CLFLWD
WATERSHED DISTRICT

651-395-5850
info@clflwd.org
www.clflwd.org
44 Lake St. South , Suite A
Forest Lake, MN 55025

TO: (CLFLWD) Board of Managers
DATE: November 13, 2025
RE: Administrator's Report for the November 20, 2025, Regular Board Meeting

Administration (1000 series)

- 1001 – Board Administration
  - The Board held a budget workshop on November 6th. The Board will hold another public comment opportunity on the 2026 Budget & Levy at its December 18th regular board meeting. At that time, after hearing any further comment during the comment opportunity, the board may choose to revise the budget and/or levy, provided the levy is only reduced and not increased. At a minimum, the Board may wish to amend the 2026 expense budget to account for the two expense changes that were recently discussed: revised Loan C and Loan D repayment schedules and revised office space rent amount to include property taxes.

Programs (3000 series)

- 3002 – Permitting
  - Between October 14, 2025, and November 10, 2025, there were:
    - 126 site inspections performed with a 96.75% mean compliance rate.
    - 3 permit applications received.
    - 2 permit applications approved and 1 permit closed out.
  - Photo of an active permit site from a November 12, 2025, inspection on Forest Lake showing an extreme shoreline issue. Neither the DNR nor the City had any issues with this site as it relates to rules or ordinances.

- 

- 3003 – Monitoring & Data Assessment
  - The 2025 monitoring season has been completed
  - All monitoring equipment has been removed from the field and staff are working on off-season maintenance.
- 3004 – Non-Point Source Pollution Abatement (Cost-Share)

- 61 site visits have been conducted this year, compared to 45 in all of 2025.
- Staff continue to conduct site visits. Five site visits occurred in the second half of October and early November.

- 3005 – Education & Outreach
  - Fall community education classes are winding down with only four more left in 2025. The best attended classes this fall have been family classes; build your own lures, native seed bombs, and bee houses.
  - The October 27th Buckthorn Workshop held at Hardwood Creek Library had 34 people in attendance.
  - Winter/spring community education classes have been scheduled and will soon be advertised and open for registration.
  - Staff presented at the Forest Lake High School Career Exploration Day on November 20th.
  - The Natural Shoreline Outreach Project team continues to work on promoting and implementing natural shorelines. The project team includes CLFLWD staff Adam and Aidan along with Moore Engineering staff. A summary of completed tasks is attached at the end of this Administrator's Report.

- 3006 – Interagency Communication
  - Lower St. Croix Watershed Partnership (LSCWP): District staff are coordinating with LSCWP to arrange grant funding for CLFLWD staff work supporting the partnership in 2026. Emily Heinz will support the LSCWP's mid-point evaluation, Performance Review & Assistance Program (PRAP) evaluation, and biennial work plan development, resulting in an estimated $4,000 of grant revenue for CLFLWD staff time in 2026.
  - The Sand County Foundation organizes a Midwest Watershed Leadership conference somewhere around the Midwest once a year. This year's event will be in Baraboo, WI on Feb. 25 & 26, 2026. The Senior Director organizing the event has asked if I would be interested in presenting on the topic of Sequential Diagnostic Monitoring and how the CLFLWD has utilized the Pareto Principal to so rapidly achieve water quality goals. I have tentatively agreed to attend and present on this topic.

- 3007 – Research
  - UMN researcher Catherine Polik collected post-alum treatment water samples on Forest Lake basins 2 and 3 on Oct 23. Staff assisted.

- 3009 – Grant Research & Preparation
    - As of now, District staff are estimating that the District will submit grant applications this year totaling $7.9 million, which is an all-time high for the District. If awarded, the associated grants may span between 1-6 years, and the revenues would be spread out across multiple fiscal years.
    - Keep it Clean: Staff submitted a grant application for $40,000 to the Board of Water and Soil Resources (BWSR) Keep it Clean program. If awarded, this grant would help fund education & outreach efforts and lake cleanup events in 2026, 2027, and 2028. Minimum 10% match will be covered by volunteer time.
    - Performance Review & Assistance Program (PRAP): Staff submitted a grant application for $10,000 to BWSR for engineering assistance with the District Rules effectiveness review. The effectiveness review would precede the rule revisions process planned for 2026 and help guide the rule revisions. No minimum match required.
    - ReLeaf Community Forestry: Staff submitted a grant application for $55,000 on November 10th.
    - Lessard-Sams: The Lessard-Sams Outdoor Heritage Council met on November 12th and approved draft accomplishment plans (i.e., grant work plans) to continue through the process. The council will meet next on December 9th to approve the final bill that will be put forward to the legislature. The final accomplishment plans will be approved in June after review and approval from the legislature in the spring.
    - Bush Foundation: Staff is continuing communications with the University of Minnesota to prepare a grant application to the Bush Foundation for an innovative Shoreline Outreach & Restoration program. We received a scope of work from UMN to support the outreach research component, and we are working with UMN to refine the scope prior to submitting the grant application.
- 3010 – Operations & Maintenance
    - Staff conducted winterization of the Bone Lake and Bixby weirs on October 30. Both weirs are now open and free flowing as per their operations manuals.
    - Staff winterized the CR50 IESF on November 4, 2025. The system will be offline until startup in the spring.
- 3011 – Aquatic Invasive Species Prevention & Management

- The District's Watercraft Inspector Program has concluded for 2025 with a final inspector meeting for seasonal staff October 24th. Inspectors have provided valuable input and observations about possible future program improvements.
- BWS conducted the final flowering rush assessment survey for Forest Lake on October 24th. 28 flowering rush sites (2,670 square feet) were observed, down from the initial 69 sites (5,970 square feet) observed on July 11th.
- Staff are working on completing both the 2025 Aquatic Invasive Species Program Yearend Summary and the 2025 Yearend Watercraft Inspection Program Reports.
- Staff will apply for the DNR's 2026 AIS grant, which will begin accepting applications November 10th (application deadline will be December 8th). If obtained these grants will be used to support the management of Eurasian watermilfoil, curly-leaf pondweed, & flowering rush.

- 3012 – Land Acquisition
  - Staff are working to complete the South Bone Lake land acquisition. The new property lines have been staked out, and Staff are coordinating with the granting agencies to release the grant funds for closing. The District real estate attorney is drafting the closing documents. We now anticipate closing on the property on Dec. 9th.

- 3013 – Watershed Planning & Resiliency
  - Staff will meet with City of Forest Lake staff in December to coordinate on projects and policy items. One main item of discussion will be the City's feedback on the mitigation project concepts proposed in the draft Floodplain Resilience Action Plan. This will be a key step in refining the Action Plan and moving forward with project development. This will set the District up to finalize the Floodplain Resilience Action Plan in early 2026 and hopefully receive grant funding to continue with project modeling and concept design by that time.

Projects (5000 series)

- Moody Lake
  - Captone Ag BMPs: All site prep completed. Staff are planning to seed the area in late November or early December.

- Bone Lake

- A maintenance mowing was conducted of the Bone Lake ag field. This mowing was done as part of routine maintenance and is part of ongoing work to prepare the field as a demonstration site for conservation ag practices.

- Little Comfort Lake
  - Heath Ave IESF: EOR is working on the 90% design plan set. Once completed, the project will come back to the Board to be ordered and then the project can be put out to bid. This is likely to occur in late winter.

- Forest Lake
  - Alum Treatment: The alum treatment on basin 2 was completed during the first week of October. This was the second and final treatment of the split dose application.

- Comfort Lake

  Green Infrastructure Project: Landowner outreach is continuing. In parallel, staff are evaluating another project in the Comfort Lake drainage area that may serve as a backup if the original project does not move forward. Otherwise, staff will develop the alternative project further and apply for a new grant to fund it.

MEMORANDUM
Comfort Lake-Forest Lake Watershed District

Date: November 4, 2025
To: CLFLWD Board of Managers
From: Mike Kinney, District Administrator
Subject: Washington County Vulnerability Assessment

District Wide

Background/Discussion

This is an addendum to the November Administrator's Report. Washington County recently shared its draft Climate Conditions and Vulnerability Assessment report. Staff reviewed the report and have no recommended comments/revisions for the County. This report provides useful information on resiliency planning, albeit on a courser scale compared to the floodplain modeling work the CLFLWD has done.

We look forward to being involved in the next steps that the County has outlined in the plan. Interagency partnerships with counties and other governmental partners will be key to climate resiliency implementation in the coming years.

Attached

Washington County draft Climate Conditions and Vulnerability Assessment report

Climate Conditions and Vulnerability Assessment

Washington County

Contents

Introduction

While the Climate Action Plan (CAP) looks to help Washington County reduce emissions that contribute to climate change, it is important to acknowledge that climate change is already affecting the county's historical weather patterns with impacts on rainfall, severe weather, and extreme heat. These impacts are likely to accelerate as the planet continues to warm, with real quality-of-life consequences for Washington County community members. Therefore, the CAP also seeks to enhance the county's resilience, or ability to withstand and endure climate-related hazards.

To become more resilient, the county must first understand the areas where it is vulnerable before it can develop strategies to address and mitigate those vulnerabilities.

This document reviews the relative risks of climate-related hazards throughout the county in several ways:

- The **Climate Conditions and Trends** section reviews historical climate data and future projections to understand the likely local impacts of climate change.
- The **Climate Hazard Assessment** evaluates the relative risk and severity of specific hazards (extreme heat, wildfires, flooding, drought, extreme cold, and severe weather) resulting from climate change in the coming decades.
- The **Social Vulnerability Assessment** looks at the level of risk across the population and identifies groups and places that are particularly vulnerable to climate hazards.
- The **Physical Infrastructures Assessment** examines how facilities and other physical infrastructure across the county face risk of damage from climate hazards and outlines how damage to these facilities could affect the community.

This document makes use of public data sets from federal agencies to contextualize Washington County's relative vulnerability and hazard risk compared to the nation as a whole and builds on that understanding through localized assessments.

Climate Conditions and Trends

Climate change is already affecting Washington County's historical weather patterns and having impacts on rainfall, severe weather, and extreme heat. These impacts are likely to continue and accelerate as the planet continues to warm, with real quality-of-life consequences for Washington County community members.

Methodology

The University of Minnesota's Climate Adaptation Partnership (MCAP) is a collaborative initiative that provides support, research, and training to advance climate science and inform climate action. MCAP also offers a climate modeling tool that allows users to understand and analyze highly localized climate projections for Minnesota. This tool uses global climate models from the Coupled Model Intercomparison Project (CMIP6), which were reduced in scale to accurately simulate Midwest climate conditions. The output provides projections for the future levels of greenhouse gases in the atmosphere and how it could affect the Earth's ability to retain heat, as well as offers assumptions on how the world will evolve with or without climate policy.

This document reviews multiple scenarios for Washington County, comparing potential climate outcomes to its historical climate data. It also applies mid-century (2040-2059) projections to assess future trends in temperatures, precipitation, and other climate change conditions. These initial findings will inform the CAP in two ways: by identifying the full range of inevitable climate impacts due to past emissions that may require adaptations, and by providing information to help community members understand the importance of responding to climate change. Figure 1 shows the scenarios used in this Climate Conditions section. *It is important to remember that these scenarios represent worldwide emissions, meaning any actions contained within the CAP are unlikely to have a major impact on actual weather patterns within the county. The University of Minnesota did not model a "low emission" scenario, noting that most climate scientists view that outcome as increasingly unlikely.*

Figure 1. 2040-2059 Climate Projection Scenarios Source: MN CLiMAT

Historical Climate Data	**The calculated historical averages between 1995 and 2014**
Intermediate Emissions	**Global growth and development continues, with slow but continued progress toward emissions reduction**
Very High Emissions	**Rapid global growth and development through 2100, largely relying on fossil fuels**

Historical and Future Climate Impacts

Temperature Trends

Between 1895 and 2024, the average annual temperature in Minnesota has increased by 3.2 degrees, and that warming trend is accelerating. If this continue, Washington County's average temperature in 2050 is projected to be significantly higher than today's, reflecting a continuation and possible intensification of this warming trend. These rising temperatures are expected to result in fewer days below freezing, more days of extreme heat, and increased demand for cooling while reducing heating needs. Table 1 summarizes the average daily, minimum, and maximum temperatures, as well as the number of days above and below temperature thresholds used to calculate heating and cooling degree days.

- Annual average temperatures are projected to rise by 3.7 degrees under intermediate and 4.3 degrees under very high emissions scenarios by 2050.
- Average minimum temperatures (historical average: 36 degrees) may increase by 3.9 degrees (intermediate) and 4.5 degrees (very high) by 2050.
- Average maximum temperatures are expected to rise by 3.5 degrees (intermediate) and 4.1 degrees (very high) by 2050.
- Cold days (below 32 degrees) drop from 138 days historically to about 116 (intermediate) and 112 (very high) by 2050.

Table 1. Historical Temperature and Future Climate Impacts (2040-2059) Source: MN CLiMAT

Variable	Historical Average	Intermediate Emissions	Very High Emissions
Daily Average Temperature	45.3°F	49.0°F	49.6°F
Minimum Average Temperature (°F)	36.0°F	39.9°F	40.5°F
Maximum Average Temperature (°F)	57.3°F	60.8°F	61.4°F
Number of days with a minimum temperature above 75 (°F)	1.2	4.7	6.4
Number of days with a minimum temperature above 78 (°F)	0.2	1.5	2.3
Number of days with a minimum temperature below 32 (°F)	137.9	115.7	112.3
Number of days with a minimum temperature below -20 (°F)	7.8	4.5	4.6

Figure 2. Very High Emissions Scenario Climate Impacts Source: MN CLiMAT

Daily Average Temperature	**4-5°F increase**
Average number of days with a minimum temperature above 75 °F	**Increase of approximately five days**
Average Daily Maximum Temperature (°F)	**4°F increase**

Seasonal Averages

The average daily temperature is projected to increase in all four seasons (Table 2). The historical average temperature for winter months is 18 degrees, which is projected to increase by 4.63 degrees under the intermediate scenario and 5.17 degrees under the very high emissions scenario. Very high emission scenarios forecast a 4.24 degree increase in fall temperatures, while spring temperatures are projected to rise by 3.28 degrees.

Table 2: Projected increase in seasonal temperatures (2040-2059) Source: MN CLiMAT

Season	Historical Average	Intermediate Emissions	Very High Emissions
Winter *(December- February)*	18.2°	22.9°	23.4°
Spring *(March - May)*	44.7°	47.5°	48.0°
Summer *(June-August)*	69.9°	73.7°	74.5°
Fall *(September-November)*	48.0°	51.7°	52.3°

Extreme Heat

Figure 3 shows the number of days exceeding 90, 95, and 100 degrees under the very high-emission scenario. Based on projections, Washington County could experience an additional three weeks with a maximum temperature above 90 degrees by 2050, with days over 95 degrees increasing by more than two weeks.

Figure 3. Temperatures exceeding 90, 95, and 100 degrees in very high-emissions scenario (2050) Source: MN CLiMAT

Days > 90°F	**+ 22.8 days annually**
Days > 95°F	**+ 15.3 days annually**
Days > 100°F	**+ 8.18 days annually**

Heating and Cooling Degree Days

Heating degree days (HDD) and cooling degree days (CDDs) are estimates of how much energy is needed to heat or cool a building based on the temperature outside. These metrics use a baseline estimate of 65 degrees and compare it against the average daily temperature. For instance, if the average temperature is 75 degrees, that day contributes to 10 CDDs, reflecting the energy needed to lower the building's interior temperature to 65 degrees. Degree days are cumulative and represent units of temperature, not calendar days. Table 3 shows Washington County's total CDDs in 2019, as well as intermediate and very high emission scenarios. Both scenarios predict an increase in CDDs, with 80 and 222 additional CDDs expected, respectively. This metric does not mean that everyone will cool buildings to 65 degrees, but it provides insight into utility demand and serves as a forecast for energy consumption.

Table 3. Cooling Degree Days. Source: UMN Climate Health and Heat Vulnerability Assessment Tool

Cooling Degree Days (2019)	Intermediate Emissions (2050)	Very High Emission (2050)
385	465	607

Community Impacts

Warming trends will fundamentally alter the county's climate, resulting in fewer days below freezing and more days of extreme heat. Historically cold days are expected to drop by up to 19 percent. Days over 90 degrees could increase by nearly a full month annually, and days above 95 degrees and 100 degrees are also projected to increase significantly. Winters are warming faster than other seasons, but all seasons are projected to see average temperatures rise. Washington County's impacts are likely to be less severe than other areas of the state (see maps in the Appendix).

Together, these shifts have serious implications for the energy demand required for cooling on extreme heat days, on infrastructure resilience, and on ecological systems. Warming temperatures are likely to increase the risk of severe weather and increase the prevalence of vector-borne diseases among other public health impacts. The increase in minimum temperatures, particularly those above 75 degrees and 78 degrees, reduces nighttime cooling and can amplify heat stress, especially for vulnerable populations. Together, these changes point to the urgency of integrating climate adaptation measures into local planning, energy use strategies, and public health preparedness.

Precipitation Trends

Table 5 and Figure 4 shows historical seasonal precipitation data alongside intermediate and very high emission scenarios. These scenarios project only a slight overall increase in annual precipitation, with the greatest percentage increases in winter and spring months, 18.6 percent and 14.1 percent respectively. Very high emission scenarios forecast a 12.3 percent decrease in summer precipitation, while fall precipitation is projected to rise by 2.4 to 4.9 percent.

Table 4. Precipitation. Source: MN CLiMAT

Season	Historical (In)	Intermediate Emissions (In)	Very High Emissions (In)
Annual	34.4	34.8	34.7
Winter (December-February)	3.1	3.6	3.7
Spring (March-May)	9.2	10.4	9.8

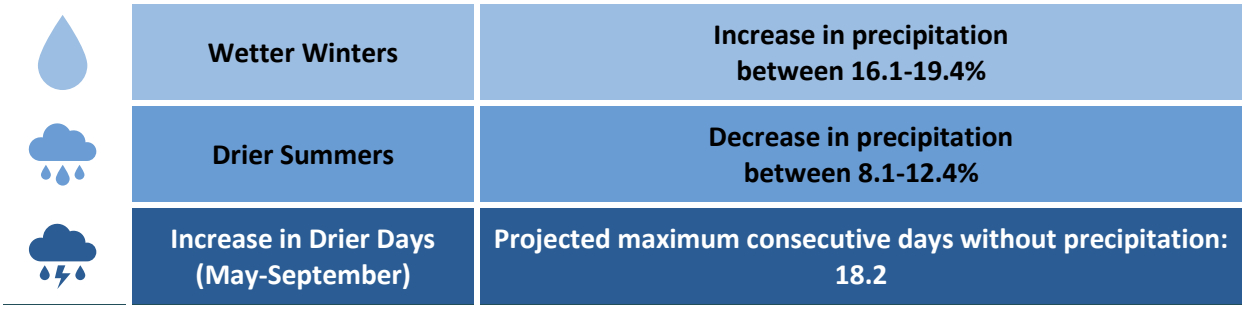
Summer (June-August)	14.0	12.3	12.9
Fall (September-November)	8.0	8.4	8.2

Table 5 also highlights the number of consecutive days without precipitation during the growing season (May-September), when most crops and other plants grow successfully. According to the intermediate emissions projection, the number of consecutive days without precipitation is projected to increase by approximately 1.5 days, while the very high emissions projects an increase of 3.5 days.

Table 5. Number of Consecutive Days without Rainfall (2040-2059). Source: MN CLiMAT

Season	Historical	Intermediate Emissions	Very high Emissions
Growing season *(May-September)*	14.7	16.2	18.2

Figure 4. Washington County Precipitation Trends (2040-2059). Source: MN CLiMAT



Community Impacts

Washington County is projected to experience shifting precipitation patterns that reflect broader regional climate trends. Annual precipitation is expected to rise moderately, but seasonal variation will be more complex. Winter and spring seasons are projected to become significantly wetter with winter precipitation increasing by up to 18.6 percent and spring by more than 14 percent. This will raise concerns about soil saturation, increased runoff, and heightened flood risks during seasonal snowmelt.

In contrast, summer precipitation is expected to decline by 8 to 12 percent, leading to a drier crop season, greater agricultural water stress, and greater potential for wildfires. In addition to these changes, there is an expected increase in consecutive dry days (up to 18 days without rainfall) between May and September, which could strain water supplies and soil moisture. These shifts in precipitation will require infrastructure and land use strategies that must handle more intense wet seasonal impacts and simultaneously increase resiliency during dry periods. This includes investment in green infrastructure, floodplain management, and water conservation planning to mitigate risks and adapt to a more resilient precipitation management.

Snow Cover

Figure 5 and Table 6 show Washington County's historical seasonal snow cover data for winter months along with intermediate and very high emission scenarios. Both scenarios project a decline in snow cover across all winter months, with the most significant decrease occurring in December with a 21

percent reduction under the intermediate emissions scenario. February also observes a 15 percent decrease in snow cover, indicating a shift in weather patterns and warmer temperatures.

Figure 5. Washington County Snow Cover Depth by Month (2040-2059). Source: MN CLiMAT

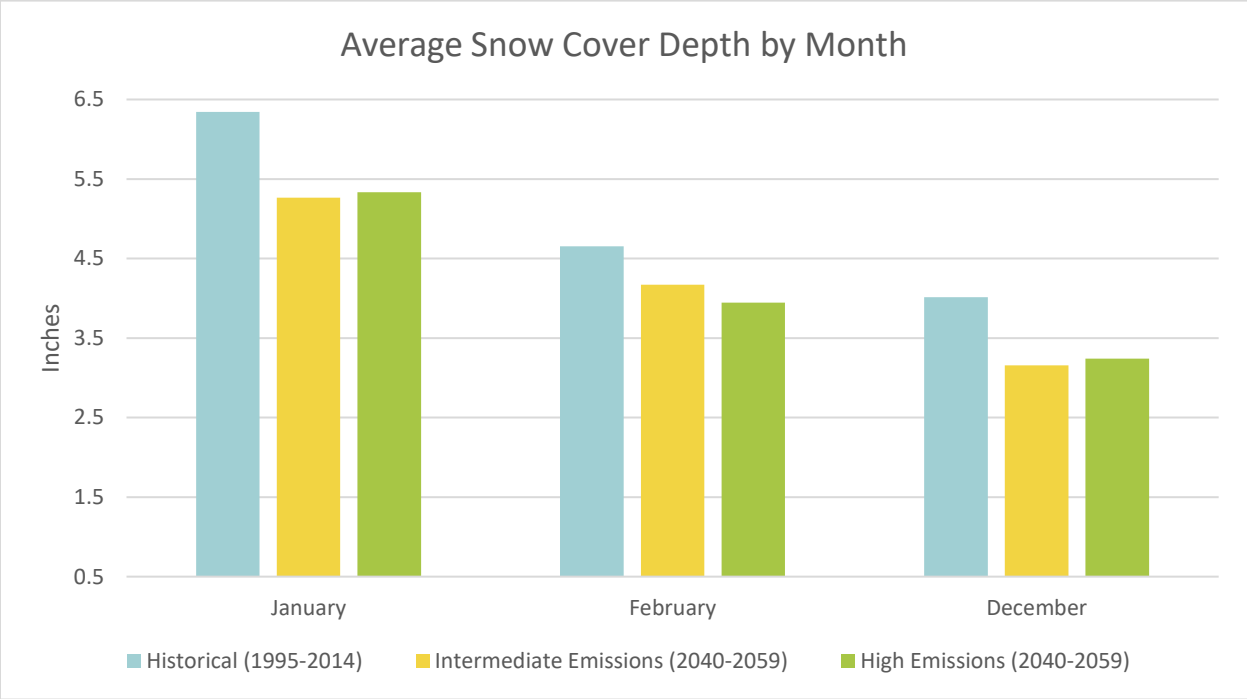


Table 6. Washington County Historical Snow Cover by Month (2040-2059). Source: MN CLiMAT

Month	Historical (In)	Intermediate Emissions (In)	Very high Emissions (In)
Yearly	1.5	1.2	1.2
January	6.4	5.3	5.3
February	4.7	4.2	3.9
December	4.0	3.2	3.2

Figure 6. Washington County Snow Predictions (2040-2059). Source: MN CLiMAT

	Winter Snow Height	16% decrease
	Spring Snow Height	17-27% decrease

	Days with Snow Cover	10-11 fewer days with a snow depth of at least 1 in. 6-7 fewer days with a snow depth of at least 6 in.

Community Impacts

Changing precipitation trends will have major implications for many aspects of the community. Winter recreation will be less consistent, ecosystems adapted to sustained snowpack will be affected, and a change in seasonal rainfall may impact the recharge rate of the county's groundwater supply. A reduction in snow cover also increases the potential for mid-winter runoff events, contributing to erosion and water quality concerns.

Other Climate Trends

Lake Temperature

Table 7 highlights the historical annual and projected seasonal changes in lake temperature. In Washington County, the average yearly lake temperature is expected to rise under intermediate and very high emission scenarios, with an increase of 0.69 degrees and 0.92 degrees respectively. According to the very high emissions projection, fall lake temperatures could increase by nearly two degrees, while spring temperatures are projected to rise by just under one degree. Rising air temperatures cause lake temperatures to warm and shorten the ice season, which can disrupt fish habitats and populations, and impact recreational activities such as ice fishing and swimming. In addition, warmer lake temperatures can create conditions that intensify blue-green algae growth, increasing the risk of harmful algal blooms, swimmers itch, and Naegleria fowleri.

Table 7. Washington County Lake Temperature Records by Season (2040-2049). Source: MN CLiMAT

Season	Historical (°F)	Intermediate Emissions	Change	Very high Emissions	Change
Yearly	46.28°F	46.96°F	+0.69°F	47.19°F	+0.92°F
Winter *(December-February)*	37.91°F	37.82°F	−0.09°F	38.05°F	+0.14°F
Spring *(March-May)*	42.25°F	43.10°F	+0.85°F	43.19°F	+0.94°F
Summer *(June-August)*	54.63°F	55.16°F	+0.53°F	55.27°F	+0.64°F
Fall *(September-November)*	50.34°F	51.81°F	+1.47°F	52.31°F	+1.97°F

Lake Ice Cover

Table 8 shows the historical seasonal lake ice cover data for winter months along with intermediate and very high emission scenarios. In Washington County, 90 percent of the lake surface is projected to freeze in the top two inches during winter months under the very high emissions scenario, compared to 96 percent historically. Ice cover is expected to decrease by seven percent in the spring and five percent in

the fall, suggesting an overall shorter ice cover season. A decrease in ice coverage could have impacts on lake ecosystems which have adapted to the historical freeze-thaw cycle, in some cases leading to an increase in invasive species. Reduced ice coverage also impacts ability to participate in winter recreational activities and creates public safety risks such as accidents due to thin or unstable ice.

Table 8. Washington County Lake Ice Cover (2040-2059). Source: MN CLiMAT

Season	Historical Coverage of Lake (2 In.)	Intermediate Emissions	Very high Emissions
Yearly	32%	29%	28%
Winter *(December-February)*	96%	91%	90%
Spring *(March-May)*	24%	19%	17%
Fall *(September-November)*	9%	5%	4%

Soil Temperature

Table 9 shows the annual, average historical soil temperatures, along with estimates for future temperatures under intermediate and very high emissions scenarios. Overall, soil temperatures are anticipated to increase by about three degrees. This may lead to a longer growing season, but higher soil temperatures are also likely to affect soil moisture content, which increases evaporation rates, and may encourage invasive species which are adapted to warmer environments.

Table 9. Washington County Soil Temperature (2040-2059). Source: MN CLiMAT

Depth (cm)	Historical	Intermediate Emissions	Very high Emissions
0 - 10	50.6°F	53.3°F	53.9°F
10 - 40	50.6°F	53.1°F	53.7°F
40 - 100	50.2°F	52.7°F	53.2°F
100 - 200	49.6°F	52.0°F	52.4°F

Figure 7. Washington County Climate Trends (2040-2059). Source: MN CLiMAT

Lake Temperature	Fall shows the greatest warming, increasing by 2.0°F in the very high emissions scenario.
Lake Ice Cover	A projected 6% decrease in the extent of lake surface frozen during winter months in the very high emissions scenario.
Soil Temperature	For all scenarios, soil temperatures increase consistently at all depths by approximately 2.4 to 3.2°F

Planning for Change

This review of Climate Conditions and Trends identifies a number of community-level impacts that will become increasingly apparent as climate change accelerates. In addition to emissions reduction, the CAP will develop adaptation strategies to address these inevitable changes:

- Public health impacts of increasing extreme heat on vulnerable populations;
- Increasing energy demand related to cooling buildings during periods of extreme heat;
- Increasingly wet winters and springs and extended dry periods during summers;
- Reduced snow depth and lake ice coverage and the related impacts to waterways and ecosystems;
- Potential increase in invasive species and insect-borne diseases as the local environment becomes more favorable for these species;
- Increased localized flooding and runoff events related to both rainfall and soil conditions.

