

AGENDA

Red Run Intercounty Drain Drainage Board Macomb and Oakland Counties

May 15, 2024 – 10:30 a.m.

Office of the Oakland County Water Resources Commissioner
One Public Works, Building 95 West
Waterford, Michigan, and Microsoft Teams

1. Call meeting to order

Board Members:

Michael Gregg, Chair, Michigan Department of Agriculture and Rural Development
Candice Miller, Macomb County Public Works Commissioner
Jim Nash, Oakland County Water Resources Commissioner

2. Approval of the meeting agenda for May 15, 2024
3. Approval of Drainage District Board Meeting Minutes from April 17, 2024
4. Public Comment
5. Red Run Freedom Hill
 - a. Account of Project Standing
6. U.S. Army Corp. of Engineers Spill Response Work Plan Agreement Update
7. U.S. Army Corp. of Engineers Drain Walk Thru Summary
8. Present trial balance
9. Present for approval payment of invoice in the amount of \$2,574.05
10. Other business
11. Adjourn

Agenda Item No. 3

Board Meeting Minutes from
April 17, 2024

Minutes of the Meeting
of the Intercounty Drainage Board for the
Red Run Drain

April 17, 2024

Minutes of the regular meeting of the Drainage Board of the Red Run Drain Drainage District held at the office of the Oakland County Water Resources Commissioner, One Public Works Drive, Building 95 West, Waterford, Michigan on the 17th day of April 2024 10:30 a.m. Eastern Standard Time and via Microsoft Teams.

Present: Michael Gregg, Chairperson and Deputy for Dr. Tim Boring, Director of the Michigan Department of Agriculture and Rural Development; Candice Miller, Member and Macomb County Public Works Commissioner; and Anne Vaara for Jim Nash, Secretary and Oakland County Water Resources Commissioner.

Also Present: Representing the office of the Macomb County Public Works Commissioner; Brian Baker, Steve Duchane, and Danielle Devlin. Representing the office of the Oakland County Water Resources Commissioner: Steve Korth, Leslie Maes, Brian Coburn, George Nichols, Meg Koss, Stephanie Lajdziak. Others in attendance: Nancy Kolinski (Hubbell, Roth & Clark), Amanda Ruffini (Six Rivers Land Conservancy).

1. Call meeting to order.

Chairperson Gregg called the meeting to order at 10:30 a.m.

2. Agenda.

Motion by Miller, supported by Vaara, to approve the April 17, 2024, agenda as presented.

Adopted: YEAS – 3
NAYS – 0

3. Minutes.

Motion by Varra, supported by Miller, to approve the minutes of the March 20, 2024, meeting.

Adopted: YEAS – 3
NAYS – 0

4. Public Comment.

None.

5. Freedom Hill.

Nancy Kolinski provided the Board with an update on various projects within the Drainage District. She noted that there are no major updates on Freedom Hill. The plantings and seedings were briefly discussed. It was further advised that the Army Corps. of Engineers have changed their guidance regarding the access requirements for easements and the agreements will now be the responsibility of a member of the Drainage District. Easement access was discussed at length, including various access points. Steve Korth advised that the

Board can decide on which county would take the lead on easements. It was decided that Macomb County would coordinate the easement agreements since the Phase 2 project is located within Macomb.

Ms. Kolinski touched on the Spill Response and advised the agreement still needs to be signed off by the USACE, but is expected to be signed within the coming weeks.

Motion by Miller, supported by Vaara, to receive and file the Account of Project Standing as presented.

Adopted: YEAS – 3
NAYS – 0

6. Six Rivers Land Conservancy Sustain Our Great Lakes Grant Proposal

Amanda Ruffini with Six Rivers Land Conservancy provided the Board with an update regarding the work going into the Drainage District in regard to the invasive species. She advised that the work done on the drain would be threatened due to the growth of Japanese Hops. She presented a letter of commitment and property access agreements that are required as part of the National Fish and Wildlife Foundation Sustain our Great Lakes grant. She advised that she is asking the Board for \$150,000 of in-kind match in the form of cash for treatment and maintenance. Discussion ensued as the type of treatment that will be used and the long-term management of invasive species.

Motion by Miller, supported by Varra to authorize the \$150,000 over 3 years with a cash match as presented,

Adopted: YEAS – 3
NAYS – 0

Motion by Miller supported by Vaara, to authorize the Chairperson to sign the letter of support to 6 Rivers Land Conservancy and any other documents necessary for the National Fish and Wildlife Foundation Sustain our Great Lakes grant application

Adopted: YEAS – 3
NAYS – 0

9. Trial Balance.

Mr. Nichols presented the Trial Balance report dated April 8, 2024, indicating a cash available balance of \$1,021,221.22.

Motion by Vaara, supported by Miller, to receive and file the updated Trial Balance as provided.

Adopted: YEAS – 3
NAYS – 0

11. Other Business.

None.

12. Adjourn.
Motion by Varra, supported by Miller, to adjourn the April 17, 2024, meeting at 11:13 a.m.

Adopted: YEAS – 3
NAYS – 0

Next Regular Meeting: *Office of the Oakland County Water Resources Commissioner, One Public Works Drive, Building 95 West, Waterford, Michigan* and electronically at 10:30 a.m. on May 15, 2024



Anne Vaara, Acting Secretary
Red Run Intercounty Drain Drainage Board

STATE OF MICHIGAN)
)SS.
COUNTY OF OAKLAND)

I hereby certify that the foregoing is a true and complete copy of the minutes of the Red Run Intercounty Drain Drainage Board, at a meeting held on the 17th day of April 2024, and that the meeting was conducted and public notice was given in compliance with the Open Meetings Act being Act 267, Public Acts of Michigan, 1976, as may be amended from time to time and that the minutes were kept and will be or have been made available to the public as required by the Act.

IN WITNESS WHEREOF, I have hereunto affixed my official signature on this 17th day of April 2024.



Anne Vaara, Acting Secretary
Red Run Intercounty Drain Drainage Board

Agenda Item No. 4

Public Comment

Agenda Item No. 5

Red Run Freedom Hill

Account of Project Standing

APS #: 39

Time Period: April 01, 2024, thru April 30, 2024

Prepared By: Nancy Kolinski

Date Issued: May 02, 2024

Project Task Summary:

Construction Update:

- No work since last update

Focus of Efforts in Next Period:

- Meeting with Contractor scheduled for Thursday, May 9th to inspect the condition of the plantings and inventory failed B&B trees for replacement.
- Unused Lo Prairie seed mix delivery to be coordinated with MCPWO.
- Prepare pay application for a future submittal.

Critical Decisions Made:

- N/A

Outstanding Critical Questions:

- N/A

Client Assistance Needed:

- None at this time.

Schedule Concerns

- None at this time

Scope and/or Budget Concerns:

- None at this time

Account of Project Standing

Red Run Drain Supplemental Services

Project Task Summary:

Task 1 – Permitting- In Progress - Submitted USACE Section 408 Certification – Full approval unknown.

Task 2 – Drainage District Assistance- In Progress

Task 3 – Monitoring Assistance- In Progress

Task 4– Grant Reporting- In Progress - No work for this period

Task 5 – Meetings- No work requested under this task

Task 6 – USACE Phase 2 Coordination- Red Run South bank (AEI): Design ongoing. 95% plans nearly complete. Submitted for EGLE for environmental permits (Part 303 Inland Lakes and Streams).

Non-federal sponsor is required to obtain all easements/ agreements etc. USACE Real Estate division will be supplying a real estate plan which is a document listing what is required to submit.

Task 7 – Project Signage- No work requested under this task

Miscellaneous:

- GWK Outfall project (KZF): Final documents submitted to USACE. Waiting for funds to be allocated for implementation.
- Invasive species:
 - Restoration to occur in Spring/Summer. Six Rivers coordinating restoration locations and contractor.
 - First 2024 treatment by PLM scheduled for May 2nd and 3rd.
- Red Run Resilience Study (DAR2v2): Coordination ongoing.
- Red Run Spill Response: USACE Work Plan Agreement – Final agreement submitted for signature.
- Red Run annual drain walk with USACE: scheduled for Wednesday, May 8th.

