M.L. 2021 Project Abstract

For the Period Ending June 30, 2024

Project Title: Groundwater Contamination Mapping Project - Phase II

Project Manager: Brittney Schuller

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Website: https://www.pca.state.mn.us/

Funding Source:

Fiscal Year:

Legal Citation: M.L. 2021, First Special Session, Chp. 6, Art. 6, Sec. 2, Subd. 03f

Appropriation Amount: $800,000

Amount Spent: $384,342

Amount Remaining: $415,658

Sound bite of Project Outcomes and Results

The Minnesota Pollution Control Agency (MPCA) created an online portal that compiles groundwater and environmental data from various MPCA programs. The public can access the data through the Groundwater Atlas and other access points. The MPCA believes the system will be extensible to other state agencies in the future.

Overall Project Outcome and Results

In 2017, a project funded by the Environmental and Natural Resource Trust Fund (ENRTF) created an interactive web-based map to share information about groundwater contamination. This map helped the Minnesota Pollution Control Agency (MPCA) communicate better about facilities and their impact on groundwater. However, we realized we needed a way to receive this data electronically. So, the MPCA expanded the use of the web-based map to other programs and created an online portal for environmental monitoring data. This portal makes it easier to collect both historical and current data. Laboratories, permittees, and consultants can now submit data electronically, streamlining processes related to permits. The portal is available to over 2,000 facilities, and so far, the MPCA has received over 200 data sets.

By successfully completing this project, the MPCA demonstrates its commitment to efficient data management and

environmental stewardship. The centralized groundwater and environmental testing results empower informed decision-making and promote environmental health. Additionally, the Minnesota Pollution Control Agency (MPCA) believes that this system can be extended to other state agencies in the future, as we share the monitoring database. The portal, along with the web-based map, provides the public with an online resource to access environmental public health data, empowering individuals, communities, and organizations to make informed decisions related to public health and the environment.

Project Results Use and Dissemination

Throughout the project the Minnesota Pollution Control Agency (MPCA) kept stakeholders informed. The MPCA used Gov. Delivery messages to inform the public about new service portal. External testers were utilized to ensure usability and functionality. We actively seek feedback from the public during and after the project using the existing web application feedback form which helped improved ongoing maintenance. MPCA reviewed the web application for accessibility and ensured that content was I plain language. All web landing pages, documents presentation and electronic messaging acknowledge the Environment and Natural Resources Trust Fund's support with the fund's logo displayed where appropriate.

Environment and Natural Resources Trust Fund

M.L. 2021 Approved Final Report

General Information

Date: November 18, 2024

ID Number: 2021-118

Staff Lead: Michael Varien

Project Title: Groundwater Contamination Mapping Project - Phase II

Project Budget: $800,000

Project Manager Information

Name: Brittney Schuller

Organization: Minnesota Pollution Control Agency

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Web Address: https://www.pca.state.mn.us/

Project Reporting

Final Report Approved: November 1, 2024

Reporting Status: Project Completed

Date of Last Action: November 1, 2024

Project Completion: June 30, 2024

Legal Information

Legal Citation: M.L. 2021, First Special Session, Chp. 6, Art. 6, Sec. 2, Subd. 03f

Appropriation Language: $800,000 the first year is from the trust fund to the commissioner of the Pollution Control Agency to improve protection of groundwater resources for drinking water by expanding the web-based interactive groundwater contamination mapping system to include all other state hazardous and solid waste cleanup programs and by upgrading the system to collect monitoring data.

Appropriation End Date: June 30, 2024

Narrative

Project Summary: The project is a continuation of the efforts begun with the 2017 ENRTF-funded Groundwater Contamination Mapping Project. The 2017 ENRTF funded project will be completed June 30, 2020.

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

The 2017 ENRTF-funded project focused on 93 superfund sites. This project will extend that work to other programs, upgrade the agency's foundational groundwater data access system; and develop an online portal to receive monitoring data.

The 2017 ENRTF-funded project provided great insight for how the MPCA should approach a more complete effort in communicating about Superfund sites and their impacts to groundwater. Additionally, the MPCA discovered the importance of obtaining monitoring data electronically, standardizing location identification in the field for timely monitoring, and an approach for use with all clean-up sites. The MPCA believes the process used for Superfund sites will have similar value for other remediation, solid waste and hazardous waste sites.

What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.