These risks will be carried forward in the Vulnerability Assessment to identify specific localized exposure and sensitivity to these hazards. The Climate Action Plan will identify specific adaptation strategies to address risks resulting from projected climate conditions.

Climate Hazard Assessment

Severe weather has always been a common hazard in Washington County, as in most of the Midwest. But as climate change accelerates, research shows that historical weather patterns will shift[1], increasing risk to local communities.

Hazard risk has been documented in several previous planning efforts. Washington County maintains an **All Hazard Mitigation Plan** (most recently updated in 2023), which outlines the county's relative risk for many different natural and man-made hazards. This assessment will focus specifically on climate-related hazards deemed to have a high or medium probability in that plan, with additional context provided from the **Federal Emergency Management Agency's (FEMA) National Risk Index** and the **Metropolitan Council's Regional Climate Vulnerability Assessment (CVA)**.

Overall Climate Risk

The National Risk Index (Figure 8) provides an assessment of Washington County's aggregate risk from all climate-related hazards compared to other locations within Minnesota and across the country. The risk index is calculated from Community's expected annual losses (including loss of life and economic impacts such as property damage and agricultural losses), social vulnerability, and community resilience.

Figure 8. National Risk Index

Overall, Washington County's risk index is "relatively moderate" nationally, with 87 percent of U.S. counties having a lower risk. However, the county's risk index is high compared to the rest of Minnesota, with 95 percent of Minnesota counties having a lower risk. Notably, the county ranks very low for social vulnerability, with high levels of community resilience, meaning the high risk relative to the rest of the state is largely driven by high expected losses due to climate hazards. This is likely due to Washington County's development, high population, and high property values relative to many Minnesota counties.

Information on specific hazards and risks is detailed below.

Flooding and Extreme Rainfall

The All Hazard Mitigation Plan assesses flooding as a "high probability" hazard. There have been ten major floods in the county's recorded history, with the most devastating occurring on April 1, 2001. The most recent major flooding event on the St. Croix River occurred in May 2023, and the most recent major flooding event on the Mississippi River occurred in March 2019.

[1] **University of Minnesota Climate Adaptation Partnership**: https://climate.umn.edu/MNclimate

Major flood events are anticipated to become more frequent as weather patterns shift to include more heavy precipitation events, warmer and wetter winters, and increased dry spells which may make the soil more prone to flooding. The All Hazard Mitigation plan outlines some of the impacts that flooding has on the community and critical infrastructure, noting that "at-risk uses and structures remain in identified 100-year floodplain."

Flood risk includes flood plains (where a natural body of water overflows its banks) as well as areas prone to localized flooding when heavy rainfall overwhelms stormwater infrastructure. According to Metropolitan Council data, areas prone to localized flooding are low-lying areas where precipitation is likely to collect during major rain events, especially if stormwater drains are blocked, undersized, or overwhelmed. Many of these areas are designated stormwater management areas, such as drainage ditches or retention ponds, but others represent neighborhood streets where water may collect. Notably, Washington County also contains several "landlocked basins" which retain water but do not drain to other natural water bodies. Some of these basins have required emergency pumping during previous flood events, leading to long-term planning efforts to better manage flooding in these areas.

Figure 9 outlines the areas of the county at risk of both types of flooding.

Figure 9. Washington County Flooding

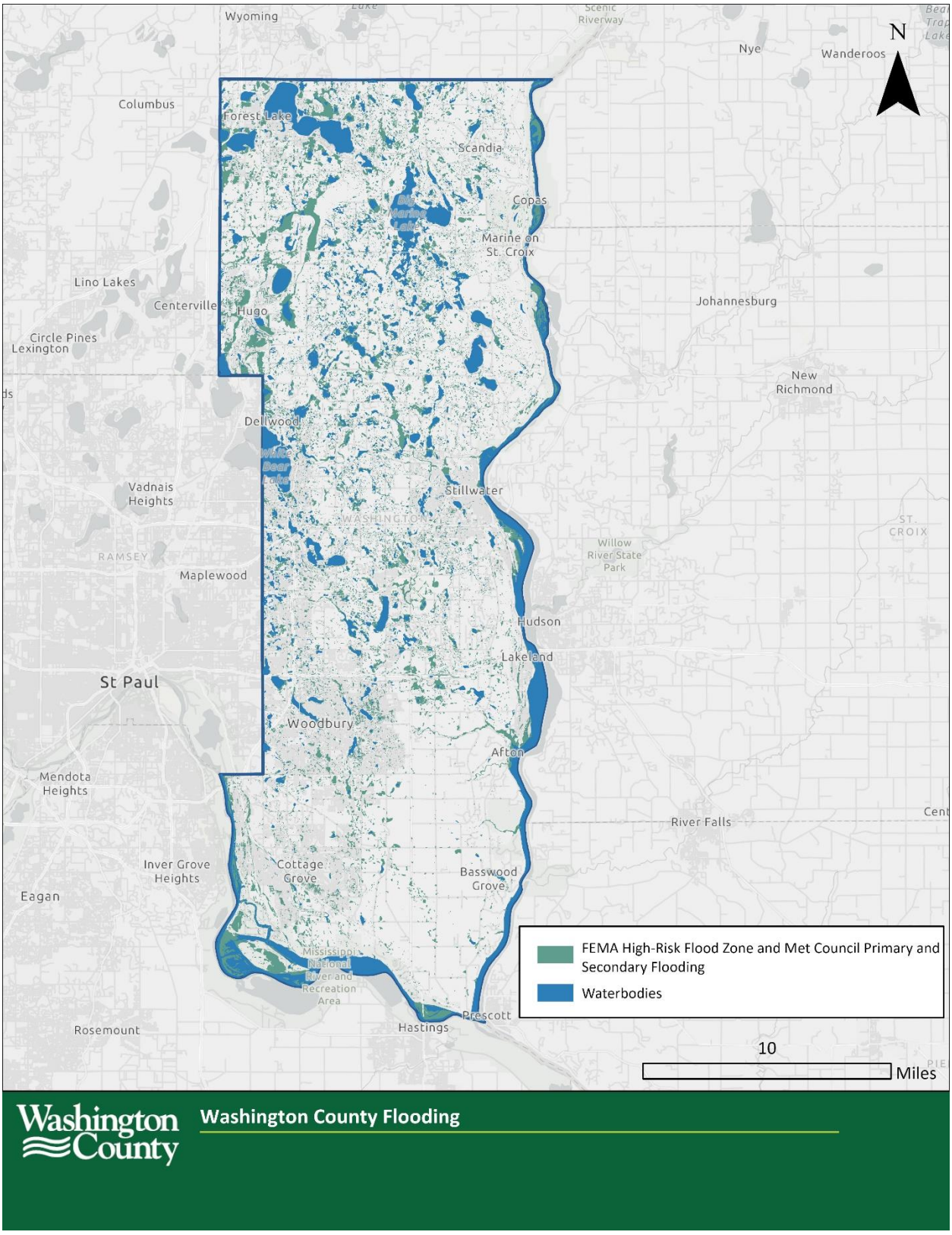
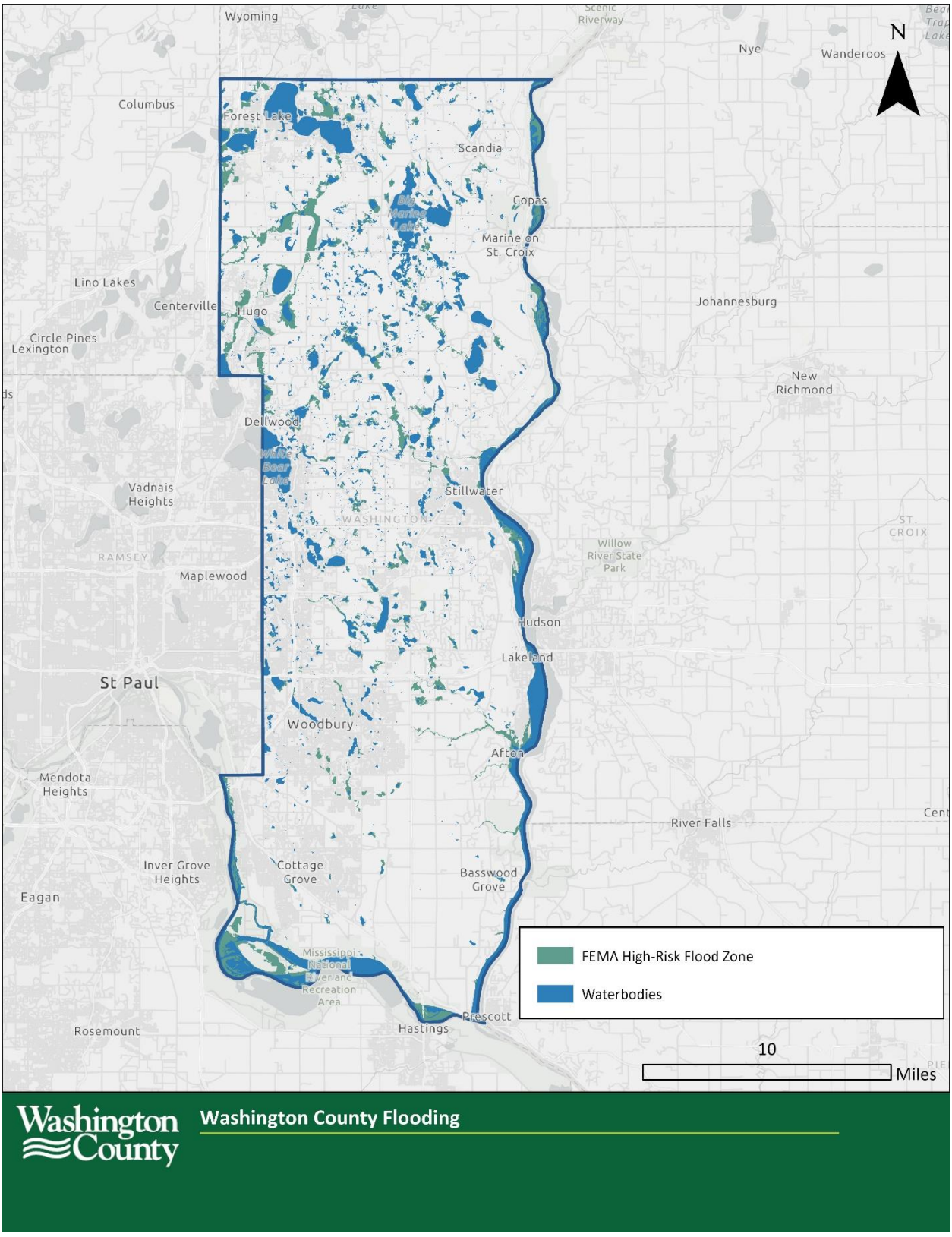


Figure 10. Washington County FEMA Flooding



Wildfire

The historic vegetation of Washington County was primarily fire dependent, meaning that it relied on periodic wildfires to maintain a healthy ecosystem. Therefore, it follows that the modern landscape is predisposed to fire. Today, about 1,500 wildfires occur in Minnesota each year, burning about 40,000 acres.[2] The National Risk Index shows most of the county as having "relatively moderate" risk of wildfires, with rural portions of the county being most at-risk. The All Hazard Mitigation Plan notes that fires in Washington County are most often caused by burning debris, and that significant portions of the county have not had any wildfire assessments. Many existing pine plantations provide ready fuel for fires, often in close proximity to residential areas.

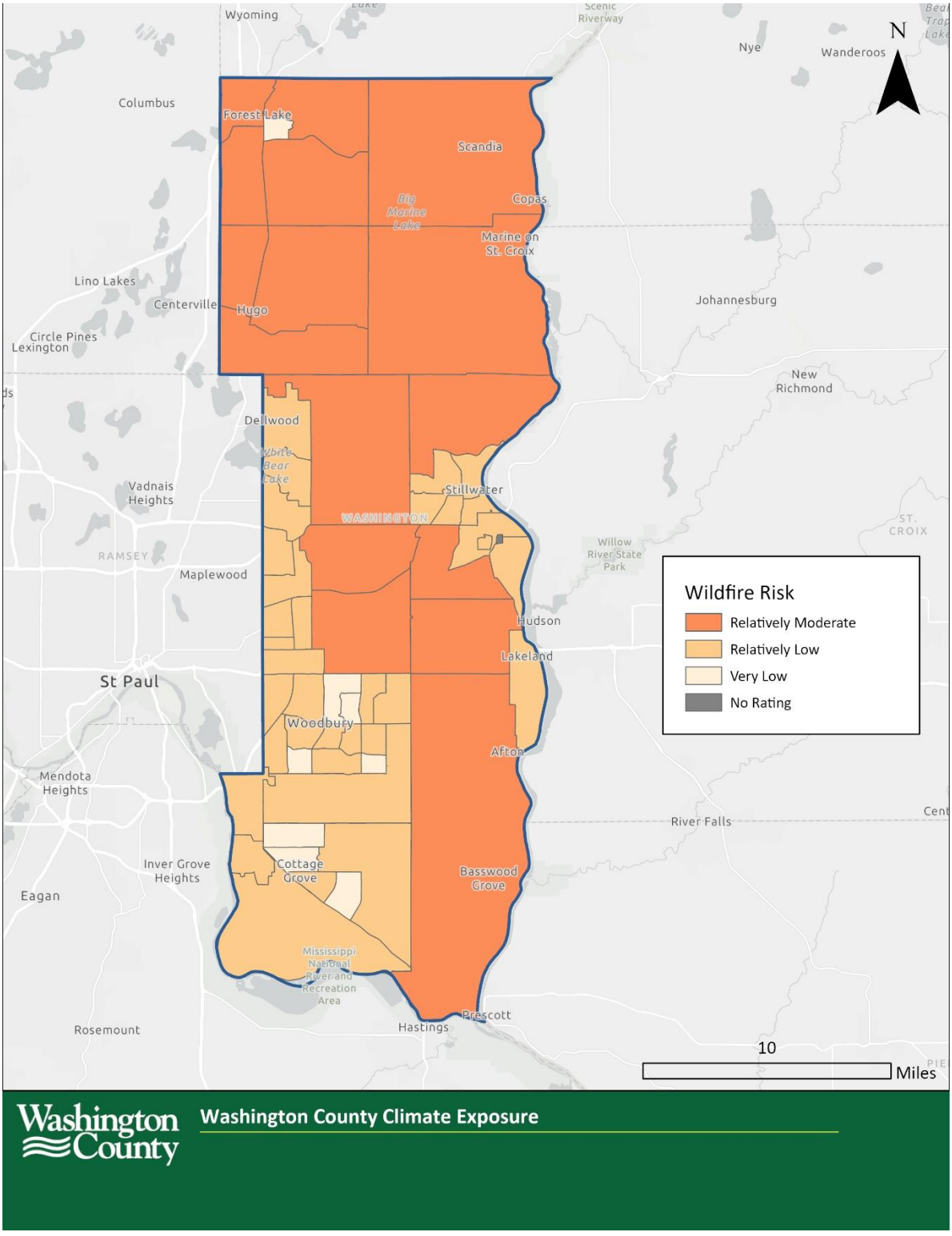
Wildfires outside Minnesota also impact Washington County. During the summer of 2025, Canadian wildfires caused the air quality index (AQI) in Washington County to reach unhealthy levels. Unhealthy AQI exposes individuals with existing health conditions, as well as sensitive groups such as pregnant people, children, and the elderly, to fine particle pollution from wildfire smoke.

The risk of wildfires is likely to increase as temperatures rise and summers become drier, leading to more dry vegetation. Developing landscape maintenance procedures for county-owned land and outreach to rural landowners with information on fire management best practices may help mitigate the risk of incidental fires and their impacts on community members. For example, Washington County performs controlled burns to clear dried debris, enrich the soil with nutrients from the resulting ash, and prevent more dangerous wildfires.

Figure 11 outlines the areas of the county most at risk of wildfires, according to National Risk Index data.

[2] All Hazard Mitigation Plan

Figure 11. Washington County Wildfire Risk



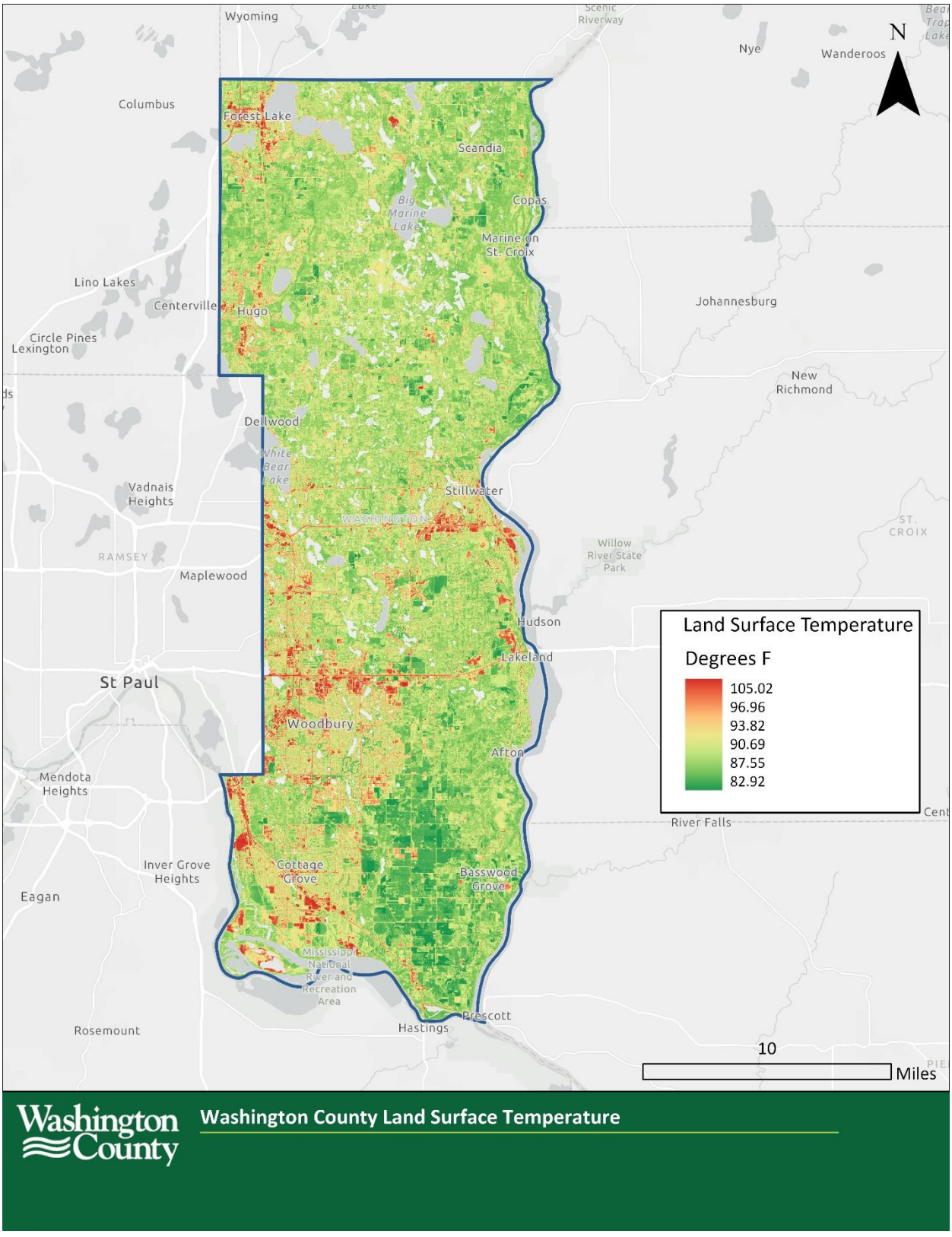
Extreme Heat

The National Weather Service issues a heat advisory when the maximum heat index reaches 100 degrees or the maximum temperature reaches 95 degrees. This extreme heat poses a significant health risk to vulnerable populations, including children, the elderly, people who work outside, and people with underlying illnesses.

As noted in the climate conditions assessment, the number of days with extreme heat is likely to rise as climate change accelerates. While this is true throughout the county, development patterns have a significant impact on localized temperatures through the urban heat island effect. According to Met Council's Imagine 2050 Comprehensive Plan, Washington County's population is expected to increase 27 percent by 2050. This increase will affect development patterns and could exacerbate existing urban heat island effects. Areas with more pavement can be up to 20 degrees warmer than nearby vegetated areas. This impact is illustrated through Met Council surface temperature data from 2022 that highlights the significant disparity in temperature between the more developed portions of the county compared to rural areas (Figure 12). The ambient temperature at the time of data collection was 88 degrees Fahrenheit, and surface temperature ranged from about 83 degrees to 105 degrees depending on the level of development.

Extreme heat will also cause increasing demand for electricity to cool homes and buildings. High energy demand may overwhelm the utility grid and lead to blackouts, which further exacerbate health risks for vulnerable populations.

Figure 12. Washington County Surface Temperature with Ambient Temperature of 88 degrees, 2022



Drought

Drought is the condition of abnormally dry weather in an area where rain is usually expected. Because of its slow onset, drought is not usually viewed as an imminent risk to life, but it may impact water supply levels and cause water use restrictions depending on the severity. More immediate threats due to drought include dry vegetation and landscaping, which cause increased risk of fire.

Notably, the All Hazard Mitigation Plan lists drought as a hazard with low mitigation potential, meaning there is not much the county can do to prevent drought conditions. It is critical to note that precipitation patterns are becoming increasingly erratic, with overall precipitation expected to increase but the maximum consecutive number of days without precipitation also predicted to increase. Because of this, it will be critical to identify ways the county can mitigate the cascading impacts of drought and the potential impacts on the community.

Groundwater

All communities within the county rely on groundwater as their source of drinking water, sustained by ongoing groundwater recharge. Groundwater recharge is the process by which rainwater, snowmelt, and surface water infiltrate the soil and renew underground aquifers. Mid-century climate trends in Washington County show a decline in snow cover and increase in rainfall between December and February. These changing weather patterns could reduce groundwater recharge and increase surface runoff due to increasing precipitation patterns while the ground is frozen. Further, overall summer precipitation is expected to decline by 8 to 12 percent, bringing less rain and more evaporation, which will reduce groundwater recharge and lower water tables.

Climate change may also affect groundwater quality. For example, according to the Washington Groundwater Plan, the frequency of warmer winters will cause periodic freeze-thaw cycles and ice events, resulting in “greater use of road salt and other road chemicals, increasing the pollutant loading in meltwater.” Other climate change impacts include increased flooding, which may transport more pollutants into groundwater, and rising temperatures, which can alter biogeochemical processes that affect the quality and composition of groundwater. The county has outlined treatment and mitigation strategies within their Groundwater Plan.

Severe Weather

Severe weather includes windstorms, tornadoes, thunderstorms, hail, ice storms, and lightning. These events all occur frequently in Washington County, and they are generally predicted to increase in frequency and severity due to climate change. While these storms typically cause property damage, extreme weather can cause loss of life.

The risk of these events is equal throughout the county, though people who live in mobile or manufactured homes may be particularly vulnerable to tornadoes or wind events. Severe weather frequently causes power outages and downed trees, which may block critical roadways and routes for emergency responders. Even minor property damage to cars or houses can cause financial strain through increasing insurance premiums and repair bills.

Social Vulnerability

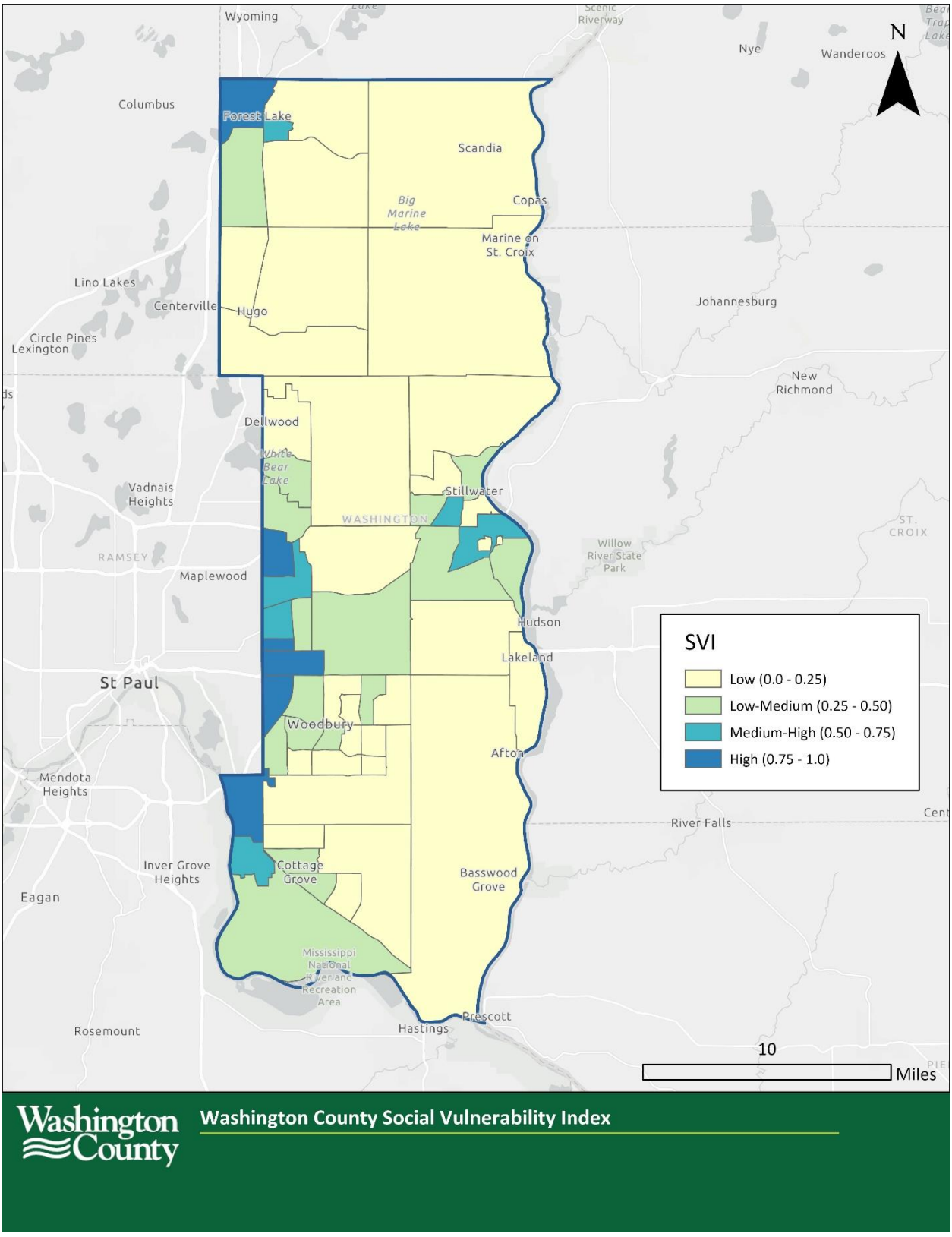
Social vulnerability refers to demographic and socioeconomic factors that can impact a community's ability to prepare for and recover from hazards. Factors that impact a community's social vulnerability include poverty, access to transportation, housing conditions, and English language proficiency, among others. Communities with high social vulnerability may need additional support before, during, and after disasters compared to communities with more resources.

The Centers for Disease Control (CDC) publishes a Social Vulnerability Index (SVI) that measures the relative social vulnerability of communities across the United States based on various risk factors. This index is used by many public agencies to understand and guide emergency preparedness and public health initiatives.

While Washington County overall has a low level of social vulnerability compared to other counties in the U.S. and Minnesota, vulnerability varies greatly throughout the county. As shown in Figure 13, in comparison to other counties in the U.S., some census tracts on the county's western border are considered highly vulnerable, while most of the county's more rural communities have low levels of vulnerability. The county has one of the lowest social vulnerability scores in the state, with an SVI of 0.093. Neighboring counties such as Ramsey County have considerably higher scores. For example, Ramsey County has a statewide SVI of 0.94 (High).

Understanding social vulnerability may help the county guide resources toward areas more susceptible to climate risks, such as strategically locating cooling centers and extreme weather shelters or enhanced communications regarding public health risks and evacuation orders.

Figure 13. Washington County Social Vulnerability Index



Hazard Risk and Socially Vulnerable Communities

Comparing the areas within Washington County with higher social vulnerability with areas at risk for climate hazards enables the county to identify where additional adaptation resources may be needed. For example, in Washington County, socially vulnerable communities are generally relatively protected from flood risk and wildfires but are particularly vulnerable to extreme heat due to the urban heat island effect.

