M.L. 2019 Project Abstract
For the Period Ending June 30, 2021

PROJECT TITLE: Minnesota Spring Inventory Final Phase
PROJECT MANAGER: Paul Putzier
AFFILIATION: Minnesota Department of Natural Resources
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FUNDING SOURCE: Environment and Natural Resources Trust Fund
LEGAL CITATION: M.L. 2019, First Special Session, Chapter 4, Article 2, Subd. 04p

APPROPRIATION AMOUNT: $71,000
AMOUNT SPENT: $ 66,880.12
AMOUNT REMAINING: $4,119.88

Sound bite of Project Outcomes and Results
Springs are natural points of groundwater discharge that provide flow for trout streams and cool water fisheries, base flow during to streams, and unique ecological habitats. Management of this resource is only possible when we know their location. The MSI project located and makes available information on over 7,200 springs.

Overall Project Outcome and Results
Springs are natural points of groundwater discharge that provide flow for trout streams and cool water fisheries, base flow during to streams, and unique ecological habitats. Management of this resource is only possible when we know their locations and characteristics. The primary objective of this project was to find unmapped springs, add the location of those new springs to the existing Minnesota Spring Inventory (MSI) and field verify and characterize as many currently mapped but unverified springs as possible.

For the project, DNR conducted field investigations of targeted parts of the state to find, characterize and map new springs locations. The existing MSI database also held 'non-verified' spring locations added to the database from old maps and studies and from the MSI Citizens App. DNR conducted 'field verification' by traveling to many of those features to confirm their existence and update the database. Approximately 350 spring locations were added to the MSI through the Citizen App.

The Covid-19 Pandemic and Minnesota's Stay Safe at Home order limited MSI fieldwork for over twelve months of the two-year project. When restrictions were relaxed in 2021, fieldwork resumed for the MSI team and many springs and features were added the database.

Because of this project (all phases), Minnesotans benefit by having easy access to approximately 7,200 features in the MSI including a combination of field verified springs, and many likely, but non-verified spring locations. The MSI project resulted in a 76% increase in mapped springs and increased from holding verified springs in 22 counties, primarily in the southeast, to verified springs located in 71 counties.

The DNR established special MSI accounts for MPCA and SWCD field staff from the Duluth/ Northern MN region and provide guidance documents and training, allowing them to add springs directly to the MSI using the Survey 123 application.

Project Results Use and Dissemination

DNR conducts dissemination through individual contacts, presentations and news releases. One example is online at St. Croix 360. Another example came from an environmental consultant in a June 2021 email:

*"Can (you) help assist with information gathering regarding seeps & springs in the St Paul area. I'm working with the **Capitol Region Watershed District** to identify springs within their boundary, and prioritize the springs in order of level of prevalence/risk to become a public comment or threat to infrastructure."*

The spring data is accessible at Minnesota Spring Inventory and GIS files are at the Minnesota Geospatial Commons, and at Showcase.

Today's Date: August 13, 2021

Date of Next Status Update Report: Final Update

Date of Work Plan Approval: June 21, 2019

Project Completion Date: June 30, 2021

Does this submission include an amendment request? No.

PROJECT TITLE: Minnesota Spring Inventory Final Phase

Project Manager: Paul Putzier

Organization: Minnesota Department of Natural Resources

College/Department/Division: Ecological and Water Resources Division

Mailing Address: Box 25, 500 Lafayette Rd N.

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Web Address: https://www.dnr.state.mn.us/waters/groundwater_section/mapping/springs.html

Location: Statewide

Total Project Budget: $71,000.00

Amount Spent: $66,880.12

Balance: $4,119.88

Legal Citation: M.L. 2019, First Special Session, Chapter 4, Article 2, Subd. 04p

Appropriation Language: $71,000 the first year is from the trust fund to the commissioner of natural resources to complete the Minnesota Spring Inventory that identifies, catalogs, and assists resource managers in monitoring, assessing, and protecting important and threatened statewide water springs. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

I. PROJECT STATEMENT

Springs are an important natural resource that occur all across Minnesota. It is vital to inventory, assess, and monitor springs on a comprehensive, statewide basis because they are all of the following:

- Sources of trout streams
- Of cultural significance
- Sources of cool water fisheries
- Maintainers of integrity against aquatic invasive species
- Special places to enjoy and experience

- Assemblages of unique and rare plants, animals and insects
- Sources of wetlands
- Sustainers of base flow in streams
- Windows into the health of groundwater system

Healthy springs across Minnesota may be threatened by overuse of groundwater, development, land-use changes, and changing climate, and many springs have never been located, mapped or characterized. The Minnesota Spring Inventory is designed to find, map and make information about this important and threatened natural resource widely available to private industry, private citizens, academia, and government to assist in resource management and protection.

Phase I of the Minnesota Spring Inventory is complete. It established processes and procedures to conduct the statewide inventory including the evaluation of existing documentation and uncovering documents and data sets that had been lost.

Phase II of the Minnesota Spring Inventory is nearing completion. It includes developing exploration techniques and standards and exploring and cataloging of springs. The work focused on the Targeted Spring Provinces and public lands (see figure). Approximately 2000 springs were documented through the Phase II work to date.

Phase II also produced the Minnesota Springs Citizen Reporting App which allows the public to add springs to the DNR catalogue using their portable devices. More than 250 candidate springs have been submitted to date.

The Final Phase of the Minnesota Spring Inventory (proposed project) will allow for the completion of work finding and mapping springs in the Targeted Spring Providences (see map), the evaluation of springs still requiring verification, and refinement of the spring inventory web presence to make information more accessible. With the tools developed the spring inventory can continue to expand with input from the DNR, other state and federal agencies, local organizations and citizens. Much of the data from the first two years of the project is already available and being used.

II. OVERALL PROJECT STATUS UPDATES

First Update: January 15, 2020

The MSI team conducted office-based spring hunting trip planning for Southwest Minnesota target areas. This was followed by a trip in late October to Hole-in-Mountain County Park, Garvin County Park, and Lake Benton Shoreline areas. Several spring-rich areas were identified and specifics added to the MSI.

In December, the team conducted additional office-based spring hunting trip preparations for Northwest Minnesota target areas. This was followed by field visits to Polk County and southern shoreline of Glacial Lake Agassiz.

The Team conducted review and promotion (elevated to final status) of Citizen Spring submissions that came through the Citizen App.

A total of 29 springs were submitted by citizens using the online application. Twenty-two (22) of the springs submitted have been promoted to “A Springs” (valid/confirmed). Twenty-seven (27) new “A springs” have been added from fieldwork. For a total of 49 new/promoted springs since June of 2019.

A total of 5,051 confirmed springs (“A” and “S” springs) are visible to the public on the MSI. Another 1,959 springs are in the database but have not been elevated to “A” or “S’, and so are not yet visible to public on the MSI.

DNR set up an account in the MSI software for MPCA field staff. They can use to this access to add springs directly to the MSI with the “survey123” application. DNR provided the MSI guidance documents to MPCA, which are instructions for using the database. DNR has invited MPCA staff to additional training on the MSI database and app.

Amendment Request

Due to COVID complications we are asking to move the completion dates for Activity 1 out one year, from 2020 to 2021. Under the "Dissemination" section, we are requesting a change of the date for the Second Update from July 15, 2020 August 15, 2020 to match the other dates in the Work Plan. With respect to the budget, we are asking to move $131.00 from the "Other" category to "Equipment/Tools/Supplies" category. The move is necessary to balance the cost of additional software improvements that became necessary. The total budget remains as originally funded. *Amendment Approved by LCCMR **9/24/2020**.*

Second Update: August 15, 2020

Mid-winter is a time of planning for the MSI staff. By February 2020 plans were in place for additional spring hunting in northwest Minnesota. However, fieldwork plans had to be suspended on March 16 due to the Minnesota Stay at Home order. Consequently, no fieldwork was completed during the reporting period.

There have been 40 new verified springs add to the MSI database in the last six months.

Thirty-three (33) springs have been submitted by citizens using our online reporting application. Additional springs are under review by MSI staff, and will be promoted as appropriate.