The MPCA intends to complete the mapping effort for all clean-up programs, solid waste and hazardous waste sites and upgrading the data systems that support monitoring data. The 2021 Project will close the existing data accessibility gap for anyone involved in groundwater use and regulation in Minnesota. The 2021 Project will ensure the map site stories are available from the groundwater data page, and the groundwater data is available from the site story page (developed in the 2017 project). To be truly accessible, an interested person must be able to smoothly transition between the site story communication map and the data behind it, as well as the inverse.

The 2021 project will compile data from thousands of project files in the solid waste, closed landfill, site assessment, RCRA, petroleum remediation, integrated remediation, brownfield and related programs. A team of temporary employees will be hired to complete the data collection project.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

For the 2021 project, the MPCA intends to develop an electronic data portal to collect groundwater monitoring data; making it more accessible to the public and staff.

Additionally, the 2021 project would upgrade the external data system storing groundwater data for those needing to look at data from a statewide perspective, by chemical, aquifer, or other means. The MPCA believes the system will be extensible to other state agencies in the future as we do share the monitoring database.

Project Location

What is the best scale for describing where your work will take place?

Statewide

What is the best scale to describe the area impacted by your work?

Statewide

When will the work impact occur?

During the Project

Activities and Milestones

Activity 1: Create on-line electronic data portal

Activity Budget: $220,000

Activity Description:

An on-line electronic data portal will be built to collect groundwater monitoring data (both historic and current data). The portal will be designed to receive data from laboratories or from permittees or from consultants. The portal must support the authorized individual or organization submitting the data as required by a governing document – permit, clean up requirement, etc. The data collected will range from very specific conditions when sampling occurred, date sampling occurred, date of analysis, and then the results of required parameters which will vary from inorganic to organic parameters depending on the site, permit, and clean up activities. Programs we expect to benefit from this portal are the MPCA's remediation programs (superfund, closed landfill, site assessment, brownfields, petroleum) and our land permitting programs (hazardous waste, solid waste). The portal will also need to be designed to allow MPCA staff to import historical data into the system to replace current labor-intensive processes that delay usability of the data.

Activity Milestones:

Description	Approximate Completion Date
Portal Requirements are gathered and themed to determine needs specific to permitted programs and clean-up efforts	May 31, 2022
Portal is designed to ensure needs of permitted programs and clean up efforts are met, data is QA'd upon submittal, and submittal dates are captured for compliance purposes	July 31, 2022
Portal is developed by MNIT@MPCA developers, QA testing is conducted for functionality	December 31, 2022
Portal is tested with historic data by users to determine if quality assurance efforts are met and data is received in correct databases and structure. Testing includes internal and external users.	February 28, 2023
Portal is in production	May 31, 2023

Activity 2: Interactive web-based map, site story and access to the groundwater data

Activity Budget: $250,000

Activity Description:

All areas of concern for clean up sites and permitted impacted groundwater systems will be mapped utilizing GIS technology and web mapping using the system developed with the 2017 ENRTF. Groundwater accessibility improvements will also be made to the existing information site provided to the public. The public will be able to seamlessly transition from the map to the narrative and to the underlying groundwater data. Key component of this activity is not only more programs will be represented on the groundwater contamination map, but our ability to provide data outward facing will improve and both systems will be connected and allow sites to be found from the data and data from sites. Thus, making the total system more usable by the general public, consultants, and public officials.

Activity Milestones:

Description	Approximate Completion Date
Requirements are gathered for each program (what will be shown, how is data translated, and how will data be shown through the data portal (interpreted, raw, subsets, etc.). Understanding this will guide development activities. Determine the number of interactive features required and what is needed to develop the appropriate features	December 31, 2022
Interactive features are designed by MNIT@MPCA with program input	March 31, 2023
Interactive features are developed, and quality tested by MNIT@MPCA	August 31, 2023

Interactive features are tested (internally/externally) – user testing will include external users to determine usability and clarity of the features	December 31, 2023
Fully functional system in operation	March 31, 2024

Activity 3: Extract groundwater testing data from individual MPCA files to populate a centralized database.

Activity Budget: $330,000

Activity Description:

The MPCA will obtain groundwater testing results from MPCA files, environmental consultants and environmental testing laboratories. This activity builds on activity one and helps inform activity one by understanding the number of monitoring parameters used by each program, what are the boundaries needed for acceptance of the data, who should submit data on behalf of a facility and what are the resources they have to submit. In most cases, the expectation is that MPCA staff will need to load the data into the data systems. The results will be imported into a centralized database by the ENRTF recipients.

