



The Muskingum Watershed
Conservancy District Flood Mitigation
and Conservation Focus Groups
Summary Report

December 12, 2024

Dear Muskingum Watershed Communities and Partners,

Thank you for participating in the 2024 Flood Mitigation and Conservation Focus Group Meetings earlier this year. These meetings brought together a diverse group of representatives from federal, state, and local agencies, departments, and political subdivisions to discuss flood mitigation and conservation efforts within the Muskingum Watershed Conservancy District (MWCD). Our primary goal was to address the challenges posed by localized flooding and collaborate on strategies to drive positive, sustainable change.

Your input, feedback, and recommendations are invaluable as we assess our existing programs and explore new opportunities and partnerships.

Since the 1930s, MWCD's dams and reservoirs have served as a critical defense against catastrophic flooding in the region, providing over \$11 billion in avoided flood impacts. This long-standing commitment to managing floodwaters has been a resounding success. However, as we continue to face evolving challenges, we remain focused on further strengthening our efforts.

The devastating flood of 2005 within the Muskingum River Basin spurred us to rethink our approach and prompted a series of actions to protect communities and property from future flooding. This led to an amendment to our Official Plan, which introduced key measures to enhance our flood mitigation strategy, particularly regarding the nearly 70-year-old dams. These efforts have included upgrades to dam structures, shoreline stabilization, dredging, water quality initiatives, and the launch of our Partners in Watershed Management (PWM) Program—designed to assist local communities in their flood reduction and conservation efforts.

This spring, the region experienced challenging flooding, and while it did not reach the historic levels of 2005, the impact was still significant for many of our communities, residents, and partners.

Unfortunately, we know that heavy rains and floods will continue to be a feature of this large river system. Because of this reality, we constantly evaluate our strategies to meet the challenges of a changing landscape and extreme weather patterns to minimize the impacts of floods on communities.

Given the unique structure of MWCD, we are in a prime position to bring stakeholders together and expand collaboration, as we did earlier this year. As a result of the focus group discussions, we have identified several next steps to enhance our efforts moving forward:

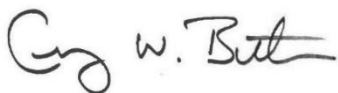
- **Reviewing Funding Mechanisms:** We will evaluate our current funding programs to better support communities. For instance, the PWM program webpage now features Best Management Practices (BMPs) in stormwater management, including green infrastructure solutions. Applicants who review these BMPs before submitting an application will increase their project's score. Additionally, we plan to expand the PWM program with workshops and successful case studies to assist communities in the application process.

- **Improving Access to Resources:** While numerous technical resources and funding opportunities exist for flood mitigation, they are often difficult for communities to access. To address this, MWCD staff will work to educate and assist communities with grant applications. Additionally, MWCD will hire a Grants Coordinator to help communities navigate the funding process more effectively.
- **Increasing Engagement and Advocacy:** We are committed to being a valuable resource for information and connecting communities with relevant solutions. In the coming year, we will host more open houses and focus group meetings to share information and gather insights. MWCD will also advocate for unmet community needs, leveraging our relationships with partner agencies to facilitate conversations and additional meetings.
- **Expanding Funding Opportunities for Flood Mitigation:** A priority raised during the focus group meetings was the need for additional funding for flood mitigation projects. We are already implementing changes to our PWM program to make it even more effective. These adjustments will streamline the application process, benefiting communities and improving project outcomes.
- **Broader Engagement in Appalachian Ohio:** In 2024, MWCD invested \$5 million in the Foundation for Appalachian Ohio (FAO), expanding our efforts to support communities within and beyond the MWCD boundary. These funds will be used to address critical needs in local communities, including multi-year support for innovation and leadership, a solar shaded area creating a hands-on learning playground focused on sustainable energy, as well as a wastewater treatment composting feasibility study.
- **Launching a New Non-Point Source Implementation Strategies (NPS-IS) Funding Program:** To further improve water quality and combat erosion, MWCD has launched our NPS-IS funding program. This initiative will enable communities and local watersheds to develop plans that make them eligible for federal funds aimed at managing pollutants, runoff, and sediment.

As you review this report, you will see we have taken your recommendations seriously. Many of the actions outlined above are already being implemented to enhance our regional flood mitigation mission and better protect our communities. In the near future, we will also establish a volunteer workgroup to help identify new strategies that MWCD and its partners can collaboratively pursue to reduce flooding impacts across the watershed.

