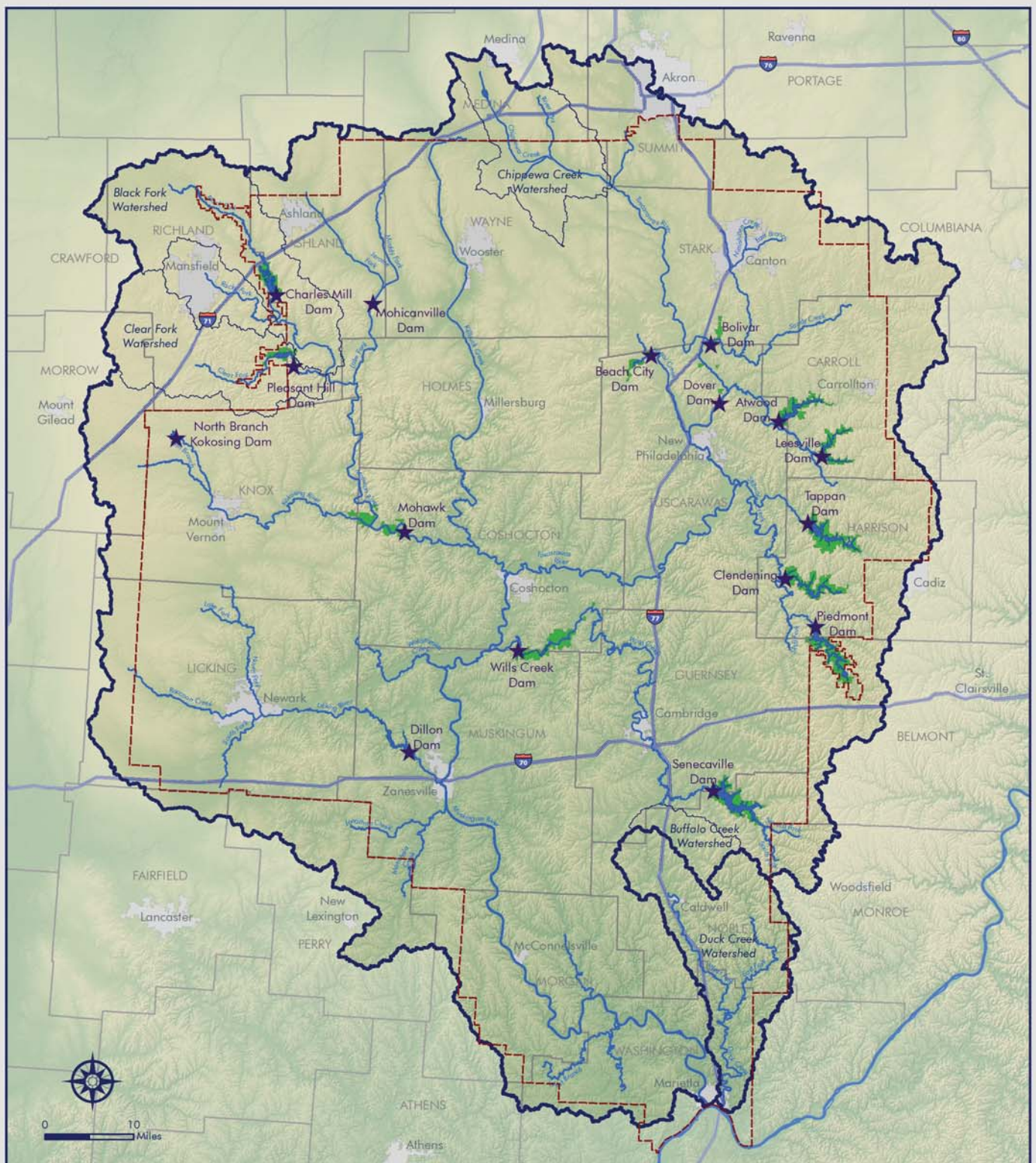


# 2018

## *Annual Report of Operations*







## The Muskingum Watershed

-  Dams
  Interstate
  MWCD Property
-  River/Stream
  MWCD Jurisdiction
  City
-  Lake
  Muskingum Watershed
  County Line



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## Mission

Responsible stewards dedicated to providing the benefits of flood reduction, conservation and recreation in the Muskingum River Watershed.

## Vision

Respected and valued Leader, Employer, Provider and Partner in Flood Reduction, Conservation and Recreation.

## Values

### Service

We take the extra step to understand the needs of our customers, external stakeholders and each other, focusing on solutions to provide the best experience possible.

### Teamwork

We leverage our collective knowledge and work as a team together to advance our mission and improve the organization.

### Excellence

What we do, we do well, keeping our standards of service and our work performance at a high level.

### With Integrity

We work with each other, our customers and partners openly and sincerely in an ethical and professional manner.

### Accountability

We do what we say we are going to do with a positive attitude and a willingness to grow, learn and challenge ourselves and each other.

### Respect

We treat others with courtesy and dignity as we would like to be treated.

### Dedication

We have passion for our mission and are committed to our work and the role we play in our organization.

### Safety

We foster a culture of safety to ensure protection of our customers, our partners and each other.





# Administration

**Executive Director Message**

**Executive Staff**

**Conservancy Court**

**Board of Directors**

**Board of Appraisers**

**Development Advisory Committee**

**Human Resources**



## *Message from the Executive Director*

**“Responsible stewards,”** the first two words of the mission statement of the Muskingum Watershed Conservancy District, are the most important. They define us, “the persons dedicated to providing the benefits of flood reduction, conservation and recreation in the Muskingum River Watershed.”

As “responsible stewards,” our Board of Directors has committed the reinvestment of revenue generated from our oil and gas stewardship program into significant improvement of our parks, campgrounds and marinas. This effort resulted in more than \$34 million in capital improvements completed in 2018. Project locations were Atwood, Charles Mill, Clendening, Leesville, Piedmont, Pleasant Hill, Seneca and Tappan. We are nearing completion of Phase I projects which will total \$130 million. Plans for Phase II projects began in 2018 and will continue into 2019.

Our Partners in Watershed Management program shares revenue with local communities generated from the maintenance assessment levied on property owners in the watershed. In 2018, over \$1 million was contributed by the MWCD which funded 15 projects totaling over \$5.5 million. These projects support conservation and flood reduction in the Muskingum River Watershed.

Our forestry staff manages approximately 24,000 acres of hardwood forests and nearly 6,000 acres of pine forests on land owned by the MWCD. An inventory of our forests was our focus in 2018. This inventory will provide important data regarding density, age, species composition, and invasive species and will assist in our planning and forestry operations.

2018 saw continued growth of our partnerships with the U.S. Army Corps of Engineers, the U.S. Geological Survey, the Ohio Lake Management Society, the Ohio Department of Natural Resources, the Ohio Environmental Protection Agency and Soil and Water Conservation Districts. These partnerships have enabled the MWCD to better monitor the water quality of its reservoirs and streams, and to share important data with its partners and the public.

In 2018, nearly four million patrons visited MWCD parks and recreation areas. MWCD rangers patrol our facilities regularly, providing a safe and family-friendly atmosphere for all to enjoy. Boating, fishing and camping continue to be popular recreation activities on MWCD lakes and land. Special events, fireworks displays and festivals continue to draw large crowds.

Finally, MWCD is in excellent financial condition as evidenced by the 2018 Financial Report contained herein. And so we remain dedicated to our mission as **“responsible stewards.”**



*John M. Hoopingarner  
Executive Director/Secretary*

## *Executive Staff*



*Scott D. Barnhart  
Chief of Recreation/  
Chief Ranger*



*Mary C. Burley  
Director of  
Human Resources*



*James B. Cugliari  
Chief Financial  
Officer/Treasurer*



*Bradley P. Janssen  
Chief of  
Conservation*



*James J. Pringle  
Chief Legal  
Counsel*



*Boris E. Slogar, P.E.  
Chief  
Engineer*

## *Conservancy Court*

### **ASHLAND**

Damian J. Vercillo \*

### **BELMONT**

John A. Vavra \*

### **CARROLL**

John S. Campbell \*

### **COSHOCTON**

Robert J. Batchelor \*

### **GUERNSEY**

Daniel D. Padden \*

### **HARRISON**

T. Shawn Hervey \*

### **HOLMES**

Robert D. Renfret

### **KNOX**

Richard D. Wetzel \*\*

### **LICKING**

Thomas M. Marcelain \*

### **MORGAN**

D. W. Favreau \*

### **MUSKINGUM**

Mark C. Fleegle

### **NOBLE**

John W. Nau \*

### **RICHLAND**

Philip Alan B. Mayer \*

### **STARK**

Jim D. James \*

### **SUMMIT**

Paul J. Gallagher

### **TUSCARAWAS**

Edward E. O'Farrell

### **WASHINGTON**

Mark Kerenyi \*

### **WAYNE**

Latecia E. Wiles

\* Conservancy Court judges who attended the annual meeting on June 1, 2018

\*\* Appointed to the Conservancy Court in December, 2018



The Ohio Revised Code provides that the Conservancy Court, comprised of one common pleas court judge from each of the 18 counties in the Conservancy District, shall exercise the jurisdiction conferred by Chapter 6101 of the Code (also known as The Conservancy Act). Members of the MWCD Board of Directors and Board of Appraisers are appointed by the judges of the Conservancy Court to oversee the operations of the District. The Conservancy Court held its annual session on Friday, June 1, 2018, at the Tuscarawas County Court House in New Philadelphia, Ohio.



The Conservancy Court reviewed and approved the 2017 Annual Report of Operations. The court heard a presentation from Lt. Col. William "Josh" Miller, Deputy District Commander, Huntington District of the U.S. Army Corps of Engineers, regarding the status of the dam maintenance program and heard a presentation from Executive Director, John Hoopingarner, regarding 2017 highlights of operations. Joanne Limbach was reappointed to the Board of Directors and James M. Gresh was appointed to fill the unexpired term of Stephen L. Paquette, who unexpectedly passed away in April. Mark J. Waltz and Bradley M. Stubbs were reappointed to the Board of Appraisers. In other action, the Court approved fund transfers; additional water supply to the Village of Cadiz; an extension of time to file an official plan for the Clear Fork Subdistrict; and heard a report from Boris E. Slogar, Chief Engineer, regarding the Clear Fork and Black Fork subdistricts.

TOP PHOTO: Lt. Col. William "Josh" Miller, U.S. Army Corps of Engineers, presents to the Court.

ABOVE PHOTO: The Honorable Jim D. James (Stark) presided over the court session.

PHOTO AT RIGHT: John M. Hoopingarner, MWCD Executive Director, presents to the Court. Clark E. Sprang, President of the Board of Directors, is seated at the table and members of the Conservancy Court are seated in the jury box.





## *Board of Directors*



*James M. Gresh*



*Joanne Limbach*



*Gordon T. Maupin*



*Robert S. Moorehead, Jr.*



*Clark E. Sprang*

Ohio law mandates that the Muskingum Watershed Conservancy District Board of Directors consists of five members appointed by the Conservancy Court. The Board is empowered to handle all the items necessary or incident to the fulfillment of the purposes for which the Conservancy District was established.

The Board members each have unique experiences and skills that collectively bring meaningful discussion and decision making processes to the organization. The varied demographics by location is required by Conservancy law and lends itself to balanced leadership when reviewing goals and outcomes of the District.

Members of the Board of Directors as of December 31, 2018, were:

- James M. Gresh of North Canton, term expires July 18, 2022
- Joanne Limbach of New Philadelphia, term expires June 3, 2023
- Gordon T. Maupin of Orrville, term expires July 18, 2019
- Robert S. Moorehead, Jr. of the Seneca Lake area, term expires August 26, 2021
- Clark E. Sprang of Big Prairie, term expires June 6, 2020

Meetings of the Board of Directors are open public sessions and are conducted in accordance with the open public meetings laws as required by the Ohio Revised Code. There were 11 meetings held in 2018 at various locations.

Clark E. Sprang served as president of the Board, and Robert S. Moorehead, Jr., served as vice president. In July, Mr. Moorehead took the reins as president, while Joanne Limbach was elected vice president.

Minutes of all Board meetings are on file in the MWCD's main office at New Philadelphia and are also found on the District website at [www.mwcd.org](http://www.mwcd.org).

Biographic information about the Board members is available at the website under the "Get to Know Us" tab, in the "Governance" section.

### **Stephen L. Paquette, 1950-2018**

Mr. Paquette was appointed to the MWCD Board of Directors in June 2017. He unexpectedly and suddenly passed away in his home in Stark County on April 7, 2018. "Although somewhat new to the Board, Steve made an immediate impact through his guidance on the MWCD capital improvement plan based on his many years of economic development experience. He will most certainly be missed as he was always genuine and a gentleman," said John M. Hoopingarner, MWCD Executive Director/Secretary. The MWCD placed a memorial park bench at Stark Parks in remembrance of Mr. Paquette.



*John Hoopingarner (L) with Stephen Paquette.*



*Bradley M. Stubbs*



*Mark J. Waltz*

## *Board of Appraisers*

The MWCD Board of Appraisers consists of three members and is responsible for appraising property to be acquired for rights of way, reservoirs, and other works of the MWCD, and appraises all benefits or damages resulting from the execution of the Official Plan. Duties of the Board of Appraisers are set forth in Section 6101.27 through 6101.43 of the Ohio Revised Code. Members of the Board of Appraisers are appointed by the Conservancy Court and serve staggered terms.

Members of the Board of Appraisers as of December 31, 2018, were:

- Bradley M. Stubbs of Zanesville, term expires June 7, 2023
- Mark J. Waltz of Dover, term expires June 3, 2023
- An unexpired term ending June 4, 2021, is vacant due to the resignation of Thomas Roe of Wooster in February 2018

Meetings of the Board of Appraisers are open public sessions and are conducted in accordance with the public meetings laws as required by the Ohio Revised Code. One meeting was held during 2018.

Mark J. Waltz served as chairman of the Board of Appraisers.

## *Development Advisory Committee*

Created by the MWCD Board of Directors in 1992, the 20-member Development Advisory Committee (DAC) provides an organized public support system for responsive and effective economic development, conservation and recreation programs. DAC members are appointed by the Board of Directors and serve staggered three-year terms.

Joe Gies served as chairman of the DAC during 2018, and the DAC held three meetings.

Through their regular meetings, DAC members are informed about MWCD projects and operations. DAC members also present items assigned for discussion and make recommendations for possible action by the MWCD Board of Directors.

Members of the DAC as of December 31, 2018, including their residence:

Matthew D. Abbott  
*New Concord*

Jeffrey R. Corney  
*Wooster*

Alfred J. Fearon  
*Bolivar*

Joe Gies  
*Shelby*

Michael Gunther  
*Dover*

Bryan L. Haviland  
*Worthington*

JoEllen Hayes  
*Cambridge*

Chris Jacobs  
*Scio*

Ed Lee  
*New Philadelphia*

John L. Lofgren  
*Uniontown*

Dana McDaniel  
*Dublin*

Luke Messinger  
*Gahanna*

A. Bruce Robinson  
*Scio*

George Romanoski  
*Akron*

James Schoch  
*New Philadelphia*

John R. Wirtz  
*Sherrodsville*

### **NOTE**

*There were four (4) vacant seats on the DAC as of December 31, 2018.*



*Seated at the table are DAC members, (l-r), John Wirtz, JoEllen Hayes, Bruce Robinson and James Schoch.*



## Human Resources

The MWCD employed 116 full-time team members in 14 different facilities located in 8 different counties throughout Ohio during 2018. Another 231 seasonal/variable employees worked at our facilities during the summer months to serve our customers during the recreational season. Some highlights of the HR departmental activities in 2018 include the following:

### Reorganization of HR

During 2018, a major reorganization occurred in which the Information Systems/Information Technology department was moved under the Human Resources area. Along with this change, the Building and Fleet Technician was moved under the Safety Administrator, and the Office Assistant at the Main Office was moved under the Human Resources Generalist. These changes were made to strengthen services provided to external customers and internal customers — MWCD employees.

### Training and Development

Leadership training continued in 2018 with another group of managers and employees completing a workshop entitled Everything DiSC – Effective Communication Skills. This training utilized the DiSC assessment that has been used in several previous trainings with MWCD employees. The DiSC assessment allows managers and employees to gain a better understanding of their own personality with the goal of becoming a better communicator, team builder and overall employee.

Selected managers also participated in a leadership assessment program through Pradco, a management consulting firm. They completed online leadership assessments and were interviewed in person by a Pradco representative. The process gave managers great insight into how to better their skills as leaders and how to create attainable goals to enhance leadership abilities.

HR continued to encourage professional development through the online training program known as the Reservoir of Knowledge, or the ROK, in 2018. This unique learning program offers technical and soft skills training as well as required compliance training to employees in an easy-to-use system.

### Talking Values — S.T.E.W.A.R.D.S.

The Board of Directors approved organizational values for the MWCD at their October 20, 2017, meeting. After the approval of these values, it was the goal of executive management to communicate and explain them to all

employees by the end of the second quarter, 2018. The values: Service, Teamwork, Excellence, With Integrity, Accountability, Respect, Dedication and Safety, form an acronym that is an important word used throughout the organization – STEWARDS. A marketing campaign was put forth to spread information regarding these values, including canvas portraits, handouts, desk magnets and most importantly, in-person meetings at each location with John Hoopingarner, Executive Director, and Mary Burley, Director of Human Resources, leading open discussions with employees on the new organizational values and their ideas for putting the values into action.



*John Hoopingarner, Executive Director, visits the Charles Mill Lake Park to talk with staff about newly adopted organizational values.*

### Wellness Program

During 2018, a wellness nurse conducted monthly visits to each MWCD park, marina and office to meet with employees and discuss ways to improve their health and wellbeing. These visits are well received by employees and incentives can be earned depending on participation and completion of wellness goals.

New for 2018, two health fairs were held in October instead of just one. The main office employees were invited to participate in a health fair hosted at our newest Main Office Annex building on Reiser Avenue in New Philadelphia. Park and marina employees were invited to attend a health fair the following day located at a public meeting space. The theme for the 2018 health fair was “Flannels and Football,” where employees were encouraged to wear their favorite flannel or football attire.

## MWCD Hosts Its First Job Fairs

HR worked with park and marina staff to coordinate MWCD seasonal job fairs for the first time in 2018. Two job fairs were held: one in March at Tappan Park and one in December at the Main Office Annex building. These proved to be a very productive way attract quality applicants.

Candidates completed online employment applications at the job fairs and were interviewed “on the spot” for various seasonal positions by managers representing their locations. Fifty percent (50%) of the applicants attending the spring job fair were hired for the 2018 season. Due to the success of these first two job fairs, HR staff will continue to host these throughout the MWCD in future years.



Above: Applicants complete online employment forms at the Tappan Park Job Fair; at right: Jeremy Hoffer, Tappan Marina Manager, interviews an applicant at the Tappan Park Activity Center.



## Safety Program

A top priority of the MWCD is the safety of its customers and staff. A conservative estimate of nearly four million people use the MWCD public facilities every year, which highlights the need for safety and security. MWCD has a robust safety training program to review

industry standard safety procedures and to continually improve the skills of staff to serve our customers. Safety highlights include:

- Over 322,444 on-the-job hours were clocked by the combined 102 full-time and 215 seasonal staff plus 30 Rangers in 2018, with only eight reportable injuries and 45 days away from work recorded.
- The following locations ended the year with zero recordable incidents:
  - Atwood Lake Park
  - Charles Mill Lake Park
  - Clendening Lake Marina
  - Pleasant Hill Lake Park
  - Seneca Lake Park
  - Tappan Lake Marina
- The MWCD did not have any reportable work-related fatality incidents.

Other safety training included:

- The Safety Administrator provided instruction to seven staff members for renewal or certification in CPR/First Aid/AED operations.
- 32 staff members received AED orientation in AED for a new AED installed at the Annex.
- Dive Rescue International out of Fort Collins, Colorado, provided instructor training to 11 MWCD staff members at Tappan Lake Park in February 2018. These 11 staff members are now certified to instruct in ice rescue training around the district. This will include training partnering agencies at all reservoirs.
- Over 200 returning seasonal staff and first-time seasonal hires participated in annual orientation and training at all parks and marinas.
- 12 MWCD staff members participated in a two-day training program in the use, form development and application of the ProntoForms Platform. This SaaS allows for the use tablets for such applications as checklists, inspections and reporting.
- Nine MWCD staff members attended chainsaw safety training to aid in the response to storm related damage around the district.
- 16 Rangers attended fentanyl response training and exposure prevention as part of regular in-service training.



Sign Up For  
Notifications



*We issue alerts regarding imminent threats to health and safety, and updates that affect activities or property in and around the lake.*





*MWCD staff taking part in instructor training for ice rescue operations at Tappan Lake.*

In the fourth quarter of 2018, plans were developed to enhance and improve the MWCD notification system to better serve internal customers as well as visitors to the District properties. These plans include development of incident templates to improve faster notifications for managers, better use of the 888777 text-to-system and easier data management. These enhancements are scheduled for completion in the first quarter of 2019.

### **Information Technology**

Staff working in the Information Technology (IT) department provide numerous services that supply employees with resources to efficiently complete required tasks and provide customers with easier access to information about MWCD. Improvements and upgrades are continually completed to keep IT systems current and in line with organizational needs.

Besides the regularly scheduled upgrades to computer hardware, software, communication systems, security systems, and network infrastructure, other projects/activities were conducted by our IT staff in 2018:

- Received and closed out more than 1,770 organizational helpdesk requests from 12 District facilities.

- Assisted with recreation capital improvements and master planning through consulting and installing systems at newly constructed facilities at Atwood Park, Pleasant Hill Park, Seneca Park, Tappan Park and Tappan Marina.
- Assisted with the installation of all network and communication systems at Tappan Lake Marina, a marina that MWCD began operating in 2018.
- Coordinated the installation of high speed internet for the Tappan Lake Park office facility.
- Installation of new core network and communication server rooms at Pleasant Hill and Tappan park offices.



*Joe Baker, IT Analyst, and Matt Ott, Network Administrator, work on wiring at Tappan Lake Marina to connect the facility to the MWCD intranet.*

# Chief Engineer's Report

**Flood Reduction: U.S. Army Corps of Engineers  
Reservoir Maintenance  
Park and Marina Capital Improvements  
Cottage Roads and Boat Launch Ramps  
GIS  
Partners in Watershed Management**





## Flood Reduction:

### U.S. Army Corps of Engineers

The operation, upkeep and maintenance of the dam and reservoir system in the MWCD relies on the close partnership with the U.S. Army Corps of Engineers (USACE). The MWCD is responsible for the 14 reservoirs and 10 lakes while the USACE is responsible for the operation and upkeep of the 14 dams in the flood reduction system.

In 1998, the USACE completed a detailed review and inspection of the state of the dams in the MWCD system. The results of the study found that the dams built in the mid 1930's were in major need of maintenance to preserve the function and integrity of future flood reduction operations. The total cost of the maintenance of the flood reduction system was projected at \$600 million. The Federal Government would allocate 75% of the total cost if a local source could provide 25%, or \$137 million, of the cost-share.

This situation prompted the MWCD to enact the maintenance assessment to provide the local cost-share. Revenues collected through the maintenance assessment may only be used toward the maintenance and upkeep of the flood reduction system, which includes dam maintenance, shoreline protection, dredging and other reservoir maintenance activities.

In addition, assessment revenues can be used for flood mitigation and water quality projects within MWCD's jurisdictional boundary through MWCD's Partners in Watershed Management Program.

The \$109 million Bolivar Dam maintenance project was completed at the end of 2018, making it the highest-rated dam in USACE's Lakes and Rivers Division. The Dam Safety Action Class (DSAC) rating of 5 is rare throughout the United States and that means that Bolivar Dam meets all USACE agency guidelines and is at its lowest risk rating.

USACE's Huntington District continued its work in the Muskingum River Basin by:

- Performing Issue Evaluation Studies (IES) on Tappan Dam and Magnolia Levee
- Achieving an endorsement for the upcoming Mohawk Dam project from the Assistant Secretary for Civil Works in the Army



*Bolivar Dam seepage barrier*

- Successfully achieving full federal funding for Mohawk Dam and Zoar Levee
- Completing a Semi Qualitative Risk Analysis (SQRA) for Tappan Dam which improved its DSAC rating from DSAC 2 to DSAC 4
- Working with MWCD in preparing Project Partnership Agreements (PPA) for Mohawk Dam and Zoar Levee projects
- Working with MWCD to complete a Final Watershed Assessment and Water Management Plan of the Muskingum River Watershed through USACE's Section 729 Program

## Reservoir Maintenance

Two main reservoir maintenance programs are managed through Engineering and include dredging and shoreline protection. Both programs are made possible through funding from the maintenance assessment. The programs are summarized below:

### Dredging

The ten permanent MWCD lakes were constructed between 1936-1939 as part of the flood reduction system and for water conservation for the benefit of public use. Over the course of the past 80 years, silts and sediments have entered the lakes and reduced the flood storage capacity by approximately 25%. A detailed study of each lake and a priority order for a dredging plan was developed in 2014 based on a wide range of factors. The priority list for dredging operations is as follows:



*Seneca Lake Dredging  
Peninsula DMRA, South Basin*



*Seneca Lake Dredging  
Churchman Point area*



*Seneca Lake Dredging  
Peninsula DMRA, South Basin*



*Seneca Lake Dredging  
Hickory Grove area*



*Seneca Lake Dredging  
Northwest DMRA*

DREDGING PRIORITY LIST	
PRIORITY	AREA
1	Tappan Lake
2	Seneca Lake
3	Pleasant Hill Lake
4	Charles Mill Lake
5	Atwood Lake
6	Piedmont Lake
7	Leesville Lake
8	Clendening Lake

The Long-Term Maintenance Dredging Program continued in 2018 with hydraulic dredging being conducted at Seneca Lake. This first phase of dredging at Seneca by PCi Dredging began in the spring near the Churchman Point Dock Association, with sediment being pumped to the south settling basin at the nearby Peninsula Dredge Material Relocation Area (DMRA) for dewatering. In June they moved to the Hickory Grove, Chestnut Grove, and West Shore Cottage Areas at the northwest end of the lake. A settling basin was constructed just west of SR313 for dewatering of sediment pumped from this area. Over 22,000 cubic yards of sediment was removed from Seneca Lake during this first phase of the project, with additional dredging planned for 2019.

## Shoreline Protection

A study of the 300 miles of MWCD shoreline was conducted in 2010 and revealed a collective 24 miles of shoreline needed stabilization on the 10 MWCD reservoirs. Completed shoreline projects and future project locations at MWCD reservoirs can be viewed on the MWCD website at [www.mwcd.org](http://www.mwcd.org)

In early 2018, construction of the shoreline stabilization projects from the 2017/2018 drawdown were completed. Two projects at Tappan and Seneca Lakes were completed by contractors at a total cost of approximately \$580,000. The Tappan Highlands project was approximately 1,000 feet in length, and the Seneca Hickory Grove/East Shore Cottage Area project totaled 1,200 linear feet in length. Another project at Leesville South Fork Marina was completed by the MWCD Engineering Heavy Equipment Crew. This rock riprap and segmental block retaining wall project was installed for approximately \$22,000. Two of these three projects were subsidized by the Clean Ohio Fund.

Later in 2018, design was completed and a contract was awarded for approximately 1,400 feet of shoreline stabilization located within Atwood Lake Park. This project was awarded at a construction cost of





*Tappan Highlands: Rock riprap with live stakes*



*Seneca East Shore Cottage Area: Rock riprap*



*Seneca Hickory Grove Cottage Area: Rock riprap*



*Seneca East Shore Cottage Area:  
Soil encapsulated lifts*

**Photographs of shoreline  
protection projects  
accomplished during the  
2017/2018 winter  
drawdown season.**



*Leesville South Fork Marina: Segmental block wall*



*Seneca East Shore Cottage Area:  
Soil encapsulated lifts*



approximately \$1.38 million. Partial funding for this project is provided by a Clean Ohio grant through the Ohio Public Works Commission. The grant will provide funding up to 75% of the project cost, but cannot exceed \$1.18 million for design and construction work. The remaining funding for this program is through the MWCD maintenance assessment.

## Park and Marina Capital Improvements

The Park and Marina Capital Improvement Plan, also referred to as the Master Plan, is the road map to the most significant upgrade to the MWCD's recreational facilities in a half century. Priorities of need were identified through public work sessions, gathering input from the customer base, and benchmarking national trends in recreation.

MWCD customers determined the number one priority in capital improvements is to upgrade campsites and the infrastructure that serve the campers. In many instances, 50-year-old electrical, water and sewer systems in MWCD campsites are not able to serve larger and modern camping units. Modern camping units also require more space and parking for multiple vehicles and hard surfaces for leveling and ease of maintenance. The focus of engineering planning and design has been to upgrade the campsites to meet these camper-driven priorities.

\$130 million has been committed to this capital improvement program to upgrade the parks and campgrounds. Construction of these improvements is now well underway.

