Final Abstract

Final Report Approved on November 2, 2026

M.L. 2022 Project Abstract

For the Period Ending June 30, 2026

Project Title: Modernizing Minnesota's Digital Lake Inventory

Project Manager: Josh Knopik

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Website: https://www.dnr.state.mn.us/ewr/index.html

Funding Source:

Fiscal Year:

Legal Citation: M.L. 2022, Chp. 94, Sec. 2, Subd. 03c

Appropriation Amount: $787,000

Amount Spent: $595,841

Amount Remaining: $191,159

Sound bite of Project Outcomes and Results

Minnesota's new Aquatic Ecological Basins dataset redefines how we see and manage lakes. A statewide review mapped 243,209 aquatic basins, including 14,653 lakes larger than 10 acres and more than 208,000 ponds, as connected systems of open water, wetlands, and habitat supporting smarter conservation and better decisions.

Summary of Project and Outcomes

Minnesota's lake and pond maps were largely based on information developed from 1970s topographic maps. Many waterbodies had inaccurate boundaries, missing features, or outdated classifications. These limitations affected lake assessments, conservation planning, public information, and decisions about where to direct limited natural-resource funding and staff time.

This project delivered a comprehensive statewide update of Minnesota's aquatic map data using the updated National Wetland Inventory, modern aerial photography and elevation data, Public Waters information, and review by technical experts and stakeholders. Comments from data users directly guided the design and refinement of the final products. The project reviewed 243,209 aquatic basins and created four connected datasets describing aquatic communities, open water, vegetated open-water fringe, and complete aquatic basins. 208,142 basins were identified as ponds (less than 10

acres). Among the 25,278 basins larger than 10 acres, 14,653 were identified as lakes, 88 as rivers or streams, 945 as artificial basins, and 9,356 as wetlands.

The project also produced documented computer tools and repeatable procedures for rebuilding and updating these products as Minnesota's National Wetland Inventory changes. These tools create a practical foundation for maintaining the data and will assist future updates to the Public Waters Inventory.

The completed datasets are available through the Minnesota Geospatial Commons and are being incorporated into Department of Natural Resources applications. They provide a more accurate and consistent statewide picture of Minnesota's waters and wetlands, improving the information used to assess water resources, identify conservation priorities, support regulatory and management decisions, and communicate with the public. This investment replaces outdated mapping with maintainable data that can support better decisions for years to come.

Project Results Use and Dissemination

The Aquatic Ecological Basins datasets were published through the Minnesota Geospatial Commons, making them available to the public, local governments, researchers, and resource managers. The products are also being incorporated into internal DNR applications supporting water-resource assessment and management. Project results and draft products were shared with stakeholders, whose comments guided development.

Environment and Natural Resources Trust Fund

M.L. 2022 Approved Final Report

General Information

Date: November 3, 2026

ID Number: 2022-076

Staff Lead: Tiffany Schaufler

Project Title: Modernizing Minnesota's Digital Lake Inventory

Project Budget: $787,000

Project Manager Information

Name: Josh Knopik

Organization: MN DNR - Ecological and Water Resources Division

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Web Address: https://www.dnr.state.mn.us/ewr/index.html

Project Reporting

Final Report Approved: November 2, 2026

Reporting Status: Project Completed

Date of Last Action: November 2, 2026

Project Completion: December 31, 2025

Legal Information

Legal Citation: M.L. 2022, Chp. 94, Sec. 2, Subd. 03c

Appropriation Language: $787,000 the second year is from the trust fund to the commissioner of natural resources to conduct a comprehensive update of Minnesota's lake and pond GIS data to enhance lake conservation planning by state and local partners while also creating efficiencies for ongoing data maintenance.

Appropriation End Date: June 30, 2025

Narrative

Project Summary: Enhance lake conservation planning of state and local partners with a comprehensive update of Minnesota's lake and pond GIS data as well as streamlining future maintenance.