Critical Decisions Made:

- N/A

Outstanding Critical Questions:

- None at this time.

Client Assistance Needed:

- None at this time.

Schedule Concerns

- N/A

Scope and/or Budget Concerns:

- N/A

Agenda Item No. 6

Spill Response Work Plan Agreement Update

**OAKLAND COUNTY
WATER RESOURCES COMMISSIONER****MEMORANDUM**

TO: Michael Gregg, Chairman of the Drainage Board for the Red Run Drain

FROM: George P. Nichols, P.E., Assistant Chief Engineer *GPN*
Oakland County Water Resources Commissioner

SUBJECT: Red Run Spill Response USACE Work Plan Agreement

DATE: May 15, 2024

Back at the May 17, 2023, Red Run Intercounty Drain Board meeting, the Drainage Board approved to enter into an Agreement with the Department of the Army for the development of a comprehensive plan to improve spill response procedures within the Red Run Drain and allocated \$204,760 for the in-kind match contribution. Since that time, some modifications to the Agreement have been made and subsequently the total project budget has changed.

The total project is now budgeted at \$447,520. A 50% District match of \$233,760 is expected to be for work in-kind by the Drainage District. That is broken down to:

- \$43,130 – In kind services by Macomb County staff
- \$43,130 – In kind services by Oakland County staff
- \$47,500 – Consulting services by Hubbell Roth & Clark
- \$90,000 – Site work and materials to improve access and boom deployment at two pilot sites

The match allocation is \$19,000 more than the amount the Drainage Board originally approved last May. The budget increase allowed for the addition of a public outreach component as well as a formal spill response plan update. These revisions and updates have been reviewed and acknowledged by our office, Macomb County Public Works Office and Hubbell, Roth and Clark and are well worth the budget amendment.

During the December 2021 assessment, there was money budgeted for spill response work. There was also an assessment for contingency items that would be used for projects/drain repairs as needed before the next round of assessments was implemented. Since the spill response work item has already been expended, and to proceed with this project, the additional \$19,000 will be transferred from the contingency line item to the spill response line item.

Requested Action

Approval to amend the budget and allocate an additional \$19,000 (for a total of \$233,760) and enter into an Agreement with the Department of the Army for the development of a comprehensive plan to improve spill response procedures within the Red Run Drain. Also, to authorize the Chairman to sign the attached agreement on behalf of the Red Run Drain Drainage District

AGREEMENT
BETWEEN
THE DEPARTMENT OF THE ARMY
AND
RED RUN INTER-COUNTY DRAIN DRAINAGE BOARD, MICHIGAN
FOR DEVELOPMENT OF A COMPREHENSIVE PLAN

THIS AGREEMENT is entered into this ___ day of _____, ____, by and between the Department of the Army (hereinafter the “Government”), represented by the District Commander for Detroit District (hereinafter the “District Commander”) and the Red Run Inter-County Drain Drainage Board, Michigan (hereinafter the “Non-Federal Sponsor”), represented by the Board Chair.

WITNESSETH, THAT:

WHEREAS, Section 22 of the Water Resources Development Act of 1974, as amended (42 U.S.C. 1962d-16) authorizes the Secretary of the Army, acting through the Chief of Engineers, to provide assistance in the preparation of a comprehensive water resources plan (hereinafter the “Plan”) to a State, group of States, or non-Federal interest working with a State, and to establish and collect fees for the purpose of recovering 50 percent of the costs of such assistance except that Secretary may accept and expend non-Federal funds provided that are in excess of such fee; and

WHEREAS, the Government and the Non-Federal Sponsor have the full authority and capability to perform in accordance with the terms of this Agreement.

NOW, THEREFORE, the parties agree as follows:

1. The Government shall develop the Plan, in coordination with the Non-Federal Sponsor, in accordance with the attached Scope of Work, and any modifications thereto, that specifies the scope, cost, and schedule for activities and tasks, including the Non-Federal Sponsor’s in-kind services. In carrying out its obligations under this Agreement, the Non-Federal Sponsor shall comply with all the requirements of applicable Federal laws and implementing regulations, including but not limited to, if applicable, Section 601 of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto; the Age Discrimination Act of 1975 (42 U.S.C. 6102); and the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Army Regulation 600-7 issued pursuant thereto.

2. The Non-Federal Sponsor shall provide 50 percent of the costs for developing the Plan in accordance with the provisions of this paragraph. As of the effective date of this Agreement, the costs of developing the Plan are projected to be \$447,520, with the Government’s share of such costs projected to be \$223,760 and the Non-Federal Sponsor’s share of such costs projected to be \$223,760, which includes creditable in-kind services projected to be \$223,760 and the amount of funds required to meet its cost share projected to be \$0.

a. After considering the estimated amount of credit for in-kind services that will be afforded in accordance with paragraph 4, if any, the Government shall provide the Non-Federal Sponsor with a written estimate of the amount of funds required from the Non-Federal Sponsor for the initial fiscal

year of development of the Plan, with a fiscal year beginning on October 1st and ending on September 30th of the following year. No later than 15 calendar days after such notification, the Non-Federal Sponsor shall provide the full amount of such funds to the Government by delivering a check payable to “FAO, USAED, Detroit District (H7)” to the District Commander or by providing an Electronic Funds Transfer of such required funds in accordance with procedures established by the Government.

b. No later than August 1st prior to each subsequent fiscal year during development of the Plan, the Government shall provide the Non-Federal Sponsor with a written estimate of the amount of funds required from the Non-Federal Sponsor during that fiscal year. No later than September 1st prior to that fiscal year, the Non-Federal Sponsor shall provide the full amount of such required funds to the Government using one of the payment mechanisms specified in paragraph 2.a. above.

c. If the Government determines at any time that additional funds are needed from the Non-Federal Sponsor to cover the Non-Federal Sponsor’s costs of developing the Plan, the Government shall provide the Non-Federal Sponsor with written notice of the amount of additional funds required. Within 60 calendar days of such notice, the Non-Federal Sponsor shall provide the Government with the full amount of such additional funds.

d. Upon completion or termination of the Plan and resolution of any relevant claims and appeals, the Government shall conduct a final accounting and furnish the Non-Federal Sponsor with the written results of such final accounting. Should the final accounting determine that additional funds are required from the Non-Federal Sponsor, the Non-Federal Sponsor, within 60 calendar days of written notice from the Government, shall provide the Government with the full amount of such additional funds by delivering a check payable to “FAO, USAED, Detroit District (H7)” to the District Commander, or by providing an Electronic Funds Transfer of such required funds in accordance with procedures established by the Government. Should the final accounting determine that the Non-Federal Sponsor has provided funds in excess of its required amount, the Government shall refund any remaining unobligated amount. Such final accounting does not limit the Non-Federal Sponsor's responsibility to pay its share of costs, including contract claims or any other liability that may become known after the final accounting.

3. In addition to its required cost share, the Non-Federal Sponsor may determine that it is in its best interests to provide additional funds for development of the Plan. Additional funds provided under this paragraph and obligated by the Government are not included in calculating the Non-Federal Sponsor’s required cost share and are not eligible for credit or repayment.

4. To the extent practicable and in accordance with Federal laws, regulations, and policies, the Government shall afford the Non-Federal Sponsor the opportunity to review and comment on contract solicitations prior to the Government’s issuance of such solicitations; proposed contract modifications, including change orders; and contract claims prior to resolution thereof. Ultimately, the contents of solicitations, award of contracts, execution of contract modifications, and resolution of contract claims shall be exclusively within the control of the Government.