CAPITAL IMPROVEMENTS TIMELINE	
2012-2013	Needs Identification and Prioritization
2012-2013	Master Plan Development
2014-2015	Conceptual Design
2016-current	Design
Underway	Implementation

Funding for capital improvements and major maintenance is derived from revenues reserved from oil and gas royalties. During 2018, the MWCD completed a record number of capital projects totaling over \$34 million. The following projects were constructed or under construction during 2018:



*Atwood: Restroom Facility at Main Campground Phase I*



*Charles Mill: New Water Tower*



*Piedmont: Campground Restroom Facility*



*Pleasant Hill: Campground Redevelopment*





*Tappan: Campground Renovation Phase 1*



*Seneca: Parkside Campground*

### **Atwood Park**

- Main Campground Improvements Phase 1
- Main Sanitary Sewer Lift Station Generator

### **Charles Mill**

- Water and Wastewater Improvements – includes new water and wastewater treatment plants and new water tower
- Main Campground Improvements Phase 1

### **Clendening**

- Marina Campground Paving

### **Leesville**

- South Fork Marina Campground Office and Storage Shelter
- North Fork Marina Dock Abutments

### **Piedmont**

- Campground Redevelopment Phase 1
- Water Storage and Distribution Project

### **Pleasant Hill**

- Campground Redevelopment Phase 1
- Beach Improvements
- Cabin Roadway and Infrastructure

### **Seneca**

- Parkside RV Campground
- Secrest Park Fishing Pier
- Marina Fuel System Rehab

### **Tappan**

- Campground Renovation Phase 1
- Wastewater Treatment Plant Improvements and Main Lift Station Replacement

During 2018, discussions began about the continuation of the Master Plan. Improvements necessary to support the function and sustainability of recreational areas are needed in many areas throughout the District. MWCD is currently prioritizing projects to continue Master Plan implementation into Phase II. The scope of these improvements is being expanded to include MWCD marinas as part of Phase II implementation.

## **Cottage Roads and Boat Launch Ramps**

The MWCD manages 1,202 cottage sites throughout the District and is responsible for maintenance of roadways serving these sites. Funding is available to address roadway maintenance throughout several cottage site areas and marina parking lots, thanks to revenue generated by oil and gas royalties. In addition, the launch ramp at Charles Mill Marina was replaced and improved. The total cost of construction expended on paving at cottage roads, marinas and ramps in 2018 was \$578,000 and included the following projects:

- Atwood Village and Pines Stub Roads
- Atwood East Marina Parking Lot Paving
- Pleasant Hill Idlewood Chip and Fog Seal
- Seneca Margo/Sunset/Noble Cottage Areas Road Improvements



*Typical aerial photo of newly renovated Atwood campgrounds taken by the Unmanned Aerial Vehicle (UAV) (drone) purchased in 2018.*

## GIS

The Surveying and Geographic Information System (GIS) staff spent most of its time in 2018 assisting with Master Plan and Maintenance Assessment projects. During the initial phases of the Master Plan, base maps of existing utilities and infrastructure were developed. These maps have been used to determine locations of existing utilities when designing new campgrounds. As a member of the Ohio Utilities Protection Service (OUPS), we are required to locate MWCD-owned utilities. This creates a safer working environment, reduces downtime from accidental breaks and maintains service to our customers. New utility locations are then recorded using either as-built files or surveying in the field. This information is then made available to park staff via the employee portal in the online mapping system.

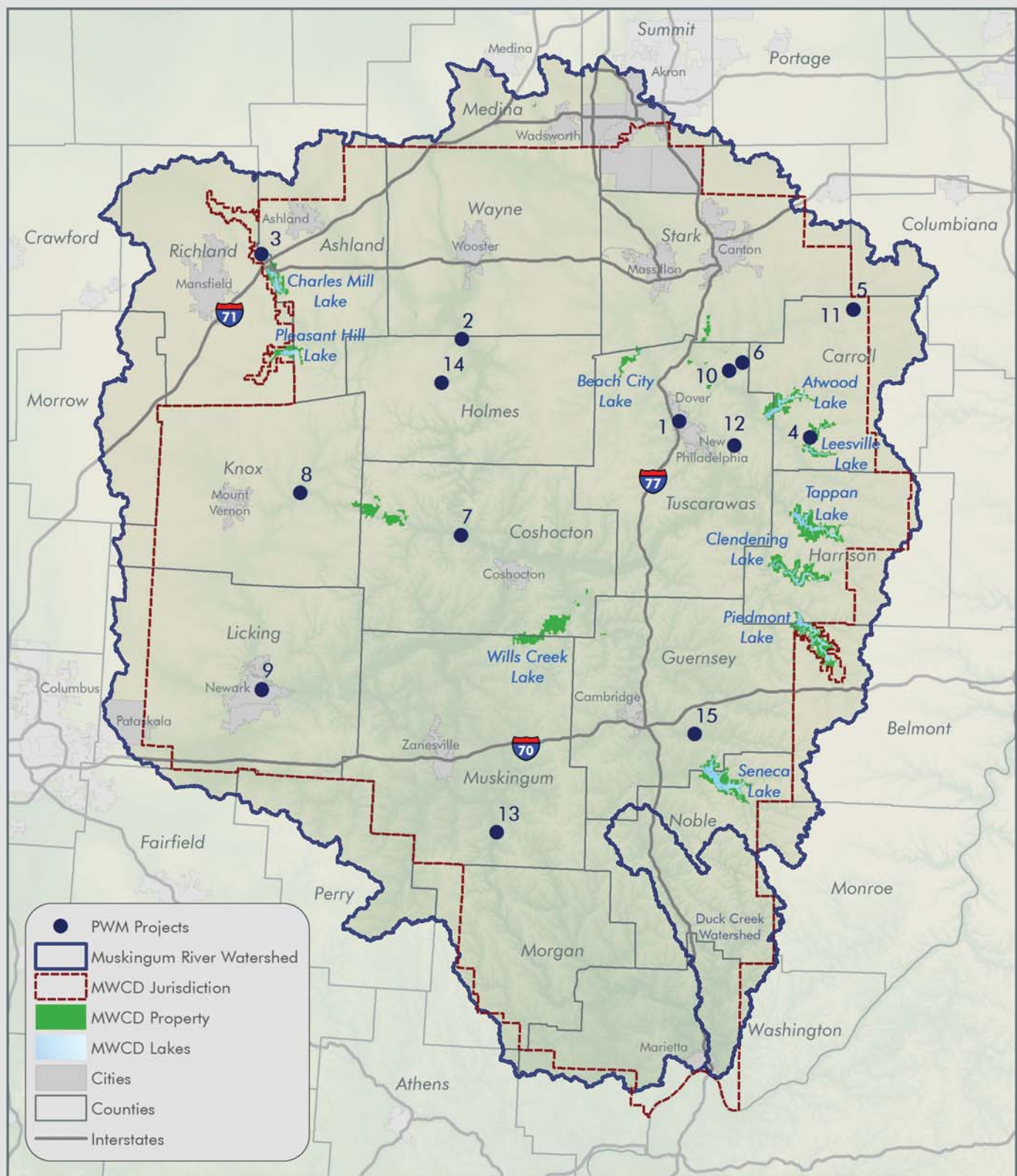
In addition to many Master Plan projects, GIS staff provides surveying services for projects which are funded by the Maintenance Assessment. This includes shoreline and dredging projects. These projects are both

designed in-house. Pre- and post-dredge surveys are performed to verify payments and record the amount of additional flood storage that has been created.

An Unmanned Aerial Vehicle (UAV) or “drone” was purchased in 2018. This has proven to be a valuable tool for the Conservation, Recreation and Engineering Departments. David Lautenschleger, Geospatial Program Manager, and Zethan Dickey, Survey Technician, both received their Part 107 UAV pilots’ licenses in 2018. Data collected by the UAV assists with quantity calculations and provides imagery for the continually updated landscape throughout the parks. It is also used to generate topographic mapping in areas not previously identified in the original Master Plan, such as marinas.

Many of our maps, such as hunting/sportsman maps and shoreline project locations, have been posted online for the public. Mapping for utilities, cottage site locations, camp and club areas and docking are made available for MWCD staff.





0 10 Miles

Sources: MWCD, ESRI, ODNR, ODOT, USGS

## Partners in Watershed Management 2018 Grant Recipients



MCD2019-001

## Partners in Watershed Management

The MWCD Partners in Watershed Management Program (PWM) provides funding to local communities, agencies and groups involved in projects and programs that support conservation and flood reduction in the Muskingum River Watershed.

The MWCD approved 15 projects in 2018 through the PWM program:

<b>Project No. 1</b>	Canal Dover Park Riverbank Restoration
<b>Applicant</b>	City of Dover
<b>County</b>	Tuscarawas
<b>Total Project Cost</b>	\$94,750
<b>Requested Grant</b>	\$47,750
<b>Approved Grant</b>	\$47,750

### PROJECT DESCRIPTION

The City of Dover requested financial assistance for planning, engineering and permitting for the Canal Dover Park, specifically for the restoration of approximately 950 feet of riverbank along the Tuscarawas River at the east end of the park. The project consists of removing makeshift riprap in order to restore the bank, recreate habitat, and install several stone weirs which will serve to create eddy pool areas to serve a diverse array of aquatic species. In addition, a riparian zone will be created to help maintain the riverbank and slow runoff while also restoring wetland areas.

<b>Project No. 2</b>	Rush Creek Stream Restoration Design
<b>Applicant</b>	Holmes County Engineer
<b>County</b>	Holmes
<b>Total Project Cost</b>	\$45,000
<b>Requested Grant</b>	\$45,000
<b>Approved Grant</b>	\$45,000

### PROJECT DESCRIPTION

The Holmes County Engineer requested financial assistance for planning and design to determine the cause and develop a solution for severe and excessive sediment accumulation along Rush Creek near the intersection of County Road 1 and County Road 323. The aggradation had become so severe that sections of the lower reach of Rush Creek just above its confluence with Killbuck Creek have dewatered, while other areas experience increased flooding. This project necessitates a morphologic and engineering assessment to develop a sustainable natural solution rather than continually dredging the stream multiple times throughout the year.



*Sediment removed from Rush Creek during recent dredging efforts by Holmes County Engineer.*

<b>Project No. 3</b>	Black Fork Preserve at Charles Mill
<b>Applicant</b>	Western Reserve Land Conservancy
<b>County</b>	Richland
<b>Total Project Cost</b>	\$2,795,000
<b>Requested Grant</b>	\$180,000
<b>Approved Grant</b>	\$180,000

### PROJECT DESCRIPTION

The Western Reserve Land Conservancy requested financial assistance for the acquisition and protection of a 425-acre property near Charles Mill Reservoir. The project site contains high quality natural resources (Category 3 wetlands and a Class 3 stream) as well as modified habitat (agricultural fields). Acquisition and protection will preserve this portion of the Black Fork watershed while restoring approximately 60 acres of agricultural field (currently tilled), returning this acreage into a functioning wetland.



<b>Project No. 4</b>	Camp Roosevelt-Firebird Wastewater Treatment Plant Phase 2
<b>Applicant</b>	Camp Roosevelt-Firebird
<b>County</b>	Carroll
<b>Total Project Cost</b>	\$16,813
<b>Requested Grant</b>	\$14,203
<b>Approved Grant</b>	\$14,203

#### PROJECT DESCRIPTION

Camp Roosevelt-Firebird on Leesville Lake requested financial assistance to repair a failing wastewater system. The current system is deficient, and untreated effluent is discharging directly into Leesville Lake. The proposed project includes design and planning, repair of two pump stations and the wastewater treatment system and an educational component for youth campers.

<b>Project No. 5</b>	Magnet Road Slip/Still Fork Creek Streambank Repair
<b>Applicant</b>	Augusta Township Trustees
<b>County</b>	Carroll
<b>Total Project Cost</b>	\$400,878
<b>Requested Grant</b>	\$380,000
<b>Approved Grant</b>	\$317,000

#### PROJECT DESCRIPTION

Augusta Township requested financial assistance for stabilization and restoration of approximately 250 feet of Still Fork Creek which is undermining a section of Magnet Road located near the top of the streambank. The project consists of the installation of a sheet piling cutoff wall and tie-backs to anchor the wall into place, in addition to a drainage system to improve surface water drainage and alleviate potential pressure on the sheet piling wall. Project design was done by Geotechnical Consultants, Inc., utilizing a 2017 grant from the PWM Program to identify the cause of the streambank/road subsidence and prove that rising and falling water levels associated with Still Fork Creek are the primary cause for subsidence.

<b>Project No. 6</b>	Sandy Creek Riparian Stabilization Project
<b>Applicant</b>	Sandy Township Trustees
<b>County</b>	Tuscarawas
<b>Total Project Cost</b>	\$43,268
<b>Requested Grant</b>	\$36,160
<b>Approved Grant</b>	\$36,160

#### PROJECT DESCRIPTION

Sandy Township in Tuscarawas County requested financial assistance to stabilize a streambank of the Sandy Creek along Jennie Brick Road. The project proposes to stabilize the streambank using soil nails and shotcrete. The resultant stream bank will be more resistant to erosion and sedimentation. The stabilized bank will protect the township road, which requires continual maintenance and rehabilitation. By reducing erosion, this project will positively affect Sandy Creek water quality and reduce future sediment loads of the Bolivar Reservoir. Additionally, the project will protect the health and safety of its residents and reduce future property damage.

**Project No. 7** Walhonding River Mussel Study  
**Applicant** Rural Action  
**County** Coshocton  
**Total Project Cost** \$55,370  
**Requested Grant** \$46,770  
**Approved Grant** \$46,770

#### PROJECT DESCRIPTION

Rural Action requested financial assistance to conduct a comprehensive mussel study of the Walhonding River, which boasts a robust community of mussel species, many of which are state or federally endangered or threatened. The project will also include habitat, streambank and riparian assessments, as well as water quality monitoring to identify solutions to remedy current impacts and prevent future degradation of these high-quality natural resources. Additionally, Rural Action will partner with the Coshocton Soil and Water Conservation District (SWCD) on public outreach, targeting riparian landowners.

**Project No. 8** Howard Wellfield Kokosing River Streambank Stabilization  
**Applicant** Knox County Commissioners  
**County** Knox  
**Total Project Cost** \$420,017  
**Requested Grant** \$150,000  
**Approved Grant** \$150,000

#### PROJECT DESCRIPTION

Knox County requested financial assistance to restore a severely eroded streambank along the Kokosing River near the unincorporated area of Howard in Knox County. The project will restore approximately 500 feet of streambank utilizing riprap. The riparian area will be enhanced with native vegetation and trees. The project will also protect the Howard Wellfield, which provides drinking water to over 7,000 people, from further encroachment from the eroding streambank.

**Project No. 9** Log Pond Run Main Channel Easement Plan  
**Applicant** City of Newark  
**County** Licking  
**Total Project Cost** \$410,674  
**Requested Grant** \$184,795  
**Approved Grant** \$184,795

#### PROJECT DESCRIPTION

The City of Newark requested financial assistance to acquire easements for stream maintenance along Log Pond Run. Acquisition of the maintenance easements will assist the City of Newark in trash and debris removal, vegetation maintenance, erosion control, and repair of failing retaining walls. The acquisition of the maintenance easements will help the City implement a long-term maintenance program for the Log Pond Run, which will have numerous water quality benefits. The City intends to develop future public education and outreach programs to increase pollutant awareness and reduction within the watershed.



**Project No. 10** Middle Tuscarawas River Watershed Educaiton  
**Applicant** Rural Action  
**County** Tuscarawas  
**Total Project Cost** \$47,283  
**Requested Grant** \$32,400  
**Approved Grant** \$32,400

#### PROJECT DESCRIPTION

Rural Action requested financial assistance to continue and expand the environmental education and public outreach in the Huff Run and Mud Run watersheds. Funds will be used to coordinate and organize field trips, watershed tours, and community meetings; to host and conduct professional workshops for teachers and educators; and to organize and manage a week-long children's watershed day camp focusing on watershed management. The environmental education and community outreach programs will improve awareness and teach responsible stewardship.

**Project No. 11** Magnet Road Slip/Still Fork Creek Streambank Repair: Geotechnical Analysis  
**Applicant** Augusta Township Trustees  
**County** Carroll  
**Total Project Cost** \$4,900  
**Requested Grant** \$4,900  
**Approved Grant** \$4,900

#### PROJECT DESCRIPTION

Augusta Township requested financial assistance for stabilization and restoration of approximately 250 feet of Still Fork Creek which is undermining a section of Magnet Road located near the top of the streambank. Following project review by MWCD's Technical Review Advisory Committee, the need for a geotechnical analysis was identified to investigate whether rising and falling water levels associated with Still Fork Creek are the primary cause for subsidence and if so, to identify a potential solution.

**Project No. 12** Roswell Logjam Debris Removal  
**Applicant** Tuscarawas Soil and Water Conservation District  
**County** Tuscarawas  
**Watercourse** Beaverdam Creek  
**Total Project Cost** \$13,268  
**Requested Grant** \$10,268  
**Approved Grant** \$10,268

#### PROJECT DESCRIPTION

Tuscarawas SWCD requested financial assistance to remove a logjam/debris field from Beaverdam Creek.

**Project No. 13** Muskingum River Snag and Debris Removal  
**Applicant** Muskingum River Advocacy Council (MRAC)  
**County** Washington/Morgan/Muskingum  
**Watercourse** Muskingum River  
**Total Project Cost** \$42,800  
**Requested Grant** \$40,000  
**Approved Grant** \$40,000

#### PROJECT DESCRIPTION

MRAC requested financial assistance to remove logjam/debris fields along the Muskingum River from its confluence with the Ohio River to river mile 85.5 at Ellis Dam.

<b>Project No. 14</b>	Paint Creek-Martin Logjam Debris Removal
<b>Applicant</b>	Holmes Soil and Water Conservation District
<b>County</b>	Holmes
<b>Watercourse</b>	Paint Creek
<b>Total Project Cost</b>	\$8,290
<b>Requested Grant</b>	\$5,740
<b>Approved Grant</b>	\$5,740

#### PROJECT DESCRIPTION

Holmes SWCD requested financial assistance to remove a logjam/debris field from Paint Creek.

<b>Project No. 15</b>	Wills Township Logjam Debris Removal
<b>Applicant</b>	Wills Township Trustees
<b>County</b>	Guernsey
<b>Watercourse</b>	Leatherwood Creek
<b>Total Project Cost</b>	\$30,328
<b>Requested Grant</b>	\$7,500
<b>Approved Grant</b>	\$7,500

#### PROJECT DESCRIPTION

Wills Township Trustees requested financial assistance to remove a logjam/debris field from Leatherwood Creek.



*Three photos of the Black Fork Preserve at Charles Mill. Applicant for the project: Western Reserve Land Conservancy. The PWM grant funding provided financial assistance for the acquisition and protection of a 425-acre property near Charles Mill Reservoir (project no.3 in the preceding list).*

*Pictured above: West at the eastern extent of Wetland A.  
Pictured left: Southeast along Stream 1.  
Pictured right: Ditch flowing eastward from Wetland A.*









# *Conservation*

**Forest Management**  
**Aquatic Vegetation Management**  
**Watershed Specialist**  
**Education and Outreach**  
**Agricultural Operations**  
**Oil and Gas Stewardship**  
**Water Resources Management**  
**Water Quality**





## Forest Management

The MWCD has a long-standing forestry program which dates to 1945, when the Board of Directors formally adopted a reforestation policy to augment soil erosion control practices to protect the MWCD lakes.

Forestry staff is close to finalizing its hardwood inventory by capturing data on approximately 24,000 acres of hardwood forests. Forestry also began collecting data needed to manage its nearly 6,000 acres of pine. Staff members were able to capture around 530 plots. These stand data capture forest density, age, species composition, extent of invasive species and other information needed to guide annual planning and operations.

Forestry operations during 2018 included the following:

- Hardwood inventory is 94% complete (5,740 plots of 6,117)
- Pine inventory is 34% complete (532 plots of 1,545)
- Timber Stand Improvement work completed on 480 acres
  - Grapevine Control: 332 acres (252 acres contracted and 80 acres in-house)
  - Crop Tree Release: 4 acres (thinning of forests less than 25 years in age)
  - Invasive Control: 142 acres (Ailanthus, Barberry, Paulownia)
- Young forest habitat: created 171.2 acres
- Hardwood lumber harvested: 432,721 board-feet
- Pine lumber harvested: 720,971 board-feet
- Outer boundary marked with paint: 30 miles
- Reforestation mowing project at Atwood Lodge golf course: 128 acres
- Wills Creek reforestation project site: 88,000 native tree seedlings planted completing a bat habitat mitigation site initiated in 2016

A seedling giveaway program for MWCD cottage site lessees was resurrected. The purpose of this giveaway is to help reforest areas of MWCD that were affected by storms, emerald ash borer, or other forest diseases. MWCD cottage lessees may choose up to 10 native tree seedlings to plant. Each tree ordered comes with its own tree shelter tube and support stake to ensure greater survival and growth for the seedlings.

For 2018, Charles Mill and Pleasant Hill cottage site lessees could order native seedlings from a list provided by MWCD foresters. In April 2018 at Charles Mill, 82 participants picked up their trees. MWCD foresters were on site to give demonstrations on how to properly plant

the seedlings, and how to use the tree shelters. A total of 850 native seedlings were planted in the Charles Mill and Pleasant Hill region thanks to this program. Forestry also helped the Sites Lake Tree Committee plant 30 trees along Trout Drive. The committee wanted to replace the stand of white ash that was affected by the emerald ash borer. Tappan and Leesville lakes will be able to participate in the seedling giveaway in 2019.

## Aquatic Vegetation Management

The MWCD has staff devoted to the management of aquatic vegetation throughout the District. The objective of the program is to effectively and efficiently manage the aquatic vegetation in a manner consistent with providing the optimal aquatic habitat while maintaining recreational navigation. The 2018 program built upon the previous year where historical aquatic vegetation data were compiled and inventoried in an effort to improve efficiency.

The MWCD treated 66.5 surface acres of vegetation in 18 locations in 2018, which was nearly identical to the 2017 season. The number of species treated decreased from eight to six, with three of those — Brittle Naiad, Eurasian Watermilfoil and Curlyleaf Pondweed — being invasive species. Fineleaf Pondweed, though not an invasive, was treated in conjunction with other invasive species. The remaining species, American Lotus and American Water-Lily, are historically known to grow aggressively and reduce plant diversity by outcompeting beneficial vegetation, which often results in negative impacts to recreational navigation.

The MWCD will continue to monitor and manage aquatic plants as an important component of a healthy lake ecosystem, with treatment options considered for invasive and nuisance plants where lake health and navigation are impacted.

## Watershed Specialist

In 2018, the MWCD continued to fund a Watershed Specialist in partnership with the Carroll and Harrison Soil and Water Conservation Districts to work in the MWCD lake watersheds at Tappan, Clendening, Leesville and Atwood. The watershed specialist worked to identify and implement ways to mitigate various land-use activities that are impacting the watersheds, educate the public, and reduce nutrient and sediment run-off. The position also focused on a watershed assessment program as a tool to inventory regional water quality.

## Education and Outreach

Education and outreach continues to be an important part of improving the watershed. Soil and Water Conservation Districts regularly engage in education/ outreach opportunities with the help of educational grants funded by the MWCD. Some examples include:

- Cover Crop and 4R Workshops
- Nutrient Management Applications
- Soil Testing Assistance
- Urban and Rural Best Management Practices

The MWCD also played a leading role in partnering with state and regional agencies by presenting the MWCD's water quality monitoring programs at conferences, meetings and workshops throughout the year. In addition, the MWCD participated in public workshops and events such as the Lake and Land Festival, Soil and Water Conservation District Bus Tour, and Local Watershed Workshops. Participation in these public events offers educational opportunities and hands-on activities, thus raising public awareness of water quality issues.

## Agricultural Operations

The MWCD manages 1,875 acres of land for agricultural operations. Approximately 502 acres represent cash rent leases, while 1,373 acres were converted from a traditional share crop lease to a production based lease in 2017 and 2018. All leases have been updated to encourage sound land management and to follow the 4R Principles of Nutrient Stewardship:

- Right Source
- Right Rate
- Right Time
- Right Place

The MWCD provides \$12 per acre funding assistance for producers to install cover crops. Keeping a green growing crop throughout the year protects the soil from erosion, retains moisture, holds nutrients for the next crop and helps with soil health and water quality.

To date, over 110,000 acres have been planted, with a total of \$1.4 million dollars allocated to over 500 different landowners to implement the program. Another 32,000 acres were approved in 2018.

The table below lists load reductions resulting from the cover crops:

County	Acres	Sediment (tons)	Phosphorus (pounds)	Nitrogen (pounds)
Ashland	7,704	23,112	22,342	45,454
Carroll	8,732	26,196	25,323	51,519
Coshocton	10,416	31,248	30,206	61,454
Guernsey	3,865	11,595	11,209	22,804
Harrison	4,756	14,268	13,792	28,060
Holmes	19,837	59,511	57,527	117,038
Knox	13,966	41,898	40,501	82,399
Licking	5,059	15,177	14,671	29,848
Medina	760	2,280	2,204	4,484
Morgan	2,263	6,789	6,563	13,352
Muskingum	7,197	21,591	20,871	42,462
Noble	137	411	397	808
Richland	3,523	10,569	10,217	20,786
Stark	7,116	21,348	20,636	41,984
Tuscarawas	7,634	22,902	22,139	45,041
Washington	5,397	16,191	15,651	31,842
Wayne	3,943	11,829	11,435	23,264
<b>TOTAL</b>	<b>112,305</b>	<b>336,915</b>	<b>325,684</b>	<b>662,599</b>

The MWCD is in the seventh year of a partnership program working with the Ohio Department of Agriculture and the 18 Soil and Water Conservation Districts within the Muskingum River watershed to



*Preparing for aerial seeding of cover crop material.  
(Photo courtesy of Ohio Department of Agriculture.)*



implement conservation practices on private lands. This agreement, which started in 2011, has administered and distributed almost \$2 million in project dollars to private landowners and local Soil and Water Conservation Districts.

The MWCD provides cost-share dollars to agricultural producers in the watershed to reduce runoff, sedimentation and loss of nutrients from crop and pasture fields. Best Management Practices may include grass waterways, erosion control structures, fencing livestock from streams, and cover crops.

In partnership with the U.S. Fish and Wildlife Service, funding has been available to landowners to install fencing and watering systems that will help to reduce stream access to livestock. The results allow the riparian areas to recover and create a buffer, while also reducing the nutrients (Nitrogen) and sediment entering the streams.

## Oil and Gas Stewardship

Oil and gas leases and operations have been a part of the MWCD since its creation in 1933. The MWCD currently has royalty interests in both conventional (vertical) and unconventional (horizontal) oil and gas wells, spanning across most of the District's lakes and surrounding properties. The conventional interests are currently comprised of 275 conventional wells and the associated facilities, of which 120 of these wells are located on MWCD property. The unconventional interests are currently comprised of 86 drilled unconventional wells, which are included in 30 drilling units, drilled from 23 well pads.

In 2018, the MWCD received royalty revenue from the conventional wells. Also in 2018, the MWCD received royalty revenue from 75 producing unconventional wells, which are included in 25 drilling units, drilled from 19 well pads.

The MWCD works closely with both conventional and unconventional operators, along with the appropriate regulatory authorities, to help ensure compliance with the terms and conditions of the leases, and to ensure operations are conducted in a safe manner that protects the MWCD lakes, properties and the environment. A typical MWCD unconventional gas lease, including the 14 pages of environmental terms and protections added by the MWCD, are found on the [mwcd.org](http://mwcd.org) website.

## Water Resources Management

The MWCD reservoir system continued to provide flood control, recreation, and water supply opportunities in 2018 for domestic, industrial and public uses. All 14 of the MWCD reservoirs combined have a flood capacity of over 1.4 million acre-feet of water (1 acre-foot = 325,829 gallons), protecting numerous communities throughout the watershed from flooding. In addition to the available flood storage capacity, more than 210 acre-feet of water is held in the ten MWCD lakes for recreation and water supply purposes. Conservancy law allows for both long-term and short-term water supply agreements to facilitate the use of water from the reservoirs.

Long-term water supply agreements continued to be used in 2018 to allow the multi-year use of water from the lakes by public entities. The Board of Directors and Conservancy Court updated the long-term public water supply agreement in 2018 with the Village of Cadiz to allow additional volumes of water to be withdrawn annually from Tappan Lake. The increased amounts will be used to assist new industry and public users of water in Cadiz.

The City of Cambridge continues to maintain a backup water supply agreement with the MWCD to provide water from Seneca Lake during times when the primary source of water for Cambridge might not be available.

In accordance with MWCD policy, the short-term water supply agreements provide the MWCD Chief Engineer with the sole authority to cease all water withdrawals for any reason as part of the terms and conditions of the agreement. Terms and conditions in the short-term water withdrawal agreements include restrictions regarding land disturbance, noise abatement, and limits on the periods when water withdrawal is allowed. These requirements along with other terms serve to protect the environment and summer recreational activities.

Development of mineral resources around the MWCD lakes continued at a slower pace in 2018, resulting in less demand for water from MWCD reservoirs. A total of six short-term water supply agreements were approved in 2018, each for a period of three months.

