

2025 Wetland Program Report

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rpbcwd.org/wetlands

Introduction

In 2025, District staff focused wetland assessment efforts within the five watersheds of lakes Ann, Lucy, Susan, Mitchell, and Red Rock. These assessments were done as part of the Holistic Lake Management Plan for these five lakes. This round of assessments provided staff with an opportunity to update vegetative community scores of these wetlands as well. Many of these wetlands were previously assessed prior to the District adopting the use of the Floristic Quality Assessment (FQA) to assess vegetative communities of the wetlands.

Staff have also been evaluating the Minnesota-Wisconsin Wetland Rapid Assessment Method by conducting their wetland assessments in tandem with their Minnesota Routine Assessment Method (MnRAM) assessments. This evaluation is being done to compare the effectiveness of this new tool as staff look for a suitable alternative to the MnRAM Access form currently used by the District. It also starts the process of updating the District's wetland assessment database in anticipation that this new method is approved by the Board of Water and Soil Resources (BWSR) for evaluating Minnesota wetlands, replacing MnRAM as the approved method.

Wetlands and Holistic Lake Management

With the push to manage the District's waterbodies in a more holistic ecological approach, staff are looking to upland areas within the watersheds to identify and address water quality issues. This is a preventative approach to watershed management which seeks to manage and mitigate these issues before they reach our lakes and streams. Wetland functional assessment is an important part of developing this plan. Functions such as downstream water quality benefits

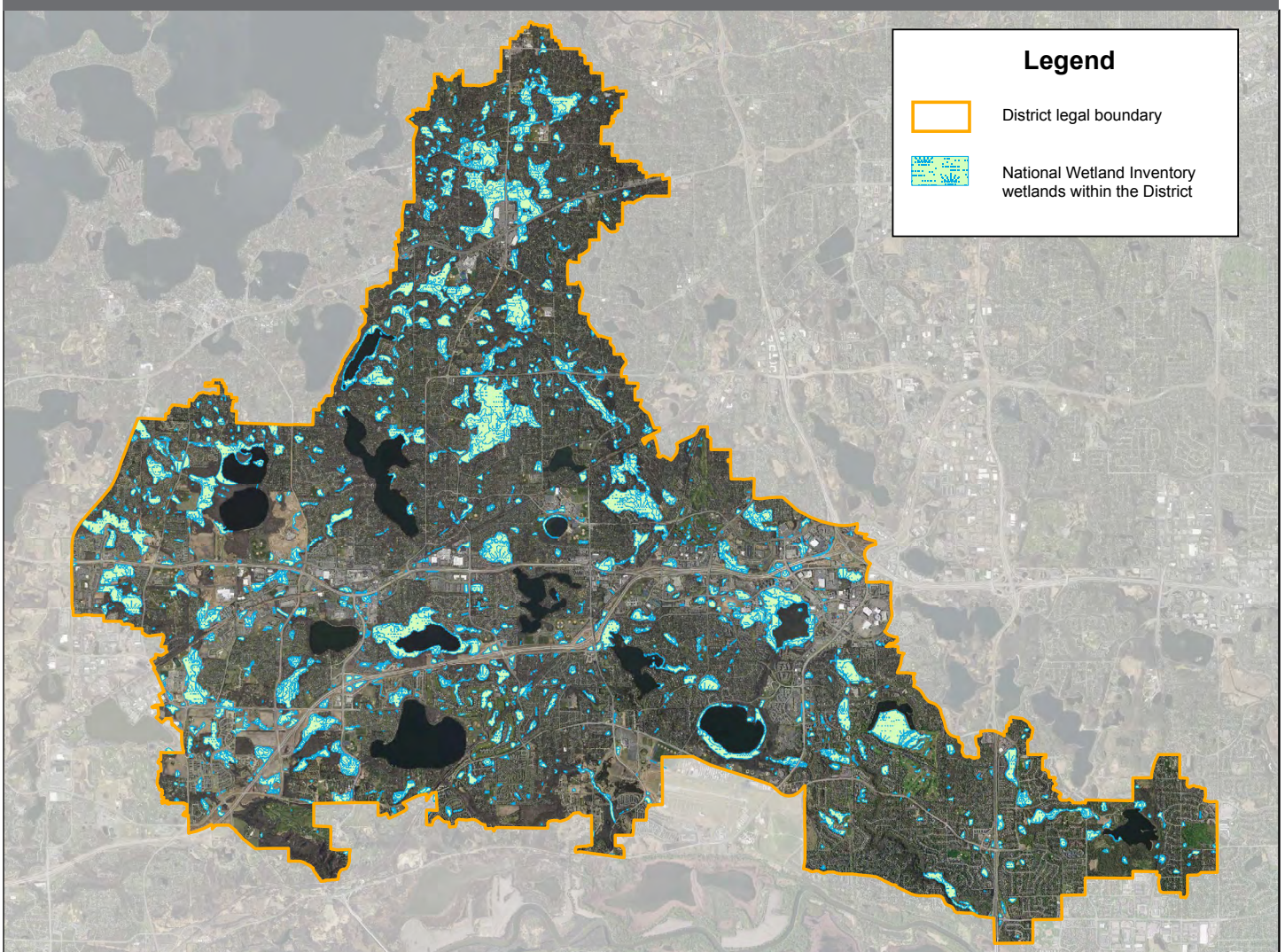
or storm water capture directly affect downstream lakes and streams. Through assessing factors such as the wetland's size, functionality, and drainage area, staff can better identify how the broader ecosystem is functioning and the potential benefits these wetlands provide to their watersheds. The current wetland assessment program will build off the Holistic Lake Management Plan. This plan will allow staff to better identify high priority wetlands for rehabilitation and protection. This allows further consideration into the current impacts and potential benefits these wetlands have on their watersheds. Future wetland restoration will provide greater functional benefits to the watersheds.