5. The in-kind services include those activities (including services, materials, supplies, or other in-kind services) that are required for development of the Plan and would otherwise have been undertaken by the Government and that are specified in the Scope of Work and performed or provided by the Non-Federal Sponsor after the effective date of this Agreement and in accordance

with the Scope of Work. The Government shall credit towards the Non-Federal Sponsor's share of costs, the costs, documented to the satisfaction of the Government, that the Non-Federal Sponsor incurs in providing or performing in-kind services, including associated supervision and administration. Such costs shall be subject to audit in accordance with paragraph 9 to determine reasonableness, allocability, and allowability, and crediting shall be in accordance with the following procedures, requirements, and limitations:

a. As in-kind services are completed and no later than 60 calendar day after such completion, the Non-Federal Sponsor shall provide the Government appropriate documentation, including invoices and certification of specific payments to contractors, suppliers, and the Non-Federal Sponsor's employees. Failure to provide such documentation in a timely manner may result in denial of credit. The amount of credit afforded for in-kind services shall not exceed the Non-Federal Sponsor's share of costs.

b. No credit shall be afforded for interest charges, or any adjustment to reflect changes in price levels between the time the in-kind services are completed and credit is afforded; for the value of in-kind services obtained at no cost to the Non-Federal Sponsor; or for costs that exceed the Government's estimate of the cost for such item if it had been performed by the Government.

6. The Non-Federal Sponsor shall not use Federal program funds to meet any of its obligations under this Agreement unless the Federal agency providing the funds verifies in writing that the funds are authorized to be used for the Plan. Federal program funds are those funds provided by a Federal agency, plus any non-Federal contribution required as a matching share therefor.

7. Upon 30 calendar days written notice to the other party, either party may elect, without penalty, to suspend or terminate further development of the Plan. Any suspension or termination shall not relieve the parties of liability for any obligation incurred.

8. The parties agree to use their best efforts to resolve any dispute in an informal fashion through consultation and communication. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of non-binding alternative dispute resolution with a qualified third party acceptable to the parties. Each party shall pay an equal share of any costs for the services provided by such a third party as such costs are incurred. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

9. The parties shall develop procedures for the maintenance by the Non-Federal Sponsor of books, records, documents, or other evidence pertaining to costs and expenses for a minimum of three years after the final accounting. The Non-Federal Sponsor shall assure that such materials are reasonably available for examination, audit, or reproduction by the Government.

a. The Government may conduct, or arrange for the conduct of, audits of the Plan. Government audits shall be conducted in accordance with applicable Government cost principles and regulations. The Government's costs of audits for the Plan shall not be included in the shared costs of the Plan, but shall be included in calculating the overall Federal cost of the Plan.

b. To the extent permitted under applicable Federal laws and regulations, the Government shall allow the Non-Federal Sponsor to inspect books, records, documents, or other evidence

pertaining to costs and expenses maintained by the Government, or at the Non-Federal Sponsor's request, provide to the Non-Federal Sponsor or independent auditors any such information necessary to enable an audit of the Non-Federal Sponsor's activities under this Agreement. The Non-Federal Sponsor shall pay the costs of non-Federal audits without reimbursement or credit by the Government.

10. In the exercise of their respective rights and obligations under this Agreement, the Government and the Non-Federal Sponsor each act in an independent capacity, and neither is to be considered the officer, agent, or employee of the other. Neither party shall provide, without the consent of the other party, any contractor with a release that waives or purports to waive any rights a party may have to seek relief or redress against that contractor.

11. Any notice, request, demand, or other communication required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and delivered personally or mailed by registered or certified mail, with return receipt, as shown below. A party may change the recipient or address to which such communications are to be directed by giving written notice to the other party in the manner provided in this paragraph.

If to the Non-Federal Sponsor:
Environmental Resources Manager
Macomb County Public Works Office
10 South Main Street, 8th Floor
Mount Clemens, MI 48043

If to the Government:
Commander, Detroit District
US Army Corps of Engineers
477 Michigan Avenue
Detroit, MI 48226

12. To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

13. Nothing in this Agreement is intended, nor may be construed, to create any rights, confer any benefits, or relieve any liability, of any kind whatsoever in any third person not a party to this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Commander.

DEPARTMENT OF THE ARMY

RED RUN INTER-COUNTY DRAIN DRAINAGE BOARD, MICHIGAN

BY: _____

Brett M. Boyle
Lieutenant Colonel, U.S. Army
District Engineer

BY: _____

Michael Gregg
Board Chair

DATE: _____

DATE: _____

CERTIFICATE OF AUTHORITY

I, _____, do hereby certify that I am the principal legal officer for the Red Run Inter-County Drain Drainage Board, Michigan, that the Red Run Inter-County Drain Drainage Board, Michigan is a legally constituted public body with full authority and legal capability to perform the terms of the Agreement between the Department of the Army and the Red Run Inter-County Drain Drainage Board, Michigan in connection with the Red Run Drain and Tributary Spill Response Pilot Program PAS Study, and to pay damages, if necessary, in the event of the failure to perform in accordance with the terms of this Agreement, as required by Section 221 of Public Law 91-611, as amended (42 U.S.C. 1962d-5b), and that the person who executed this Agreement on behalf of the Red Run Inter-County Drain Drainage Board, Michigan, acted within their statutory authority.

IN WITNESS WHEREOF, I have made and executed this certification this _____ day of _____ 20__.

Kelsey Cooke

CERTIFICATION REGARDING LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief that:

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

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

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

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

Michael Gregg,
Board Chair
Red Run Inter-County Drain Drainage Board, Michigan

DATE: _____

**NON-FEDERAL SPONSOR'S
SELF-CERTIFICATION OF FINANCIAL CAPABILITY
FOR AGREEMENTS**

I, Jim Nash, do hereby certify that I am the Chief Financial Officer of the Red Run Inter-County Drain Drainage Board, Michigan, (the "Non-Federal Sponsor"); that I am aware of the financial obligations of the Non-Federal Sponsor for the Red Run Drain and Tributary Spill Response Pilot Program PAS Study; and that the Non-Federal Sponsor has the financial capability to satisfy the Non-Federal Sponsor's obligations under the Red Run Drain and Tributary Spill Response Pilot Program PAS Study.

IN WITNESS WHEREOF, I have made and executed this certification this 17th day of May, 2023.

BY:  _____

TITLE: Secretary

DATE: May 17, 2023

SCOPE OF STUDY

SECTION 22, PLANNING ASSISTANCE TO STATES

RED RUN DRAIN AND TRIBUTARY SPILL RESPONSE PILOT PROGRAM PAS STUDY

FISCAL YEAR 2024

TITLE: Red Run Drain and Tributary Spill Response Pilot Program PAS Study

COST SHARING: 50% - FED, 50% - NONFED

DATE OF REQUEST JUSTIFICATION: 01 August 2023

PROJECT SPONSOR: Red Run Inter-County Drain Drainage Board, Michigan

PROJECT LOCATION: Primary Location: Warren and Sterling Heights, Michigan

Macomb County

Congressional District: M

Zip Code: 48092, 48093, 48310

HUC8 Code: 04090003

HUC12 Code: 040900030202-30205

EXECUTIVE SUMMARY: The Red Run Intercounty Drain is susceptible to spills into the Drain itself and/or its tributaries. The data collected and findings from research during this study will be used to inform recommendations for spill response approaches for Oakland County, Macomb County, and potentially others. This Study encompasses the planning, development, and piloting of a standardized spill detection and response plan on the Red Run Intercounty Drain. The U.S. Army Corps of Engineers (USACE) Engineer Research and Development Center (ERDC) will collaborate with the Red Run Intercounty Drain Drainage Board (Board), comprised of the Macomb County Public Works Office (MCPWO) and the Oakland County Water Resources Commissioner's Office (OCWRC), to review the drainage structure and historical data on spills in the drainage system. This review will be used to identify target contaminants for detection and effective locations for detectors in the drainage structure that can be used to signal the deployment of downstream structures such as booms to mitigate widespread contamination of the drainage system.

