OKABENA-OCHEDA WATERSHED DISTRICT
2021 ANNUAL REPORT

The Ocheyedan River flowing into Lake Bella during the fall 2021 Lake Ocheda drawdown

OKABENA-OCHEDA WATERSHED DISTRICT
960 Diagonal Road, P.O. Box 114
Worthington, MN 56187-0114
(507) 372-8228
http://www.okabenaochedawd.org

OKABENA-OCHEDA WATERSHED DISTRICT

BOARD OF MANAGERS

President	Rolf Mahlberg 29403 Paul Avenue Worthington, MN 56187
Vice-President	Casey Ingenthron 26962 Plotts Avenue Worthington, MN 56187
Secretary	Jeff Rogers 1627 Fairway Lane Worthington, MN 56187
Treasurer	Jay Milbrandt 27494 Read Avenue Worthington, MN 56187
Manager	Steve Bousema 1040 Maplewood Drive Worthington, MN 56187

STAFF

Administrator	Dan Livdahl 960 Diagonal Road, P.O. Box 114 Worthington, MN 56187

ADVISORY COMMITTEE

John Ahlers
31431 330th Street
Bigelow, MN 56117

Logan Ahlers
31384 330th Street
Bigelow, MN 56117

Doug Anton
2335 West Ridge Road
Worthington, MN 56187

Robert Demuth, Jr.
1404 Indian Hill Road
Worthington, MN 56187

Caleb Fellows
29856 Plotts Avenue
Worthington, MN 56187

Galen Gordon
23797 Oliver Ave.
Worthington, MN 56187

Matt Widboom
22487 Highway 59
Worthington, MN 56187

Les Johnson
28967 Co. Highway 35
Worthington, MN 56187

Ben Krohn
31161 Quine Avenue
Worthington, MN 56187

Justin Langseth
35702 280th Street
Worthington, MN 56187

Paul Langseth
35505 280th St.
Worthington, MN 56187

Eric Roos
Worthington Public Utilities
P.O. Box 458
Worthington, MN 56187

John Shea
1619 Birchwood Place
Worthington, MN 56187

OKABENA-OCHEDA WATERSHED DISTRICT
2021 Annual Report

Clean Water Partnership
Worthington and the Okabena-Ocheda Watershed 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 and causes of Lake Okabena's impairments.

The district completed the following JPO activities in 2021:

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. Tested Lake Okabena algae blooms at Lake Front Park and Centennial Park beaches for microcystins toxins. Worked with the city Public Works Department to notify the public when harmful algae blooms were detected.
4. Managed water levels at the Prairie View project pond. Sprayed thistles and cut unwanted cottonwood and willow trees near the pond and sand filter benches.
5. Issued incentive payments for 128.4 acres of grass filter strips covering 90 percent of the streams in the Lake Okabena sub-watershed.

The district will continue to work with Worthington in 2022 to monitor lake water quality and harmful algae blooms, provide filter strip incentives and operate and maintain the Prairie View project site.

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 2021.

1. Issued 43 CRP filter strip incentive payments totaling $36,397 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 cost-share payments totaling $1294,40 to two landowners to seal one well and build one grass waterway.

The district will continue to pay filter strip incentives and provide cost-share payments for eligible best management practices in 2022.

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 and promote submerged vegetation. Construction modifying the outlet dam to make the drawdown possible was mostly done in December 2019. Below are actions taken in 2021 and observations on the effectiveness of the 2020/2021 lake level drawdown.