As summer temperatures rise, it will be critical for the county to consider options to support people in vulnerable communities who may not have access to air conditioning, and to proactively communicate with those communities about resources available to them. Figure 14, Figure 16, and Figure 17 show socially vulnerable communities compared to relative hazard risks. However, it is worth noting that socially vulnerable individuals are present throughout the county, whether or not they reside within an identified socially vulnerable community, and their needs should be taken into account in hazard mitigation planning.

Figure 14. Washington County Flooding with High to Medium High Social Vulnerability Index

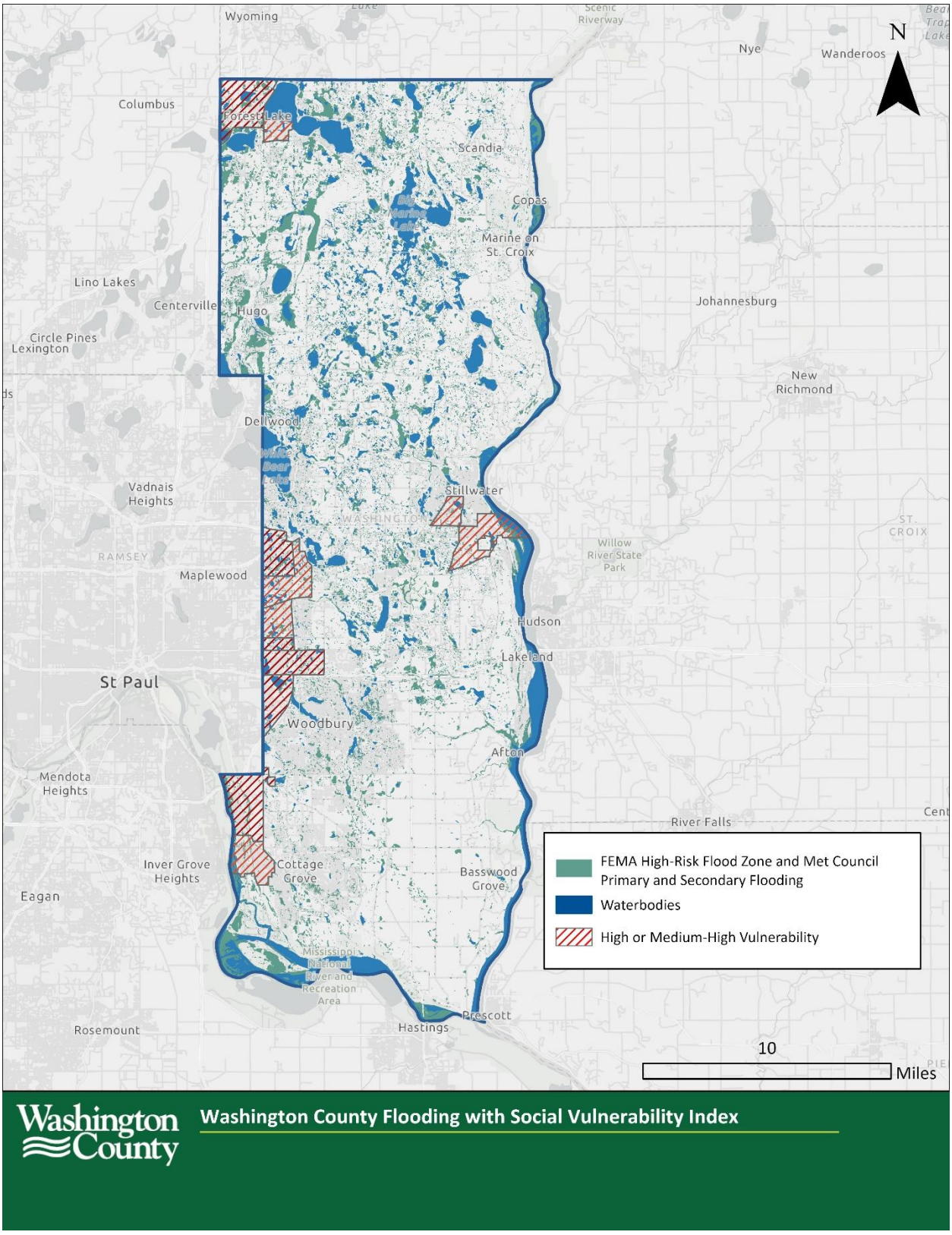


Figure 15. Washington County FEMA Flooding with High to Medium High Social Vulnerability Index

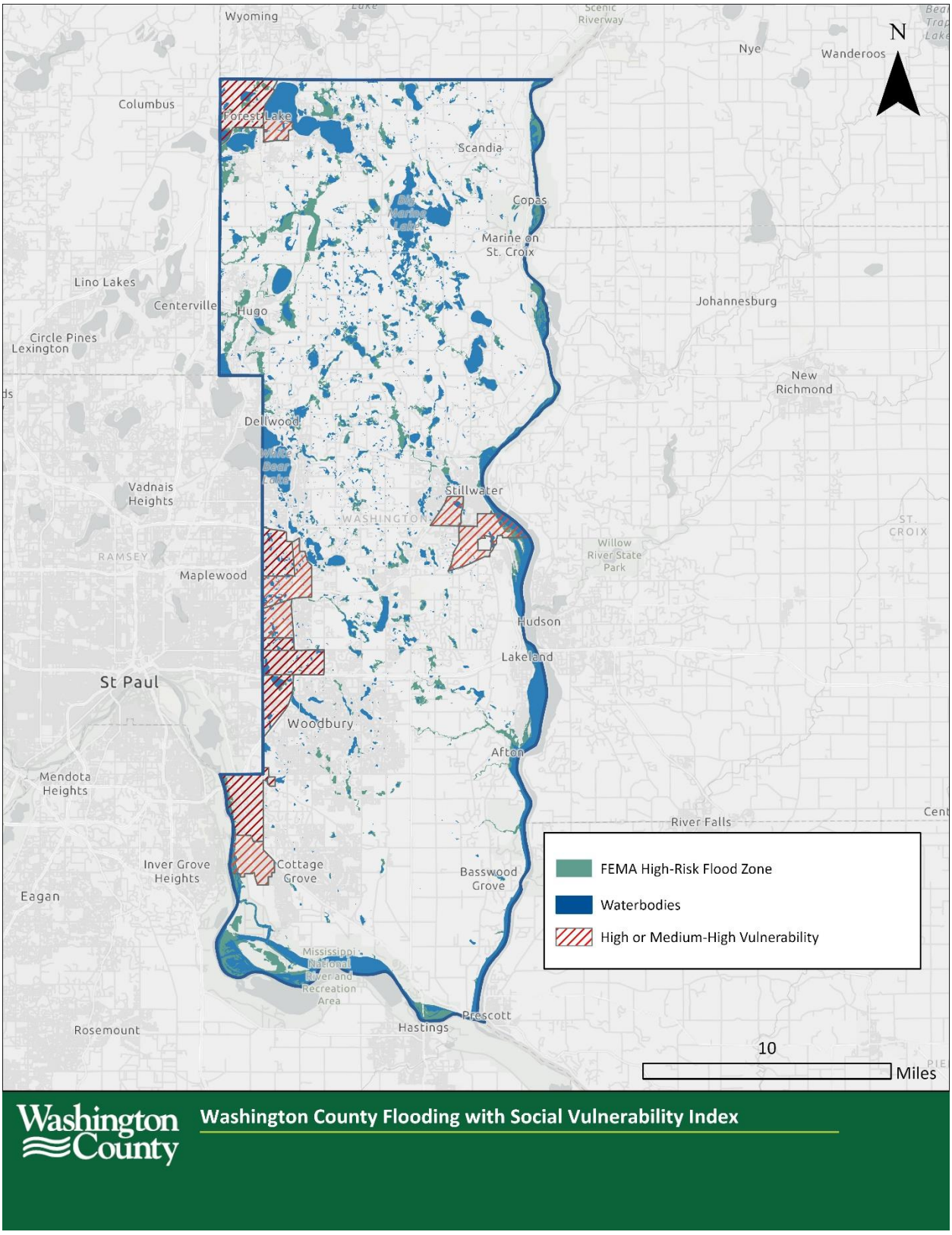


Figure 16. Washington County Wildfire with High to Medium High Social Vulnerability Index

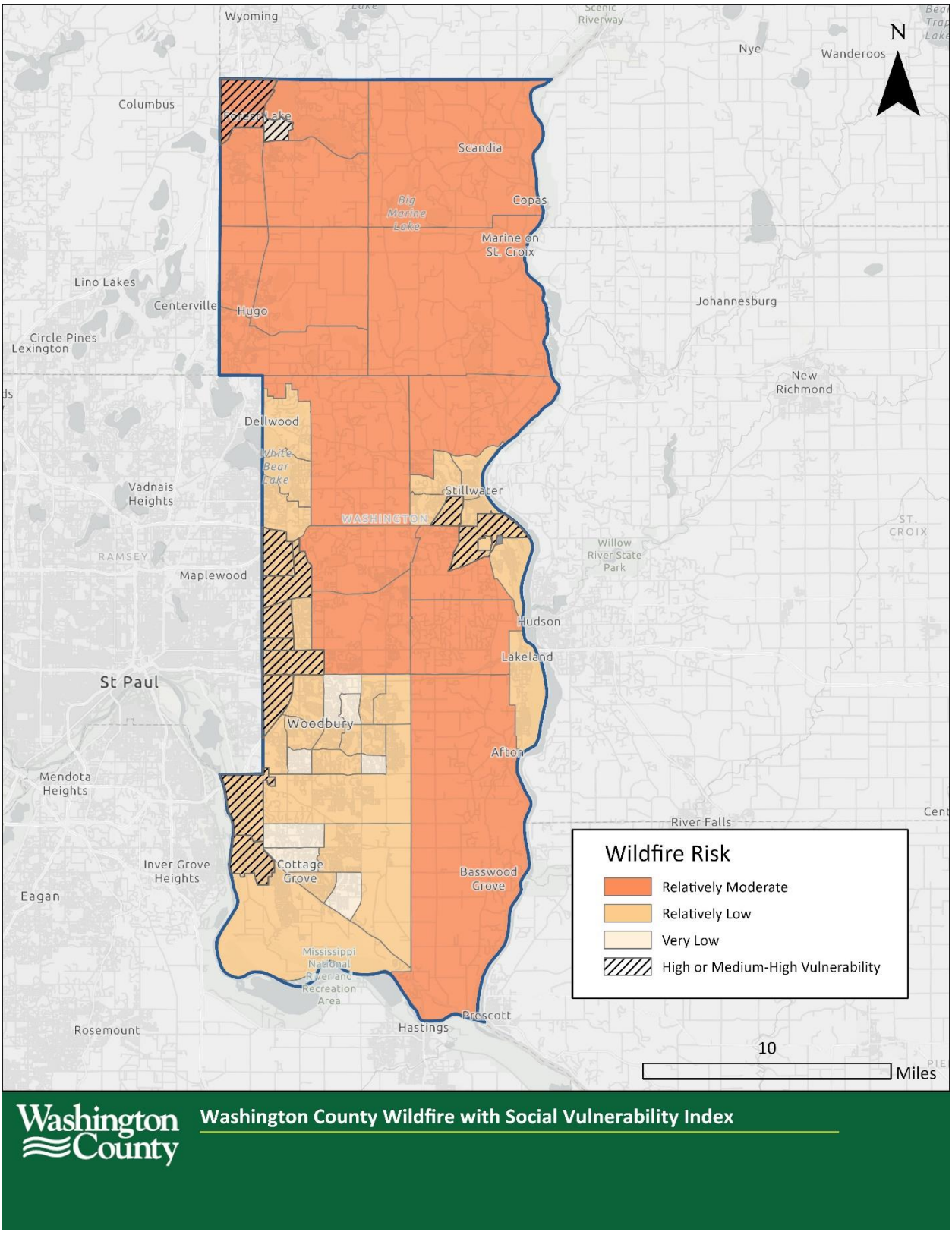
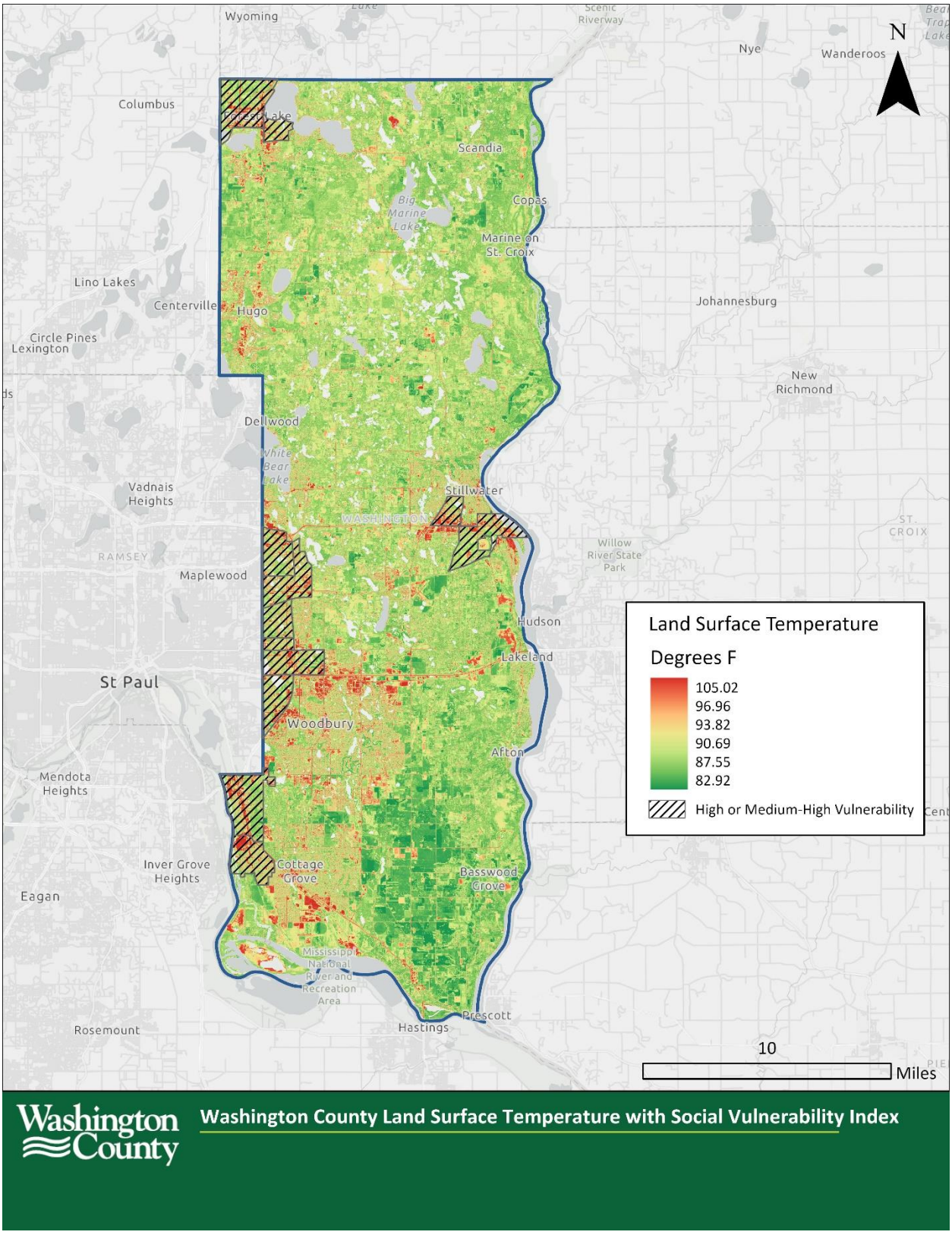


Figure 17. Washington County Surface Temperature with High to Medium High Social Vulnerability Index



Physical Infrastructure

Critical infrastructure that supports Washington County's quality of life and social fabric is spread throughout the county. In many cases, those facilities were located, planned and built several decades ago under an outdated assumption of historical risks.

Community Buildings

Community buildings, such as schools, hospitals, libraries and community centers, are critical because they often function as lifelines for vulnerable populations (see Figure 18). These buildings provide medical care, shelter, and cooling centers during extreme weather. It is important to understand which buildings may be placed in locations that put them at risk, and if any buildings lack air conditioning and back-up power generation systems that may become increasingly necessary.

Figure 21Figure 19, Figure 20, Figure 21, and Figure 22 show community facilities overlayed with climate hazard areas.

Transportation Infrastructure

Transportation systems provide evacuation routes and ways for emergency crews to access impacted areas. A resilient system provides a wide variety of route options in case some routes are cut off by flooding or other hazards. Some existing transportation systems may be vulnerable to flooding, landslides, or pavement quality degradation due to changing weather patterns.

The Minnesota Department of Transportation (MnDOT) developed a Resilience Improvement Plan in 2024 that assessed the relative climate risk to transportation assets across the state, taking into account hazard exposure and likely impacts to travelers. MnDOT does not provide mapping data that can identify specific local transportation risks, but does describe general vulnerabilities:

- **Heavy Precipitation and Flooding**: Short-term disruptions and long-term damage to roads, bikeways, and sidewalks due to flooding and landslides can impact the mobility and access. In addition, emergency services could find it more challenging to respond to incidents.
- **Extreme Temperatures**: Any signal outages during extreme heat could lead to an increase in traffic safety incidents or congestion, exacerbating community vulnerability by delaying first responders from reaching those suffering from heat-related illnesses. In addition, extreme heat impacts human stress, especially for vulnerable populations, and landscape stress, which reduces plant and tree benefits for people walking, biking, and using transit.
- **Freeze-Thaw Changes**: Freeze-thaw induced road closures (primarily from rockfalls or slope failures) could have localized impacts on first responder access, increasing community vulnerability. Changes or increases in freeze-thaw cycles can also lead to ice accumulation, which poses slip hazards and reduces accessibility for people walking.

County Facilities

In addition to community facilities, the county has an interest in understanding the relative risk to county-owned facilities. As of January 2025, Washington County owned 176 buildings and leases two buildings, ranging from restrooms and barns in regional parks to a large Government Center.

Many of these facilities are necessary to provide public services to the community, including emergency response and transportation operations.

Figure 23, Figure 24, Figure 25, and Figure 26 shows county facilities overlayed over hazard areas. These facilities are generally well protected from natural hazards, though many are located in areas that could be well suited as cooling centers for nearby residents during extreme heat events.