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

Minnesota's lake GIS dataset suffers from a variety of issues, including missing features, inaccurate boundaries, and classification errors. This project proposes a comprehensive update of lake and pond GIS data. This dataset is one of the Department of Natural Resources' (DNR) most requested GIS layers. It is used to derive other lake information and is part of several key web applications, such as DNR's LakeFinder and Watershed Health Assessment Framework.

The current lake GIS data was largely derived from USGS topographic maps created in the 1970s. Although selected features have been updated, most of the mapped boundaries remain identical to the original maps and are incompatible with modern high-resolution aerial imagery and lidar data. This has significant implications for the use of these data for natural resource management. Errors affect how lakes appear in maps, reports, and web-based mapping applications. Many lake assessments, such as groundwater dependent lakes or lakes of phosphorus sensitivity, rely on the surface area of the lake as an element of the analysis. Errors in mapped area translate into errors that affect analysis results and in turn affect how lake management efforts are prioritized. These errors can lead to wasted effort or missed opportunities.

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.

This project will create a new authoritative GIS dataset for lakes and ponds using the most current information available. We will leverage the recently updated National Wetland Inventory (NWI) for Minnesota (funded by ENRTF, completed in 2019), and the latest high-resolution aerial imagery and lidar data to create a new dataset. A semi-automated process will be developed to assemble and modify NWI polygons into an initial dataset. These features will be verified using the most recent lidar and aerial imagery data. We will transfer the DNR Basin ID numbers from the existing dataset, ensuring the new dataset complements the existing NWI and integrates with current applications. The end result will be a dataset with more accurate boundaries and improved classification of waterbody types.

Creating an accurate and up-to-date inventory of lakes in Minnesota is an enormous challenge. Accordingly, we have assembled a highly qualified project team. Team members include Saint Mary's University and DNR Resource Assessment Program (RA). The DNR has historically played, and will continue to play, a key role in providing accurate lake inventory information for Minnesota. In addition, we will engage with key stakeholders throughout the process to ensure that data meets their needs.

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?

The updated lake GIS data will enhance conservation planning efforts of state and local governments, as well as non-governmental organizations. It will improve prioritization and targeting of lake management. The data will be made publicly available, used to update a variety of derived lake information, and replace older lake data in several web-based mapping applications. Furthermore, project will also provide natural resources and GIS mentorship opportunities for college students at St. Mary's University. Additionally, this project will simplify maintenance efforts, through combining support of this new dataset with that of the NWI data.

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?

In the Future

Activities and Milestones

Activity 1: Data design and governance

Activity Budget: $108,000

Activity Description:
This activity will engage a cross-section of end users to provide input on the database design and business rules for the data to ensure that the product meets the needs of a wide array of users. This includes documenting problems with the existing data, expected uses of the data, and opportunities for future enhancement. The DNR will form a representative team of end users from across multiple sectors to engage in a structured discovery process to understand customer needs. Input from this process will be incorporated into a draft data design that we will pilot for a small area. The steering team will evaluate the pilot data, and the feedback will be used to finalize the design. This team will also help define ongoing governance for the data to ensure that the data continues to meet user needs.

Activity Milestones:

Description	Approximate Completion Date
Identify end users and define user requirements.	December 31, 2022
Database design and pilot testing completed	April 30, 2023
Data governance and rules developed and refined	April 30, 2023

Activity 2: Create statewide updated lake GIS dataset

Activity Budget: $578,000

Activity Description:
The database design and business rules defined under Activity 1 will guide the development of a statewide updated lake GIS dataset. Saint Mary's University will have primary responsibility for this activity, with the steering team supporting their progress throughout the project. Saint Mary's will develop, test, and document an efficient process for creating this dataset and assigning the correct DNR basin ID numbers to corresponding polygons from the NWI layer. This will be a semi-automated process involving attribute and spatial queries to create an initial relationship, but significant human interpretation and manual editing during the draft data development phase of the project will be needed to resolve discrepancies and ensure the accurate assignment of ID numbers. The draft data will be provided to the DNR; independent reviews will be provided by RA and other stakeholders. DNR will compile the feedback on the draft data and use this to guide any modifications to be completed by Saint Mary's before publishing the final data. As part of data finalization, Saint Mary's will add attribute fields, which are required to support the end users' needs defined in Activity 1 (e.g., waterbody class).