ERDC will identify and acquire a suitable commercial off-the-shelf system(s) for the detection of a film or sheen of target contaminants on water to be installed and tested in drainage structures and/or tributaries to the Red Run Intercounty Drain. This commercial off-the-shelf system(s) will be removed and returned to ERDC at the conclusion of this study. The MCPWO and OCWRC will assist ERDC by collaborating on identification of target contaminants, selection of communications equipment/protocols, integration of detection systems with Macomb Supervisory Control and Data Acquisition (SCADA) network, data collection, and data review. All of these findings will be used to inform the spill response comprehensive planning effort. This study will provide a vision for the future of the counties' spill response as well as the steps that are needed to make that spill response vision a reality.

The Red Run Drainage Board will install anchor posts at identified locations on two tributaries for hard boom deployment in the event of an illicit discharge. Two alternatives for boom deployment will be examined. One alternative requires manual installation, and one alternative deploys the boom automatically. The work also may include bank modifications and improved site access for safety. Another component of the pilot field exercise program will include researching and implementing spill tracking technology as well as more opportunities for public engagement.

PURPOSE: The purpose of this Study is to evaluate and determine improvements for effective spill management on the major tributaries discharging to the Drain. The Red Run Intercounty Drain (Drain) is the receiving waterbody for stormwater from both Oakland and Macomb Counties, and periodic treated combined sewer overflows from the George W. Kuhn Drain in Oakland County. Several tributaries, both open and enclosed, contribute to the Drain which combine to create a drainage area of roughly 142 square miles. The existing open channel portion of the Drain is approximately 8.2 miles long and extends from its point of beginning at the Clinton River in Clinton Township north of 16 Mile Road (Metropolitan Parkway) and east of Hayes Road to its upper terminus at Dequindre Road near 13 ½ Mile Road (Chicago Road) in the City of Warren. It is along this stretch of open channel that illicit discharges (spills) are generally noticed and reported. However, spills do not typically occur directly into the Drain, but rather through its tributaries that are an enclosed extensive network of pipes. This makes tracking the source of a spill particularly challenging because the sheen can go largely unnoticed until it gets daylighted along the open channel. On a yearly basis, there are roughly 10 reports regarding sheens in the Drain. This results in a minimum of 4 to 5 boom deployments annually.

Given the jurisdictional boundaries, separate responsibilities for drain operation and maintenance, local storm sewer networks, private systems, and time sensitive responses, the amount of coordination between the two Counties and local jurisdictions (municipalities) is significant. Not only must the two Counties respond to, and mitigate the spills quickly, but they must also investigate and track the spill to its source. Discussions between the two Counties and Michigan Department of Agriculture and Rural Development (MDARD) staff have identified the need to evaluate and determine improvements for effective spill management on the major tributaries discharging to the Drain. Figure 1 shows a map of the Red Run Intercounty Drain and contributing tributaries.

The spill response pilot program aims to improve or expand upon the following spill responses processes and procedures:

1. Recommended Boom Types
2. Hard Boom Installation
3. Third Party Service Provider
4. Modifications to Existing Access Points
5. Updated Contact Information
6. Real Time Monitoring
7. Public Communication

The total Study cost will be approximately \$447,520. The USACE will provide \$223,760 in funding for the development of a spill detection system within tributaries of the Red Run Intercounty Drain. The Board will match the funding provided by the USACE for the project with in-kind contribution

for their 50% match of the total Study costs. The Board will work with USACE to develop the spill detection system and collect/review data once the program has been established. In addition to the work done with the USACE on the spill detection system, the Board will establish a plan and process for spill response measures on the Drain.

Outcomes – The main outcome of this study is to develop an implementation process and recommendations that would enable the sponsor to later install a spill response and detection system. The data collection throughout this study will be used to inform the recommendations in the spill response plan. There are two main goals of this Study. The first outcome is the development and implementation procedures of a spill detection system for storm water systems. The second goal of the project is to standardize and improve spill response action from start to finish on the Drain.

Relevance to Existing Spill Response Actions – As stated, the current spill response activity is as follows:

- Most often the two Counties are informed of an illicit discharge through public or employee reporting.
- The two Counties sends staff out to investigate and deploy a boom (approx. 60-minute response time).
- Staff tries to locate the source of the spill, but it often remains unknown.
- Staff cleans up the spill at the site of the boom deployment (unknown timeline).
 - While staff is quick to deploy the boom, the cleanup is less of a priority and sometimes the boom is deployed for prolonged periods of time while the staff has other more urgent matters to address.

A set outline for spill response will improve the response time and cleanup, as well as the notification of an illicit discharge through increased public outreach and sensor tracking within the watershed.

Outputs

- Implementation of sensors for earlier response times and source tracking of an illicit discharge. Sensors will be removed and returned to ERDC at the end of this study.
- ERDC to publish a report on the spill detection system.
- Implementation of an intercounty spill response plan for the Drain and contributing tributaries.
- The spill response pilot field exercise program will include a detailed outline of the following action items:
 - Emergency Response
 - Access
 - Safety
- Boom Deployment at two sites along the Drain Tributaries for Pilot Field exercises.

BACKGROUND: As mentioned above, the Red Run Intercounty Drain (Drain) is the receiving waterbody for stormwater from both Oakland and Macomb Counties, and periodic treated combined

sewer overflows from the George W. Kuhn Drain in Oakland County. Several tributaries, both open and enclosed, contribute to the Drain which combine to create a drainage area of roughly 142 square miles. The existing open channel portion of the Drain is approximately 8.2 miles long and extends from its point of beginning at the Clinton River in Clinton Township north of 16 Mile Road (Metropolitan Parkway) and east of Hayes Road to its upper terminus at Dequindre Road near 13 ½ Mile Road (Chicago Road) in the City of Warren. It is along this stretch of open channel that illicit discharges (spills) are generally noticed and reported. However, spills do not typically occur directly into the Drain, but rather through its tributaries that are an enclosed extensive network of pipes. This makes tracking the source of a spill particularly challenging because the sheen can go largely unnoticed until it gets daylighted along the open channel. On a yearly basis, there are roughly 10 reports regarding sheens in the Drain. This results in a minimum of 4 to 5 boom deployments annually.

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WORK TO BE PERFORMED: The USACE and Board will complete the following tasks:

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implementation of the Pilot Field Exercise Implementation task (Task 4). This task will help standardize spill response procedures.

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1. Notification
2. Spill Containment
3. Source Tracking
4. Clean-up
5. Reporting and Follow Up

Notification – The Board will examine options to increase public engagement pertaining to spill response notifications. Proposed options include install signs and markers with instructions on how to report a spill and/or setting up a remote reporting application.

Boom Selection – The Board will research what type of booms are best suited for the Pilot Field Exercise Implementation task.

Site Evaluation for Boom Deployment – Several tributaries contribute to the Red Run Drain within the Study area. The Study aims to install boom deployment systems at two (2) locations as part of the Pilot Field Exercise Implementation task, which will be removed at the conclusion of the study. The Board will perform site visits at all road crossings of Red Run and major tributary outlets to the Drain and two crossings upstream on each major tributary (estimated 24 total crossings) to determine the best locations for the boom installations. Factors that will influence the location of the boom installations include width of the drain, bank slope, bank stability, susceptibility to changing flows, and ease of access to the site. While this planning project only contemplates the pilot exercise installing the deployment infrastructure at two (2) locations, each site visited will generate a site evaluation form and sketch for possible future use noting the factors herein. This information will be compared to any current maps, plans, and documents related to emergency access to these sites and will be reviewed with first responders. Any updates needed will be completed. Similar to other real time information accessible to first responders enroute or on site during an emergency event, these plans will make spill containment more rapid. Finally, each site will note up and downstream systems for notifications, tracking, and for the communication specialist(s) to relay to the public.

Access – Access to the proposed sites, where the booms will be deployed on the tributaries, is required. The Board will determine if a gravel path will need to be installed for access purposes for the pilot field exercise. It must be determined if one of the Counties owns the land necessary for an access path to the boom deployment site, or if easements will need to be acquired. The Board will evaluate if access to power will be needed as one boom deployment alternative proposes an option for a motorized pulley system.