A total of 5,123 confirmed springs ("A" and "S" springs) are visible to the public on the MSI. Another 1,940 springs are in the database but have not yet been elevated to "A" or "S', and so are not visible to public on the MSI.

Special Access Accounts were set up for MPCA and SWCD field staff from the Duluth/ Northern MN region. This access will allow them to add springs to the MSI using the Survey 123 application. DNR also provided training for the staff from MPCA/SWCD on how to detect a spring and add it into the survery123 application for submitting a spring location. The spring's guidance document was also provided to them for their future reference needs.

MSI Staff completed spring verification and review related to the Line 3 pipeline project in northern Minnesota.

Minnesota IT (MNIT), the agency technology service provider, updated the MSI Survery123 app from the AGOL software to the Portal software. This is a software improvement that will allow easier access to the app, and generation of spring locations by collaborators.

Third Update: January 15, 2021

For the fall of 2020 our activities continued to be limited do to Covid. However, the team was able to conduct some additional outreach/dissemination activities, add to the growing MSI database, and get out for some fieldwork in search of new springs and to confirm several already in the database.

- There have been 24 new verified springs add to the MSI database in the last six months.
- Eighteen new (18) springs have been submitted by citizens using our online reporting application. Additional springs are under review by MSI staff, and will be promoted as appropriate.
- A total of 5,165 confirmed springs ("A" and "S" springs) are visible to the public on the MSI. Another 1,940 springs are in the database but have not yet been elevated to "A" or "S', and so are not visible to public on the MSI.

Additionally, DNR is making plans for the continuation of the of the MSI project after the ENRTF funded portion is complete this year. Our plans include maintaining the database and online tool that makes it accessible to the public, continuing to conduct field evaluations for new springs and to confirm springs added to the database by citizens and other professionals. The ENRTF gave this important project a much needed start for this vital information, and DNR intends to continue the project as part of the ongoing Atlas work as long as funding is available through our base general fund.

An adjustment was made to the amount spent as a result of moving incorrectly coded salary expenses off this project and onto the correct project. The adjustments result in an increase in the balance available for salary in the Minnesota Spring Inventory Final Phase project. The change is reflected in the budget spread sheet. No amendment is required as no change in the overall or sub-budgets.

Fourth Update: August 15, 2021

For the spring of 2021 our fieldwork activities continued to be limited do to Covid-19. However, the team was able to conduct some additional outreach/dissemination activities, add to the growing MSI database, and get out for some fieldwork in search of new springs and to confirm springs already in the database. The public continued to use the MSI Smartphone App to add springs to the database as part of our 'citizen science' element to this project.

Work continued in the following counties to find new springs, complete field verifications of previously mapped springs, verify citizen entries, sample springs and update the database:

- Chisago
- Dakota
- Dodge
- Fillmore
- Goodhue
- Meeker
- Pine
- Scott
- Stearns
- Steele

DNR is making plans for the continuation of the of the MSI project now that the ENRTF funded portion is complete. Our plans, informed by all we have learned through the ENRTF project, include maintaining the database and online tool that makes it accessible to the public, continuing to conduct field evaluations for new springs and to confirm springs added to the database by citizens and other professionals. The ENRTF gave this important project a much-needed start, and DNR intends to continue the project as part of the ongoing work as long as funding is available through our program base general funds.

Amendment Request

With respect to the budget, we are asking to move $269.00 from the "Other – Direct and Necessary" category to the "Travel Expenses in Minnesota" category. The move is necessary to balance the cost of additional travel expenses. The total budget remains as originally funded, with $4,120.00 returning to the Fund primarily because of less personal time required during the state emergency order due to Covid 19.

Amendment Approved by LCCMR 8/13/21

Overall Project Outcome and Results:

Springs are natural points of groundwater discharge that provide flow for trout streams and cool water fisheries, base flow during to streams, and unique ecological habitats. Management of this resource is only possible when we know their locations and characteristics. The primary objective of this project was to find unmapped springs, add the location of those new springs to the existing Minnesota Spring Inventory (MSI) and field verify and characterize as many currently mapped but unverified springs as possible.