Most wetlands residing in the Lake Ann and Lucy watersheds were re-assessed, including conducting rapid FQAs on each wetland assessed, prior to 2025. Because of this, staff prioritized reassessing the wetlands within the other three lake watersheds of Susan, Mitchell, and Red Rock. FQAs had not been conducted on most of these wetlands prior to 2025. In total, 108 wetlands were reassessed in 2025. The wetlands database was updated with any changes to management classifications and functional scores (Table 1/Figure 2).

Minnesota Routine Assessment Method

The Minnesota Routine Assessment Method (MnRAM) for Evaluating Wetland Functions was developed by an interagency working group to assess wetlands following passage of the Minnesota Wetland Conservation Act in 1991. It is a systematic way to document wetland functions and characteristics such as vegetative communities, habitat, anthropogenic values and impacts, stormwater interactions, general site hydrology, water

Figure 1. Wetlands identified within the District by the National Wetland Inventory (NWI).



quality, soils, topography, and buffer widths.

However, BWSR no longer provides support for MnRAM, and the Microsoft Access form has not been updated for over a decade. Barr has updated the Microsoft Access Database version of the MnRAM worksheet for the District to use in its wetland assessments. This modified version of the MnRAM worksheet allows staff to input more details about wetlands and their functions, providing a more accurate assessment of the site. It also generates a report that provides wetland function classifications and values based upon input. During wetland site visits, staff assess the site, fill out a MnRAM worksheet, and document the site with photographs. If staff observe indications of a potential wetland, they perform an initial assessment of the approximate wetland boundary or flag the site for future investigation.

Through MnRAM wetland assessment, staff have built a detailed catalogue of wetlands in the District. The catalogue supplements standard state and federal wetland inventories by including

Wetland Assessment Methods

MnRAM

Rapid, qualitative assessment used to identify wetland functions.

Combines data and observations gathered from a site visit and remote sensing data. This data produces ratings for assessed wetland functions.

This method asks:

What are the characteristics of the wetland as a whole?

FQA

Vegetation-based ecological condition assessment. Sites

are assessed for diversity and abundance of plant species. The higher a site scores, the closer it is to a natural condition and the more sensitive it is to disturbance.