Activity Milestones:

Description	Approximate Completion Date
Method development, testing and documentation	April 30, 2023
All draft data developed and delivered for review	December 31, 2024
Data reviewed and quality control completed	April 30, 2025

Activity 3: Data delivery and user outreach

Activity Budget: $101,000

Activity Description:

This activity will facilitate the integration of the new lake GIS dataset into existing applications and web maps (such as the MN Geospatial Commons, DNR LakeFinder, Watershed Health Assessment Framework, and others). We will publicize and promote the dataset through conferences, webinars, and other meetings aimed at local and state watershed and lake managers as well as associated technical communities including GIS professionals. The steering team established in Activity 1 will also be engaged to assist in the effort to promote and publicize the data within their respective organizations. This activity also includes the development of a dedicated public-facing web application for non-GIS users. Additional project outcomes include sharing information about the value of Minnesota's lakes and ponds, and highlighting the importance of maintaining clean water.

Activity Milestones:

Description	Approximate Completion Date
Web application for the non-GIS public completed	May 31, 2025
Integrate data into existing lake GIS applications	June 30, 2025
User outreach and promotion (conferences, map/poster distribution)	June 30, 2025

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Andy Robertson	Saint Mary's University of Minnesota	GeoSpatial Services at Saint Mary's University (GSS) will provide technical assistance with conducting the statewide update of the Minnesota lake GIS dataset. GSS has been involved in similar projects, such as the National Wetlands Inventory(NWI) update project for Minnesota.	Yes
Minnesota IT Services	Minnesota IT Services	Development of data editing and updating application, a public viewable web application, and technical data steward to assist with database design and technical coordination.	Yes
DNR Resource Assessment	DNR Resource Assessment	Conduct quality control and quality analyses of the data produced by Saint Mary's University. RA will also provide additional testing, data management, or data analyses tasks as needed by DNR or the steering team. RA has provided these services in the past for several similar projects, including the NWI.	Yes

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.
Lake maps, lake data, and related products developed by this project will primarily be disseminated through web-based data distribution hubs and online viewing through web mapping applications. The primary data access website for the State of Minnesota is the Minnesota Geospatial Commons. Online mapping viewing for non-GIS users will be provided by incorporating the updated lake inventory data into existing applications such as Lake Finder, Lake Flood Elevations Online, or by incorporating into newly developed web applications that focus on lakes.

A broadly aimed publicity campaign will rely on multiple outlets including posting to social media from DNR's official accounts, developing a press release, publication in newsletters, and developing a poster with the updated lake inventory data that can be distributed by the DNR and our other project partners at various public outreach events (lake association events, sportsman shows, etc.).

Targeted outreach to the lake management community will include presentations at professional conferences as well as publication in selected newsletters and journals. Conference presentations may include the Minnesota Water Resources Conference, the Minnesota GIS/LIS Conference, or other similar professional venues.

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?
DNR and MNIT will provide ongoing stewardship of these data to ensure that they are maintained and accessible to all users. Data maintenance and dissemination will be integrated into existing programs. DNR and MNIT will incorporate ongoing maintenance of these data with the maintenance of the NWI data funded through existing sources for data stewardship. Data will be publicly available on the MN Geospatial Commons, and used across multiple previously mentioned platforms (LakeFinder, Watershed Health Assessment Framework, etc).