For the project, DNR conducted field investigations of targeted parts of the state to find, characterize and map new springs locations. The existing MSI database also held 'non-verified' spring locations added to the database from old maps and studies and from the MSI Citizens App. DNR conducted 'field verification' by traveling to many of those features to confirm their existence and update the database. Approximately 350 spring locations were added to the MSI through the Citizen App.

The Covid-19 Pandemic and Minnesota's Stay Safe at Home order limited MSI fieldwork for over twelve months of the two-year project. When restrictions were relaxed in 2021, fieldwork resumed for the MSI team and many springs and features were added the database.

Because of this project (all phases), Minnesotans benefit by having easy access to approximately 7,200 features in the MSI including a combination of field verified springs, and many likely, but non-verified spring locations. The MSI project resulted in a 76% increase in mapped springs and increased from holding verified springs in 22 counties, primarily in the southeast, to verified springs located in 71 counties.

The DNR established special MSI accounts for MPCA and SWCD field staff from the Duluth/ Northern MN region and provide guidance documents and training, allowing them to add springs directly to the MSI using the Survey 123 application.

III. PROJECT ACTIVITIES AND OUTCOMES

ACTIVITY 1 Title: Complete field inventory of Targeted Spring Provinces and refine web-products

Description: This project includes final field evaluations to locate, map and characterize the presence and type of springs in the Targeted Spring Providences, the evaluation of springs still requiring verification, refinement of the spring inventory web presence to make information more accessible and the continuation of the Minnesota Springs Citizen Reporting App. The project also includes presentation of the final results in publications such as the MGWA Newsletter, news releases, and DNR notifications and potentially at conferences such as the Minnesota Water Resource Conference.

ACTIVITY 1 ENRTF BUDGET: $71,000

Outcome	Completion Date
1. Complete field inventory of Targeted Spring Provinces & verification of candidate springs	April 30, 2021
2. Final additions and refinement of publicly available web-products	May 30, 2021
3. Publication and presentation of results	June 30, 2021

First Update: January 15, 2020

Made several field trips to inventory Targeted Spring Provinces, worked with input from Citizen Spring App, and started work on web entry point updates.

Second Update: August 15, 2020

No work was completed toward field inventory of Outcome 1 due to suspension of field activity because of the Minnesota Stay Safe at Home (Covid-19) order.

Forty (40) new verified springs add to the MSI database in the last six months primarily through desktop reviews. Thirty-three (33) springs have been submitted by citizens using our online reporting application. Citizen Springs are under review by MSI staff, and will be promoted as appropriate. A total of 5,123 confirmed springs ("A" and "S" springs) are visible to the public on the MSI. Another 1,940 springs are in the database but have not yet been elevated to "A" or "S', and so are not visible to public on the MSI.

For Outcome 2, MNIT updated the MSI Survery123 app from using AGOL to Portal. This is a software improvement that will allow easier access to the app, and generation of spring locations by collaborators.

Related to Outcome 3, MSI accounts were set up for MPCA and SWCD field staff from the Duluth/ Northern MN region. This access will allow them to add springs to the MSI using the Survey 123 application.

Third Update: January 15, 2021

Limited fieldwork was completed as part of Outcome 1 due to suspension of field activity early in the year, with a slow return to fieldwork, because of the Minnesota Stay Safe at Home order.

For Outcome 1, two field inventory trips were completed to locate and confirm springs in Steele County. Twenty-four (24) new verified springs were added to the MSI database as a result of the trips.

Twenty-four (24) new verified springs were added to the MSI database in the last six months primarily through desktop reviews. Eighteen (18) springs have been submitted by citizens using our online reporting application. Citizen Springs are under review by MSI staff, and will be promoted as appropriate. A total of 5,165 confirmed springs ("A" and "S" springs) are visible to the public on the MSI. Another 1,940 springs are in the database but have not yet been elevated to "A" or "S', and so are not visible to public on the MSI.

For Outcome 2, work was completed during the last reporting period. No additional work for outcome 2 is planned.