Activity Milestones:

Description	Approximate Completion Date
Requirements are gathered from each program (what data would be available electronically, how far into the past is the historical data usable, is sufficient information on data quality available, what formats are acceptable for submittal, etc.).	December 31, 2021
All active site files from various programs reviewed to compile locations and results.	April 30, 2022
Collection of data results in approved format from appropriate sources	March 31, 2023
Groundwater testing results are in centralized data systems using Portal developed in Activity 1.	September 30, 2023

Dissemination

Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.
The MPCA intends to use a variety of ways to keep stakeholders informed in the following ways:
•   Use Gov Delivery messages to inform public of upgraded systems and seek input on the project during development.
•   Use external testers from our stakeholder participants to ensure usability along with functionality.
•   Conduct presentations at scientific and professional meetings, such as the groundwater association and solid waste administrators annual conferences.
•   Scientific partners with our groundwater ambient projects will be part of testing the interactive application and we will demonstrate how the application works to other researchers (currently static reports are published).
•   Use existing web application feedback form to solicit comments from the public during the project but also after the project to improve its ongoing maintenance.
•   Use our What's in My Neighborhood to promote changes in behavior; and
•   Review the web application for accessibility and content that is plain language by MPCA Communication specialists.
All web landing pages, documents, presentations, and electronic messaging will acknowledge the efforts were made possible by the Environment and Natural Resources Trust Fund and the logo for the fund will be visible.

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?
As more programs and state agencies are added to the web-application and portal, the size of groundwater data available to the public will grow and the data will support work related to groundwater use, regulation and conservation in Minnesota. Once the system is upgraded and built the MPCA will continue to maintain the data and applications so that the groundwater data and stories are current, timely and accessible. An online portal and a database to manage the site stories are key components to making the long-term maintenance of the project viable and manageable, as data will be delivered electronically.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Analyzing Alternative for Muncipal Wastewater Treatment	M.L. 2016, Chp. 186, Sec. 2, Subd. 04m	$180,000
Groundwater Contamination Mapping	M.L. 2017, Chp. 96, Sec. 2, Subd. 03h	$400,000
Assessment of Urban Air Pollution	M.L. 2017, Chp. 96, Sec. 2, Subd. 07b	$700,000

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	$ Amount	$ Amount Spent	$ Amount Remaining
Personnel										
Program Data Coordinator and Entry Level Hydrologists		Compile groundwater data across multiple programs, ensure quality of data, and support the data development for the data portal and web applications			25%	3.3		$330,000	-	-
							Sub Total	**$330,000**	**$39,375**	**$290,625**
Contracts and Services										
Private and Public Environmental Laboratories	Professional or Technical Service Contract	Payment for labs extraction of historic data from their data system.				0		$145,000	$145,000	-
MNIT Master PT Contract	Professional or Technical Service Contract	A Project Manager and 3 Developers will augment MNIT staff to design and develop the online data portal specified in Activity 1				3		$325,000	$199,967	$125,033
							Sub Total	**$470,000**	**$344,967**	**$125,033**
Equipment, Tools, and Supplies										
							Sub Total	-	-	-
Capital Expenditures										
							Sub Total	-	-	-
Acquisitions and Stewardship										
							Sub Total	-	-	-
Travel In Minnesota										

						Sub Total	-	-	-
Travel Outside Minnesota									
						Sub Total	-	-	-
Printing and Publication									
						Sub Total	-	-	-
Other Expenses									
						Sub Total	-	-	-
						Grand Total	$800,000	$384,342	$415,658

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request

Non ENRTF Funds

Category	Specific Source	Use	Status	$ Amount	$ Amount Spent	$ Amount Remaining
State						
In-Kind	State General and Environmental Fund	Project Lead - Ingrid Verhagen 0.5 FTE for 3 years. Lead the project for the business and liaison with MNIT.	Pending	$180,000	$13,230	$166,770
In-Kind	State General and Environmental Fund	Subject Matter Experts - Not specified and Anne Morris, 3 FTE for 3 years. Assist in requirement development for business and design of some elements. Aid in compilation of historic data.	Pending	$1,080,000	$31,527	$1,048,473
In-Kind	State General and Environmental Fund	MNIT Business Analyst and Project Manager - TBD - 1 FTE for 3 years. Assist in requirements gathering and manage design and development.	Pending	$360,000	$360,000	-
In-Kind	State General and Environmental Fund	Project Manager - Myrna Halbach. 0.15 FTE for 3 years to provide overall management and decision-making on the project.	Pending	$54,000	$4,533	$49,467
			State Sub Total	**$1,674,000**	**$409,290**	**$1,264,710**
Non-State						
-			**Non State Sub Total**	-	-	-
			Funds Total	**$1,674,000**	**$409,290**	**$1,264,710**