Thank you for your ongoing support and partnership. Together, we can continue to make meaningful progress in protecting our communities and ensuring a safer, more resilient future.

Sincerely,



Craig W. Butler
Executive Director

Muskingum Watershed Conservancy District Flood Mitigation and Conservation Focus Group Summary Report

MWCD is actively working to expand community and partner engagement in our flood mitigation efforts, founded on trust, reciprocity, and active listening. MWCD is also focused on increasing the number of collaborations across the watershed to meet the challenges presented by more frequent localized flooding. Our organizational structure as a conservancy district positions us to play a vital role in supporting communities struggling with these challenges in several ways:

1. **Large Geographic Footprint:** The watershed spans 8,000 square miles and covers 18 counties, providing MWCD with the ability to connect partners and resources across jurisdictional boundaries.
2. **Interconnected Goals:** Our organization is built around three core pillars: recreation, flood mitigation and conservation. The integration of land management and strategies related to recreation and conservation work together to support and enhance our flood mitigation efforts.
3. **Public Mission:** As a political subdivision of the State of Ohio, MWCD acts as a trusted intermediary to facilitate communication and collaboration among partners and resources focused on flood mitigation.
4. **Science and Research Capacity:** As rain events increase in frequency and intensity, there is a growing gap in understanding the effects of these climate shifts on localized flooding. MWCD is committed to identifying these gaps and leading flood mitigation efforts across the entire watershed.

In the spring of 2024, MWCD hosted four flood mitigation focus groups in various locations across the watershed, including Marietta (Washington County), New Philadelphia (Tuscarawas County), Charles Mills Lake Park (Richland and Ashland Counties), and Newark (Licking County). Invitations were broadly distributed to engage a wide range of governmental and nonprofit stakeholders.

These sessions attracted 88 participants who collectively identified over 80 organizations and institutions whose partnerships could be strengthened or expanded. MWCD staff provided an overview of the PWM program, introduced key leadership team members, and facilitated discussions around four key questions, encouraging feedback from all attendees. Those questions were:

1. Where is flooding currently taking place in the communities where you work – and do you know what the cause of the flooding is?

2. What are current sources of funding for your flood mitigation, resilience, and planning projects?
3. What are the top unmet needs and gaps, including projects you are having trouble funding?
4. What recommendations do you have for us around flood mitigation moving forward?

Summary of 2024 Listening Sessions

I. Who Attended?

Participants included federal and state agency representatives, emergency managers, floodplain managers, soil and water conservation district staff, county staff (including commissioners), local government employees, and some representatives of nongovernmental organizations.

II. Where are you seeing flood problems in your community?

Participants shared that while most flooding still occurs in floodplains, there are also cases of flooding resulting from heavy rains in a short period of time, which is associated with drainage infrastructure issues and hardening of the landscape. Furthermore, participants shared examples of homes, roads, parks, farm fields, and infrastructure being impacted by flooding.

III. What funding sources or programs do you currently use to fund flood mitigation, resilience, or planning?

Participants across the four focus groups submitted comments listing different sources of funding that are currently used. Only a small number of participants noted that there was “none” or almost no funding available for their community. The most common sources of funding identified were from federal or state agencies, with MWCD programs listed many times. A handful of comments referred to technical assistance rather than direct funding. An example of this is the Silver Jackets, a program of the U.S. Army Corps of Engineers (USACE), which brings together an interdisciplinary team of experts to help communities to reduce risk from floods.

All four focus groups noted not having sufficient funding for flood mitigation planning and projects.

IV. What are the top projects you have not been able to fund yet?

Project gaps listed by participants were diverse. Projects can be organized into the following categories.

- Projects related to roads or streets
- Projects related to specific streams, primarily log jams and streambank stabilization
- Need for educational opportunities. This included lack of understanding regarding:
 - Rules and regulations
 - How or where to access grants
 - Education on tools available
 - General flooding issues
- Infrastructure (i.e., bridges, culverts, canals, and ditches)
- Stormwater-related issues in developed or developing areas
- Planning and floodplain mapping

- Agricultural Best Management Practices (BMPs) related to flooding
- Miscellaneous issues, including dredging, property acquisitions, elevating structures, maintenance and wetlands

V. Identify unmet needs around flood mitigation.

Participants identified the following regional projects and unmet needs:

Section I: Top Unfunded Projects

(What are the top projects you have not been able to fund?)