Related to Outcome 3, MSI accounts were set up for collaborating with MPCA and SWCD field staff from the Duluth/ Northern MN region during the prior reporting period. This access allows them to add springs to the MSI using the Survey 123 application. DNR prepared for and made a presentation in collaboration with MPCA and SWCD for Big Fork Watershed Project on December 15, 2020. The presentation to the public focused on the MSI Citizen Online Reporting Application, and ways for the public to add springs to the Minnesota Spring Inventory.

Final Report: August 15, 2021

After a season of very limited fieldwork (Outcome 1) in the fall of 2020 due to Covid restrictions, fieldwork activity increased for this final reporting period (January 2021 – June 2021) with the loosening of some state mandated restrictions. Springs in the MSI are classified as follows:

- "A" Spring - Field verified for location and characteristics. "A" springs are the highest level of location certainty. These are field confirmed by the MSI team.
- "S" Spring – Not field verified. "S" springs are probable locations based on reports and other evidence. The majority of these spring locations were imported into the MSI from the Karst Features Database (KFD). They can be promoted to "A" Springs through a field verification by a qualified individual.
- Candidate Spring - A spring that needs to be reviewed before being promoted to the springs layer available to the public. Typically these were created with Arc Collector or the MSI application.
- 123 Spring - A spring that needs to be reviewed and promoted to the springs layer. Created with the original Survey123 application.
- Citizen Spring - A spring entered into the database by the public through the MSI Citizen App. The spring needs to be reviewed and promoted to the springs layer or demoted to an archive layer.

In summary, for Outcome 1, even under continued limitations due to the pandemic, the following additions were made:

- There have been 227 updates to the MSI database during the reporting period. These updates include field verification, location updates and deletions.
- There have been 134 new verified springs added to the MSI database.
- Three (3) new springs have been submitted by citizens using our online reporting application. Additional Citizen Springs are under review by MSI staff, and will be promoted as appropriate.
- A total of 5,299 confirmed springs ("A" and "S" springs) are visible to the public on the MSI. Another 1,940 springs are in the database but have not yet been promoted to "A" or "S", and so are not visible to the public. DNR will continue to review these spring for future promotion.
- As displayed in the attached figure, since 2016, the MSI project resulted in a 76% increase in mapped springs and increased from having verified springs in 22 counties, primarily in the southeast, to verified springs located in 71 counties statewide.

For Outcome 2 – MSI web products, no additional work was completed during this reporting period. The outcome is complete.

For Outcome 3, publication and dissemination of MSI results, DNR plans to present the results in publications such as MGWA Newsletter, news releases, and DNR notifications and potentially at conferences such as the Minnesota Water Resource Conference. The final report if the MSI Website, populated with the springs mapped as part of this project.

IV. DISSEMINATION:

Description:

The Minnesota Spring Inventory database provides the capability to share data with all Minnesotan's – citizens, organizations, agencies, universities and schools. The data is compatible with the University of Minnesota karst feature database and the Minnesota Geospatial Commons, typically accessed by researchers. Updates, notifications of project status, availability of data, and any final reports will be made via the DNR website, DNR's GovDelivery system (1,000's of email addresses), through news releases, and through presentations at public meetings and conferences.

The Minnesota Environment and Natural Resources Trust Fund (ENRTF) will be acknowledged through use of the trust fund logo or attribution language on project print and electronic media, publications, signage, and other communications per the ENRTF Acknowledgement Guidelines.

First Update: January 15, 2020

DNR set up an account in the MSI software for MPCA field staff. They can use to this access to add springs to the MSI with the "survey123" application. DNR provided the spring inventory guidance document to MPCA, which instructs them on the use of the MSI. DNR has invited MPCA staff to training on MSI.

Second Update: August 15, 2020

Limited face-to-face dissemination activity was completed due to suspension of field activity because of the Minnesota Stay Safe at Home order. Dissemination that occurred was limited to a couple in person contacts and by phone or video conference.

Thirty-three (33) springs have been submitted by citizens using our online reporting application. Springs are under review by MSI staff, and will be promoted as appropriate.