Figure 18. Washington County Community Facilities

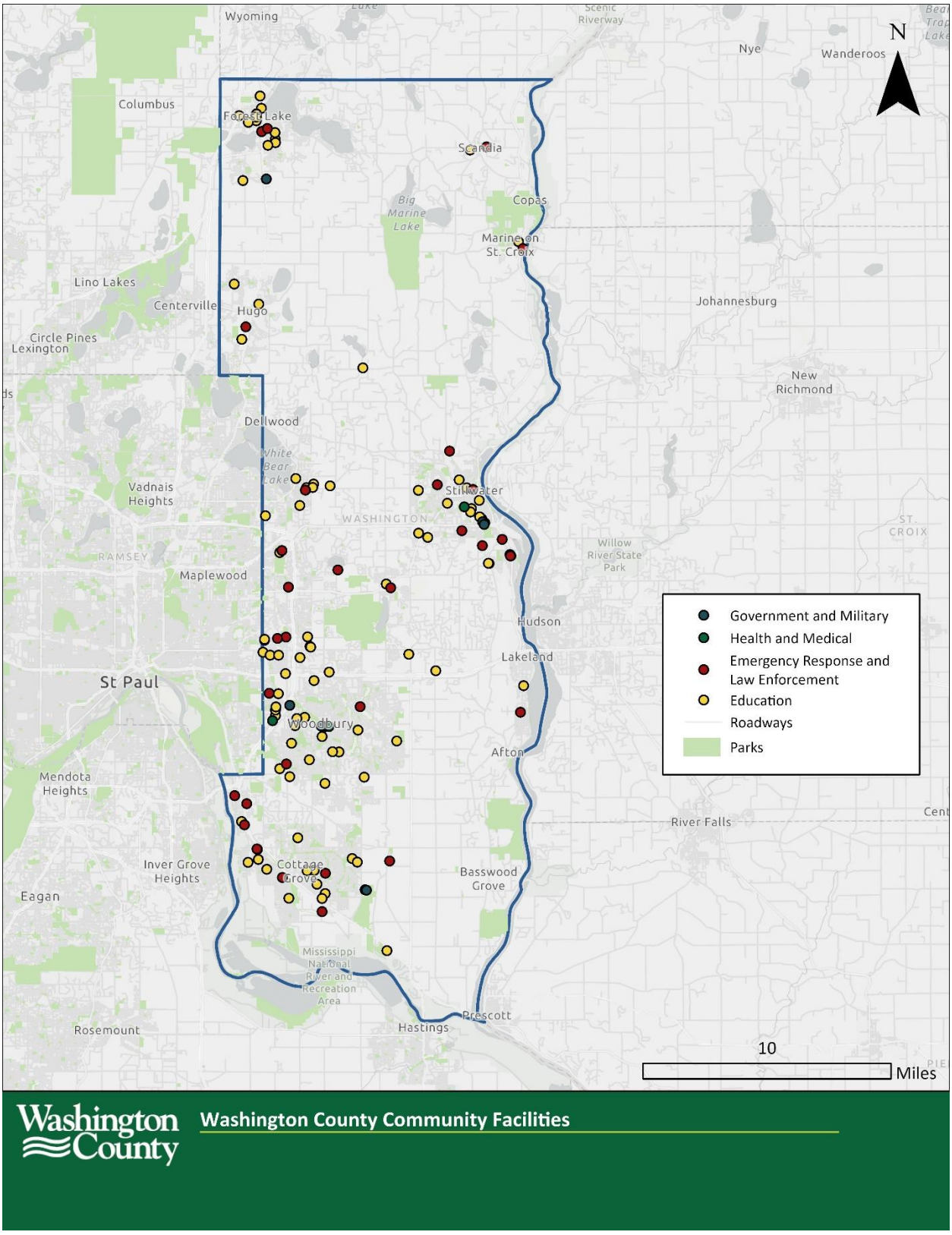


Figure 19. Washington County Flooding with Community Facilities

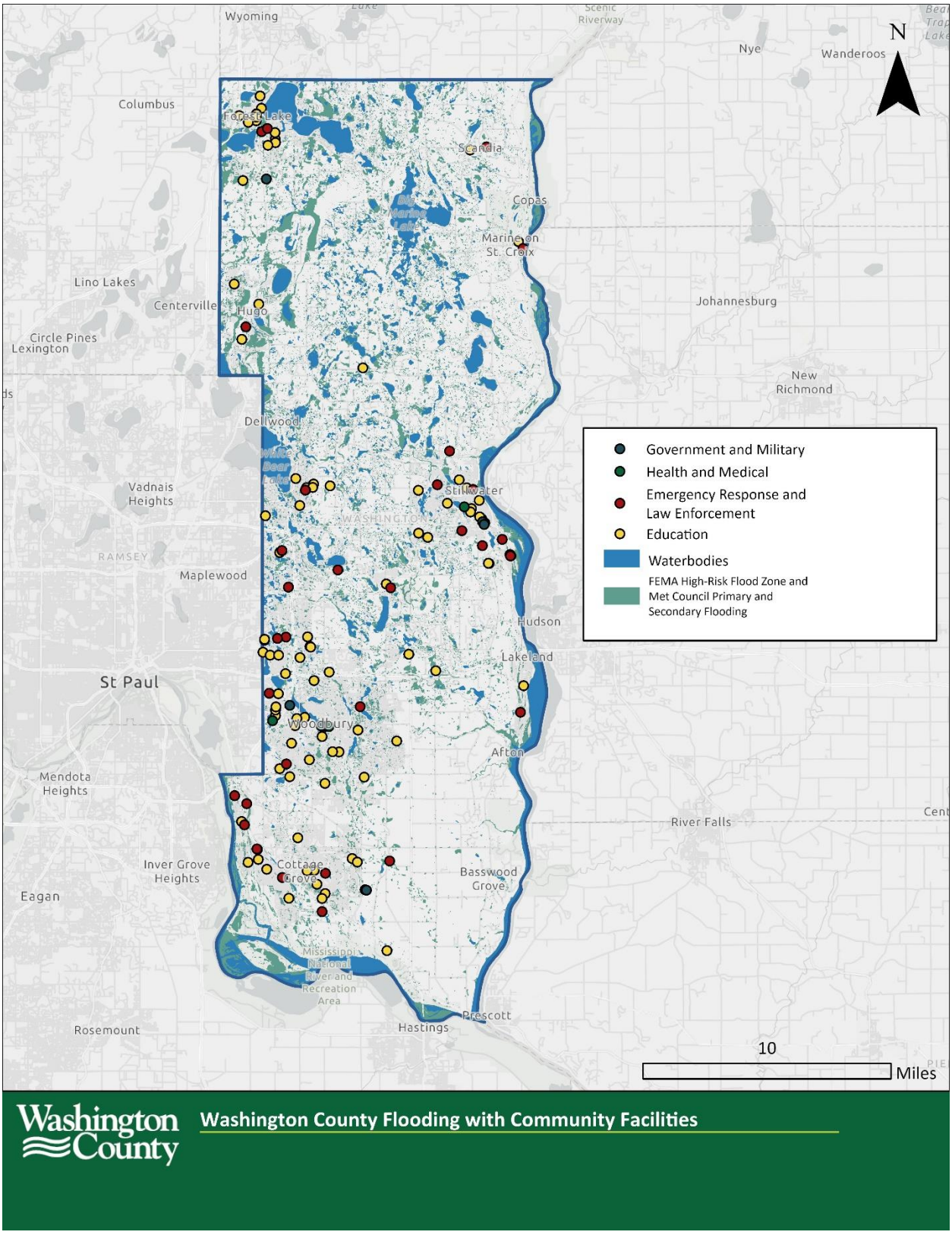


Figure 20. Washington County FEMA Flooding with Community Facilities

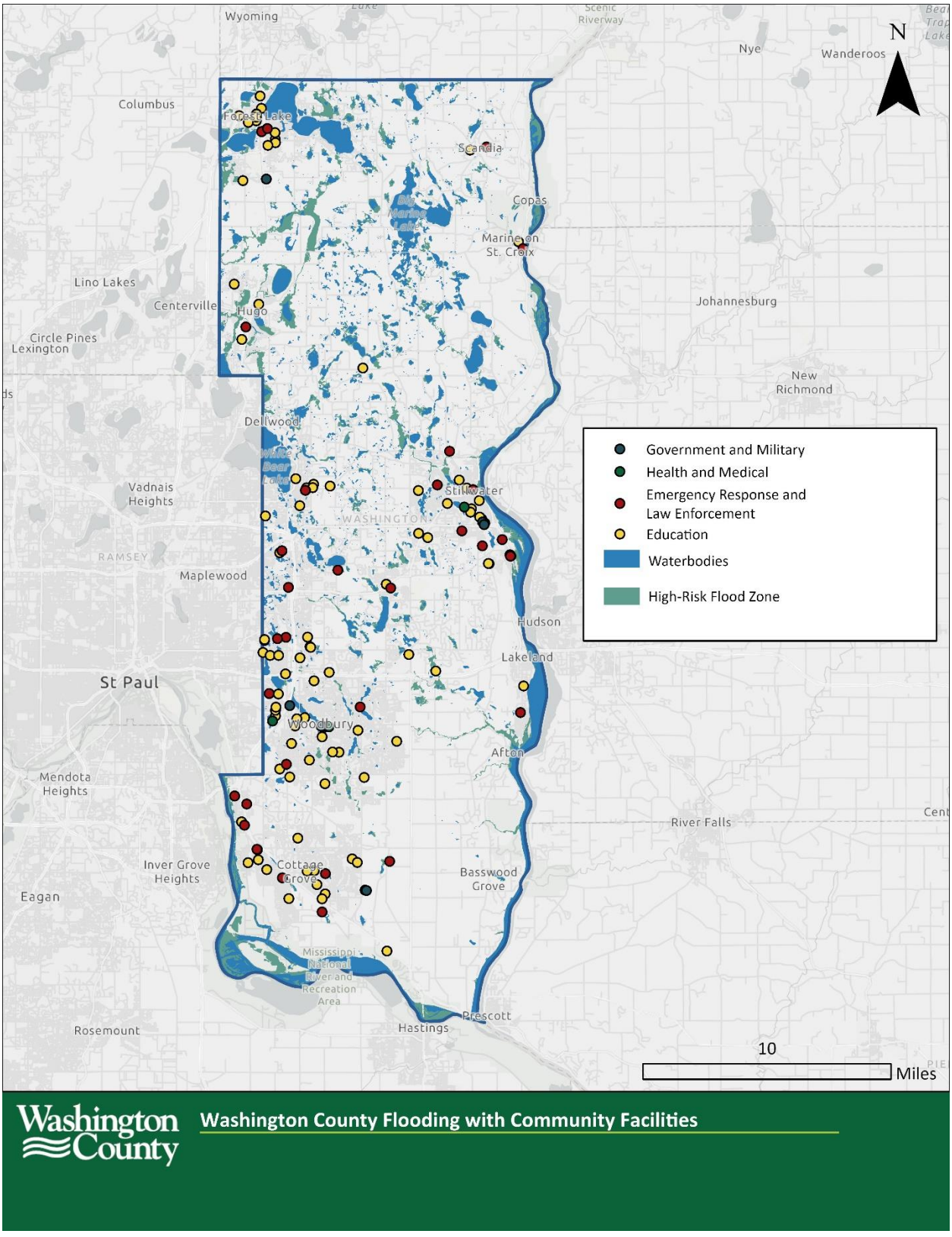


Figure 21. Washington County Wildfire with Community Facilities

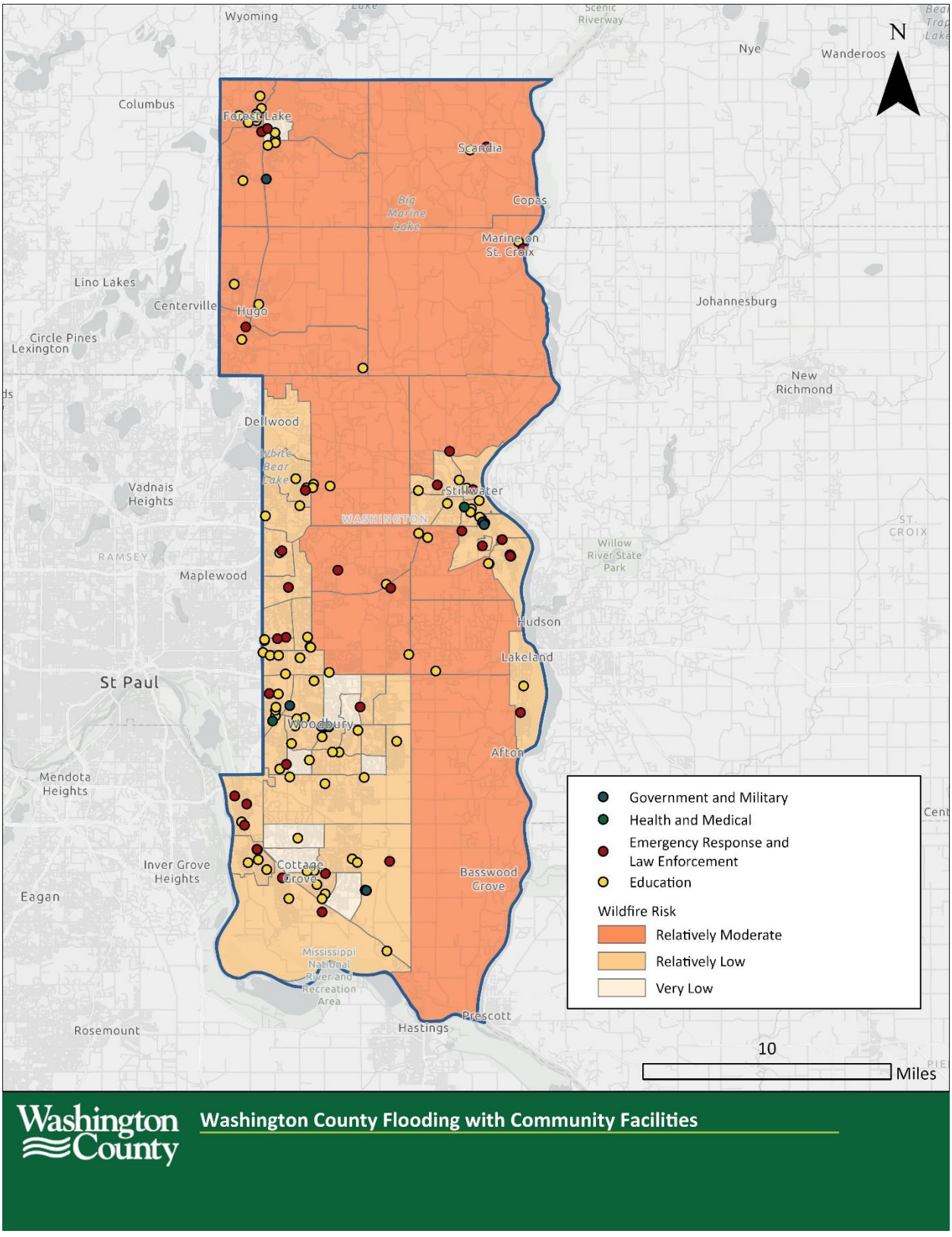


Figure 22. Washington County Surface Temperature with Community Facilities

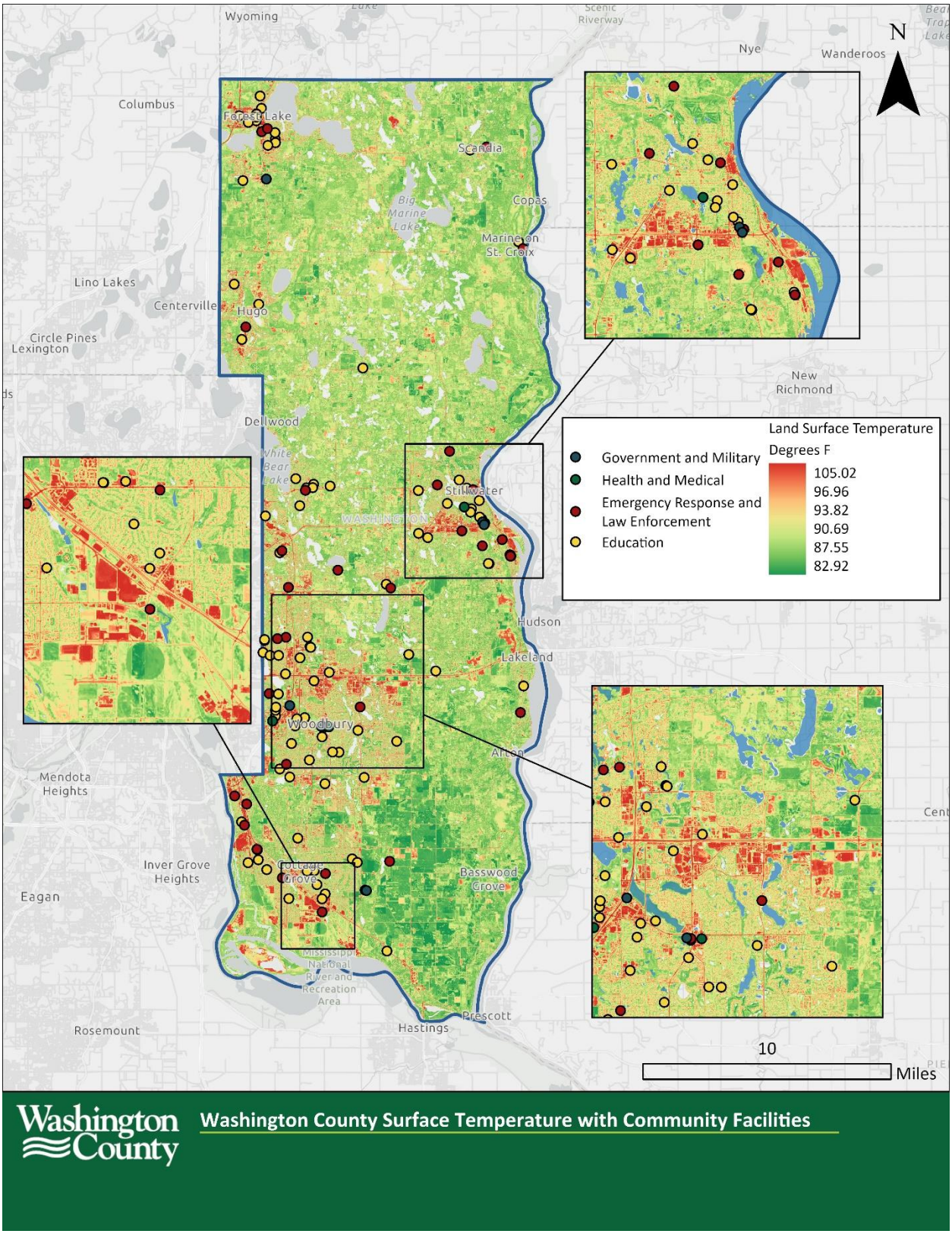


Figure 23. Washington County Flooding with County Facilities

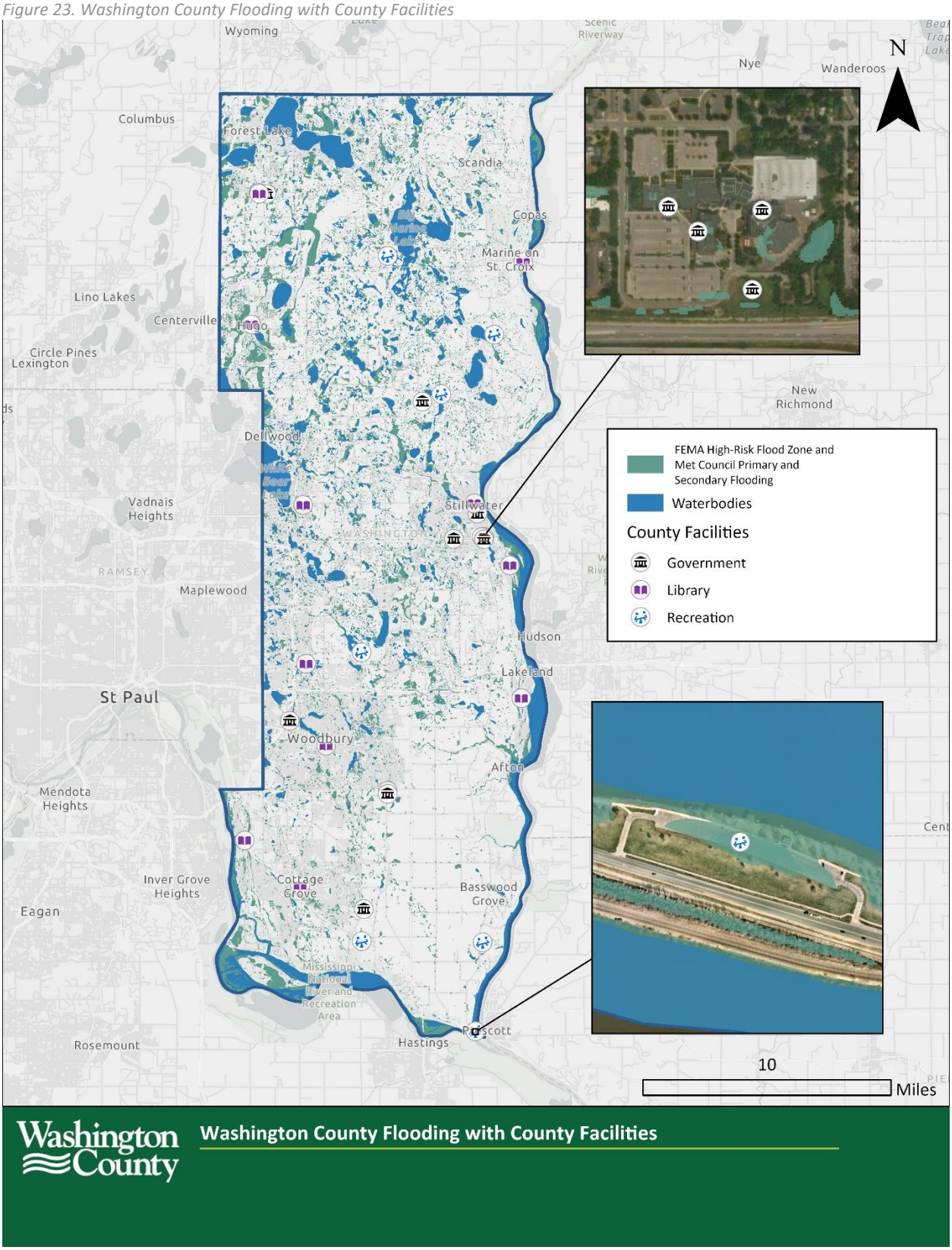


Figure 24. Washington County FEMA Flooding with County Facilities

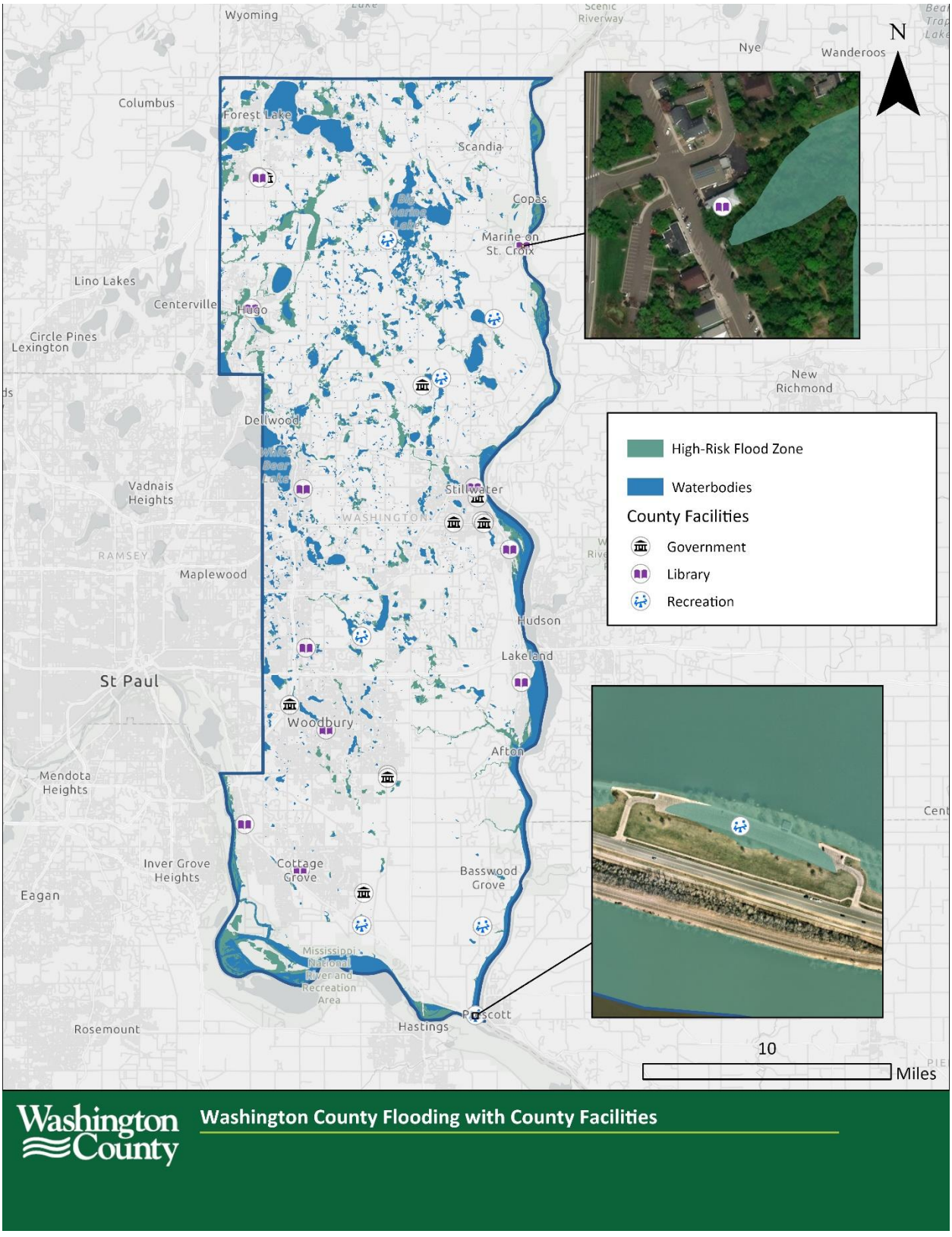


Figure 25. Washington County Wildfire with County Facilities

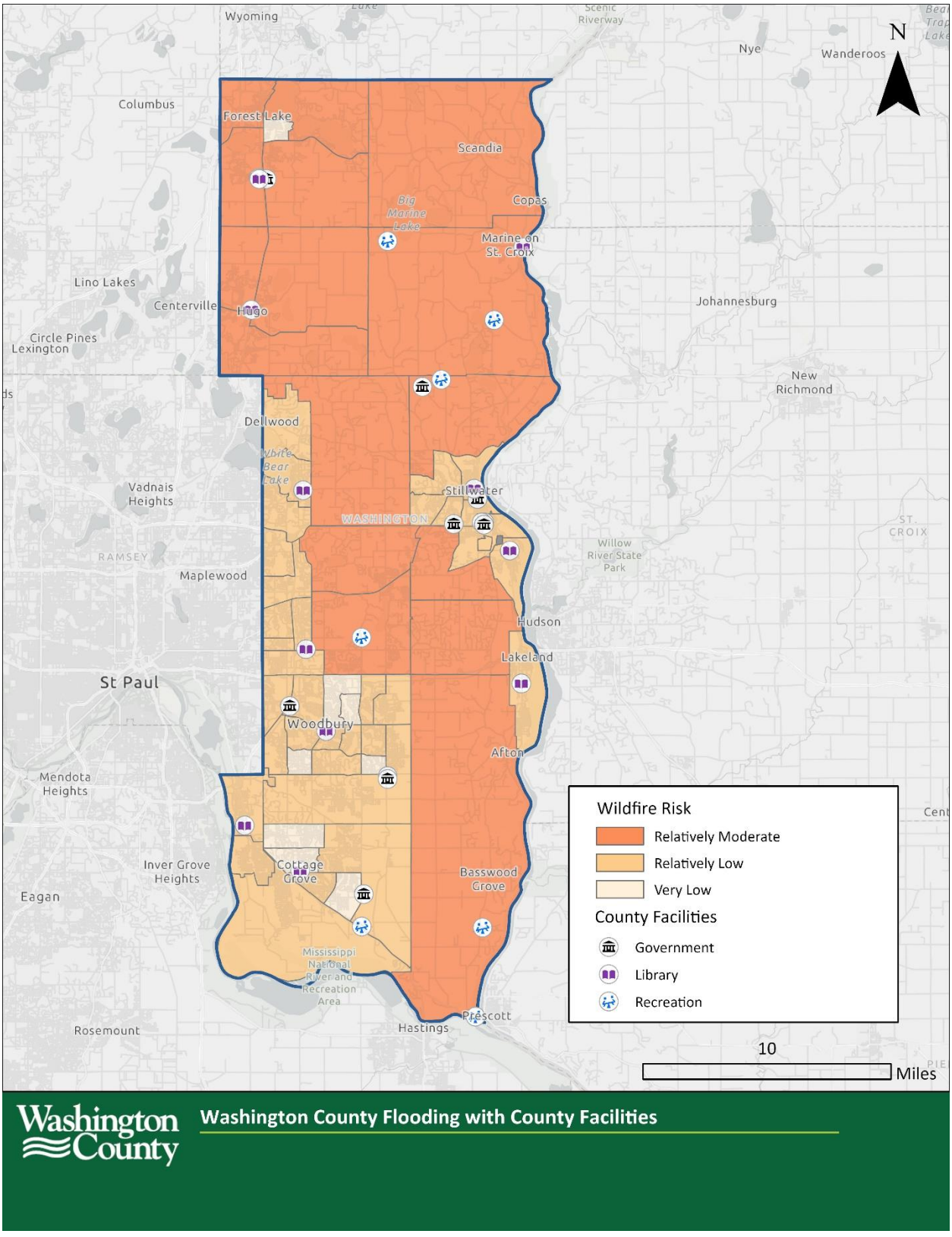
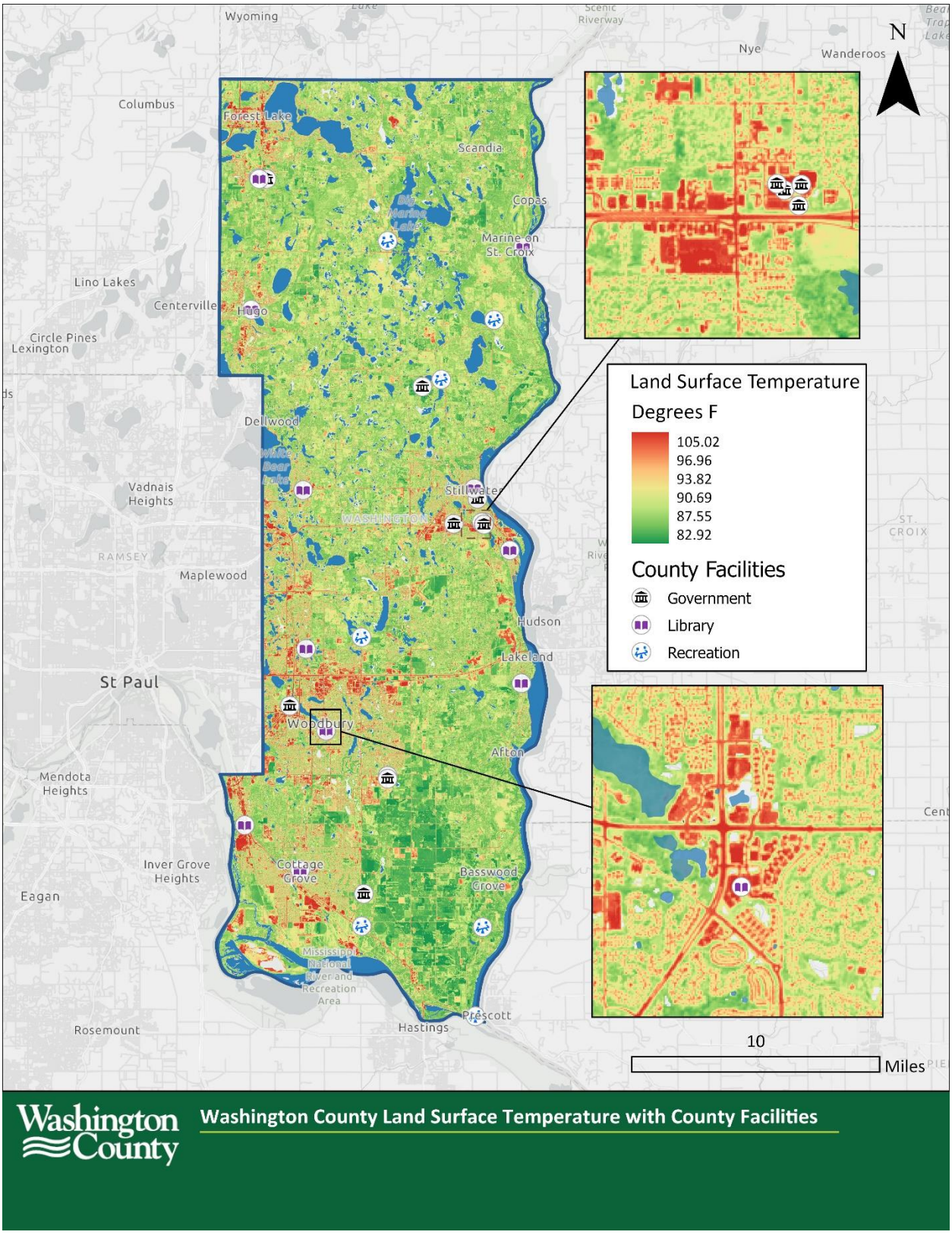


Figure 26. Washington County Surface Temperature with County Facilities



Natural Resources

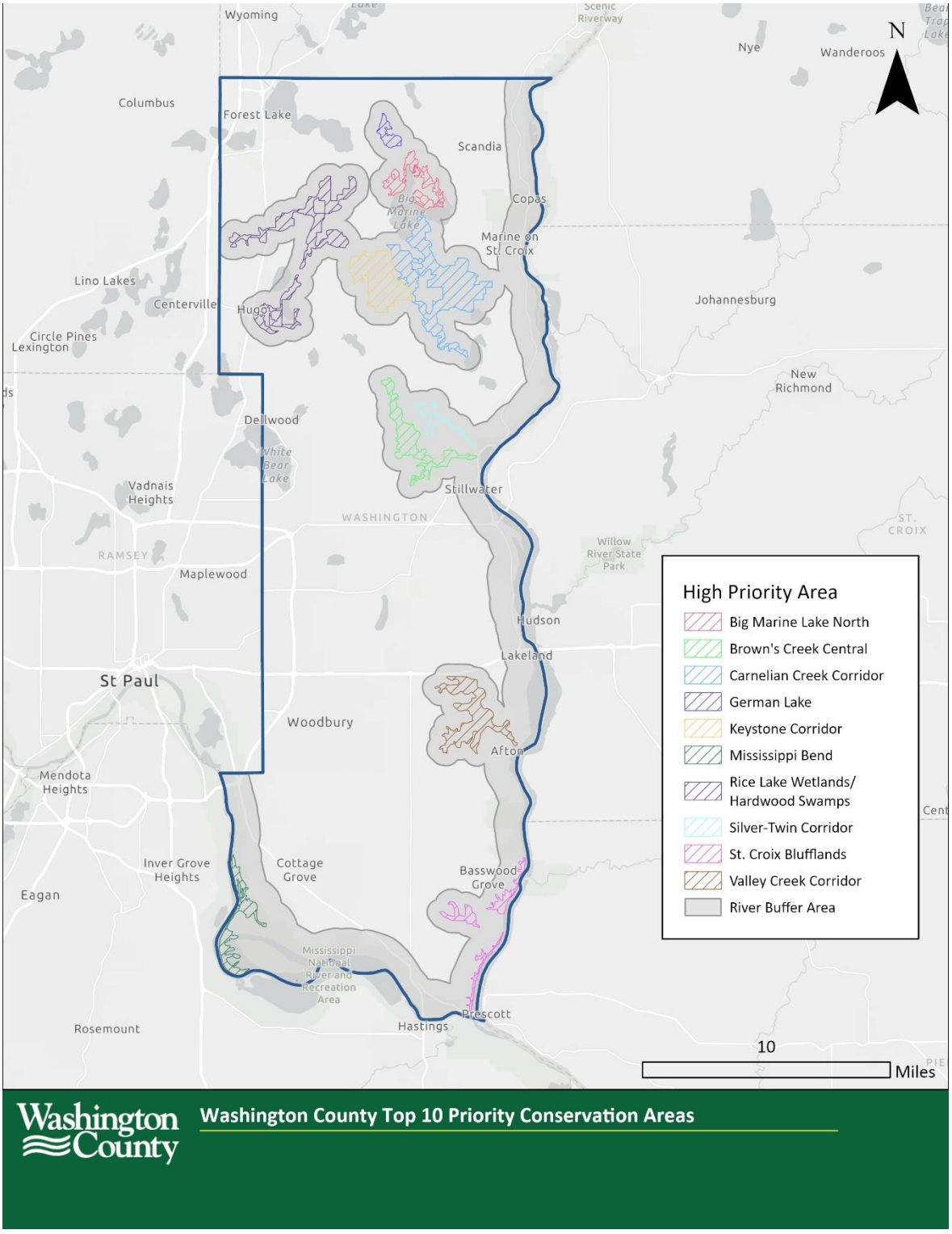
The county's Land and Water Legacy Program maintains a database of the Top 10 Protection Priority areas, which are considered critical for preserving natural resources. These areas include many wetlands, waterways, forests, and grasslands, which provide natural flood control and carbon sequestration, in addition to providing refuges to critical species. Figure 27 outlines these areas.

Hazard Risk and Natural Resources

Assessing the hazard risk for these priority protection areas involves many considerations. As noted, many of these areas are natural floodways which help manage seasonal flooding. Due to the natural vegetation on these sites, many also are at elevated risk for wildfires, especially when there are shifts in plant communities or their composition. Fire and flooding are a natural part of the Washington County ecosystem, but may become problematic due to the proximity to developed areas and risk to human life and property. Because of these factors, the Protection Priority Areas are provided for reference, but have not been overlaid with climate risks.

Other more "slow moving" risks such as extreme heat, drought, and extreme weather will impact these areas as the climate shifts, altering wetlands and their ability to absorb precipitation and filter water, increasing the potential for runoff that will pollute natural waterways, increasing water temperatures that exacerbate nutrient growth in waterways, changes in vegetation, and the introduction of invasive species.