This method asks:

What plant species grow in the wetland? How abundant are they?

details such as fine-scale wetland extent, more accurate vegetative community designations, record of wetland impacts and degradation, and infrastructure risks. Figure 1 shows the extent of wetlands within the District based on National Wetland Inventory (NWI) data.

Floristic Quality Assessment

Developed by the Minnesota Pollution Control Agency (MPCA), the Rapid Floristic Quality Assessment (FQA) provides an ecological assessment approach for wetlands based on plant habitat requirements and disturbance tolerance. The approach is based on a C-value assigned to each plant species by Minnesota botanical experts. The more sensitive a plant is to site conditions and disturbance, the higher the C-value. C-values of plants within a given community are used to calculate a floristic

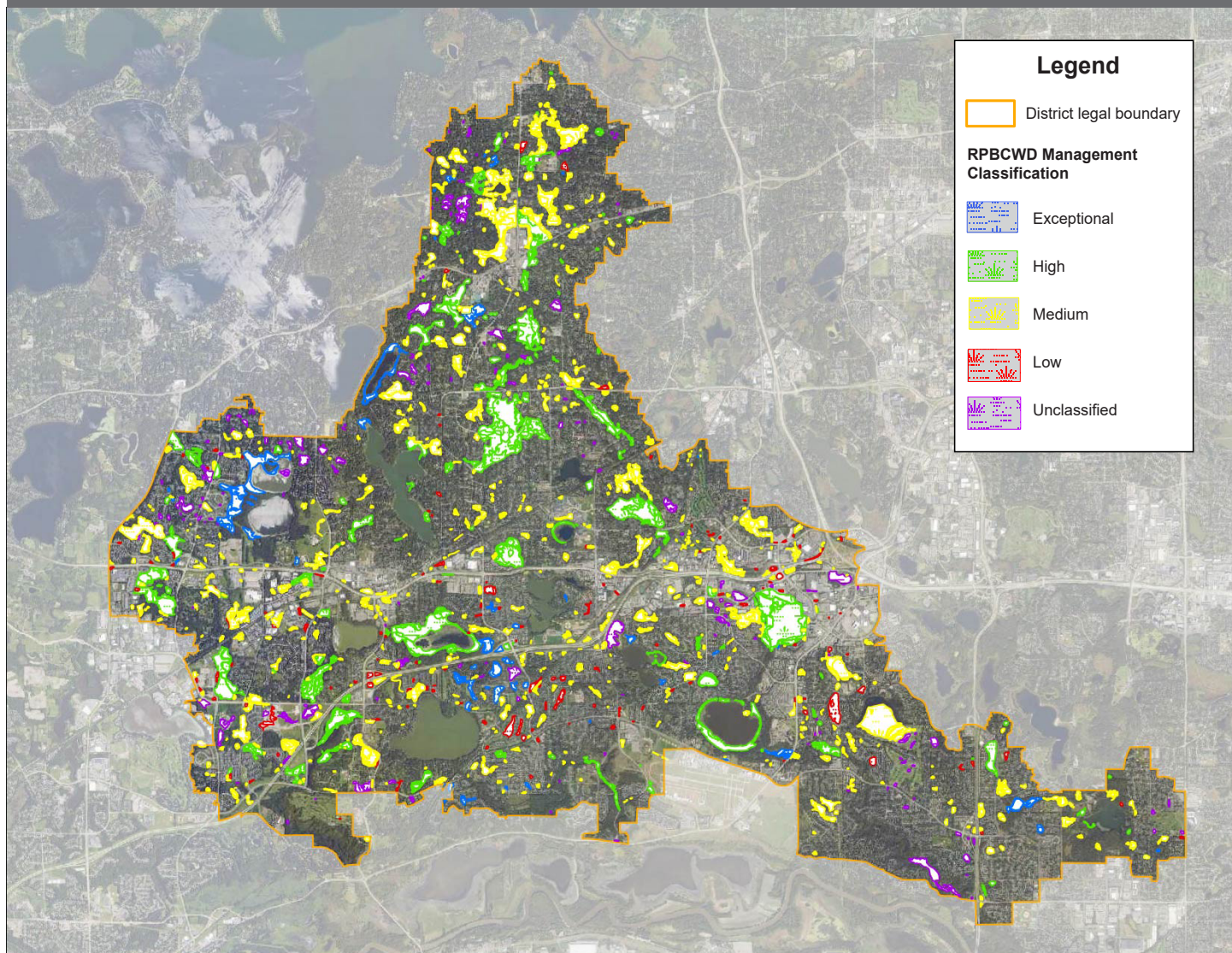
quality index (FQI). The greater the FQI, the closer the plant community is to a natural state.