Accounts were set up for MPCA and SWCD field staff from the Duluth/ Northern MN region. This access will allow them to add springs to the MSI using the Survey 123 application. DNR also provided training for the staff from MPCA/SWCD on how to detect a spring and add it into the survery123 application for submitting spring location. The spring's guidance document was also provided to MPCA for their future reference needs.

Third Update: January 15, 2021

Limited face-to-face dissemination activity was completed due to continuing agency limitations related to Covid-19 and the Minnesota Stay Safe at Home order. Dissemination that occurred was limited to several in- person contacts and by phone or video conference.

A training Power Point presentation was completed as a quick reference guide for staff from MPCA/SWCD on how to detect a spring and add it into the survery123 application for submitting spring location.

DNR prepared for and made a presentation in collaboration with MPCA and SWCD for Big Fork Watershed Project on December 15, 2020. The presentation to the public focused on the MSI Citizen Online Reporting Application, and ways for the public to add springs to the Minnesota Spring Inventory.

Fourth Update: August 15, 2021

Limited face-to-face dissemination activity was completed due to continuing agency limitations related to Covid-19 and the Minnesota Stay Safe at Home order. Dissemination that occurred was limited to several in-person contacts and by phone or video conference. Several specific events from the period included:

- SE Minnesota State Interagency meeting, with presentations by DNR MSI staff.
- DNR MSI staff participated in a "Springs of the Twin Cities" field trip and tour.
- DNR staff were interviewed about MSI by the publication "Freelance Outdoors".

DNR plans to present the final results in publications such as MGWA Newsletter, news releases, and DNR notifications and potentially at conferences such as the Minnesota Water Resource Conference. Staff are available by special request to present the results of this successful project to stakeholder groups.

Project Results Use and Dissemination:

DNR conducts dissemination through individual contacts, presentations and news releases. One example is online at St. Croix 360. Another example came from an environmental consultant in a June 2021 email:

*"Can (you) help assist with information gathering regarding seeps & springs in the St Paul area. I'm working with the **Capitol Region Watershed District** to identify springs within their boundary, and prioritize the springs in order of level of prevalence/risk to become a public comment or threat to infrastructure."*

The spring data is accessible at Minnesota Spring Inventory and GIS files are at the Minnesota Geospatial Commons, and at Showcase.

V. ADDITIONAL BUDGET INFORMATION:

A. Personnel and Capital Expenditures

Explanation of Capital Expenditures Greater Than $5,000: N/A

Explanation of Use of Classified Staff:

Any classified position paid for with ENRTF funds will either be 1) backfilled with a new position or 2) the work previously done by this position will be delayed, eliminated, or completed by the start of the project.

One unclassified position, Hydrologist 1 (0.5 FTE), will conduct the bulk of the work – including fieldwork, data management, web updates and dissemination/presentations.

There are two classified positions currently working on a separate ENRTF project to be paid partially by this grant: 1) Hydrologist 3 (0.1 FTE) provides technical expertise in the subject matter adding value to the continuing database modifications, final field investigation planning and preparation of outreach materials and presentations 2) Hydrologist Supervisor (0.1 FTE) who will be managing the project including providing updates and assisting with dissemination activities.

Total Number of Full-time Equivalents (FTE) Directly Funded with this ENRTF Appropriation: 0.7 FTE

Enter Total Estimated Personnel Hours for entire duration of project: 1,456	Divide total personnel hours by 2,080 hours in 1 yr. = TOTAL FTE: 0.7

Total Number of Full-time Equivalents (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation: 0.0 FTE

Enter Total Estimated Contract Personnel Hours for entire duration of project: 0	Divide total contract hours by 2,080 hours in 1 yr. = TOTAL FTE: 0

VI. PROJECT PARTNERS:

A. Partners outside of project manager's organization receiving ENRTF funding. N/A

B. Partners outside of project manager's organization NOT receiving ENRTF funding. N/A

VII. LONG-TERM- IMPLEMENTATION AND FUNDING:

The Minnesota Spring Inventory is part of a long-term continuing need to identify, assess, and monitor all parts of the hydrologic cycle so that changes can be accurately interpreted and responded to. This project provides the tools (network, data, and a web platform) for others agencies and citizens to build on the Minnesota Spring Inventory in the future with non-ENRTF funding sources.