Attachments

Required Attachments

Visual Component
File: e35eaeb4-7d2.pdf

Alternate Text for Visual Component
Groundwater testing results are entered into a centralized database through an on-line portal. Interpretation of the testing results allow groundwater areas of concern to be located and mapped. A statewide interactive map and site story application allows the application user the ability to interact with the map and learn about the attributes of the site. The user may also download the data to support land restoration, groundwater conservation and protect drinking water. Access to the groundw...

Supplemental Attachments

Capital Project Questionnaire, Budget Supplements, Support Letter, Photos, Media, Other

Title	File
2021-07-06_ENRTF Background Check Certification Form FINAL	[cb4257ff-baa.pdf](cb4257ff-baa.pdf)

Media Links

Title	Link
MN Ground Water Contamination Website and Tool	https://www.pca.state.mn.us/about-mpca/minnesota-groundwater-contamination-atlas

Difference between Proposal and Work Plan

Describe changes from Proposal to Work Plan Stage
Time was taken to reassess this project based on the budget reduction, but still achieve all 3 activities. The budget is to be reduced $140,000 and the new distribution of dollars is reflected in the activities. We believe all components of the project will be established with the reduced budget, but we may not complete the actual work for some of the new programs during the timeframe. However, we do believe that the entire web framework, upgrade to our groundwater data, and data portal will be built. What may remain will be the actual pulling data and completing the site stories for perhaps one or two new permit programs depending on their staff availability.

We reduced Activity 1 by $60,000 and intend to augment the work with staff currently working on a portal for other MPCA efforts, such as permit applications. As we looked at areas for reduction, we further consulted with our IT partners on how we might leverage existing knowledge and work being done. While we cannot replace developing specific requirements and validation needs for incoming data, we do believe we might leverage the framework under construction and thus, lessening the overall effort to elicit requirements.

We reduced Activity 2 by $30,000 and believe the reduction will delay the implementation of site stories for one of the new programs (hazardous waste). This program will still benefit from Activity 1 by having its data received through a portal, but we may not be able to get all of its information into site stories and mapping of concerned areas completed. We expect the delay to be in the neighborhood of 12 to 18 months.

We reduced Activity 3 by $50,000. We will augment this effort with more existing staff. Also, as we reflected on the need to fund laboratories to provide historical data, we think it will take less because much of the new programs will benefit from laboratories being familiar with our format and data quality need from the 2017 LCCMR work. We

recognize we will have some new laboratories that we will need to help them understand the format, but we think it will be fewer than originally expected due to the high cooperation we are receiving for the 2017 LCCMR project.

Additional Acknowledgements and Conditions:

The following are acknowledgements and conditions beyond those already included in the above workplan:

Do you understand and acknowledge the ENRTF repayment requirements if the use of capital equipment changes?

    N/A

Do you agree travel expenses must follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?

    N/A

Does your project have potential for royalties, copyrights, patents, sale of products and assets, or revenue generation?

    No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

    N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

    N/A

Does your project include original, hypothesis-driven research?

    No

Does the organization have a fiscal agent for this project?

    No

Work Plan Amendments

Amendment ID	Request Type	Changes made on the following pages	Explanation & justification for Amendment Request (word limit 75)	Date Submitted	Approved	Date of LCCMR Action
1	Amendment Request	• Budget • Budget - Personnel • Budget - Professional / Technical Contracts • Budget - Non-ENRTF Funds Contributed	MNIT decided it would be more expedient to augment staff with a contract. This will move the project along at a faster pace than MNIT staff can do it because of priorities.	October 31, 2022	Yes	November 7, 2022
2	Project Manager	Previous Manager: Myrna Halbach (myrna.halbach@state.mn.us) New Manager: Brittney Schuller (brittney.schuller@state.mn.us)	Previous Project Manager retired	November 30, 2023	Yes	December 1, 2023
3	Completion Date	Previous Completion Date: 04/30/2024 New Completion Date: 06/30/2024	Additional time is need to complete the project due to the several delay we experienced throughout the process, such as the availability and access to the vendor's API. Additionally, we have encountered some challenges with organizational changes and staffing limitations, delaying necessary discussions to complete milestones.	February 2, 2024	Yes	February 5, 2024
4	Amendment Request	• Other • Budget - Personnel • Budget - Professional / Technical Contracts	We've identified that contracting for historical data is a critical component at this juncture. To streamline our processes, we would like to shift the focus from Personnel to the Professional & Technical Contracts. As part of a pilot initiative (FY'23 – remediation Contract) we've observed that contract approach tends to be more efficient. Therefore, I would like to make a request to change our approved budget and move the funds away from the salary- Personnel.	March 13, 2024	Yes	April 10, 2024

