

# Building Flood Safe Riverfront Projects — Together

October 22, 2015



# MCD

MIAMI CONSERVANCY DISTRICT

# Guidebook: Building Flood Safe Riverfront Projects -- Together

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# Building Flood Safe Riverfront Projects — Together

## INTRODUCTION

The Miami Conservancy District (MCD) wants to partner with your community as you envision, plan, and implement riverfront projects. MCD is a vital partner when those projects occur near or within MCD's levees, floodwalls, the river channel and other flood protection components.

This guidebook, provided as a supplement to MCD's regional workshop, is designed to provide important information about:

- Successfully developing projects that ensure flood safe communities
- Streamlining efforts to save money and time

Since MCD's earliest days, its leaders have placed a high value on collaborating effectively with the communities it protects. These collaborations have provided a world-class integrated flood protection system, multiple recreational venues, efficient transportation systems, and important utility infrastructure.

Water and sewer lines, power utilities, and roadways all intersect the regional flood protection system numerous times in each community. Throughout the years, MCD has remained vigilant, assuring the communities it protects that keeping them safe from flooding was the highest priority.

Recreational access to the river corridor was part of Arthur Morgan's initial concept for MCD's five flood protection dams. The Olmstead Brothers designed public space at the dams and the Civilian Conservation Corps built facilities for the public there. Later and at the request of local communities, MCD built and permitted others to build bike trails, low dams, river access points, amphitheaters, riverfront parks, and more.

Most recently, the region partnered with the US Army Corps of Engineers to coordinate a plan for the river corridor. This collaboration and increasing interest in outdoor recreation have sparked a desire for additional recreational amenities, often involving the flood protection structures that keep us safe.

Maintaining existing amenities and infrastructure projects – and adding new projects – requires careful collaboration. With proper design, communities along the Great Miami River can be safe from flooding; safe to focus on economic advancement and recreation; and safe to thrive in a livable, resilient, innovative region.

-October 2015

Tab I  
**Workshop presentation  
slide hand-outs**



**MCD**

MIAMI CONSERVANCY DISTRICT



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**MCD's vision**

Thriving communities, a healthy watershed, and a higher quality of life, sustained by well-managed water resources throughout the watershed.

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**MCD . . .**

- Provides flood protection to Official Plan Standard
- Conducts water resource monitoring and protection guided by local input
- Enhances public access and enjoyment of river corridors



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### Key staff



Janet Bly  
General Manager



Roxanne Farrier  
Property Administrator



Kurt Rinehart  
Chief Engineer



Sarah Hippensteel Hall  
Manager, Watershed Partnerships



Nick Mueller  
Engineer



Barry Puskas  
Manager,  
Technical Services



Jamie Johnson  
Field Operations  
Manager



Angela Manuszak  
Special Projects Coordinator



Jim Kittel  
Technician /  
Inspector

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### Before MCD

Cities encroached into river channel



Looking Toward MIDDLETOWN.  
Middletown



Dayton



Hamilton

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### 1913 flood

- Worst natural disaster in State of Ohio
- 360+ fatalities
- \$100 million property damages
- Southwest Ohio hardest hit



Dayton



Troy

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### Protecting the cities

- Dams
- Defined channels
- Levees
- Floodplains



*Germantown Dam*



*Piqua*



*Miamisburg*

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### Where else can you find?

- Cities protected from flooding
- Community passion for the river
- Clean, plentiful water
- Connected ribbons of green
- Collaboration
- Commitment to Keeping the Promise



*Dayton*



*Franklin*

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### Keeping the promise means

- Businesses grow and thrive
- Homes and livelihoods are secure
- Roads, bridges, and utilities are protected
- Communities enjoy the river without fear



*Hamilton*

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### River corridor through time

- 1910s



Dayton Canoe Club, circa 1915

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### River corridor through time

- 1950s



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### River corridor through time

- 1970s



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### River corridor through time

- 2000s



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### Today's river corridor

- A great asset to our region
- High quality rivers and streams
- Shared vision
- Growing interest



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### Maximizing investment

- USACE Report
- UD Rivers Institute
- Ohio's Great Corridor Association
- Branding and Placemaking



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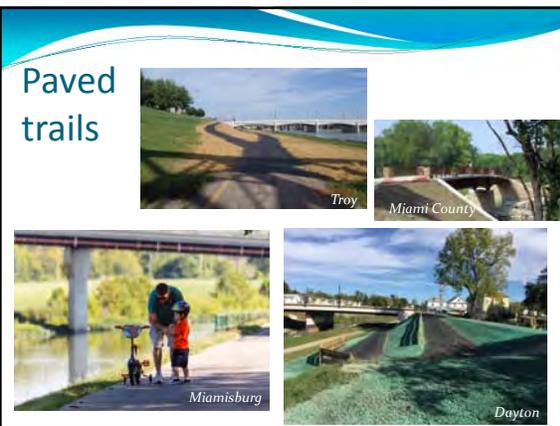
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### Utilities



The 'Utilities' section features two photographs. The top photo shows a long, narrow trench dug into the ground, lined with bright orange safety fencing. The bottom photo shows a utility site with several white and red trucks, a yellow excavator, and other equipment parked on a grassy area.

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### Transportation



The 'Transportation' section features three photographs. The top-left photo shows a green bus driving on a paved road with trees and buildings in the background. The top-right photo shows a bridge under construction with a large concrete structure and a crane. The bottom photo shows a bridge over a river with a green hillside in the foreground.

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### Thriving communities

- Flood Free
- Resilient
- Safe and Healthy
- Diverse
- Active and Attractive



The 'Thriving communities' section features a list of five bullet points and three photographs. The top photo shows a flood-free area with a large body of water and people walking along a path. The bottom-left photo shows a busy street scene with many people walking. The bottom-right photo shows a residential area with houses and a large green field.

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Concept & Shared Objectives

- Concept Feasibility
- Preliminary Design
- Funding & Public Support

Implementation

- Final Design
- Construction

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Concept & Shared Objectives

- Concept Feasibility

*"Hey Joe, what if we could build X?"*

A black and white sketch of a man with a beard, wearing a suit and a hat. He is sitting and gesturing with his right hand raised, as if speaking or presenting an idea.

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### Concept stage tasks

- Involve MCD
  - Submit idea in writing



The Miami-Dade County Department of Planning  
301 N.W. 10th Street  
Miami, FL 33136  
Tel: 305-375-3000  
www.miamidade.org

**INITIAL REQUEST FOR LONG-TERM LAND USE**

Submit this initial request to MCD if you want to use R-122 land. This begins the process to obtain a land-use permit.