VIII. REPORTING REQUIREMENTS:

- Project status update reports will be submitted January 15 and August 15 each year of the project.

- A final report and associated products will be submitted between June 30 and August 15, 2021.

IX. SEE ADDITIONAL WORK PLAN COMPONENTS:

A. Budget Spreadsheet

B. Visual Component or Map

C. Parcel List Spreadsheet

D. Acquisition, Easements, and Restoration Requirements

E. Research Addendum

Funding for this project was provided by the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources (LCCMR)."

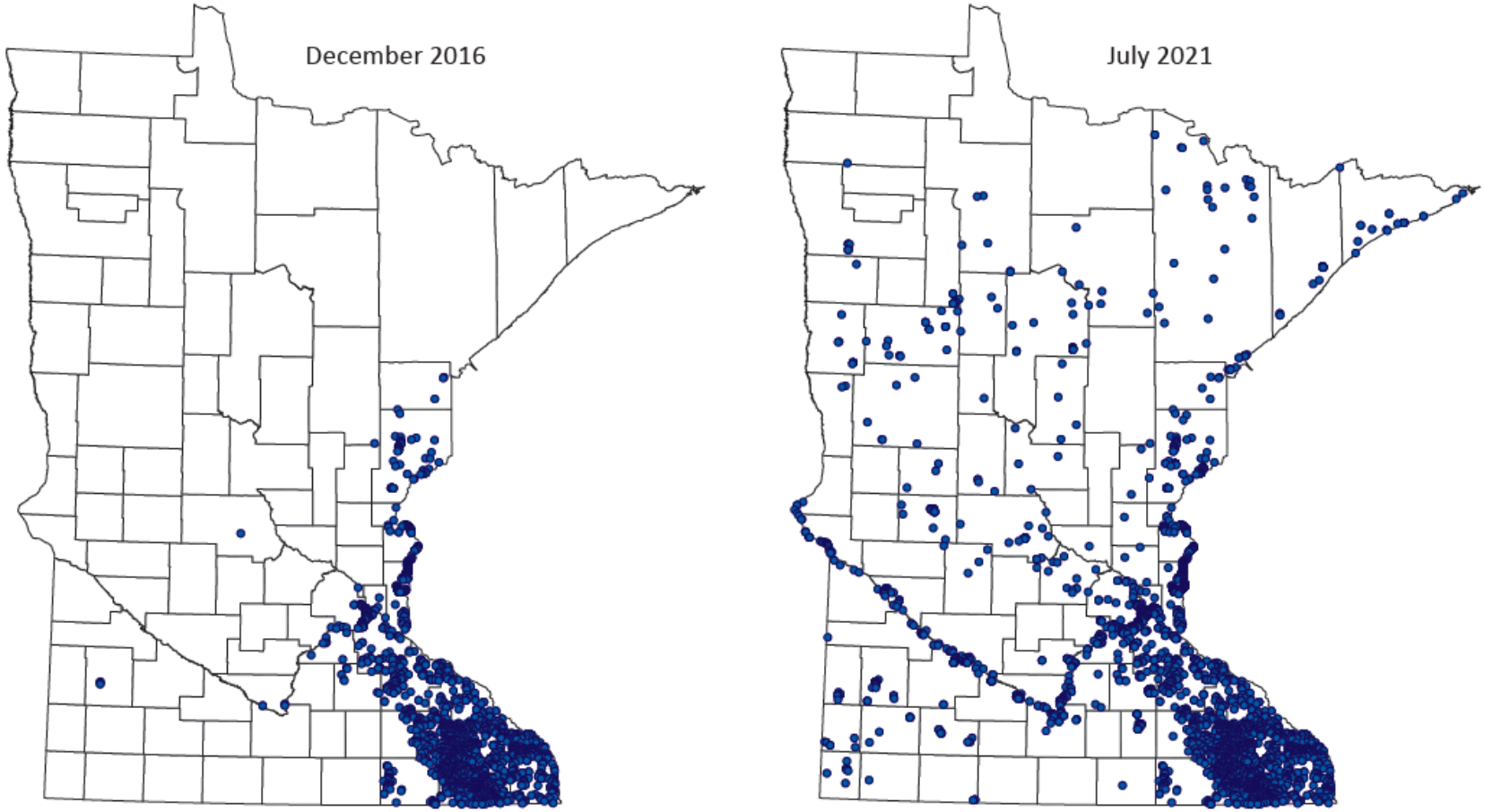

Figure 1 - Mapped Springs.
Since 2016, the number of mapped springs increased by approximately 76%. The number of Minnesota counties with mapped springs increased from 22 to 71.

DEPARTMENT OF NATURAL RESOURCES

Attachment A
Environment and Natural Resources Trust Fund
M.L. 2019 Final Budget Spreadsheet
Legal Citation: M.L. 2019, First Special Session, Chapter 4, Article 2, Subd. 04p
Project Manager: Paul Putzier
Project Title: Minnesota Spring Inventory Final Phase
Organization: Minnesota Department of Natural Resources
Project Budget: $71,000
Project Length and Completion Date: Two years, June 30, 2021
Today's Date: August 13, 2021

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Budget 8/13/2021	Amount Spent	Balance
BUDGET ITEM			
Personnel (Wages and Benefits)	$ 59,500	$ 55,768	$ 3,732
Hydrologist Supervisor/Project Manager (classified): $126,000; 0.1 FTE Hydrologist 3 (classified): $119,000; 0.1 FTE Hydrologist 1 (classified or unclassified): $70,000; 0.5 FTE Salaries include ~15-25% fringe benefits			
Professional/Technical/Service Contracts			
N/A		$ -	$ -
Equipment/Tools/Supplies			
Field equipment such as current meters, data loggers, specific expenses for use of specialized field data tablets to collect field data, waders, hip boots, GPS equipment, GIS or specialty software, and misc. tools and supplies for field data collection and equipment maintenance.	$ 1,519	$ 1,519	$ (0)
