OKABENA-OCHEDA WATERSHED DISTRICT
2024 ANNUAL REPORT

June Flooding at Lake Ocheda Dam

OKABENA-OCHEDA WATERSHED DISTRICT
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OKABENA-OCHEDA WATERSHED DISTRICT

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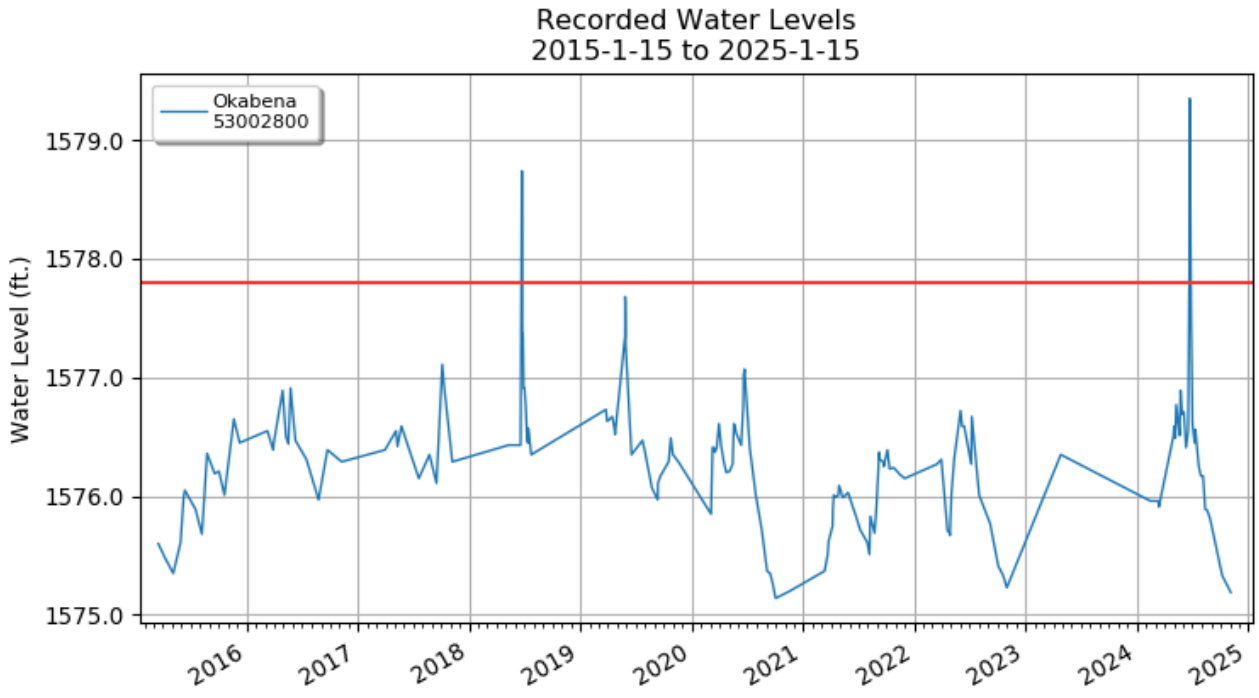
OKABENA-OCHEDA WATERSHED DISTRICT
2024 Annual Report

Early Summer Flooding Followed by Drought
Southwest Minnesota, including the Okabena-Ocheda Watershed District, was struck by heavy rains falling on already saturated soils during late June. Two days after a three-inch storm on June 20th, Lake Okabena reached its highest recorded level of1579.35 feet above sea level. The lake overflowed and flooded Worthington streets and neighborhoods on June 22nd through the 24th.

Lake Ocheda reached its highest recorded level of 1565.72 feet, 4.7 feet above its ordinary high-water elevation, on June 24th. The outlet dam was submerged with carp observed spawning on top of the dam's earthen levies. Ocheda's level remained above its ordinary high-water elevation throughout July. The top of Lake Bella's spillway structure, and the staff gauge mounted on it, were under water for about a week during this period, so its highest elevation was not recorded. Portions of the Bella Park recreational trail were submerged for a month.

While damage to private and public property occurred throughout the district, none of the water control structures owned or operated by the district were significantly damaged by the early summer flood event. An impoundment structure on DNR property adjacent to Bella Park overflowed onto district property through July creating some minor damage to a stream crossing and the trail. Some gravel road gulleys also needed to be repaired in the park.