Name: \_\_\_\_\_  
Organization Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/County: \_\_\_\_\_  
Contact Name: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Email: \_\_\_\_\_

Please attach photos and/or pictures here!  
Describe your project. (Please attach a conceptual sketch or drawing if available.)

Tab 3 Initial request Form

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### Concept stage tasks

- Involve MCD
  - Meet with staff
  - Explore shared objectives
  - Understand technical requirements



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### Early cooperation

- Enhance initial project concept
- Identify additional partners
- Save time and money



Dayton

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### Save time and money =

- Determine necessary approvals
- Research funder requirements
- Avoid pitfalls
  - Promises
  - Promises
  - Promises



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### Navigate complexities

- Integrate flood protection
- Coordinate with other authorities
- Resolve real estate issues



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### Real estate complexities

- Ownership
- Easements
- Contracts or agreements
- Deed restrictions
- Court decrees
- Pre-existing permissions
- Oh my!



Tab 4 Interest Areas by Community

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### Why?

- To keep you safe from flooding
- To ensure your project is successful



Franklin

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### How?

- Land use permit
  - Project owner
  - After approvals
  - Prior to construction
  - On MCD land/property



Tipp City

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Concept & Shared Objectives

Implementation

 Concept Feasibility

 Preliminary Design

*"Teamwork makes the dream work."  
-John Maxwell*



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### Preliminary design

- Incorporate technical requirements
- Seek feedback from MCD



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### Slippery slopes

- Cut, lower, steepen, remove or weaken levees
- Encroach into levee or river channel
- Block MCD access
- Interfere with existing property rights



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Concept & Shared Objectives

Implementation

 Concept Feasibility

 Preliminary Design

 Funding & Public Support

*"Ready to listen, Santa?"*



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### Funding sources

- Local dollars
- Federal and state grants
- Private foundations
- Private funding
- Public Private Partnerships



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### Public support

- News releases
- Public meetings
- Signs
- Social media



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### Final design

- Does your project?
  - Preserve or enhance flood protection
  - Prevent erosion
  - Meet hydraulic standards
  - Use the right materials
  - Allow access
  - Plan for maintenance
  - Engage appropriate partners
- MCD staff available throughout

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### Apply for a land use permit

- Who is requesting to use the land?
- What is the proposed land use?
- When does the project begin?
- Where is the project?
- What are the details?

Piqua Downtown Riverfront Park proposed location

Tab 3 Fact Sheet L01  
Tab 3 General Land Use Permit Application

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### Land use permit

- Is issued to project owner
- Provides written permission to use and access MCD land
- Identifies responsibilities/liabilities
- Defines length of time
- Explains terms and conditions
- Secured before bidding project

Tab 3 Sample Land Use Permit  
Tab 3 Land Use Permit Fees

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### Other permits you might need

- Federal
  - Army Corps of Engineers
- State
  - Ohio EPA
  - Historical Preservation
- Local
  - Floodplain
  - Zoning
  - Stormwater



Tab 5 Non IMCD Permit Fact Sheets

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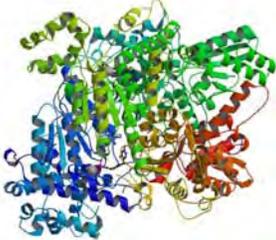
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### MCD review considerations

- Simultaneous projects
- Every project is unique
- Varying levels of complexity



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### Permit terms & conditions

- Approved final construction plans
  - Approved technical analyses
  - Approved access
- Insurance or assumption of liability
- Financial capability
- Defined maintenance responsibility
- Subject to requirements of Federal, State and Local permits and laws

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### Celebrate!

- Invite MCD to pre-construction meeting



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The flowchart is divided into two vertical sections: 'Concept & Shared Objectives' and 'Implementation'. The 'Concept & Shared Objectives' section includes three steps: 'Concept Feasibility' (with a diamond icon), 'Preliminary Design' (with a pencil icon), and 'Funding & Public Support' (with a dollar sign icon). The 'Implementation' section includes two steps: 'Final Design' (with a checkmark icon) and 'Construction' (with a construction barrier icon).

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### Construction permit

- Issued to contractor
- Provides written permission for construction
- Identifies responsibilities/liabilities
- Defines length of time
- Explains terms and conditions
- Secured before starting project



Tab 6 Fact Sheet L02  
Tab 6 Short Term Land Use Permit Application  
Tab 6 Sample Construction Permit

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### Construction

- Before
  - Submit access plan and project schedules
- During
  - Follow MCD materials and methods specifications
- After
  - Restore site
  - Coordinate with MCD for final inspection



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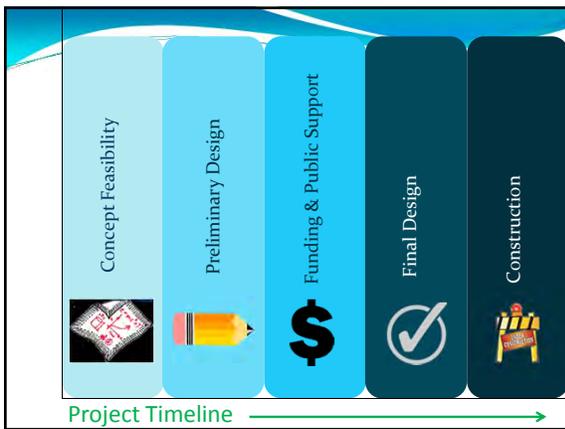
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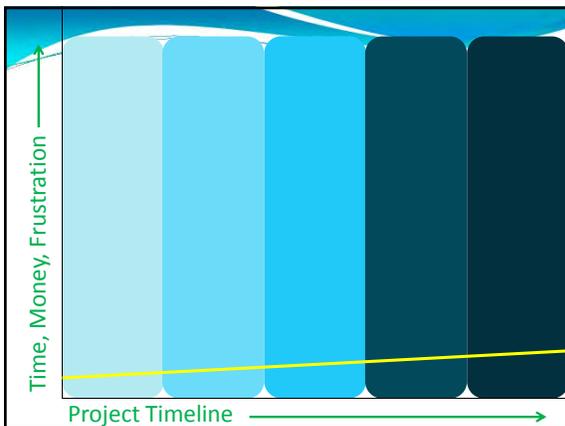
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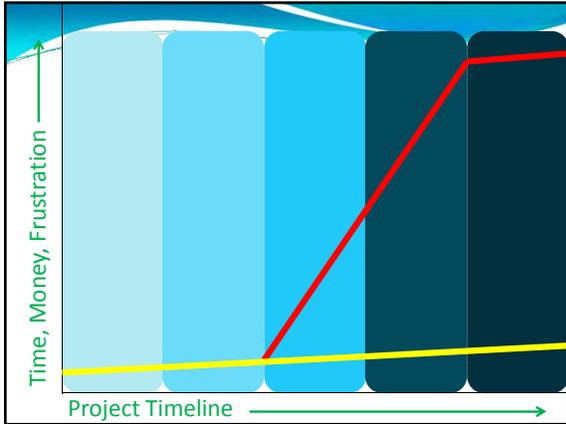
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### Contact Roxanne