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	$ Amount	$ Amount Spent	$ Amount Remaining
Personnel										
Project Coordinator		Coordinate the project plan, schedule meetings, help organize and coordinate the work of partners (SMU and MNIT), coordinate with steering team to provide overall direction.			25%	1.05	X	$90,000	-	-
							Sub Total	**$90,000**	**$2,518**	**$87,482**
Contracts and Services										
St Mary's University	Subaward	Sub-award for developing the lake GIS data update. This will include participating in the user requirements discovery process, developing and testing procedures for the update, developing draft data for review, and revising the data to create a final dataset. This will also include developing a draft data review tool.				2		$400,000	$400,000	-
MNIT Services	Internal services or fees (uncommon)	Develop a basic data explorer type web map to provide access to the data for the non-GIS user				0.4		$200,000	$149,000	$51,000
MN DNR Resource Assessment	Internal services or fees (uncommon)	Conduct an independent check of the data produced by Saint Mary's University, and provide any additional data management or analyses tasks as needed by DNR or the steering team. RA has provided these services in the past for several similar projects, such as the NWI.				0		$80,000	$44,175	$35,825
							Sub Total	**$680,000**	**$593,175**	**$86,825**
Equipment, Tools, and Supplies										

							Sub Total	**-**	**-**	**-**
Capital Equipment										
							Sub Total	**-**	**-**	**-**
Acquisitions and Stewardship										
							Sub Total	**-**	**-**	**-**
Travel In Minnesota										
	Conference Registration Miles/ Meals/ Lodging	Travel and attendance for one DNR or MNIT staff person to present at three different conferences	Promotion of new hydrology dataset and feedback					$3,000	-	$3,000
							Sub Total	**$3,000**	**-**	**$3,000**
Travel Outside Minnesota										
							Sub Total	**-**	**-**	**-**
Printing and Publication										
	Printing	Design, layout, and printing for 500+ statewide lake map posters	Promotion and public awareness.					$4,326	-	$4,326
							Sub Total	**$4,326**	**-**	**$4,326**
Other Expenses										
		Direct and Necessary	DNR's direct and necessary costs pay for activities that are directly related to and necessary for accomplishing appropriated projects. HR Support (~$1747), Safety Support (~$271), Financial Support (~$1619), Communication Support					$9,674	$148	$9,526

			(~$1311), IT Support (~$3718), and Planning Support (~$1008).							
							Sub Total	**$9,674**	**$148**	**$9,526**
							Grand Total	**$787,000**	**$595,841**	**$191,159**

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
Personnel - Project Coordinator		Coordinate the project plan, schedule meetings, help organize and coordinate the work of partners (SMU and MNIT), coordinate with steering team to provide overall direction.	**Classified :** Diverted duties will be backfilled through other available staffing options.

Non ENRTF Funds

Category	Specific Source	Use	Status	$ Amount	$ Amount Spent	$ Amount Remaining
State						
			State Sub Total	**-**	**-**	**-**
Non-State						
			Non State Sub Total	**-**	**-**	**-**
			Funds Total	**-**	**-**	**-**

Attachments

Required Attachments

Visual Component

File: 48d6dd82-edb.pdf

Alternate Text for Visual Component

Title: Modernizing Minnesotas Digital Lake Inventory. Inset map showing MN Lakes. "Many lake boundaries originate from old maps and are inaccurate."
Illustrated by map inset showing existing Deadman Lake boundary (in blue outline) overlaying original 1970's USGS quadmap, an arrow directing to map inset of updated Deadman Lake Boundary over modern aerial imagery. "Existing data have numerous classification errors. This project seeks to correctly classify the open water and wetland fringe of l...

Supplemental Attachments

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

Title	File
UMN Letter of Support	c7ba7e57-3e1.pdf
GoodhueCo Letter of Support	52d55df4-081.pdf
Background Check Certification Form	04697a21-ae8.pdf
ModernizingLakeInventoryCompiledPPT	ba1e9a77-461.pdf
2024_MN_GISLIS_Modernizing_Lake_Inventory	0876838c-98f.pdf

Media Links

Title	Link
Aquatic Ecological Basin Inventory	https://gis.data.mn.gov/maps/c2f7fc66ab8449708cf898e0837a6cd1/about
Visualization Webportal - Aquatic Ecological Basin Inventory	https://www.arcgis.com/home/item.html?id=c2f7fc66ab8449708cf898e0837a6cd1#visualize