Figure 27. Washington County Top 10 Priority Protection Areas



Next Steps

After identifying the climate risks facing Washington County, building climate resilience will require intentional steps to respond to and adapt to changing weather patterns. This will include a wide variety of strategies, including changing the way the county builds and manages infrastructure as well as developing systems to respond to imminent risks and protect community members.

Many resilience and adaptation strategies have been identified in previous planning processes, and the county is continually seeking ways to improve communication and safety for all community members. The CAP will identify priority adaptation strategies to be advanced by multiple county departments in response to changing conditions. Based on this vulnerability assessment, some key concerns to be addressed include, but are not limited to:

- Targeting communication and resources toward vulnerable communities, while also gathering their input to promote bi-directional communication;
- Identifying cooling centers and other extreme weather shelters;
- Developing natural area management strategies that mitigate wildfire risk;
- Assessing stormwater management capacity to handle extreme rainfall;
- Identifying transportation routes at risk of disruption and develop alternative routing and evacuation plans;
- Continue identifying and purchasing land strategically to protect natural resources.

MEMORANDUM
Comfort Lake-Forest Lake Watershed District

Date: November 6, 2025
To: Jackie Anderson, Board President
From: Emily Heinz, Planning Coordinator
Subject: Project Development Grants

Background/Discussion
This memo was provided to President Anderson at her request and is now being distributed to the rest of the board at her request. Staff will provide a Program Update presentation on the Lower St. Croix Watershed Partnership at the December 18th regular board meeting.

The Comfort Lake-Forest Lake Watershed District has received grant funding for pre-project engineering/project development in the past via two main sources: Clean Water Fund Accelerated Implementation Grants (AIG) and Lower St. Croix Watershed Based Implementation Funding (WBIF). Below is a list of grants the District has received for project development work.

Past Project Development Grants

	Project Name	**Grant Program**	**Grant Award**
1	Forest Lake Diagnostic Study	MPCA Section 319 Grant	$46,269
2	Forest Lake Enhanced Street Sweeping Study & Plan	Accelerated Implementation Grants	$36,000
3	Wyoming Enhanced Street Sweeping Study & Plan	Watershed Based Implementation Funding	$5,712*
4	Forest Lake Internal Load Assessment (alum treatment pre-project work)	Watershed Based Implementation Funding	$16,500
5	Heath Iron Enhanced Sand Filter Feasibility Study	Watershed Based Implementation Funding	$45,798
6	Sunrise River Headwaters Project Development (ongoing)	Accelerated Implementation Grants	$118,000
		Total	$268,279

**The Wyoming Enhanced Street Sweeping Study was less costly than Forest Lake because it was completed by District staff, and resources were put into place to streamline the planning process. Forest Lake's study was one of the first of its kind and was completed by the District Engineer.*

With respect to the first four projects in the list, the District and/or its partners obtained separate grants for *implementation* of the associated project, after the pre-project work was completed. With respect to the Sunrise River Headwaters Project Development, this work is ongoing, and the District will position itself to apply for implementation grant(s) during the next available round of Clean Water Fund Projects & Practices funding, to be opened in summer 2026.

Accelerated Implementation Grant Application

Grant Name - Forest Lake Enhanced Street Sweeping Plan
Grant ID - C17-1393
Organization - Comfort Lake-Forest Lake WD

Allocation	**Accelerated Implementation Grant 2017**	**Grant Contact**	**Mike Kinney**
Total Grant Amount Requested	$36,000.00	**County(s)**	Chisago ,Washington
Grant Match Amount	$9,000	**12 Digit HUC(s)**	070300050401
Required Match %	25%	**Applicant Organization**	Comfort Lake-Forest Lake WD
Calculated Match %	25%	**Application Submitted Date**	
Other Amount			
Project Abstract	This project will develop an enhanced street sweeping plan for the City of Forest Lake that optimizes phosphorus removal from increasing sweeping frequency with the cost of additional sweeps. In addition, this project will identify road-specific street sweeping timing and frequency, quantify expected phosphorus load reductions, itemize costs of enhanced street sweeping (including purchase and subcontract options), and recommend funding options (including utilization of the CLFLWD Municipal Cost Share Program) to the City of Forest Lake. The outcome of this project will be integrated into the day-to-day operations of the CLFLWD by defining street sweeping activities eligible for the CLFLWD Municipal Cost Share fund. In addition, the enhanced street sweeping plan will be adopted by the City of Forest Lake as part of their regular street maintenance program. The goal of this project is develop a formal agreement between the CLFLWD and the City of Forest Lake to implement enhanced street sweeping for at least 10 years.		

Narrative

Questions & Answers
What organization will serve as the Fiscal Agent for this grant?
Comfort Lake-Forest Lake Watershed District (CLFLWD)
Did your organization receive CWF grant dollars in FY 2014, FY 2015 and/or FY 2016? If less than 50% of the total grant amount awarded from FY 2014, FY 2015 and FY 2016 grants have been spent, please explain your organization's capacity (including available FTEs or contracted resources) to effectively implement additional Clean Water Fund grant dollars.
The CLFLWD received 2014 CWF grant dollars for the Sunrise River Water Quality and Flowage Project/Bixby Park Water Quality Improvement Project (recently completed), and FY 2016 CWF grant dollars for the Moody Lake Wetland Rehabilitation and the Forest Lake Wetland Treatment Basin Implementation projects. The FY 2016 CWF projects are on schedule for construction this winter. The CLFLWD added two additional staff members in 2016 (increasing total full-time staff to four FTE employees) to complete additional capital improvement projects. In addition, the CLFLWD employs an engineering consulting firm with sufficient staff capacity to effectively implement large capital projects and BMP feasibility and design studies. The CLFLWD is also utilizing an engineering consulting pool services on an as-needed basis. The Board is also considering additional interns or contract staffing to implement additional programs and projects as needed.
Clarity of Program Goals and Projected Impact: 1. (10 points) Explain the project, the changes that will result from the successful completion of your project, and the rationale for the need. How will the proposed project go above and beyond existing controls or operations?
This project will develop an enhanced street sweeping management plan for the portion of the City of Forest Lake (hereafter City) within the CLFLWD boundary using the Street Sweeping Planning Calculator developed by the University of Minnesota. The Forest Lake North Direct Stormwater Retrofit Analysis identified increased street sweeping frequency as the most cost-effective urban BMP for the direct drainage area of Forest Lake. However, research in Prior Lake, MN has shown that the extent of tree canopy cover, street connectivity to downstream water resources, and sweeping frequency strongly influence the cost-effectiveness of this practice. That is to say, there can be diminishing returns as the frequency of sweeping increases to bi-weekly or weekly. This project will develop an enhanced street sweeping plan for the City that optimizes phosphorus removal from increasing sweeping frequency with the cost of additional sweeps. In addition, this project will identify road-specific street sweeping timing and frequency; quantify expected phosphorus load reductions, itemize costs of enhanced street sweeping (including purchase and subcontract options), and recommend funding options (including utilization of the CLFLWD Municipal Cost Share Program) to the City. The CLFLWD and the City have discussed the benefits of modifying their existing street sweeping program from one spring regenerative air and one fall mechanical sweep to more than two sweeps per year with a regenerative air vacuum sweeper. But implementation of an enhanced street sweeping program has been hindered by the lack of a prescriptive plan for the optimal timing and frequency of additional sweeps or the additional staff needed by the City. The proposed project goes above and beyond existing CLFLWD operations by defining street sweeping activities eligible for CLFLWD Municipal Cost Share funds, and above and beyond existing City operations by increasing the frequency and type of street sweeping utilized.

Questions & Answers
Clarity of Program Goals and Projected Impact: 2. (15 points) Describe the process, technology, or tools your project would use to accelerate on-the ground projects and practices.
This project will be based on the User Support Manual for the Street Sweeping Planning Calculator developed by the University of Minnesota, a P8 model to account for the existing stormsewer and urban BMP network in the phosphorus reduction estimates for enhanced street sweeping, and the CLFLWD's existing WinSLAMM model to estimate the baseline phosphorus loading from each direct drainage area subcatchment. The process includes the following steps: 1. Identification of sweeping zones based on the existing stormsewer and urban BMP network 2. Tree canopy assessment using 2013 color FSA aerial photography 3. Spatial analysis of City of Forest Lake roads to determine curb-miles within each sweeping zone 4. Estimating recoverable phosphorus from each street sweeping scenario 5. Estimating load reductions to Forest Lake in P8 based on scenarios identified by the Street Sweeping Planning Calculator and reductions from the existing stormsewer and BMP network 6. Itemize costs of enhanced street sweeping (including purchase and subcontract options), and funding options (including utilization of the CLFLWD Municipal Cost Share Program)
Clarity of Program Goals and Projected Impact: 3. (15 points) How will this project benefit the general public? Describe the benefits from a local, regional and state perspective.
Forest Lake is one of the top recreational lakes in the metro area with a diverse and healthy fishery along with three public accesses. This project aligns with Statewide Priority #2: Protect those high-quality unimpaired waters at greatest risk of becoming impaired. Forest Lake is currently unimpaired, with a 10-year growing season average phosphorus concentration of 36 µg/L, just below the North Central Hardwood Forest ecoregion standard of 40 µg/L. Within any given year, the average summer phosphorus concentration has been observed to fluctuate above and below the 40 ug/L standard. The long-term CLFLWD goal for Forest Lake is 30 µg/L. Increased development along the lakeshore and within the watershed increases the risk of phosphorus levels exceeding the 40 µg/L standard. Reduced phosphorus loading through the implementation of BMPs will help to prevent the lake from becoming impaired and meet statewide and local water quality goals. Additionally, water quality improvements to the Lake influences the downstream water quality of Comfort Lake, the Sunrise River, and Lake St. Croix. Preventing water quality degradation in Forest Lake now will be less expensive for local and state taxpayers than restoration of this large lake once it becomes impaired – improvement in Forest Lake water quality will benefit thousands of metro area residents who utilize this lake for boating, swimming and angling opportunities. In addition, the cost-effectiveness of enhanced street sweeping has not been well quantified, and this study will contribute another quantified case study of the costs and phosphorus reduction benefits of this urban stormwater best management practice (BMP) to improve local buy-in and support.

Questions & Answers
Relationship to Plan: 4a. (25 points) Identify the specific water management plan reference by plan organization, plan title, section and page number. If applicable, also identify specific supporting plans such as a TMDL Implementation Plan, a WRAPS document, or Clean Water Partnership Diagnostic Study. **In addition to the plan language, provide a brief description regarding how the activities in this application relate to the plan reference(s).**
This project addresses the Comfort Lake-Forest Lake Watershed District 2012-2021 Watershed Management Plan Lake Goal (Section 3.2.2A, Page 12): Adaptively manage CLFLWD Lakes to protect and improve water quality and recreational utility as appropriate to each lake based on the applicable 10-year in-lake total phosphorus concentration goal (see Table 1, Page 13) of 40 µg/L for Forest Lake. The long-term CLFLWD goal for Forest Lake is 30 µg/L. This project supports Watershed Plan Implementation Initiative 5228B: Forest Lake Diagnostic Study Implementation: The CLFLWD will implement the water quality protection measures as identified in the Forest Lake Diagnostic Study and Implementation Plan (5228A) (Section 4.6.2, Forest Lake (5228), Page 50). The 2016 Forest Lake Direct Stormwater Retrofit Analysis identified increased street sweeping frequency as the most cost-effective urban BMP for the direct drainage area of Forest Lake, which includes approximately 75 percent of the City streets. This is also the highest rank urban BMP for the entire Forest Lake direct drainage area in the draft Forest Lake Diagnostic Study and Implementation Plan, currently in progress.
Relationship to Plan: 4b. Provide web links to all plans referenced.
CLFLWD 2012-2021 Watershed Management Plan: http://www.clflwd.org/documents/CLFLWDWatershedManagementPlanVolI-Amended27Aug2015.pdf 2016 Forest Lake North Direct Stormwater Retrofit Analysis Report: http://www.clflwd.org/documents/FORESTLAKENORTH-SWAREPORT_final.pdf
Means and Measures: 5. (10 points) Describe how the outcomes of your project would be integrated into day-to-day operations and become the new normal standard of operation or procedure. What are the anticipated results?
The enhanced street sweeping management plan resulting from this project will be integrated into the day-to-day operations of the CLFLWD by defining street sweeping activities eligible for the CLFLWD Municipal Cost Share fund, and adopted by the City of Forest Lake as part of their regular street maintenance program. Anticipated results from this study include a map defining street sweeping zones with timing and frequency of recommended sweeping, total phosphorus reductions achieved from enhanced street sweeping that can be used towards City MS4 requirements and the CLFLWD total load reduction goals for Forest Lake, and a detailed cost estimate and funding options to aid the purchase, operation and maintenance of a regenerative air vacuum sweeper.

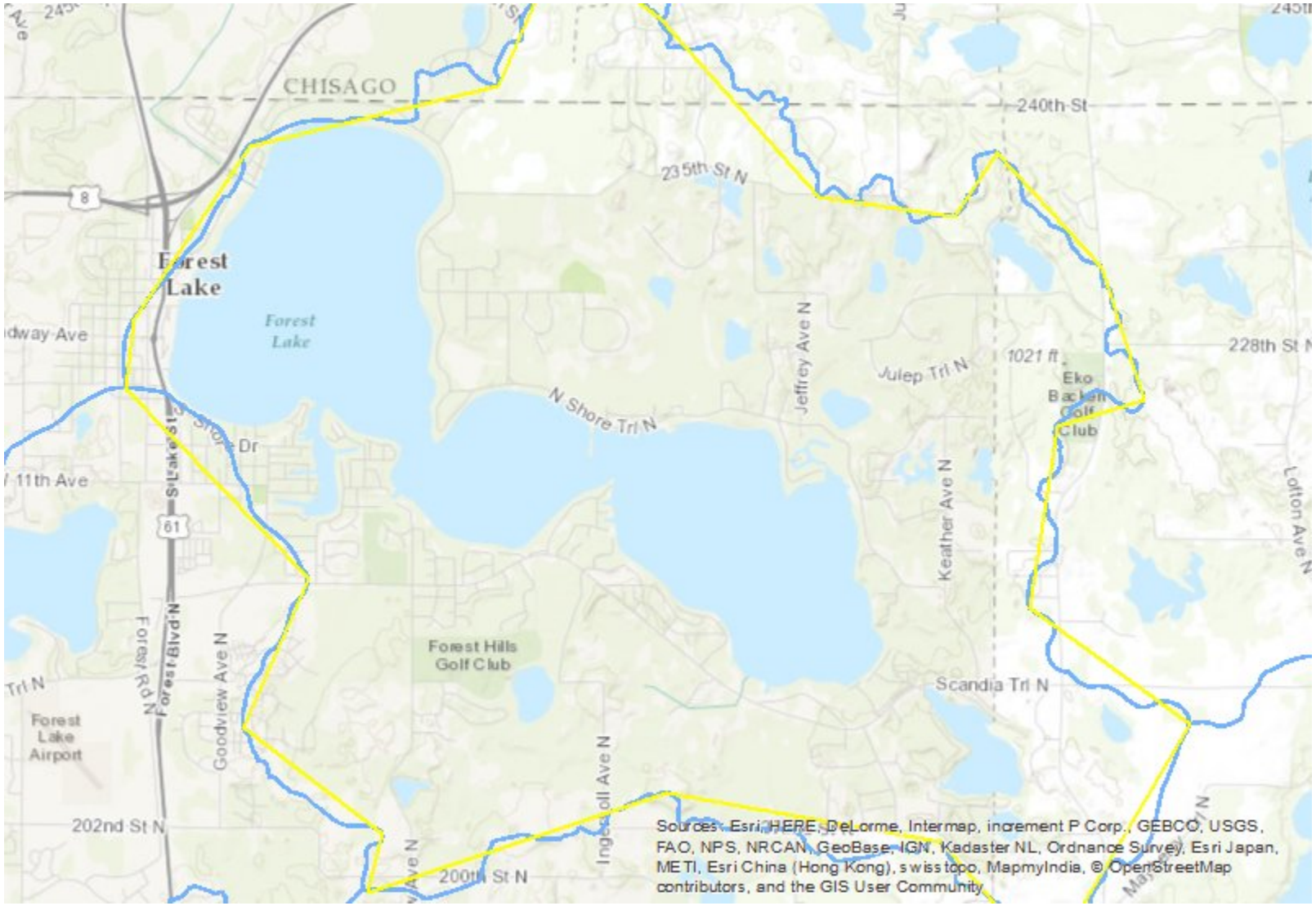
Questions & Answers
Means and Measures: 6. (5 points) How will the outputs of this project lead to more effective or efficient implementation of on-the-ground water quality projects and practices?
Implementation of an enhanced street sweeping plan in the City of Forest Lake is more likely if the CLFLWD provides road-specific street sweeping frequencies, expected phosphorus load reductions, itemized costs of enhanced street sweeping (including purchase and subcontract options), and funding options (including utilization of the CLFLWD Municipal Cost Share Program) to the City of Forest Lake. The City of Forest Lake will be able to use this plan as justification to the Council and their constituents for raising funds to purchase a regenerative air vacuum street sweeper and to allocate additional staff for operation and maintenance of the sweeper.
Means and Measures: 7. (5 points) What evaluation procedures will you use to assess the results of your project?
Evaluation metrics that will be used to measure the effectiveness of this project will be: 1) Utilization of CLFLWD Municipal Cost-Share funds for an enhanced street sweeping program, 2) formal agreement between the CLFLWD and the City to implement enhanced street sweeping, and 3) records of frequency and number of curb-miles swept submitted to the CLFLWD annually.
Timeline for Implementation: 8. (15 points) Provide an anticipated timeline for completion of application activities, including important milestones for your project.
March – June 2017: Data gathering of tree canopy cover; number of curb-miles and street type; and stormsewer network and location of existing BMPs. May – June 2017: Use the Street Sweeping Planning Calculator to quantify the cost-benefit of street sweeping scenarios and to identify street-specific sweeping frequencies for the City; Model street sweeping scenarios in P8 in context of the existing stormsewer and urban BMP network to estimate phosphorus reductions from enhanced street sweeping; Coordination with the City. July 2017: Develop a MOU between the CLFLWD and the City of Forest Lake to implement an enhanced street sweeping plan for at least 10 years. August 2017: Apply for grant funds with the City of Forest Lake to purchase a regenerative air street sweeper.
The Constitutional Amendment requires that Amendment funding must not substitute traditional state funding. Briefly describe how this project will provide water quality benefits to the State of Minnesota without substituting existing funding.
Funding received through the Clean Water Fund will only be used to supplement existing funding sources which will allow project implementation to go forward. The Comfort Lake – Forest Lake Watershed District levies approximately $800,000 each year for CLFLWD administration, projects, and programs. A portion of the levy will go towards the required match associated with this project, however grant funds are needed to increase the amount of water quality improvement work the CLFLWD can complete each year based on the existing levy.

Application Budget

Activity Name	Activity Description	Category	State Grant $ Requested	Activity Lifespan (yrs)
Grant Administration and Coordination	Grant management and reporting costs; Coordination with the City of Forest Lake.	ADMINISTRATION /COORDINATION	$4,000.00	
Cost-Benefit Analysis	Estimate recoverable phosphorus from each street sweeping scenario using the Street Sweeping Planning Calculator; Estimate load reductions achieved from enhanced street sweeping to Forest Lake using P8; Itemize costs and funding options for the City of Forest Lake; Develop final street sweeping management plan with costs and recommended funding options.	PLANNING AND ASSESSMENT	$12,800.00	
Data Collection & Analysis	Sweeping zone identification using GIS; Tree canopy assessment using 2013 color FSA aerial photography; Spatial analysis of City of Forest Lake roads to determine curb-miles within each sweeping zone; Determination of existing stormsewer and urban BMP network.	MONITORING/DATA COLLECTION	$19,200.00	

Application Image

Map Image


CHISAGO
240th St
235th St N
Forest Lake
Forest Lake
Jeffrey Ave N
Julep Tri N
1021 ft
Eko Backen Golf Club
228th St N
N Shore Tri N
Shore Dr
11th Ave
Keather Ave N
Lofton Ave N
Forest Hills Golf Club
Scandia Tri N
Forest Lake Airport
Goodview Ave N
202nd St N
200th St N
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Grant Application

Grant Name - Sunrise River Headwaters Project Targeting & Development

Grant ID - C25-0189

Organization - Comfort Lake-Forest Lake WD

Allocation	Accelerated Implementation Grant 2025	**Grant Contact**	Emily Heinz
Total Grant Amount Requested	$118,000.00	**County(s)**	Chisago,Washington
Grant Match Amount	$11,800.00	**12 Digit HUC(s)**	
Required Match %	10%	**Fiscal Agent**	Comfort Lake-Forest Lake WD
Other Amount		**Application Submitted Date**	
Project Abstract	This AIG activity will involve pre-project identification, planning, modeling, preliminary concept design, and public outreach resulting in a prioritized list of water quality improvement projects to reduce impairments in the Sunrise River headwaters, including Comfort Lake, Little Comfort Lake, and the upper reaches of the Sunrise River itself. The activity will involve conducting inventories of potential pollutant sites, utilizing existing analytical targeting tools, providing technical assistance, and increasing citizen interaction. As a result of this activity, the Comfort Lake-Forest Lake Watershed District (CLFLWD) will be better prepared to install water quality projects and practices. Such projects and practices will be designed to provide the ultimate pollutant reductions needed to delist impaired waters including Comfort Lake and Little Comfort Lake, resulting in improved water quality in the Sunrise River. Projects will provide numerous secondary benefits such as flood mitigation, wildlife habitat, and public education.		
Proposed Measurable Outcomes	Identify and prioritize projects to reduce total phosphorus loading to Little Comfort Lake by 366 lb/yr and to Comfort Lake by 193 lb/yr.		

Narrative

****Required** MN Statute 16B.981 Subd. 2 (6) requires that no current principals of a grantee have been convicted of a felony financial crime in the last 10 years. A**

principal is defined as a public official, a board member, or staff (paid or volunteer) with the authority to access funds provided by this grant opportunity. By typing YES here, I attest that no current principal of my organization with authority to access funds has been convicted of a felony financial crime in the last 10 years.

Yes

1.Does your organization have any active CWF competitive grants? If so, specify FY and percentage spent. Also, explain your organization's capacity (including available FTEs or contracted resources) to effectively implement additional Clean Water Fund grant dollars.

CLFLWD currently has 4 active Clean Water Fund grants (percentage of total project budget spent): FY22 Moody Lake Capstone Projects (60% spent, construction almost finished and closeout slated by end of 2024), FY22 WJD-6 Wetland Restoration (70% spent, construction almost finished and closeout slated by end of 2024), FY23 Forest Lake Alum Treatment (50% spent, second alum dose slated for fall 2025), FY24 July Ave Feedlot (1% spent, landowner coordination and design ongoing).

In recent years, the CLFLWD has proven its capacity to effectively implement grant funded projects through successful completion of 12 previous Clean Water Fund grant projects: FY12 Target Stormwater Retrofits/Greening the Big Box and Streets, FY14 Bixby Park Water Quality Improvement Project, FY16 Forest Lake Wetland Treatment Basin Implementation, FY16 Moody Lake Wetland Rehabilitation, FY17 Forest Lake Enhanced Street Sweeping Plan, FY17 Bone Lake Partially Drained Wetland Restorations, FY17 Shields Lake Stormwater Harvest, Irrigation Reuse System and Alum Treatment, FY18 Moody Lake Alum Treatment, FY19 Bone Lake SWA Implementation, FY20 WJD-6 Iron Enhanced Sand Filter, FY20 Sunrise River Wetland Restoration, FY21 Bone Lake Northeast Wetland Restoration.

CLFLWD currently has eight permanent full-time employees on staff, two seasonal employees, an MPCA GreenCorps member, and plans to hire an additional three full-time permanent staff members in the coming months. Additional support for this activity would be provided by Emmons & Olivier Resources, which has sufficient staff to provide technical assistance for this activity.

2. Prioritization - Relationship to Plan (20 points): (A) List the specific local water management plan(s) and describe how it supports this proposal. Reference the document name, section, page number, and organization (if different than applicant). (B) List other relevant documents and describe how these documents support this project. Examples include: Total Maximum Daily Load (TMDL) Implementation Plans, Watershed Restoration and Protection Strategy (WRAPS) document, or Groundwater Restoration and Protection Strategy (GRAPS) document, the Minnesota Nutrient Management Strategy and others. (C) Provide web links to all plans referenced.

A) The proposed activity addresses the Comfort Lake-Forest Lake Watershed District 2022-2031 Watershed Management Plan goals:
5200, Goal 1, page 58: Adaptively manage District lakes to reduce phosphorus loads and de-list impaired lakes with Total Maximum Daily Loads (TMDLs) to achieve state water quality eutrophication standards (total phosphorus, Chlorophyll-a and Secchi).
5200, Goal 2, page 58: Adaptively manage District lakes to improve water quality by achieving the 10-year (2031) total phosphorus and Secchi goals. (The District 10-year goals for phosphorus concentrations are generally 10 ppb lower than state standards).

5300, Goal 1, page 59: Adaptively manage District streams to achieve annual total suspended solids (TSS) flow-weighted mean concentrations less than the Ecoregion standard of 30 mg/L.

B) The proposed activity addresses nutrient reductions identified in the Comfort Lake-Forest Lake Watershed District 2010 Six Lakes Total Maximum Daily Load Study and Implementation Plan. The proposed activity also addresses nutrient reductions identified in the Comfort Lake-Forest Lake Watershed District 2021 Comfort Lakes Diagnostic Study.

C)
https://www.clflwd.org/wp-content/uploads/2022/12/2022-2031CLFLWDWatershedManagementPlan_Full.pdf

https://www.clflwd.org/wp-content/uploads/2022/12/CLFLWDTMDLFinalReport.pdf

https://www.clflwd.org/wp-content/uploads/2022/11/Comf_Diag_Update_5-19-2021_FINAL.pdf

3. Targeting (20 points): Identify the water resource(s) that will benefit from targeted implementation efforts after these grant activities are completed. How will this project lead to more targeted implementation activities that protect or restore those water resource(s)?

The District is proposing a comprehensive approach to restoring the Sunrise River headwaters corridor which is a diverse watershed with multiple water quality pressures. The study area contains multiple land uses ranging from urban city centers, to suburban sprawl, to historic agricultural and livestock fields. There are multiple water resources interspersed among these land uses including 16 miles of altered watercourses (e.g., ditches), 28 miles of natural stream channels, 3,200 acres of wetlands, and 7 named lakes.

The benefitting resources include the Sunrise River, Comfort Lake, and Little Comfort Lake; the latter two of which are listed as impaired for excess nutrients. The CLFLWD comprises the headwaters of the Sunrise River and thus sets the stage for downstream water quality. The Sunrise River is a regionally significant watercourse and is a high priority in numerous plans including the Lake St. Croix TMDL. The Sunrise River Watershed, due to its size and land use, is identified as the highest contributor of total phosphorus to Lake St. Croix (Chisago County, MPCA, USACE, 2013). The Sunrise River is also a high priority in the Lower St. Croix Watershed Partnership's Comprehensive Watershed Management Plan which calls for a 18,306 lb/yr phosphorus reduction for the Sunrise River and its tributaries.

Comfort Lake and Little Comfort Lake are two of the nine high priority lakes for the CLFLWD due to their water quality impacts on downstream waters (i.e., the Sunrise River), recreational value, and ecological significance. Comfort Lake is the final lake in the CLFLWD flowage. The District has implemented several projects, primarily with

Clean Water Funds, to improve water quality in its upstream lakes which have led to the delisting of Bone Lake. Comfort Lake, Little Comfort Lake and the Sunrise river benefit from these upstream improvements bringing them closer to achieving the water quality goals, but more projects in their direct watersheds are needed.

4. Targeting (5 points): Describe the proposed methods to be used to accelerate implementation of projects and practices that will ultimately improve or protect the targeted water resource.

This effort will involve data compilation, site investigations, hydrologic & hydraulic (H&H) modeling, floodplain cross section, sediment mapping & analysis, public outreach & landowner engagement.

Existing data includes diagnostic studies, annual monitoring data, natural resource inventory data, and GIS data layers. The data collected to date gives the District a direction for further investigation. The District will complete thorough site investigations in priority areas identified in the diagnostic studies and targeted screening tools developed to date. We will document unconsolidated sediments using sediment probes and sediment mapping to assign loading of phosphorus and sediment in lateral ditches and stream corridors to Comfort Lake and Little Comfort. We will utilize the District's recently updated and calibrated H&H model to further evaluate pollutant loading hotspots and target projects and practices. The District will complete a floodplain cross section and sediment analysis of the stream section downstream of School Lake which has been identified as the highest source of nutrients and sediment to Little Comfort. Staff identified this area through past monitoring and field investigation work, and are building upon a knowledge base that will allow the District to identify the most beneficial projects. Public outreach and landowner coordination will be a key element of the proposed effort, as we anticipate that the resulting projects will likely involve multiple private properties. The District will establish connections with key landowners to prepare for project implementation.