Deployment and Cleanup - The Board will evaluate if it is prudent to hire a third-party service provider or rely on County staff to deploy the booms and manage all aspects of cleanup necessary in the future. Factors that will influence the decision include cost, response time, and cleanup time.

Draft Spill Response Plan: The Board will draft the Red Run Drain and Tributary Spill Response Evaluation Plan and develop it further under Task 4.

Deliverables: Red Run Drain and Tributary Spill Response Evaluation Plan Draft Report

Task 4: Pilot Field Exercise Implementation

The Board will perform the Pilot Field Exercise Implementation task. This task involves the implementation of a pilot field exercise program to standardize the approach to spill response. This task will help standardize spill response procedures.

Site Modifications - Depending on the chosen sites by the Board for the boom installation, the Board may need to design modifications for safe access. A proposed design is likely to include grading the banks and adding a small shelf to allow maintenance personnel to access the channel. The Board will design and construct a gravel access path and other minor site changes to provide safe access to first responders. Local agencies will collaborate with these improvements.

Boom Deployment - The Board will install permanent anchor posts on the drain banks at two locations on the tributaries. The Board will install two different types of booms at each location. The Board will evaluate the Drain cross-section. For Alternative 1, the containment boom will be stored at an off-site location. In the event of a spill, an operator will take the boom to the site, hook one end to the anchor post, walk across the channel and anchor the boom to the permanent post on the opposite bank. For Alternative 2, the Board will install a permanent cable across the channel with a hand-crank pulley system on one bank, and a containment boom reel on the opposite bank. In the event of a spill, an operator could crank the pulley system, which would pull the boom across the channel and contain the spill. The Board will install permanent anchor posts on the top of bank on both sides of the channel to allow for boom deployment during both low and high flows. If desired, the pulley system could be motorized.

Final Spill Response Plan: The Board will continue to work on and finalize the Red Run Drain and Tributary Spill Response Evaluation Plan under this task.

Deliverables: Plans & Technical Specifications for any bank modifications and access path construction and implementation of the pilot project at two (2) sites. Red Run Drain and Tributary Spill Response Evaluation Plan Final Report

Task 5: USACE Project Management and Administration

USACE Detroit District will perform this task. This task involves the overall management of the Study, including attending monthly meetings; upward reporting on the status; meeting coordination and

preparing and monitoring schedules and finances. The USACE Project Manager (PM) will be the primary point-of-contact (POC) and lead for the Study.

Monthly progress meetings shall take place during the Study period and will include small-group management meetings. The purpose of the small-group management meetings is to direct and coordinate the USACE and Board work effort towards successful and timely completion. The attendees will include appropriate representatives from USACE and the Board.

Deliverables: Meeting notes, reporting to USACE management, schedule tracking/updates, and financial tracking/updates/reports

Table 1: Estimated Total Study Costs & Schedule:

Task	DESCRIPTION	Federal Funds	Sponsor's Work In Kind (WIK)	Sponsor's Funds (cash)	Task Total	Estimated Duration
1	Coordination, Public Outreach, Supervision & Administration	\$0	\$40,000	\$0	\$40,000	Jan 2023-Jul 2024
2	Development of Spill Detection System for Storm Water Systems	\$164,867	\$0	\$0	\$164,867	Jan 2023-Mar 2024
3	Pilot Field Exercise Planning	\$0	\$93,760	\$0	\$93,760	Jan 2023-Jan 2024
4	Pilot Field Exercise Implementation	\$0	\$90,000	\$0	\$90,000	Jun 2023-Jun 2024
5	USACE Project Management and Administration	\$39,893	\$0	\$0	\$39,893	Jan 2023-Sep 2024
Total		\$204,760	\$223,760	\$0	\$447,520	
Contingency		\$19,000				
FEDERAL Dollars		\$223,760	\$0	\$0	\$223,760	
SPONSOR Dollars		\$0	\$223,760	\$0	\$223,760	

Table 2: Detailed Cost Estimate - USACE & ERDC Portion

<u>Materials</u>			
<u>Description</u>	<u>Unit Cost</u>	<u>Qty</u>	<u>Total</u>
<u>Spill Detection Systems</u>			
Slick Sleuth SS100-LED	\$ 8,400.00	6	\$ 50,400.00
Power Supply	\$ 720.00	6	\$ 4,320.00
<u>Controller and Communication System</u>			
External Communication System	\$ 200.00	6	\$ 1,200.00
Misc Hardware	\$ 100.00	6	\$ 600.00
Environmental tracer	\$ 200.00	1	\$ 200.00
		Sub Total	\$ 56,720.00
Overhead Rate	0.464	Overhead	\$ 27,112.16
		Materials Total	\$ 83,832.16
<u>Labor</u>			
<u>Staff</u>	<u>Hours</u>	<u>Rate</u>	<u>Total</u>
José Mattei	240	\$ 112.37	\$ 26,968.90
John Furey	40	\$ 165.54	\$ 6,621.60
Scott Waisner	240	\$ 157.72	\$ 37,852.17
		Labor Total	\$ 71,442.67
<u>Travel</u>			
<u>Staff</u>	<u>Days</u>	<u>Per Diem</u>	<u>Total</u>
José Mattei	14	\$ 155.00	\$ 2,170.00
Scott Waisner	10	\$ 155.00	\$ 1,550.00
	<u>Persons</u>	<u>Ticket</u>	<u>Total</u>
Airfare	2	\$ 1,000.00	\$ 2,000.00
	<u>Days</u>	<u>Rate</u>	<u>Total</u>
Car Rental	14	\$ 55.00	\$ 770.00
Subtotal			\$ 6,490.00
Overhead			\$ 3,102.22
ERDC Travel Total			\$ 9,592.22
ERDC Project Total			\$ 164,867.05
Detroit District Programs			\$ 7,922.00
Detroit District Management			\$ 10,500.00
Detroit District PM			\$ 21,470.95
Detroit District Total			\$ 39,892.95
Contingency			\$19,000
USACE Total PAS Study Costs			\$ 223,760

Table 3: Detailed Cost Estimate - Red Run Drain Drainage Board Portion

			Coordination, Public Outreach, Supervision & Administration		Pilot Field Exercise Planning		Pilot Field Exercise Implementation		Collaboration with USACE for the Development of Spill Detection System		Total
MCPWO Staff	Wage	Fringe	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	
PROJECT MANAGER	\$60	\$22	15	\$1,230	40	\$3,280	80	\$6,560	80	\$6,560	
STAFF ENGINEER	\$43	\$17	10	\$600	40	\$2,400	80	\$4800	80	\$4,800	
PROJECT SPECIALIST	\$35	\$15	10	\$500	20	\$1000	80	\$4,000	80	\$4,000	
CLERICAL	\$25	\$15	10	\$400	15	\$600	35	\$1,400	25	\$1,000	
			45	\$2,730	115	\$7,280	275	\$16,760	265	\$16,360	\$43,130
OCWRC Staff	Wage	Fringe	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	
PROJECT MANAGER	\$60	\$22	15	\$1,230	40	\$3,280	80	\$6,560	80	\$6,560	
STAFF ENGINEER	\$43	\$17	10	\$600	40	\$2,400	80	\$4800	80	\$4,800	
PROJECT SPECIALIST	\$35	\$15	10	\$500	20	\$1000	80	\$4,000	80	\$4,000	
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			45	\$2,730	115	\$7,280	275	\$16,760	265	\$16,360	\$43,130
Consultant Staff		Rate	Hours	Cost	Hours	Cost	Hours	Cost			
PRINCIPAL		\$150	10	\$1,500	40	\$6,000	20	\$3,000			
MANAGER		\$150	10	\$1,500	60	\$9,000	20	\$3,000			
GRAD ENGINEER		\$100	5	\$500	120	\$12,000	20	\$2,000			
SURVEY		\$100	0	\$0	40	\$4,000	30	\$3,000			
CLERICAL		\$80	5	\$400	10	\$800	10	\$800			
			30	\$3,900	270	\$31,800	100	\$11,800			\$47,500
Pilot Field Exercise										Cost	
Mobilization and General Conditions										\$2,500	
Grading and Bank Access										\$18,000	
Gravel access path										\$10,000	
Security fencing modifications										\$6,000	
Install permanent anchor posts										\$6,000	
Restoration and Misc Items										\$2,500	
Total: Pilot Field Exercise Program (2 Sites)										\$45,000	\$90,000
										TOTAL:	\$223,760