Difference between Proposal and Work Plan

Describe changes from Proposal to Work Plan Stage

As directed, we attached a completed background check form and added a description of the planned dissemination efforts for this project. We also addressed LCCMR staff comments about the agreement type for work performed by MNIT and the DNR Resource Assessment Program. The reviewer comment was correct that these agreements are internal service level agreements and not a professional technical contract. The only other change we are proposing to the workplan is to shift the development of the draft data review application from MNIT to St. Mary's University. The reason for this change is that MNIT has very limited staff resources for application development and a major backlog of other agency projects. St. Mary's University has the expertise as well as the availability to take on this task in a more timely manner. This change will reduce the budget line for the agreement with MNIT by $20,000 and increase the budget line for the contract with St. Mary's University by an equivalent amount.

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 understand that travel expenses are only approved if they follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?

Yes, I understand the Commissioner's Plan applies.

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

Do you understand that a named service contract does not constitute a funder-designated subrecipient or approval of a sole-source contract? In other words, a service contract entity is only approved if it has been selected according to the contracting rules identified in state law and policy for organizations that receive ENRTF funds through direct appropriations, or in the DNR's reimbursement manual for non-state organizations. These rules may include competitive bidding and prevailing wage requirements

N/A

Work Plan Amendments

Amendment ID	Request Type	Changes made on the following pages	Justification For Amendment Request (word limit 75)	Date Submitted	Approved	Date of LCCMR Action
1	Amendment Request	• Other • Budget - Personnel • Budget - Professional / Technical Contracts	This amendment shifts $30,000 from the state agency staff budget line to a professional contract budget line for St. Mary's University. State staff costs have been considerably less than initially estimated and this amendment allows St. Mary's University (an named partner on the grant) to conduct additional quality control on the data and complete additional updates based on the stakeholder review process.	May 1, 2024	Yes	May 1, 2024
2	Project Manager	Previous Manager: Steve Kloiber (steve.kloiber@state.mn.us) New Manager: Josh Knopik (joshua.knopik@state.mn.us)	Current PM is leaving the DNR for a new position	July 3, 2024	Yes	July 16, 2024
3	Completion Date	Previous Completion Date: 06/30/2025 New Completion Date: 12/31/2025	Requesting Completion Date to Dec 31 2025. Additional time is needed to complete data integration into current data systems and publication. No ENTRF funds will be used after 6/30/2025, additional funding to be used for project completion will Outdoor Heritage funds.	October 16, 2025	Yes	October 16, 2025

Status Update Reporting

Final Status Update August 14, 2025

Date Submitted: November 2, 2026

Date Approved: November 2, 2026

Overall Update
This project delivered a comprehensive statewide update of Minnesota's aquatic map data using the updated National Wetland Inventory, modern aerial photography and elevation data, Public Waters information, and review by technical experts and stakeholders. Comments from data users directly guided the design and refinement of the final products. The project reviewed 243,209 aquatic basins and created four connected datasets describing aquatic communities, open water, vegetated open-water fringe, and complete aquatic basins. 208,142 basins were identified as ponds (less than 10 acres). Among the 25,278 basins larger than 10 acres, 14,653 were identified as lakes, 88 as rivers or streams, 945 as artificial basins, and 9,356 as wetlands. The project also produced documented computer tools and repeatable procedures for rebuilding and updating these products as Minnesota's National Wetland Inventory changes. These tools create a practical foundation for maintaining the data and will assist future updates to the Public Waters Inventory.

Activity 1
This activity was previously marked complete.
(This activity marked as complete as of this status update)

Activity 2
This activity was previously marked complete.
(This activity marked as complete as of this status update)

Activity 3
The lake GIS database has been migrated to a new platform and restructured to support publication through the Minnesota Geospatial Commons and use in a public-facing web application. This provides the foundation needed to make the data available to both GIS users and the general public. Integration into existing DNR datasets, applications, and project workflows is ongoing, but more slowly than anticipated due to differing application requirements and update schedules. The primary database development and migration work for this activity is complete, with the database structured to support future integration with LakeFinder, the Watershed Health Assessment Framework, and other lake-related applications. Additional integration, public-facing application development, and outreach will continue.
(This activity marked as complete as of this status update)

Dissemination
The Aquatic Ecological Basins datasets were published through the Minnesota Geospatial Commons, making them available to the public, local governments, researchers, and resource managers. The products are also being incorporated into internal DNR applications supporting water-resource assessment and management.