## Water Quality

The MWCD has developed intra-institutional and cross-institutional partnerships to maximize the positive impact of all work done in our watershed. MWCD partners with several agencies, from virtually all levels of government, as well as academic and private sectors,

to monitor water quality, respond as appropriate to any issues that arise, implement conservation projects, develop education programs and contribute to scientific research.

The water quality of the 10 MWCD lakes is monitored in cooperation with the U.S. Army Corps of Engineers (USACE), the United States Geological Survey (USGS), the Ohio Lake Management Society (OLMS), county Soil and Water Conservation Districts (SWCD), the Environmental Protection Agency (EPA), and the Ohio Department of Natural Resources (ODNR).

## Beach Monitoring

The MWCD continues to sample for *E. coli* (an indicator bacteria) during the recreational season, monitoring the main recreational beaches of Atwood, Tappan, Seneca, Charles Mill and Pleasant Hill Lakes. Using a data sonde, the MWCD measures conductivity, temperature, dissolved oxygen, pH, and turbidity. The number of swimmers and birds, as well as wave height, are also recorded. Data can be found at: <http://publicapps.odh.ohio.gov/beachguardpublic/> during the recreational season. Below is a table listing number of samples exceeding state criteria for the year of 2018.

Water quality samples exceeding state criteria (235 <i>Escherichia coli</i> cfu/100mL) in 2018, per lake.		
Lake	Number of Samples	Number of Samples Exceeding State Criteria
Atwood	16	1
Charles Mill	15	5
Pleasant Hill	15	0
Seneca	16	0
Tappan	16	3

MWCD utilizes a mass notification system to interact with our partners during water crisis situations and keep our stakeholders well informed.

## Education and Outreach

The MWCD has developed a new program to encourage exploration of local watersheds, while increasing environmental literacy and meeting curriculum learning standards. The MWCD's Meaningful Watershed Educational Experience is a comprehensive environmental education program for 7th graders that combines in-class projects with field exploration. The program was developed in 2018 and will be implemented in 2019.

MWCD Water Quality staff presented in multiple conferences and symposia in 2018, including the North American Lake Management Society, U.S. Smart Water Conference and the Ohio Mineland Partnership Conferences.

## Partnerships: Tappan Lake Nutrient Reduction Initiative

Tappan Lake is the drinking water source for the Village of Cadiz, in addition to supporting recreational activities and providing flood control protection for the Muskingum River Watershed. Over the past several years, Tappan Lake has experienced persistent, low-level concentrations of microcystin, which are toxins produced by cyanobacteria (also known as blue-green algae). Cyanobacteria are found in nearly every type of environment, though under favorable conditions they can reproduce exponentially to form blooms which can be harmful to the environment, animals and human health. For more information, please visit <https://www.epa.gov/nutrient-policy-data/cyanobacteriacyanotoxins>.

The Tappan Lake Nutrient Reduction Initiative (TLNRI) was established in 2018 as a partnership of multiple organizations to achieve long-term, sustainable water quality improvements for Tappan Lake. The TLNRI intends to eliminate the presence of harmful algal blooms, and their ensuing water-borne cyanotoxins in Tappan Lake water within the next decade. The TLNRI began with three core partners: MWCD, the Village of Cadiz, and Ohio EPA. Federal, State and Local government representatives, academia, and private sector have since become involved.



*Tappan Lake Nutrient Reduction Initiative meeting*

The TLNRI Conference, which was the first public forum sponsored by the initiative, highlighted interdisciplinary water research data collected by multiple organizations, who work and study in the Tappan Lake watershed.



Speakers with a variety of expertise in water quality and/or socio-economic activities in the watershed presented their data, shared their knowledge and facilitated discussions on ways to improve Tappan Lake water quality. TLNRI has also been working in partnership with the Ohio University Voinovich School to improve data sharing between agencies, and for public access. Data from Tappan Lake watershed research and monitoring are now publicly available on the Ohio Watershed Data website. TLNRI will continue to add data to the university's platform, which combines GIS location information with monitoring data. To access data please visit <http://www.watersheddata.com>.

### Partnerships: U.S. Army Corps of Engineers

The US Army Corps of Engineers (USACE) initiated the first large scale water quality sampling program on the MWCD lakes in 1973, with MWCD's assistance beginning in 1986. The USACE Huntington District Water Quality Team is responsible for assessing waters that flow into USACE projects, and their potential impacts, evaluating how USACE projects alter water conditions, and recommending operations to reduce how these projects change downstream chemical, physical, and biological characteristics.

In 2018, the Water Quality Team, in partnership with MWCD, completed intensive water quality surveys at three MWCD Lakes: Tappan, Clendening, and Piedmont. Surveys entailed sampling for over 46 parameters, including 27 metals, 4 nutrients, 9 ions, 3 solids, and 3 physical parameters, conducted six times per reservoir. The data were compared to fourteen water quality parameters that the Water Quality Team uses for long-term trend analysis, and compliance determinations.

In addition, Tappan and Clendening were also part of USACE's Probabilistic Sampling Project, where

a computer randomly chooses 40 sites within each watershed. The data attained at these sites is subjected to statistical analysis to provide an overall characterization of the watershed. This analysis can be used to predict the probability of a condition occurring within the watershed. USACE's Annual Water Quality Report should be available to the public in March 2019 at: <https://www.lrh.usace.army.mil/Missions/Civil-Works/Water-Information/>

### Partnerships: OLMS

The MWCD continues to provide funding for the Ohio Lake Management Society (OLMS) Citizen Lake Awareness and Monitoring (CLAM) program to collect samples on 9 of the 10 MWCD lakes. The CLAM program engages citizens in water quality monitoring, giving them the opportunity to take an active role in learning about aquatic ecology, lake and stream water quality, and watershed management. This program has been training citizen scientists since 1991 and the MWCD began funding it in 2009. The Lake Keepers collect water samples from beach shorelines using modified Ohio Environmental Protection Agency (EPA) methods twice a month, from July to September. Level 2 and level 3 data are collected, including turbidity (using Secchi disk), water temperature, dissolved oxygen, total nutrients, and chlorophyll a. Harmful Algae Bloom (HAB) monitoring for toxins was added in 2011. New volunteers and Lake Keepers participated in our training, and joined the program in 2018. Please contact MWCD for more information on how to become a volunteer. Data can be found at <http://www.eyesonthewater.org/olms/>.

### Partnerships: USGS

The MWCD executed a joint funding agreement with the U.S. Geological Survey (USGS) to begin sampling in 2015 to establish a baseline of the water quality at its six eastern reservoirs in the region of the Utica Shale oil and gas play. The three-year study, conducted from 2015 through 2017, focused on 30 sampling sites, with some tributaries in areas of significant oil and gas development, and others in areas of minimal development. Sixty-two parameters were collected, including benzene, toluene, ethylbenzene and xylene (BTEX) as well as radium 226 and 228. The study can be found on the USGS website.

In addition, the public can access on the USGS website, data from stream gauges, weather stations and 14 continuous monitoring stations at the six eastern reservoirs of the MWCD. Real time reporting includes specific conductivity, temperature and water level data.



*Fernanda Craig, MWCD Water Quality Coordinator, works with USACE personnel performing chemical analysis and sample preservation.*



*Atwood and Seneca volunteers participated in MWCD's Lake Keeper's Training.*

2018 was the second year of a partnership between the MWCD and USGS in developing a model to predict Cyanobacteria in Tappan Lake. The software used is Virtual Beach, which was designed by EPA for E. coli predictive modeling. Models are important to estimate toxin concentrations, so that swimmers and boaters can be warned, and water-treatment plants can take measures to avoid or appropriately treat toxin-laden waters.

The data sonde provided by the MWCD to the Village of Cadiz is still deployed, and its data are used by multiple agencies. The sonde monitors turbidity, pH, temperature, conductivity, dissolved oxygen, chlorophyll, and phycocyanins, enabling real-time monitoring of conditions at Tappan Lake near the public water source intakes. These data are also used to produce the predictive model that is in development by USGS and MWCD.

### **Partnerships: ODNR Division of Wildlife**

The Ohio Department of Natural Resources Division of Wildlife conducts water and fish tissue sampling at all MWCD reservoirs. The results of the sampling guides the efforts of the Division of Wildlife at each reservoir.

### **Partnerships: OEPA & NOAA**

In partnership with the Ohio EPA, and the National Oceanic and Atmospheric Administration (NOAA), the MWCD has been monitoring its lakes with the help of satellite imagery. This is an additional tool used to improve HAB monitoring at MWCD reservoirs. It is a new experimental product provided by NOAA, and uses

similar algorithms to those used to detect cyanobacteria on Lake Erie. The maps depict cyanobacteria density based on the remotely detected phycocyanin pigment, which is unique to cyanobacteria.

### **Partnerships: Carroll/Harrison SWCDs**

Besides leading the continued watershed monitoring project (Atwood, Clendening, Leesville and Tappan lake watersheds), the Carroll and Harrison SWCD Watershed Specialist was actively involved in the TLNRI in 2018. Aiming to improve the tracking of nutrient loading sources in the four watersheds, SWCD and MWCD staff worked on a special project in 2018, which originated through TLNRI. The project involved the collection and analyses of E. coli samples from all pre-existing monitoring sites, in addition to the established parameters of the intensive sampling project. The following table lists the number of samples exceeding state criteria.

Water quality samples exceeding state criteria (235 <i>Escherichia coli</i> cfu/100mL) in 2018, per watershed.		
Watershed	Number of Samples	Number of Samples Exceeding State Criteria
Atwood	11	10
Clendening	7	5
Leesville	8	6
Tappan	10	6

In 2018, the Village of Cadiz approached the SWCDs with an interest in supporting a conservation program



to improve water quality. The group looked for a way to focus on the riparian zone of our watershed, to address bank stabilization and erosion, as well as nutrient losses associated with streambank erosions. The project grants \$5,000 dollars per year, during five years, which will allow coverage of four miles of stream corridor riparian plantings (35 foot buffer).

MWCD staff has also been involved in SWCD education efforts, and in 2018, joined the SWCD Bus Tour, presenting to the agricultural community some sustainable ideas to improve water quality of our

watershed, as well as teaching about water quality monitoring.

In addition to the ongoing involvement of the SWCD in the MWCD Cover Crop program, in 2018, Harrison and Carroll SWCD helped to pilot a new pasture management program focused on the Atwood, Leesville and Tappan lake watersheds. Five producers in each watershed were given incentives to develop and implement a pasture management plan to improve the quality of the pasture, which in turn will reduce erosion and nutrient runoff.



*SWCD personnel sampling water from a creek at the Atwood Lake watershed.*

# *Recreation*

**Marketing  
Awards  
Cottage Site Lease Program  
Youth Camps  
MWCD Rangers  
Marinas  
Programs and Events**





## Recreation

The recreation program is arguably the most visible and well-known aspect of the MWCD mission. In 2018, nearly four million patrons took advantage of the outdoor recreational opportunities.

Providing recreational opportunities on the 54,000 acres of land and water owned and managed by the MWCD has been part of the mission of the District since 1946 when the General Plan for Parks and Recreation was approved by the Board of Directors and the Conservancy Court. Today, the main focus of the recreational activities managed by MWCD staff includes:

- Parks
- Marinas
- Cottage Site Leasing Program
- Youth Camps
- Boat Club and Docking Associations
- Law Enforcement

## Marketing

### Great Camper Giveaway

Brian Brauneck has an opportunity to spend more time in the great outdoors in 2019 as the winner of the “Great Camper Giveaway.” The contest, which ran from May 1 to August 31, included a prize of a 2018 Coachman Clipper from General RV Center in North Canton, along with a campsite at one MWCD park from April 1 through October 31, 2019.

This multifaceted campaign was designed to increase brand awareness, expand MWCD market share and increase an email database for future marketing promotions. The giveaway of the \$10,000 camper, provided by General RV Center, authorized the retailer to install signage at each of the park locations while MWCD

created the printed material and additional marketing collateral designed to help make this promotion a success.

On Saturday, September 22, 2018 Mr. Brauneck and his wife, Kelly, were presented with a set of keys to the new camper from General RV and a certificate for camping at an MWCD park to be used in the summer of 2019.

### Advertising and Promotions

MWCD staff attended several trade shows to promote facilities in 2018, including: RV Supershow at the IX Center in Cleveland; AAA Travel Show in Columbus; WONE Hunting and Fishing Show in Akron; Ohio Tourism Day at the Statehouse in Columbus; and the Atwood Area Fall Festival at Atwood Park.

Advertising continues to expand and extend the reach for visitors to MWCD Parks and Marinas. Notable areas of increase in 2018 include OTT Advertising (streaming television outlets), SEO Marketing and Digital Advertising, Television and Radio. Paid online advertising exceeded industry benchmark standards and as a result, MWCD website analytics continue to show an increase in visitation to the website from prior year. Social media marketing has also expanded, thus increasing followers and interactions on this forum as well.

The Marketing/Public Affairs Administrator also appeared on various new outlets, from television to radio, on shows such as Live on Lakeside and SE Ohio Outdoor Radio Show.

In addition to traditional paid advertising, the Marketing/Public Affairs Administrator is actively involved in a variety of organizations to further expand partnership opportunities, build relationships and increase recognition of the MWCD.

- Ohio Travel Association
- Adventures in NE Ohio
- Tuscarawas County Chamber of Commerce
- Tuscarawas County Convention and Visitors Bureau
- Ohio’s Appalachian Country
- Team Tourism (Cambridge)



(L-R) Adria Bergeron, MWCD; Tim Daugherty, 97.5 WONE; Kelly Brauneck, Brian Brauneck (winner), and Tim Nicolson, General RV.

## Awards

### Marketing: Award for Print Advertisement

MWCD's Recreation Marketing Coordinator represented the MWCD at the Ohio Conference on Travel, the state's largest conference for travel industry professionals, presented by the Ohio Travel Association. The MWCD received the Citation of Excellence for Print Advertisement for marketing and advertising at the Ohio Travel Association's RUBY Awards presentation in Columbus. The MWCD print advertisement promotes creating family memories through shared experiences.

The Ohio Travel Association's RUBY Awards recognize excellence in Ohio's travel industry for efforts in advertising, marketing and public relations. RUBY Award stands for Recognizing Uncommon Brilliance (RUBY) Award. Competition was strong this year with more than 197 entries in print-based, web-based and marketing campaign, advertisement and video categories.

### Golden Shovel

The Carroll County Chamber of Commerce presented its Golden Shovel Awards to area organizations and businesses at the 2018 Chamber of Commerce Banquet held April 12 at Atwood Yacht Club in Sherrodsville. Golden Shovel Awards were presented to businesses for their investments last year of \$25,000 or more in their operations. Each business received a Golden Shovel plaque as well as signed proclamations from U.S. Senators Rob Portman and Sherrod Brown, Congressman

Bill Johnson, Secretary of State Jon Husted and Representative Andy Thompson. The MWCD accepted its award in recognition of the conservancy's Master Plan construction of a new camp Area H at Atwood Lake Park at a cost of \$7,600,000.

### Tourism Award of Excellence

Pleasant Hill Lake Park received the Tourism Award of Excellence from Destination Mansfield/Richland County (DMRC). Since 2005, DMRC has honored those members, individuals, events and partnerships that have demonstrated excellence and helped to propel our local tourism industry forward. Their goal is to call attention to those who made major contributions to Richland County's tourism industry and educate the public at large about how their contribution played a significant role in strengthening it.

ESTIMATED LAKE ATTENDANCE			
AREA	2017	2018	% OF CHANGE
Atwood	947,321	952,803	0.58%
Charles Mill	656,108	549,670	(16.22%)
Pleasant Hill	462,527	489,711	5.88%
Seneca	928,710	884,432	(1.86%)
Tappan	673,148	660,605	(4.77%)
<b>SUBTOTAL</b>	<b>3,667,813</b>	<b>3,537,222</b>	<b>(3.56%)</b>
Clendening	37,027	36,185	(6.98%)
Piedmont	216,274	201,174	(2.27%)
<b>SUBTOTAL</b>	<b>253,301</b>	<b>237,359</b>	<b>(6.29%)</b>



Bill Martin (L), Pleasant Hill Park Manager; and Louis Andres, Pleasant Hill Park Naturalist, received the Award of Excellence from Destination Mansfield/Richland County on behalf of the Pleasant Hill Lake Park Staff.

### Cottage Site Lease Program

The MWCD initiated the opportunity for private residential structures to be constructed on MWCD properties around the lakes in 1941. The private residential structures are commonly referred to as "cottages" while the lots are referred to as "cottage sites." The Cottage Site Leasing Program includes over 1,200 leased cottage sites situated around eight of ten MWCD lakes.

Under the terms of the cottage site agreement, owners lease the lot from MWCD and own the cottage structure. The MWCD construction requirements help to maintain consistent appearance throughout the cottage areas by requiring approval of exterior building colors. Construction and exterior renovation projects adhere to guidelines developed and managed by the MWCD through a user-friendly construction permit process. The permitting process ensures that structures blend with the natural character of the lakes.



Cottage site lease rates are based upon established rate classifications and adjust annually in accordance with the consumer price index (CPI) stipulated in the lease agreement. The MWCD maintains the roadways in the cottage site areas. Some areas are served with central water and wastewater utilities, while many are served by individually owned water and wastewater systems.

In accordance with the MWCD docking policy, cottage site lessees are permitted to install an approved boat dock for overnight docking of watercraft upon acquisition of an MWCD boat docking decal at an established rate.

Cottage sites are currently located at Atwood, Charles Mill, Leesville, Piedmont, Pleasant Hill, Seneca, Tappan and Wills Creek lakes.

Highlights of leasing activities in 2018 included:

- 1,202 cottage sites were under lease, of which 75 were assigned to new leaseholders.
- MWCD staff conducted two open meetings in spring of 2018 with cottage site lessees. At these meetings, a cross-section of knowledgeable staff from all segments of MWCD operations assembled to update lessees on MWCD operations and projects, and to hear and discuss any problems, issues or concerns that may be brought to the floor. These meetings, by design, are driven by the lessees and have become a popular annual event between lessees and staff.
- The Leases staff processed over 270 construction permits, over 200 tree permits, and conducted over 90 individual cottage site inspections during 2018.

## Youth Camps

Youth Camps have a long and successful history on MWCD property dating back to the first camps being established in 1940. These first camps were established to house youth working in conservation efforts on District lands, train workers for war industries, and house youth attending conservation educational programs.

Today, tens of thousands of youth attend the 13 group camps located on MWCD lakes every year. These camps offer the ideal setting for activities designed to build confidence, strength and teamwork while also affording outdoor recreational opportunities to the campers. Many of the camps include educational conservation programs and water sport activities. Properties for camp locations are leased by the MWCD to camp organizations which manage and operate the camps.

In 2018, the Conservancy District continued to stay engaged with its 13 youth camp leaseholders by actively attending and participating in monthly meetings of camp directors and staff. Various MWCD staff attended meetings focused on camp management, marketing, water quality and conservation, recycling, safety, EPA water and wastewater, programming, training and other topics of mutual interest to camps and MWCD.

The 13 youth camps located on MWCD properties include:



## MWCD Rangers

MWCD Rangers are a vital part of ensuring the safety of the millions of visitors that choose MWCD parks, lakes and campgrounds as their recreation destination each year. Rangers promote the safety of visitors through their presence in routine patrol and law enforcement on both land and water. Commissioned through the MWCD and certified through the Ohio Peace Officer Training Academy, 25 full time rangers were employed with additional rangers added during the



*MWCD Rangers participated in "Vehicle Day" at Claymont Schools, Dennison, Ohio, in May of 2018.*



*Law enforcement personnel from Ashland County Sheriff's Department, Ashland City Police Department, Ohio State Highway Patrol, Village of Mifflin Police Department and Mifflin-Richland Fire Department joined with MWCD Rangers for training — R.A.I.D.E.R. (Rapid Deployment Awareness, Intervention, Decisiveness, EMS, Recovery) for the active shooter portion and STOP THE BLEED (American Red Cross) on November 6, 2018, at Charles Mill.*

peak recreational camping season. Rangers investigate incidents, complaints, issue citations, execute bench warrants, work with various law enforcement agencies in investigative and preventative measures while enforcing the state laws as well as MWCD rules. MWCD Rangers are required to obtain continuing professional training on an annual basis and participate in coordinated training with local EMS forces.

Safety of customers and staff members is a top priority within the MWCD. A key component in responding to emergencies is robust inter-agency communications. And fortunately, the MWCD and the non-profit Muskingum Watershed Conservancy Foundation, is stepping up to ensure proper infrastructure is installed to provide this critical service not only to MWCD Rangers but also to surrounding law enforcement agencies, fire departments and other first responders.

Along the U.S. Route 30 corridor, adjacent to MWCD's Charles Mill Lake Park in the Richland/Ashland County boundary is an area just out of reach of wireless signals. A remedy to boost public safety communications was coordinated by the MWCD with the Foundation and Ohio Department of Administrative Services by installing a Multi-Agency Radio Communication System (MARCS) tower. MARCS provides Ohio's first responders with state-of-the-art wireless digital communications which can result in saving lives in emergency situations while



*The final piece of the Marcs tower, located near Charles Mill Lake Park, is put into place.*



also providing maximized efficiencies in communication during normal operations. The new tower was constructed in March of 2018 and went live on May 9, 2018.

“This is a much-needed expansion of the MARCS services in the region,” said John Maxey, MWCD Deputy Chief of Law Enforcement. “It will allow for enhanced communication within the region, eliminate ‘dead’ spots and enable multiple agencies to communicate better together. It will benefit all of the first responders in the region, improve officer safety and services to the community.”

MWCD provided the tower site and \$30,000 for required survey work, environmental assessments, cultural review, engineering plans, bidding and construction management. The Muskingum Watershed Conservancy Foundation provided \$5,000, while the MARCS vendor contributed \$200,000 for the construction of the tower.

## Marinas

MWCD’s reservoirs are home to 10 marinas, with five privately owned and operated through lease agreements with the Conservancy District.

Bob Schraedly continues to own and operate both Charles Mill and Pleasant Hill Lake marinas, as does Brian Valot with Atwood Lake Boats East and West, and Keith Ott at Leesville South Fork. All three of MWCD’s lease partners do a wonderful job serving thousands of boaters each year.

Tappan Lake Marina became the fifth marina facility recently acquired by MWCD. The purchase was negotiated in late 2016, with the previous owners agreeing to operate the marina through 2017.

Developments at the marinas are outlined below.

### Tappan Lake Marina

The MWCD assumed operations of Tappan Lake Marina in January 2018. Jeremy Hoffer, former manager at Tappan Lake Park, came on-board as Marina Manager, and handled very well the usually difficult first year of transition. Keith Ott, Ohio Valley Boats, was brought on through a lease agreement, to provide boat sales, services, and storage at the facility. Ott owns and operates Leesville South Fork Marina, and through separate lease agreements, operates Leesville North Fork Marina, and provides sales, service and storage at Seneca Lake Marina. Ott established his footprint at Tappan Lake in 2018, and began participating in



*Tappan Lake Marina lunch counter.*

the design process for the renovation of the existing showroom building. A new restaurant operator was selected late in the year to begin providing food services in 2019, and to aid in the design of a complete renovation of kitchen facilities.

A 36-slip rental dock and an 8-slip courtesy dock were installed to handle increased business. The marina offers over 200 slips, and in its first year of MWCD operation, it was necessary to develop a waiting list for seasonal docking. Budgeted revenue was also exceeded.

Domokur Architects of Akron was selected to guide the master planning process for the facility. An advisory group of local stakeholders was also formed to provide input.

### Seneca Lake Marina

A complete upgrade of the marina’s boat fueling system was completed. The project included safety and environmental protections, upgraded electric and fuel lines and a new dispenser. It also included a new dock with fueling platform, 24 boat slips for the marina’s



*Seneca Lake Marina Docksiderestaurant’s outdoor dining area offers a magnificent view of the lake.*

rental fleet, and marina patrons. A new courtesy dock was also installed, making it more convenient to visit the facility.

Annie Bride and Terry Lake continue to operate the very successful Dockside Restaurant. To help with their growing business, a new outdoor freezer facility was added.

### **Leesville North Fork Marina**

Leesville North Fork is owned by the MWCD and operated through a lease agreement with Keith Ott. Five new docks providing 180 slips were ordered and completed in 2018, and will be installed for the 2019 boating season. The marina building saw major improvements with new flooring and roof projects completed, while remodeling performed by Ott and his staff resulted in a more open, inviting, and efficient interior.

### **Clendening Lake Marina**

Clendening's signature log cabins began to receive much-needed attention, including structural repairs, new chinking, and sealing. Design work began on a new waste water treatment facility, that when complete will allow for master planning, and expansion and improvements at the facility. Culvert and drainage work was performed late in the year, in anticipation of a major pavement project set to begin in the spring of 2019.

### **Piedmont Lake Marina**

Phase 1 of the master plan-related campground improvements was completed. Piedmont campers were placed on newly upgraded lots and construction continued through the season. Design work for Phase 2 and the completion of the campground continued throughout the year.



*Piedmont Marina boat docks.*

### **Atwood Lake East Marina**

A major parking lot reconstruction and paving project was completed at this heavily used facility. Not only does Atwood East do a high level of business, the public launch ramp attracts large numbers of additional users. The project was the first funded as part of the newly developed marina lease, and is an example of the MWCD's greater role in improving public access facilities at privately owned marinas.

## **Programs and Events**

Special events and activities continued to expand throughout the MWCD in 2018, with over 40,000 people attending events at an MWCD lake park or marina. Events ranged from large gatherings like the Alive Music Festival and the Atwood Area Fall Festival, fireworks, to smaller programs such as Explorers of Nature, Movies at the Lake, guided hikes and kayaking events.



*Christmas in July at Pleasant Hill Lake Park.*

Kayaking remained one of the most popular activities, attracting almost 800 people to 50 kayak events throughout the district. Kayak event revenue increased by 62.5% from 2017. Almost 650 people attended movie showings on our giant movie screens at Atwood, Charles Mill, Pleasant Hill, Seneca, and Tappan. In addition, over 3,000 people attended nature education programs to learn about the plants and animals that thrive in or near our lakes.

Online registration for events was offered through [mwcd.ticketleap.com](http://mwcd.ticketleap.com), and was utilized for events such as kayak tours, day camps, and overnight campouts which required pre-registration and payment. Four hundred twenty-three tickets were sold online, for a revenue of \$6,300.



# MWCD Events and Activities



*Passport to Fishing at Tappan Lake Park.*



*Princess in the Park at Charles Mill Lake Park.*



*Kayaking at sunset at Charles Mill Lake.*



*A lively game of Tug-O-War at Seneca Lake Park.*



*Land and Lake Festival at Atwood Lake Park.*



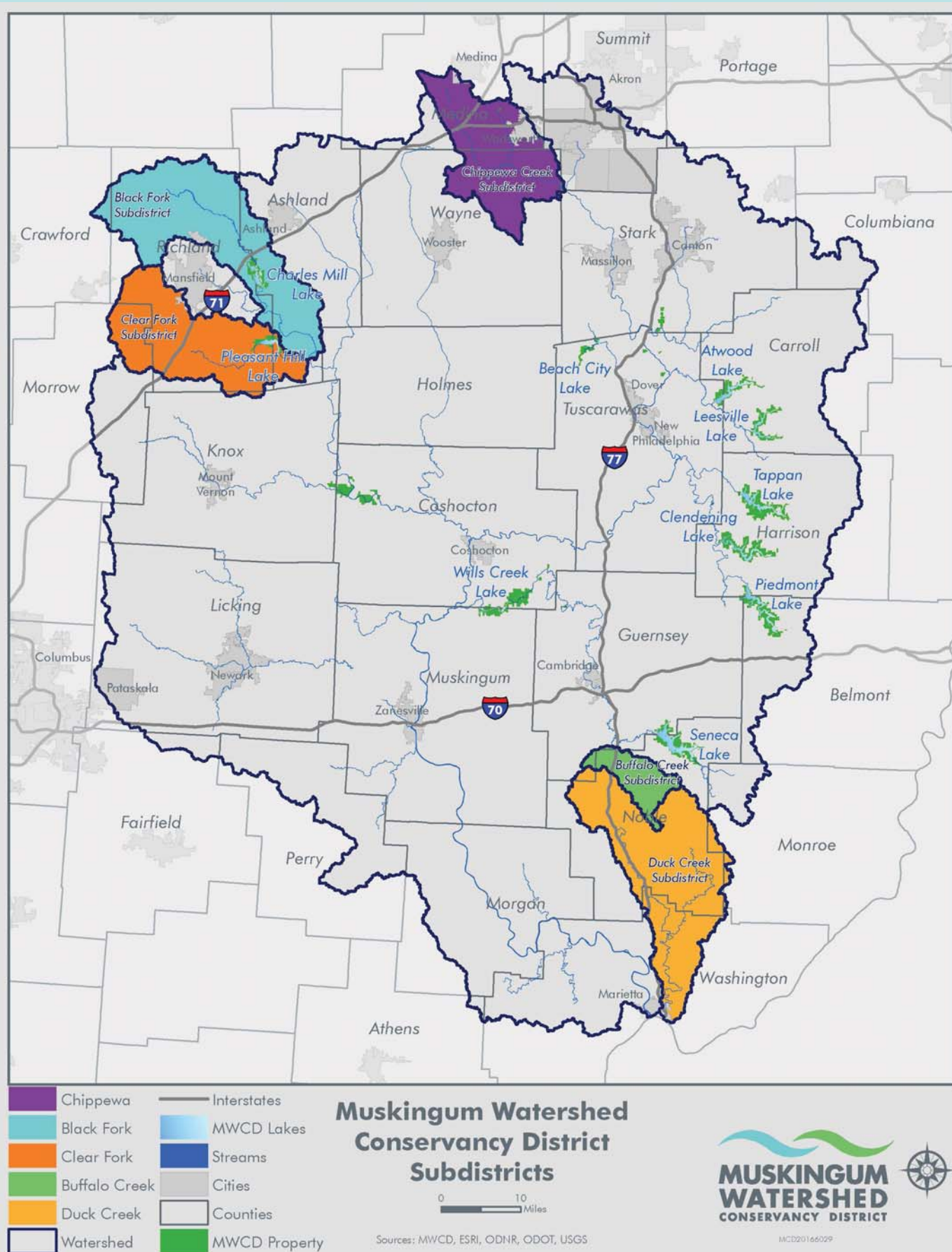
*Car Show at Seneca Lake Park.*

# *Subdistricts*

**Black Fork Subdistrict  
Buffalo Creek Subdistrict  
Chippewa Subdistrict  
Clear Fork Subdistrict  
Duck Creek Subdistrict**







## Black Fork Subdistrict

The Black Fork Subdistrict originally was organized in 1959 to develop water resources for the City of Mansfield and surrounding region. MWCD deactivated the Black Fork Subdistrict years later as interest in building a water supply reservoir waned. It was reactivated in 2011 after local officials appealed to the MWCD.