1. Stoplogs were removed from the Lake Ocheda dam during August 2020 to lower the lake level and promote a fish kill. Dry weather and low stream and groundwater inflow allowed the level to be managed at the dam sill elevation throughout the winter of 2020/2021.
2. Ice thickness, water depth under the ice and dissolved oxygen levels were monitored in

January and February. A cold snap and snow in February caused dissolved oxygen levels lake-wide to drop to near zero for about a week. Dead fish were observed and documented wherever there was open water in late February. Large numbers of migrating bald eagles scavenged the fish during the first two weeks of March

3. The stoplogs were reinstalled and fish screens lowered on March 11th to allow the lake to refill.
4. As the ice melted in March, large numbers of dead fish washed up on the shoreline of the lake. No attempts were made to quantify the number of fish killed, but the most common species washed onto shore were bigmouth buffalo and common carp. It was also apparent that many fish, including carp, survived the winter.
5. The district provided cost-share payments to two landowners to help remove rows of dead fish washed onto their beaches.
6. The DNR restocked the lake with small perch and northern pike fingerlings in early April.
7. Due to a dry winter and spring, the lake did not recover to its full service level until late August. Low lake levels seemed to promote the resuspension of lake sediments and degrade water clarity.
8. Water quality monitoring was conducted monthly during June, July, August and September. The results showed very poor water clarity with high phosphorus and chlorophyll-a concentrations.
9. The submerged vegetation survey, planned for August, was called off when it was apparent that no plants were present in the lake.
10. The lake management team met in August and recommended another fall and winter drawdown attempt. After permission was received from the state, drawdown notices were mailed to the Lake Ocheda riparian landowners and other interested parties on August 19th.
11. Stoplogs were removed from the dam structure to begin the water level drawdown during the week of September 8th.
12. As the stoplogs were removed it became apparent that vegetation and obstructions in the Ocheyedan River were slowing water flow out of the lake.
13. A beaver dam obstructing flow from the lake was partially removed using a trackhoe in early September. Work was also done by hand to remove the portions of the dam not accessible to the power equipment.
14. The district paid a bounty to trap seven beaver between Lake Ocheda and Lake Bella during the fall.

Due to vegetation in the Ocheyedan River channel downstream of Lake Ocheda, only six inches of two foot water level drawdown goal was achieved before the end of the year. Outflow at the dam, dissolved oxygen concentrations, ice thicknesses and remaining water under the ice will be monitoring during January and February 2022. Stoplogs will be replaced in the dam before April 15, 2022.

The results of the two winter drawdowns will be assessed and documented int 2022. Monthly water quality monitoring will be completed during the growing season. A submerged vegetation survey will be completed in August if observations in the basin show it is warranted.

The DNR may stock perch and northern pike in Lake Ocheda again during spring 2022 if a significant winter fish kill occurs.

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. Radio telemetry tags were implanted in 15 carp in 2019 and their movements were in 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.

1. Radio telemetry tagged carp were located during January and February to facilitate potential seining.
2. Telemetry and sonar data showed a school of fish large enough for Deslauriers Fishing to

attempt seining 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 had no telemetry or PIT tags. Deslauriers Fishing was paid $3,500 to subsidize the fishing costs.
3. Radio telemetry tagged fish were located weekly during the spawning season and monthly thereafter until the tag's batteries were depleted during September.
4. Deslauriers Fishing attempted to remove carp again on December 2nd. About 800 pounds of carp were caught. None were radio tagged. Damage to the nets and cold weather prevented making additional hauls before freeze up.

Attempts to remove carp from Lake Okabena were disappointing with few fish removed during the two hauls. The district hoped to catch enough PIT tagged fish during the year to complete an accurate assessment of Lake Okabena's carp population. This did not occur. The failure to catch a large number of carp, or for that matter, Bigmouth Buffalo, is an indicator of the difficulty of seining a lake the size, shape and depth of Okabena.

Data collected since 2018 will be reviewed in 2022 and a plan will be developed for where to go next with the Okabena carp population control efforts.

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 2021 accomplishments.

1. Worked with Nobles SWCD to provide walking tours and Prairie Ecology Bus 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 115 catch basin markers in Worthington.
4. Partnered with Nobles SWCD to provide a local match of $7000 for a federal grant received by the USFWS to remove the duck blind and dock at the Worthington Prairie Wetland Learning Area and replace it with a floating dock. The USFWS will finish the project in 2022.