- When you have an idea
- When there is a change
- When you have a question
- During design
- During permitting
- During construction



Roxanne Farrier,  
Property Administrator  
rfarrier@mcdwater.org  
937-223-1278 x3230

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### We all win

- Successful projects
- Controlled costs
- Water quality and habitat
- Resilient communities

A collage of three images: the top left shows a group of people kayaking on a river; the top right shows a person in a yellow shirt holding a large fish; the bottom shows a park area with a paved path, a building, and a body of water.

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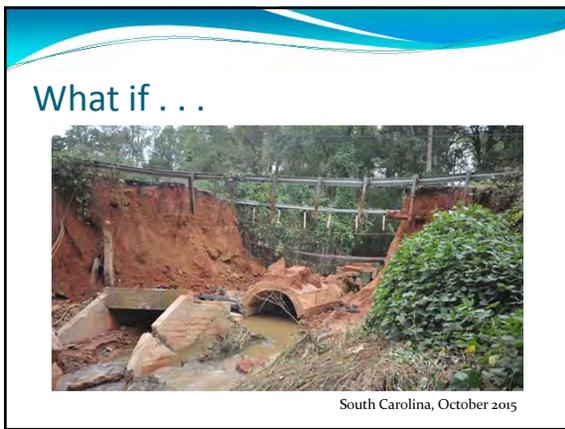
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### What if . . .



South Carolina, October 2015

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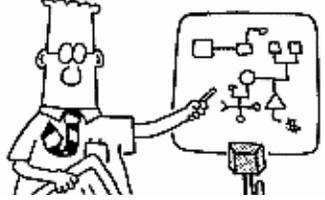
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### Technical design nitty gritty

- Access & Maintenance Plans
- Technical Requirements



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### Access & Maintenance

- MCD
  - During construction
  - Long term
  - Inspections
  - Emergency repairs
- Project owner
  - Maintenance plan
  - Maintenance funding



09/14/2013

Tab 7 Fact Sheet G01

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### Technical requirements

- Hydraulic Analysis
  - Water surface elevation
  - Erosion and drift
- Geotechnical Analysis
  - Embankment
  - Foundation
  - Settlement and wall



Tab 7 Fact Sheet T01

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### Hydraulic analysis



- MCD Official Plan Flood (OPF)
  - Different than FEMA
  - Different than Floodplain Administrator
- **No rise** to OPF water surface elevation

Tab 7 Fact Sheet T01

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### Hydraulic analysis

- Hydraulic Model – PE certified
  - Existing – preconstruction, channel geometry, structures
  - Proposed
  - Temporary – cofferdams, causeways
  - Final – as built

Tab 7 Fact Sheet T01

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### Hydraulic analysis

- Erosion
  - USACE EM 1110-2-1601
- Drift accumulation
- Impact on levees and channels



Tab 7 Fact Sheet T02

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### Geotechnical analysis

- Subsurface exploration
  - Borings
  - Laboratory test data
- PE Certified Analyses
- USACE Engineering Manual guidance



19/06/2009

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### Geotechnical analysis

- Embankment stability
  - USACE EM 1110-2-1902
  - OPF and FEMA Base Flood
- Material specs



Tab 7 Fact Sheet T03

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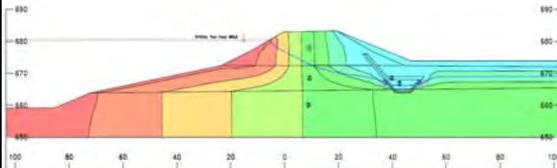
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### Geotechnical analysis

- Foundation
  - USACE ETL 1110-2-569
  - OPF and FEMA Base Flood



Tab 7 Fact Sheet T04

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### Geotechnical analyses

- Settlement
  - USACE EM 1110-2-1904
- Wall
  - USACE EM 1110-2-2502



Tab 7 Fact Sheet T05

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**Plans & specs**

- Final construction documents
- Site information
- Proposed project data
- Specifications include MCD requirements



Tab 7 Fact Sheet G02

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Tab 2  
**Process Summary**



**MCD**

MIAMI CONSERVANCY DISTRICT



## Concept Feasibility

- Involve MCD
- Save time and money



## Preliminary Design

- Incorporate technical requirements
- Avoid slippery slopes



## Funding & Public Support

- Raise project funds
- Gain public support



## Final Design

- Satisfy technical requirements
- Complete design & construction plans
- Obtain MCD land use permit



## Construction

- Obtain MCD construction permit
- Build!

Tab 3  
**Land Use Permitting**



**MCD**

MIAMI CONSERVANCY DISTRICT

The Miami Conservancy District  
38 E. Monument Ave.  
Dayton, OH 45402  
937-223-1271  
www.mcdwater.org



**INITIAL REQUEST FOR LONG-TERM LAND USE**

*Submit this initial request to MCD if you want to use MCD land. This begins the process to obtain a land-use permit.*

Date: \_\_\_\_\_

Organization Name: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_

Email: \_\_\_\_\_

Project location (please attach location map): \_\_\_\_\_

Describe your project (Please attach a conceptual sketch or drawing, if possible): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

When do you want to begin the project?: \_\_\_\_\_

Additional information (project partners, funding source, etc.): \_\_\_\_\_

\_\_\_\_\_

**Please submit form to the MCD Property Administrator at the above address.**

*Additional information about MCD land can be found at: <http://www.mcdwater.org/flood/building.asp>*

# General Land Use Permit



## BACKGROUND

MCD owns and/or holds easements over land that is necessary to accomplish its mission. MCD often grants permission to others to use this land if the use does not interfere with MCD's purposes, projects, or maintenance. When permission is granted MCD issues a **General Land Use Permit** that identifies certain responsibilities and requirements. Permission must be secured through a General Land Use Permit before any activities, construction, access or use begins.