Travel expenses in Minnesota			
In-state vehicle mileage (est $1,500) and travel expenses (est $1,000), primarily for locating new springs, field verification of locations provided by the public, water sample and field data collection for some locations.	$ 3,157	$ 3,157	$ (0)
Other			
Expenses ($500) to give project-related presentations at events such as the Minnesota Ground Water Association or the Minnesota Water Resources conferences as part of project results dissemination.	$ 369	$ 369	(0)
*Direct and Necessary expenses: HR Support (~$1034), Safety Support (~$214), Financial Support (~$824), Communication Support (~$1,251), IT Support (~$2,342), and Planning Support (~$1,059) necessary to accomplish funded programs/projects.	$ 6,455	$ 6,066	$ 389
COLUMN TOTAL	$ 71,000	$ 66,880	$ 4,120

*Direct and Necessary expenses include Department Support Services (Human Resources, IT Support, Safety, Financial Support, Communications Support, and Planning Support). Department Support Services are described in the agency Service Level Agreement and billed internally to divisions based on rate that have been developed for each area of service. These services are directly related to and necessary for the appropriation. Department leadership services (Commissioner's Office and Regional Directors) are not assessed. Those elements of individual projects that put little or no demand on support services such as large single-source contracts, large land acquisitions, and funds that are passed through to other entities are not assessed Direct and Necessary costs for those activities.

OTHER FUNDS CONTRIBUTED TO THE PROJECT	Status (secured or pending)		Spent	Balance
Non-State:	N/A		$ -	$ -
State:	N/A		$ -	$ -
In kind:	N/A		$ -	$ -

PAST AND CURRENT ENRTF APPROPRIATIONS	Amount legally obligated but not yet spent		Spent	Balance
Past appropriations: M.L. 2016, Chp. 186, Sec. 2, Subd. 03h			$ 370,000	$ -
Past appropriations: M.L. 2014, Chp. 226, Sec. 2, Subd. 05b			$ 200,000	$ -