Future Water Quality Project Feasibility
Contracted with Houston Engineering to do a feasibility study of water quality improvement ponds and practices on the Worthington School District's Crailsheim property. Held meetings with the Superintendent and grounds committee to discuss the alternatives. Participated in a work session with the school board to discuss the potential project's benefits, location and funding. The school board will decide whether it is acceptable to build water quality ponds on their property before the OOWD proceeds with the next stage of engineering during 2022.

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, park shelters, roads, trails and a restroom. Below are the land management activities completed in 2021.

1. Mowed and maintained the trails at Bella Park.
2. Picked up litter and mowed around the picnic shelters and restroom as needed at Bella Park.
3. Removed litter and fallen trees multiple times at the St. John Property.
4. Sprayed herbicide to kill volunteer cottonwood and willow trees growing in the St. John property waterway to allow for future maintenance.

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 2021, the district conducted 126 inspections of 23 different NPDES permitted construction sites in Worthington. District staff communicated regularly with 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 fourteen projects in 2021 including:

1. Three large projects requiring implementation of Stormwater Pollution Prevention Plans (SWPPP),
2. Construction on two lots subject to regulation under the Cherrywood Addition SWPPP, and
3. Nine smaller construction projects requiring erosion and sediment control plans.

Okabena-Ocheda Watershed District
2021 Income and Expenses

Ordinary Income/Expense	
Income	
Checking Interest	29.48
CWP Reimbursements	23,585.65
District Levy	252,783.28
Insurance Premium Refund	1,797.00
Local Government Aid	1,704.79
Money Market Account Interest	663.08
Permit Inspection Fees	150.00
Property Rent	1,400.00
Storm Water Education	14,643.44
Total Income	296,756.72
Expense	
Audits	3,900.00
BMP Cost-Share	1,294.40
Capital Outlay	2,711.95
CWP Board Expense Contributions	1,141.50
Education Expenses	4,975.00
Filter Strip Incentives	36,582.00
Insurance and Bonds	3,378.00
Lake Ocheda Enhancement Project	1,502.42
MAWD Dues	2,399.00
MAWD Meeting Expenses	198.00
Miscellaneous	38.98
Office Expenses	5,283.32
Payroll Expenses	93,849.11
Property Maintenance	2,598.90
Property Taxes	15.86
Public Notices	307.50
Staff and Managers Training	234.41
Storm Water Education Expenses	1,990.01
SWCD Services	5,000.00
Vehicle Maintenance	60.58
Water Sampling	1,807.75
Total Expense	169,268.69
Net Ordinary Income	127,488.03
Other Income/Expense	
Other Income	
Okabena Carp Control Reimburse	52,000.00
Total Other Income	52,000.00
Other Expense	
ISD 518 Crailsheim Engineering	41,638.85
Okabena Carp Population	12,340.50
Total Other Expense	53,979.35
Net Other Income	-1,979.35
Net Income	**125,508.68**

Balance Sheet
December 31, 2021

	Dec 31, 21
ASSETS	
Current Assets	
Checking/Savings	
District Checking	343,767.37
Wells Fargo Checking	7,064.02
Wgtn Federal Money Market Acct.	245,202.26
Total Checking/Savings	596,033.65
Other Current Assets	
Reserved Fund Balance	-18,481.54
Total Other Current Assets	-18,481.54
Total Current Assets	577,552.11
TOTAL ASSETS	**577,552.11**
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Other Current Liabilities	
Payroll Liabilities	0.10
Total Other Current Liabilities	0.10
Total Current Liabilities	0.10
Total Liabilities	0.10
Equity	
Retained Earnings	468,617.48
Net Income	133,927.84
Total Equity	602,545.32
TOTAL LIABILITIES & EQUITY	**602,545.42**