FQA compliments MnRAM by providing a quantitative assessment of the makeup and quality of plant communities within a wetland. When used together, FQA and MnRAM data sets provide a comprehensive metric to assess wetlands. RPBCWD first began using FQA at the end of the 2020 field season. FQA has been a part of all District wetland assessments since 2021.

Wetland Rapid Assessment Update

In the fall of 2020, a memorandum of understanding was completed between the Minnesota Board of Water and Soil Resources (BWSR) and the Wisconsin Department of

Figure 2. Classification of wetlands assessed with the Riley Purgatory Bluff Creek Watershed District as of 2025.



Natural Resources (WI DNR) regarding the Wetland Functional Assessment Initiative. This initiative is a joint effort between the Wisconsin DNR, Minnesota DNR, BWSR, MPCA, Environmental Protection Agency, and St. Paul U.S. Army Corps of Engineers, to develop wetland functional assessment tools that can be used in Minnesota and Wisconsin. These assessment tools will also assist in wetland regulatory implementation and other wetland conservation uses. Current standards for wetland functional assessments in the state, such as MnRAM, are outdated and may not serve the needs of regulatory programs. Because of this initiative, development of a new functional assessment is underway. In February 2021, a steering committee was formed to define goals and objectives of the initiative. A technical advisory team made up of professionals within the agencies was established in summer 2021 to develop the tool and its functional categories. A draft tool and spreadsheet were completed in 2023.

Staff Dickhausen attended the Minnesota Water Resources Conference, special wetland session on October 17, 2023, where updates about the Wetland Functional Assessment Initiative were discussed. One of the main pushes for this initiative is that MnRAM is considered too qualitative of an assessment. The technical advisory team referenced aspects of the Minnesota Stream Qualification Tool (MNSQT), a tool which uses function-based parameters and metrics to assess functional categories of streams. The MNSQT was used as a template when drafting aspects of the new wetland tool. The new tool [RW5.1] will still be a rapid assessment, but it is going to rely more on observation-based metrics. Hydrogeomorphic (HGM) classification will also play a larger role in the assessment and establishment of areas of interest. Speakers also presented a basic breakdown of how the tool will work in providing functional assessment of wetlands. The assessment helps identify factors that change how well the wetland will perform functions. Indicators, or the observable characteristics related to the factors, are assessed. From here, the assessment helps identify primary and secondary opportunity values.

The Beta version of the tool was released to environmental organizations in Wisconsin and Minnesota in the late summer

of 2024 for testing and comment. Version 1.0 was released by BWSR for general use on October 22, 2025. BWSR is accepting feedback on the method until May 15, 2026. After, any necessary revisions will be made and go to the BWSR board for consideration of approval for use in Minnesota. It is anticipated that when this new method is approved for use, MnRAM will be removed as an approved method.

Wetland Management Classification

To advance the wetland assessment program, District staff are developing an assessment and management methodology based on ecosystem services to prioritize wetland rehabilitation, protection, and creation. These functions are listed on the “Wetland Classification Continuum” section of this report.

Metrics have been developed for each of these services, which, along with data gathered from the updated MnRAM and FQA assessments, determine the assignment of District management classifications to wetlands. These classifications include low, medium, high, or exceptional value wetlands. Management efforts to restore, protect, and create wetlands are currently prioritized on higher value wetlands. Vegetated buffer rules are also set based on these classifications.