SCOPE OF STUDY

SECTION 22, PLANNING ASSISTANCE TO STATES

RED RUN DRAIN AND TRIBUTARY SPILL RESPONSE PILOT PROGRAM PAS STUDY

FISCAL YEAR 2024

TITLE: Red Run Drain and Tributary Spill Response Pilot Program PAS Study

COST SHARING: 50% - FED, 50% - NONFED

DATE OF REQUEST JUSTIFICATION: 01 August 2023

PROJECT SPONSOR: Red Run Inter-County Drain Drainage Board, Michigan

PROJECT LOCATION: Primary Location: Warren and Sterling Heights, Michigan

Macomb County

Congressional District: M

Zip Code: 48092, 48093, 48310

HUC8 Code: 04090003

HUC12 Code: 040900030202-30205

EXECUTIVE SUMMARY: The Red Run Intercounty Drain is susceptible to spills into the Drain itself and/or its tributaries. The data collected and findings from research during this study will be used to inform recommendations for spill response approaches for Oakland County, Macomb County, and potentially others. This Study encompasses the planning, development, and piloting of a standardized spill detection and response plan on the Red Run Intercounty Drain. The U.S. Army Corps of Engineers (USACE) Engineer Research and Development Center (ERDC) will collaborate with the Red Run Intercounty Drain Drainage Board (Board), comprised of the Macomb County Public Works Office (MCPWO) and the Oakland County Water Resources Commissioner's Office (OCWRC), to review the drainage structure and historical data on spills in the drainage system. This review will be used to identify target contaminants for detection and effective locations for detectors in the drainage structure that can be used to signal the deployment of downstream structures such as booms to mitigate widespread contamination of the drainage system.

ERDC will identify and acquire a suitable commercial off-the-shelf system(s) for the detection of a film or sheen of target contaminants on water to be installed and tested in drainage structures and/or tributaries to the Red Run Intercounty Drain. This commercial off-the-shelf system(s) will be removed and returned to ERDC at the conclusion of this study. The MCPWO and OCWRC will assist ERDC by collaborating on identification of target contaminants, selection of communications equipment/protocols, integration of detection systems with Macomb Supervisory Control and Data Acquisition (SCADA) network, data collection, and data review. All of these findings will be used to inform the spill response comprehensive planning effort. This study will provide a vision for the future of the counties' spill response as well as the steps that are needed to make that spill response vision a reality.

The Red Run Drainage Board will install anchor posts at identified locations on two tributaries for hard boom deployment in the event of an illicit discharge. Two alternatives for boom deployment will be examined. One alternative requires manual installation, and one alternative deploys the boom automatically. The work also may include bank modifications and improved site access for safety. Another component of the pilot field exercise program will include researching and implementing spill tracking technology as well as more opportunities for public engagement.

PURPOSE: The purpose of this Study is to evaluate and determine improvements for effective spill management on the major tributaries discharging to the Drain. The Red Run Intercounty Drain (Drain) is the receiving waterbody for stormwater from both Oakland and Macomb Counties, and periodic treated combined sewer overflows from the George W. Kuhn Drain in Oakland County. Several tributaries, both open and enclosed, contribute to the Drain which combine to create a drainage area of roughly 142 square miles. The existing open channel portion of the Drain is approximately 8.2 miles long and extends from its point of beginning at the Clinton River in Clinton Township north of 16 Mile Road (Metropolitan Parkway) and east of Hayes Road to its upper terminus at Dequindre Road near 13 ½ Mile Road (Chicago Road) in the City of Warren. It is along this stretch of open channel that illicit discharges (spills) are generally noticed and reported. However, spills do not typically occur directly into the Drain, but rather through its tributaries that are an enclosed extensive network of pipes. This makes tracking the source of a spill particularly challenging because the sheen can go largely unnoticed until it gets daylighted along the open channel. On a yearly basis, there are roughly 10 reports regarding sheens in the Drain. This results in a minimum of 4 to 5 boom deployments annually.


Given the jurisdictional boundaries, separate responsibilities for drain operation and maintenance, local storm sewer networks, private systems, and time sensitive responses, the amount of coordination between the two Counties and local jurisdictions (municipalities) is significant. Not only must the two Counties respond to, and mitigate the spills quickly, but they must also investigate and track the spill to its source. Discussions between the two Counties and Michigan Department of Agriculture and Rural Development (MDARD) staff have identified the need to evaluate and determine improvements for effective spill management on the major tributaries discharging to the Drain. Figure 1 shows a map of the Red Run Intercounty Drain and contributing tributaries.

The spill response pilot program aims to improve or expand upon the following spill responses processes and procedures:

1. Recommended Boom Types
2. Hard Boom Installation
3. Third Party Service Provider
4. Modifications to Existing Access Points
5. Updated Contact Information
6. Real Time Monitoring
7. Public Communication

The total Study cost will be approximately \$447,520. The USACE will provide \$223,760 in funding for the development of a spill detection system within tributaries of the Red Run Intercounty Drain. The Board will match the funding provided by the USACE for the project with in-kind contribution

for their 50% match of the total Study costs. The Board will work with USACE to develop the spill detection system and collect/review data once the program has been established. In addition to the work done with the USACE on the spill detection system, the Board will establish a plan and process for spill response measures on the Drain.

Outcomes – The main outcome of this study is to develop an implementation process and recommendations that would enable the sponsor to later install a spill response and detection system. The data collection throughout this study will be used to inform the recommendations in the spill response plan. There are two main goals of this Study. The first outcome is the development and implementation procedures of a spill detection system for storm water systems. The second goal of the project is to standardize and improve spill response action from start to finish on the Drain. 

Relevance to Existing Spill Response Actions – As stated, the current spill response activity is as follows:

- Most often the two Counties are informed of an illicit discharge through public or employee reporting.
- The two Counties sends staff out to investigate and deploy a boom (approx. 60-minute response time).
- Staff tries to locate the source of the spill, but it often remains unknown.
- Staff cleans up the spill at the site of the boom deployment (unknown timeline).
 - While staff is quick to deploy the boom, the cleanup is less of a priority and sometimes the boom is deployed for prolonged periods of time while the staff has other more urgent matters to address.

A set outline for spill response will improve the response time and cleanup, as well as the notification of an illicit discharge through increased public outreach and sensor tracking within the watershed.

Outputs

- Implementation of sensors for earlier response times and source tracking of an illicit discharge. Sensors will be removed and returned to ERDC at the end of this study.
- ERDC to publish a report on the spill detection system.
- Implementation of an intercounty spill response plan for the Drain and contributing tributaries.
- The spill response pilot field exercise program will include a detailed outline of the following action items:
 - Emergency Response
 - Access
 - Safety
- Boom Deployment at two sites along the Drain Tributaries for Pilot Field exercises.

BACKGROUND: As mentioned above, the Red Run Intercounty Drain (Drain) is the receiving waterbody for stormwater from both Oakland and Macomb Counties, and periodic treated combined

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Deliverables: Coordination, reporting, and website updates

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Site Evaluation for Boom Deployment – Several tributaries contribute to the Red Run Drain within the Study area. The Study aims to install boom deployment systems at two (2) locations as part of the Pilot Field Exercise Implementation task, which will be removed at the conclusion of the study. The Board will perform site visits at all road crossings of Red Run and major tributary outlets to the Drain and two crossings upstream on each major tributary (estimated 24 total crossings) to determine the best locations for the boom installations. Factors that will influence the location of the boom installations include width of the drain, bank slope, bank stability, susceptibility to changing flows, and ease of access to the site. While this planning project only contemplates the pilot exercise installing the deployment infrastructure at two (2) locations, each site visited will generate a site evaluation form and sketch for possible future use noting the factors herein. This information will be compared to any current maps, plans, and documents related to emergency access to these sites and will be reviewed with first responders. Any updates needed will be completed. Similar to other real time information accessible to first responders enroute or on site during an emergency event, these plans will make spill containment more rapid. Finally, each site will note up and downstream systems for notifications, tracking, and for the communication specialist(s) to relay to the public.