## PERMIT PROCESS



- Complete a General Land Use Permit Application or a written request. Provide detailed information about the proposed project and location.
- Submit additional information as requested.
- MCD reviews the application and may require changes to concepts, plans, designs or specifications. Staff will typically respond within 30 days. Complex projects may take more time.
- If MCD approves all necessary submittals, a copy of the permit is sent to the applicant for signature.
- Submit signed permit, fees, insurance and other required items. Once these have been received, MCD signs and returns the permit to the applicant indicating approval to proceed.

*Please Note: The applicant is responsible for complying with all other federal, state and local requirements.*

## QUESTIONS

Roxanne Farrier, Property Administrator  
937-223-1278 x3230  
[rfarrier@mcdwater.org](mailto:rfarrier@mcdwater.org)

THE MIAMI CONSERVANCY DISTRICT  
38 East Monument Avenue  
Dayton Ohio, 45402  
937-223-1271  
[www.mcdwater.org](http://www.mcdwater.org)



**GENERAL LAND USE PERMIT APPLICATION**

*The undersigned hereby applies for permission to encroach on and/or use MCD property for the specified use. It is understood that completing this application does not constitute permission to access or use MCD property.*

*Please Print or type*

Date: \_\_\_\_\_ [ ] New Permit [ ] Renewal

Name/Company: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_ Mobile/Alternate Phone: (\_\_\_\_) \_\_\_\_\_

Email: \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_

Category: Public [ ] Private [ ] Other [ ] \_\_\_\_\_

Location of Proposed Land Use (*Attach location map*): \_\_\_\_\_

Description of Proposed Land Use: \_\_\_\_\_

Liability Insurance Available: [ ] Yes [ ] No

Additional Information: \_\_\_\_\_

**Type of Land Use**

- [ ] Utility
- [ ] Structure
- [ ] Transportation/Access
- [ ] Other

*Please Remit Form to MCD Property Administrator at the Above Address*

**For MCD use: additional items requested:**

- [ ] Construction plans / specifications
- [ ] Design and construction requirements
- [ ] Construction schedule
- [ ] Insurance certificate
- [ ] Technical requirements
- [ ] Financial capability
- [ ] Staging area
- [ ] Other permit compliance
- [ ] Access plan

**The Miami Conservancy District**

**LAND USE PERMIT NO. XX-XXXX-X**

THE MIAMI CONSERVANCY DISTRICT, a body corporate and political subdivision of the State of Ohio, hereinafter called "MCD", in consideration of compensation as specified within this Permit, and subject to the terms, conditions and restrictions hereinafter set forth, hereby grants to

**XXX  
XX  
XXX**

hereinafter called the "Grantee" the authority and permission to use that portion of MCD property as further described below for the following specified use and for no other use without express written consent by MCD.

The right to construct, use, maintain and remove the following:

**1 – XXXX** as shown on the attached, Exhibit "A".

The property, **Part MCD Parcel XXXX**, is located XXXX, XXXX County, Ohio, and more specifically XXXX as shown on the attached Exhibit "B".

All real property, easements, land, structures, infrastructure, and facilities that are owned or controlled by MCD or any MCD subdistrict shall hereinafter be called "MCD property."

**THIS PERMIT IS GRANTED SUBJECT TO COMPLIANCE WITH THE FOLLOWING TERMS, CONDITIONS AND RESTRICTIONS AS SET FORTH BY MCD IN ACCORDANCE WITH SECTION 6101.19 OF THE OHIO REVISED CODE:**

**1. PROPERTY USE, MAINTENANCE & RESTRICTION:** The Grantee AGREES to maintain all property as authorized for use within this Permit. Maintenance shall include regular inspection and repair of the force main, repair of and trimming around the sign and trash and debris removal.

Whenever the employees, agents, or contractors of said Grantee enter upon MCD property, for the purpose of maintaining, modifying, repairing or removing any structures and/or improvements as described within this Permit, the Grantee AGREES all operations will be confined to a reasonable area adjacent to said structures and/or improvements.

The Grantee AGREES all MCD property will be continually used and maintained in a safe and responsible manner that does not affect MCD operations and maintenance.

The Grantee, prior to initiating any land use, AGREES to contact OUPS to determine if there are any utilities located within the permit area. The Grantee further AGREES to protect all identified utilities from damage that could result from land use as outlined within this Permit.

The Grantee must contact MCD prior to performing any repairs or maintenance on MCD property that would result in any land disturbance.

Construction access will be limited to a maximum width of twenty (20) feet unless pre-approved in writing by MCD.

MCD must pre-approve the removal of any trees being greater than four (4) inches in diameter.

The top ten (10) inches of topsoil is to be removed and stockpiled prior to starting any excavation.

All activities listed in the attached Exhibit "C" are prohibited unless specifically authorized in this permit.

The Grantee AGREES all use of vehicles on MCD property shall be in compliance with the Ohio Revised Code and other applicable laws.

Driving any type vehicle on levee slopes is prohibited.

The Grantee AGREES no person shall remove or damage any barricade or gate.

**2. DAMAGE TO MCD PROPERTY:** Any damages, resulting from the land use granted, caused to the levees, dams, roads, gates, wells, gages, monitoring equipment, monuments and/or MCD property shall be repaired or replaced in a manner satisfactory to MCD as more specifically defined in Exhibit "D" of this Permit. Revocation, termination or expiration of the permit does not release the Grantee from its obligation to repair damages. In the event the repair or replacement is not completed in a reasonable amount of time, MCD may, at its option, cause said repairs or replacements to be accomplished and Grantee shall reimburse MCD for any expenses incurred.

**3. NOTIFICATION:** The Grantee AGREES to notify the MCD Property Administrator at least forty-eight (48) hours prior to use of MCD property.

**4. TERM:** The term of this Permit shall be for a period of **XX (X) years, effective XXX X, XXXX and terminating on XXX X, XXXX.**

Upon issuance of this Permit all terms, conditions and restrictions of MCD Land Use Permit No. XX-XXXX-X, as issued to XXXX on XXX X, XXXX will terminate.

## **5. MCD's RIGHT OF REVOCATION**

- a. If the property use causes damage or imminent damage to MCD property, or creates a health or safety hazard, MCD will order all use by the Grantee be stopped immediately and notify the Grantee to repair or replace MCD Property and remove the hazard. If the Grantee fails to respond in the time set by MCD, MCD will revoke the rights granted by this Permit. Such revocation would not release the Grantee from its obligation to restore the land as required by item 7 below.
- b. If, at any time, in the opinion of MCD, the said use interferes with the primary objectives of MCD; or should the best interests of MCD so justify; this Permit shall be revoked. MCD will

provide seven (7) days written notice of revocation. Such revocation would not release the Grantee from its obligation to restore the land as required by item 7 below.