Status Update Reporting

Status Update March 1, 2025

Date Submitted: April 21, 2025

Date Approved: April 29, 2025

Overall Update
St. Mary's has completed the data migration. DNR's resources assessment is working on derived deliverables and technical data stewards are working on data integration with existing datasets. Project completion is targeted for June 30.

Activity 1
This activity was previously marked complete.
(This activity marked as complete as of this status update)

Activity 2
This activity has been completed. Data migration methodology is completed and documentation complete (activity 1). Draft data has been developed and delivered (activity 2), and data review and quality control is completed.
(This activity marked as complete as of this status update)

Activity 3
Activity 3 is underway. We have been meeting with technical team and data managers on data integration and working on overcoming a few challenges with reconciling differences between the older lake boundary data and updated data, but making forward progress. Discussions were held concerning we applications for non-GIS public, and compared several potential options, but most feel integration into existing portals (Lake Finder, Watershed Health Assessment Framework for Lakes, NRRI MN Natural Resources Atlas) may be the most effective, as opposed to a custom application. A talk to the MN GIS/LIS Consortium was presented in October.

Dissemination
No recent updates on Dissemination

Status Update Reporting

Status Update September 1, 2024

Date Submitted: November 5, 2024

Date Approved: November 6, 2024

Overall Update
St. Mary's University submitted that last of the draft data for all 80 watersheds, DNR and outside stakeholders reviewed the data, and comments were addressed. Planning and implementation of the next stages had begun. These steps include: working through the technical processes of integrating this updated dataset with the existing hydrography datasets, documenting the business rules and technical process taken, identifying and documenting the processes for future updates, and eventually public rollout of the new datasets. This project is on track to be completed June 2025.

Activity 1
This activity was previously marked complete.
(This activity marked as complete as of this status update)

Activity 2
St. Mary's University submitted that last of the draft data for DNR review statewide for all 80 watersheds, and updated an online data review application for stakeholder input. Stakeholders submitted approximately 200 review comments. The project team reviewed comments and forwarded to St. Mary's for final resolution. DNR project team completed data review for 100% of the state.

Activity 3
Presentations on the Lake Inventory Update have been given to the following groups: Minnesota Water Resources Conference, DNR Section of Fisheries supervisors and managers meeting, DNR Geospatial Water Resources Team, Data stewardship, and data governance team. The requirements (comparison and conflation) for integration into existing hydrology datasets are underway. Discussions were held considering the proper architecture for a public facing web application, but decisions have yet to be finalized.

Dissemination
An abstract for a presentation at the GIS/LIS conference in October of 2024 was accepted and presentation was delivered.

Additional Status Update Reporting

Additional Status Update May 1, 2024

Date Submitted: May 1, 2024

Date Approved: May 1, 2024

Overall Update
This is a work plan amendment submitted to shift $30,000 from the staff budget line to the professional/technical contract line.

Activity 1
This activity was previously marked complete.
(This activity marked as complete as of this status update)

Activity 2
This work plan amendment affects activity 2 in that it shifts funds from DNR staff to a P/T contract for St. Mary's University for additional quality control review and updates on the creation of the statewide GIS lake inventory.

Activity 3
This amendment does not alter activity 3.

Dissemination
This amendment does not alter the planned dissemination.

Status Update Reporting

Status Update March 1, 2024

Date Submitted: March 8, 2024

Date Approved: March 12, 2024

Overall Update
The Lake Inventory Update Project has moved into full-production. Draft data has been created for the entire state. Just under half of this data has undergone an initial internal review. About one-third of the state has also had a secondary review. We anticipate that we will meet the milestone of completing the update of the data in the next six months. The project team has continued to engage with stakeholder by providing project updates.