Wetland Classification Continuum

Assigning management classification to wetlands provides input for prioritization of restoration efforts. These classifications are based on FQA data and MnRAM functional categories which include:

- **Vegetation diversity/integrity**
- **Habitat structure**
- **Amphibian habitat**
- **Fish habitat**
- **Shoreline protection**
- **Cultural/recreational/educational value**
- **Stormwater/urban sensitivity**
- **Wetland water quality**
- **Characteristic hydrology**
- **Flood/stormwater attenuation**
- **Commercial use**
- **Downstream water quality**



Exceptional Value

Wetland has large buffer area or buffers shoreline. High plant diversity. Little or no alteration of soils and plants. Water quality is good. Provides fish and/or amphibian habitat. Significant recreational, educational and/or cultural value.



High Value

Wetland with buffer or provides buffer for shoreline. Provides floodwater attenuation. Better to good water quality. Water deep enough to provide overwintering amphibian habitat. May provide fish habitat. Moderate plant diversity.



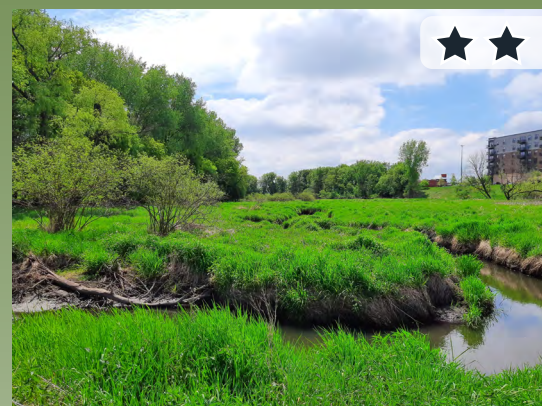
Medium Value

Wetland may have been excavated or serve as stormwater pond. Low plant diversity. Minimal educational, aesthetic, or recreational opportunity. Deeper water may provide overwintering wildlife habitat.



Low Value

Associated with agricultural or high-intensity land use. Very low species diversity and dominated by invasive species. Poor water quality, usually due to high inputs of untreated stormwater runoff. Has alteration or excavation. Little or no recreational or cultural value.



To date, staff have conducted assessments and assigned management classifications to 961 wetlands within the District. Table 1 and Figure 2 detail and show the distribution of these management classifications for wetlands identified within the District. The Wetland Classification Continuum on the previous page provides details on how wetland functions (or lack of) help determine and assign a management approach.

Table 1. Distribution of wetland classifications in the District.	
Classification	Quantity
Exceptional	56
High	150
Medium	610
Low	145
Unclassified	154
TOTAL WETLANDS	1,115

2026 Wetland Assessment and Next Steps

As of the end of 2025, most wetlands within the District have been assessed using MnRAM and assigned a management classification. Staff Dickhausen will continue to conduct QA/QC assessments in different parts of the District as needed. The priority in 2026 will be assessment needs of wetlands within the five watersheds of those lakes for which lake and watershed management plans are being developed. Staff will continue to assess these and other wetlands with the new WI/MN rapid assessment method (alongside current assessment methods) as they continue to evaluate this tool for its use as a primary wetland assessment method. This tool seeks to measure wetland functions in a more quantitative manner than MnRAM. It also introduces the identification of HGM classification to wetland assessment. The HGM classification system classifies wetlands based on their landscape position, source of water (precipitation, groundwater, etc.), and hydrodynamics (inflow, outflow, flow-through, etc.). These core factors are likely responsible for the maintenance of most functions of the wetland and are currently as close to “first principles” of wetland function there is.

As of August of 2024, WCA statute has changed to include HGM classification as an accepted form of wetland type determination for WCA regulation and enforcement. In keeping with these changes, the District wants to eventually adopt HGM as the primary form of wetland assessment methodology to inform wetland functional scores and management classifications. This, in turn, would guide the District’s regulatory program, lake and watershed management plans, wetland restoration planning and implementation, and any WCA related work the District is a part of.