Status Update Reporting

Final Status Update August 14, 2024

Date Submitted: August 15, 2024

Date Approved: October 15, 2024

Overall Update

The Minnesota Pollution Control Agency (MPCA) successfully completed the development of Activity 1—an online data portal. Employing an agile development approach, we meticulously designed, built, and rigorously tested the portal. As of March 19th, 2024, the portal is fully operational and in production. Concurrently, through the successful deployment of the groundwater data portal, Activity 3 was also accomplished. MPCA seamlessly integrated data from active Agency files, environmental consultants, and environmental testing laboratories into a centralized data system. Collaborating closely with program stakeholders ensured that the portal precisely aligned with their specific needs. Furthermore, Activity 2, was modified during the project. As a result, the web-based map, site story and data flows in a single direction. The story mapping process has been thoroughly tested and confirmed to be effective for all land programs. Although some data and stories remain incomplete due to staff turnover the MPCA anticipates their completion within the next six months.

Activity 1

An online electronic data portal was developed to collect groundwater monitoring data, encompassing both historical and current information. The portal receives data from laboratories, permittees, and consultants. It facilitates data submission by authorized individuals or organizations, as required by governing documents such as permits and cleanup requirements. The collected data includes specific sampling conditions, sampling dates, analysis dates, and results for various parameters (ranging from inorganic to organic) based on site-specific needs. Additionally, it streamlines data usability by allowing MPCA staff to import historical data, replacing manual processes. This milestone was recorded as complete during the last update.
(This activity marked as complete as of this status update)

Activity 2

With the updated funding, Activity 2 was modified to exclude new interactive data transfers from environmental data sources to the web-based story sites. As a result, the web-based map, site story, and data now flow in a single direction—from the site story to the full data set. The story mapping process was thoroughly tested and confirmed to be effective for all land programs involved in cleanup, including active, open land disposal facilities. Although some data and stories remain incomplete due to staff turnover, the Minnesota Pollution Control Agency (MPCA) anticipates their completion within the next six months.
(This activity marked as complete as of this status update)

Activity 3

The Minnesota Pollution Control Agency (MPCA) has met the essential prerequisites for Activity 1, a pivotal phase centered around the creation of an online data portal. These prerequisites encompass several critical components: defining precise data acceptance boundaries, identifying responsible parties accountable for facility data submission, and meticulously outlining the necessary submission resources. In our progress, MPCA successfully achieved Milestones 1 and 2, both of which were dedicated to refining data formats. Furthermore, during the rigorous user acceptance testing conducted as part of Activity 1, they effectively addressed Milestone 3. Notably, the integration of groundwater testing results into a centralized data system was executed using the portal developed during this initiative. Additionally, MPCA completed the compilation of active site files across various programs, consolidating information on locations and results. These accomplishments collectively contribute to the overarching project's success, underscoring MPCA's

commitment to enhancing environmental data management.
(This activity marked as complete as of this status update)

Dissemination
Throughout the project the Minnesota Pollution Control Agency (MPCA) kept stakeholders informed. The MPCA used Gov. Delivery messages to inform the public about new service portal. We actively seek feedback from the public during and after the project using the existing web application feedback form which helped improved ongoing maintenance. MPCA reviewed the web application for accessibility and ensured that content was I plain language. All web landing pages, documents presentation and electronic messaging acknowledge the Environment and Natural Resources Trust Fund's support with the fund's logo displayed where appropriate.

Status Update Reporting

Status Update June 1, 2024

Date Submitted: August 15, 2024

Date Approved: October 15, 2024

Overall Update
The Minnesota Pollution Control Agency (MPCA) successfully completed the development of Activity 1, an online data portal. Using an agile development approach, we designed, built, and rigorously tested the portal, which began in February 2023. User acceptance testing for Activity 1 was completed in February and March of 2024. Currently, the portal is in production and fully operational, which launched on March 19th, 2024. Activity 2, enhancing the Groundwater Atlas to include permitted groundwater contamination stories for selected solid waste permitted facilities is underway and progressing and considered 60% completed. We anticipate that Activity 2 will be completed by the project completion date of June 30th, 2024. Activity 3 is 90% completed with the remaining task of reviewing.