The watershed of the Black Fork of the Mohican River primarily covers portions of Ashland and Richland counties, but also includes small portions of Crawford and Holmes counties.

The Black Fork is controlled by the Charles Mill Dam and Reservoir, located just off I-71 and U.S. Route 30 near Mansfield in Ashland and Richland counties. The City of Shelby is located northwest of the dam. Water flows from Shelby to Charles Mill Dam through a small drop in elevation, which can add to potential flooding problems in the Shelby area.

The City of Shelby's request that the MWCD Board of Directors reactivate the Black Fork Subdistrict was approved by Shelby City Council. In May, 2011, the Board and Conservancy Court agreed, with the next steps to include completion of a flood mitigation study for the Black Fork watershed.

The Black Fork Technical Working Group met multiple times with the project team in 2018, further refining and incorporating public input into potential flood mitigation strategies. The Black Fork Advisory Committee met three times to review and provide input on solution scenarios developed by the project team which also included information pertaining to economic benefits and capital assessment cost details.

In summary, a holistic and permanent solution was identified consisting of three areas of focus. Those areas in order of importance to reducing flooding are:

1. Detention using up to five dry dams upstream of Shelby;
2. Replacing up to nine bridges along the Black Fork and its tributaries, in addition to floodplain benching in downtown Shelby; and
3. Removal of logjams and debris along the Black Fork.

The solution was shown to meet Ohio Revised Code requirements for cost/benefit and significantly reduced the impacts of the 100-year (or 1% chance) flood to the City of Shelby and surrounding region.



*Visitors from Richland County toured dry dams within the MWCD in the early spring of 2018 while forming their opinion as to whether similar structures should be constructed along the Black Fork River south of Shelby. — Mansfield New Journal photo*



*MWCD Chief Engineer Boris Slogar addresses members of Shelby City Council during their meeting on February 5, 2018. — Richland Source photo*



*Shelby Councilmen Garland Gates, Nathan Martin and Steve McLaughlin during a meeting of Shelby City Council. — Richland Source photo*



In correspondence to MWCD in June, the Mayor of Shelby and Richland County Commissioners requested that the project be halted in reaction to public input indicating a lack of support for construction of detention dams. Without detention, the project could not achieve its goal of significantly reducing the impacts of the design flood. Therefore, Shelby was notified that should they desire to reinstate the project in the future, any costs associated with moving the project forward will require financial support from Shelby. Project reinstatement will also require approval from MWCD's Board of Directors through a strong show of support from Shelby council and its mayor, township trustees, county commissioners, and state representatives.

## Chippewa Subdistrict

The Chippewa Subdistrict manages the Chippewa Creek Watershed Project as a flood-control program that began in 1956 and was completed in 1980 with the construction of eight dams and modifications to 33 miles of channel comprising of Chippewa Creek, Little Chippewa Creek and River Styx. It encompasses 188 square miles (more than 120,000 acres) in northern Wayne and southern Medina counties.

The watershed project was established to reduce the acreage prone to flooding and to decrease the time periods of inundation. The Chippewa Creek flows to the Tuscarawas River and has been a source of major flooding in the watershed.

The subdistrict has an office located near Seville. A project coordinator staffs the office along with an engineer to oversee maintenance of the system of dams



*A StormLink Monitoring Station was installed at Chippewa Dam III-A – Hubbard Valley by MWCD Staff. Information on rainfall and flood pool stage is gathered continuously and can be accessed remotely.*



*MWCD earthmoving crew raises the height of Chippewa Dam 5-D to meet new ODNR-Dam Safety requirements.*

and reservoirs. Staff responds to inquiries from property owners and residents of the Chippewa watershed.

The MWCD serves as the business agent for the subdistrict, which was formed in 1970 from a request of property owners in the region.

Maintenance work in the subdistrict is funded through an assessment of property owners as provided for in the Ohio law that governs conservancy districts, and assessment dollars can be used solely in the subdistrict region according to law.

Present maintenance needs of the dams and channel improvements include, but are not limited to:

- Tree and brush removal
- Slip repairs
- Debris removal
- Hydraulic structure repairs and upgrades
- Monitor/remove sedimentation
- Ongoing maintenance
- Mowing and maintaining dam slopes and surfaces
- Mowing and maintaining channel banks and access points
- Maintaining spillway systems and clearing debris that clogs spillway inlets

During 2018, subdistrict personnel completed numerous projects related to maintenance and operation needs. These included:

- Obtaining new digital orthoimagery and LiDar over the entire 188 square mile Subdistrict watershed. This imagery, using current industry standard technology, was used to analyze impervious surface areas throughout the Subdistrict and the watershed boundaries.

- Outsourcing the processing of the Subdistrict maintenance assessment.
- Replacing three drainage structures along the main channel.
- Re-establishing an additional access lane at Dam VIII-C.
- Re-establishing a section of maintenance berm and removing logjams on River Styx.
- Completing improvements at Dam V-D consisting of the installation of turf reinforcement matting onto the emergency spillway and raising the crest of the elevation of the dam by approximately one foot. This was done to bring the dam into full compliance with state standards.
- MWCD and Chippewa staff installed Stormlink Instrumentation at Dam III-A for remote monitoring of rainfall and flood pool stage levels behind the dam.

## Clear Fork Subdistrict

Flooding has been a recurring theme along the Clear Fork of the Mohican River in Richland County. Though attempts have been made in the past to solve these flooding issues, a solution had never materialized. On July 31, 2013, State Rep. Mark Romanchuk hosted a meeting in Mansfield to discuss flooding issues and invited numerous Richland County officials and stakeholders. The MWCD and the U.S. Army Corps of Engineers were invited to that meeting as well, and both entities provided presentations relating to each organization's flood mitigation programs and associated legal authorities.

Following the July 31, 2013, meeting, MWCD was contacted by local officials to learn more about conservancy district law and how it might assist with their flooding problems. To that end, several meetings were held in Bellville between MWCD officials and representatives from the villages of Bellville, Butler and Lexington; the cities of Mansfield and Ontario; and also township officials and representatives from the Richland Soil and Water Conservation District (SWCD). Officials from the City of Shelby also attended these meetings on behalf of the Black Fork Subdistrict of the MWCD.

On February 19, 2014, the Village of Bellville passed an ordinance requesting the creation of a Clear Fork Subdistrict of MWCD. MWCD's Board of Directors authorized the Chief Engineer to submit a petition to the Conservancy Court for creation of a Clear Fork Subdistrict. On June 7, 2014, the Conservancy Court approved the creation of the Clear Fork Subdistrict

and directed the Chief Engineer to create an Official Plan outlining the flooding problem and its proposed solution.

An agreement with the U.S. Geological Survey began in spring of 2015 for the Clear Fork Mohican River Flood Mapping and Inundation Project. The nearly \$450,000 contract called for the installation of various stream gauges in the river with associated sensors in select tributaries to collect flow data. In addition, precipitation gauges were installed. This system of gages and sensors will be used to provide data for and calibrate a computer model which USGS will develop for the watershed. The system has been actively recording data through 2016 and will continue to do so. Once completed, this model will be used to assist in generating potential solutions to flooding issues in the Clear Fork.

## Buffalo Creek Subdistrict

There is no present activity in the Buffalo Creek Subdistrict. No cost is involved in continuing the subdistrict as a vehicle for its intended purpose. In the future should the need arise, its existence could save considerable time and expense in lieu of forming another subdistrict.

## Duck Creek Subdistrict

The Duck Creek flows through Noble and Washington counties, and the original watershed protection project was started as a subdistrict of the MWCD.

The work to reduce the effects of flooding in the Duck Creek Watershed has involved the MWCD at various points for nearly 50 years.

The Soil Conservation Service (now Natural Resources Conservation Service under Public Law 566) and co-sponsors MWCD and the Ohio Department of Natural Resources had worked on the project since 1963. Due to disinterest by those affected landowners along the channel and adverse benefit-cost ratio, activity in the project dwindled. With reluctance, in 1981 the NRCS requested and received agreement from the subdistrict to close out the remaining activity.

In 2011, three gauges were installed at key locations in the watershed to gather data that can provide vital information during potential flooding from the fast-rising creek. This early flood warning system allows residents in the watershed to register and receive "alerts" that are sent to their cellphones when water reaches selected levels. MWCD continues to fund its portion of the operation and maintenance costs for the gauges.





# *Financial*





**Muskingum Watershed Conservancy District**  
Tuscarawas County, Ohio  
*Management's Discussion and Analysis for the year ended December 31, 2018*

The discussion and analysis of the Muskingum Watershed Conservancy District's (the "Conservancy District") financial performance provides an overall review of the Conservancy District's financial activities for the year ended December 31, 2018. The intent of this discussion and analysis is to look at the Conservancy District's financial performance as a whole; readers should also review the financial statements and notes to the basic financial statements to enhance their understanding of the Conservancy District's financial performance.

**FINANCIAL HIGHLIGHTS**

Key financial highlights for 2018 are as follows:

- Net position increased \$11,136,169 as a result of current year operations.
- Outstanding debt decreased from \$796,125 to \$727,016 through principal payments.
- Capital Assets increased \$33,557,541 as a result of an increase in park master planning projects.

**OVERVIEW OF THE FINANCIAL STATEMENTS**

This annual report consists of three parts — required supplementary information, the basic financial statements, and notes to the basic financial statements. These statements are organized so that the reader can understand the financial position of the Conservancy District. The statement of net position represents the basic statement of position for the Conservancy District. The statement of revenues, expenses and changes in net position present increases (e.g. revenues) and decreases (e.g. expenses) in net total position. The statement of cash flows reflects how the Conservancy District finances and meets its cash flow needs. Finally, the notes to the basic financial statements provide additional information that is essential to a full understanding of the data provided on the basic financial statements.

**FINANCIAL ANALYSIS OF THE CONSERVANCY DISTRICT AS A WHOLE**

The Conservancy District is not required to present government-wide financial statements as the Conservancy District is engaged in only business-type activities. Therefore, no condensed financial information derived from government-wide financial statements is included in the discussion and analysis.

The following table represents the Conservancy District's condensed financial information for 2018 and 2017 derived from the statement of net position and the statement of revenues, expenses, and changes in net position.

**Muskingum Watershed Conservancy District**  
Tuscarawas County, Ohio  
*Management's Discussion and Analysis for the year ended December 31, 2018*

	2018	2017
<b>Assets</b>		
Current and Other Assets	\$120,857,716	\$140,230,054
Capital Assets, net	121,305,946	87,748,405
Total Assets	242,163,662	227,978,459
<b>Deferred Outflows of Resources</b>		
OPEB	443,729	70,407
Pensions	2,200,598	5,336,134
Total Deferred Outflows of Resources	2,644,327	5,406,541
<b>Liabilities</b>		
Current Liabilities	4,942,233	3,406,260
Long-Term Liabilities	16,487,604	14,687,026
Total Liabilities	21,429,837	18,093,286
<b>Deferred Inflows of Resources</b>		
OPEB	570,220	0
Pensions	2,245,509	78,167
Total Deferred Inflows of Resources	2,815,729	78,167
<b>Net Position</b>		
Net Investment in Capital Assets	117,268,120	84,940,313
Restricted	15,007,243	11,605,186
Unrestricted	88,287,060	118,597,641
Total Net Position	\$220,562,423	\$215,143,140

The net pension liability (NPL) is the largest single liability reported by the District at December 31, 2018, and is reported pursuant to GASB Statement 68, *Accounting and Financial Reporting for Pensions — an Amendment of GASB Statement 27*. For fiscal year 2018, the District adopted GASB Statement 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which significantly revised accounting for costs and liabilities related to other postemployment benefits (OPEB). For reasons discussed below, many end users of this financial statement will gain a clearer understanding of the District's actual financial condition by adding deferred inflows related to pension and OPEB, the net pension liability and the net OPEB liability to the reported net position and subtracting deferred outflows related to pension and OPEB.

Governmental Accounting Standards Board standards are national and apply to all government financial reports prepared in accordance with generally accepted accountancy principles. Prior accounting for pensions (GASB 27) and postemployment benefits (GASB 45) focused on a funding approach. This approach limited pension and OPEB costs to contributions annually required by law, which may or may not be sufficient to fully fund each plan's *net pension liability* or *net OPEB liability*. GASB 68 and GASB 75 take an earnings approach to pension and OPEB accounting; however, the nature of Ohio's statewide pension/OPEB plans and state law governing these systems required additional explanation in order to properly understand the information presented in these statements.

GASB 68 and GASB 75 require the net pension liability and the net OPEB liability to equal the District's proportionate share of each plan's collective:



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1. Present value of estimated future pension/OPEB benefits attributable to active and inactive employees' past services
2. Minus plan assets available to pay these benefits

GASB notes that pension and OPEB obligations, whether funded or unfunded, are part of the "employment exchange" — that is, the employee is trading his or her labor in exchange for wages, benefits, and the promise of a future pension and other postemployment benefits. GASB noted that the unfunded portion of this promise is a present obligation of the government, part of a bargained-for benefit to the employee and should accordingly be reported by the government as a liability since they received the benefit of the exchange. However, the District is not responsible for certain key factors affecting the balance of these liabilities. In Ohio, the employee shares the obligation of funding pension benefits with the employer. Both employer and employee contribution rates are capped by State statute. A change in these caps requires action of both Houses of the General Assembly and approval of the Governor. Benefit provisions are also determined by State statute. The Ohio Revised Code permits, but does not require the retirement systems to provide healthcare to eligible benefit recipients. The retirement systems may allocate a portion of the employer contributions to provide for these OPEB benefits.

The employee enters the employment exchange with the knowledge that the employer's promise is limited not by contract but by law. The employer enters the exchange also knowing that there is a specific, legal limit to its contribution to the retirement system. In Ohio, there is no legal means to enforce the unfunded liability of the pension/OPEB plan *as against the public employer*. State law operates to mitigate/lessen the moral obligation of the public employer to the employee, because all parties enter the employment exchange with notice as to the law. The retirement system is responsible for the administration of the pension and OPEB plans.

Most long-term liabilities have set repayment schedules or, in the case of compensated absences (i.e. sick and vacation leave), are satisfied through paid time-off or termination payments. There is no repayment schedule for the net pension liability or the net OPEB liability. As explained above, changes in benefits, contribution rates, and return on investments affect the balance of these liabilities, but are outside the control of the local government. In the event that contributions, investment returns, and other changes are insufficient to keep up with required payments, State statute does not assign/identify the responsible party for the unfunded portion. Due to the unique nature of how the net pension liability and the net OPEB liability are satisfied, these liabilities are separately identified within the long-term liability section of the statement of net position.

In accordance with GASB 68 and GASB 75, the District's statements prepared on an accrual basis of accounting include an annual pension expense and an annual OPEB expense for their proportionate share of each plan's *change* in net pension liability and net OPEB liability respectively, not accounted for as deferred inflows/outflows.

As a result of implementing GASB 75, the District is reporting a net OPEB liability and deferred inflows/outflows of resources related to OPEB on the accrual basis of accounting. This implementation had the effect of restating net position at December 31, 2017, from \$215,143,140 to \$209,426,254.

During 2018, net position increased \$11,136,169 which is attributable to increases in the capital assets resulting from the park master plan implementation. The decrease in current and other assets is mainly attributable to a decrease in cash and investments due to capital asset projects and park master plan planning.

Capital assets increased due to a number of ongoing construction projects. Pleasant Hill Area 22 campground, Atwood Area 20 campground, and Tappan East campground were all substantially completed during 2018. Park master planning projects peaked during 2018, and as such, construction in progress totaled approximately \$41 million as of December 31, 2018. Major projects are on-going at each major park.

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Short term liabilities increased as of December 31, 2018, as a direct relation to all of the park master plan projects. Contracts and retainage payable increased approximately \$1.2 million from the prior year.

In order to further understand what makes up the changes in net position for the current year, the following table gives readers further details regarding the results of activities for 2018 and 2017.

OPERATING REVENUES	2018	2017
Timber Sales	\$ 241,404	\$ 534,371
Pine-Pulpwood Sales	141,886	69,252
Easements/Rights of Way	6,340	265,000
Mineral Rights and Royalties	19,074,684	9,657,093
Share Crop Lease	118,871	221,071
Cottage Sites	2,943,997	2,822,871
Marina Operations	2,187,948	1,699,788
Fishing Rights	62,647	62,648
Marina Camping	415,734	425,621
Water Sales	34,098	463,498
Beach Facilities	171,985	170,375
Water and Sewer Systems	93,136	91,020
Vacation Cabins	488,401	460,433
Park Camping	5,290,941	5,146,684
Admissions — Park Facilities	168,954	185,718
Special Events	154,043	128,361
Miscellaneous Income	178,494	156,400
<b>Total Operating Revenues</b>	<b>\$ 31,773,563</b>	<b>\$ 22,560,204</b>

OPERATING EXPENSES	2018	2017
Water Sales	\$ 183,148	\$ 187,190
Water Quality	778,256	601,553
Water Resources/Flood Control	1,660,711	73,581
Vehicles and Equipment	475,504	401,998
Dam Safety/Upgrades	417,957	1,143,415
Boundary Survey	58,114	71,396
Conservation	155,626	286,146
Reservoir Maintenance	50,059	65,443
Information Systems/Technology	615,539	713,041
Shoreline Protection	164,989	185,423
Share Crop	46,990	137,868
Mineral Operations	348,620	436,685
Watershed Management	459,583	475,181
Beach Facilities	254,391	257,575
Office Building	251,691	344,619



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OPERATING EXPENSES	2018	2017
Administrative and Finance	2,530,729	2,104,426
Engineering	431,007	358,723
Planning and Development	386,899	305,501
GIS and Parcel Development	312,454	787,355
Forestry Maintenance	224,205	228,705
Park Camping	2,803,591	2,653,746
Park Master Planning	2,416,616	1,819,768
Cottage Sites and Clubs	1,157,039	1,332,484
General Park Facilities	3,981,212	4,263,787
Vacation Cabins	134,654	162,969
Marina Operations	1,944,832	1,620,447
Water and Sewer Systems	735,422	778,551
Lake Patrol Operations	585,606	497,982
Education and Public Information	268,838	374,696
Safety	218,496	227,891
Recreation Maintenance	42,764	34,185
Parks — Special Events	172,019	160,929
Partners in Watershed Management	352,977	146,688
Sediment Removal	38,837	27,714
Depreciation	4,541,885	3,232,903
<b>Total Operating Expenses</b>	<b>\$29,201,250</b>	<b>\$26,500,564</b>
<b>Operating Income (Loss)</b>	<b>\$ 2,572,313</b>	<b>\$ (3,940,360)</b>

NON-OPERATING REVENUES (EXPENSES)	2018	2017
Maintenance Assessments	\$5,960,331	\$6,067,371
Grants	518,688	937,622
Interest on Investments	2,125,121	1,137,972
Debt Retirement — Interest	(40,284)	(49,660)
<b>Total Non-Operating Revenues (Expenses)</b>	<b>8,563,856</b>	<b>8,093,305</b>
<b>Income (Loss) before Contributions</b>	<b>11,136,169</b>	<b>4,152,945</b>
<b>Capital Contributions</b>	<b>-</b>	<b>1,956,870</b>
<b>Change in Net Position</b>	<b>\$11,136,169</b>	<b>\$6,109,815</b>

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The information necessary to restate the 2017 beginning balances and the 2017 OPEB expense amounts for the effects of the initial implementation of GASB 75 is not available. Therefore, 2017 operating expenses still include OPEB expense of \$70,407 computed under GASB 45. GASB 45 required recognizing OPEB expense equal to the contractually required contributions to the plan. Under GASB 75, OPEB expense represents additional amounts earned, adjusted by deferred inflows/outflows. The contractually required contribution is no longer a component of OPEB expense. Under GASB 75, the 2018 statements report OPEB expense of \$439,392. Consequently, in order to compare 2018 total operating expenses to 2017, the following adjustments are needed:

Total 2018 Operating Expenses under GASB 75	\$29,201,250
OPEB Expense under GASB 75	(439,392)
2018 Contractually Required Contributions	0
Adjusted 2018 Operating Expenses	28,761,858
Total 2017 Operating Expenses under GASB 45	26,500,564
<b>Increase (Decrease) in Operating Expenses not related to OPEB</b>	<b>\$ 2,261,294</b>

The increase in operating revenue is mainly the result of increases in oil and gas activity in 2018. The oil and gas activity increased by approximately \$9.4 million or 98% in 2018, and the number of wells drilled on private property paying royalties to the Conservancy District increased from 58 in 2017 to 75 as of December 31, 2018. In addition, during 2018 a portion of the undeveloped land at Seneca Reservoir was renewed which resulted in the first of three installment payments of approximately \$2.3 million. Two other line items directly tied to oil and gas activity were easements, which had \$6,340 of revenue in 2018 when it had a large easement totaling \$265,000 in 2017, and water sales. Water sales decreased \$429,000 or 93% and was the result of less demand from the oil and gas industry coupled with water availability from our reservoirs. The Conservancy District will continue placing safeguards on water sales agreements by requiring a minimum amount of water to be in each reservoir prior to withdrawal to maintain the primary focus of protecting reservoir levels and recreational activity. Park camping, and marina operations increased in 2018. Park revenue increased in part due to a good weather season and continued demand for our sites, amenities, and activities, and due to our first newly renovated campground at Atwood being available for a portion of the 2018 camping season. Marina revenue increased approximately \$488,000 due, in large part, to the Conservancy District self-operating Tappan Marina for the first year during 2018.

Most operating expenses remained consistent in 2018; the following highlight some of the main changes:

- Water resources/flood control expenses increased significantly in 2018 due to the recognition of expenses related to the Black Fork Subdistrict. In previous years, the Conservancy District capitalized the costs incurred in anticipation of a future maintenance assessment reimbursing the Conservancy District. However, in 2018, the local officials in the Black Fork Subdistrict area decided not to move forward with the project so those costs that had previously been capitalized were expensed.
- Dam safety/upgrades decreased approximately \$725,000 in 2018 due primarily to no expenses with the U.S. Army Corps of Engineers in 2018.
- Share crop expenses decreased approximately 70% in 2018 which is due to the conversion of the leases to production-based leases, which is a change over from a share crop where the Conservancy District shared in the expenses.
- GIS/Parcel development decreased approximately 60 percent in 2018. In 2017, there was an initial contract for the creation of the billing file for the maintenance assessment. In 2018, the on-going contract for the preparation of the billing file was less.



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- Park Master planning increased approximately \$600,000. In 2018, there was a large order of fire rings and picnic tables that were not capitalized, due to being under the capitalization total which accounted for a large portion of the increase.
- Depreciation expense increased approximately \$1.3 million in 2018 due to the completion of several large park master planning projects totaling almost \$22 million.

Interest revenue increased approximately \$1 million due to higher interest rates in 2018, particularly short term rates, which the Conservancy District took advantage of.

## **CAPITAL ASSETS AND DEBT ADMINISTRATION**

### **Capital Assets**

At the end of 2018 the Conservancy District had \$121,305,946 of capital assets net of accumulated depreciation. The following table shows 2018 balances compared with 2017:

	2018	2017
Land	\$3,406,679	\$3,313,899
Capitalized Development Costs	1,189,495	1,189,495
Construction in Progress	41,180,600	25,217,166
Land Improvements	28,401,592	20,219,040
Buildings	17,939,994	16,759,721
Building Improvements	2,739,242	2,908,500
Furniture, Fixtures and Equipment	1,997,415	2,002,886
Vehicles	546,384	695,684
Infrastructure	23,904,545	15,442,014
<b>Totals</b>	<b>\$121,305,946</b>	<b>\$87,748,405</b>

Additional information on the Conservancy District's capital assets can be found in Note 5.

### **Debt**

The outstanding debt for the Conservancy District as of December 31, 2018, was \$727,016 with \$71,751 due within one year. The following table summarizes the Conservancy District's debt outstanding as of December 31, 2018, and 2017:

	2018	2017
OWDA #2162 — 5.56%	\$192,176	\$221,306
OWDA #5413 — 0%	103,888	113,332
OWDA #5575 — 3.25%	412,063	441,190
OWDA #5558 — 3.25%	18,889	20,297
<b>Totals</b>	<b>\$727,016</b>	<b>\$796,125</b>

Additional information on the Conservancy District's long-term debt can be found in Note 10.

## **CURRENT ISSUES**

The Utica shale activity in Ohio has presented the Conservancy District with opportunities to utilize its natural resources. As of December 31, 2018, the Conservancy District received royalties from seventy-five (75) producing Utica wells and further income in the form of delay rental payments for non-producing acreage. Oil and gas leases covering Leesville, Clendening, and Seneca reservoirs currently have producing wells and development around these reservoirs is expected to continue into 2019 and beyond. With over 10,000 additional acres available for lease in key areas of the Utica Shale, the Conservancy District will continue to evaluate and analyze future opportunities to participate in responsible development and recovery of its resources.

With the completion of the 2012 Strategic Plan, the Conservancy District embarked on a new strategic plan with the process of reviewing the initiatives that were completed in the 2012 plan and gathering input from staff members for development of the 2017 Strategic Plan. As a result, the 2017 plan identified a number of high-priority initiatives which include the following:

- Review of the annual budget process, specifically looking at the possibility of developing a two year capital budget;
- Develop and implement a long-term plan for the Conservation areas;
- Address funding options for Phase 2 of the Park Master Plan;
- Preparation of a Marina Master Plan since the Conservancy District has acquired three additional marinas since the 2012 plan;
- Develop a financially equitable and responsible subdistrict creation process.

These are just a few of the initiatives outlined in the plan with the full plan being available for review. This again is being viewed as a five-year plan with a scorecard being prepared to track all the initiatives. During 2018, it was determined the Conservancy District could not develop a two-year capital budget due to restrictions in the Ohio Revised Code. A long-term plan for the Conservation area is included in the 2019 goals that were approved by the Board of Directors and will be completed in the fourth quarter of 2019. Phase 2 of the Master Plan which will include a Marina Master plan will be submitted to the Board of Directors for approval during the second quarter of 2019.

The Board of Directors have approved a finance goal for the 2019 year tasking the Conservancy District to capitalize on the Utica Shale revenue and look to secure the long-term financial viability of the Conservancy District. A potential outcome of this goal could be the creation of an endowment fund. Another part of this goal will be to set up appropriate funding guidelines for the various annual operational and capital funds while exploring other alternatives for the long-term well being of the Conservancy District. A plan will be presented to the Board of Directors by the end of the fourth quarter 2019.

Beginning in 2016 and continuing through 2019, the Board of Directors approved a Utica Shale Revenue Distribution Plan which led to the creation of an operational reserve account, capital reserve account, and allowed for the transfer of moneys into the improvement fund for future land/building acquisitions. As of December 31, 2018, the operational reserve account had a balance of approximately \$14 million, the capital reserve account had a balance of approximately \$15.6 million, and \$814,000 was transferred into the improvement fund, leaving a balance of approximately \$2.6 million. During the budgeting process for 2019, the Board of Directors approved the Utica Shale Revenue Distribution for the 2019 Utica Shale revenue. The Board of Directors approved a slightly revised plan



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for 2019, with 20% allocated to the maintenance fund - operations, 10% allocated to the Conservation Fund, 25% allocated to the Recreation Improvement Fund to fund the current year recreation improvement projects, and 45% allocated to the Park Master Plan account for Phase 2 of the Park Master Plan.