- Projects related to roads or streets
- Projects related to specific streams, primarily log jams and streambank stabilization
- Need for educational opportunities. This included lack of understanding regarding:
- Rules and regulations. (i.e., How, or where to access grants, planning tools available, and General flooding information)
- Infrastructure (i.e., bridges, culverts, canals, and ditches)
- Stormwater-related issues in developed or developing areas
- Planning and floodplain mapping
- Agricultural Best Management Practices (BMPs) related to flooding
- Miscellaneous issues, including dredging, property acquisitions, elevating structures, maintenance and wetlands

Section II: Unmet Needs

(Participants identified regional projects and unmet needs)

- Planning and Maps
 - Updated floodplain maps
 - Better planning around severe rainfall events
 - GIS tools addressing changes in development and planning
- Education
 - Floodplain education
 - Flood mitigation education
- Stormwater Management and Retention
 - Stormwater management
 - Regional coordination
- Engineering
 - Design assistance
 - Materials and maintenance
 - BMP recommendations
 - Roadway improvements
- Funding
 - Grant identification
 - Grant writing
 - Grant assistance

- Partnerships
 - Communication assistance
 - Relationship building
 - Trusted landowner resource
- Debris Removal and Dredging
 - Individual landowner access
 - Log jams and water restrictions
- Soil and Water Conservation Employment
 - Funding
 - Capacity
 - Resource availability
- Zoning
 - Permitting assistance
 - Education
- Agriculture and Forestry
 - Cover Crop program expansion
 - Forestry and vegetation management

Section III: Products

(What recommendations do you have for us around flood mitigation moving forward?)

- Coordination with USACE, community organizations, agencies, political subdivisions, and across regions
- Collaboration across county lines
- State and federal legislation
- Leverage website, social media, workshops, and face-to-face meetings for training and education
- Annual meeting – MWCD package and send out official “one-pager”
- Feasibility studies
- Technical assistance to receive funding and to identify problems/sources of issues
- Education with assessment collection
- Resources (i.e., list of constructors/equipment)
- Talk about the benefits of flood mitigation
- Help access nongovernmental funding (businesses, corporations)
- Support with training and turnover and retention
- Larger state match (1:1)
- Training of local government staff and elected officials
- Farmer incentives
- MWCD to join WateReuse Association
- Buyout/Acquisition
- Regional economic development
- Funding and support for a floodplain administrator, rules, and regulations

VI. What recommendations do you have for us around flood mitigation moving forward?

Recommendations were listed:

- Coordination with USACE, community organizations, agencies, political subdivisions, and across regions
- Collaboration across county lines
- State and federal legislation
- Leverage website, social media, workshops, and face-to-face meetings for training and education
- Annual meeting – MWCD package and send out official “one-pager”
- Feasibility studies
- Technical assistance to receive funding and to identify problems / sources of issues
- Education with assessment collection
- Resources (i.e., list of constructors/equipment)
- Talk about the benefits of flood mitigation
- Help access nongovernmental funding (businesses, corporations)
- Support with training and turnover and retention
- Larger state match (1:1)
- Training of local government staff and elected officials
- Farmer incentives
- MWCD to join WateReuse Association
- Buyout/acquisition
- Regional economic development
- Funding and support for a floodplain administrator, rules, and regulations

VII. Who do you recommend that MWCD collaborate with around flood mitigation?

Below is a summary of recommendations:

Section I: Nongovernmental Organizations

- Water Management Association of Ohio (WAMO)
- Local Soil and Water Conservation Districts (SWCDs)
- Mayors Partnership for Progress
- Environmental groups
- Red Cross

- Farm Bureau
- Rural Action
- Student Conservation Association
- The Nature Conservancy
- Local Land Trusts
- National Association of Conservation Districts
- Western Reserve Land Conservancy (WRLC)
- County Foundations
- Richland County Foundation
- Licking County Foundation
- “Be the Change for Clean Water” (a regional coalition of ten county Soil and Water Districts and partners committed to providing education, resources, and opportunities to make it easier for all Central Ohio residents to “Be the Change for Clean Water”)
- Ducks Unlimited
- Ohio Ecological Farm and Food Association (OEFFA)
- "Friends of" groups
- Conservation groups

Section II: County and Local Government

- Washington County Grant Department (or other county grant departments)
- County Commissioners
- GIS department
- Floodplain coordinator & manager
- Township trustees
- County Engineers
- Villages and municipalities
- Health department
- Planning/Zoning
- Emergency Management Agency directors
- Emergency responders
- Ohio Mid-Eastern Governments Association (OMEGA)
- Regional Planning Commissions
- Stormwater districts
- County Park Districts
- Buckeye Lake Regional Court
- Stark Parks