All of the efforts mentioned above bolster the data collected from diagnostic and screening monitoring collected by citizens and CLFLWD over many years, encompassing different climate conditions. The proposed efforts will bring together the work completed throughout the upstream watershed and past diagnostic studies to complete the final stages of the comprehensive management plan.

5. Project Impact (25 points): A) Describe the proposed outcomes of this grant application. Describe how this grant will make implementation efforts more effective or efficient. Describe how the outputs will be either incorporated into the next water management or comprehensive plan amendment/revision or otherwise be incorporated into routine activities resulting in increased water quality protection or accelerated water quality restoration. B) Describe the benefits this proposal will provide from a local and/or state perspective. C) If applicable, describe how funds used for proposed staffing will be supported long-term.

A) The outcome of this activity will allow the CLFLWD to be better prepared to implement water quality projects and practices in an area of the watershed that experiences impairments. This area has already benefited from upstream improvements but needs additional direct watershed practices to achieve water quality goals. The resulting projects will aim to achieve state standards and the District's long-term goals for Comfort Lake and Little Comfort Lake of 30 ug/L summer phosphorus concentration; projects will reduce total phosphorus loads by 366 lb/yr for Little Comfort Lake and 193 lb/yr for Comfort Lake. Projects will provide numerous secondary

benefits such as flood mitigation, wildlife habitat, and public education. The proposed targeting efforts will identify the most cost-effective means of reaching water quality goals. The District has a strong history of utilizing Clean Water Funds to implement highly cost-effective projects. Bone Lake was removed from the state impaired waters list for its eutrophication impairment in 2024, and the District hopes to implement projects so it may submit several more lakes for delisting in the coming years, including Comfort Lake and Little Comfort Lake.

B) This AIG activity will lay the groundwork for the District to advance statewide priorities #1 and #2 from the Nonpoint Priority Funding Plan. State priority #1: Restore those impaired waters that are closest to meeting state water quality standards. State priority #2: Protect those high-quality unimpaired waters at greatest risk of becoming impaired. After completion of the proposed AIG activity, the District will be positioned to apply to Clean Water Funds for project implementation.

There is significant local support for this effort. The District has received a letter of support from the City of Wyoming and expects to receive one from the Comfort Lakes Association.

C) N/A

6. Project Rationale (20 points): Why are these the most important and needed activities to implement at this time? Discuss alternatives considered and why those were not selected. How does this proposal complement other watershed work that you and your partners are conducting?

This initiative is the most important and needed activity at this time because Comfort Lake and Little Comfort Lake are close to meeting water quality goals and state standards, but more projects are needed. With increasing residential development and increasing springtime precipitation projected for this area of the state, the need for stormwater treatment and water quality protection has never been higher. We anticipate that the resulting projects will have significant spatial footprints, requiring a high degree of landowner coordination.

Comfort Lake and Little Comfort Lake are the final two lakes at the bottom of the CLFLWD flowage. Since its establishment in 1999, the District has systematically improved water quality in its watershed starting from the top down. Moody Lake and Bone Lake comprise the headwaters of the District's northern flow network, flowing through Birch Lake, School Lake, and Little Comfort Lake. The District's southern flow network flows through Forest Lake, through a highly altered and ditched reach of the Sunrise River, ultimately to Comfort Lake. Much of the Sunrise River within the District was formerly designated a judicial ditch and has been highly altered. The ditch has been abandoned, and there is an opportunity for corridor restoration back to a more natural state.

The District will build upon its existing dataset to complete the proposed activity. The Comfort Lake & Little Comfort Lake Diagnostic Study resulted in a prioritized list of projects, but upon further feasibility analysis and landowner outreach, the District was unable to implement several of the projects that were identified. The District has

considered numerous alternatives in an effort to achieve the necessary nutrient load reductions while maximizing cost-effectiveness. Additional project targeting and feasibility work is needed to identify the most cost-effective path forward.

7. Timeline (5 points): Provide an anticipated timeline for completion of the proposed activities. Include steps taken or expected to ensure that the proposed activities can begin soon after the grant award and important project milestones.

The District will coordinate closely with the District Engineer, Emmons & Olivier Resources, to make preparations and be ready to begin AIG activity implementation in spring 2025, immediately after grant agreement execution. This includes preparation of a detailed scope of work and approval by the CLFLWD Board of Managers as soon as the grant award is announced. The District will build this activity into its 2025 staff work plan as well. The activity will be completed prior to the grant period ending December 31, 2027.

8.The Constitutional Amendment requires that Amendment funding must not substitute traditional state funding. Briefly describe how this project will provide water quality benefits to the State of Minnesota without substituting existing funding.

Funding received through the Clean Water Fund will only be used to supplement existing funding sources which will allow project implementation to go forward. The Comfort Lake-Forest Lake Watershed District levies approximately $1.7 million each year for District administration, projects, and programs. A portion of the levy will go towards the required match associated with this project; however, grant related funds are needed to increase the amount of water quality improvement work the District can complete each year. An activity of this size and scale would be infeasible for the CLFLWD to fund on its own at this time, and a proportionate increase in the CLFLWD's levy would put significant additional burden on its taxpayers. The CLFLWD is requesting funds to supplement its existing budget in an effort to complete more water quality improvement projects and achieve state water quality standards for all District lakes within the next 5 years. The CLFLWD is unique in that it has a disproportionately high percentage of land area that is open water, wetlands, floodplains, etc. This means the CLFLWD has a proportionally low net tax capacity, which places more burden on local taxpayers to improve these statewide, publicly used resources. The proposed activity will provide water quality benefits to the State of Minnesota without substituting existing funding.

9.Please enter the dollar amount requested for CWP Loans. If you are not interested, indicate "not applicable".

Not applicable

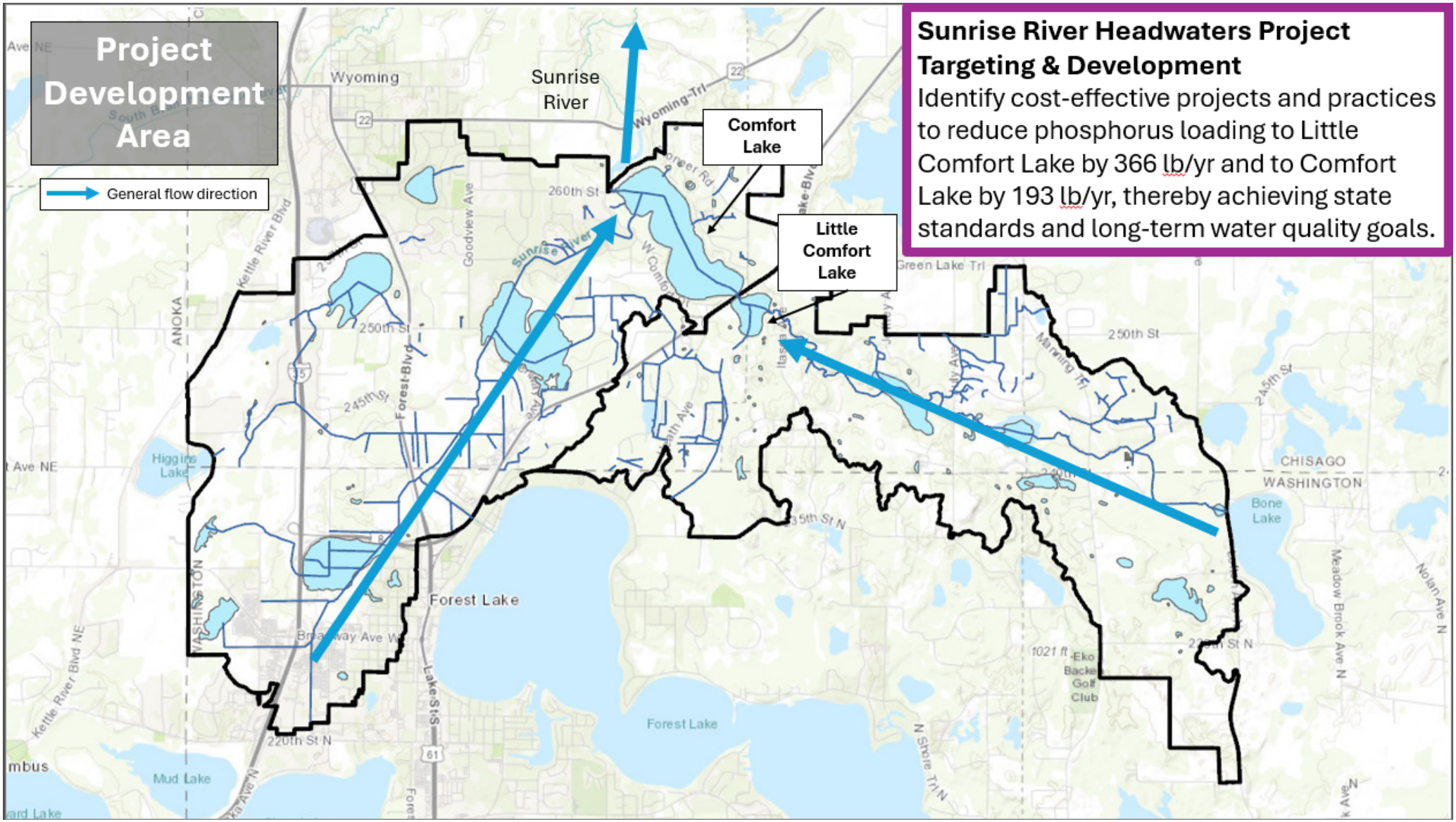
10.Please enter the dollar amount requested for Ag BMP Loan Program. If you are not interested, indicate "not applicable".

Not applicable

Application Budget

Activity Name	*Activity Description*	*Category*	*State Grant $ Requested*	*Activity Lifespan (yrs)*
Education & Outreach	Landowner outreach and coordination	Education/Information	$10,000.00	
Project Development	Preliminary information gathering, conservation marketing, project targeting support	Project Development	$8,000.00	
Technical & Engineering	Technical assistance - site investigation, project prioritization	Technical/Engineering Assistance	$100,000.00	

Application Image



Lower St. Croix Watershed Partnership

Original presentation at January 11, 2024 Regular Board Meeting
Updated October 2025

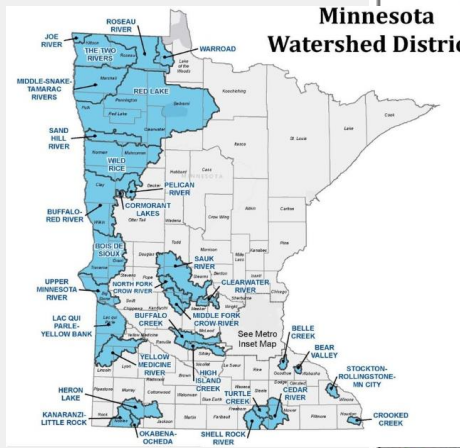
Emily Heinz, Planning Coordinator

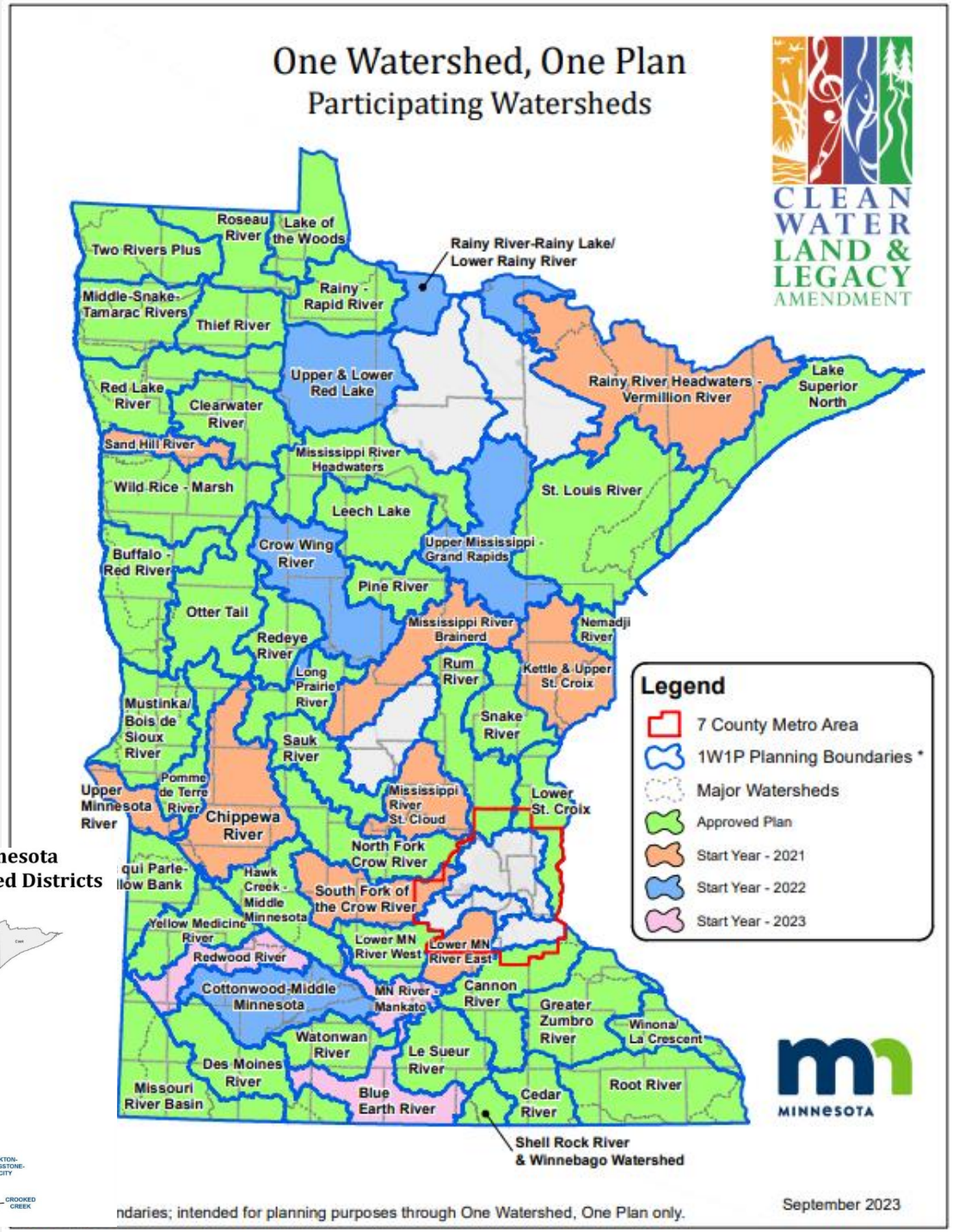
What is One Watershed One Plan? (1W1P)

Purpose:

- **Align** local water planning under statutes 103C and 103D
- Create a systematic, **watershed-wide**, science-based approach to watershed management;
- Build off existing local government procedures/data
- Focus on **prioritized** and **targeted** actions, **measurable** progress
- Serve as a substitute for a local comp plan, if appropriate

More info: https://bwsr.state.mn.us/one-watershed-one-plan



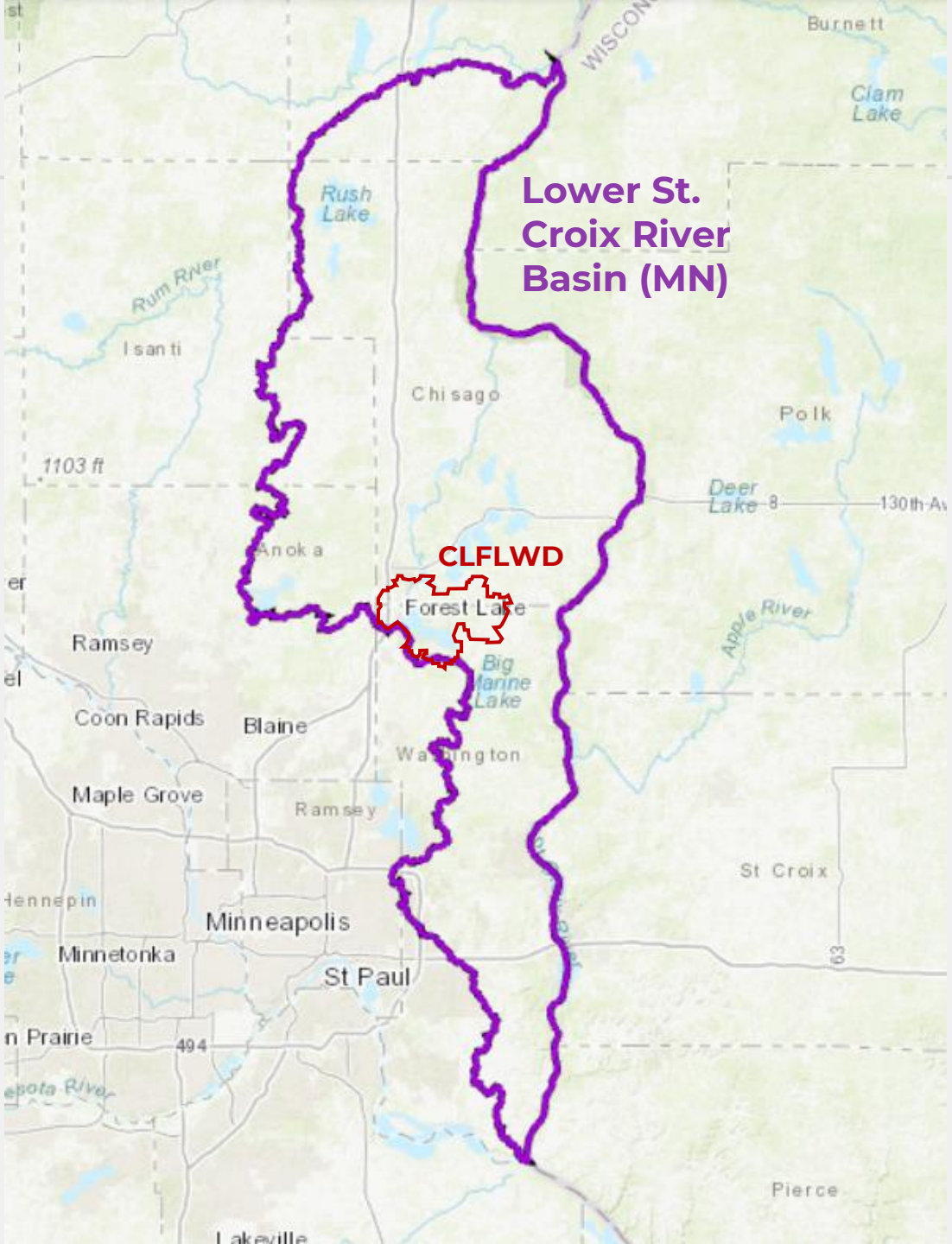


Lower St. Croix River Basin

15 partners include:

- Anoka Soil and Water Conservation District
- Brown's Creek Watershed District
- Carnelian-Marine-St. Croix Watershed District
- Chisago County
- Chisago Soil and Water Conservation District
- Comfort Lake-Forest Lake Watershed District
- Isanti County
- Isanti Soil and Water Conservation District
- Middle St. Croix Watershed Management Organization
- Pine County
- Pine Soil and Water Conservation District
- South Washington Watershed District
- Valley Branch Watershed District
- Washington County
- Washington Conservation District

More info: https://www.lsc1w1p.org/our-partners



Lower St. Croix Partnership Timeline

2017

Initiation

- Partner organization boards adopt resolutions to join planning process

2018-2020

Planning

- One-time WBIF *planning* grant
- Aided by Keystone Waters and Freshwater Society
- Plan approved fall 2020

2021-2030

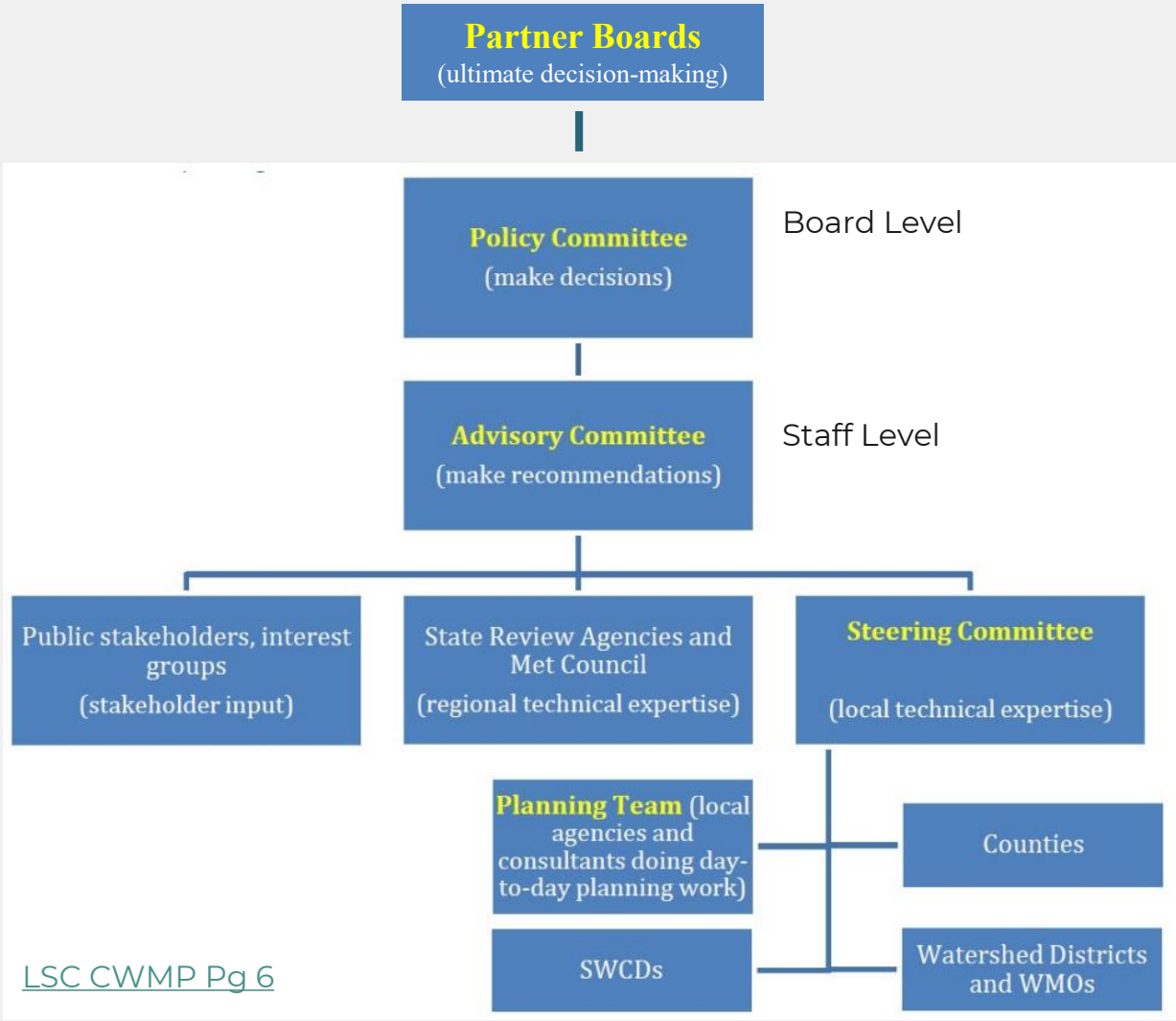
10-yr Plan Implementation

- Biennial WBIF *implementation* grants
- Biennial work plans
- Midpoint evaluation
- Plan amendments

WBIF = Watershed Based Implementation Funding (subsection of Clean Water Fund state grant program)

Lower St. Croix Partnership Structure

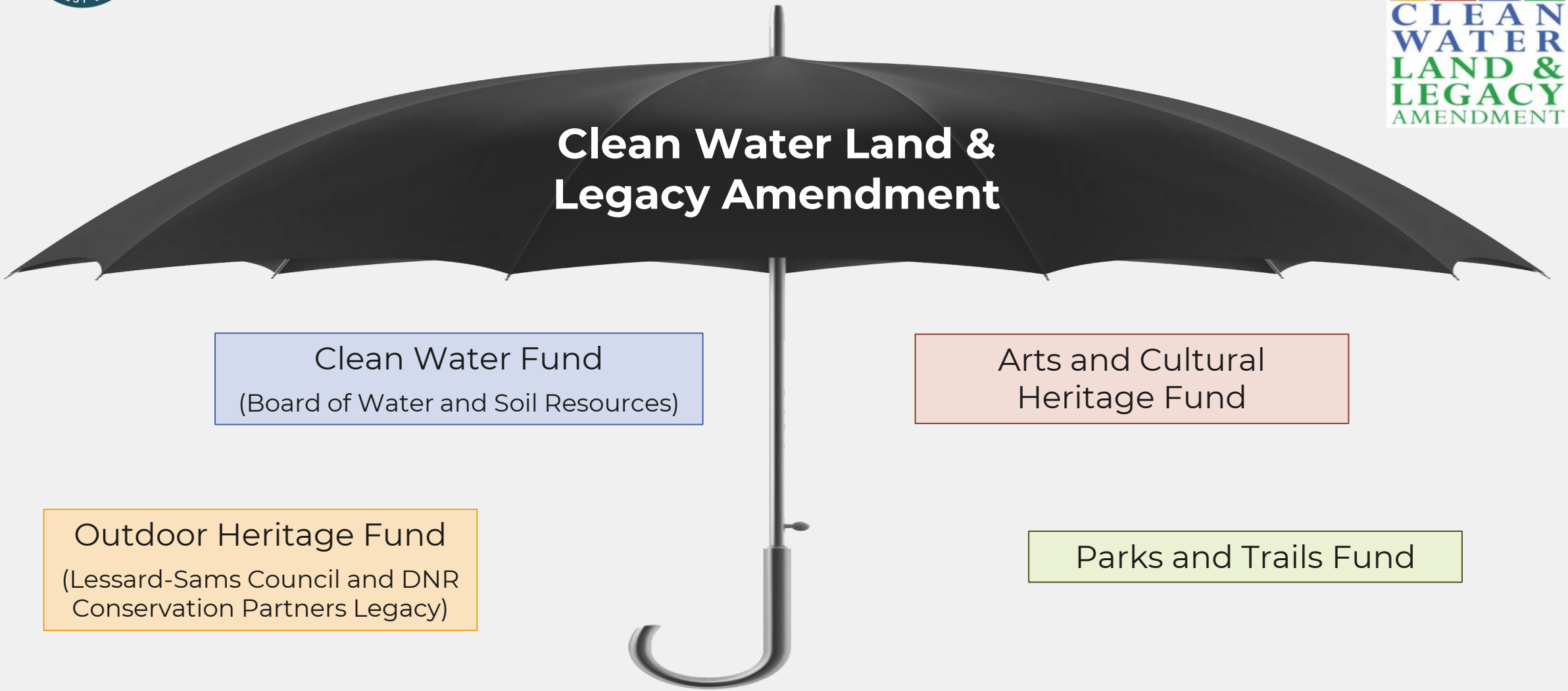
- LSC operates under a Joint Powers Agreement (JPA)
  - not a Joint Powers Entity (JPE)
- Actions must be taken by each partner board, rather than the Policy Committee acting as its own board
  - E.g., approving work plans, amendments



