Word Format or PDF Email confirmation when complete

3	Draft communication strategy document	Within 1 month of WACOR technical direction	1 copy - Word Format or PDF
	Final communication strategy document	Within 2 weeks of WACOR comments	1 copy - Word Format or PDF
	Draft fact sheet for San Juan Watershed Monitoring Program	Within 1 month of WACOR technical direction	1 copy - Word Format or PDF
	Final fact sheet for San Juan Watershed Monitoring Program	Within 2 weeks of WACOR comments	1 copy - Word Format or PDF

The Contractor shall notify the CO and WACOR in writing when 75% of the authorized work assignment LOE/labor hours have been expended.

CONTRACT PWS REFERENCE

See Contractor SOW page 9 – 12 of 28 for Task 1: Update, Consolidate and Synthesize Existing Water Quality Information and Task 3: Develop Program Implementation Supporting Documents [3.4]. See Contractor SOW page 15 - 16 of 28 for Task 2: Technical Support for Program Planning Meeting [3.9].

ANTICIPATED TRAVEL REQUIREMENTS

All travel shall be approved in advance by the Contract-Level Contracting Officer's Representative (CL-COR) and shall be in accordance with the Contract.

ADDITIONAL REQUIREMENTS:

Office direct costs (ODCs) for copying, postage/courier, supplies, computer usage, and graphics are allowed. No other ODCs are allowable as a direct charge to this delivery order without the prior written approval of the Contracting Officer.

Upon issuance of written technical direction, the Contractor shall submit for inspection of all work in progress at any time under this work assignment. The Contractor shall develop and maintain files supporting each task.

The contractor shall contact the Contracting Officer (CO) and/or the CL-COR by telephone to discuss any problems that may adversely affect the work on this Work Assignment. Within five (5) calendar days the contractor shall follow the phone call with a brief written explanation of the

problem, including any actions already taken, and/or recommended solutions to correct the problem. Written explanation shall be made available to the CO and the PO.

CONTRACTOR IDENTIFICATION

To avoid any perception that contractor personnel are EPA employees, the contractor shall assure that contractor personnel are clearly identified as independent contractors of EPA when attending meetings with outside parties or visiting field sites.

CONTROL REQUIREMENTS

Quality Assurance Project Plan (QAPP):

A QAPP will be needed to conduct a data gaps analysis.

Organizational Conflict of Interest:

The Contractor shall warrant that, to the best of the Contractor's knowledge and belief, there are no relevant facts or circumstances which could give rise to an organizational conflict of interest, as defined in FAR Subpart 9.5, or that the contractor has disclosed all such relevant information. See contract clause 1552.209-71 Organization of Conflict of Interest.

Notification of Conflicts of Interest Regarding Personnel:

The Contractor shall immediately notify the CL-COR and the Contracting Officer of (1) any actual or potential personal conflict of interest with regard to any of its employees working on or having access to information regarding this contract, or (2) any such conflicts concerning subcontractor employees or consultants working on or having access to information regarding the contract, when such conflicts have been reported to the Contractor. A personal conflict of interest is defined as a relationship of an employee, subcontractor employee, or consultant with an entity that may impair the objectivity of the employee, subcontractor employee, or consultant in performing the contract work. See Section H.4, contract clause EPAAR 1552.209-73 Notification of Conflict of Interest.

Enforcement Sensitive Information:

The contractor will not collect or be provided enforcement sensitive information.

Project Employee Confidentiality Agreement

The contractor agrees that the contractor employee will not disclose, either in whole or in part, to any entity external to the EPA, the Department of Justice, or the contractor, any information or data (as defined in FAR Section 27.401) provided by the government or first generated by the contractor under this contract, any site-specific cost information, or any enforcement strategy without first obtaining the written permission of the EPA CL-CPR. If a contractor, through an employee or otherwise, is subpoenaed to testify or produce documents, which could result in

such disclosure, the contractor must provide immediate advance notification to the EPA so that the EPA can take action to prevent such disclosure. Such agreements shall be effective for the life and for a period of five (5) years after completion of the contract.

Handling of Confidential Business Information (CBI)

This work assignment does not require access to proprietary or confidential business or financial data.

Conference/Meeting Guidelines and Limitations

The WACOR will prepare internal paperwork for Task 2 and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

PERFORMANCE SURVEILLANCE PLAN			
Performance Requirement	**Measurable Performance Standards**	**Surveillance Methods**	**Incentives/Disincentives**
Management and Communications: During the life of this work assignment, the Contractor shall notify EPA immediately of any issues that may impact the timeliness of deliverables of the problems associated with the development of deliverables.	The Contractor shall maintain contact with the WACOR throughout the performance of the work assignment. The contractor shall identify to the WACOR any delays with regard to deliverables not less than one week prior to the deliverable date that has been established in the work assignment or technical direction document. The contractor shall identify to the WACOR any issues or concerns that have a direct impact on project schedules within three (3) days of occurrence. The contractor shall provide options for EPA's consideration on resolving or mitigating the impacts identified.	WACOR and CL-COR (as necessary) will allocate the time needed to discuss and address all issues identified by the Contractor. The WACOR and CL-COR will document and maintain a complete record of the issues, agreements and outcome. The WACOR and CL-COR will review monthly progress reports for indicators of problems not previously mentioned. The WACOR will also monitor the timely receipt of deliverables. For those that are late without prior notice, the EPA will formally document to the Contracting Officer the late delivery.	If the contractor fails to implement corrective actions after EPA identifies and provided written documentation of performance issues, EPA will rate this performance category "unsatisfactory." If three or more the active work assignments for the period are rated unsatisfactory, EPA will rate the Business Relations category as unsatisfactory in the CPARS Contract Performance System.
Cost Management and Control: The Contractor shall perform all work in an efficient and cost effective manner, applying cost control measures where practical.	The Contractor shall monitor, track and accurately report level of effort, labor cost, other direct cost and fee expenditures to EPA through monthly progress reports and approved special reporting requirements. The Contractor shall assign appropriately leveled and skilled personnel to all tasks. The contractor should not exceed established work assignment ceilings and, in general, should expend dollars and hours at similar ratios. If either the expenditure of hours or dollars deviates significantly, the contractor shall provide an explanation in its Monthly Progress Report.	The CL-COR will routinely meet with the Contractor's Project Manager to discuss the work progress and contract and individual work assignment level expenditures. The CL-COR and WACOR shall review the Contractor's monthly progress reports and request the Work Assignment Contracting Officer's Representative to ensure that ceilings are not exceeded, that progress is being made, and that the contractor is effectively utilizing the LOE provided under the work assignment.	EPA will thoroughly review work assignment funding ceiling overruns to determine the contractor's ability to control the situation. If EPA determines that the contractor failed to control cost, the contractor will be rated "unsatisfactory" in this category. Multiple incidents of work assignment overrun that result in an overall cost overrun of greater than 4% of the approved total work assignment funding for the current contract period, will result in an unsatisfactory rating in the CPARS Contract Performance System.

Quality of Product/Services: The contractor shall ensure documents developed under this task order are quality products that are factual and based on sound science and engineering principles.	Products delivered under this work assignment must not contain any major factual errors. The analyses provided in each product shall be logical, consistent, and defensible.	The WACOR will review all documents delivered under this work assignment for content accuracy.	If EPA determines that the contractor's analyses is factually inaccurate or if significant technical errors are found in any documents produced by the contractor, EPA may determine that the cost associated with redoing the work shall be borne by the contractor. Multiple incidents of this nature under the contract will result in an unsatisfactory rating for Quality and Manage Control being reported to the CPARS Contract Performance System.