Project Title: MN DNR Water Infrastructure Needs (WIN)

Category: A. Foundational Natural Resource Data and Information

Total Project Budget: $2,000,000

Proposed Project Time Period for the Funding Requested: June 30, 2022 (2 yrs)

Summary:
This proposal will fund a water infrastructure needs (WIN) inventory, assessment and evaluation to identify the DNRs future water and waste water investments needed to protect ground and surface waters.

Name: Kent Lokkesmoe

Sponsoring Organization: MN DNR

Job Title:

Department:

Address: 500 Lafayette Rd.
St. Paul MN 55155

Telephone Number: (651) 259-5701

Email kent.lokkesmoe@state.mn.us

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

Location:
Region: Statewide
County Name: Statewide

Alternate Text for Visual:
This state of Minnesota map shows the Department of Natural Resources worksite locations by region and discipline. The map was last updated in 2013.

Funding Priorities Multiple Benefits Outcomes Knowledge Base
Extent of Impact Innovation Scientific/Tech Basis Urgency
Capacity Readiness Leverage TOTAL %
PROJECT TITLE: MN DNR Water Infrastructure Needs (WIN)

I. PROJECT STATEMENT

The Department has many water and wastewater treatment systems across the state including DNR offices, state parks, and major recreational areas. These systems have not been fully inventoried or evaluated. Most of these systems are over 50 years old and well past their life cycle, many were constructed by CCC crews in the 1930s. In some cases, the agency has little or no documentation of the design of these systems. Agency natural resources asset preservation appropriations have been insufficient to allow us to be proactive and consequently, we have needed to address several emergency situations or system failures in the last four years. The agency is working under a number of PCA consent decrees to fix systems that have failed and could be polluting ground and surface waters.

Recent issues and concerns include:

- Pollution of the water supply at Blue Mounds State Park. The park was without potable water for over 3 years. Bringing rural water to the park is nearly complete and will cost about $650,000.
- Failure of the water supply to Jay Cooke State Park. The park was without potable water for about 9 months. A section of the line was replaced at a cost of $265,000.
- Itasca State Park sewage lagoon needs to be replaced to meet current PCA standards. This project is under design and will cost about $4 million (funded with 2018 bonding).
- The septic system at General Andrews Nursery was constructed by CCC crews in the 1930’s and is over 80 years old and has not been upgraded to meet the current design standards.
- Sibley State Park campground water lines were installed in the 1930’s and are 80+ years old. The age is indicative of many of DNR water systems and the water lines should be replaced before they fail.

DNR’s 10-year capital improvement plan estimated an ongoing investment need of $8.4 million dollars per year to bring water and wastewater systems into compliance. The proposed inventory and assessments will help us refine the true investment that is needed to bring DNR water systems into compliance. This will include the development of a 10-year capital improvement plan that prioritizes investments based on use, condition, environmental, safety and health conditions, and return on investment.

DNR has 66 state parks, nine state recreation areas and nine state waysides, totaling 234,500 acres, and 10 million state park and recreation area visitors. Many sites have multiple systems. The agency has approximately 4,300 employees (including seasonal) throughout the year working at over 300 office space buildings. The value of investing in this proposal includes assuring the health and safety of our customers and providing environmental protection of our waters.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1 Title: Inventory & Assessment

Description: This proposal funds professional engineering services to conduct an inventory of existing water/wastewater systems, undertake operational assessments to document their condition, and provide a report which will be used to inform future water and wastewater infrastructure investments. This estimate is based on DNR’s cost experience with similar recent contracts and professional services.
ENRTF BUDGET: $ 1,800,000

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Develop a complete and accurate inventory of DNR septic and waste water systems.</td>
<td>December 2021</td>
</tr>
<tr>
<td>2. Complete a functional assessment of identified systems using the MPCA Municipal Scoring system for waste water and septic systems.</td>
<td>March 2022</td>
</tr>
<tr>
<td>3. Attribute the inventory data into a Cartegraph OMS ArcGIS, cloud based, asset management system and the Minnesota Department of Administrations’ Archibus Data Base.</td>
<td>June 2022</td>
</tr>
<tr>
<td>4. Develop a 10 year CIP that will address failing or inadequate waste water and septic systems, protect ground water and drinking water resources as well as protecting sensitive and Outstanding Resource Value Waters in our state parks.</td>
<td>June 2022</td>
</tr>
</tbody>
</table>

Activity 2 Title: Project management
Description: Professional services to manage and oversee the contract inventory work and conduct operational assessments in accordance with MPCA scoring criteria to better inform DNR’s ongoing capital investment program.

ENRTF BUDGET: $ 200,000

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Operational Assessments to coordination with MPCA</td>
<td>December 2021</td>
</tr>
<tr>
<td>2. Project management</td>
<td>June 2022</td>
</tr>
<tr>
<td>3. Develop key performance indicators and metrics</td>
<td>June 2022</td>
</tr>
</tbody>
</table>

III. PROJECT PARTNERS AND COLLABORATORS:
This proposal will result in a plan to bring DNR systems into compliance to prevent limiting access to recreational facilities, and to prevent polluting sensitive groundwater resources. The goal is to develop a comprehensive plan to bring all systems into compliance within 10 years. The Minnesota Pollution Control Agency will partner with the DNR on the quality assurance/control, system scoring and system recommendations.