**6. GRANTEE'S RIGHT OF TERMINATION:** The Grantee may request termination of this Permit if the use of MCD property described in this Permit is no longer necessary or desired. The Grantee shall notify the MCD Property Administrator within forty-eight (48) hours following cessation of the permitted land use to request termination.

**7. RESTORATION:** Prior to termination of this Permit, the Grantee AGREES to remove or properly abandon all structures and/or improvements and repair or restore all MCD property as specified in Exhibit "D" of this Permit. Revocation, termination or expiration of the permit does not release the Grantee from its obligation to restore the property. In the event the Grantee does not restore or remove the said structures and/or improvements within a timely manner, MCD may, at its option, cause said work to be accomplished and Grantee shall be reimbursed MCD for any expenses incurred.

**8. FAILURE TO IMPLEMENT LAND USE:** Should the Grantee fail to implement the requested land use **within one (1) year of the effective date of this Permit**, the Permit will terminate. Furthermore, MCD will retain all permit fees unless the Grantee prior to termination, has submitted written notification concerning cancellation of Permit.

**9. FINAL INSPECTION:** Within forty-eight (48) hours following cessation of the permitted use and all restoration, the Grantee AGREES to notify the MCD Property Administrator for final inspection.

**10. OPTION OF RENEWAL:** This Permit may be renewed, subject to MCD approval, provided all terms, conditions, and restrictions of the Permit have been maintained to the reasonable satisfaction of MCD. **All renewals will be subject to those terms, conditions, and Permit fees in effect at time of renewal.**

**11. INDEMNIFICATION:** The Grantee AGREES to indemnify and hold MCD harmless, to the extent Permitted by law, from and against any and all claims, demands, and damages for injuries to persons or property and all direct cost and expenses associated therewith, arising on such property as herein described or in connection with Grantee's use as defined within this Permit, to the extent caused by the negligent act or omission of the Grantee, its agents, employees or contractors and not arising from the negligent act or omission of MCD, its agents, employees or contractors.

### **UNLESS**

MCD is to be insured in an amount not less than **One Million (\$1,000,000) Dollars**, from any liability resulting from injuries to persons or property and all direct cost and expenses associated therewith. Prior to issuance of this Permit the Grantee AGREES to provide to MCD verification of liability coverage naming "**The Miami Conservancy District**" as an additional insured for an amount of not less than **One Million (\$1,000,000) Dollars**. The Grantee must provide MCD a copy of a certificate of liability verifying that MCD has been named as an additional insured. Insurance coverage must be in force throughout the term of the permit. If insurance coverage is cancelled the permit will terminate.

**12. SOIL & WATER CONTAMINATION:** The Grantee AGREES to assume all liability and responsibility for clean-up and restoration required due to soil and water contamination resulting from the land use granted within this Permit.

**13. RELEASE OF LIABILITY:** The Grantee herein releases MCD, to the extent permitted by law, from any and all liability resulting from injuries to persons or property and all direct cost and expenses associated therewith, resulting from or caused by floodwater, maintenance or construction operations and/or any other activities of MCD, its agents, employees or contractors provided such damages were not caused by the negligent act or omission of MCD, its agents, employees or contractors.

**14. RIGHT OF ACCESS:** MCD, shall at all times, have the right to enter upon any MCD property for the purpose of using, monitoring, maintaining, altering or repairing any works, or improvements owned or controlled by MCD. MCD retains the right to photograph, for private and/or public use, any use, work or event, which takes place on MCD property.

MCD shall have the right of inspection to determine compliance with this Permit. Upon notification of any violation, the Grantee AGREES to promptly take corrective action as directed by MCD. Should corrective action not be taken within the time specified, MCD may revoke this Permit, subject to the terms and conditions as stated within this Permit.

**15. TRANSFER OF LAND USE RIGHTS:** Land use granted by this Permit is NOT assignable or transferable.

**16. PRE-EXISTING LAND USE RIGHTS:** All rights granted within this Permit will be limited by, and subject to, any rights and claims of record that exist prior to the effective date of this Permit, regarding all property described within this Permit. Said claims of record include, but are not limited to, any existing easements, right-of-ways, and/or permits.

**17. ADDITIONAL RIGHTS:** MCD does not claim full warranty deed ownership to all MCD property. The Grantee must accept full responsibility for acquiring any additional rights to property not owned by MCD, when use of such property is necessary for the purposes of this Permit. Furthermore, MCD, in granting land use authorization, is to be released from any additional expense and/or all liability related to any unauthorized use of property.

**18. PUBLIC DISCLOSURE:** All MCD records, including deeds, leases, permits and all related correspondence, will be considered public records and shall be available for public use and disclosure.

**19. COMPLIANCE WITH LAWS:** The Grantee AGREES that MCD property is not to be used or occupied for any unlawful purpose. Additionally, all use of MCD property will comply with all laws, ordinances, rules, regulations, requirements, and orders of the United States of America, the State of Ohio, and of all governmental authorities or agencies, including, without limitation, all bureaus, boards or officials thereof respecting said premises and the use and occupation thereof.

**20. ADDITIONAL IMPROVEMENTS:** The Grantee AGREES no additional temporary or permanent structures and/or improvements will be constructed by the Grantee on MCD property without prior written MCD approval.

**21. EXCAVATION LIMITATIONS:** Construction access will be limited to a maximum width of twenty (20) feet unless pre-approved in writing by MCD.

MCD must pre-approve the removal of any trees being greater than four (4) inches in diameter.

The Top ten (10) inches of topsoil is to be removed and stockpiled prior to starting any excavation.

**22. GROUNDWATER DATA:** The Grantee AGREES, **within sixty (60) days of initial construction of any well**, to provide MCD an initial sampling and analysis report.

The Grantee further AGREES, **within thirty (30) days following completion**, to furnish MCD copies of all well logs and test boring reports.

The Grantee AGREES, **within thirty (30) days of completion**, to furnish MCD a copy of all reports of investigations concerning the capacity of the wells, aquifer characteristics, and quality of the aquifer.

The Grantee also AGREES, upon written request to provide copies of existing and future water levels and water quality data.

The Grantee authorizes MCD to access any of the monitoring wells listed within this agreement for the purposes of monitoring groundwater levels and quality should it be necessary to assure public safety and/or maintain the required level of flood protection.

**23. STORM WATER DISCHARGE:** The Grantee AGREES to obtain and maintain permit(s) to discharge storm water if so required by the United States of America, the State of Ohio, or any other governmental authority or agency. The Grantee further AGREES to produce copies of said permit(s) upon request of MCD.