Activity 1
This activity is essentially complete. Development of the business rules, data definitions, and procedures are complete. We anticipate that there may be some minor refinements as we get proceed through Activities 2 and 3. Any changes will be reflected in the final project documentation which will be disseminated (Activity 3) at the close of the project.
(This activity marked as complete as of this status update)

Activity 2
Draft data has been completed for 100% of the state. Data for 37 major watersheds have undergone an initial internal review by St. Mary's University and have been transmitted to DNR for secondary review. DNR has completed review of 25 of the major watershed deliverables. There are 42 additional watershed deliverables awaiting internal review by St. Mary's University before delivery to the DNR. Overall, this Activity is approximately 50-60% complete. What remains is data review and final edits.

Activity 3
The project team has continued to engage with stakeholders as the data are being developed. Presentations on the goals and status of the project have been provided through several meetings and conferences including regular updates the MN Geospatial Water Resources Team, DNR Section of Fisheries, and DNR Area Hydrologists. This task is approximately 10% complete. Most of this activity is dependent on first completing Activity 2.

Dissemination
Dissemination activities will occur after the data has been finalized. Planning for delivery through the MN Geospatial Commons and integration into existing public-facing web applications is currently being initiated.

Status Update Reporting

Status Update September 1, 2023

Date Submitted: September 5, 2023

Date Approved: October 24, 2023

Overall Update
During this reporting period, the project is mainly focused on developing and reviewing draft data. We anticipate that draft data will be complete for the entire state by the end of the next reporting period and that the majority of the data review will also be complete by then.

Activity 1
Under activity one for his period we developed a system for tracking the data development, and completion status. We also revised the documentation for business rules and data definitions based on feedback from a series of data review meetings.

Activity 2
During this reporting period, the project team developed draft data for 12 more major watersheds.This brings the cumulative statewide progress to 13 out of 80 watersheds for draft data. DNR has completed the review on four major watersheds with partial progress on the review of five other watersheds. The DNR core team and the staff of SMU met several times to go through comments on the draft data and to develop refinements to the process.

Activity 3
In terms of outreach and coordination, SMU developed a draft data review application that will be used to share the data with a wider audience to solicit feedback. A presentation on the project was given to state agency team that focuses on water resources data. The update covered the project purpose, progress to date, issues encountered, and soliciting feedback.

Dissemination
External dissemination of the results is still pending additional data development, but a presentation is planned for the Minnesota Water Resources Conference this fall.

Status Update Reporting

Status Update March 1, 2023

Date Submitted: March 1, 2023

Date Approved: April 14, 2023

Overall Update

The project was initiated on July 1, 2022. The first phase focus is on clearly defining the user requirements for this shared GIS dataset. We developed and executed a sub-award agreement with St. Mary's University and the DNR Resource Assessment Office. The project core team and an advisory steering team were formed. We developed a team charter to define the roles and expectations. We drafted a data requirements document and held a series of meeting to get feedback on this document. St. Mary's University compiled the project input data and began with some small scale pilot tests. The data from these pilot areas were shared with the DNR to provide feedback on this part of the process.

Activity 1

- Formed a steering team and a project core team
- Developed a framework for making decisions regarding the LIU data
- Developed a team charter for the steering team
- Transmitted project data to St. Mary’s University
- Analyzed business needs and identified key data issues
- Held a series of three steering team meetings to review data issues and provide feedback on business rules
- Developed a draft document for data definitions and business rules that will guide the development of the LIU

Activity 2

- SMU developed an initial process for creating the LIU
- SMU created a data service to share draft data with the DNR
- SMU pilot-test update on a series of watersheds (HUC12 level)
- Core team met with SMU twice to review and discuss results from pilot test
- Revisions and enhancements made to the update process
- Initial processing has begun for the statewide update

Activity 3

- Project update providing to the DNR Geospatial Water Resources Team

Dissemination

There were no dissemination activities during this first reporting period.m