Source: DNR LakeFinder Webpage, January 2025

Lower than normal precipitation was recorded from the middle of July through December causing significant drought and lake levels below normal going into winter. Annual crop yields were reduced district wide by conditions that were both too wet and too dry during the growing season.

Clean Water Partnership
Worthington and the district formed the Okabena-Ocheda-Bella Clean Water Partnership Joint Powers Organization (JPO) in 1998 to accomplish the goals established by the 1993 Clean Water Partnership Implementation Plan. The governing board consists of two members from the city

council, two managers from the watershed district and a city resident appointed at-large.

Since its formation, the JPO has paid annual incentives to install and maintain grass buffer strips, restored a wetland, installed, and managed water quality improvement basins, monitored surface water quality, measured lake water levels, and conducted studies on the sediment deposition in Sunset Bay, carp populations and causes of Lake Okabena's impairments.

The district completed the following JPO activities in 2024:

1. Provided administrative and technical assistance to manage board affairs and structures.
2. Conducted water quality monitoring of Okabena and Ocheda lakes from June through September.
3. Managed water levels at the Prairie View project pond. Sprayed thistles and cut unwanted cottonwood and willow trees near the pond and filter benches.
4. Maintained the Prairie View pond filter benches by removing and hauling away dirty sand and installing approximately 5 inches of washed sand.
5. Issued incentive payments for 128.4 acres of grass filter strips covering 90 percent of the stream banks in the Lake Okabena sub-watershed.

The district will continue to work with Worthington in 2025 to monitor lake water quality, provide filter strip incentives and operate and maintain the Prairie View project site. The district will also work with the city to fund the local share of the Crailsheim Water Quality Improvement Pond engineering and construction costs during 2025.

Conservation Practices
The district budgets money annually to install best management practices to prevent flooding and improve and protect surface water and groundwater resources. Below is a summary of how the money was spent in 2024.

1. Issued 43 CRP filter strip incentive payments totaling $36,642 and covering 244.3 acres district wide. The filter strips protect about 10 miles of stream courses and 12 miles of lake and wetland shorelines.
2. Issued two cost-share payments totaling $1000 for upgrading individual sewage treatment systems.
3. Issued cost-share payment of $300 to seal one unused well.

The district will continue to pay filter strip incentives and provide cost-share payments for eligible best management practices in 2025.

Lake Ocheda Enhancement Project
The Lake Ocheda Management Plan was approved by the DNR in December 2017. The plan allows for periodic lake level drawdowns to reduce carp populations, improve water quality, promote wildlife habitat, and reestablish submerged vegetation. Construction modifying the outlet dam to make the drawdown possible was mostly complete in December 2019.

The first water level drawdown was done during the fall and winter of 2020/2021. Due to warm weather for most of the season, the lake did not freeze to the bottom. Low oxygen conditions were achieved in the lake for a few weeks in February killing many rough fish and gamefish, but a significant population of carp and other species survived under the ice. Despite the fish kill, water clarity did not improve, nutrients remained high and no submerged vegetation was observed during the 2021 growing season.

The lake plan advisory committee met and decided to attempt another drawdown during the winter of 2021/2022. After receiving permission from the DNR, stoplogs were removed for the second drawdown in early September 2021. Heavy cattail and reeds vegetation growth in the Ocheyedan River channel between lakes Ocheda and Bella slowed outflow. Lake Ocheda levels remained within a half-foot of the full-service level at the end of December 2021. Two to three feet of well oxygenated

water remained under the lake's ice in most locations until spring 2022. No winterkilled fish were observed in the spring.

After a drier than normal fall, heavy snow covering Ocheda's ice during the winter of 2022-2023 led to low oxygen levels lakewide in January and February. Winter killed fish were observed during February. No water quality improvement or significant new vegetation was observed during 2023.

Growing season water quality has not improved in the lake since the first drawdown. For unknown reasons, the vegetation growth expected after the fish kills did not occur. The Lake Ocheda Management Plan committee met in 2024 to write an addendum to the plan allowing for drawdowns lasting up to two years. A public meeting was held in September to present the plan to lakeshore owners and other interested parties. The lake management plan committee will meet in 2025 to consider the public's comments and recommend the plan addendum.