The Grantee AGREES to protect all dams and levees from erosion caused by flowing water pumped or discharged on or near the dam or levee. Should any portion of a dam or levee be damaged as a result of the pumping the Grantee must restore the levee within twenty-four (24) hours after the damage occurs.

The Grantee must not interfere with the operation of any floodgate.

Any erosion, ponding areas, and/or wet marshy areas between the discharge pipe and the river that result from the Grantee discharging water must be modified and resolved by the Grantee.

**24. PERMIT FEE:** The Permit fee is **XXXXXXXXXXXX (\$XXX.00) Dollars**.

**25. RECORDING FEE:** This Permit will be recorded at the XXX County Recorders and a recording fee of **Twenty-eight (\$28.00) Dollars for the first two (2) pages plus Eight (\$8.00) Dollars for each additional page** is included within the Permit fee.

## **EXHIBIT C - PROHIBITED USE**

The following activities are prohibited on MCD property:

- a. Violating any federal, state, county, municipal, or other applicable law, ordinance, rule, regulation or requirement.
- b. Soliciting.
- c. Abandoning any animal.
- d. Lighting fires or burning any materials.
- e. Sledding, skiing, or ice skating.
- f. Camping.
- g. Operating any vehicle on dam or levee slopes.
- h. Moving, by-passing, or damaging any gate, barricade or barrier so placed to temporarily or permanently close a road or area to traffic.
- i. Hunting and trapping.
- j. Depositing burning material or hot ashes on grass, plants or in refuse receptacles.
- k. Dumping, depositing or discarding, intentionally or unintentionally, any trash, garbage, building debris, rubble, metal, concrete, asphalt, organic waste, or other noxious materials.
- l. Damaging, destroying, or disturbing any MCD land as described below:
  1. Removing any property, structures, facilities, or amenities, or any part thereof.
  2. Writing upon, painting, cutting, mutilating, defacing, or damaging in any manner any building, flood control structure, equipment, or other property, or part thereof.
  3. Climbing or rappelling any flood control structure, rock escarpment or other natural features.
  4. Willfully destroying, injuring or removing any bench marks, witness marks, stakes, or other reference marks (ORC 6101.81).
  5. Disturbing, defacing, removing, or injuring trees or other vegetation.

**LAND USE PERMIT NO. XX-XXXX-X**

**EXHIBIT "D"**

**RESTORATION REQUIREMENTS**

All MCD owned or controlled property disturbed by land use and/or construction will be restored to the reasonable satisfaction of MCD **within thirty (30) days** of project completion as follows.

Restoration of Dam and Levee Slopes:

1. Fill material shall be free of loam, roots, organic matter, boulders and other unsuitable material. MCD reserves the right to reject any fill material. Fill may not be placed on wet or frozen subgrade.

Material shall be placed in six (6) inch lifts and compacted using suitable compaction equipment. Compaction of the material shall be 95% Standard Proctor as determined by a certified testing company. Testing will be performed every four (4) feet of height. Copies of all compaction and laboratory test reports shall be provided to MCD.

2. **Within seven (7) days of construction**, all dam and levee slopes disturbed by construction will be seeded as pre-approved and/or directed by the MCD Caretaker. Should other methods of restoration prove inadequate, the Grantee AGREES to sod any or all dam and levee slopes disturbed by construction as directed by MCD. The Grantee AGREES to properly monitor and maintain the restoration process of all dam and levee slopes disturbed by construction until sufficient turf has been established.
3. MCD inspection and approval must be acquired prior to obtaining all other necessary approvals.

Restoration within Natural Areas:

1. When construction has been completed, the trench is to be backfilled and compacted.
2. Stockpiled topsoil is to be spread evenly over the construction area to approximately the original terrain and lightly compacted. No heavy equipment should be used for compaction of the topsoil.
3. All areas disturbed will be protected with a CF& (Bon Terra American 1-800-822-9489) or equivalent erosion control blanket
4. Organic material (logs, brankches, etc.) from the adjacent area are to be placed over the erosion control blanket to inoculate the soil, speed recover and hide the construction area.

Roads, Driveways and Sidewalks:

1. All asphalt, concrete or brick pavement must be removed unless otherwise directed by MCD. The area is to be backfilled with clean fill material, graded and restored as directed by MCD.
2. Gravel Trails and/or Roadways will be disked and graded unless otherwise directed by MCD.

Poles, Towers, Fences, Signs, Buildings, Bridges and other Above-Ground Structures:

1. All Structures or installations are to be removed, including bases, foundations and anchors.
2. Should they be permitted to remain, all pilings and footers should be cut off a minimum depth of three (3) feet below finished grade or bottom of channel.

Transmission and Communications Lines/Cables:

1. All aerial lines and/or buried cables will be removed.

Electrical/Communications Conduits, Water, Sewer and Fuel Lines:

1. Unless otherwise specified by MCD, all conduits and/or pipelines will be removed and the area backfilled with clean fill material and compacted as required by MCD.
2. Should MCD authorize the conduit and/or pipeline to remain:
  - a. All manholes, valve pits, meter pits, etc. will be removed or properly abandoned as described under the Chambers and Manholes section.
  - b. Conduits and/or pipes will be capped or plugged with concrete at all manholes or access points and all terminus points where they have been disconnected from wells, tanks, meters or other pipelines.
  - c. Vents should be removed to a depth of at least three (3) feet and capped or plugged with concrete.

Chambers and Manholes

1. Unless otherwise specified by MCD, all chambers and manholes will be removed and the area backfilled with clean fill material and compacted as required by MCD.
2. Should MCD authorize a chamber or manhole to remain, all gates, valves, meters and other equipment will be removed from the chamber or manhole and all pipes will be plugged with concrete.
3. The top cone or pre-cast section will be removed or if the chamber is cast in place or brick, the top of the chamber will be demolished to a depth of at least three (3) feet below finished grade. The chamber or manhole should be filled with gravel and the top three (3) feet backfilled with clean fill material and compacted as required by MCD.

Fuel Tanks:

1. The placement and/or construction of buried fuel tanks is prohibited and all above ground fuel tanks must be removed in accordance with the State of Ohio Bureau of Storage Tank Regulations.
2. Soil samples will be taken to determine if soil has been contaminated. Should contamination be determined;
  - a. All contaminated soil will be removed.
  - b. The area is to be backfilled with clean fill material and compacted as required by MCD.

Wells:

When the Grantee has determined the operation of any well and/or facility to be no longer necessary, or upon termination of this Permit, the Grantee will, **within six (6) months**, satisfactorily complete one (1) of the following options as determined by MCD.