Section III: Economic Development and Private Sector

- Job and Family Services (JFS)
- Ohio Jobs
- Ohio Department of Commerce (ODC)
- Community Improvement Corporation (CIC)
- Engineering firms
- Oil and gas
- Contractors
- Real Estate Group (landowner toolkit)
- Private industry partners
- Economic development groups
- Mitigation banks
- Insurance companies
- INTEL
- American Electric Power (AEP)

Section IV: Federal

- United States Army Corps of Engineers (USACE)
- Federal Emergency Management Association (FEMA)
- United States Department of Agriculture (USDA)
- United States Geological Survey (USGS)
- Environmental Protection Agency (EPA)
- National Weather Service (NWS)
- United States Fish and Wildlife Service (USFWS)
- Federal Highway Administration (FHWA)
- National Resources Conservation Service (NRCS)
- Regional Conservation Partnership Program (RCPP)

Section V: State Government

- Ohio Department of Natural Resources (ODNR)
 - Division of Floodplain Management
 - Division of Wildlife

- Ohio Department of Transportation (ODOT)
- Ohio Rail Development Commission (ORDC)
- Ohio Emergency Management Agency (OEMA)
- Ohio Department of Commerce
- Ohio Department of Agriculture (ODA)
- Ohio Environmental Protection Agency (OEPA)

Section VI: Academic Institutions

- Central State Extension
- Kenyon College
- Coshocton Joint Vocational School
- Ohio University (OU)
 - Ohio University Voinovich School
- The Ohio State University (OSU)
 - The Ohio State University County Extension Offices
- Denison University
- Ohio Watershed Leaders (OWLS)

Current Activity and Future Plans

The information received by MWCD has provided invaluable guidance that can help us determine the most appropriate way to engage and assist with the issues brought forth during the focus group meetings. MWCD will review the Amendment to the Official Plan's primary categories and identify what directly impacts communities. This includes flood control, watershed management, and water quality improvements.

Partners in Watershed Management (PWM)

The Partners in Watershed Management (PWM) program has been active since 2009 and supports the work of agencies and groups involved in conservation programs, water quality issues, and flood reduction and mitigation projects. This program aids local communities, agencies and groups involved in projects and programs that support the conservation and flood control missions of the MWCD. Political subdivisions of Ohio, IRS Section 501 groups, and other non-profit organizations involved in programs or projects related to watershed management and water quality improvements in the Muskingum River Watershed, are eligible for assistance through this program. Projects include property acquisition for conservation, water quality monitoring, flood damage reduction planning, and hydrologic and hydraulic floodplain analysis.

The PWM program has assisted in funding over 200 flood mitigation and water quality projects for all eighteen counties in the MWCD jurisdictional boundary. These projects have totaled over \$14 million and can include studies, design, and construction of flood mitigation efforts that often take several years to complete. Additionally, we are expanding our PWM funding structure to incorporate supplemental oil and gas revenue. This provides us the flexibility to support worthy projects outside our jurisdictional boundary but remain within the boundary of the Muskingum River Watershed. This holistic approach allows MWCD to better manage the water resources within the Watershed.

As a direct result of the suggestions and feedback heard at these meetings the PWM program will be evolving to better meet the needs of communities within the MWCD. The website will be updated to showcase Flood Mitigation Best Management Practices (BMPs) in stormwater management. These BMPs will address solutions in both urban and rural environments. Utilizing these BMPs in PWM projects will increase the applicant's scoring during the review process. However, the PWM program will also continue to assist with projects like those that have been awarded in the past.

Debris Removal Program (DRP)

MWCD also provides \$150,000 annually for the Debris Removal Program (DRP). This is dedicated to the removal of debris fields and log jams that pose or endanger public health and safety. Examples include roadway flooding or debris accumulation against bridges or other critical structures. In addition, debris fields and log jams that cause significant erosion and loss of stream bank material may be considered.

MWCD Grants Coordinator

In 2025, we plan to expand our current staffing structure to include an in-house Grants Coordinator. Having a full-time Grants Coordinator is the best option to better serve our grant opportunities and assist the public. Grant applications can often be a daunting and intimidating process. A dedicated MWCD Grants Coordinator who is knowledgeable about our mission and organization will have the foundation and skillset to write successful grant proposals, help ensure that grants are managed correctly after being awarded. This can include funding requests, deadlines, and reporting requirements.