Activity 1
An online electronic data portal has been constructed to collect groundwater monitoring data, encompassing both historical and current data. The portal was designed to receive data from laboratories, permittees, or consultants. It ensures support for authorized individuals or organizations submitting data as required by governing documents such as permits or cleanup requirements. The collected data includes specific sampling conditions, sampling dates, analysis dates, and results for required parameters. These parameters vary from inorganic to organic, depending on the site, permit type, and cleanup activities. The portal is expected to benefit the Minnesota Pollution Control Agency's (MPCA) remediation programs (including Superfund, Closed Landfill, Site Assessment, Brownfields, and Petroleum Remediation) as well as our land permitting programs (covering Hazardous Waste and Solid Waste). Additionally, the portal has been designed to allow MPCA staff to import historical data into the system, replacing current labor-intensive processes that previously delayed data usability.
(This activity marked as complete as of this status update)

Activity 2
The land permitting programs have enhanced access to groundwater data by developing warehouse objects. This enhancement supports compliance efforts (Activity 1) and makes the data more readily available to the public (Activity 2). Discussion around interactive features and improvements to the current web application were set aside. The decision to set aside was made to complete an upgrade outside of this project to another component of the data management system. That system upgrade has been submitted for work with a Federal grant and when the upgrade is complete, the MPCA will return to the interactive features enhancements. Estimates are completion in 2 years. The MPCA believes the delay will result in a better overall product for the public and fewer adaptive efforts by programs and the public.

Activity 3
The Minnesota Pollution Control Agency (MPCA) has met the essential prerequisites for Activity 1, which centers around developing an online data portal. This includes defining necessary data acceptance boundaries, identifying responsible parties for facility data submission, and outlining submission resources. These efforts successfully achieved Milestones 1 and 2, which focused on data formats. Additionally, during user acceptance testing in Activity 1, Milestone 3 was addressed. Currently, the MPCA is actively progressing toward completing Milestones 3 and 4 by obtaining groundwater testing results from previously submitted data, with support from a contracted system. This task will be completed as part of the overall project

Dissemination
The MPCA used a variety of ways to keep stakeholders informed in the following ways:

Used Gov Delivery messages to inform the public of upgraded systems.

Used external testers from our stakeholder participants to ensure usability along with functionality.

Used the existing web application feedback form to solicit comments from the public during the project but also after the project to improve its ongoing maintenance.

Reviewed the web application for accessibility and content that was plain language by MPCA Communication specialists.

All web landing pages, documents, presentations, and electronic messaging acknowledged that the efforts were made possible by the Environment and Natural Resources Trust Fund, and the logo for the fund was visible.

Status Update Reporting

Status Update December 1, 2023

Date Submitted: February 2, 2024

Date Approved: February 5, 2024

Overall Update

The MPCA continues work on Activity 1 (on-line data portal) using an agile development method to design, build and QA test the data portal that started in February 2023. Activity 1 is currently heading into user acceptance testing and will likely go into Production March 2024. Throughout this process we have experienced several delays, such as the availability and access to the vendor's API. Additionally, the vendor made some hardware and software updates restricting the type of files accepted. Updated formats will need to be tested and rolled out to users. Activity 2 discussions continue as to how enhancements to the current web application may serve to tell groundwater contamination stories for select solid waste permitted facilities. Requirement sessions will commence during the winter of 2023/24 with the goal of completing this task by the end of June 2024. User Acceptance Testing for Activity 1 will utilize data from Activity 3. The completion of Activity 3 will coincide with the completion of Activity 1. We are making good progress on all the Activities and anticipate we will be able to complete the project on schedule.

Activity 1

Of the nine sprints utilized to complete Activity 1, we are near the finalization of the last sprint, necessary for the development of the online data portal. The completion of this sprints will mark a close to the planning and design phase of the online data portal. To verify the functionality of the application and ensure that the online data portal meets all the requirements, user acceptance testing is necessary. Currently testing schedules, expectations, and resources are in process. Internal user acceptance testing will commence early December with external testing slated to start the second week of January running through February 2024. Throughout user acceptance testing developers will work through bug tickets to confirm quality assurance efforts are met and data is received in the correct databases and structure. Based on the five-milestone listed under Activity 1 (on-line data portal), milestones one through three are 95% completed with milestone 4 just beginning.