The park master plan, which will consist of major updates at all five parks and two marinas operated by the Conservancy District was in full swing during 2018. One hundred and thirty million dollars has been set-a-side for phase I of the plan. The Conservancy District had significant projects at all locations during 2018. Pleasant Hill Area 22 Campground and sanitary sewer improvements, Atwood Area 20 campground and Tappan East campground were completed during 2018. Significant projects at all locations will be complete during 2019 as Phase I of the Master Plan will be winding down. Phase 2 of the Master Plan will begin in 2019, so the transition should be seamless. As of December 31, 2018, the Conservancy District has spent approximately \$76 million in park master plan expenditures.

Beginning with the 2015 collection year, the Board of Directors approved a 50% reduction in the maintenance assessment collections. This continued again for the 2019 collection year, however the Board of Directors recommended curtailing expenditures for the maintenance assessment, so that the expenditures were more in line with the revenues being generated. The approved maintenance assessment budget for 2019 is 10.3 million, which is slightly above the projected collections, however, the 2018 actual expenditures came in below the amount collected due to timing of several projects. The Conservancy District will outsource the billing file again for the 2019 collection year. Several of the other large initiatives in the maintenance assessment will be the ongoing shoreline protection work which will be largely supplemented by grant revenue, and continued work with sediment removal or dredging. Dredging at Seneca Lake will wrap up during 2019. The Partners in Watershed Management program will also be continued during 2019. The Conservancy District allocates \$500,000 in grant awards per year to help with water quality initiatives throughout the Conservancy District. Due to timing of payment requests on the grants, the Conservancy District anticipates spending approximately \$800,000 in 2019. The Conservancy District continues to be the local cost share sponsor in the U.S. Army Corp of Engineer projects. The projects slated to begin during 2019 are the Zoar Levee and Mohawk Dam. The Board of Directors approved a \$3 million budget in 2019 for these projects.

The reactivation of the Black Fork Subdistrict occurred in 2011 at the request from officials of the City of Shelby. Since then, numerous meetings have been held to discuss the findings of the studies that were performed to look at the potential solutions to the flooding issues in the Black Fork. In 2018, a solution was shown to meet Ohio Revised code requirements for cost/benefit and significantly reduce the impacts of the 100-year flood to the City of Shelby and the surrounding region. In correspondence to the Conservancy District, the Mayor of Shelby and Richland County Commissioners requested that the project be halted in reaction to public input indicating a lack of support for the project. Shelby was notified that should they desire to reinstate the project in the future, any costs associated with moving the project forward will require financial support from Shelby. Project reinstatement will also require approval from the Conservancy District Board of Directors through a strong show of support from Shelby council and its mayor, township trustees, county commissioners and state representatives.

#### **REQUESTS FOR INFORMATION**

This financial report is designed to provide our citizens, investors and creditors with a general overview of the Conservancy District's finances and to show the Conservancy District's accountability for the money it receives. If you have questions about this report or need additional information, contact James B. Cugliari of the Muskingum Watershed Conservancy District.

**Muskingum Watershed Conservancy District**  
Tuscarawas County, Ohio  
*Statement of Net Position / Proprietary Fund*  
for the Year ended December 31, 2018

<b>ASSETS</b>	
<b>Current Assets</b>	
Equity in Pooled Cash and Investments	\$118,309,972
Accrued Interest	843
Accounts Receivable	983,126
Maintenance Assessments Receivable	1,097,625
<b>Total Current Assets</b>	<b>120,391,566</b>
<b>Non-Current Assets</b>	
Capitalized Costs	466,150
Non-Depreciable Capital Assets	45,776,774
Depreciable Capital Assets, Net	75,529,172
<b>Total Non-Current Assets</b>	<b>121,772,096</b>
<b>Total Assets</b>	<b>242,163,662</b>
<b>Deferred Outflows of Resources</b>	
OPEB	443,729
Pension	2,200,598
<b>Total Deferred Outflows of Resources</b>	<b>2,644,327</b>
<b>LIABILITIES</b>	
<b>Current Liabilities</b>	
Accounts Payable	458,508
Contracts Payable	1,795,131
Retainage Payable	1,405,095
Performance Bond Payable	57,752
Due to Other Governments	180,649
Accrued Wages and Benefits	348,853
Accrued Interest Payable	100
Accrued Life Insurance	4,234
Claims Payable	232,000
Advances	226,661
Compensated Absences	98,552
Capital Leases Payable	62,946
OWDA Loans Payable	71,752
<b>Total Current Liabilities</b>	<b>4,942,233</b>

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<b>Long-Term Liabilities</b>	
Compensated Absences — net of current portion	832,296
Capital Leases Payable — net of current portion	170,415
OWDA Loans Payable — net of current portion	655,265
Net OPEB Liability	6,029,787
Net Pension Liability	8,799,841
<b>Total Long-Term Liabilities</b>	<b>16,487,604</b>
<b>Total Liabilities</b>	<b>21,429,837</b>
<b>Deferred Inflows of Resources</b>	
OPEB	570,220
Pension	2,245,509
<b>Total Deferred Inflows of Resources</b>	<b>2,815,729</b>
<b>Net Position</b>	
Net Investment in Capital Assets	117,268,120
Restricted for Maintenance Assessment	15,007,243
Unrestricted	88,287,060
<b>Total Net Position</b>	<b>\$220,562,423</b>

See accompanying notes to the basic financial statements.



**Muskingum Watershed Conservancy District**  
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*Statement of Revenues, Expenses and Changes in Net Position / Proprietary Fund*  
*for the Year ended December 31, 2018*

<b>Operating Revenues</b>	
Water Sales	\$34,098
Water and Sewer Systems	93,136
Timber Sales	241,404
Pine/Pulpwood Sales	141,886
Mineral Rights and Royalties	19,074,684
Share Crop Lease	118,871
Cottage Sites	2,943,997
Marina Operations	2,187,948
Marina Camping	415,734
Fishing Rights	62,647
Easements/Rights-of-Way	6,340
Beach Facilities	171,985
Vacation Cabins	488,401
Park Camping	5,290,941
Parks — Special Events	154,043
Admissions — Park Facilities	168,954
Miscellaneous income	178,494
<b>Total Operating Revenues</b>	<b>31,773,563</b>
<b>Operating Expenses</b>	
Water Sales	183,148
Water Quality	778,256
Water Resources/Flood Control	1,660,711
Vehicles and Equipment	475,504
Dam Safety/Upgrades	417,957
Boundary Survey	58,114
Conservation	155,626
Reservior Maintenance	50,059
Information Systems/Technology	615,539
Shoreline Protection	164,989
Share Crop	46,990
Mineral Operations	348,610
Watershed Management	459,583
Beach Facilities	254,391
Office Building	251,691
Administrative and Finance	2,530,729
Engineering	431,007
Planning and Development	386,899

**Muskingum Watershed Conservancy District**  
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*Statement of Revenues, Expenses and Changes in Net Position / Proprietary Fund  
for the Year ended December 31, 2018*

GIS and Parcel Development	312,454
Forestry Maintenance	224,205
Park Camping	2,803,591
Park Master Planning	2,416,616
Cottage Sites and Clubs	1,157,039
General Park Facilities	3,981,212
Vacation Cabins	134,654
Marina Operations	1,944,832
Water and Sewer Systems	\$735,422
Lake Patrol Operations	585,606
Education and Public Information	268,838
Safety	218,496
Recreation Maintenance	42,764
Parks — Special Events	172,019
Partners in Watershed Management	352,977
Sediment Removal	38,837
Depreciation	4,541,885
<b>Total Operating Expenses</b>	<b>29,201,250</b>
<b>Operating Loss</b>	<b>2,572,313</b>
<b>Non-Operating Revenues (Expenses)</b>	
Maintenance Assessments	5,960,331
Grants	518,688
Interest on Investments	2,125,121
Debt Retirement — Interest	(40,284)
<b>Total Non-Operating Revenues (Expenses)</b>	<b>8,563,856</b>
Change in Net Position	11,136,169
<b>Net Position — Beginning of Year, Restated</b>	<b>209,426,254</b>
<b>Net Position — End of Year</b>	<b>\$220,562,423</b>

See accompanying notes to the basic financial statements.

**Muskingum Watershed Conservancy District**  
Tuscarawas County, Ohio  
*Statement of Cash Flows / Proprietary Fund*  
for the Year ended December 31, 2018

<b>Cash flows from Operating Activities</b>	
Cash Received from Customers	\$31,813,411
Cash Payments to Suppliers for Goods and Services	(10,797,901)
Cash Payments for Employees Services and Benefits	(10,494,422)
<b>Net Cash Provided (Used) For Operating Activities</b>	<b>10,521,088</b>
<b>Cash Flows from Noncapital Financing Activities</b>	
Principal Payments on OWDA Loans	(10,852)
Maintenance Assessments	5,453,258
Interest Paid on Debt	(598)
<b>Net Cash Provided by Noncapital Financing Activities</b>	<b>5,483,310</b>
<b>Cash Flows from Capital and Related Financing Activities</b>	
Acquisition of Capital Assets	(36,777,631)
Maintenance Assessments	627,930
Intergovernmental Grants	477,186
Principal Payments on OWDA Loans	(58,257)
Principal Payments on Capital Leases	(42,022)
Interest Paid on Debt	(39,686)
<b>Net Cash Used for Capital and Related Financing Activities</b>	<b>(35,812,480)</b>
<b>Cash Flows from Investing Activities</b>	
Receipts of Interest	1,997,615
Payments for purchase of investments	(58,894,288)
Proceeds from Sale of Investments	78,180,137
<b>Net Cash Provided (Used) for Investing Activities</b>	<b>21,283,464</b>
<b>Net Increase (Decrease) in Cash and Cash Equivalents</b>	
	<b>1,475,382</b>
<b>Cash and Cash Equivalents Beginning of Year</b>	
	<b>6,924,483</b>
<b>Cash and Cash Equivalents End of Year</b>	
	<b>\$8,399,865</b>
<b>Reconciliation of Operating Gain (Loss) To Net</b>	



**Muskingum Watershed Conservancy District**  
Tuscarawas County, Ohio  
*Statement of Cash Flows / Proprietary Fund*  
*for the Year ended December 31, 2018*

<b>Cash Used by Operating Activities</b>	
Operating Income	\$2,572,313
<b>Adjustments to Reconcile Operating Income to Net Cash Provided by Operating Activities</b>	
Depreciation	4,541,885
<b>(Increase) Decrease in Assets</b>	
Capitalized Costs	1,047,020
Accounts Receivable	39,849
Prepays	480,365
Deferred Outflows	2,762,214
<b>Increase (Decrease) in Liabilities</b>	
Accounts Payable	136,496
Performance Bond Payable	(5,300)
Escrow Funds Payable	(970)
Advances	44,855
Claims Payable	42,000
Accrued Wages and Benefits	51,996
Accrued Life Insurance	(3,882)
Compensated Absences	157,069
Due to Other Governments	9,547
Net OPEB Liability	242,494
Net Pension Liability	(4,334,425)
Deferred Inflows	2,737,562
<b>Net Cash Provided (Used) for Operating Activities</b>	
	<b>\$10,521,088</b>
<b>Reconciliation of cash and investments reported on the Statement of Net Position to Cash and Cash Equivalents reported on the State of Cash Flows</b>	
Statement of Net Position cash and cash equivalents and investments	\$118,309,972
Investments included in balances above that are not cash equivalents	(109,910,107)
<b>Cash and Cash equivalents reported on Statement of Cash Flows</b>	<b>\$8,399,865</b>
<b>Noncash Capital Financing Activities</b>	
During 2018, \$125,524 of capital assets were acquired on capital leases. At December 31, 2018, the Conservancy District purchased \$3,200,226 in capital assets on account. At December 31, 2017, the Conservancy District purchased \$1,995,736 in capital assets on account.	

See accompanying notes to the basic financial statements.

## Muskingum Watershed Conservancy District

Tuscarawas County, Ohio

*Notes to the Basic Financial Statements for the year ended December 31, 2018*

### NOTE 1: NATURE OF BASIC OPERATIONS AND DESCRIPTION OF ENTITY

The Muskingum Watershed Conservancy District was created as a separate political subdivision by the Ohio Legislature in 1933. The Muskingum Watershed Conservancy District (the "Conservancy District") was created in accordance with Chapter 6101 of the Ohio Revised Code which is concerned with the formation and governing of conservancy districts. The Conservancy District operates under an elected conservancy court consisting of eighteen court of common pleas judges, with one judge serving on the court from each county. Muskingum Watershed Conservancy District had a five-member Board of Directors in 2018 appointed by the court. All other officers and employees are hired in accordance with the provisions of Chapter 6101 of the Ohio Revised Code. The Conservancy District is a separate governmental entity within the eighteen county area served by the Conservancy District.

#### 2018 Board of Directors

Robert S. Moorehead, Jr., President .....	term expires August 2021
Joanne Limbach, Vice President .....	term expires June 2023
Gordon T. Maupin, Member .....	term expires July 2019
Clark E. Sprang, Member .....	term expires June 2020
James M. Gresh, Member .....	term expires July 2022

#### 2018 Officers

John M. Hoopingarner .....	Executive Director/Secretary
James B. Cugliari .....	Chief Financial Officer/Treasurer

Services provided by the Conservancy District are defined in detail in the Ohio Conservancy District Act and Chapter 6101.04 of the Ohio Revised Code and include among other duties the following:

- (A) Preventing Floods
- (B) Regulating stream channels by changing, widening, and deepening the same
- (C) Providing a water supply for domestic, industrial, and public use
- (D) Providing for the collection and disposal of sewage and other liquid waste
- (E) Regulating the flow of streams and conserving their waters

The Conservancy District manages fourteen reservoirs and receives income from the following operations and other sources:

- (A) Park camping
- (B) Rental of sites for cottages
- (C) Sale of crops
- (D) Sale of timber and pulpwood
- (E) Boat marina rentals and docking
- (F) Assessment
- (G) Oil and Gas royalties
- (H) Water Sales

#### Subdistricts

Chippewa Subdistrict, Black Fork Subdistrict, Buffalo Subdistrict, Duck Creek Subdistrict, and Clear Fork Subdistrict are blended component units of Muskingum Watershed Conservancy District. Each subdistrict was formed in accordance with Chapter 6101.71 of the Ohio Revised Code; Organization of subdistricts. They were put into action as a result of petitions of the owners of real property within their areas. To date the only active subdistricts are the Chippewa Subdistrict, Black Fork Subdistrict, and the Clear Fork Subdistrict. The current status of the Chippewa Subdistrict is to maintain and upgrade the dams and channels. In May of 2011, with work beginning in 2012, the

**Muskingum Watershed Conservancy District**  
Tuscarawas County, Ohio  
*Notes to the Basic Financial Statements for the year ended December 31, 2018*

Conservancy District Board of Directors, at the request of Shelby City officials, re-activated the Black Fork Subdistrict for the purpose of preparing an Official Plan, as required by the Ohio Revised Code, to address flooding within the Black Fork watershed. During 2018, a plan was developed that met the cost/benefit requirements contained in the ORC and significantly reduced the impacts of the 100-year flood, however, Shelby officials requested that the project be halted due to lack of public support and the project is currently suspended. In June of 2014, the Conservancy Court established the Clear Fork Subdistrict based on the request by several municipalities and stakeholders along the Clear Fork, in order to address localized frequent flooding. Work is beginning to create an official plan. Buffalo Creek Subdistrict and Duck Creek Subdistrict are inactive.

**NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

The financial statements of the Conservancy District have been prepared in conformity with generally accepted accounting principles (GAAP) as applied to local governmental units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The most significant of the Conservancy District's accounting policies are described below.

***A. Basis of Presentation***

The Conservancy District uses the accrual basis of accounting. Revenues are recognized when earned and expenses are recognized when incurred.

The Conservancy District operates as a self-supporting governmental enterprise and uses accounting policies applicable to governmental enterprise funds.

***B. Measurement Focus***

The enterprise fund is accounted for on a flow of economic resources measurement focus. All assets, deferred outflows of resources, all liabilities, and deferred inflows of resources associated with the operation of the Conservancy District are included on the statement of net position. The statement of changes in net position presents increases (i.e., revenues) and decreases (i.e., expenses) in net total position. The statement of cash flows provides information about how the Conservancy District finances and meets the cash flow needs of its enterprise activity.

***C. Budgetary Process***

***Budget***

The Conservancy District's annual budget of revenues, expenses, and capital expenditures is prepared under the cash basis of accounting. The budget is adopted by resolution of the Board of Directors. The Conservancy District utilizes such budget and related budgetary accounting to ensure that: (1) service objectives are attained, (2) expenditures are properly controlled; and (3) adequate resources will be available to finance current operations and meet capital outlay requirements.

Because the Conservancy District's revenues and expenses may fluctuate, a flexible-rather than fixed-dollar budget is utilized to permit budgetary revision. Actual results of operations are compared to the final revised budget of the Conservancy District for the year.

***Appropriations***

The annual appropriation measure is passed on or before the last meeting of the year in December, for the period January 1 to December 31 of the following year. The appropriation measure may be amended or supplemented by the board. The total amount appropriated from any fund for any year shall not exceed the sum of the unencumbered balance in the fund at the beginning of the year and the amounts to be received during such year from bonds authorized, and taxes and special assessments imposed prior to their appropriation, together with all other moneys estimated to be received by the fund during the year. At the close of each calendar year, all unencumbered balance of appropriations shall revert to the funds from which they were made and shall be subject to re-appropriation.



**Muskingum Watershed Conservancy District**  
Tuscarawas County, Ohio  
*Notes to the Basic Financial Statements for the year ended December 31, 2018*

**Encumbrances**

The Conservancy District is required to use the encumbrance method of accounting by virtue of Ohio Law. Under this system, purchase orders, contracts and other commitments for the expenditure of funds are recorded in order to reserve the portion of the applicable appropriation. At the close of the calendar year, the unencumbered balance of each appropriation reverts to the respective fund from which it was appropriated and becomes subject to future appropriations. The encumbered appropriation balance is carried forward to the succeeding fiscal year and need not be re-appropriated.

**D. Property Assets/Depreciation**

Capital Assets are defined by the Conservancy District as assets with an initial, individual cost of more than \$5,000. The capitalization threshold for building improvements is \$10,000 and for infrastructure and land improvements is \$25,000.

Property, plant and equipment acquired by the Conservancy District are stated at cost (or estimated historical cost), including architectural and engineering fees where applicable.

All reported capital assets are required to be depreciated except for land, construction in progress, and capitalized development costs. Depreciation has been provided using the straight-line method over the following estimated useful lives:

DESCRIPTION	ESTIMATED LIVES
Land Improvements	20 to 25 years
Buildings	30 to 50 years
Building Improvements	10 to 20 years
Furniture, Fixtures and Equipment	3 to 15 years
Vehicles	3 to 5 years
Infrastructure	20 to 50 years
Land	n/a
Construction in Progress	n/a
Capitalized Development Costs	n/a

**E. Compensated Absences**

Vacation benefits are accrued as a liability as the benefits are earned if the employees' rights to receive compensation are attributable to services already rendered and it is probable that the employer will compensate the employees for the benefits through paid time off or some other means. The Conservancy District records a liability for all accumulated unused vacation time when earned for all employees with more than one year of service.

Sick leave benefits are accrued as a liability using the termination method. An accrual for earned sick leave is made to the extent that it is probable that benefits will result in termination payments. The liability is an estimate based on the Conservancy District's past experience of making termination payments.

**F. Pensions/Other Postemployment Benefits (OPEB)**

For purposes of measuring the net pension/OPEB liability, deferred outflows of resources and deferred inflows of resources related to pensions/OPEB, and pension/OPEB expense, information about the fiduciary net position of the pension/OPEB plans and additions to/deductions from their fiduciary net position have been determined on the same basis as they are reported by the pension/OPEB plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. The pension/OPEB systems report investments at fair value.

**Muskingum Watershed Conservancy District**

Tuscarawas County, Ohio

*Notes to the Basic Financial Statements for the year ended December 31, 2018*

**G. Net Position**

Net position represents the difference between assets plus deferred outflows of resources and liabilities plus deferred inflows of resources. Net investment in capital assets, consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of any borrowings used for the acquisition, construction or improvement of those assets. Restricted for maintenance assessment represents the net position of the maintenance assessment fund, which are restricted by the official plan as to how it can be used.

The Conservancy District applies restricted resources first when an expense is incurred for purposes for which both restricted and unrestricted net position is available.

**H. Revenue and Expenses**

Operating revenues consist primarily of fees for services, rents and charges for use of Conservancy District facilities, oil and gas royalties, and other income. Operating expenses include the cost of providing these services, including administrative expenses and depreciation on capital assets.

Non-operating revenues and expenses are all revenues and expenses not meeting the definition of operating revenues and expenses. Non-operating revenues include intergovernmental grants, interest from investments and maintenance assessment. Non-operating expenses include interest expense on long-term debt.

**I. Deferred Outflows/Inflows of Resources**

In addition to assets, the statements of net position will sometimes report a separate section for deferred outflows of resources. Deferred outflows of resources represent a consumption of net position that applies to a future period and will not be recognized as an outflow of resources (expense) until then. The Conservancy District has deferred outflows related to pension and OPEB. See notes 7 and 8 for additional information.

In addition to liabilities, the statements of net position will sometimes report a separate section for deferred inflows of resources. Deferred inflows of resources represent an acquisition of net position that applies to a future period and will not be recognized as an inflow of resources (revenue) until that time. The Conservancy District has deferred inflows related to pension. See notes 7 and 8 for additional information.

**J. Extraordinary and Special Items**

Extraordinary items are transactions or events that are both unusual in nature and infrequent in occurrence. Special items are transactions or events that are within the control of the Board of Directors and that are either unusual in nature or infrequent in occurrence. During 2018, the Conservancy District had no extraordinary or special items.

**K. Implementation of New Accounting Policies and Restatement of Net Position**

For the year ended December 31, 2018, the Conservancy District has implemented Governmental Accounting Standards Board (GASB) Statement No. 75, Accounting and Financial Reporting for Post-Employment Benefits Other than Pensions, GASB Statement No. 85, Omnibus 2017 and GASB Statement No. 89, Accounting for Interest Cost Incurred Before the End of a Construction Period.

GASB Statement No. 75 requires the recognition of the entire other post employment benefits (OPEB) liability and a more comprehensive measure of OPEB expense. The implementation of GASB 75 resulted in the inclusion of net OPEB liability and OPEB expense components in the financial statements. See below for the effect on net pension as previously reported.

Net Position, December 31, 2017	\$215,143,140
Adjustments	
Net OPEB Liability	(5,787,293)
Deferred Outflow — Payments Subsequent to Measurement Date	70,407
Restated Net Position, December 31, 2017	\$209,426,254

GASB Statement No. 85 improves the consistency in accounting and financial reporting by addressing practice issues that have been identified during implementation and application of certain GASB statements. The implementation of GASB Statement No. 85 did not have an effect on the financial statements of the Conservancy District.

GASB Statement No. 89 enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and simplify accounting for interest cost incurred before the end of a construction period. The implementation of GASB 89 did not have an effect on the financial statements of the Conservancy District.

#### **L. Statement of Cash Flows**

For the purposes of the statement of cash flows, cash and cash equivalents are defined as cash and any investment with an original maturity of 3 months or less. As of December 31, 2018 none of the Conservancy District's investments qualified as a cash equivalent.

#### **M. Capitalized Costs**

The Conservancy District is covering the costs associated with preparing the Official Plan for the Clear Fork Subdistrict. The costs incurred with this project are accumulating until the plan is complete and the subdistrict has an assessment in place. Once the project is complete the charges will be amortized over the payback period from the assessment.

#### **N. Advances**

The Conservancy District records unearned revenue when it has received moneys prior to having earned the revenue, or before all grant requirements have been met (other than time). At December 31, 2018, unearned revenue consisted of \$226,661 of moneys received in advance for reservations in our parks and marinas for 2019.

#### **O. Reserve Account Balances**

As part of the Conservancy District's strategic plan, there was an initiative to optimize fiscal balance. Therefore, in 2017, the Board of Directors approved a Deep Shale Royalty Revenue distribution plan which was renewed in 2018 and called for the creation of two reserve funds. One operational reserve fund which has a balance of approximately \$14.0 million, and a capital reserve fund which has a balance of approximately \$15.6 million as of December 31, 2018.

#### **NOTE 3: DEPOSITS AND INVESTMENTS**

State statutes classify monies held by the Conservancy District into three categories:

**Active deposits** are public deposits necessary to meet current demands on the treasury. Such monies must be maintained either as cash in the Conservancy District Treasury, in commercial accounts payable or withdrawable on demand, including negotiable order of withdrawal (NOW) accounts, or in money market deposit accounts.

**Inactive deposits** are public deposits that the Conservancy District has identified as not required for use within the current five-year period of designation of depositories. Inactive deposits must either be evidenced by certificates of deposit maturing not later than the end of the current period of designation of depositories, or by savings or deposit accounts including, but not limited to, passbook accounts.

**Interim deposits** are deposits of interim monies. Interim monies are those monies which are not needed for immediate use but which will be needed before the end of the current period of designation of depositories. Interim deposits must be evidenced by time certificates of deposit or by savings or deposit accounts including passbook accounts.



**Muskingum Watershed Conservancy District**  
Tuscarawas County, Ohio  
*Notes to the Basic Financial Statements for the year ended December 31, 2018*

Protection of the Conservancy District's deposits is provided by the Federal Deposit Insurance Corporation (FDIC), by eligible securities pledged by the financial institution as security for repayment, by surety company bonds deposited with the treasurer by the financial institution, or by a single collateral pool established by the financial institution to secure the repayment of all public monies deposited with the institution.

Interim monies may be deposited or invested in the following securities:

1. United States treasury notes, bills, bonds, or any other obligation or security issued by the United States treasury or any other obligation guaranteed as to principal or interest by the United States;
2. Bonds, notes, debentures, or any other obligations or securities issued by any federal government agency or instrumentality, including but not limited to, the Federal National Mortgage Association, Federal Home Loan Bank, Federal Farm Credit Bank, Federal Home Loan Mortgage Corporation, Government National Mortgage Association, and Student Loan Marketing Association. All federal agency securities shall be direct issuances of federal government agencies or instrumentalities;
3. Bonds and other obligations of the State of Ohio;
4. No-load money market mutual funds consisting exclusively of obligations described in division (1) or (2) of this section and repurchase agreements secured by such obligations, provided that investments in securities described in this division are made only through eligible institutions; and
5. The State Treasurer's investment pool (STAROhio and Star Plus).
6. Certain bankers' acceptances for a period not to exceed one hundred eighty days and commercial paper notes for a period not to exceed two hundred and seventy days in an amount not to exceed 40 percent of the interim moneys available for investment at any time, provided no more than 5% is invested in any one issuer.

Investments in stripped principal or interest obligations, reverse repurchase agreements and derivatives are prohibited. The issuance of taxable notes for the purpose of arbitrage, the use of leverage and short selling are also prohibited. An investment must mature within five years from the date of purchase unless matched to a specific obligation or debt of the Conservancy District, and must be purchased with the expectation that it will be held to maturity.

Investments may only be made through specified dealers and institutions. Payment for investments may be made only upon delivery of the securities representing the investments to the treasurer or, if the securities are not represented by a certificate, upon receipt of confirmation of transfer from the custodian.

According to State law, public depositories must give security for all uninsured public funds on deposit. These institutions may either specifically collateralize individual accounts in lieu of amounts insured by FDIC, or may pledge a pool of government securities valued at least 105 percent of the total value of uninsured public monies on deposit at the institution. Repurchase agreements must be secured by the specific government securities upon which the repurchase agreements are based. These securities must be obligations of or guaranteed by the United States and mature or be redeemable within five years of the date of the related repurchase agreement. State law does not require security for public deposits and investments to be maintained in the Conservancy District's name. During 2018, the Conservancy District and public depositories complied with the provisions of these statutes.

***Deposits with Financial Institutions***

Custodial credit risk is the risk that, in the event of a bank failure, the Conservancy District's deposits may not be returned. All deposits are collateralized with eligible securities in amounts equal to at least 105 percent of the

**Muskingum Watershed Conservancy District**  
Tuscarawas County, Ohio  
*Notes to the Basic Financial Statements for the year ended December 31, 2018*

carrying value of the deposits. Such collateral, as permitted by the Ohio Revised Code, is held in single financial institution collateral pools at Federal Reserve Banks, or at member banks of the federal reserve system, in the name of the respective depository bank and pledged as collateral against all of the uninsured public deposits it holds or as specific collateral held at the Federal Reserve Bank in the name of the Conservancy District.

At fiscal year-end, the carrying amount of the Conservancy District's deposits was \$8,394,315. Based on the criteria described in GASB Statement No. 40, "Deposits and Investment Risk Disclosures," as of December 31, 2018, \$10,301,903 of the Conservancy District's bank balance of \$11,327,413 was exposed to custodial risk as discussed above, while \$1,025,510 was covered by Federal Deposit Insurance Corporation.

**Cash on Hand**

As of December 31, 2018, the Conservancy District had \$5,550 of cash on hand.