To assist communities searching for grants, this MWCD team member can help identify, review, and occasionally assist in the writing of grant applications. By handling the grant application process, the coordinator allows other staff to focus on their primary responsibilities, leading to better resource allocation.

With the help of a full-time Grant Coordinator, MWCD will improve the PWM program by offering examples and workshops to assist in the application process and help identify and assist with additional funding opportunities from other agencies.

Nonpoint Source Implementation Strategy Fund (NPS-IS)

There are nearly 302 smaller watersheds within the Muskingum River Basin. Of those smaller watersheds, less than 5% are now eligible for U.S. Environmental Protection Agency (US EPA) funds that are specifically designated to improve water quality and combat erosion. To receive these funds, an intensive hydrological, water quality, and land use review along with recommendations for improvement need to be outlined in a strategic implementation plan. These plans are referred to as Non-Point Source Implementation Strategies (NPS-IS).

To increase the number of communities and local watersheds having access to federal funding through NPS-IS plans, MWCD developed a new funding opportunity, the MWCD NPS-IS Development Fund. This fund supports the development of these plans in coordination with the Ohio Environmental Protection Agency (OEPA). These plans will provide the technical review and analysis of local characteristics of the watershed and identify areas necessary to strategically target impairments to water quality. Once these plans are reviewed and accepted, larger federal funds can then be utilized for projects.

In 2024, MWCD was able to grant seven applicants funding for plan development. In 2025, MWCD will increase the funding level to support the development of 10 NPS-IS plans annually. We will refine and adjust priorities for funding as this program grows in need and interest.

Environmental Stewardship; Foundation for Appalachia Ohio (FAO)

The extreme weather events of 2024 ranging from spring flooding to an historic drought, accompanied by state issued burn-bans serve as a reminder that communities and organizations are forever connected by water. Managing water resources, both in quantity and quality, is at the heart of our organization. To further MWCD's commitment to assist communities within the Appalachian region of Ohio, MWCD has partnered with the Foundation of Appalachian Ohio (FAO), investing \$5 million in FAO's Environmental Stewardship Pillar of Prosperity to

expand and support community projects, scholarships, fellowships, research, and innovation in conservation and environmental stewardship. These new initiatives provide a broad range of opportunities that can directly fund green infrastructure projects, foster leadership in areas where the impact can best support communities, build young talent through scholarships and skilled trades, and deepen our knowledge of the root causes of localized flooding through research and technology innovations. This investment will support \$125,000 annually to serve all the counties within the Muskingum River Watershed plus an additional 17 counties of Appalachia Ohio which includes 12 counties along the Ohio River. Overall, this partnership will advance conservation, environmental stewardship, and the greater well-being of Appalachia Ohio.

U.S. Army Corps of Engineers Partnership

MWCD and U.S. Army Corps of Engineers (USACE) have successfully managed large-scale flood mitigation for nearly a century. According to federal government studies, the 16 reservoirs and dams in the MWCD region have been credited for saving over \$8 billion worth of potential property damage from flooding. MWCD manages the property behind 14 of these reservoirs while the USACE owns the property immediately around the dam. The USACE also maintains control of the lake levels through a prescribed and agreed upon operational “control manual” approved by Congress. This partnership allows both organizations to work together to manage the health of the reservoirs. Both organizations strive to find a balance for all groups including recreation, wildlife, water quality, businesses, communities, mineral exploration, and sustainable agriculture.

MWCD’s commitment to collaboration with the USACE is unwavering. Our partnership is vital in advancing our shared goals of enhancing flood mitigation efforts across our region. To strengthen our relationship and build upon our existing programs, we are committed to implementing regional internal meetings. These meetings will provide an opportunity for both MWCD and USACE to engage in meaningful discussions, share updates on ongoing projects, and reinforce our collective commitment to local and regional flood mitigation initiatives.

Stakeholder Engagement

Continued local engagement and outreach is crucial for any collaboration. MWCD is committed to advancing our flood mitigation efforts through ongoing collaboration with local agencies. We will continue to host focus groups and listening sessions, which provide a platform for open dialogue and the exchange of ideas regarding effective flood mitigation solutions.

Regular communication is essential to ensure that we remain connected to the challenges we face and can actively monitor grant opportunities that arise. By staying engaged, we can collectively plan and track our progress in addressing flood related issues.

Additionally, we will form a workgroup of volunteers – many of which will be focus group participants – dedicated to reviewing recommendations in this report and developing and recommending flood mitigation strategies for MWCD and other partners to implement across the region to mitigate flooding. This group will serve as a forum for stakeholders to share insights, identify resources, and explore innovative approaches to flood management. By

working together, MWCD and our partners can strengthen our response to flooding and enhance the resilience of our communities.