Activity 2

We have encountered some challenges with organizational changes and staffing limitations that as resulted in a hold on the discussion with technical staff from the permitting programs. As previously reported there has been no progress for Activity 2 milestones and with discussions on hold this remains true. We are currently assessing the best way to move forward to get back on track and met the project timeline. We plan on re-initiating discussion in December of 2023 and dedicate enough resources to see the completion of Activity2 by June 2024.

Activity 3

The MPCA has concluded the necessary requirements that informed Activity 1 (online data portal development). Milestone 1 and 3 is completed as the formats acceptable for submittal have been established. The user acceptance testing for Activity 1 will utilize groundwater testing data from individual MPCA files. Milestone 2 will be completed upon the close of the user acceptance testing in Activity 1, which will commence in December 2023 and conclude February 2024.

Dissemination

Updates to stakeholders has not been implemented. Subject Matter Experts from the programs that will utilize the web applications covered by the grant have discussed using Gov Delivery, data driven web pages and training sessions to inform stakeholders.

Status Update Reporting

Status Update June 1, 2023

Date Submitted: June 1, 2023

Date Approved: June 26, 2023

Overall Update

The MPCA continues work on Activity 1 (on-line data portal) using an agile development method with nine sprints to design, build and QA test the data portal that started in February 2023. This method allows the developers to work on more than one sprint at a time. Activity 1 will go into Production by the end of April 2024. Activity 2 discussions continue as to how enhancements to the current web application may serve to tell groundwater contamination stories for select solid waste permitted facilities. Requirement sessions will commence during the summer 2023.
User Acceptance Testing for Activity 1 will utilize data from Activity 3. Testing Plans are currently under review.

Activity 1

Nine sprints are utilized to complete Activity 1. The developers used existing facility search screens similar to the Groundwater atlas for usability. Sprint 1: Assemble Existing Functionality into initial release of the application: is complete. Sprint 2: Search and Facility Authorization, EQuIS Authentication Strategy, Update Tempo Contacts: The build is complete; QA testing is in process. Sprint 3: Service Path 1, Data Set up in Tempo, Attachment 1: Requirements and data are complete; the build is in process. Service path 1 covers Solid Waste Land Permitting, Superfund Program and 401 Certification Program and is easily scalable to Sprint 4. Sprint 4: Service Path 2 (Brownfields, Closed Landfill, Emergency Response, Integrated Remediation, Petroleum Remediation, RCRA Remediation, Site Assessment): Requirements and data are in process. Sprint 5: EQuIS Error file management or Success Management: Developers are working with the EQUIS API. They are able to submit valid documents to the portal, successfully generate error reports to achieve error-free submittals, successfully determined the row limitation to the validation. The developers are working on getting error report to the user. Sprint 6: Certify and Submit, Copy Record, eMails:. Requirements are in-process. Milestone 2 and 3 are in-process.

Activity 2

Activity 2 has commenced to enhance the existing Groundwater Atlas to include permitted facilities with impacted groundwater. Technical staff from the permitting programs are discussing how the Groundwater Atlas would capture the permitting program stories at select sites with groundwater contamination. Groundwater data from the land permitting programs has been made more accessible (by developing warehouse objects) to the program and this will serve to assist with compliance (Activity 1) and make the data more accessible to the public (Activity 2).
There has been no progress for Activity 2 milestones.

Activity 3

The MPCA has determined who should submit data on behalf of a facility and how the data will be accepted (validated) through work on sprints 1 through 6 in Activity 1. User Acceptance Testing for Activity 1 will utilize groundwater testing data from individual MPCA files. Milestone 1 has been partially completed as the formats acceptable for submittal were determined. Milestone 2 will be completed during User Acceptance Testing. Milestone 3 accepted formats have been determined in Activity 1

Dissemination

Updates to stakeholders has not been implemented. Subject Matter Experts from the programs that will utilize the web applications covered by the grant have discussed using Gov Delivery, data driven web pages and training sessions to inform stakeholders.

