



Environment and Natural Resources Trust Fund

2021 Request for Proposal

General Information

Proposal ID: 2021-118

Proposal Title: 2021 Groundwater Contamination Mapping Project

Project Manager Information

Name: Myrna Halbach

Organization: Minnesota Pollution Control Agency

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Project Basic Information

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.

Funds Requested: \$940,000

Proposed Project Completion: 2024-04-30

LCCMR Funding Category: Foundational Natural Resource Data and Information (A)

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

Narrative

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? i.e. What are you seeking funding to do? You will be asked to expand on this in Activities and 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.

Activities and Milestones

Activity 1: Extract groundwater testing data from individual MPCA files to populate a centralized database.

Activity Budget: \$380,000

Activity Description:

The MPCA will obtain groundwater testing results from MPCA files, environmental consultants and environmental testing laboratories. The results will be imported into a centralized database by the ENRTF recipients.

Activity Milestones:

Description	Completion Date
Requirements are gathered from each program	2021-12-31
All active site files from various programs reviewed to compile locations and results.	2022-04-30
Collection of data results	2023-03-31
Groundwater testing results are in centralized data systems.	2023-09-30

Activity 2: Create on-line electronic data portal

Activity Budget: \$280,000

Activity Description:

An on-line electronic data portal will be built to collect groundwater monitoring data (both historic and current data).

Activity Milestones:

Description	Completion Date
Requirements are gathered	2022-05-31
Portal is designed	2022-07-31
Portal is developed	2022-12-31
Portal is tested with historic data	2023-02-28
Portal is in production	2023-05-31

Activity 3: Interactive web-based map, site story and access to the groundwater data

Activity Budget: \$280,000

Activity Description:

All areas of concern will be mapped utilizing GIS technology and web mapping using the system developed with the 2017 ENRTF. The public will be able to seamlessly transition from the map to the narrative and to the underlying groundwater data.

Activity Milestones:

Description	Completion Date
Requirements are gathered for each program	2022-12-31
Interactive features are designed	2023-03-31
Interactive features are developed	2023-08-31

Interactive features are tested (internally/externally)	2023-12-31
Fully functional system in operation	2024-03-31

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 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. 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.

Other ENRTF Appropriations Awarded in the Last Six Years

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

Project Manager and Organization Qualifications

Project Manager Name: Myrna Halbach

Job Title: Strategic Program Manager

Provide description of the project manager's qualifications to manage the proposed project.

Ms. Halbach has over four decades of experience working in the environmental field with a broad range of experience drafting permits, serving as technical lead, investigating contaminated sites, operating hazardous waste collection, and solid waste recycling and land disposal facilities, and managing the data associated with these efforts. Ms. Halbach has led work at the national, state, and local level depending on her role at the time. Specifically, Ms. Halbach has managed the Feedlot program, Ethanol permitting program, and wrote Solid waste and hazardous waste rules, feedlot rules, and fee rules.

Currently, Ms. Halbach manages the Business Solutions Section that provides services to programs in developing strategies for managing and improving data systems at the MPCA. The Business Solutions Section bridges the gap between the business and technology. The Business Solution section improves business processes across the MPCA to manage data so that data provided to the public is of the highest quality and usable and accessible through online services. Before taking this position, Ms. Halbach served as contract manager for a multi-million dollar project for upgrading the MPCA's environmental database that makes possible the improvements being put into place currently with programs.

Ms. Halbach has managed the design and development of a recycling center and mobile hazardous was collection system; managed the operation of 2 land disposal facilities and served as technical expert on many projects. Ms. Halbach has managed a department at the local government level, an Assistant Division Director for multiple divisions, as well as serving as the Chief Financial Officer and Operations Director for the MPCA.

Ms. Halbach has degrees in Biochemistry and Civil Engineering. Ms. Halbach has training in Lean Process Improvement and Project Management.

Organization: Minnesota Pollution Control Agency

Organization Description:

The Minnesota Pollution Control Agency mission is to protect and improve the environment and human health. The Minnesota Pollution Control Agency monitors environmental quality, offers technical and financial assistance, and enforces environmental regulations. The agency finds and cleans up spills or leaks that can affect our health and environment. Staff develop statewide policy, and support environmental education.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
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		\$480,000
MNIT Support		Design, develop online data portal and web application for site stories and groundwater monitoring data			25%	3		\$360,000
							Sub Total	\$840,000
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		\$100,000
							Sub Total	\$100,000
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	\$940,000

Classified Staff or Generally Ineligible Expenses

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

Category	Specific Source	Use	Status	Amount
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
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
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
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
			State Sub Total	\$1,674,000
Non-State				
			Non State Sub Total	-
			Funds Total	\$1,674,000

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 groundwater data, map and story provides assistance to cities, counties, Metropolitan Council, state agencies, federal agencies, community groups, individual citizens and private industry.

Administrative Use

Does your project include restoration or acquisition of land rights?

No

Does your project have patent, royalties, or revenue potential?

No

Does your project include research?

No

Does the organization have a fiscal agent for this project?

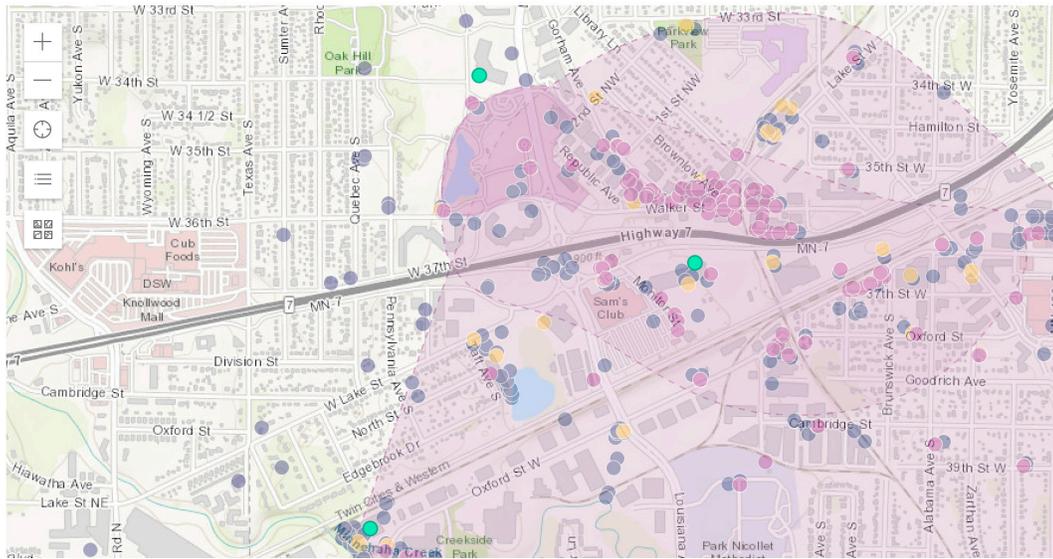
No

Mapping groundwater contamination: accessible data to protect resources

Groundwater Testing Results entered in Centralized Database through On-Line Portal for all MPCA programs

Interpretation of testing results to locate and map groundwater areas of concern

Statewide interactive map and site story application

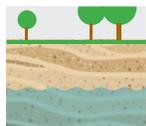


 **Assessible data and technology transfer**

What are the benefits?



Expedited land restoration



More effective groundwater conservation



Increased protection of drinking water

Who does this help?



Cities, counties, Metropolitan Council, state agencies, federal agencies, community groups, individual citizens and private industry