Conclusion

MWCD is dedicated to continuously identifying, implementing, and sharing new opportunities as we deepen our understanding of the evolving needs within the Muskingum River Basin. By actively engaging with our communities and stakeholders, we strive to develop innovative solutions that address the unique challenges facing the watershed.

Small-scale flooding is becoming more frequent and severe, intensifying the strain on infrastructure and communities, particularly in vulnerable regions. Climate change has exacerbated this trend, primarily through shifting rainfall patterns and increased storm intensity. More frequent and heavier downpours, combined with landscape hardening due to development, have overwhelmed urban drainage systems, leading to flash floods that impact small streams in urban areas.

Additionally, sudden snowmelts coupled with heavy rainfall are now flooding areas that were not traditionally at risk. This shift in spring weather patterns underscores the critical importance of a well-coordinated, well-maintained reservoir system, as seen in the spring of 2024. Extremes in precipitation are becoming the new normal, with the summer and fall drought conditions of 2024 further challenging our reservoirs. These events have tested our ability to provide recreational opportunities while also supporting farmers who rely on reservoir water for their livestock.

Beyond the impacts of climate change, ongoing regional development significantly contributes to the severity of flooding. We recognize that the risk of flooding can be mitigated through the integration of natural infrastructure, such as restored wetlands, floodplains, green roofs, and trees along streets and sidewalks, which absorb and retain rainwater. In our listening sessions, concerns were frequently raised about poorly managed development practices, including the lack of floodplain mapping, permitting, and enforcement. To address these issues, we are prioritizing the inclusion of green infrastructure funding in our grants program.

To enhance our flood mitigation efforts, MWCD has developed a web-based mapping system that identifies roadway flooding near our reservoirs. We can expand the use of this GIS technology to pinpoint additional flood-prone areas within communities. By leveraging these tools, along with our expertise and organizational stability, MWCD is better positioned to mitigate small-scale flooding and support communities in managing these challenges.

Through ongoing assessments and collaborative efforts, MWCD will continue to expand flood mitigation strategies, improve water quality, and promote sustainable land use practices. We recognize that effective communication and partnership are key to our success. Together, we can make a positive impact and ensure a healthier, more resilient future for the Muskingum River Watershed.

Appendix A. Transcription of Responses

Comments by location and breakout group.

Session 1: March 27, Lafayette Hotel, Marietta, OH – 28 attendees

Session 2: April 25, Kent State, New Philadelphia, OH – 36 attendees

Session 3: May 29, Charles Mills Lake, OH – 11 attendees

Session 4: June 18, Dawes Arboretum, Newark, OH – 13 attendees

*NOTE: The **bold** line in the table indicates where comments from one breakout group ends and another breakout group begins.*

Table 1. Current support for flood mitigation, resilience, and planning and Potential future collaborators.

| What funding sources or programs do you currently use to support flood mitigation, resilience, and planning? | Partners or organizations that might make good collaborators |
|--|--|
| Marietta | |
| Group 1 | Group 1 |
| OEMA | Job and Family Services |
| FEMA | Ohio Jobs |
| MWCD – PWM | Washington County Grant Department (or other county grant departments) |
| H2Ohio | County Commissioner support |
| OEPA | |
| ODNR | |
| Building Resilient Communities (BRiC) | |
| USACE | |
| USDA - NRCS | |
| Job and Family Services | |
| Group 2 | Group 2 |
| FEMA: BRiC, HMGP, FMA | GIS department |
| Federal Highway | Floodplain coordinator & manager |
| ODNR | Township trustees |
| MWCD | DNR - Floodplain management |

| | |
|--|---------------------------------|
| | County/City |
| ODOT/ORDC | ODOT |
| Federal programs | County Commissioners |
| USACE: Planning Project Group Silver Jackets | County Engineers |
| | Villages/cities |
| | Health department |
| | Department of Commerce |
| | Planning/Zone |
| | EMA directors |
| | Emergency responders |
| | WMAO |
| Group 3 | Group 3 |
| | USACE |
| MWCD assessment | Local SWCDs |
| PWM | County Extension Office |
| Cover Crop Program | OU Voinovich School |
| Grazing Management Plan | Mayors Partnership for Progress |
| | EMA (State and Local) |
| | Local government |
| | FEMA |
| New Philadelphia | |
| Group 1 | Group 1 |
| City general funds | MWCD |
| Stormwater utility | USACE |
| Landowner ditch petition | ODNR |
| Road/Bridge funds | FEMA |
| NRCS, EWP | USDA |
| FEMA funds | USGS |