Lake Okabena Carp Population Analysis and Control Project

In 2018, Worthington allocated approximately $52,000 for a multi-year carp population analysis and control project. The Olson Trust board approved approximately $35,000 more for the project. Three electrofishing transect surveys were completed to estimate the lake's carp population density. All the surveys agreed that the lake's carp biomass density exceeded the 100 kg/ha threshold for maintaining healthy water quality but did not agree about by how much.

Radio telemetry tags were implanted in 15 carp in 2019 and their movements were tracked during 2019 and 2020. Passive integrated transponder (PIT) tags were implanted in about 178 carp to better assess their carp population after removal events. Radio telemetry tags were implanted in another 20 carp during October 2020.

Radio tagged carp were located during January and February 2021 to facilitate potential seining and estimate the size of the lake's carp population. Telemetry and sonar data showed a school of fish large enough for Deslauriers Fishing to sein on February 25th. A total of 600 pounds of carp were caught during the day's haul. The captured carp were measured and scanned but none had telemetry or PIT tags. Deslauriers Fishing was paid $3,500 to subsidize the fishing costs. Radio telemetry tagged fish were located weekly during the spawning season and monthly thereafter until the tag's batteries were depleted in September. Deslauriers Fishing attempted to remove carp again on December 2nd. About 800 pounds more carp were caught. None were radio tagged. Damage to the nets and cold weather prevented making additional hauls before freeze up.

The district contracted with Carp Solutions in 2022 to better determine the carp biomass density for the lake. To accomplish this electrofishing transects were completed. Pitt tags were implanted in 101 carp. Box nets were installed and baited with cracked corn. Carp were removed using the box nets twice during July. Of the 676 carp captured and removed from the lake, 11.8% were PITT tagged. Carp Solutions estimated that about 4600 carp individuals remain in the lake and the biomass density is 68.8 kg/ha.

Since the tag and capture gives the most accurate population estimate of the two methodologies used, it appears that carp populations are below the threshold where they degrade Lake Okabena's water quality. The partners believe actions should be taken to keep the population below the threshold. The district contacted Carp Solutions in early 2023 about taking the next steps for carp capture and removal. Their schedule was full, so they were unable to provide services during the year.

Carp Solutions presented a proposal to remove carp from the lake in early January 2024. It was deemed to be too expensive. Instead, the district paid to place a dumpster for carp disposal in Centennial Park during the spawning season. Bow hunters were encouraged to use the dumpster to dispose of carp shot around the lake and Whiskey Ditch. About fifty fish were thrown in the dumpster in April and May. All were rough fish but few were carp.

Public Information and Education
The district works with partners to provide watershed related educational opportunities for Worthington's residents, area civic groups and schools. Below are the 2024 accomplishments.

1. Worked with Nobles SWCD to provide walking tours and Prairie Ecology Bus Center activities at the Worthington Prairie Wetland Learning Area for all the 5th grade students in the district's schools.
2. Updated the district website monthly.
3. Worked with Worthington to accomplish educational components of the city's Stormwater Pollution Prevention Plan including:
    - Distributing three pollution prevention factsheets to Worthington Public Utilities customers.
    - Installing 132 catch basin markers in Worthington.

Crailsheim Water Quality Improvement Pond Grant
During 2021, the OOWD and the Worthington school board worked with Houston Engineering to propose a water quality improvement pond to detain and clean up water flowing through the school district's Crailsheim property. The chosen alternative will prevent 327 pounds of phosphorus pollution from reaching Lake Okabena annually and reduce sediment loading by 234,464 pounds per year.

In early 2022, the school board agreed to sign an easement for the OOWD to build, operate and maintain the project if a state grant was received. The OOWD applied for a $970,312 Clean Water Legacy Grant in August. The grant was approved by the Board of Water and Soil Resources in December. It requires a $242,578 local match.

The grant agreement was signed in early 2023. A permanent easement for the project site and a temporary easement for construction activities were completed and signed by the school board. Wetlands were delineated and a dam safety analysis was conducted. Onsite meetings and remote meetings were held between the Wetland Conservation Act Technical Evaluation Panel, Army Corps of Engineers, DNR and Houston Engineering staff to discuss permitting requirements for the project. The Army Corps of Engineers permit was received in 2024.