A change in wetland assessment methods would also provide staff with an opportunity to update and streamline the current process of wetland assessment and database management. As mentioned previously, MnRAM and the Microsoft Access version of MnRAM have not been updated or supported for quite some time. Even with updates made by Barr, staff sometimes still run into issues with running the Access form. There is not an efficient way to pull data directly from the Access from database to use for other applications such as updating the Districts wetland geodatabase. This is the primary wetland database of the District and is an integral part of WebMaps used for the Regulatory Program and public education. Every time the Access database is updated, the geodatabase must be updated manually. In preparation for switching to this new assessment method, staff are exploring different Esri GIS-based applications such as Survey123 and FieldMaps to see if it would make sense to create a field form based off the new tool’s Microsoft Excel form. Creation of such a form would allow staff to automatically save, and tie assessment data collected in the field to a geodatabase.

Pending BWSR approval of the WI/MN Wetland Rapid Assessment Method for use, and subsequent approval for use to inform District programs by the District’s Board of Managers, staff are tentatively planning to transition using this method at the end of 2026.

Restoration versus Rehabilitation

Wetlands have primary impacts where the hydrology is altered to a point where they no longer function as a wetland. This can be through the installation of drain tile, excavation of ditches, installation of outlet structures below the bed elevation of the wetland, or placement of fill. When one of the three parameters for determining the existence of a wetland (hydrology, hydric soils, hydrophitic vegetation) are missing, in this case hydrology, the area does not meet the definition of a wetland. If wetland hydrology is restored, the wetland functions like a wetland again and is considered restored.

Conversely, wetlands may have secondary impacts that result in diminished function but still meets the definition of a wetland. One example is hydrologic alteration such as ineffective tiling or ditching where the wetland is only partially drained. Another example is diversion of the contributing watershed so that less water inputs to the wetland basin resulting in a drier hydrologic regime. The hydrology may remain the same but, due to land use changes, excessive nutrient or sediment loading may occur which impacts the vegetation community type, degrades avian or amphibian habitat, or results in a proliferation of invasive or pioneer species colonizing the wetland. In these cases, the wetland could be rehabilitated to enhance the diminished functions and possibly provide additional functions and public values.

Identification of Restorable Wetlands

In concert with the wetland inventory and assessment program, staff will work to identify historic wetlands that have been drained or filled and have the potential to be restored. In order to be considered for a wetland restoration, an area must have the following characteristics:

- An adequate source of hydrology
- Hydric soils
- Unimpeded by structures except when removal of the structures is desired by all stakeholders
- Property must be owned by an entity that is agreeable to protecting the area in perpetuity

Wetland Conservation Act Activities

The overall goal of the Wetland Conservation Act (WCA), passed as Minnesota law in 1991, is to achieve no net loss of wetlands in the state. It does this by regulating the:

1. Draining and filling of wetlands
2. Excavation within type 3, 4, and 5 wetlands
3. Excavation of all wetland types if said excavation fills or drains the wetland, converting it to a non-wetland.

Local government units (LGU) are responsible for administering WCA and for making determinations on applications, projects, or activities impacting wetlands. The District acts as the LGU in charge of administering WCA for parts of Shorewood and Deephaven located within the District and makes the decision to accept or deny WCA joint applications proposing activities within wetlands. Applications range from seeking a concurrence of wetland boundaries, based on a formal delineation, to seeking approval of an application for the purchase of wetland banking credits to replace wetlands lost during the course of a project. Staff also sit on WCA Technical Evaluation Panel (TEP) for cities who act as the WCA authority throughout the rest of the District. Staff, along with other TEP members, advise LGUs on making decisions on to accept or deny WCA joint applications.

The District did not receive any WCA joint applications in 2025. Over the course of 2025, Staff Dickhausen represented the District on the various TEPs of the other LGUs within the District boundaries. This included the review of applications received by Chanhassen, Eden Prairie, and Minnetonka. Staff also worked with Chanhassen and their TEP on the continued review and enforcement of a pair of related WCA violations.