IV. LONG-TERM IMPLEMENTATION AND FUNDING:
Upon completion of the project, the DNR will use the asset management system provided by Cartegraph to inform biennial updates to our 10-year CIP and our biennial bonding requests for Natural Resource Asset Preservation (NRAP) funds (MN Statutes 84.946). The DNR will continue to work with the MPCA on an annual basis to ensure that our systems are functioning as required by MN water quality rules and statutes.

V. SEE ADDITIONAL PROPOSAL COMPONENTS: (attached)
   A. Proposal Budget Spreadsheet
   B. Map – DNR Worksite Locations
   F. Project Manager Qualifications and Organization Description
**Attachment A: Project Budget Spreadsheet**

**Environment and Natural Resources Trust Fund**

**M.L. 2020 Budget Spreadsheet**

**Legal Citation:** Laws of Minnesota 2020, Chp. XX, Sec. XX, Art. XX, Section XX

**Project Manager:** Kent Lokkesmoe

**Project Title:** MN DNR Water Infrastructure Needs (WIN)

**Organization:** Minnesota Department of Natural Resources

**Project Budget:** $2,000,000

**Project Length and Completion Date:** 2 years, June 30, 2022

**Today’s Date:** April 15, 2019

<table>
<thead>
<tr>
<th>ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET</th>
<th>Budget</th>
<th>Amount Spent</th>
<th>Balance</th>
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<tr>
<td><strong>BUDGET ITEM</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Professional/Technical/Service Contracts</td>
<td>$440,020</td>
<td>$440,020</td>
<td>$0</td>
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<tr>
<td>DNR will use a competitive RFP process to select and hire an architectural/engineering consulting firm to prepare the inventory, field verification, data collection and assessment of our waste water systems per MPCA/SRF and PFA requirements.</td>
<td>$1,249,841</td>
<td>$-</td>
<td>$1,249,841</td>
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<tr>
<td>Data collection, management and migration.</td>
<td>$289,201</td>
<td>$-</td>
<td>$289,201</td>
</tr>
<tr>
<td>Other DNR’s direct and necessary costs (<del>$20,938 total) pay for activities that are directly related to and necessary for accomplishing appropriated programs/projects. Direct and necessary costs cover Financial Support (</del>$18,412), Communication Support (<del>$1,388), and Planning Support (</del>$1,138) that are necessary to accomplishing funded programs/projects.</td>
<td>$20,938</td>
<td>$-</td>
<td>$20,938</td>
</tr>
<tr>
<td><strong>COLUMN TOTAL</strong></td>
<td>$2,000,000</td>
<td>$-</td>
<td>$2,000,000</td>
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<table>
<thead>
<tr>
<th>SOURCE AND USE OF OTHER FUNDS CONTRIBUTED TO THE PROJECT</th>
<th>Status (secured or pending)</th>
<th>Budget</th>
<th>Spent</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-State</td>
<td>$-</td>
<td>$-</td>
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<td>State</td>
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<td>In kind</td>
<td>$-</td>
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<td>$-</td>
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<thead>
<tr>
<th>Other ENRTF APPROPRIATIONS AWARDED IN THE LAST SIX YEARS</th>
<th>Amount legally obligated but not yet spent</th>
<th>Budget</th>
<th>Spent</th>
<th>Balance</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>$-</td>
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<td>$-</td>
<td>$-</td>
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</tbody>
</table>
F. Project Manager Qualifications and Organization Description

Minnesota Department of Natural Resources:
MN DNR Water Infrastructure Needs (WIN)

Project Manager: Kent Lokkesmoe
Organization: Department of Natural Resources
Operations Services Division
500 Lafayette Road, St. Paul, MN 55155
Telephone: 651-259-5701
Email: kent.lokkesmoe@state.mn.us

Qualifications
Kent is the DNR’s Director of Capital Investment. He directs the agency’s Management Resources (MR) Section, which provides administration and oversight to DNR’s assets and programs, including capital investment, buildings, design and construction, fleet and materials management. Kent also served as the DNR’s Director of Waters for the DNR and has over 40 years’ experience managing complex groundwater and surface water programs and policies, as well as experience managing water, waste water and water resources projects in the public sector. Kent has a Bachelor of Science degree in Civil Engineering from the University of Minnesota.

Organization Description: The Minnesota Department of Natural Resources (DNR)’s mission is to work with citizens to conserve and manage the state’s natural resources, to provide outdoor recreation opportunities, and to provide for commercial uses of natural resources in a way that creates a sustainable quality of life.

DNR has 66 state parks, nine state recreation areas and nine state waysides, totaling 234,500 acres and 10 million state park and recreation area visitors. Many sites have multiple systems. The agency has approximately 4,300 employees (including seasonal) throughout the year working at over 300 office space buildings. The value of investing in this proposal includes assuring the health and safety of our customers and providing environmental protection of our waters.