**Investments**

As of December 31, 2018, the Conservancy District had the following investments and maturities:

INVESTMENT TYPE	FAIR VALUE	INVESTMENT MATURITIES			
		6 MONTHS OR LESS	7 TO 12 MONTHS	13 TO 24 MONTHS	MORE THAN 24 MONTHS
Federal Home Loan Mortgage Corporation	\$14,008,006	\$ 520,005	\$1,492,664	\$6,222,425	\$5,772,912
Federal National Mortgage Association	12,006,817	-	4,245,224	2,824,047	4,937,546
Federal Home Loan Bank	16,004,528	404,453	751,164	5,937,660	8,911,251
Federal Farm Credit Bank	5,923,538	-	-	979,949	4,943,589
Municipal Bonds	8,525,312	2,295,817	2,927,774	1,255,369	2,046,352
Money Market	1,745,358	1,745,358	-	-	-
Treasury Bonds	17,076,022	1,401,365	3,324,943	3,181,592	9,168,122
Negotiable CDs	10,578,662	3,629,693	2,213,770	3,077,590	1,657,609
Commercial Paper	24,041,864	20,125,790	3,916,074	-	-
	<b>\$109,910,107</b>	<b>\$30,122,481</b>	<b>\$18,871,613</b>	<b>\$23,478,632</b>	<b>\$37,327,381</b>

The Conservancy District categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets. Level 2 inputs are significant other observable inputs. Level 3 inputs are significant unobservable inputs. The above table identifies the Conservancy District's recurring fair value measurements as of December 31, 2018. All investments of the Conservancy District are valued using quoted market prices (Level 1 inputs).

**Interest Rate Risk:** As a means of limiting its exposure to fair value losses arising from rising interest rates and according to state law, the Conservancy District's investment policy limits portfolio maturities to five years or less.

**Credit Risk:** The FHLMC, FNMA, FHLB, FFCB and Treasuries all have Aaa or AA+ ratings from Moody's and S&P respectively. Nearly all of the securities carry the Aaa rating, which is the highest on the respective scales from Moody's. The Commercial paper is rated A-1, which is the highest rating on the scale for short term debt. Most of the municipal bond anticipation notes, and the money market funds are not rated by Moody's. The CDs are not rated by Moody's but are covered under the issuing bank FDIC.

**Muskingum Watershed Conservancy District**

Tuscarawas County, Ohio

*Notes to the Basic Financial Statements for the year ended December 31, 2018*

**Custodial Credit Risk:** For an investment, custodial credit risk is the risk that, in the event of failure of the counterparty, the Conservancy District will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The Conservancy District has no investment policy dealing with investment custodial risk beyond the requirement in the State statute that prohibits payment for the investments prior to the delivery of the securities representing such investments to the treasurer or qualified trustee.

**Concentration of Credit Risk:** The Conservancy District places no limit on the amount that may be invested in any one issuer. The following table includes the percentage to total of each investment type as of December 31, 2018.

INVESTMENT TYPE	FAIR VALUE	PERCENT OF TOTAL
Federal Home Loan Mortgage Corporation	\$ 14,008,006	13%
Federal National Mortgage Association	12,006,817	11%
Federal Home Loan Bank	16,004,528	14%
Federal Farm Credit Bank	5,923,538	5%
Municipal Bonds	8,525,312	8%
Money Market	1,745,358	2%
Treasury Bonds	17,076,022	16%
Negotiable CDs	10,578,662	10%
Commercial Paper	24,041,864	21%
<b>Total</b>	<b>\$109,910,107</b>	<b>100%</b>

The following is the net increase in the fair value of investments for the year ending December 31, 2018:

Fair Value of Investments December 31, 2018	\$109,910,107
Add: Proceeds of Investments sold in 2018	78,180,137
Less: Cost of Investments purchased in 2018	(58,894,288)
Less: Fair Value at December 31, 2017	(129,060,173)
<b>Change in Fair Value of Investments</b>	<b>\$ 135,783</b>

**NOTE 4: RECEIVABLES**

Receivables at December 31, 2018 consisted of accounts (billed user charged services) and delinquent maintenance assessments. All receivables are deemed collectible in full.



**Muskingum Watershed Conservancy District**  
Tuscarawas County, Ohio  
*Notes to the Basic Financial Statements for the year ended December 31, 2018*

**NOTE 5: CAPITAL ASSETS**

Proprietary capital assets — summary by category at December 31, 2018:

	Balance 12/31/2017	Additions	Deletions	Balance 12/31/2018
<b>Capital Assets Not Being Depreciated</b>				
Land	\$ 3,313,899	\$ 92,780	\$ 0	\$ 3,406,679
Construction in Progress	25,217,166	36,405,031	(20,441,597)	41,180,600
Capitalized Development Costs	1,189,495	0	0	1,189,495
<b>Total Capital Assets not being Depreciated</b>	<b>29,720,560</b>	<b>36,497,811</b>	<b>(20,441,597)</b>	<b>45,776,774</b>
<b>Capital Assets Being Depreciated</b>				
Land Improvements	22,884,846	9,540,688	0	32,425,534
Buildings	22,381,877	2,063,152	(452,780)	23,992,249
Building Improvements	4,147,147	0	(19,800)	4,127,347
Furniture, Fixtures and Equipment	7,587,542	727,508	(102,283)	8,212,767
Vehicles	2,536,450	125,524	(94,721)	2,567,253
Infrastructure	20,002,574	9,679,120	(48,780)	29,632,914
<b>Total Capital Assets being Depreciated</b>	<b>79,540,436</b>	<b>22,135,992</b>	<b>(718,364)</b>	<b>100,958,064</b>
<b>Less Accumulated Depreciation</b>				
Land Improvements	(2,665,806)	(1,358,136)	0	(4,023,942)
Buildings	(5,622,156)	(530,099)	100,000	(6,052,255)
Building Improvements	(1,238,647)	(169,258)	19,800	(1,388,105)
Furniture, Fixtures and Equipment	(5,584,656)	(732,979)	102,283	(6,215,352)
Vehicles	(1,840,766)	(274,824)	94,721	(2,020,869)
Infrastructure	(4,560,560)	(1,216,589)	48,780	(5,728,369)
<b>Total Accumulated Depreciation</b>	<b>(21,512,591)</b>	<b>(4,281,885)</b>	<b>365,584</b>	<b>(25,428,892)</b>
<b>Total Capital Assets being Depreciated, Net</b>	<b>58,027,845</b>	<b>17,854,107</b>	<b>(352,780)</b>	<b>75,529,172</b>
<b>Capital Assets, Net</b>	<b>\$87,748,405</b>	<b>\$54,351,918</b>	<b>\$(20,794,377)</b>	<b>\$121,305,946</b>

**NOTE 6: RISK MANAGEMENT**

**A. Comprehensive Liability Insurance**

The Government belongs to the Ohio Plan Risk Management, Inc. (OPRM) (the “Plan”), a non-assessable, unincorporated non-profit association providing a formalized, jointly administered self-insurance risk management program and other administrative services to Ohio governments (“Members”). The Plan is legally separate from its member governments.

Pursuant to Section 2744.081 of the Ohio Revised Code, the plan provides property, liability, errors and omissions, law enforcement, automobile, excess liability, crime, surety and bond, inland marine and other coverages to its members sold through fourteen appointed independent agents in the State of Ohio.

OPRM coverage programs are developed specific to each member’s risk management needs and the related premiums for coverage are determined through the application of uniform underwriting criteria addressing the member’s exposure to loss. Until November 1, 2016, the OPRM retained 47% of the premium and losses on the first \$250,000 casualty treaty and 10% of the first \$1,000,000 property treaty. Effective November 1, 2016, the OPRM retained 50% of the premium and losses on the first \$250,000 casualty treaty and 30% of the first \$1,000,000 property treaty. Members are only responsible for their self-retention (deductible) amounts, which vary from member to member. OPRM had 764 members as of December 31, 2017.

**Muskingum Watershed Conservancy District**  
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Plan members are responsible to notify the Plan of their intent to renew coverage by their renewal date. If a member chooses not to renew with the Plan, they have no other financial obligation to the Plan, but still need to promptly notify the Plan of any potential claims occurring during their membership period. The former member's covered claims, which occurred during their membership period, remain the responsibility of the Plan.

Settlement amounts did not exceed insurance coverage for the past three fiscal years.

The Pool's audited financial statements conform with generally accepted accounting principles, and reported the following assets, liabilities and equity at December 31, 2017 (the latest information available).

	<b>2017</b>
Assets	\$14,853,620
Liabilities	(9,561,108)
Members' Equity	\$5,292,512

You can read the complete audited financial statements for OPRM at the Plan's website, [www.ohioplan.org](http://www.ohioplan.org).

#### **B. Self-insurance**

Muskingum Watershed Conservancy District has a self-funded health insurance plan administered by third party administrator Aultcare. The plan year runs June 1 through May 31. The 2017 plan year ran June 1, 2017, through May 31, 2018. The 2018 plan year runs June 1, 2018, through May 31, 2019. For the 2017 plan year, the Conservancy District created a second plan with a higher deductible (Plan B).

The monthly premiums for 2017 and 2018 were unchanged, for the traditional plan (Plan A) for a single employee is \$565.20, \$1,177.80 for an employee plus 1, and for the family of an employee is \$1,822.80. The monthly premium for Plan B for a single employee is \$435.72, \$904.56 for an employee plus one, and for the family of an employee is \$1,398.80.

The overall stop loss for the plan year 2017 is \$1,604,414 and for plan year 2018 is \$1,589,399.

The specific stop loss per occurrence was \$65,000 for plan years 2017 and 2018. For both plan years 2017 and 2018, there was one instance with a special specific deductible in the amount of \$575,000 each year. There were two claims exceeding the limit for plan year 2017. When the Conservancy District pays claims or reimburses employees for medical bills in excess of the limits they are reimbursed by Aultcare Insurance Company for both the 2017 and 2018 plan years.

The claims liability of \$232,000 at December 31, 2018, is based on an estimate provided by the third party administrator and the requirements of Governmental Accounting Standards Board Statement No. 30 which requires that a liability for unpaid claim costs, including estimates of costs relating to incurred but not reported claims, be reported. The estimate was not affected by incremental claim adjustment expenses and does not include other allocated or unallocated claim adjustment expenses. Changes in claims liability for 2018 and 2017 are as follows:

<b>Year</b>	<b>Balance Beginning of Year</b>	<b>Current Year Claims</b>	<b>Claims Payments</b>	<b>Balance End of Year</b>
2017	\$170,000	\$1,533,912	\$1,513,912	\$190,000
2018	\$190,000	\$1,757,497	\$1,715,497	\$232,000

**NOTE 7: DEFINED BENEFIT PENSION PLANS**

**Net Pension Liability**

The net pension liability reported on the statement of net position represents a liability to employees for pensions. Pensions are a component of exchange transactions - between an employer and its employees - of salaries and benefits for employee services. Pensions are provided to an employee — on a deferred-payment basis — as part of the total compensation package offered by an employer for employee services each financial period. The obligation to sacrifice resources for pensions is a present obligation because it was created as a result of employment exchanges that already have occurred.

The net pension liability represents the Conservancy District's proportionate share of each pension plan's collective actuarial present value of projected benefit payments attributable to past periods of service, net of each pension plan's fiduciary net position. The net pension liability calculation is dependent on critical long-term variables, including estimated average life expectancies, earnings on investments, cost of living adjustments and others. While these estimates use the best information available, unknowable future events require adjusting this estimate annually.

Ohio Revised Code limits the Conservancy District's obligation for this liability to annually required payments. The Conservancy District cannot control benefit terms or the manner in which pensions are financed; however, the Conservancy District does receive the benefit of employees' services in exchange for compensation including pension.

GASB 68 assumes the liability is solely the obligation of the employer, because (1) they benefit from employee services; and (2) State statute requires all funding to come from these employers. All contributions to date have come solely from these employers (which also includes costs paid in the form of withholdings from employees). State statute requires the pension plans to amortize unfunded liabilities within 30 years. If the amortization period exceeds 30 years, each pension plan's board must propose corrective action to the State legislature. Any resulting legislative change to benefits or funding could significantly affect the net pension liability. Resulting adjustments to the net pension liability would be effective when the changes are legally enforceable.

The proportionate share of each plan's unfunded benefits is presented as a long-term net pension liability. Any liability for the contractually-required pension contribution outstanding at the end of the year is included in due to other governments.

**Plan Description – Ohio Public Employees Retirement System (OPERS)**

The Conservancy District participates in the Ohio Public Employees Retirement System (OPERS). OPERS administers three separate pension plans. The traditional pension plan is a cost-sharing, multiple-employer defined benefit pension plan. The member-directed plan is a defined contribution plan and the combined plan is a cost-sharing, multiple-employer defined benefit pension plan with defined contribution features. While members (e.g. Conservancy District employees) may elect the member-directed plan and the combined plan, substantially all employee members are in OPERS' traditional plan; therefore, the following disclosure focuses on the traditional pension plan.

OPERS provides retirement, disability, survivor and death benefits, and annual cost-of-living adjustments to members of the traditional plan. Authority to establish and amend benefits is provided by Chapter 145 of the Ohio Revised Code. OPERS issues a stand-alone financial report that includes financial statements, required supplementary information and detailed information about OPERS' fiduciary net position that may be obtained by visiting <https://www.opers.org/financial/reports.shtml>, by writing to the Ohio Public Employees Retirement System, 277 East Town Street, Columbus, Ohio 43215-4642, or by calling 800-222-7377.



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Senate Bill (SB) 343 was enacted into law with an effective date of January 7, 2013. In the legislation, members were categorized into three groups with varying provisions of the law applicable to each group. The following table provides age and service requirements for retirement and the retirement formula applied to final average salary (FAS) for the three member groups under the traditional plan as per the reduced benefits adopted by SB 343 (see OPERS CAFR referenced above for additional information, including requirements for reduced and unreduced benefits):

GROUP A	GROUP B	GROUP C
Eligible to retire prior to January 7, 2013, or five years after January 7, 2013	20 years of service credit prior to January 7, 2013, or eligible to retire ten years after January 7, 2013	Members not in other Groups and members hired on or after January 7, 2013
<b>State and Local</b>	<b>State and Local</b>	<b>State and Local</b>
<b>Age and Service Requirements:</b> Age 60 with 60 months of service credit or Age 55 with 25 years of service credit	<b>Age and Service Requirements:</b> Age 60 with 60 months of service credit or Age 55 with 25 years of service credit	<b>Age and Service Requirements:</b> Age 57 with 25 years of service credit or Age 62 with 5 years of service credit
<b>Formula:</b> 2.2% of FAS multiplied by years of service for the first 30 years and 2.5% for service years in excess of 30	<b>Formula:</b> 2.2% of FAS multiplied by years of service for the first 30 years and 2.5% for service years in excess of 30	<b>Formula:</b> 2.2% of FAS multiplied by years of service for the first 35 years and 2.5% for service years in excess of 35
<b>Law Enforcement</b>	<b>Law Enforcement</b>	<b>Law Enforcement</b>
<b>Age and Service Requirements:</b> Age 52 with 15 years of service credit	<b>Age and Service Requirements:</b> Age 48 with 25 years of service credit or Age 52 with 15 years of service credit	<b>Age and Service Requirements:</b> Age 48 with 25 years of service credit or Age 56 with 15 years of service credit
<b>Formula:</b> 2.5% of FAS multiplied by years of service for the first 25 years and 2.1% for service years in excess of 25	<b>Formula:</b> 2.5% of FAS multiplied by years of service for the first 25 years and 2.1% for service years in excess of 25	<b>Formula:</b> 2.5% of FAS multiplied by years of service for the first 25 years and 2.1% for service years in excess of 25

Final average salary (FAS) represents the average of the three highest years of earnings over a member's career for Groups A and B. Group C is based on the average of the five highest years of earnings over a member's career.

Members who retire before meeting the age and years of service credit requirement for unreduced benefits receive a percentage reduction in the benefit amount.

When a benefit recipient has received benefits for 12 months, an annual cost-of-living adjustment (COLA) is provided. This COLA is calculated on the base retirement benefit at the date of retirement and is not compounded. For those who retired prior to January 7, 2013, the COLA will continue to be a three percent simple annual COLA. For those retiring subsequent to January 7, 2013, beginning in calendar year 2019, the COLA will be based on the average percentage increase in the Consumer Price Index (CPI), capped at three percent.

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Funding Policy - Ohio Revised Code (ORC) provides statutory authority for member and employer contributions as follows:

	State and Local	Law Enforcement
<b>2018 Statutory Maximum Contribution Rates</b>		
Employer	14.00%	18.10%
Employee	10.00%	*
<b>2018 Actual Contribution Rates</b>		
Employer: Pension	14.00%	18.10%
Employer: Post-Employment Health Care Benefits	0.00%	0.00%
Total Employer	14.00%	18.10%
Employee	10.00%	13.00%

\* This rate is determined by OPERS' Board, but is limited by ORC to not more than 2% greater than the Public Safety rate.

Employer contribution rates are actuarially determined and are expressed as a percentage of covered payroll. The Conservancy District's contractually required contribution was \$1,067,396 for 2018. Of this amount, \$81,354 is reported as due to other governments.

**Pension Liabilities, Pension Expense, and Deferred Outflows/Inflows of Resources Related to Pensions**

The net pension liability for OPERS was measured as of December 31, 2017, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. OP&F's total pension liability was measured as of December 31, 2017, and was determined by rolling forward the total pension liability as of January 1, 2017, to December 31, 2017. The Conservancy District's proportion of the net pension liability was based on the Conservancy District's share of contributions to the pension plan relative to the contributions of all participating entities. Following is information related to the proportionate share and pension expense:

	OPERS
<b>Proportion of the Net Pension Liability</b>	
Current Measurement Period	0.05609260%
Prior Measurement Period	0.05783906%
Change in Proportion	-0.00174646%
<b>Proportionate Share of the Net</b>	
Pension Liability	\$8,799,841
Pension Expense	\$2,035,849

Other than contributions made subsequent to the measurement date and differences between projected and actual earnings on investments; deferred inflows/outflows of resources are recognized in pension expense beginning in the current period, using a straight line method over a closed period equal to the average of the expected remaining services lives of all employees that are provided with pensions, determined as of the beginning of the measurement period. Net deferred inflows/outflows of resources pertaining to the differences between projected and actual investment earnings are similarly recognized over a closed five year period. At December 31, 2018, the Conservancy District reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

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	<b>OPERS</b>
<b>Deferred Outflows of Resources</b>	
Differences between Expected and Actual Experience	\$ 8,987
Changes of Assumptions	1,051,636
Changes in Proportionate Share	72,579
Conservancy District Contributions subsequent to the Measurement Date	1,067,396
<b>Total Deferred Outflows of Resources</b>	<b>\$2,200,598</b>
<b>Deferred Inflows of Resources</b>	
Differences between Expected and Actual Experience	\$ 173,416
Net Difference between Projected and Actual Earnings on Pension Plan Investments	1,889,208
Changes in Proportionate Share	182,885
<b>Total Deferred Inflows of Resources</b>	<b>\$2,245,509</b>

\$1,067,396 reported as deferred outflows of resources related to pension resulting from Conservancy District contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending December 31, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

<b>Year Ending December 31</b>	<b>OPERS</b>
2019	\$ 764,247
2020	(268,343)
2021	(831,907)
2022	(776,304)
	\$ (1,112,307)

**Actuarial Assumptions — OPERS**

Actuarial valuations of an ongoing plan involve estimates of the values of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and cost trends. Actuarially determined amounts are subject to continual review or modification as actual results are compared with past expectations and new estimates are made about the future.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employers and plan members) and include the types of benefits provided at the time of each valuation. The total pension liability was determined by an actuarial valuation as of December 31, 2017, using the following key actuarial assumptions and methods applied to all prior periods included in the measurement in accordance with the requirements of GASB 67. Key methods and assumptions used in the latest actuarial valuation, reflecting experience study results, prepared as of December 31, 2017 are presented below.



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Valuation Date	December 31, 2017
Wage Inflation	3.25 percent
Projected Salary Increases, including wage inflation	3.25 percent to 10.75 percent (includes wage inflation at 3.25 percent)
Investment Rate of Return	7.50 percent
Actuarial Cost Method	Individual Entry Age
Cost-of-Living Adjustments	Pre-1/7/2013 Retirees: 3.00 percent Simple Post-1/7/2013 Retiree: 3.00 percent Simple through 2018, then 2.15 percent Simple

Pre-retirement mortality rates are based on the RP-2014 Employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates are based on the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates for disabled retirees are based on the RP-2014 Disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to all of the above described table.

The most recent experience study was completed for the five year period ended December 31, 2015.

The long-term expected rate of return on defined benefit investment assets was determined using a building-block method in which best-estimate ranges of expected future real rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected real rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adjusted for inflation.

During 2017, OPERS managed investments in three investment portfolios: the Defined Benefit portfolio, the Health Care portfolio, and the Defined Contribution portfolio. The Defined Benefit portfolio contains the investment assets of the Traditional Pension Plan, the defined benefit component of the Combined Plan and the annuitized accounts of the Member-Directed Plan. Within the Defined Benefit portfolio, contributions into the plans are all recorded at the same time, and benefit payments all occur on the first of the month. Accordingly, the money-weighted rate of return is considered to be the same for all plans within the portfolio. The annual money-weighted rate of return expressing investment performance, net of investment expenses and adjusted for the changing amounts actually invested, for the Defined Benefit portfolio was 16.82 percent for 2017.

The allocation of investment assets within the Defined Benefit portfolio is approved by the Board of Trustees as outlined in the annual investment plan. Plan assets are managed on a total return basis with a long-term objective of achieving

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and maintaining a fully funded status for the benefits provided through the defined benefit pension plans. The table below displays the Board-approved asset allocation policy for 2017 and the long-term expected real rates of return:

<b>Asset Class</b>	<b>Target Allocation</b>	<b>Weighted Average Long-Term Expected Real Rate of Return (Arithmetic)</b>
Fixed Income	23.00%	2.20 %
Domestic Equities	19.00%	6.37%
Real Estate	10.00%	5.26%
Private Equity	10.00%	8.97%
International Equities	20.00%	7.88%
Other Investments	18.00%	5.26%
<b>Total</b>	<b>100.00%</b>	<b>5.66%</b>

**Discount Rate** The discount rate used to measure the total pension liability was 7.50 percent. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and those of the contributing employers are made at the contractually required rates, as actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefits payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

**Sensitivity of the Conservancy District's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate** The following table presents the Conservancy District's proportionate share of the net pension liability calculated using the current period discount rate assumption of 7.50 percent, as well as what the Conservancy District's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one-percentage-point lower (6.50 percent) or one-percentage-point higher (8.50 percent) than the current rate:

	<b>1% Decrease (6.50%)</b>	<b>Current Discount Rate (7.50%)</b>	<b>1% Increase (8.50%)</b>
Conservancy District's Proportionate Share of the Net Pension Liability	\$15,626,275	\$8,799,841	\$3,108,652

**NOTE 8: DEFINED BENEFIT OPEB PLANS****Net OPEB Liability**

The net OPEB liability reported on the statement of net position represents a liability to employees for OPEB. OPEB is a component of exchange transactions — between an employer and its employees — of salaries and benefits for employee services. OPEB are provided to an employee — on a deferred-payment basis — as part of the total compensation package offered by an employer for employee services each financial period. The obligation to sacrifice resources for OPEB is a present obligation because it was created as a result of employment exchanges that already have occurred.

The net OPEB liability represents the Conservancy District's proportionate share of each OPEB plan's collective actuarial present value of projected benefit payments attributable to past periods of service, net of each OPEB plan's fiduciary net position. The net OPEB liability calculation is dependent on critical long-term variables, including estimated average life expectancies, earnings on investments, cost of living adjustments and others. While these estimates use the best information available, unknowable future events require adjusting these estimates annually.

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Ohio Revised Code limits the Conservancy District's obligation for this liability to annually required payments. The Conservancy District cannot control benefit terms or the manner in which OPEB are financed; however, the Conservancy District does receive the benefit of employees' services in exchange for compensation including OPEB. GASB 75 assumes the liability is solely the obligation of the employer, because they benefit from employee services. OPEB contributions come from these employers and health care plan enrollees which pay a portion of the health care costs in the form of a monthly premium. The Ohio revised Code permits, but does not require the retirement systems to provide healthcare to eligible benefit recipients. Any change to benefits or funding could significantly affect the net OPEB liability. Resulting adjustments to the net OPEB liability would be effective when the changes are legally enforceable. The retirement systems may allocate a portion of the employer contributions to provide for these OPEB benefits.

The proportionate share of each plan's unfunded benefits is presented as a long-term net OPEB liability. Any liability for the contractually-required OPEB contribution outstanding at the end of the year is included in due to other governments.

***Plan Description – Ohio Public Employees Retirement System (OPERS)***

OPERS administers three separate pension plans: the traditional pension plan, a cost-sharing, multiple-employer defined benefit pension plan; the member-directed plan, a defined contribution plan; and the combined plan, a cost-sharing, multiple-employer defined benefit pension plan that has elements of both a defined benefit and defined contribution plan.

OPERS maintains a cost-sharing, multiple-employer defined benefit post-employment health care trust, which funds multiple health care plans including medical coverage, prescription drug coverage and deposits to a Health Reimbursement Arrangement to qualifying benefit recipients of both the traditional pension and the combined plans. This trust is also used to fund health care for member-directed plan participants, in the form of a Retiree Medical Account (RMA). At retirement or refund, member directed plan participants may be eligible for reimbursement of qualified medical expenses from their vested RMA balance.

In order to qualify for postemployment health care coverage, age and service retirees under the traditional pension and combined plans must have twenty or more years of qualifying Ohio service credit. Health care coverage for disability benefit recipients and qualified survivor benefit recipients is available. The health care coverage provided by OPERS meets the definition of an Other Post Employment Benefit (OPEB) as described in GASB Statement 75. See OPERS' CAFR referenced below for additional information.

The Ohio Revised Code permits, but does not require OPERS to provide health care to its eligible benefit recipients. Authority to establish and amend health care coverage is provided to the Board in Chapter 145 of the Ohio Revised Code.

Disclosures for the health care plan are presented separately in the OPERS financial report. Interested parties may obtain a copy by visiting <https://www.opers.org/financial/reports.shtml>, by writing to OPERS, 277 East Town Street, Columbus, Ohio 43215-4642, or by calling (614) 222-5601 or 800-222-7377.

**Funding Policy** — The Ohio Revised Code provides the statutory authority requiring public employers to fund postemployment health care through their contributions to OPERS. When funding is approved by OPERS Board of Trustees, a portion of each employer's contribution to OPERS is set aside to fund OPERS health care plans.

Employer contribution rates are expressed as a percentage of the earnable salary of active members. In 2018, state and local employers contributed at a rate of 14.0 percent of earnable salary and public safety and law enforcement



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employers contributed at 18.1 percent. These are the maximum employer contribution rates permitted by the Ohio Revised Code. Active member contributions do not fund health care.

Each year, the OPERS Board determines the portion of the employer contribution rate that will be set aside to fund health care plans. The portion of employer contributions allocated to health care for members in the Traditional Pension Plan and Combined Plan was 1.0 percent during calendar year 2017. As recommended by OPERS' actuary, the portion of employer contributions allocated to health care beginning January 1, 2018 decreased to 0 percent for both plans. The OPERS Board is also authorized to establish rules for the retiree or their surviving beneficiaries to pay a portion of the health care provided. Payment amounts vary depending on the number of covered dependents and the coverage selected. The employer contribution as a percentage of covered payroll deposited into the RMA for participants in the Member-Directed Plan for 2018 was 4.0 percent.

Employer contribution rates are actuarially determined and are expressed as a percentage of covered payroll.

The Conservancy District's contractually required contribution was \$0 for 2018.

***OPEB Liabilities, OPEB Expense, and Deferred Outflows/Inflows of Resources Related to OPEB***

The net OPEB liability and total OPEB liability for OPERS were determined by an actuarial valuation as of December 31, 2016, rolled forward to the measurement date of December 31, 2017, by incorporating the expected value of health care cost accruals, the actual health care payment, and interest accruals during the year. OP&F's total OPEB liability was measured as of December 31, 2017, and was determined by rolling forward the total OPEB liability as of January 1, 2017, to December 31, 2017. The Conservancy District's proportion of the net OPEB liability was based on the Conservancy District's share of contributions to the retirement plan relative to the contributions of all participating entities. Following is information related to the proportionate share and OPEB expense:

	OPERS
<b>Proportion of the Net OPEB Liability</b>	
Current Measurement Period	0.05552667%
Prior Measurement Period	0.05729800%
Change in Proportion	-0.00177133%
Proportionate Share of th Net OPEB Liability	\$6,029,787
OPEB Expense	\$ 439,392

At December 31, 2018, the Conservancy District reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	OPERS
<b>Deferred Outflows of Resources</b>	
Differences between Expected and Actual Experience	\$ 4,697
Changes of Assumptions	439,032
<b>Total Deferred Outflows of Resources</b>	<b>\$ 443,729</b>
<b>Deferred Inflows of Resources</b>	
Net Difference between Projected and Actual Earnings on OPEB Plan Investments	\$ 449,179
Changes in Proportionate Share	121,041
<b>Total Deferred Inflows of Resources</b>	<b>\$ 570,220</b>

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Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

<b>Year Ending December 31</b>	<b>OPERS</b>
2019	\$ 41,984
2020	41,984
2021	(98,165)
2022	(112,294)
	<b>\$ (126,491)</b>

**Actuarial Assumptions — OPERS**

Actuarial valuations of an ongoing plan involve estimates of the values of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and cost trends. Actuarially determined amounts are subject to continual review or modification as actual results are compared with past expectations and new estimates are made about the future.