**Option No. 1:** Remove or properly abandon any or all wells and/or facilities and restore all MCD property used to the reasonable satisfaction of MCD. Removal of any well must be in accordance with the regulations of the Ohio Department of Natural Resources, Ohio Environmental Protection Agency and Local Health District.

**Option No. 2:** At MCD's discretion, ownership of any well and/or facilities considered essential to the function of MCD, including all structures, casing, screen, and appurtenances, may be transferred to MCD in lieu of abandonment.

**Should the Grantee fail, within SIX (6) MONTHS of the termination date of this Permit, to properly abandon all wells not acquired, MCD will take all necessary action to assure the proper abandonment of the wells and the Grantee AGREES to reimburse MCD for any expenses incurred thereby.**

I, THE GRANTEE OR AUTHORIZED REPRESENTATIVE FOR SAID GRANTEE, IN EXCHANGE FOR SUCH USE AS DEFINED WITHIN THIS PERMIT, DO HEREBY ACKNOWLEDGE ACCEPTANCE OF ALL TERMS AND CONDITIONS AS STATED WITHIN THIS PERMIT:

XXXXXX

Date: \_\_\_\_\_

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

\* \* \* \* \*

AS AUTHORIZED REPRESENTATIVE FOR MCD I DO HEREBY GRANT APPROVAL, SUBJECT TO THE TERMS AND CONDITIONS OF THIS PERMIT, TO USE MCD PROPERTY FOR SUCH USE AS DEFINED WITHIN THIS PERMIT:

THE MIAMI CONSERVANCY DISTRICT

Date: \_\_\_\_\_

By: \_\_\_\_\_

Kurt A. Rinehart, Chief Engineer

Any questions concerning this Permit or the use of MCD property shall be directed to the **MCD PROPERTY ADMINISTRATOR** Roxanne Farrier at (937) 223-1278, ext. 3230.

**MCD CARETAKER:** XXXX at (XXX) XXX-XXXX (office) or (937) 414-XXXX (cell)

**GRANTEE'S CONTACT PERSON:** XXXXX (XXX / XXX-XXXX)

## APPENDIX II

### Permit Fees

#### Section AAA - Administrative Fee

1. The Basic Administrative Fee is required for all Land Use, Construction, and Agriculture, permits.
2. The Temporary Permit Administration Fee is required for all Temporary permits.
3. The Excavation Permit Administration Fee is required for all Excavation Permits.
4. Plan Review Fees and Recording Fees are charged when applicable.
5. The Administrative Fee may only be waived at the recommendation of the Chief Engineer and approval of the General Manager.

|   |             |
|---|-------------|
| Basic Administrative Fee  | \$150.00    |
| Temporary Administrative Fee  | \$75.00     |
| Excavation Administrative Fee   | \$500.00    |
| Fees are charges to compensate MCD for costs incurred related to:   |             |
| <ul style="list-style-type: none"> <li>• Permit preparation</li> <li>• Responding to information requests</li> <li>• Permit execution</li> <li>• All correspondence, postage, etc.</li> </ul>   |             |
| Plan Review Fee   | Varies      |
| Additional fees may be charged as necessary to compensate MCD for costs incurred related to review of:  |             |
| <ul style="list-style-type: none"> <li>• Simple plans and sketches (3 pages or less)</li> <li>• Detailed plans (4 to 15 pages)</li> <li>• Complex plans (16 or more pages)</li> <li>• Hydraulic analysis</li> <li>• Other technical review</li> </ul> |             |
| Recording Fee   | Actual Cost |

#### Section LLL - Land Use Permit Fees

##### Usage Fee

1. Annual Usage Fees are charged for the license to use MCD property. The Usage Fees offset the cost to MCD for allowing the permitted use, including added risk to the integrity and performance of the flood protection infrastructure; periodic inspection and monitoring; responding to accidents, emergencies and failures; and allowing the permittee on-going access to MCD property for operations and maintenance.
2. Usage fees shall be determined based upon whether the land is in a critical area (e.g. within 20 feet of a levee, dam, or other flood control structure) or in a non-critical area (more than 20 feet away from levee, dam or other flood control structure).
3. Usage fees may be waived for certain Public Entities
4. All other permittees shall pay the appropriate Usage Fee.
5. Production water wells are subject to an annual pumping fee.
6. Charges shall be calculated for full acre (not pro-rated for less than an acre)

##### Annual Usage Fees

| Land Use Type | Critical Area | Non-CriticalArea |
|---------------|---------------|------------------|
|---------------|---------------|------------------|

|   |   |   |
|---|---|---|
| Utilities – water lines including valve and meter boxes   | \$400/acre  | \$200/acre  |
| Utilities – production water wells <ul style="list-style-type: none"> <li>• Capacity fee</li> <li>• Pumping fee</li> </ul>  | \$1.10 x well capacity (gpm)<br>\$0.06 per 1,000 gallons pumped | \$1.10 x well capacity (gpm)<br>\$0.06 per 1,000 gallons pumped |
| Monitoring wells, Soil sampling   | \$400/acre  | \$200/acre  |
| <i>Utilities – storm sewers including manholes, outfall pipe, headwall, and flap or flex valve gate</i>   | \$400/acre  | \$200/acre  |
| Utilities - Sanitary sewers including manholes  | \$400/acre  | \$200/acre  |
| Utilities - Gas or petroleum lines  | \$400/acre  | \$200/acre  |
| Utilities – Electric or communication lines <ul style="list-style-type: none"> <li>• Overhead electric cables</li> <li>• Buried electric cables</li> <li>• Poles</li> <li>• Towers</li> <li>• Guy wires</li> <li>• Transformers and switching facilities</li> </ul> | \$400/acre  | \$200/acre  |
| Utilities – signal or control boxes   | \$400/acre  | \$200/acre  |
| Structures - buildings  |   |   |
| Structures – bridges (outside legal right-of-way or easement)   | \$400/acre  | \$200/acre  |
| Structures – shelters or canopies   | \$400/acre  | \$200/acre  |
| Structures - amphitheaters  | \$400/acre  | \$200/acre  |
| Structures – gate chambers  | \$400/acre  | \$200/acre  |
| Structures – pump stations  | \$400/acre  | \$200/acre  |
| Structures – retaining walls  | \$400/acre  | \$200 acre  |
| Structures - headwalls (not part of storm sewer outfall)  | \$400/acre  | \$200/acre  |
| Linear dividers - fences  | \$400/acre  | \$200/acre  |
| Linear dividers – gates   | \$400/acre  | \$200/acre  |
| Linear dividers – guardrail   | \$400/acre  | \$200/acre  |
| Linear dividers – safety railing  | \$400/acre  | \$200/acre  |
| Transportation and access – roads   | \$400/acre  | \$200/acre  |
| Transportation and access - driveways   | \$400/acre  | \$200/acre  |
| Transportation and access - parking lots  | \$400/acre  | \$200/acre  |
| Transportation and access – sidewalks and recreation trails (paved)   | \$400/acre  | \$200 acre  |
| Transportation and access – walking paths (unpaved)   | \$400/acre  | \$200/acre  |
| Amenities - benches   | \$400/acre  | \$200/acre  |
| Amenities – swings  | \$400/acre  | \$200/acre  |
| Amenities – trash containers  | \$400/acre  | \$200/acre  |
| Amenities - kiosks  | \$400/acre  | \$200/acre  |
| Signs   | \$400/acre  | \$200/acre  |