LSC CWMP Pg 6

More info: https://www.lsc1w1p.org/transition-documents

Watershed Based Implementation Funding



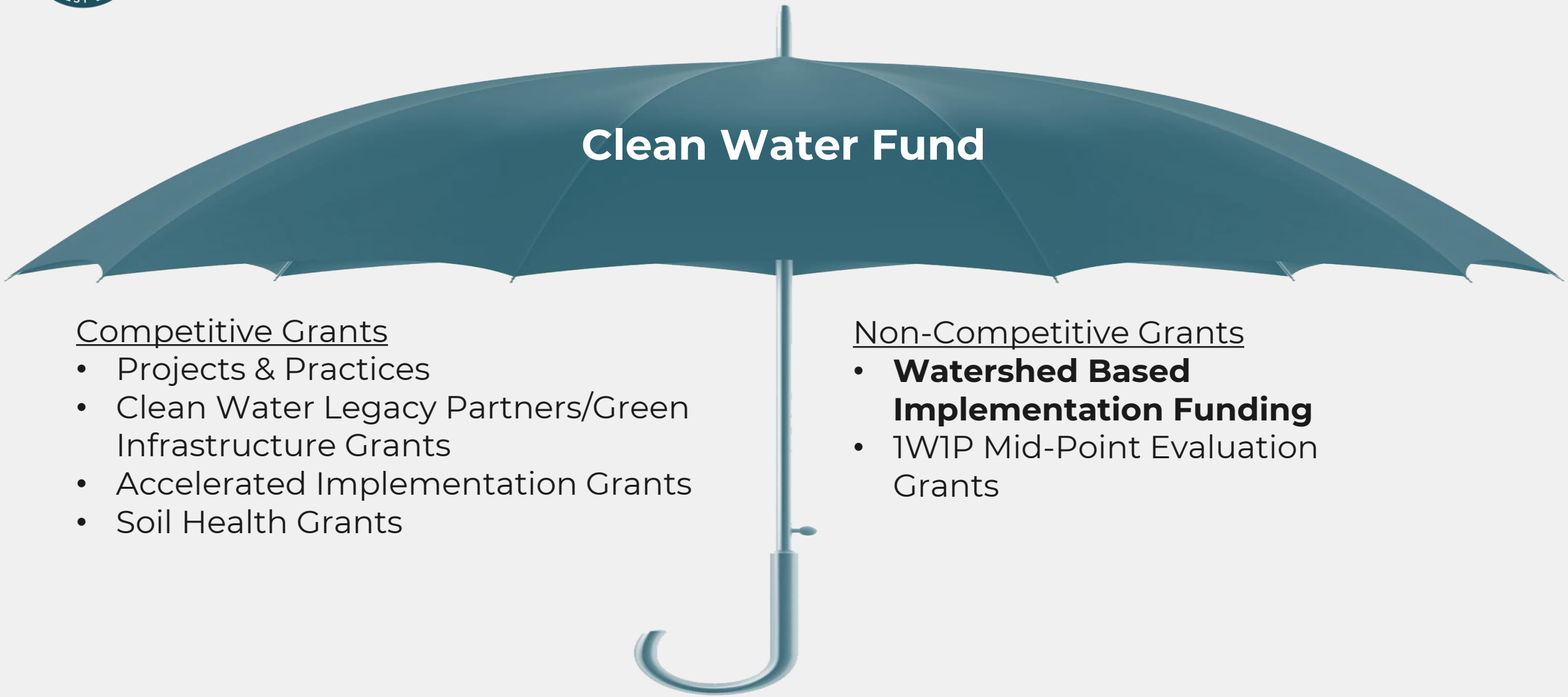
Clean Water Fund
(Board of Water and Soil Resources)

Arts and Cultural Heritage Fund

Outdoor Heritage Fund
(Lessard-Sams Council and DNR Conservation Partners Legacy)

Parks and Trails Fund

Watershed Based Implementation Funding



Competitive Grants

- Projects & Practices
- Clean Water Legacy Partners/Green Infrastructure Grants
- Accelerated Implementation Grants
- Soil Health Grants

Non-Competitive Grants

- **Watershed Based Implementation Funding**
- 1W1P Mid-Point Evaluation Grants

WBIF Funding Allocation Process

State allocates biennial grant amount for

1) Metro portion of LSC

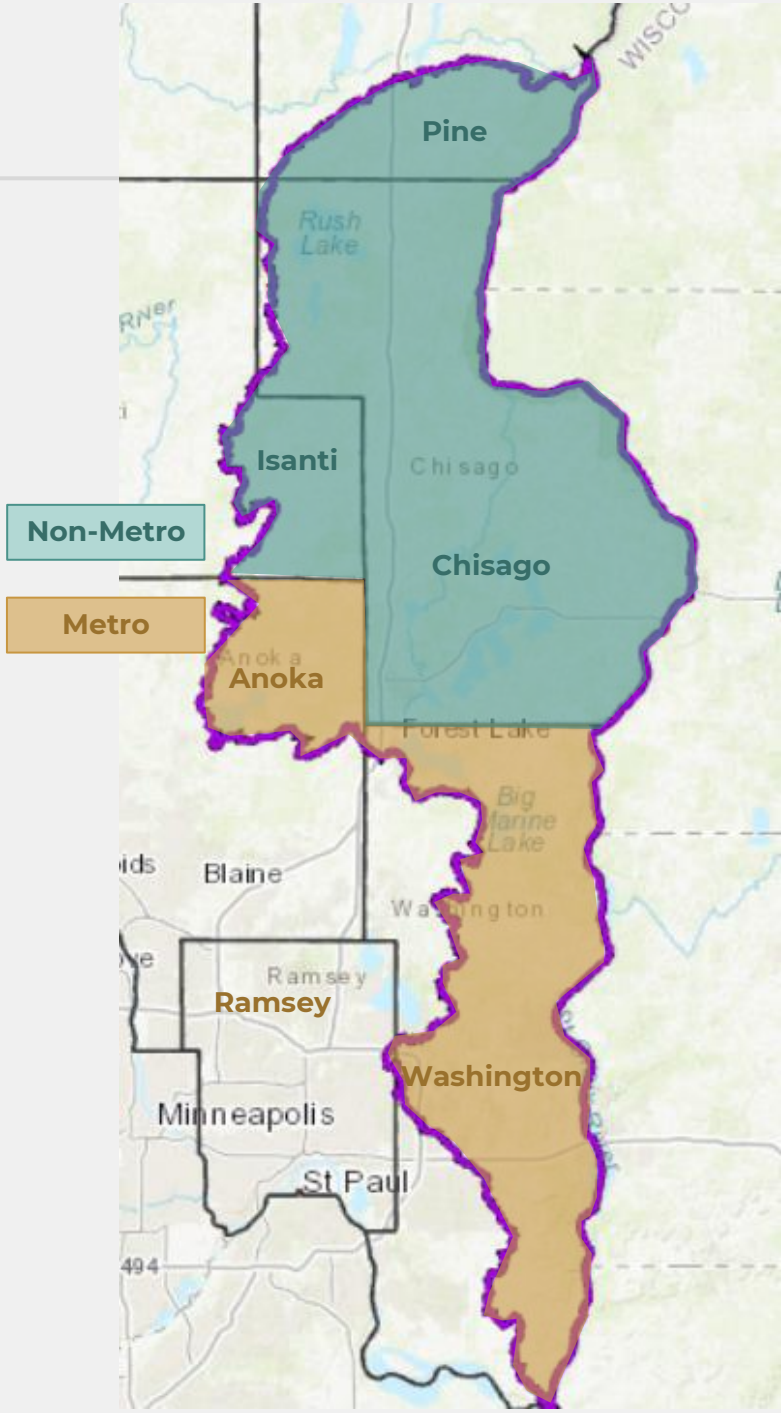
2) Non-metro portion of LSC

Metro partners hold convene meeting to decide

1) Pool metro + non-metro funds, or

2) Keep separate

Past three years, most funds have been pooled and distributed according to process determined by LSC Partnership



LSC WBIF Grants & Work in CLFLWD

Biennium	Basin (Non-Metro)	Metro	Supplemental WBIF via BWSR[1]	Total	Direct Allocation to non LSCWP Partner[2]	LSCWP Allocation
FY21	$471,070	$793,461		$1,264,531	$0	$1,264,531
FY23	$471,070	$807,509	$167,615	$1,446,194	$0	$1,446,194
FY25	$778,691	$1,266,380		$2,045,071	$75,000	$1,970,071
FY27	$782,706	$1,266,376		$2,049,082	TBD[3]	TBD[3]
TOTAL	**$2,503,537**	**$4,133,726**	**$167,615**	**$6,804,878**	**$75,000**	**$4,680,796**

[1]In FY23, the LSCWP was awarded additional funding as other 1W1P partnerships did not spend their WBIF allocations

[2]In FY25, $75,000 of the metro allocation was provided directly to the Sunrise River WMO for work in their watershed, per vote at convene meeting

[3]TBD during biennial metro convene meeting to be held sometime in 2026

Lower St. Croix Watershed Partners
2025-2026 Biennial Work Plan

Table 1. Grant Activities and Categories

Activity Name	eLINK Activity Category	CWMP Category
Structural Ag BMP Implementation	Agricultural Practices	Implementation – BMPs/Restoration
Structural Urban BMP Implementation	Urban Stormwater Practices	
Non-Structural Ag/Urban Implementation	Non-Structural Management Practices	
Wetland Restoration Implementation	Wetland Restoration/Creation	
Streambank/Shoreline Restoration	Streambank & Shoreline Restoration	
Agronomy Outreach Specialist	Project Development	Implementation – Shared Services/Staffing
Shared Services Education	Education/Information	
Technical/Engineering	Technical/Engineering Assistance	
Project Development	Project Development	
Administration/Coordination	Administration/Coordination	Administration

Budget

Table 2a. Grant Budget

Activity Name	Grant Budget	Match Budget	Total Budget
Structural Ag BMP Implementation	$350,000	$52,500	$402,500
Structural Urban BMP Implementation	$300,000	$45,000	$345,000
Non-Structural Ag/Urban Implementation	$75,000	$0	$75,000
Wetland Restoration Implementation	$200,000	$30,000	$230,000
Streambank/Shoreline Restorations	$80,000	$12,000	$92,000
Implementation – BMPs/Restoration Subtotal	**$1,005,000**	**$139,500**	**$1,144,500**
Agronomy Outreach Specialist	$300,000	$0	$300,000
Shared Services Education	$265,000	$56,507.10	$321,507.10
Technical/Engineering	$210,000	$0	$210,000
Project Development	$90,000	$0	$90,000
Implementation – Shared Services/Staffing Subtotal	**$865,000**	**$56,507.10**	**$921,507.10**
Administration/Coordination	**$100,071**	**$1,000**	**$101,071**
Total	$1,970,071	$197,007.10	$2,167,078.10

https://www.lsc1w1p.org/workplan-forms

WBIF Grant Approval Process

- Grant isn't "competitive" like CWF Projects & Practices program
- Not intended to be "first-come-first-serve" either
- Policies try to put emphasis on
  - Prioritized, Targeted, Measurable
  - Ties back to LSC Comprehensive Watershed Mgmt. Plan
  - Seeking alternative grant sources first, when possible

• WBIF Project Request Forms and Templates:
  - Project Request Form Template
  - Attachment 1 - Project Review Process
  - Attachment 2 - CWMP Priority Waterbody Maps
  - Attachment 3 - CWMP Appendix C Scoring Matrix
  - Attachment 4 - Wetland Restoration Scoring Matrix
  - Attachment 5 - Internal Analysis Request for Funding
  - Attachment 6 - Internal Analysis Selection Criteria
  - Attachment 7 - Targeting Analysis Eligibility Criteria

2025 LSC Project Process Calendar

Policy Committee meets quarterly (4th Monday of the month)
Steering Committee meets monthly (4th Wednesday of the month)
Planning Team meets monthly (2nd Wednesday of the month)
Advisory Committee meets as needed (e.g., AC meets to approve annual work plan)
This calendar only shows meetings which pertain to the proposed project approval process. Additional meetings are held at the frequencies described above.

January	February	March
	2/12 Deadline: project requests less than $50K submitted to meeting facilitator (2 weeks before SC meeting) **2/26 Steering Committee**: at regular monthly meeting consider project requests less than $50K	**3/15 Notice**: Meeting facilitator will send out call for projects reminder to all partners 60 days in advance of the May application deadline **3/12 Deadline**: project requests greater than or equal to $50K submitted to meeting facilitator **3/26 Steering Committee**: at regular monthly meeting review project requests greater than or equal to $50K that are due to come to PC in April
April	**May**	**June**
4/20 Deadline: Policy Committee meeting packet posted, including project requests greater than or equal to $50K **4/27 Policy Committee**: at regular quarterly meeting consider project requests greater than or equal to $50K once per year	**5/14 Deadline**: project requests less than $50K submitted to meeting facilitator (2 weeks before SC meeting) **5/28 Steering Committee**: at regular monthly meeting consider project requests less than $50,000	**6/14 Notice**: Meeting facilitator will send out call for projects reminder to all partners 60 days in advance of the August application deadline
July	**August**	**September**
	8/13 Deadline: project requests less than $50K submitted to meeting facilitator (2 weeks before SC meeting) **8/27 Steering Committee**: at regular monthly meeting consider project requests less than $50,000	
October	**November**	**December**
		12/14 Notice: LSC partner staff will send out call for projects reminder to all partners at least 60 days in advance of the Feb/Mar application deadlines (dual notice this month – projects less than and greater than $50K)

Review process for proposed WBIF projects under $50,000

LOWER ST. CROIX WATERSHED PARTNERSHIP

Please refer to the document "WBIF Proposed Project Evaluation and Approval Process for the Lower St. Croix Watershed Partnership" for additional details.

Project Application Deadlines: 2 weeks before the scheduled February, May and August Steering Committee meetings (specific deadline dates will be included in annual December call for projects)

START

LSC Partner has project/study for funding consideration

LSC Partner fills out a project request form plus appropriate attachments as required. Project must also meet application criteria specified in the larger evaluation and approval process document.

Steering Committee evaluates the project at their regular March meeting and makes a recommendation for approval using a simple majority vote

Fiscal agent approves project/study for funding and executes a subcontract with the Partner

Partner completes project/study, then fills out the Invoice Template, filling in all applicable fields and submits to fiscal agent

Fiscal agent and LSC reporter review completed Project Invoice and work with Partner to address any issues. Reimbursement processed at fiscal agent's next regularly scheduled meeting.

Review process for proposed WBIF projects ≥$50,000*

LOWER ST. CROIX WATERSHED PARTNERSHIP

Please refer to the document "WBIF Proposed Project Evaluation and Approval Process for the Lower St. Croix Watershed Partnership" for additional details.

Project Application Deadline: 2 weeks before the scheduled March Steering Committee meeting (specific deadline date will be included in annual December call for projects)

START
LSC Partner has project/study for funding consideration

LSC Partner fills out a project request form plus appropriate attachments as required. Project must also meet application criteria specified in the larger evaluation and approval process document.

Steering Committee evaluates the project at their regular March meeting and makes a recommendation for approval using a simple majority vote. If approved, written recommendation sent to Policy Committee for their review.*

The Policy Committee reviews the project at their regular April meeting.* Recommendation for approval needs a super majority vote (2/3 or 66%)

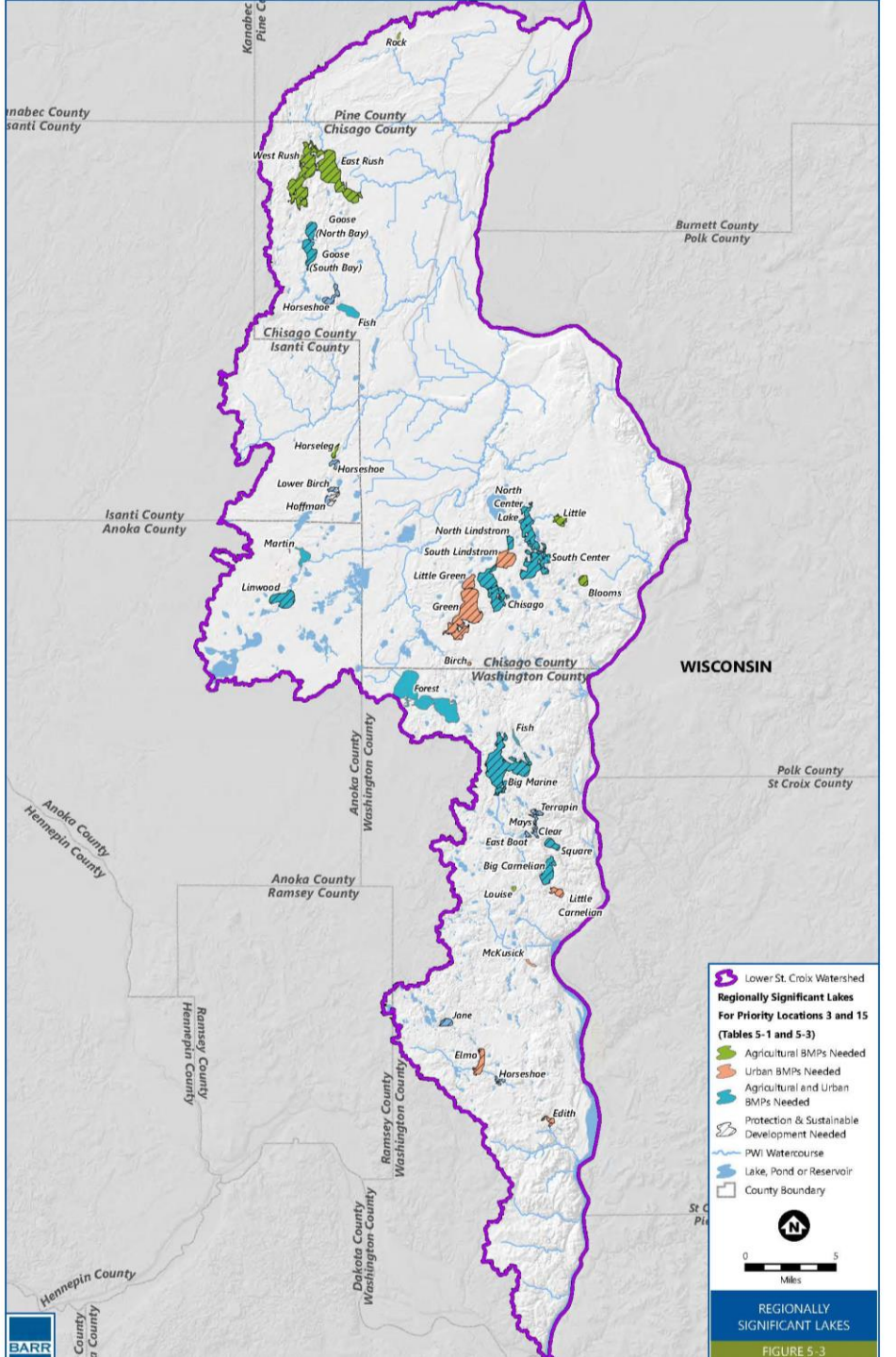
Fiscal agent approves project/study for funding and executes a subcontract with the Partner.

Partner completes project/study, then fills out the Invoice Template, filling in all applicable fields and submits to fiscal agent

Fiscal agent and LSC reporter review completed Project Invoice and work with Partner to address any issues. Reimbursement processed at fiscal agent's next regularly scheduled meeting.

*See evaluation and process document for discussion around non-recommended projects.

Criteria and Points for Ranking Agricultural and Urban BMPs for Watershed Based Funds as referenced in Section VII.B.			
1	**Lake Restoration & Protection**	The project addresses total phosphorus on a priority lake (See table on page 2)	LPSS Priority Class* is "Impaired" or "Highest" = 5 LPSS Priority Class is "High" or "Higher" = 3
		Can score points for #1 or #2, but not both.	
2	**Stream Restoration**	Project is located near stream reach and will address stream impairment or Lake St. Croix total phosphorus impairment)	Within ¼ mile = 5 Within ½ mile = 3
3	**Groundwater**	Project improves groundwater quality/quantity (examples: soil health, nutrient management, pesticide reduction, recharge, infiltration, reuse)	Yes = 3 No = 0
4	**Readiness**	Concept plans, cost estimates, and landowner agreements/easements are complete 3 or 0	Yes = 3 No = 0
5	**Urgency & Opportunity**	Is the project contingent on securing funding now? (Example, BMP is part of a larger project that will move forward with or without the BMP; opportunity would be lost if not funded and implemented now)	Yes = 1 No = 0
6	**Cost effectiveness**	Level of cost benefit when compared to all projects analyzed in particular SWA or similar targeting analysis.	Top 1% = 10 Top 10% = 7 Top 25% = 5 Top 50% = 3 < 50% = 0
7	**Partners & Funding**	Partnership and collaboration with agencies, organizations, or other groups is being leveraged or utilized by this project (Are there multiple partners providing funding, in-kind support, or other assistance or involvement?)	Yes = 1 No = 0
8	**Multiple Benefit**	Project provides added benefit of habitat improvements (aquatic, riparian, upland, wetland). Note: water quality improvements are not considered habitat improvements for this criterion.	Yes = 1 No = 0
9	**Multiple Benefit**	Project provides added benefit of education (examples: signage, demonstration project)	Yes = 1 No = 0
10	**Multiple Benefit**	Project improves water quality while also addressing flooding concern (examples: pond, wetland restoration, or floodplain expansion)	Yes = 1 No = 0
		TOTAL POINTS POSSIBLE	26



Activity: Streambank/Shoreline Restorations

eLINK Activity Category: Streambank/Shoreline Restoration

Grant: $80,000

Match: $12,000

Match Source(s): Local funds

Lead Agency: Chisago SWCD, Craig Mell (subcontracts with local partners for specific projects

Priority areas:

- LSC CWMP Table 5-2 Regionally Significant Rivers and Streams (page 81)
- LSC CWMP Table 5-3 Regionally Significant Lakes (page 82)
- Also see priority locations for implementation items in LSC CWMP Table 5-1 which are related to this activity. *

CWMP Reference: Table 5-1, Pages 68 and 70, Activities #21, #26 *

Activity Description: This activity includes one large-scale streambank restoration project with bank stabilization, and/or in-channel work, and/or improvements in floodplain connectivity; and/or cost share for up to 20 shoreline restoration and habitat improvement projects. Cost share projects are likely to be implemented by private landowners. Engagement with shoreline landowners and marketing of cost share programs will be accomplished through outreach, education, and workshops delivered through the Shared Services Educator. BWSR accepted standards and practices will be followed for restoration projects and assurances for long-term maintenance will be secured for each project.

The target phosphorus load reduction for this Activity is 7 lbs/yr

*Priority locations for activities #21 (lakes) and #26 (streams) in Table 5-1:

Regionally Significant Lakes for Protection and Sustainable Development: Table 5-3 and Figure 5-3

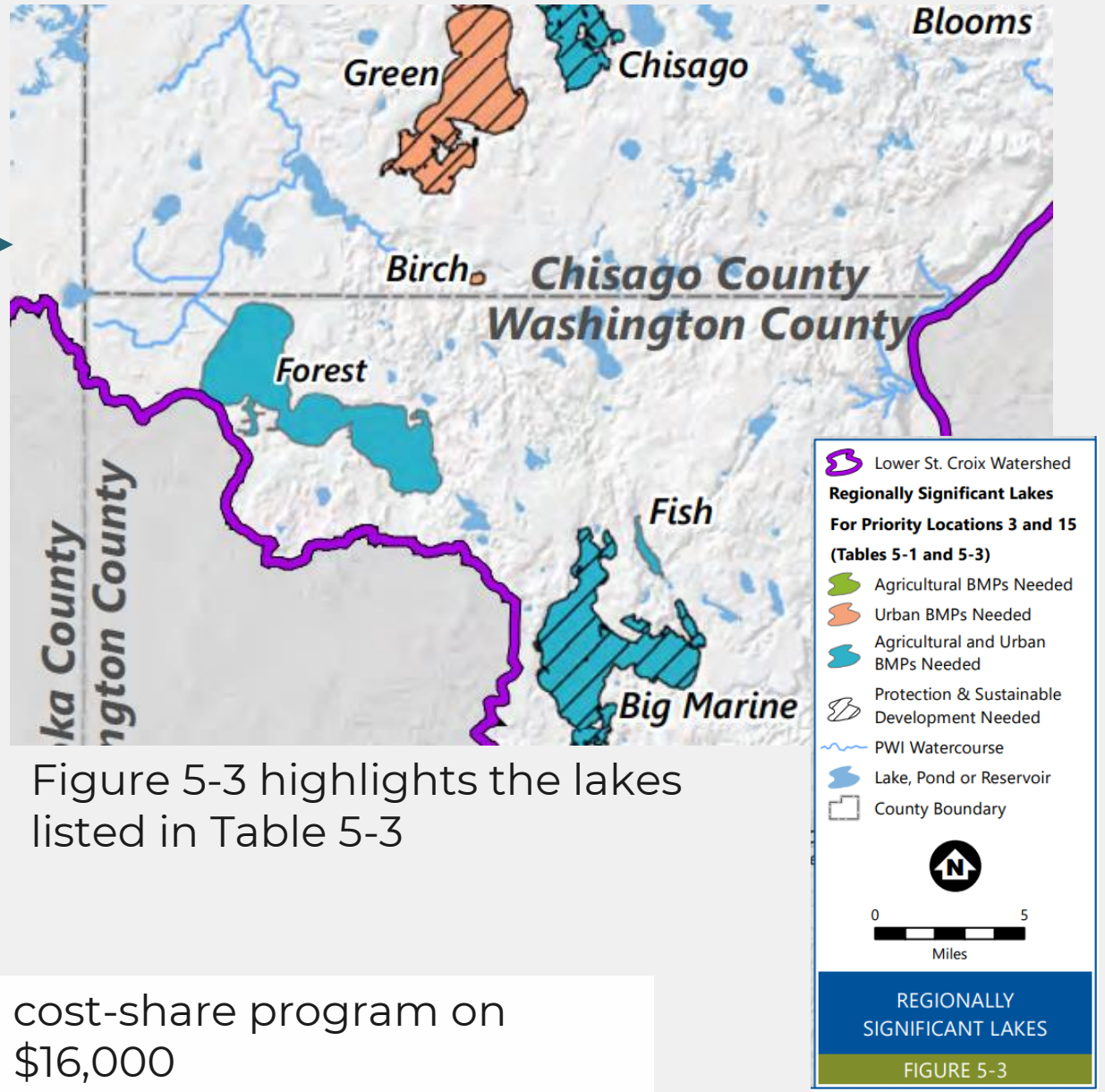


Figure 5-3 highlights the lakes listed in Table 5-3

Two shoreline restoration projects through CLFLWD cost-share program on Forest Lake for 2026; potential WBIF grant request = $16,000

LSC WBIF Grants & Work in CLFLWD

Funds rec'd by CLFLWD = ~$380K

- Sunrise River Project: $300,449
- Forest Lake Internal Load Assessment: $16,500
- Wyoming Enhanced Street Sweeping Study: $5,712
- Diagnostic Monitoring Protocols: $3,000
- Admin/Reporting Assistance: $8,000
- Heath Iron Enhanced Sand Filter Feasibility: $45,798

Plus…

Carnelian-Marine-St. Croix WD and WCD completed the Scandia Enhanced Street Sweeping Study

City of Wyoming directly receives enhanced street sweeping incentives ($20K awarded to date)


Sunrise River Project

Forest Lake Internal Load Assessment

Enhanced Street Sweeping

LSC WBIF Grants & Work in CLFLWD

Summary: There have been three rounds of WBIF Implementation Funding awarded to the partnership thus far totaling $4.6 million. About $3.8 million has been encumbered to date; of the funds encumbered:

- 47% has gone to shared services/basin wide initiatives benefitting all partners
- 29% has gone to watershed districts (10% went to CLFLWD, 15% went to South Washington WD, 5% went to Car Mar WD)
- 21% has gone to SWCDs
- 3% has gone to cities for enhanced street sweeping implementation

Breaking it down another way...

$1,822,926	has gone to shared services/basin wide initiatives benefitting all partners
$2,054,363	has gone to partner-specific initiatives (i.e., project requests)
$368,459	has gone to CLFLWD-specific initiatives (not including enhanced street sweeping incentives in Wyoming and Scandia)
18%	Of the WBIF not dedicated to shared services/basin wide initiatives, CLFLWD has rec'd 18% of funding
$128,398	If that $2 million above were split evenly between 16 partners it would be $128K per partner
6%	meaning each partner would receive 6% of the remaining funding

Metro Lower St. Croix Watershed
BWSR FY24-25 Watershed-Based Implementation Funding
Convene Meeting Minutes

Date: 04-23-2024

In-Person: Washington County Public Works North Shop
11660 Myeron Road N, Stillwater, MN 55082
Hybrid Option via Microsoft Teams

NOTE: These minutes are intended to serve as a general summary of discussion and to document decisions.