Status Update Reporting

Status Update December 1, 2022

Date Submitted: October 31, 2022

Date Approved: November 7, 2022

Overall Update

The MPCA has continued work on the on-line data portal requirements since the June status report. The MPCA started the project later than anticipated because of MNIT and MPCA resources diverted to Commissioner Office priorities and changes in the Subject Matter Expert personnel (2 SMEs left the MPCA and were replaced by a Subject Matter Expert from another Remediation program). A MNIT business analyst and the project lead have been working with five (5) Subject Matter Experts with a wide range of experience and expertise across the MPCA to gather requirements to design and develop an electronic data portal. These experts are familiar with the data needed to be received and managed from laboratories and permitted facilities related to our work. We are also connecting with other projects to eliminate duplicate reporting and create efficiencies across the board. The MPCA data systems are constantly improved (both the business processes and the functionality) to ensure that the data reported from the systems are of the highest quality. The project met the first milestone of Activity 1 in early August 2022

Activity 1

A MNIT business analyst, the project lead and the subject matter experts have met weekly to gather and refine the requirements to create the on-line electronic data portal. The high-level requirements were approved by the LCCMR Project Manager and the SMEs on August 9, 2022.

The group continues to meet to address any outstanding issue with the high-level requirements and expects to complete the refinement process by the end of October 2022. The requirements are documented and will be in place when the contracted personnel start the process to design the on-line data portal. Work on the design will commence January 2023. The requirements have set out the basic design of the electronic data portal from account establishment to facility selection to data submittal to data certification. The design will leverage existing functionality in the two data systems where data will be migrated.

The Activity 1 Milestone - Portal Requirements are gathered and themed to determine needs specific to permitted programs and clean-up efforts has now been completed by August 9, 2022. Requirements refinement will be complete by October 2022. Wireframe work will commence in November 2022 in order to proceed with design in January 2023.

Activity 2

Activity 2 does not commence until December 31, 2022.

Activity 3

Activity 3 cannot fully commence until Activity 1 is completed because we need to understand the data to extract it. Activity 3 will be addressed with other MPCA/MNIT groups in collaboration with this group of experts. The requirements gathered in Activity 1 have touched on the milestones in this activity. We have missed completing the first two milestones because of the availability of in-kind resources but are working with staff dedicated to the other data systems to convert historical data so it can be imported. We anticipate meeting the final project dates for this activity but believe the most effective option will come from the requirements gathering in Activity 1.

Dissemination

This project is in the initial stages before design and updates to stakeholders has not been implemented. MNIT has concluded that the project can better be served by staff augmentation, and this will assist in moving the project along.

Status Update Reporting

Status Update June 1, 2022

Date Submitted: May 31, 2022

Date Approved: July 6, 2022

Overall Update

The MPCA commenced work on the project outcomes on February 3, 2022. The MPCA started the project later than anticipated because of MNIT and MPCA resources diverted to Commissioner Office priorities. A MNIT business analyst and the project lead have been working with six (6) Subject Matter Experts with a wide range of experience and expertise across the MPCA to gather requirements to design and develop an electronic data portal. These experts are familiar with the data needed to be received and managed from laboratories and permitted facilities related to our work. We are also connecting with other projects to eliminate duplicate reporting and create efficiencies across the board. The MPCA data systems are constantly improved (both the business processes and the functionality) to ensure that the data reported from the systems are of the highest quality. While the project got started late, we expect to pick up the pace and still meet project deadlines.

Activity 1

A MNIT business analyst, the project lead and the subject matter experts have met weekly to gather and refine the requirements to create the on-line electronic data portal. This process includes stepping back and looking at the current business processes that take place before data is submitted to the systems. Processes changes to facilitate the work are being developed to ensure the most efficient and effective data loading is achieved. Requirements being gathered will improve the pre-portal processing to increase efficiency, reduce data submittal confusion and improve the quality of the data being imported into the systems. Requirements have centered on the remediation and land-based permitting programs and who would use the portal, verifying the identity of portal users to comply with Federal regulations, what compliance checks and tracking would be used for data entering the portal and how the quality of the data would be checked once it passes the portal into the data systems.

Activity 2

Activity 2 does not commence until December 31, 2022.

Activity 3

Activity 3 cannot fully commence until Activity 1 is completed because we need to understand the data to extract it. Activity 3 will be addressed with other MPCA/MNIT groups in collaboration with this group of experts. The requirements gathered in Activity 1 have touched on the milestones in this activity. We have missed completing the first two milestones because of the availability of in-kind resources but are working with staff dedicated to the other data systems to convert historical data so it can be imported. We anticipate meeting the final project dates for this activity but believe the most effective option will come from the requirements gathering in Activity 1.

Dissemination

This project is in the initial stages before design and updates to stakeholders has not been implemented.