Projections of benefits for financial reporting purposes are based on the substantive plan and include the types of coverage provided at the time of each valuation and the historical pattern of sharing of costs between OPERS and plan members. The total OPEB liability was determined by an actuarial valuation as of December 31, 2016, rolled forward to the measurement date of December 31, 2017. The actuarial valuation used the following actuarial assumptions applied to all prior periods included in the measurement in accordance with the requirements of GASB 74:

Wage Inflation	3.25 percent
Projected Salary Increases, including wage inflation	3.25 percent to 10.75 percent including wage inflation
Single Discount Rate: Current measurement date	3.85 percent
Single Discount Rate: Prior measurement date	4.23 percent
Investment Rate of Return	6.50 percent
Municipal Bond Rate	3.31 percent
Health Care Cost Trend Rate	7.5 percent, initial 3.25 percent, ultimate in 2028
Actuarial Cost Method	Individual Entry Age

Pre-retirement mortality rates are based on the RP-2014 Employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates are based on the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates for disabled retirees are based on the RP-2014 Disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to all of the above described tables.

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The most recent experience study was completed for the five year period ended December 31, 2015.

The long-term expected rate of return on health care investment assets was determined using a building-block method in which best-estimate ranges of expected future real rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected real rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adjusted for inflation.

During 2017, OPERS managed investments in three investment portfolios: the Defined Benefit portfolio, the Health Care portfolio and the Defined Contribution portfolio. The Health Care portfolio includes the assets for health care expenses for the Traditional Pension Plan, Combined Plan and Member-Directed Plan eligible members. Within the Health Care portfolio, contributions into the plans are assumed to be received continuously throughout the year based on the actual payroll payable at the time contributions are made, and health care-related payments are assumed to occur mid-year. Accordingly, the money-weighted rate of return is considered to be the same for all plans within the portfolio. The annual money-weighted rate of return expressing investment performance, net of investment expenses and adjusted for the changing amounts actually invested, for the Health Care portfolio is 15.2 percent for 2017.

The allocation of investment assets with the Health Care portfolio is approved by the Board of Trustees as outlined in the annual investment plan. Assets are managed on a total return basis with a long-term objective of continuing to offer a sustainable health care program for current and future retirees. OPERS' primary goal is to achieve and maintain a fully funded status for the benefits provided through the defined pension plans. Health care is a discretionary benefit. The table below displays the Board-approved asset allocation policy for 2017 and the long-term expected real rates of return:

Asset Class	Target Allocation	Weighted Average Long-Term Expected Real Rate of Return (Arithmetic)
Fixed Income	34.00%	1.88%
Domestic Equities	21.00%	6.37%
Real Estate Investment Trust	6.00%	5.91%
International Equities	22.00%	7.88%
Other Investments	17.00%	5.39%
Total	100.00%	4.98%

**Discount Rate** A single discount rate of 3.85 percent was used to measure the OPEB liability on the measurement date of December 31, 2017. A single discount rate of 4.23 percent was used to measure the OPEB liability on the measurement date of December 31, 2016. Projected benefit payments are required to be discounted to their actuarial present value using a single discount rate that reflects (1) a long-term expected rate of return on OPEB plan investments (to the extent that the health care fiduciary net position is projected to be sufficient to pay benefits), and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate are not met). This single discount rate was based on an expected rate of return on the health care investment portfolio of 6.50 percent and a municipal bond rate of 3.31 percent. The projection of cash flows used to determine this single discount rate assumed that employer contributions will be made at rates equal to the actuarially determined contribution rate. Based on these assumptions, the health care fiduciary net position and future



**Muskingum Watershed Conservancy District**

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*Notes to the Basic Financial Statements for the year ended December 31, 2018*

contributions were sufficient to finance health care costs through 2034. As a result, the long-term expected rate of return on health care investments was applied to projected costs through the year 2034, and the municipal bond rate was applied to all health care costs after that date.

***Sensitivity of the Conservancy District's Proportionate Share of the Net OPEB Liability to Changes in the Discount Rate*** The following table presents the Conservancy District's proportionate share of the net OPEB liability calculated using the single discount rate of 3.85 percent, as well as what the Conservancy District's proportionate share of the net OPEB liability would be if it were calculated using a discount rate that is one-percentage-point lower (2.85 percent) or one-percentage-point higher (4.85 percent) than the current rate:

	<b>1% Decrease (2.85%)</b>	<b>Current Discount Rate (3.85%)</b>	<b>1% Increase (4.85%)</b>
Conservancy District's Proportionate Share of the Net OPEB Liability	\$8,010,833	\$6,029,787	\$4,427,141

***Sensitivity of the Conservancy District's Proportionate Share of the Net OPEB Liability to Changes in the Health Care Cost Trend Rate*** Changes in the health care cost trend rate may also have a significant impact on the net OPEB liability. The following table presents the net OPEB liability calculated using the assumed trend rates, and the expected net OPEB liability if it were calculated using a health care cost trend rate that is 1.0 percent lower or 1.0 percent higher than the current rate.

Retiree health care valuations use a health care cost-trend assumption that changes over several years built into the assumption. The near-term rates reflect increases in the current cost of health care; the trend starting in 2018 is 7.50 percent. If this trend continues for future years, the projection indicates that years from now virtually all expenditures will be for health care. A more reasonable alternative is that in the not-too-distant future, the health plan cost trend will decrease to a level at, or near, wage inflation. On this basis, the actuaries' project premium rate increases will continue to exceed wage inflation for approximately the next decade, but by less each year, until leveling off at an ultimate rate, assumed to be 3.25 percent in the most recent valuation.

	<b>1% Decrease</b>	<b>Current Trend Rate</b>	<b>1% Increase</b>
Conservancy District's Proportionate Share of the Net OPEB Liability	\$5,769,221	\$6,029,787	\$6,298,945

**NOTE 9: LEGAL PROCEEDINGS**

The Conservancy District is involved in litigation in the normal course of business. Although the eventual outcome of these matters cannot be predicted, it is the opinion of management that the ultimate liability is not expected to have a material effect on the Conservancy District's financial position.

**Muskingum Watershed Conservancy District**

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*Notes to the Basic Financial Statements for the year ended December 31, 2018***NOTE 10: LONG-TERM OBLIGATIONS**

The changes in the Conservancy District's long-term obligations during the fiscal year 2018 were as follows:

	Principal Outstanding 1/1/2018	Additions	Reductions	Principal Outstanding 12/31/2018	Amount Due in One Year
<b>Long Term Obligations</b>					
OWDA #2162 — 5.56%	\$221,306	\$ 0	\$ (29,130)	\$192,176	\$30,772
OWDA #5413 — 0%	113,332	0	(9,444)	103,888	9,444
OWDA #5575 — 3.25%	441,190	0	(29,126)	412,063	30,082
OWDA #5558 — 3.25%	20,297	0	(1,408)	18,889	1,454
<b>Total</b>	<b>\$796,125</b>	<b>0</b>	<b>\$ (69,108)</b>	<b>\$727,017</b>	<b>\$71,752</b>
<b>Other Long Term Obligations</b>					
Capital Leases	\$ 149,859	\$125,524	\$ (42,022)	\$ 233,361	\$ 62,946
Net OPEB Liability	5,787,293	242,494	-	6,029,787	-
New Net Pension Liability	13,134,266	0	(4,344,425)	8,799,841	0
Compensated Absences	773,778	248,958	(91,888)	930,848	98,552
<b>Total Other Long Term Obligations</b>	<b>\$19,845,196</b>	<b>\$616,975</b>	<b>\$(4,468,335)</b>	<b>\$15,993,837</b>	<b>\$161,498</b>

**Ohio Water Development Authority Loans**

In 1999, the Conservancy District was awarded a loan (#2162) from the Ohio Water Development Authority (OWDA) in the amount of \$550,692. The proceeds of this loan are for the construction of a 75,000 and 10,000 gallon water tank. Also, a 3,807 linear feet of 6" water line and 3,676 linear feet of 4" water line are being constructed with these proceeds. All construction is at Tappan Lake Park. This loan agreement has a term of twenty-five years and matures July 1, 2024. Principal and interest payments are due January 1 and July 1, annually.

In 2009, the Conservancy District was awarded a loan (#5413) from OWDA in the amount of \$188,884. The proceeds of this loan were used for painting of a water tower. The loan is interest-free and matures on January 1, 2030.

In 2010, the Conservancy District was awarded a loan (#5575) from OWDA in the amount of \$637,001 for improvements to the Sites Lake Cottage Area wastewater treatment plant. The loan has an interest rate of 3.25 percent and matures on July 1, 2030.

The Conservancy District was awarded a \$30,065 loan from OWDA (#5558) in 2010 for an abandoned water well capping project. The loan has an interest rate of 3.25 percent and matures on January 1, 2030.

**Muskingum Watershed Conservancy District**  
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The annual requirements to retire debt are as follows:

<b>OHIO WATER DEVELOPMENT AUTHORITY LOANS</b>		
<b>YEAR</b>	<b>PRINCIPAL</b>	<b>INTEREST</b>
2019	\$ 71,752	\$ 24,015
2020	74,519	21,247
2021	77,419	18,347
2022	80,457	15,310
2023	83,640	12,126
2024-2028	264,983	29,191
2029-2033	74,247	2,101
	<b>\$727,017</b>	<b>\$122,337</b>

**NOTE 11: CAPITAL LEASES – LESSEE DISCLOSURE**

The Conservancy District has entered into capitalized leases for the acquisition of vehicles and equipment. These leases meet the criteria of a capital lease as they transfer benefits and risks of ownership to the lessee.

The assets acquired by the leases have been capitalized in the amount of \$313,737, which is equal to the present value of the future minimum lease payments at the time of acquisition. Accumulated depreciation was \$94,582 as of December 31, 2018, leaving a current book value of \$219,155. A corresponding liability is recorded and is reduced for each required principal payment.

The following is a schedule of the future long-term minimum lease payments required under the capital leases and the present value of the minimum lease payments as of December 31, 2018:

<b>CAPITAL LEASES</b>	
	<b>VALUE</b>
Fiscal year ending December 31, 2019	\$85,091
Fiscal year ending December 31, 2020	85,091
Fiscal year ending December 31, 2021	75,292
Fiscal year ending December 31, 2022	29,263
Fiscal year ending December 31, 2023	5,192
Less: amount representing interest at the Conservancy District's incremental borrowing rate of interest	(46,568)
Present value of minimum lease payments	\$233,361

**NOTE 12: OPERATING LEASE**

On June 17, 2011, the Conservancy District (the "Lessor") entered into a lease agreement with Gulfport Energy Corporation (the "Lessee") containing approximately 6468 acres of land at Clendening Lake. A few months later, on February 24, 2012, another lease was signed covering an additional forty-two acres of unleased "mineral" rights that were discovered through title. The total leasehold currently includes several producing wells paying royalties at rates of sixteen percent and eighteen percent with additional yearly delay rental payments for non-producing acreage.



## **Muskingum Watershed Conservancy District**

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On May 7, 2012, the Conservancy District (the “Lessor”) entered into a lease agreement with Chesapeake Exploration, L.L.C. (the “Lessee”) containing 3,700 acres at Leesville Lake. By assignment, Encino Energy Partners (EAP Ohio, LLC) will take over as operator for Chesapeake Exploration after a sale completed by both companies in 2018 with the final closing of the agreement set for late 2019. This leasehold currently includes several producing wells paying royalties at a rate of twenty percent with additional yearly delay rental payments for non-producing acreage.

On August 4, 2016, the Conservancy District (the “Grantee”) acquired additional mineral rights at Atwood lake that included the Resort and Conference Center covering 421 acres. An Oil and Gas lease was already in place and in year two of its five year primary term with Chesapeake Exploration (the “Lessee”) that has an expiration date of October 28, 2019, if no option to extend is exercised. By assignment, Encino Energy Partners (EAP Ohio, LLC) will take over as operator for Chesapeake Exploration after a sale completed by both companies in 2018 with final closing of the agreement set for late 2019. There are currently no producing wells under this leasehold or yearly rental payments being paid per the terms of the lease that was acquired.

On April 1, 2018, the Conservancy District (the “Lessor”) entered into a lease with Antero Resources (the “Lessee”) for an initial term of 3 years with the option to extend an additional one year term thereafter. This leasehold covers approximately 1,700 acres of land at Seneca Lake. Several wells have been drilled under this lease with production from current and future wells to be paid at a royalty rate of twenty percent.

On April 22, 2014, the Conservancy District (the “Lessor”) entered into a lease with Antero Resources (the “Lessee”) for an initial term of 5 years with the option to extend. The Conservancy District leased approximately 6,300 acres of land at Piedmont Reservoir. The Lessee will pay the Conservancy District royalty payments of 20%. One well has been drilled to date under the terms of this lease agreement.

**Muskingum Watershed Conservancy District**  
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*Notes to the Basic Financial Statements for the year ended December 31, 2018*

**NOTE 13: CONTRACTUAL COMMITMENTS**

As of December 31, 2018, the Conservancy District had contractual commitments for the following projects:

	CONTRACTUAL COMMITMENT	EXPENDED	BALANCE 12/31/2018
Bolivar Dam — USACE	\$37,951,380	\$21,576,746	\$16,374,634
Dover Dam — USACE	2,070,000	2,051,887	18,113
Nimishillen Basin Flood Warning	500,000	400,000	100,000
Seneca Parkside Sanitary Sewer	1,037,612	933,215	104,397
Atwood Main Campground Improvements Phase 1	5,939,580	5,091,264	848,316
Charles Mill Water and Wastewater Utility Improvements	2,936,524	2,617,262	319,262
Charles Mill Campground Redevelopment Phase 1	2,630,290	1,817,360	812,929
Piedmont Marina Campground Redevelopment Phase 1	2,166,436	2,023,251	143,185
Pleasant Hill Campground Redevelopment Phase 1	2,596,382	2,417,008	179,374
Seneca Parkside and Woodlands Campground	12,229,338	9,156,950	3,072,389
Seneca Marina Point Campground Phase 1 Design	524,484	474,373	50,111
Tappan East Campground	4,244,484	4,214,408	30,076
Tappan Campground Redevelopment Phase 1	3,146,505	2,425,166	721,339
Master Plan Program Management	3,140,000	1,881,592	1,258,408
Master Plan Construction Administration (Omnipro)	2,827,402	1,683,040	1,144,362
Master Plan Construction Administration (Michael Baker International)	1,984,022	943,052	1,040,971
Seneca Lake Dredging	1,698,979	1,345,104	353,875
Charles Mill Campground Redevelopment Phase 2	2,980,844	-	2,980,844
Piedmont Marina Master Water Distribution and Storage System	537,312	198,225	339,087
Pleasant Hill Park Cabin Roadway and Infrastructure	1,141,096	984,780	156,315
Pleasant Hill Park Cabins Phase 1	4,254,866	-	4,254,866
Pleasant Hill Campground Redevelopment Phase 2	2,067,044	-	2,067,044
Seneca Marina Point Campground Phase 1	6,302,347	-	6,302,347
Tappan Park WWTP Improvements	2,239,770	-	2,239,770
Tappan Campground Redevelopment Phase 2	4,733,734	-	4,733,734
CXT Restroom Construction (CM, PI, PH, TA)	843,240	393,300	449,940
Master Plan Construction Program Management	620,316	337,801	282,515
Atwood Peninsula Shoreline Stabilization	1,409,131	-	1,409,131

**Muskingum Watershed Conservancy District**

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**NOTE 14: SUBSEQUENT EVENTS**

At the January 2019 Board meeting, the Board authorized entering into contract totaling \$853,000 for purchase of pre-fabricated restrooms at three park locations.

At the January 2019, revised at the March 2019 Board meeting, the Board authorized staff to advertise for bid and award a contract for Piedmont Campground Renovation Phase 2 and Waste Water Treatment Plant Improvements. The engineer's estimate for this project is \$1,950,000.

**NOTE 15: BLENDED COMPONENT UNITS**

Black Fork, Buffalo Creek, Chippewa and Duck Creek Subdistricts are blended component units under criteria of GASB Statement 61. The following represents combining financial statements for the year ended 2018.

COMBINING STATEMENT OF NET POSITION							
	MWCD	SUBDISTRICTS					Total
		Black Fork	Buffalo Creek	Chippewa	Duck Creek	Eliminating Entries	
ASSETS							
Current Assets							
Equity in Pooled Cash and Investments	\$117,676,920	\$ 0	\$ 0	\$ 624,617	\$ 8,435	\$ 0	\$118,309,972
Accrued Interest	843	0	0	0	0	0	843
Accounts Receivable	1,005,447	0	0	0	0	(22,321)	983,126
Maintenance Assessments Receivable	1,073,740	0	0	23,885	0	0	1,097,625
Total Current Assets	119,756,950	0	0	648,502	8,435	(22,321)	120,391,566
Non-Current Assets							
Capitalized Costs	466,150	0	0	0	0	0	466,150
Non-Depreciable Capital Assets	44,587,279	1,822	27,593	1,154,680	5,400	0	45,776,774
Depreciable Capital Assets, Net	75,372,882	0	0	156,290	0	0	75,529,172
Total Non-Current Assets	120,426,311	1,822	27,593	1,310,970	5,400	0	121,772,096
Total Assets	240,183,261	1,822	27,593	1,959,472	13,835	(22,321)	242,163,662
DEFERRED OUTFLOWS OF RESOURCES							
OPEB	443,729	0	0	0	0	0	443,729
Pension	2,200,598	0	0	0	0	0	2,200,598
Total Deferred Outflows of Resources	2,644,327	0	0	0	0	0	2,644,327



**Muskingum Watershed Conservancy District**  
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COMBINING STATEMENT OF NET POSITION							
	MWCD	SUBDISTRICTS					Total
		Black Fork	Buffalo Creek	Chippewa	Duck Creek	Eliminating Entries	
LIABILITIES							
Current Liabilities							
Accounts Payable	433,760	1,822	27,593	11,617	6,037	(22,321)	458,508
Contracts Payable	1,795,131	0	0	0	0	0	1,795,131
Retainage Payable	1,405,095	0	0	0	0	0	1,405,095
Performance Bond Payable	57,752	0	0	0	0	0	57,752
Due to Other Governments	180,649	0	0	0	0	0	180,649
Accrued Wages and Benefits	348,853	0	0	0	0	0	348,853
Accrued Interest Payable	100	0	0	0	0	0	100
Accrued Life Insurance	4,234	0	0	0	0	0	4,234
Claims Payable	232,000	0	0	0	0	0	232,000
Advances	226,661	0	0	0	0	0	226,661
Compensated Absences	98,552	0	0	0	0	0	98,552
Capital Leases Payable	62,946	0	0	0	0	0	62,946
OWDA Loans Payable	71,752	0	0	0	0	0	71,752
Total Current Liabilities	4,917,485	1,822	27,593	11,617	6,037	(22,321)	4,942,233
Long-Term Liabilities							
Compensated Absences - net of current portion	832,296	0	0	0	0	0	832,296
Capital Leases Payable - net of current portion	170,415	0	0	0	0	0	170,415
OWDA Loans Payable - net of current portion	655,265	0	0	0	0	0	655,265
Net OPEB Liability	6,029,787	0	0	0	0	0	6,029,787
Net Pension Liability	8,799,841	0	0	0	0	0	8,799,841
Total Long-Term Liabilities	16,487,604	0	0	0	0	0	16,487,604
Total Liabilities	21,405,089	1,822	27,593	11,617	6,037	(22,321)	21,429,837
DEFERRED INFLOWS OF RESOURCES							
OPEB	570,220	0	0	0	0	0	570,220
Pension	2,245,509	0	0	0	0	0	2,245,509
Total Deferred Inflows of Resources	2,815,729	0	0	0	0	0	2,815,729
NET POSITION							
Net Investment in Capital Assets	115,922,336	1,822	27,593	1,310,969	5,400	0	117,268,120
Restricted for Maintenance Assessment	14,370,357	0	0	636,886	0	0	15,007,243
Unrestricted	88,314,077	(1,822)	(27,593)	0	2,398	0	88,287,060
Total Net Position	\$218,606,770	\$ 0	\$ 0	\$ 1,947,855	\$7,798	\$ 0	\$220,562,423

**Muskingum Watershed Conservancy District**  
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COMBINING STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION							
	MWCD	SUBDISTRICTS					Total
		Black Fork	Buffalo Creek	Chippewa	Duck Creek	Eliminating Entries	
OPERATING REVENUES							
Water Sales	\$ 34,098	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 34,098
Water and Sewer Systems	93,136	0	0	0	0	0	93,136
Timber Sales	241,404	0	0	0	0	0	241,404
Pine/Pulpwood Sales	141,886	0	0	0	0	0	141,886
Mineral Rights and Royalties	19,074,684	0	0	0	0	0	19,074,684
Share Crop	118,871	0	0	0	0	0	118,871
Cottage Sites and Clubs	2,943,997	0	0	0	0	0	2,943,997
Marina Operations	2,187,948	0	0	0	0	0	2,187,948
Marina Camping	415,734	0	0	0	0	0	415,734
Fishing Rights	62,647	0	0	0	0	0	62,647
Easements/Rights of Way	6,340	0	0	0	0	0	6,340
Beach Facilities	171,985	0	0	0	0	0	171,985
Vacation Cabins	488,401	0	0	0	0	0	488,401
Park Camping	5,290,941	0	0	0	0	0	5,290,941
Parks — Special Events	154,043	0	0	0	0	0	154,043
Admissions — Park Facilities	168,954	0	0	0	0	0	168,954
Miscellaneous Income	178,494	0	0	0	0	0	178,494
Total Operating Revenues	31,773,563	0	0	0	0	0	31,773,563
OPERATING EXPENSES							
Water Sales	183,148	0	0	0	0	0	183,148
Water Quality	778,256	0	0	0	0	0	778,256
Water Resources/Flood Control	1,660,711	0	0	0	0	0	1,660,711
Vehicles and Equipment	475,504	0	0	0	0	0	475,504
Dam Safety/Upgrades	59,077	0	0	358,880	0	0	417,957
Boundary Survey	58,114	0	0	0	0	0	58,114
Conservation	155,626	0	0	0	0	0	155,626
Reservior Maintenance	50,059	0	0	0	0	0	50,059
Information Systems/Technology	615,539	0	0	0	0	0	615,539
Shoreline Protection	164,989	0	0	0	0	0	164,989
Share Crop	46,990	0	0	0	0	0	46,990
Mineral Operations	348,610	0	0	0	0	0	348,610
Watershed Management	459,583	0	0	0	0	0	459,583
Beach Facilities	254,391	0	0	0	0	0	254,391
Office Building	251,691	0	0	0	0	0	251,691
Administrative and Finance	2,530,729	0	0	0	0	0	2,530,729
Engineering	431,007	0	0	0	0	0	431,007
Planning and Development	386,899	0	0	0	0	0	386,899
GIS and Parcel Development	312,454	0	0	0	0	0	312,454
Forestry Maintenance	224,205	0	0	0	0	0	224,205
Park Camping	2,803,591	0	0	0	0	0	2,803,591
Park Master Planning	2,416,616	0	0	0	0	0	2,416,616

**Muskingum Watershed Conservancy District**

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COMBINING STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION							
	MWCD	SUBDISTRICTS					Total
		Black Fork	Buffalo Creek	Chippewa	Duck Creek	Eliminating Entries	
Cottage Sites and Clubs	1,157,039	0	0	0	0	0	1,157,039
General Park Facilities	3,981,212	0	0	0	0	0	3,981,212
Vacation Cabins	134,654	0	0	0	0	0	134,654
Marina Operations	1,944,832	0	0	0	0	0	1,944,832
Water and Sewer System	735,422	0	0	0	0	0	735,422
Lake Patrol Operations	585,606	0	0	0	0	0	585,606
Education and Public Information	268,838	0	0	0	0	0	268,838
Safety Expenses	218,496	0	0	0	0	0	218,496
Recreation Maintenance	42,764	0	0	0	0	0	42,764
Parks — Special Events	172,019	0	0	0	0	0	172,019
Partners in Watershed Management	352,977	0	0	0	0	0	352,977
Sediment Removal	38,837	0	0	0	0	0	38,837
Depreciation	4,516,096	0	0	25,789	0	0	4,541,885
<b>Total Operating Expenses</b>	<b>28,816,581</b>	<b>0</b>	<b>0</b>	<b>384,669</b>	<b>0</b>	<b>0</b>	<b>29,201,250</b>
<b>Operating Gain (Loss)</b>	<b>2,956,982</b>	<b>0</b>	<b>0</b>	<b>(384,669)</b>	<b>0</b>	<b>0</b>	<b>2,572,313</b>
<b>NON-OPERATING REVENUES (EXPENSES)</b>							
Maintenance Assessments	5,618,440	0	0	341,891	0	0	5,960,331
Grants	518,688	0	0	0	0	0	518,688
Interest on Investments	2,114,696	0	0	10,420	5	0	2,125,121
Debt Retirement — Interest	(40,284)	0	0	0	0	0	(40,284)
<b>Total Non-Operating Revenues (Expenses)</b>	<b>8,211,540</b>	<b>0</b>	<b>0</b>	<b>352,311</b>	<b>5</b>	<b>0</b>	<b>8,563,856</b>
Change in Net Position	11,168,522	0	0	(32,358)	5	0	11,136,169
<b>Net Position-Beginning of Year, Restated</b>	<b>207,438,248</b>	<b>0</b>	<b>0</b>	<b>1,980,213</b>	<b>7,793</b>	<b>0</b>	<b>209,426,254</b>
<b>Net Position-End of Year</b>	<b>\$218,606,770</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$1,947,855</b>	<b>\$ 7,798</b>	<b>\$ 0</b>	<b>\$220,562,423</b>



# Muskingum Watershed Conservancy District

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COMBINING STATEMENT OF CASH FLOWS							
	MWCD	SUBDISTRICTS					Total
		Black Fork	Buffalo Creek	Chippewa	Duck Creek	Eliminating Entries	
CASH FLOWS FROM OPERATING ACTIVITIES							
Cash Received from Customers	\$31,813,411	0	0	\$0	0	\$0	\$31,813,411
Cash Payments to Suppliers for Goods and Services	(10,567,747)	0	0	(230,154)	0	0	(10,797,901)
Cash Payments for Employees Services and Benefits	(10,370,560)	0	0	(123,862)	0	0	(10,494,422)
Net Cash Provided by (Used for) Operating Activities	10,875,104	0	0	(354,016)	0	0	10,521,088
CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES							
Principal Payments on OWDA Loans	(10,852)	0	0	0	0	0	(10,852)
Intergovernmental Grants	41,502	0	0	0	0	0	41,502
Maintenance Assessments	5,151,334	0	0	301,924	0	0	5,453,258
Interest Paid on Debt	(598)	0	0	0	0	0	(598)
Net Cash Provided by (Used for) Non-Capital Financing Activities	5,181,386	0	0	301,924	0	0	5,483,310
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES							
Acquisition of Capital Assets	(36,751,750)	0	0	(25,881)	0	0	(36,777,631)
Maintenance Assessments	602,049	0	0	25,881	0	0	627,930
Intergovernmental Grants	477,186	0	0	0	0	0	477,186
Principal Payments on OWDA Loans	(58,257)	0	0	0	0	0	(58,257)
Principal Payments on Capital Leases	(42,022)	0	0	0	0	0	(42,022)
Interest Paid on Debt	(39,686)	0	0	0	0	0	(39,686)
Net Cash Used for Capital and Related Financing Activities	(35,812,480)	0	0	0	0	0	(35,812,480)
CASH FLOWS FROM INVESTING ACTIVITIES							
Receipts of Interest	1,987,190	0	0	10,420	5	0	1,997,615
Payments for Purchase of Investments	(58,894,288)	0	0	0	0	0	(58,894,288)
Proceeds from Sale of Investments	78,134,556	0	0	45,581	0	0	78,180,137
Net Cash provided by (Used for) Investing Activities	21, 227,458	0	0	56,001	5	0	21,283,464
Net Increase (Decrease) in Cash and Cash Equivalents	1,471,468	0	0	3,909	5	0	1,475,382
Cash and Cash Equivalents Beginning of Year	6,911,004	0	0	5,049	8,430	0	6,924,483
Cash and Cash Equivalents End of Year	\$8,382,472	\$ 0	\$ 0	\$ 8,958	\$ 8,435	\$ 0	\$8,399,865

**Muskingum Watershed Conservancy District**  
Tuscarawas County, Ohio  
*Notes to the Basic Financial Statements for the year ended December 31, 2018*

COMBINING STATEMENT OF CASH FLOWS							
	MWCD	SUBDISTRICTS					Total
		Black Fork	Buffalo Creek	Chippewa	Duck Creek	Eliminating Entries	
RECONCILIATION OF OPERATING GAIN (LOSS) TO NET CASH USED BY OPERATING ACTIVITIES							
Operating Gain (Loss)	\$2,956,982	\$ 0	\$ 0	\$(384,669)	\$ 0	\$ 0	\$2,572,313
Adjustments to Reconcile Operating Income to Net Cash Provided by Operating Activities							
Depreciation	4,516,096	0	0	25,789	0	0	4,541,885
(Increase) Decrease in Assets							
Capitalized Costs	1,047,020	0	0	0	0	0	1,047,020
Accounts Receivable	39,849	0	0	0	0	0	39,849
Prepays	480,365	0	0	0	0	0	480,365
Deferred Outflows	2,762,214	0	0	0	0	0	2,762,214
Increase (Decrease) in Liabilities							
Accounts Payable	131,632	0	0	4,864	0	0	136,496
Performance Bonds payable	(5,300)	0	0	0	0	0	(5,300)
Escrow Funds Payable	(970)	0	0	0	0	0	(970)
Advances	44,855	0	0	0	0	0	44,855
Claims Payable	42,000	0	0	0	0	0	42,000
Accrued Wages and Benefits	51,996	0	0	0	0	0	51,996
Accrued Life Insurance	(3,882)	0	0	0	0	0	(3,882)
Compensated Absences	157,069	0	0	0	0	0	157,069
Due to other governments	9,547	0	0	0	0	0	9,547
Net OPEB Liability	242,494	0	0	0	0	0	242,494
Net Pension Liability	(4,334,425)	0	0	0	0	0	(4,334,425)
Deferred Inflows	2,737,562	0	0	0	0	0	2,737,562
Net Cash Provided by (Used for) Operating Activities	\$10,875,104	\$ 0	\$ 0	\$(354,016)	\$ 0	\$ 0	\$10,521,088
Reconciliation of cash and investments reported on the Statement of Net Position to cash and cash equivalents reported on the Statement of Cash Flows							
Statement of Net Position cash and cash equivalents and investments	\$117,676,920	\$ 0	\$ 0	\$ 624,617	\$ 8,435	\$ 0	\$118,309,972
Investments included in balances above that are not cash equivalents	(109,294,448)	0	0	(615,659)	0	0	(109,910,107)
Cash and Cash equivalents reported on Statement of Cash Flows	\$ 8,382,472	\$0	\$0	\$ 8,958	\$ 8,435	\$ 0	\$ 8,399,865
Non-Cash Capital Financing Activities							
During 2018, \$125,524 of capital assets were acquired on capital leases.							
At December 31, 2018, the Conservancy District purchased \$3,200,226 in capital assets on account.							
At December 31, 2017, the Conservancy District purchased \$1,995,736 in capital assets on account.							