| | |
|---|--|
| | EPA |
| | SWCDs |
| | ODOT |
| | County Engineer |
| | OMEGA |
| | Environmental groups |
| | Engineering firms |
| | Oil and gas |
| Group 2 | Group 2 |
| OEMA | National Weather Service EMAs - Multiple notices Cleveland Weather |
| EMA, FEMA, JFS | AEP |
| MWCD | Local Park District (i.e., Stark Parks) |
| HMEP/HMPG (BRiC) | USACE |
| County General Funds | MWCD - Listening Sessions |
| ODNR highwall reclamation | Red Cross |
| USACE | Farm Bureau |
| FHWA | OSU Extension |
| Oil/Gas Sizing of culverts Landowner BMPs | GIS Dept. |
| | Regional Planning |
| Group 3 | Group 3 |
| PWM-MWCD | National Weather Service (NWS) |
| ODOT - internal funded Bi-partisan Infrastructure Law "Protect" grant | USFWS - Partner program |
| SWCD - MWCD DRP County Commissioner match with ODA | FEMA - bring regional operators |

| | |
|--|-------------------------------------|
| | ODNR Division Floodplain management |
| Group 4 | Group 4 |
| EPA Stormwater management | Township Trustees |
| 319 EPA funds, NPS-IS (Non-Point Source Implementation Strategy) | Municipalities |
| Stormwater district | SWCDs/Stormwater Districts |
| FEMA Mitigation approved plan: BRIC -Building Resilient Infrastructure and Communities FMA - Flood Mitigation Assistance HMGP - Hazard Mitigation Grant Program | County and Co. Engineers |
| OPWC - Ohio Public Works | NRCS/RCP |
| Clean OH Funds | ODA |
| H2Ohio (Wetlands and Rivers) | Rural Action |
| Federal highways | ODOT |
| USACE Silver Jackets Planning Assistance to states | EMA |
| Charles Mill Park | |
| Group 1 | Group 1 |
| MWCD DRP/PWM | GIS Department |
| Federal (USACE) | Health Department |
| BRiC/HMGP | Twp. Trustee |
| Townships and County | USACE |
| H2Ohio | National Weather |
| USDA/NRCS Wetland restoration | Local Municipalities |
| Clean Ohio | Contractors |
| EPA/319 Funding | Student Conservation Association |
| | EMA |
| | EPA |

| | |
|--|---|
| | ODNR (Div. Wildlife) |
| Group 2 | Group 2 |
| Cover Crop – PWM | ODNR |
| MWCD DRP | OEPA |
| SWCD – County funding, internal funding (fees), rain barrel and educational programs (ongoing) | MWCD |
| | NRCS |
| | USDA |
| | FEMA |
| | USACE |
| | The Nature Conservancy |
| | Western Reserve Land Conservancy |
| | National Association of Conservation Districts |
| | Richland County Foundation |
| | Local government and county commissioners |
| | Real Estate Group (landowner toolkit) |
| | Richland County Parks District |
| | Private Industry Partners |
| | ODA |
| Dawes Arboretum, Newark | |
| Group 1 | Group 1 |
| Hypoxia Task Force, US EPA, 319 program | Be the Change Clean Water – Education, Central Ohio |
| USACE – 208 Grant | Franklin Soil and Water Conservation District |
| Silver Jackets (in-kind) | The Nature Conservancy |
| H2Ohio Wetland Restoration | Ducks Unlimited |
| FEMA | Division of Wildlife (ODNR) |
| MWCD | OSU Extension |
| Tech companies with sustainability goals | Central State Extension |

| | |
|---|--|
| | Farm Bureau |
| | Ohio Ecological Farm and Food Association (OEFFA) |
| | Kenyon College |
| | Local land trust |
| | Coshocton JVS |
| | Economic Development groups |
| | Mitigation banks |
| Group 2 | Group 2 |
| FEMA | Local colleges and universities |
| MWCD | Ohio University |
| ODOT – P.R.O.T.E.C.T. | Denison University |
| USACE (208) | Ohio State University |
| ODNR – Hazard Mitigation program (FEMA) | Buckeye Lake Regional Court Conservation group Buckeye Lake for Tomorrow |
| H2Ohio (Buckeye Lake wetland) | Urban regional planning |
| USEPA – 319 | Licking County Foundation |
| OPWC – Ohio Public Works Commission (Bridges, culverts) | Insurance companies |
| County land – “block grant” | Environmental groups |
| | OWLS |
| | Conservation groups |
| | OSU Extension |
| | INTEL (industry partners) for match |
| | Vocational Schools |
| | Friends of groups |