Access – Access to the proposed sites, where the booms will be deployed on the tributaries, is required. The Board will determine if a gravel path will need to be installed for access purposes for the pilot field exercise. It must be determined if one of the Counties owns the land necessary for an access path to the boom deployment site, or if easements will need to be acquired. The Board will evaluate if access to power will be needed as one boom deployment alternative proposes an option for a motorized pulley system.

Deployment and Cleanup - The Board will evaluate if it is prudent to hire a third-party service provider or rely on County staff to deploy the booms and manage all aspects of cleanup necessary in the future. Factors that will influence the decision include cost, response time, and cleanup time.

Draft Spill Response Plan: The Board will draft the Red Run Drain and Tributary Spill Response Evaluation Plan and develop it further under Task 4.

Deliverables: Red Run Drain and Tributary Spill Response Evaluation Plan Draft Report

Task 4: Pilot Field Exercise Implementation

The Board will perform the Pilot Field Exercise Implementation task. This task involves the implementation of a pilot field exercise program to standardize the approach to spill response. This task will help standardize spill response procedures.

Site Modifications - Depending on the chosen sites by the Board for the boom installation, the Board may need to design modifications for safe access. A proposed design is likely to include grading the banks and adding a small shelf to allow maintenance personnel to access the channel. The Board will design and construct a gravel access path and other minor site changes to provide safe access to first responders. Local agencies will collaborate with these improvements.

Boom Deployment - The Board will install permanent anchor posts on the drain banks at two locations on the tributaries. The Board will install two different types of booms at each location. The Board will evaluate the Drain cross-section. For Alternative 1, the containment boom will be stored at an off-site location. In the event of a spill, an operator will take the boom to the site, hook one end to the anchor post, walk across the channel and anchor the boom to the permanent post on the opposite bank. For Alternative 2, the Board will install a permanent cable across the channel with a hand-crank pulley system on one bank, and a containment boom reel on the opposite bank. In the event of a spill, an operator could crank the pulley system, which would pull the boom across the channel and contain the spill. The Board will install permanent anchor posts on the top of bank on both sides of the channel to allow for boom deployment during both low and high flows. If desired, the pulley system could be motorized.

Final Spill Response Plan: The Board will continue to work on and finalize the Red Run Drain and Tributary Spill Response Evaluation Plan under this task.

Deliverables: Plans & Technical Specifications for any bank modifications and access path construction and implementation of the pilot project at two (2) sites. Red Run Drain and Tributary Spill Response Evaluation Plan Final Report

Task 5: USACE Project Management and Administration

USACE Detroit District will perform this task. This task involves the overall management of the Study, including attending monthly meetings; upward reporting on the status; meeting coordination and

preparing and monitoring schedules and finances. The USACE Project Manager (PM) will be the primary point-of-contact (POC) and lead for the Study.

Monthly progress meetings shall take place during the Study period and will include small-group management meetings. The purpose of the small-group management meetings is to direct and coordinate the USACE and Board work effort towards successful and timely completion. The attendees will include appropriate representatives from USACE and the Board.

Deliverables: Meeting notes, reporting to USACE management, schedule tracking/updates, and financial tracking/updates/reports

Figure 1. Red Run Intercounty Drain and Contributing Tributaries in Macomb County

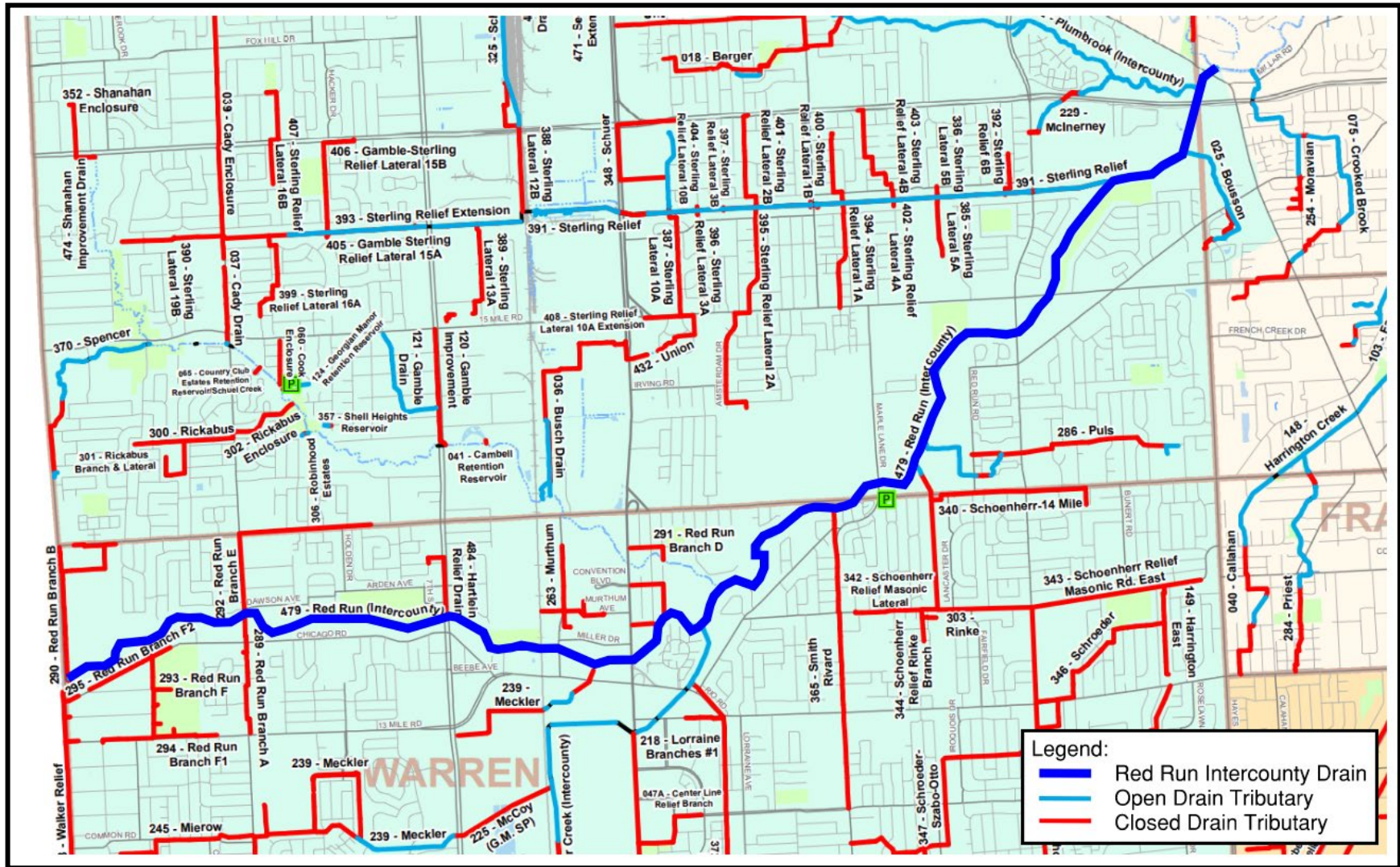


Table 1: Estimated Total Study Costs & Schedule:

Task	DESCRIPTION	Federal Funds	Sponsor's Work In Kind (WIK)	Sponsor's Funds (cash)	Task Total	Estimated Duration
1	Coordination, Public Outreach, Supervision & Administration	\$0	\$40,000	\$0	\$40,000	Jan 2023-Jul 2024
2	Development of Spill Detection System for Storm Water Systems	\$164,867	\$0	\$0	\$164,867	Jan 2023-Mar 2024
3	Pilot Field Exercise Planning	\$0	\$93,760	\$0	\$93,760	Jan 2023-Jan 2024
4	Pilot Field Exercise Implementation	\$0	\$90,000	\$0	\$90,000	Jun 2023-Jun 2024
5	USACE Project Management and Administration	\$39,893	\$0	\$0	\$39,893	Jan 2023-Sep 2024
Total		\$204,760	\$223,760	\$0	\$447,520	
Contingency		\$19,000				
FEDERAL Dollars		\$223,760	\$0	\$0	\$223,760	
SPONSOR Dollars		\$0	\$223,760	\$0	\$223,760	

Table 2: Detailed Cost Estimate - USACE & ERDC Portion

<u>Materials</u>			
<u>Description</u>	<u>Unit Cost</u>	<u>Qty</u>	<u>Total</u>
<u>Spill Detection Systems</u>			
Slick Sleuth SS100-LED	\$ 8,400.00	6	\$ 50,400.00
Power Supply	\$ 720.00	6	\$ 4,320.00
<u>Controller and Communication System</u>			
External Communication System	\$ 200.00	6	\$ 1,200.00
Misc Hardware	\$ 100.00	6	\$ 600.00
Environmental tracer	\$ 200.00	1	\$ 200.00
		Sub Total	\$ 56,720.00
Overhead Rate	0.464	Overhead	\$ 27,112.16
		Materials Total	\$ 83,832.16
<u>Labor</u>			
<u>Staff</u>	<u>Hours</u>	<u>Rate</u>	<u>Total</u>
José Mattei	240	\$ 112.37	\$ 26,968.90
John Furey	40	\$ 165.54	\$ 6,621.60
Scott Waisner	240	\$ 157.72	\$ 37,852.17
		Labor Total	\$ 71,442.67
<u>Travel</u>			
<u>Staff</u>	<u>Days</u>	<u>Per Diem</u>	<u>Total</u>
José Mattei	14	\$ 155.00	\$ 2,170.00
Scott Waisner	10	\$ 155.00	\$ 1,550.00
	<u>Persons</u>	<u>Ticket</u>	<u>Total</u>
Airfare	2	\$ 1,000.00	\$ 2,000.00
	<u>Days</u>	<u>Rate</u>	<u>Total</u>
Car Rental	14	\$ 55.00	\$ 770.00
Subtotal			\$ 6,490.00
Overhead			\$ 3,102.22
ERDC Travel Total			\$ 9,592.22
ERDC Project Total			\$ 164,867.05
Detroit District Programs			\$ 7,922.00
Detroit District Management			\$ 10,500.00
Detroit District PM			\$ 21,470.95
Detroit District Total			\$ 39,892.95
Contingency			\$19,000
USACE Total PAS Study Costs			\$ 223,760

Table 3: Detailed Cost Estimate - Red Run Drain Drainage Board Portion

			Coordination, Public Outreach, Supervision & Administration		Pilot Field Exercise Planning		Pilot Field Exercise Implementation		Collaboration with USACE for the Development of Spill Detection System		Total
MCPWO Staff	Wage	Fringe	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	
PROJECT MANAGER	\$60	\$22	15	\$1,230	40	\$3,280	80	\$6,560	80	\$6,560	
STAFF ENGINEER	\$43	\$17	10	\$600	40	\$2,400	80	\$4,800	80	\$4,800	
PROJECT SPECIALIST	\$35	\$15	10	\$500	20	\$1,000	80	\$4,000	80	\$4,000	
CLERICAL	\$25	\$15	10	\$400	15	\$600	35	\$1,400	25	\$1,000	
			45	\$2,730	115	\$7,280	275	\$16,760	265	\$16,360	\$43,130
OCWRC Staff	Wage	Fringe	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	
PROJECT MANAGER	\$60	\$22	15	\$1,230	40	\$3,280	80	\$6,560	80	\$6,560	
STAFF ENGINEER	\$43	\$17	10	\$600	40	\$2,400	80	\$4,800	80	\$4,800	
PROJECT SPECIALIST	\$35	\$15	10	\$500	20	\$1,000	80	\$4,000	80	\$4,000	
CLERICAL	\$25	\$15	10	\$400	15	\$600	35	\$1,400	25	\$1,000	
			45	\$2,730	115	\$7,280	275	\$16,760	265	\$16,360	\$43,130
Consultant Staff		Rate	Hours	Cost	Hours	Cost	Hours	Cost			
PRINCIPAL		\$150	10	\$1,500	40	\$6,000	20	\$3,000			
MANAGER		\$150	10	\$1,500	60	\$9,000	20	\$3,000			
GRAD ENGINEER		\$100	5	\$500	120	\$12,000	20	\$2,000			
SURVEY		\$100	0	\$0	40	\$4,000	30	\$3,000			
CLERICAL		\$80	5	\$400	10	\$800	10	\$800			
			30	\$3,900	270	\$31,800	100	\$11,800			\$47,500
Pilot Field Exercise										Cost	
Mobilization and General Conditions										\$2,500	
Grading and Bank Access										\$18,000	
Gravel access path										\$10,000	
Security fencing modifications										\$6,000	
Install permanent anchor posts										\$6,000	
Restoration and Misc Items										\$2,500	
Total: Pilot Field Exercise Program (2 Sites)										\$45,000	\$90,000
										TOTAL:	\$223,760

Agenda Item No. 7

Drain Walk Thru Summary

Agenda Item No. 8

Trial Balance



Trial Balance

Organization Oakland County
Periods FY2024 : May
Ledger Actuals
Accounting Worktag FND82902 Red Run Federal Drain Ch21
Book Operating
Company Currency USD
Translation Currency USD
Run 05/06/2024 09:16 AM

Consolidation Data

Ledger Account	Beginning Balance	Debit Amount	Credit Amount	Ending Balance
100100:Cash - Operating	1,048,581.90	1,894.92	31.65	1,050,445.17
104100:Accrued Interest on Investment	0.00	0.00	0.00	0.00
126100:Due from Municipalities	0.00	0.00	0.00	0.00
201210:Vouchers Payable AP Cont	(2,574.05)	0.00	0.00	(2,574.05)
211100:Due to Primary Government	0.00	0.00	0.00	0.00
228100:Deposits Liability	(28,244.40)	0.00	0.00	(28,244.40)
230852:Accounts Payable	0.00	0.00	0.00	0.00
381350:FB Restricted Programs	(1,065,002.77)	0.00	0.00	(1,065,002.77)
450100:Cash Sweep	0.00	0.00	0.00	0.00
655000:Investment Income	(6,001.30)	31.65	1,894.92	(7,864.57)
730000:Contractual Services	46,563.11	0.00	0.00	46,563.11
770000:Internal Support Expenditures	6,677.51	0.00	0.00	6,677.51
Total	0.00	1,926.57	1,926.57	0.00

Cash	\$1,050,445.17
Permit Held	(28,244.40)
Voucher Payable	(2,574.05)
Total Cash Available	\$1,019,626.72

Agenda Item No. 9

Invoices

MEMO TO: Mr. Jim Nash, Chairman
of the Intercounty Drainage Board for the RED RUN FEDERAL DRAIN

FROM: Shawn Phelps, Chief of Fiscal Services
OCWRC Accounting

Ⓡ for Shawn Phelps

DATE: May 15, 2024

SUBJECT: Request for Approval of Invoices

Request for Board approval of payment of the following invoices:

<u>Date</u>	<u>Ref No.</u>	<u>Paid To</u>	<u>For</u>	<u>Amount</u>
4/23/2024	SINV00256347	Hubbell, Roth, & Clark Inc	Inv # 0216130 - Contracted Services - Proj # 1-7494	\$ 2,574.05
			Total	\$ 2,574.05

Agenda Item No. 10

Other Business

Agenda Item No. 11

Adjourn