It was determined in early 2024 that the original design for the plan would not meet state and federal dam safety guidelines. Houston Engineering began revising project to reduce the height of the dam and pond size. The redesign would remove approximately 21% less phosphorus than promised in the Clean Water Legacy Grant application to the state. Upon submission of the redesigns to the DNR for review, it was determined that the lower dam and smaller pond would still be a significant risk to the public if it failed. While the OOWD may have submitted the design with a state permit application, it was apparent that no DNR permit would be issued for it in the foreseeable future.

In November, Houston Engineering was tasked with providing the OOWD with options for sequestering as much phosphorus as possible on the site with low hazard or no hazard impoundments. A memo describing alternatives will be received before the end of January 2025. At that time the alternatives will be reviewed by the district, school district and Board of Water and Soil Resources grant reviewers. If an alternative is acceptable to the partners and eligible for grant funding, construction may occur in 2025.

District Property Management
The district owns 414 acres of land in four locations. Approximately 15 acres is managed as pollinator habitat, with the rest managed for water quality protection, recreational activities or wildlife habitat. At Lake Bella Park, the district operates and maintains the Stateline Dam structure, a boat landing, picnic shelters, roads, trails and a restroom. Below are the land management activities completed in 2023.

1. Mowed and maintained the trails at Bella Park.
2. Picked up litter and mowed around the shelters and restrooms as needed at Bella Park.
3. Sprayed herbicide to kill thistles, unwanted volunteer cottonwood and willow trees growing on the St. John property and prairie areas of Bella Park.

4. Sprayed and cut trees growing on the Lake Bella dam.
5. Removed litter multiple times at the St. John Property.
6. A controlled burn to maintain prairie in Bella Park was scheduled on May 13th. The volunteer burn crew and equipment gathered on-site but the county issued a burn ban that day due to poor statewide air quality. No work was completed.

Construction Site Inspections
The district works with Worthington to require erosion and sediment control permits for construction sites and complete inspections monitoring compliance with watershed district and state required plans. During 2024, the district conducted 75 inspections at 14 different NPDES permitted construction sites in Worthington. District staff communicated regularly with the City Engineer and Stormwater Pollution Prevention Plan responsible parties about installation and maintenance of required Best Management Practices

Permits and Drainage Project Notifications
The district reviewed applications and issued permits seven projects in 2024 including:

1. One large project requiring the implementation of Stormwater Pollution Prevention
2. Plan (SWPPP),
3. One project requiring erosion and sediment control during construction of a new home,
4. One project requiring erosion and sediment control during work on Lake Okabena's shoreline,
5. One project replacing culverts in a private driveway, and
6. Two city park projects requiring the implementation of erosion and sediment control plans during reconstruction of a boat landing and shoreline repair.

Okabena-Ocheda Watershed District
2024 Income and Expenses

Ordinary Income/Expense	
Income	
CD Interest	28,899.08
CWP Reimbursements	22,136.58
District Levy	243,607.52
Insurance Premium Refund	2,323.22
Local Government Aid	4,881.15
Money Market Account Interest	1,541.53
Storm Water Education	8,449.20
Total Income	311,838.28
Expense	
Audits	4,466.22
BMP Cost-Share	1,000.00
CWP Board Expense Contributions	2,481.00
Education Expenses	1,250.00
Employee Benefits	535.70
Filter Strip Incentives	36,642.00
Insurance and Bonds	3,587.00
MAWD Dues	2,916.00
MAWD Meeting Expenses	3,738.13
Mileage Reimbursement	3,997.96
Miscellaneous	52.25
Office Expenses	6,940.26
Payroll Taxes	6,178.00
PERA Expense	5,670.70
Property Maintenance	30,691.17
Property Taxes	451.04
Public Notices	514.14
Reconciliation Discrepancies	0.00
Salaries and Wages	85,241.11
Storm Water Education Expenses	2,843.20
SWCD Services	5,000.00
Water Quality Projects	278.04
Water Sampling	1,133.75
Total Expense	205,607.67
Net Ordinary Income	106,230.61
Other Income/Expense	
Other Income	
Crailsheim Project Grant Income	478,800.05
CWL Grant Interest	15,305.68
Total Other Income	494,105.73
Other Expense	
ISD 518 Crailsheim Engineering	166,765.40
Total Other Expense	166,765.40
Net Other Income	327,340.33
Net Income	**433,570.94**