Improving Minnesota’s Water Quality with the Clean Water Fund

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- Created in 2006 to “advise on the administration and implementation of” the Clean Water Legacy Act
- Every two years, recommends how to spend the Clean Water Fund
- “Protect, enhance, and restore water quality in lakes, rivers, and streams and to protect groundwater from degradation” (M.S. 114D)

Voting members (17)
- Counties (2) (Metro, Greater MN)
- Townships (1)
- Municipalities (2)
- Farm organizations (2)
- Environmental organizations (2)
- Tribal government (1)
- Business (2)
- Fishing organizations (1)
- Hunting organizations (1)
- Lakes/Streams nonprofits (1)
- Watershed districts (1)
- Soil & Water Conservation Districts (1)
Problem We Are Trying to Solve

- More than 85% of the state’s water “impairments” are due to non-point sources
- Non-point pollution is the accumulation of many small sources

Examples
- Sediment
- Nitrogen
- Phosphorus
  - E. coli
  - Chloride
  - Coliform

How Do We Clean Up Water?

- Test it & find source of problem
- Make a plan to fix it
- Train people how to fix it
- Persuade landowners to act
- Set aside land where feasible (“protect”)
- “Restore” when necessary
- Measure
**Set Priorities Based on Science**

**Excerpt from Root River “One Watershed One Plan”**

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<table>
<thead>
<tr>
<th>Drainage Area</th>
<th>Cost</th>
<th>Treatment Group Type &amp; Number of BMPs</th>
<th>Issue</th>
<th>Unit</th>
<th>Existing Conditions</th>
<th>Metric</th>
<th>Amount (%)</th>
<th>Target Load Reduction</th>
<th>Year</th>
<th>PTMApp Scenario Reduction</th>
<th>5 year Load Reduction Goal</th>
<th>10 year Load Reduction Goal</th>
<th>10 yr. Progress towards Measurable Goal (%)</th>
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</thead>
<tbody>
<tr>
<td>Storage (244) Filtration (78) Infiltration (3) Source Reduction (812)</td>
<td>$6,437,805</td>
<td></td>
<td>Sediment</td>
<td>tons/yr</td>
<td>118,416</td>
<td>Annual Load (mass/yr.)</td>
<td>45</td>
<td>52,387</td>
<td>2025</td>
<td>14,488</td>
<td>7,244</td>
<td>14,488</td>
<td>28</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Nutrients: Total Nitrogen</td>
<td>lbs/yr</td>
<td>10,848</td>
<td>Annual Load (mass/yr.)</td>
<td>45</td>
<td>4,882</td>
<td>2040</td>
<td>112</td>
<td>56</td>
<td>112</td>
<td>2</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Nutrients: Total Phosphorus</td>
<td>lbs/yr</td>
<td>134</td>
<td>Annual Load (mass/yr.)</td>
<td>45</td>
<td>60</td>
<td>2025</td>
<td>12</td>
<td>6</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Excess Runoff: 2 Year</td>
<td>acre feet</td>
<td>71,177</td>
<td>2-Yr. Runoff Volume</td>
<td>25</td>
<td>17,794</td>
<td>2030</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td></td>
<td></td>
<td></td>
<td>Excess Runoff: 10 Year</td>
<td>acre feet</td>
<td>167,886</td>
<td>2-Yr. Runoff Volume</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td>Drainage to Upper Iowa River</td>
<td>$1,410,038</td>
<td>Storage (44) Filtration (15) Source Reduction (266)</td>
<td>Sediment</td>
<td>tons/yr</td>
<td>112,249</td>
<td>Annual Load (mass/yr.)</td>
<td>45</td>
<td>50,512</td>
<td>2025</td>
<td>27,776</td>
<td>13,888</td>
<td>27,776</td>
<td>55</td>
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<td>Nutrients: Total Nitrogen</td>
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<td>Annual Load (mass/yr.)</td>
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<td>3,285</td>
<td>1,042</td>
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<td>Nutrients: Total Phosphorus</td>
<td>lbs/yr</td>
<td>2,024</td>
<td>Annual Load (mass/yr.)</td>
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<td>360</td>
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<td>Excess Runoff: 2 Year</td>
<td>acre feet</td>
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<td>2-Yr. Runoff Volume</td>
<td>25</td>
<td>1,945</td>
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<td></td>
<td>Excess Runoff: 10 Year</td>
<td>acre feet</td>
<td>17,036</td>
<td>2-Yr. Runoff Volume</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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**Diagram:** Welcome to the MPCA WRAPS Tracking Dashboard

**Map:** One Watershed, One Plan Participating Watersheds

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**Text:**

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**Map:** One Watershed, One Plan Participating Watersheds

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**Text:**

Excerpt from Root River “One Watershed One Plan”
Restoration/Implementation

“Moving dirt”

Examples:
• Stream restoration
• Septic inspection + repair/replacement
• Barrier removal
• Soil health
• Agricultural BMPs

Drinking Water (Groundwater)

• 500 vulnerable community groundwater systems; source water protection plans almost complete
• 420 non-vulnerable source water plans complete by 2025
• Protecting 400,000 acres possible
• Financial assistance for source water implementation activities to satisfy 50% of demand through 2034
Drinking Water (Surface Water)

- Complete revised source water assessments for all 23 surface water systems by 2025;
- Complete source water intake protection planning by 2027;
- Maintain 80% compliance for septic systems (SSTS); goal of 90%

Private Wells in Strategic Plan

- Help private well owners achieve safe limits at the tap, not just at the source
- Pilot project in FY2020-2021: arsenic & nitrate testing
- People with an income >$100,000 are **twice as likely** to install treatment compared to people with an income <$40,000.
- People with incomes <$40,000 were **five times as likely** to select cost as the reason for not taking action.
Key Results/“Fishable” & “Swimmable” Waters

- Water monitoring fish stations that are healthy: 61%
- State goal by 2034: 67%

- Lakes meeting goal for recreation activities: 64%
- State goal by 2034: 70%

Other Indicators

- Phosphorus concentrations decreasing
- Nitrate concentrations increasing
- Chloride concentrations increasing

Source: 2020 Clean Water Fund Performance Report
Lake Water Clarity 1973-2016

- Water clarity improving for 29% of lakes
- Clarity decreasing for 11%
- No change 59%

Source: 2020 Clean Water Fund Performance Report

Leverage

- CWF provides consistent base funding for many projects
- Gets matched by state + feds
- We compete better for federal funds due to “shovel readiness” created by CWF
- 95 cents in leverage for every dollar of CWF

Examples
- Forever Green
- St. Louis River Area of Concern (AOC)
- MN Ag Water Quality Certification Program (MAWQCP)
- MN CREP
- AgBMP Loan program
Spending Trends

- The share of the Clean Water Fund going to projects and drinking water is increasing
- Spending on planning, research, and monitoring is lower and steady
- 20% goal for drinking water (minimum) in Strategic Plan

Half of Fund Spent Outside State Government

- 50% of CWF goes to non-agency partners
- $491 million out of $1.2 billion are grants/contracts
- 87% of what goes to non-agency partners (see chart) goes for projects + drinking water protection

Source: 2020 Clean Water Fund Performance Report
Thank you!