Attending Voting Members:

	Organization	Representative	Contact
P	Washington County	Stephanie Souter	stephanie.souter@co.washington.mn.us
P	Anoka SWCD	Jamie Schurbon	jamie.schurbon@anokaswcd.org
	Ramsey County Parks SWCD	Ann WhiteEagle	ann.whiteeagle@co.ramsey.mn.us
P	Washington SWCD	Jay Riggs	jriggs@mnwcd.org
P	Brown's Creek WD	Karen Kill	karen.kill@mnwcd.org
P	Carnelian Marine St. Croix WD	Mike Isensee	mike.isensee@cmscwd.org
P	Comfort Lake Forest Lake WD	Jackie Anderson	jackie.anderson@clflwd.org
P	Middle St. Croix WD	Matt Oldenburg-Downing	moldenburg-downing@mnwcd.org
P	South Washington WD	Kyle Axtell	kyle.axtell@woodburymn.gov
V	Sunrise River WMO	Tim Melchior	timothymelchior@gmail.com
P	Valley Branch WD	John Hanson	jhanson@barr.com
P	Municipal – City of Afton	Ron Moorse	rmoorse@ci.afton.mn.us
P	Municipal – City of Columbus	Janet Hegland	counciljaneth@ci.columbus.mn.us

P – Present In-Person V – Present via MS Teams

Other Attendees:

V Jessica Collin-Pilarski, Washington County
V Emily Heinz, Comfort Lake Forest Lake WD
P John Loomis, South Washington WD
V Joe Lochner, Ramsey County Parks SWCD
P Michelle Jordan, BWSR
V Craig Mell, Chisago SWCD
V Barb Piechel, BWSR
V Clark Schroeder, City of Lake Elmo

The meeting was called to order at 10:02 am. Kyle Axtell served as meeting facilitator and described the meeting background and purpose.

1. **Attendance**
   All voting members were present with the exception of Ann WhiteEagle (Ramsey County Parks SWCD). Joe Lochner filled in as an alternate voting representative for the organization.

2. Metro Funding Allocation Discussion

Kyle Axtell reminded the group that $1,266,380 has been made available through BWSR's Watershed-Based Implementation Funding (WBIF) program for the Metro Lower St. Croix (LSC) allocation area. Consistent with the direction provided at the first convene meeting, an RFP was distributed to eligible organizations seeking funding proposals for projects that were either not eligible or not a priority within the Lower St. Croix Comprehensive Watershed Management Plan (1W1P). In addition to the default proposal to allocate funds to the Lower St. Croix Watershed Partnerhsip for implementation of the 1W1P, three proposals were submitted by the March 29, 2024 deadline. One proposal from the Sunrise River WMO and two from the Valley Branch WD were then presented by their respective representatives. Please refer to the attached slides for information about the SRWMO and VBWD proposals.

a. Sunrise River WMO – Shoreline Stabilizations & Stormwater BMPs ($75,000)
b. Valley Branch WD – McDonald Lake WQ Improvements ($386,100)
c. Valley Branch WD – Downs Lake WQ Improvements ($7,200,000)
d. Lower St. Croix Watershed Partnership Implementation ($1,266,380)

Jackie Anderson inquired whether proposals still needed to adhere to BWSR's PTM principles (Prioritized, Targeted, Measurable). Michelle Jordan spoke about the PTM guidelines generally and stated that projects proposed did not need to be specifically identified until the eLINK work plan is submitted. She indicated that so long as the proposal referenced implementation of some prioritized, targeted and measurable process (such as a subwatershed assessment, or equivalent), it could be eligible for consideration by the convene committee.

After some additional discussion, John Hanson indicated that the Downs Lake proposal was submitted to show the committee that there are large amounts of work to be completed for waterbodies that are not prioritized within the LSC 1W1P. He believed that point had been made and withdrew the Downs Lake proposal from further consideration. He stated that VBWD expects its ongoing work to show that McDonald Lake will need an in-lake alum treatment to meet state water quality standards.

Karen Kill asked BWSR to remind the group about the timelines for FY25 WBIF funding. Michelle Jordan clarified that while dollars are not available until July 1, 2024, WBIF funding request should be able to be submitted starting June 5, 2024 in anticipation of that date. All funds must be spent by December 31, 2027.

Upon questioning, John Hanson confirmed that the McDonald Lake feasibility study was underway currently and would be completed by the end of the calendar year. Jamie Schurbon also confirmed that SRWMO's projects were in the WMO watershed plan and were ready to go now.

Karen Kill asked what the ramifications would be to the larger LSC partnership if funds were carved out of this for specific projects. Craig Mell responded that for comparison, the FY23 overall LSC partnership WBIF budget was approximately $1.5 million including both metro and non-metro WBIF funds. Jay Riggs added that WBIF funds haven't been allocated yet, so the LSC partnership has not confirmed a work plan for FY25 or decided what to use funds for. All WBIF funds (metro and non-

metro) that are sent to the LSC partnership are available basin-wide regardless of where they were allocated from.

Jackie Anderson suggested that large metro projects like VBWD's alum treatment should first seek other external sources of funding before attempting to procure funds from the WBIF outside of the LSC partnership.

Mike Isensee suggested that the focus for these non-prioritized areas and projects should be on a near-future amendment process for the LSC 1W1P. Jay Riggs confirmed that the LSC Policy Committee had just approved the evening prior (April 22, 2024) to pursue BWSR planning grant funds for a mid-cycle plan amendment process. Tim Melchior pointed out that these WBIF funds are specifically made available by BWSR for the entire basin area and to implement approved plans within that area, not just for implementation of priorities in the LSC 1W1P.

Matt Oldenburg-Downing attempted to reset the committee's focus by offering a question: "Are there projects outside of the LSC 1W1P that need access to this funding?" and an answer: "Yes." He suggested we call for a motion on the proposed funding options. Janet Heglund explained that she felt any action taken today would not be setting a permanent precedent for use of these funds, just for this two-year cycle. She noted that with the pending LSC 1W1P amendment process, things may be different two years from now.

Stephanie Souter indicated that Washington County would not be in a position to recommend more than 20% of these WBIF funds be pulled out for projects outside of the LSC 1W1P.

Jay Riggs moved to allocate $75,000 to the Sunrise River WMO for its Shoreline Stabilization and Stormwater BMP proposal, with the Anoka SWCD serving as fiscal agent. John Hanson seconded the motion. Mike Isensee offered a friendly amendment to the motion to also allocate the remaining $1,191,380 to the Lower St. Croix Watershed Partnership for implementation of its 1W1P, with the Chisago SWCD serving as both funding recipient and fiscal agent. Jay Riggs accepted the friendly amendment and John Hanson reaffirmed his second. On roll call vote, all members voted in favor, with Janet Hegland abstaining due to a potential conflict of interest. ***Motion passed with a final vote of 12-0-1.***

Tim Melchior left the meeting at this time.

3. Next Steps

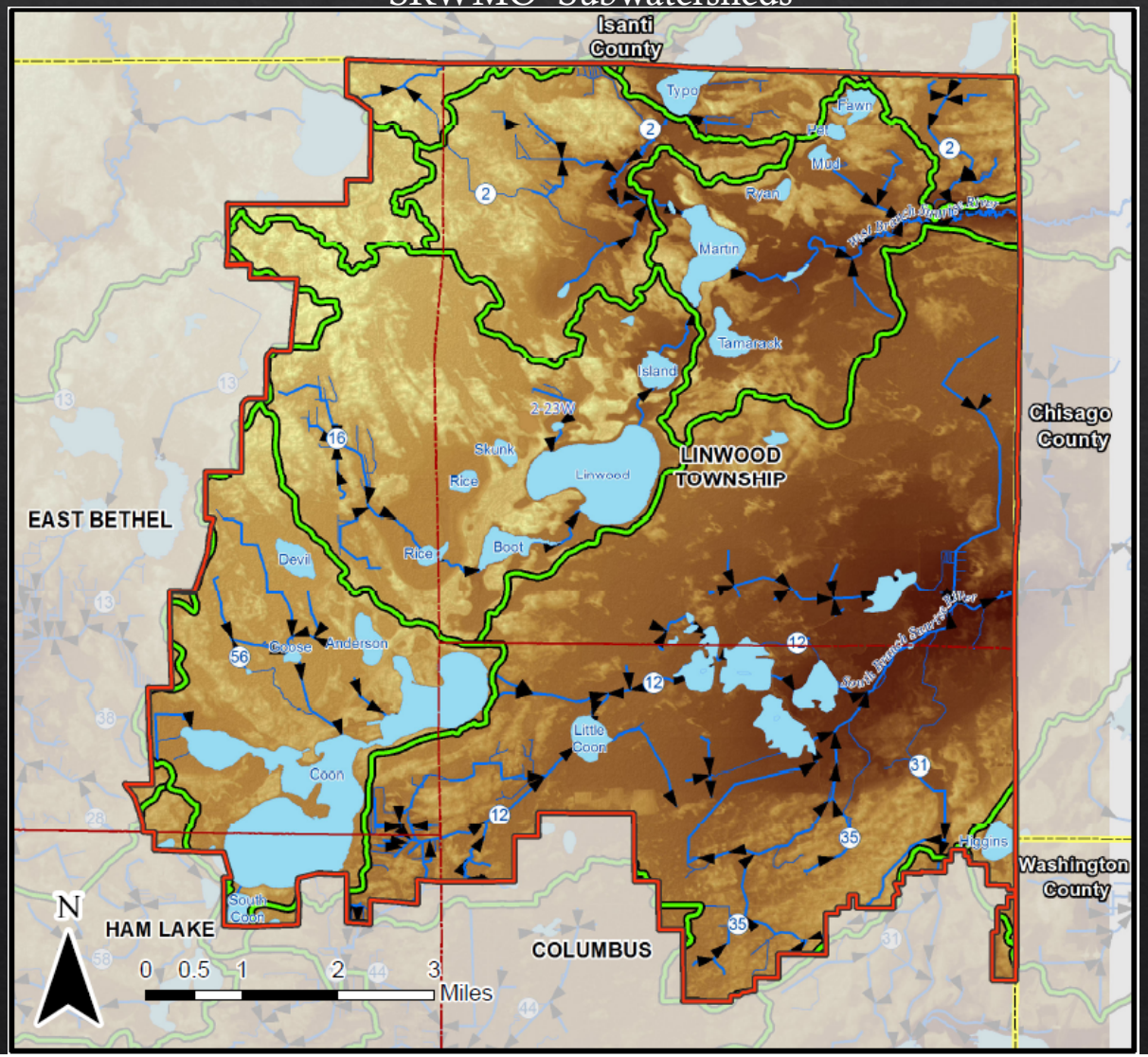
Kyle Axtell asked if BWSR could cover the next steps to bring this convene process to a close. Michelle Jordan explained that she would need to receive minutes for the meeting to confirm actions taken and, because there were two funding recipients, a completed BWSR spreadsheet providing details for the future funding requests. Once received, BWSR would coordinate with the two fiscal agents.

The meeting adjourned at 11:03am.

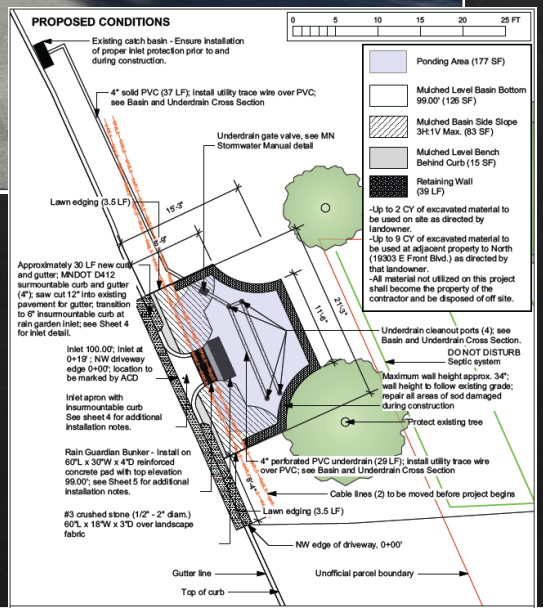
Sunrise River WMO Request

- $75,000 with $7,500 match
- **Urban stormwater** – One planned BMP – filtration BMP at Coon Lake. Ready for construction.
- **Shoreland** – 100 lf min. Martin, Linwood &/or Coon Lakes.

SRWMO Subwatersheds



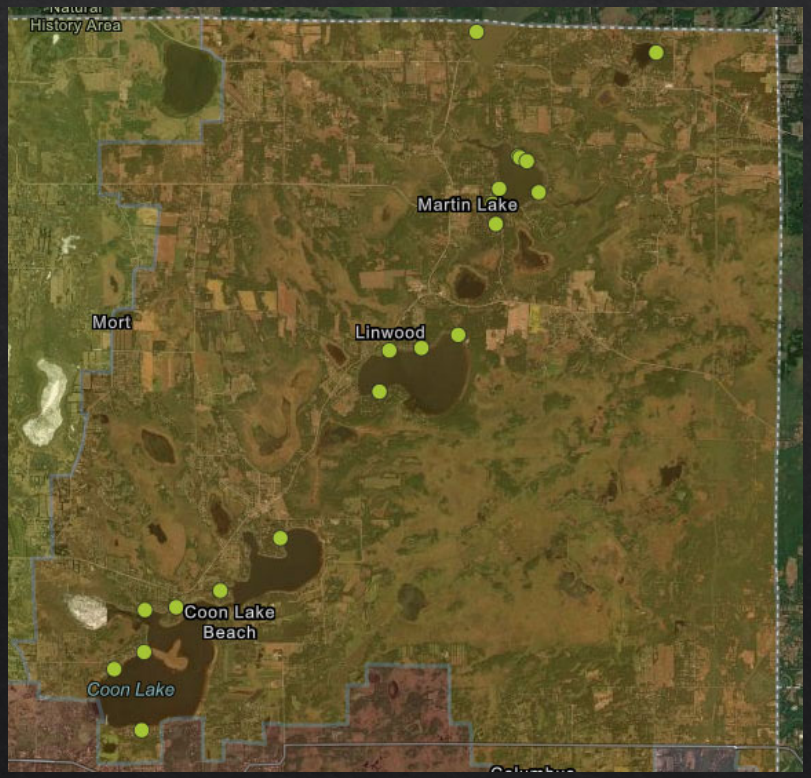
Urban Stormwater



Anticipated project at Coon Lake has a design and willing landowner. On a waiting list since 2001. Treats direct discharge.

Shoreland BMPs

Previous Projects




A 2024 project site


Example project

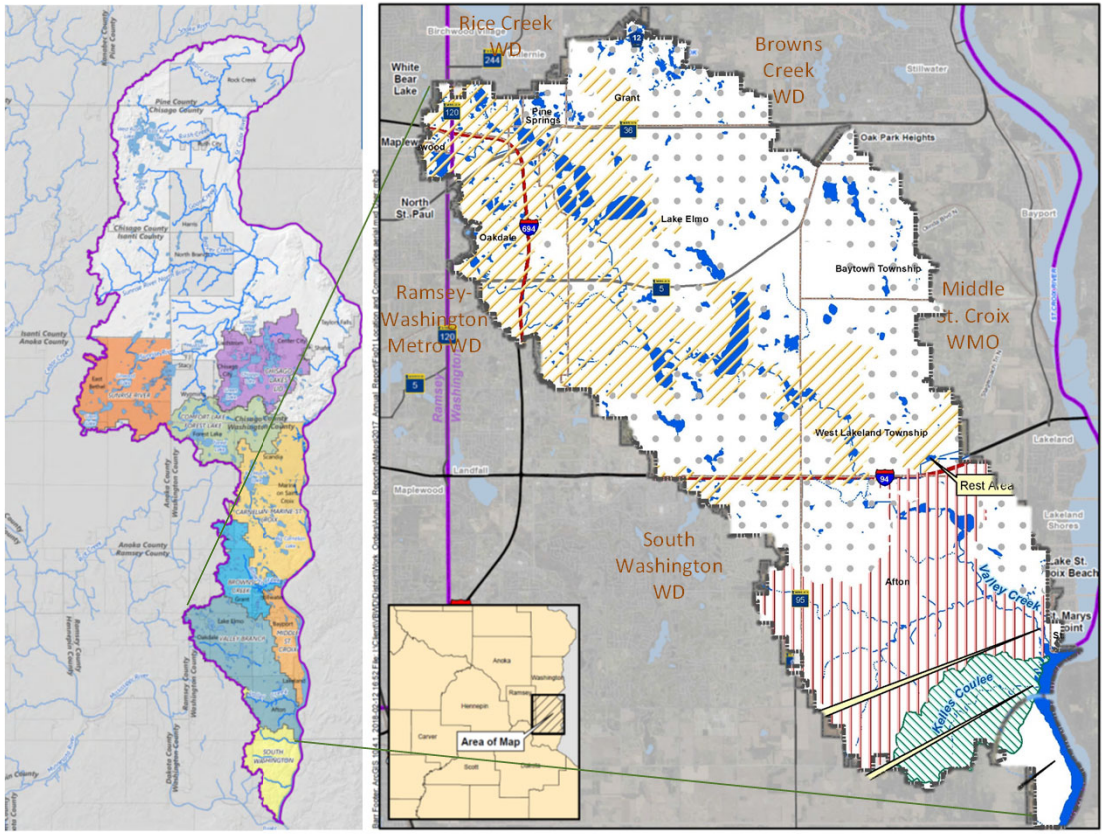

Example project


Example project

Status of Waterbodies for Work

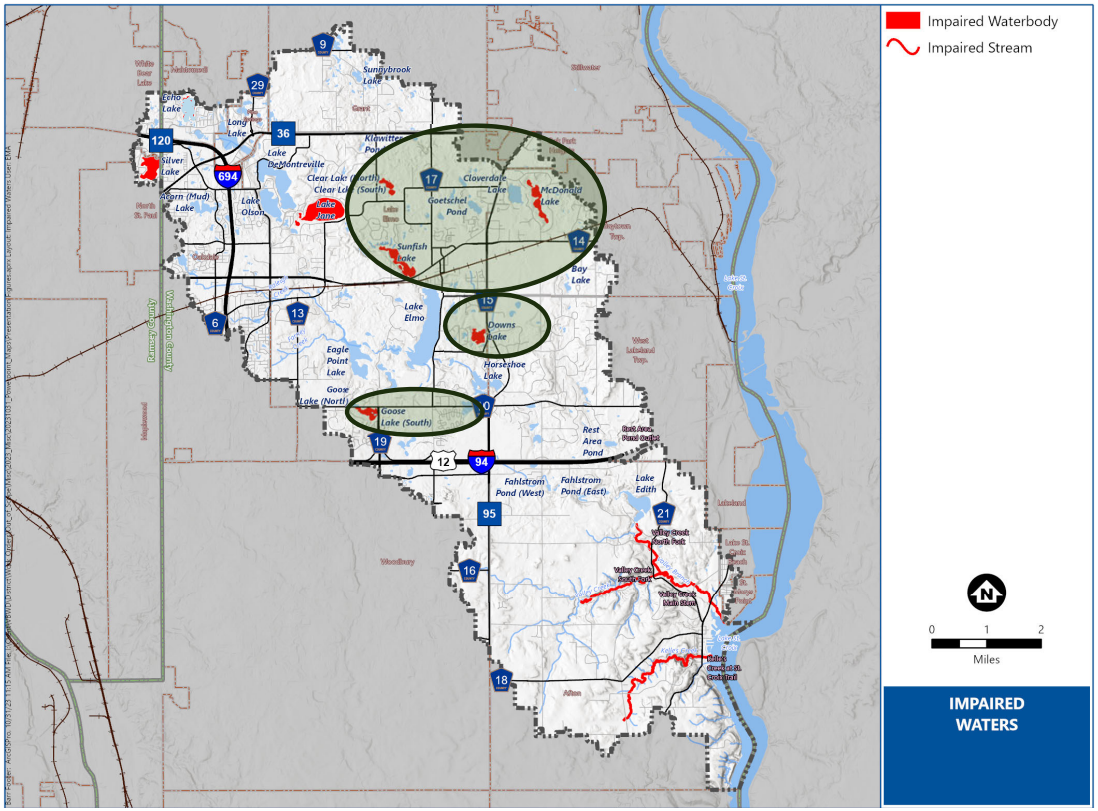
- **Martin Lake** – Nearly-barely. Previously deeply impaired (~95 µg/L), now arguably not. TP 47 µg/L (threshold of 60)
- **Linwood Lake** – Barely impaired. TP 42 µg/L (standard of 40)
- **Coon Lake** – Priority of protection. TP 30 µg/L (standard of 40)

Valley Branch Watershed District



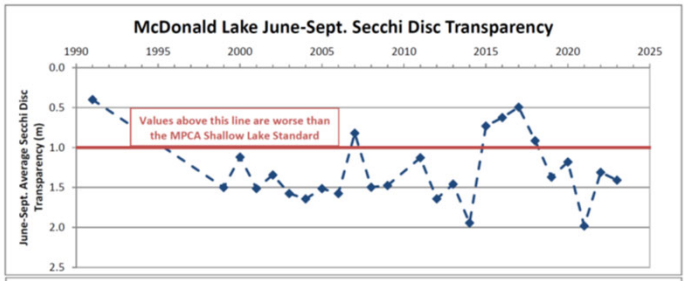
- 56 DNR Public Waters
  - 11 DNR Public Water Lakes
  - 45 DNR Public Water Wetlands
  - 3 Major DNR Public Watercourses
- >1200 wetlands
- 70 square miles
  - Approximately 1/3 landlocked

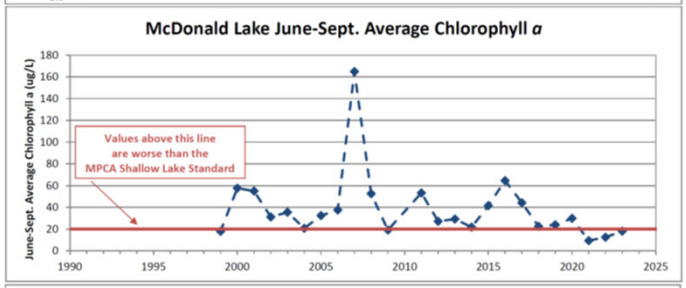
Nutrient, Fish, E. coli, and TSS Impaired Waterbodies in Valley Branch Watershed District

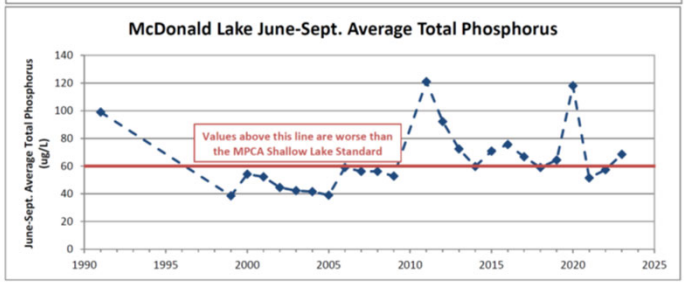


- Some public waters in landlocked areas are impaired.
- Lower St. Croix River “Comprehensive” Watershed Management Plan does not include these lakes. Valley Branch Watershed District’s Plan does.
- The mission of Clean Water Fund (CWF) is to protect and restore Minnesota’s waters for generations to come. WBIFs come from the CWF.
- Projects that restore a water so that the public can use and enjoy—whether landlocked or not—are important.

McDonald Lake







"Barely" nutrient-impaired.

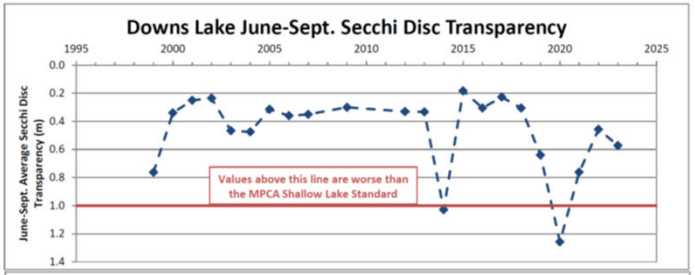
In 2023, VBWD calculated various phosphorus loads to the lake—watershed, groundwater, internal (i.e., sediment) and direct atmospheric loads.

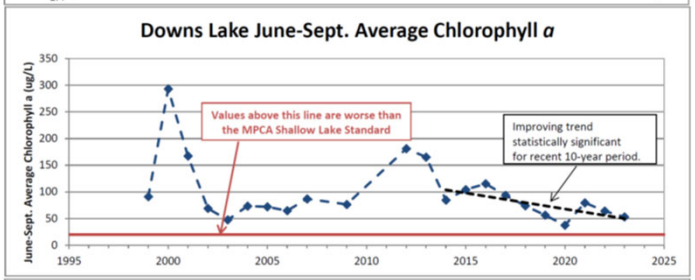
50% of the phosphorus load is internal and in-lake alum is estimated to reduce average annual phosphorus concentration from ≥60 to <53 µg/L.

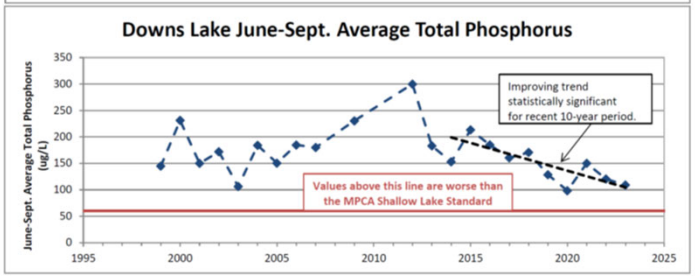
VBWD completing feasibility study (that will meet BWSR requirements). To be complete by end of 2024.

In-lake alum estimated cost is $429,00.

Downs Lake







- "Significantly" nutrient-impaired
- In 2023, VBWD calculated various phosphorus loads to the lake—watershed, groundwater, internal (i.e., sediment) and direct atmospheric loads.
- Even though 69% of the annual phosphorus load is estimated to be internal, in-lake alum alone will not improve the water quality enough to de-list
- VBWD completing feasibility study (that will meet BWSR requirements). To be complete by end of 2024.
- Watershed BMPs and in-lake alum to de-list lake estimated cost is $8M.

Memorandum

To: Adam Hjelm
Project: Natural Shoreline Outreach and Education Campaign
Subject: Summary of Activities/Tasks, May 1 – Oct 1, 2025

May 2025 – Program Strategy & Development

- Research into natural shoreline resources from the MN DNR, white papers and best practice documents to guide messaging.
- Meeting prep and team communication for kick off meeting.

June 2025 – Program Strategy & Development

- Initiated the project with a strategy meeting between Moore and CLFLWD staff to align on goals, timelines, and deliverables.
- Conducted initial demographic research to better understand shoreline property owners and identify outreach challenges.
- Began developing campaign themes.
- Outlined key communication components, including handouts, postcards, blog posts, and video storytelling with partner and landowner interviews.
- Confirmed alignment on timeline expectations with Adam and Aidan, including a goal to launch initial campaign materials by mid-August.
- **June Client Meetings**
  - June 3, 2025 – Kickoff Meeting
  - June 20, 2025 – Strategy and timeline alignment
  - June 26, 2025 – Messaging development, tagline brainstorming, and outreach discussion

July 2025 – Print & Digital Outreach Materials

- Identified an initial project target audience of 104 properties with 80-foot shoreline setbacks and home purchases in the last 10 years. The first outreach approach will include mailed postcards followed by home visits to distribute printed materials and engage landowners directly.

- Refined campaign messaging based on stakeholder input shared in previously conducted focus groups. Alternatives to the initial tagline were brainstormed, with a focus on local relevance.
- Finalized creative direction for Phase 1 materials including postcards, brochures, and branded pocket folders. Moore's team produced design drafts for internal and client review.
- Established that Moore will print materials through Rapid Press Printing and handle fulfillment. Adam confirmed brand standards and shared logos and font guidance.
- Built out campaign webpage content and confirmed launch of a new, shortened URL. Adam connected Lauren with Brook at Pinnacle to coordinate website implementation.
- Moore's marketing team created trackable QR codes to include in all printed materials.
- Discussed the opportunity to build momentum in neighborhoods by featuring early adopters and simplifying restoration pathways. The success of smaller, less complex projects (e.g., the Poff project) was emphasized as a replicable model.
- **July Client Meetings**
    - July 10, 2025 – Confirmed deliverables and branding steps
    - July 24, 2025 – Review of text for postcard, brochure, webpage; confirmed printing logistics
    - July 31, 2025 – Design review and refinements.

August 2025 – Print & Digital Outreach Materials

- Print Materials – Finalized designs for the brochure, postcard, and pocket folder and sent them to the printer for production.
- Webpage – Completed and launched the project webpage to provide residents with easy access to information.
- **August Client Meetings**
    - August 7 - Design Review
    - August 28 - Phase 1 Review and Phase 2/3 Coordination

September 2025 – Print & Digital Outreach Compilation and Distribution

- Delivered all print materials, including brochures, postcards, and pocket folders, to CLFLWD.
- Mailed postcards to 104 identified households to invite participation.
- Supported CLFLWD's home visits with residents, which began mid-September and will continue into October.
- Developed and implemented a home visit tracking system to record and monitor outreach efforts.
- Began planning for Phases 2 and 3, building on the foundation established in Phase 1.
- Captured project photos and video to use for future phases of the project.
- Wrote a Natural Shoreline Restoration newsletter article to include in the quarterly newsletter.
- **September Client Meetings**
    - September 4 - Content Calendar Discussion