Table 2. Unmet needs around flood mitigation and types of support you would need to fill those unmet needs.

| Rank and prioritize unmet needs around flood mitigation | List the types of support you would need to fill those unmet needs |
|---|--|
| Marietta | |
| Group 1 | Group 1 |
| Debris removal and dredging (rank =3) | Permission from agencies to do the work (USACE) |
| Retention ponds (rank =6) | Local community groups for communication, needs, available resources |
| Assessment Needs (rank = 2) | More funding |
| Forestry and vegetation management (invasives) (rank = 5) | Collaboration across county lines |
| Education and stakeholder engagement (rank = 1) | |
| Group 2 | Group 2 |
| Stormwater management (rank =4) | MWCD – education, flood management plans |
| Grant writing assistance | More funding |
| Villages = lower score. Know criteria | State and federal legislation |
| Education – politicians, citizens | Coordinate various agencies, political subdivisions |
| | BMPs |
| | Mapping |
| Group 3 | Group 3 |
| MWCD DRP- private citizenship | Change the MWCD process for app |
| Good understanding of process | Website, face-to-face meeting |
| | Annual meeting – MWCD package and send out official “one-pager” |
| Floodplain maps | Ease of finding maps |
| Cover crop program % increase | MWCD BOD approval |
| | BMPs |

| New Philadelphia | |
|---|--|
| Group 1 | Group 1 |
| Stream gaging | Feasibility studies |
| Increased support for regional retention | Communication between regions |
| Education | Technical assistance to receive funding and to identify problems/sources of issues |
| Raising road | |
| managing stormwater | |
| maintenance of existing facilities | |
| Group 2 | Group 2 |
| strategic located TLET (SP?) ponds (engineering) | technical |
| Funding | Funding |
| Staffing | Staffing |
| Zoning | |
| Group 3 | Group 3 |
| 1. Education of "floodplain" (Public, villages and government, farmers, industry) | Time for speaker Mayor, Council Education with assessment collection |
| Additional storage capacity | |
| Rainfall change forecast | |
| Landscape changes (GIS) | |
| 2. FEMA floodplain maps (1987) | Updated maps, GIS product online |
| 3. Identify new and flood storage | |
| Frequency of "100 year" flood event | |
| Group 4 | Group 4 |
| 1. Study to identify/determine flooding areas and strategies and high-risk areas | Funds |
| 2. Data collection (to help with planning) | Technical support and guidance |

| | |
|--|--|
| 3. Inventory of projects (GIS map) | Facilitate |
| 4. Grant writing assistance and matching funds | Workshops |
| 5. GIS | Resources (e.g., list of constructors/equip) |
| Charles Mill Park | |
| Group 1 | Group 1 |
| Planning/ZD | Education – MWCD |
| Communication | Flood -> benefits |
| Data hosting -> notifications | Social media |
| Group 2 | Group 2 |
| Relationships | Go out into the community |
| Education of issue | |
| Awareness of issue | |
| Log jams/water flowing | |
| Amish community | |
| Funding (\$) | Nongovernmental funding (business, corporation) Creative information, connect to yield and profit |
| Plan | |
| Construction | |
| Materials | |
| Staffing (SWCD) | Training and turnover, retention |
| Contractors | Longer funding cycles (2-year, 5-year) Larger state match (1:1) |
| Dawes Arboretum, Newark | |
| Group 1 | Group 1 |
| Funding (\$) | Education floodplain Social media Training of local government staff and elected officials |
| Landowner involvement | Education on soil types |
| Engineering solutions | Farmer incentives |
| Staff & time | MWCD to join the WateReuse Association |

| | |
|--|--|
| Education | |
| Group 2 | Group 2 |
| 1. How to reach the public (landowner) | Buy out/acquisition |
| | Regional economic development |
| | Funding and support for a floodplain administrator, rules, and regulations |
| | Loss of tax base – MWCD pay in lieu of tax |
| 2. Zoning/building permitting Zoning regulation education | Infrastructure/education |
| | Regulation |
| | Tax incentives |
| 3. Infrastructure upgrades assessment | Funding |
| 4. 2-D study | Funding Prioritize, plan and rank |