**Muskingum Watershed Conservancy District**  
Tuscarawas County, Ohio  
*Required Supplementary Information*  
*Schedule of the Conservancy District's Proportionate Share of the Net Pension Liability*  
*Last Five Years*<sup>1</sup>

<b>OHIO PUBLIC EMPLOYEES' RETIREMENT SYSTEM (OPERS)</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Conservancy District's Proportion of the Net Pension Liability	0.0560926%	0.0578391%	0.0569800%	0.0513470%	0.0513470%
Conservancy District's Proportionate Share of the Net Pension Liability	\$8,799,841	\$13,134,266	\$9,869,654	\$6,193,022	\$6,053,142
Conservancy District's Covered Payroll	\$7,040,696	\$6,398,882	\$6,759,620	\$6,022,398	\$5,379,079
Conservancy District's Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	124.99%	205.26%	146.01%	102.83%	112.53%
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	84.66%	77.25%	81.08%	86.45%	86.36%
<sup>1</sup> Although this schedule is intended to reflect information for ten years, information prior to 2014 is not available.					
NOTE: The amounts presented for each fiscal year were determined as of the measurement date, which is the prior fiscal year.					

*Required Supplementary Information*  
*Schedule of the Conservancy District's Contributions — Pension*  
*Last Six Years*<sup>2</sup>

<b>OHIO PUBLIC EMPLOYEES' RETIREMENT SYSTEM (OPERS)</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
Contractually Required Contribution	\$1,067,396	\$964,697	\$811,542	\$857,447	\$763,117	\$736,558
Contributions in relation to the Contractually Required Contribution	(1,067,396)	(964,697)	(811,542)	(857,447)	(763,117)	(736,558)
Contribution Deficiency (Excess)	\$0	\$0	\$0	\$0	\$0	\$0
Conservancy District's Covered Payroll	\$7,281,401	\$7,040,696	\$6,398,882	\$6,759,620	\$6,022,398	\$5,379,079
Contributions as a Percentage of Covered Payroll	14.66%	13.70%	12.68%	12.68%	12.67%	13.69%
<sup>2</sup> Information prior to 2013 is not available.						



**Muskingum Watershed Conservancy District**  
Tuscarawas County, Ohio  
*Required Supplementary Information*  
*Schedule of the Conservancy District's Proportionate Share of the Net OPEB Liability*  
*Last Two Years* <sup>3</sup>

<b>OHIO PUBLIC EMPLOYEES' RETIREMENT SYSTEM (OPERS)</b>	<b>2018</b>	<b>2017</b>
Conservancy District's Proportion of the Net OPEB Liability	0.0555267%	0.0572980%
Conservancy District's Proportionate Share of the Net OPEB Liability	\$6,029,787	\$5,787,293
Conservancy District's Covered Payroll	\$7,040,696	\$6,398,882
Conservancy District's Proportionate Share of the Net OPEB Liability as a Percentage of its Covered Payroll	85.64%	90.44%
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	77.25%	54.14%
<sup>3</sup> Although this schedule is intended to reflect information for ten years, information prior to 2017 is not available.		
NOTE: The amounts presented for each fiscal year were determined as of the measurement date, which is the prior fiscal year.		

*Required Supplementary Information*  
*Schedule of the Conservancy District's Contributions — OPEB*  
*Last Three Years* <sup>4</sup>

<b>OHIO PUBLIC EMPLOYEES' RETIREMENT SYSTEM (OPERS)</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Contractually Required Contribution	0	\$70,407	\$131,851
Contributions in relation to the Contractually Required Contribution	0	(70,407)	(131,851)
Contribution Deficiency (Excess)	0	0	0
Conservancy District's Covered Payroll <sup>5</sup>	\$7,281,401	\$7,040,696	\$6,398,882
Contributions as a Percentage of Covered Payroll	0.00%	1.00%	2.06%
<sup>4</sup> Beginning in 2016, OPERS used one trust fund as the funding vehicle for all health care plans; therefore, information prior to 2016 is not presented.			
<sup>5</sup> The OPEB plan includes the members from the traditional plan, the combined plan and the member directed plan.			

*Notes to the Required Supplementary Information for the year ended December 31, 2018*

**NOTE 1: NET PENSION LIABILITY**

**Changes in Assumptions – OPERS**

Amounts reported in calendar year 2017 reflect an adjustment of the rates of withdrawal, disability, retirement and mortality to more closely reflect actual experience. The expectation of retired life mortality was based on RP-2014 Healthy Annuitant mortality table and RP-2014 Disabled mortality table. The following reductions were also made to the actuarial assumptions:

- Discount rate from 8.00 percent to 7.50 percent
- Wage inflation rate from 3.75 percent to 3.25 percent
- Price inflation from 3.00 percent to 2.50 percent

**NOTE 2: NET OPEB LIABILITY**

**Changes in Assumptions - OPERS**

For 2018, the single discount rate changed from 4.23 percent to 3.85 percent.



# Appendix

**Year End Cash Balance/Receipts and Disbursements**

**Land and Forestry Operations Receipts**

**Recreation Operations Receipts**

**Major Revenue Sources**

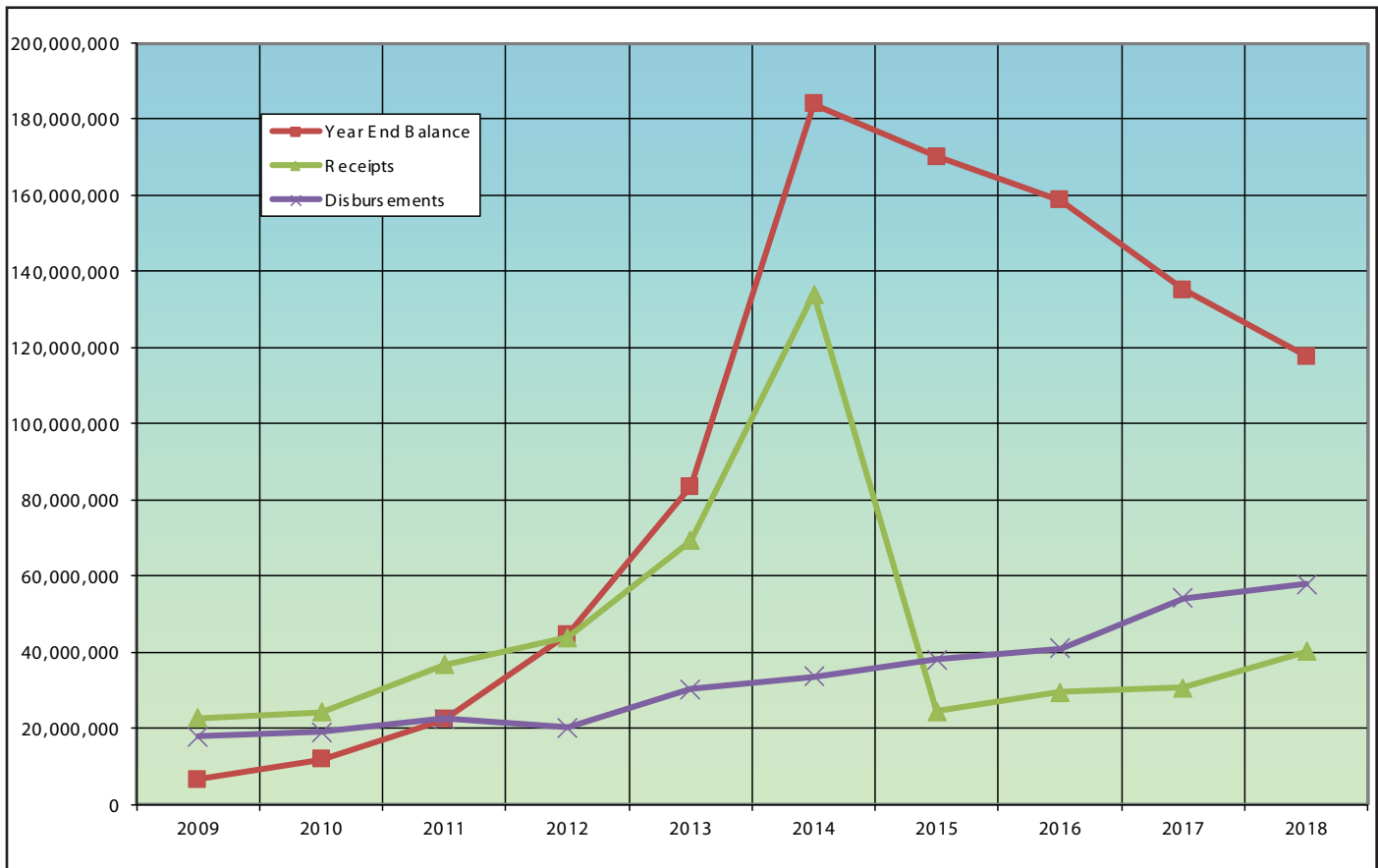
**Summary of District-Owned Land**

**MWCD At-a-Glance**

**Cooperating Agencies**



# Year End Cash Balance / Receipts and Disbursements as of December 31, 2018



## NOTES

- 2009 Maintenance assessment collections began
- 2010 Atwood Lodge closed
- 2011 Bonus payment for Utica shale lease for Clendening Reservoir received
- 2012 Bonus payment for Utica shale lease for Leesville Reservoir received
- 2013 Bonus payment for Utica shale lease for Seneca Reservoir received
- 2014 Bonus payment for Utica shale lease for Piedmont Reservoir received
- 2015 Maintenance assessment collections reduced by 50% as approved by the Board of Directors



# *Land and Forestry Operations*

## Total Cash Receipts by Reservoir - 2018

	Agricultural, Building, and Lot-Acres Leased	Land and Building Rentals	Gas, Oil, Stone, Coal	Cash Rent and Sharecrops	Timber	Pulpwood	Totals
Atwood			126,016			141,886	267,902
Beach City	60.35 acres		6,104	7,552			13,656
Bolivar			5,969				5,969
Charles Mill	20 acres	35	10,849	910	78,460		90,254
Clendening			2,349,251		61,598		2,410,849
Dover			15,256				15,256
Leesville			4,558,995		94,272		4,653,267
Mohawk	915.33 acres		13,578	29,164			42,742
Mohicanville							0
Piedmont			5,243				5,243
Pleasant Hill	168.7 acres	4,925	8,070	35,654			48,649
Seneca		7,800	11,972,132		524		11,980,456
Tappan	155 acres	595	220	2,950	6,550		10,315
Wills Creek	534.25 acres	3,155	3,000	42,641			48,796
<b>Totals</b>	<b>1,839.63 acres</b>	<b>16,510</b>	<b>19,074,683</b>	<b>118,871</b>	<b>241,404</b>	<b>141,886</b>	<b>19,593,354</b>

# *Recreation Operations*

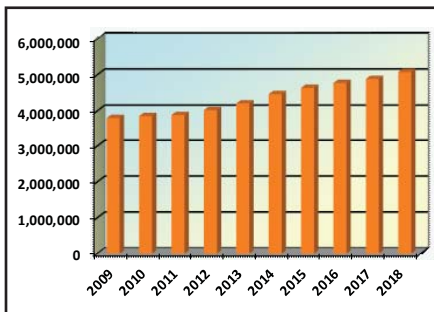
## Total Cash Receipts by Reservoir - 2018

	ODNR Division of Watercraft	Lake Patrol	Cottages, Clubs, and Dock Sites	Road, Water and Sewer Maintenance	Marina Operations	Park Operations	Total Recreation
Atwood	8,733	4,000	937,289		259,961	1,854,227	3,064,210
Beach City	1,103						1,103
Bolivar			2,237				2,237
Charles Mill	4,313	4,000	433,517	37,593	98,440	702,503	1,280,366
Clendening	4,195	4,000	4,188		520,865		533,248
Dover							0
Leesville	10,203	4,000	280,963		105,174	105,739	506,079
Kokosing							0
Mohicanville							0
Piedmont	6,135	4,000	243,821		595,710		849,666
Pleasant Hill	10,736	4,000	196,172		71,946	947,939	1,230,793
Seneca	7,034	4,000	497,460	31,980	566,222	1,440,356	2,547,052
Tappan	9,133	4,000	327,540		384,669	1,268,904	1,994,246
Wills Creek	1,063		20,810				21,873
<b>Totals</b>	<b>62,648</b>	<b>32,000</b>	<b>2,943,997</b>	<b>69,573</b>	<b>2,602,987</b>	<b>6,319,668</b>	<b>12,030,873</b>

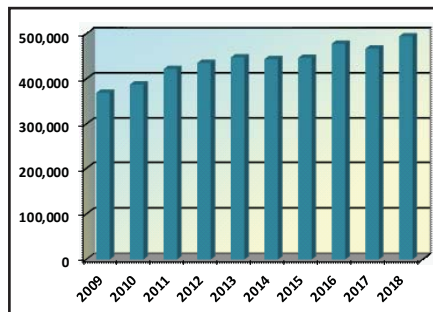
**NOTE:** Clendening Marina, Piedmont Marina, Seneca Marina and Tappan Marina are operated by MWCD.

# Major Revenue Sources

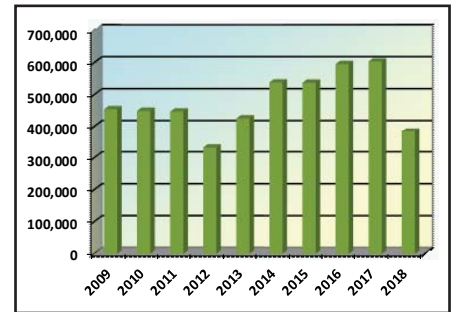
## Park Camping



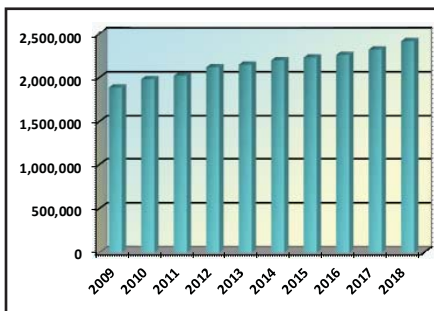
## Vacation Cabins



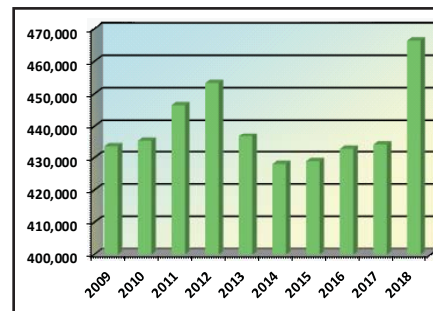
## Forestry Operations



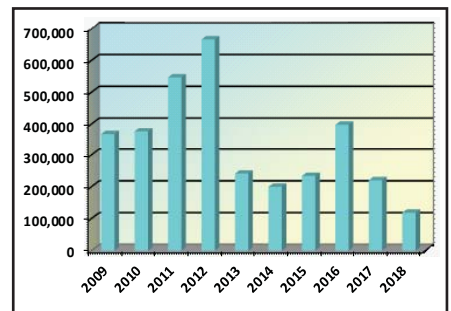
## Cottages



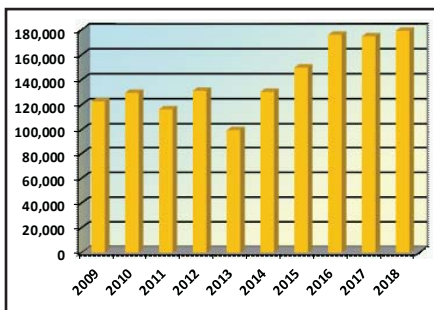
## Docking



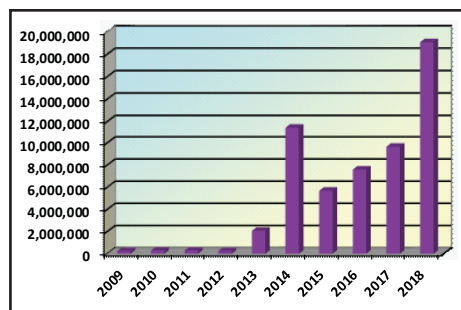
## Sharecrop



## Park Gate Admissions

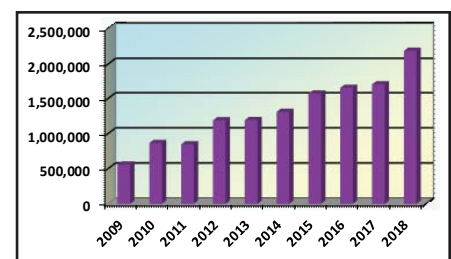


## Oil and Gas Royalty



*Note: Utica Shale activity began in 2013.*

## Marinas



*Note: MWCD began self-operation of Piedmont Marina in 2010, Seneca Marina in 2012, Clendening Marina in 2015 and Tappan Marina in 2018*

# Summary of District-Owned Land

as of December 31, 2018

## By County

COUNTY	RESERVOIR	ACRES	TOTAL	
			ACRES	LOTS
Ashland	Charles Mill	1810.7294	2576.1614	199
	Mohicanville	40.7540		
	Pleasant Hill	72.6780		
Belmont	Piedmont	5859.9680		
Carroll	Atwood	3330.6100	7039.8430	26
	Leesville	3709.2330		
Coshocton	Mohawk	3374.7738	7263.5046	3
	Wills Creek	3888.7308		
	Piedmont	132.7240		
Guernsey	Senecaville	1461.3291	1715.2991	11
	Wills Creek	121.2460		
Harrison	Clendening	6601.6080	14913.5461	58
	Piedmont	695.7800		
	Tappan	7616.1581		
Holmes	Mohawk	8.5900	8.5900	
Knox	Mohawk	356.7900	356.7900	
Muskingum	Wills Creek	1785.9000	1785.9000	
Noble	Senecaville	6154.4400	6154.4400	
Richland	Charles Mill	1539.8400	3049.3180	63
	Pleasant Hill	1509.4780		
Stark	Beach City	64.0200	879.2315	2
	Bolivar	815.2115		
Tuscarawas	Atwood	1142.2500	2938.3514	75.5
	Beach City	1286.3780		
	Bolivar	19.9600		
	Dover	489.7634		
TOTALS		54540.9431	54540.9431	438.5

## By Reservoir

RESERVOIR	COUNTY	ACRES	TOTAL	
			ACRES	LOTS
Atwood	Carroll	3330.6100	4472.8600	25
	Tuscarawas	1142.2500		
Beach City	Stark	64.0200	1350.3980	2
	Tuscarawas	1286.3780		
Bolivar	Stark	815.2115	835.1715	23.5
	Tuscarawas	19.9600		
	Ashland	1810.7294		
Charles Mill	Richland	1539.8400	3350.5694	199
Clendening	Harrison	6601.6080	6601.6080	
Dover	Tuscarawas	489.7634	489.7634	52
Leesville	Carroll	3709.2330	3709.2330	1
Mohawk	Coshocton	3374.7738	3740.1538	
	Holmes	8.5900		
	Knox	356.7900		
Mohicanville	Ashland	40.7540	40.7540	
Piedmont	Belmont	5859.9680	6688.4720	
	Guernsey	132.7240		
	Harrison	695.7800		
Pleasant Hill	Ashland	724.6780	2234.1560	63
	Richland	1509.4780		
Senecaville	Guernsey	1461.3291	7615.7691	1
	Noble	6154.4400		
Tappan	Harrison	7616.1581	7617.1581	58
Wills Creek	Coshocton	3888.7308	5795.8768	14
	Guernsey	121.2460		
	Muskingum	1785.9000		
TOTALS		54540.9431	54540.9431	458.5



MWCD At-A-Glance	ATWOOD	BEACH CITY	CHARLES MILL	CLENDENING	LEESVILLE	PIEDMONT	PLEASANT HILL	SENECA	TAPPAN	WILLS CREEK
Horsepower limit	25	10	10	10	10	10	No limit	399	399	10
Acres of water	1540	420	1350	1800	1000	2270	850	3550	2350	900
Acres of land	2925	930	2000	4750	2600	4416	1345	4060	5200	4900
Conservation pool elevation *	928	948	997	898	963	913	1020	832.2	899.3	742
Spillway elevation **	941	976.5	1020	910.5	977.5	924.6	1065	842.5	909	779
Maximum depth (feet)	41	13	24	38	43	38	54	31	34	22
Average depth (feet)	15.3	4.1	5.5	15.5	19.5	14.8	15.9	12.3	14.9	6.7
Park	◆		◆				◆	◆	◆	
Year round camping	◆		◆	◆		◆	◆	◆	◆	
Seasonal camping rates	◆		◆	◆	◆	◆	◆	◆	◆	
Group camping	◆							◆	◆	
Hot showers	◆		◆	◆		◆	◆	◆	◆	
Modern restrooms	◆		◆	◆		◆	◆	◆	◆	
Electric hookups	◆		◆	◆	◆	◆	◆	◆	◆	
Full hookups	◆			◆		◆	◆	◆	◆	
Swimming beach	◆		◆				◆	◆	◆	
Hiking trails	◆	◆	◆		◆	◆	◆	◆	◆	
Biking trails	◆									
Geocaching	◆	◆	◆	◆	◆	◆	◆	◆	◆	
Activity center	◆		◆				◆		◆	
Nature center	◆						◆	◆	◆	
Group shelters	◆		◆	◆	◆		◆	◆	◆	
Full service marina	2		1	1	2	1	1	1	1	
OVERNIGHT LODGING										
Camper cabins				◆	◆		◆	◆	◆	
Marina motel				◆		◆				
Patio cabins	◆		◆					◆		
Vacation cabins	◆			◆	◆	◆	◆	◆	◆	
FISH SPECIES ***										
Bluegill	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Bullheads	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Channel Catfish	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Crappie	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Flathead Catfish			◆	◆		◆		◆	◆	
Largemouth Bass	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Muskellunge					◆	◆	◆			
Northern Pike	◆	◆	◆		◆					
Saugeye	◆	◆	◆	◆		◆	◆		◆	◆
Smallmouth Bass				◆		◆	◆			
Striped Bass			◆					◆		
Walleye								◆		
White Bass							◆	◆	◆	
Yellow Perch	◆		◆		◆	◆	◆	◆	◆	
Hunting ***	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Trapping ***	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

\* Conservation pool is a lake surface elevation which is maintained during the boating season, unless affected by the operations of the dam for flood control, or by drought. Conservation pool is measured in feet above sea level.

\*\* Spillway (the channel near the dam for surplus water) is measured in feet above sea level.

\*\*\* Through a lease agreement, hunting, trapping and fishing are regulated by the Ohio Division of Wildlife.



# *Parks and Marinas*

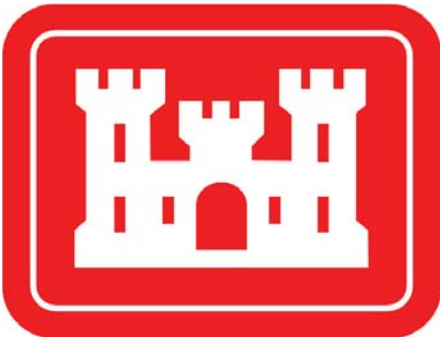
<b>ATWOOD PARK</b> 9500 Lakeview Road NE Mineral City, OH 44656 (330) 343-6780 atwood@mwcd.org	<b>CHARLES MILL PARK</b> 1277A State Route 430 Mansfield, OH 44903 (419) 368-6885 charlesmill@mwcd.org	<b>PLEASANT HILL PARK</b> 3431 State Route 95 Perrysville, OH 44864 (419) 938-7884 pleasanthill@mwcd.org
<b>SENECA PARK</b> 22172 Park Road Senecaville, OH 43780 (740) 685-6013 seneca@mwcd.org	<b>TAPPAN PARK</b> 8400 Mallarnee Road , Box 29 Deersville, OH 44693 (740) 922-3649 tappan@mwcd.org	<b>CLENDENING MARINA</b> 79100 Bose Road Freeport, OH 43973 (740) 658-3691 clendeningmarina@mwcd.org
<b>PIEDMONT MARINA</b> 32281 Marina Road Freeport, OH 43973-1029 (740) 658-1029 piedmontmarina@mwcd.org	<b>SENECA MARINA</b> 16592 Lashley Road Senecaville, OH 43780 (740) 685-0015 senecamarina@mwcd.org	<b>TAPPAN MARINA</b> 33315 Cadiz-Dennison Road Scio, OH 43988 (740) 269-2031 tappanmarina@mwcd.org

The following marina facilities are privately owned and operated through lease agreements with the MWCD.

<b>ATWOOD MARINA WEST</b> C. Brian Valot 9298 Atwood Lake Road NE Mineral City, OH 44656 (330) 364-4703	<b>ATWOOD MARINA EAST</b> C. Brian Valot 1601 Magnolia Road Dellroy, OH 44620 (330) 735-2323	<b>CHARLES MILL MARINA</b> Robert Schraedly 1277B State Route 430 Mansfield, OH 44903 (419) 368-5951
<b>LEESVILLE SOUTHFORK MARINA</b> Keith Ott 4131 Deer Road SW Bowerston, OH 44695 (740) 269-5371	<b>LEESVILLE PETERSBURG MARINA</b> Keith Ott 2126 Azalea Road SW Carrollton, OH 44615 (330) 627-4270	<b>PLEASANT HILL MARINA</b> Robert Schraedly 3434 State Route 95 Perrysville, OH 44864 (419) 938-6488



# Cooperating Agencies



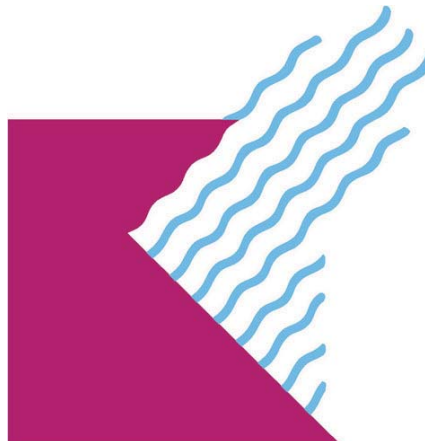
U.S. Army  
Corps of Engineers



Ohio Department of  
Natural Resources



Ohio Environmental  
Protection Agency



Ohio Water  
Development Authority



U.S.  
Geological Survey



U.S. Department of  
Agriculture Forest Service



Ohio Department  
of Transportation



Ohio Agricultural Research  
and Development Center





**MAIN OFFICE**

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New Philadelphia, OH 44663

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