|                          |            |            |
|--------------------------|------------|------------|
| Landscaping and planting | \$400/acre | \$200/acre |
| Other                    | \$400/acre | \$200/acre |
|                          |            |            |

**Installation Fee**

1. Initial installation of certain projects may require a fee.

|  |  |               |
|--|--|---------------|
| All installations (e.g. monitoring wells) that disturb land, but do not require a construction permit. |  | \$15 per item |
|--|--|---------------|

**Maintenance Fee**

1. Annual Maintenance Fees are required for all projects that affect MCD maintenance of the property. For example, if installation of a permitted structure results in the need for MCD to revise its mowing techniques and/or utilize specialized equipment, the cost of additional labor and/or equipment may be charged.

**Section EEE – Entities Exempt from the Usage and Maintenance Fees**

1. Subdistricts of The Miami Conservancy District
  - a. The Aquifer Preservation Subdistrict
  - b. The River Corridor Improvement Subdistrict
  - c. The Water Conservation Subdistrict

**Section PPP – Public Entities Eligible for Usage Fee Waiver**

1. Counties or agencies of counties paying a Unit Maintenance Assessment
  - a. Butler
  - b. Hamilton
  - c. Miami
  - d. Montgomery
  - e. Warren
  
2. Municipalities paying a Unit Maintenance Assessment
 

|               |                  |                    |
|---------------|------------------|--------------------|
| a. Carlisle   | i. Hamilton      | q. Riverside       |
| b. Clayton    | j. Huber Heights | r. Tipp City       |
| c. Cleves     | k. Miamisburg    | s. Trenton         |
| d. Dayton     | l. Middletown    | t. Troy            |
| e. Englewood  | m. Monroe        | u. Vandalia        |
| f. Fairfield  | n. Moraine       | v. West Carrollton |
| g. Franklin   | o. New Miami     |                    |
| h. Germantown | p. Piqua         |                    |
  
3. Park Districts having Cooperative Agreements with MCD that provide Annual Funding
  - a. Five Rivers MetroParks

**Section CCC – Construction Permit Fees**

1. The Access Fee is computed by the area disturbed (including access roads beyond the construction site) and includes
  - a. Temporary disturbance to MCD property
  - b. Interruption of MCD maintenance
  - c. Periodic inspections by MCD staff to ensure permit compliance
  - d. Response to inquiries

2. The Temporary Excavation Fee is computed based on the area, depth, and time of any excavation through, in, or within 20 feet of any dam or levee embankment or floodwall.
3. The Temporary Embankment Fee is computed based on affect on channel hydraulics crested by ramps, causeways, temporary material stockpiles, etc.
4. The Recreation Trail Use Fee is computed on the length of recreation trail maintained by MCD that is affected by the project, including crossings and use for access.

**Construction Fees**

|   |         |                                      |
|---|---------|--------------------------------------|
| <b>Access Fee</b> <ul style="list-style-type: none"> <li>• Vehicular access</li> <li>• Material Storage</li> <li>• Land disturbing activity</li> </ul>  | Annual  | \$100.00 per acre or part of an acre |
|   | Annual  | \$200 per acre or part of an acre    |
|   | Annual  | \$400.00 per acre or part of an acre |
| <b>Temporary Excavation Fee</b> <ul style="list-style-type: none"> <li>• Excavation through or within 20 feet of dam or levee embankments</li> <li>• Excavation more than 20 feet away from dam or levee embankments</li> <li>• Excavation affecting recreation trails maintained by MCD (in addition to fees above) <sup>(1)</sup></li> </ul>                                    | Monthly | \$50.00 per acre or part of an acre  |
|   | Monthly | \$10.00 per acre or part of an acre  |
|   | Monthly | \$10.00 per 100 linear feet          |
| <b>Temporary Fill / Embankment Fee</b> <ul style="list-style-type: none"> <li>• Fill / Embankments on earth or in river <sup>(2)</sup></li> <li>• Fill / Embankments involving floodwalls, sloping revetment, or other flood control structures</li> <li>• Fill / Embankments affecting recreation trails maintained by MCD (in addition to fees above) <sup>(1)</sup></li> </ul> | Monthly | \$25.00 per acre or part of an acre  |
|   | Monthly | \$50.00 per acre or part of an acre  |
|   | Monthly | \$10.00 per 100 linear feet          |
| Recreation Trail Use Fee excluding excavation or embankment   | Weekly  | \$10.00 per 100 linear feet          |
| Opening/removing gates in low dams  | Monthly | \$500                                |

(1) Fee may be refunded if contractor repaves or reconstructs trail to MCD satisfaction.

(2) Fifty percent (50%) of fee for causeways and cofferdams in river may be refunded if contractor removes sediment downstream from project that accumulated due to river obstructions during construction.

**Section FFF Agriculture Permits**

|                              |        |   |
|------------------------------|--------|---|
| Crop Planting and Harvesting | Annual | 50% of Top Crop Yield Rental Rate of the Southwest Farm District as established by the Ohio Cooperative Extension Service |
| Field Harvesting             | Annual |   |

|                                |        |  |
|--------------------------------|--------|--|
| Livestock Grazing              | Annual | 50% of Poor Crop Yield Rate of the Southwest Ohio Farm District as established by the Ohio Cooperative Extension Service |
| Sludge Application and Farming | Annual | 67% of Poor Crop Yield Rate of the Southwest Ohio Farm District as established by the Ohio Cooperative Extension Service |

Section EEE – Excavation Permits

Excavation Permits are subject to administrative fee only.

Section TTT – Temporary Permits

Temporary permits for general use or access require an administrative fee only. Intensive temporary uses will be subject to the same usage, maintenance and or installation fees as Land Use Permits.

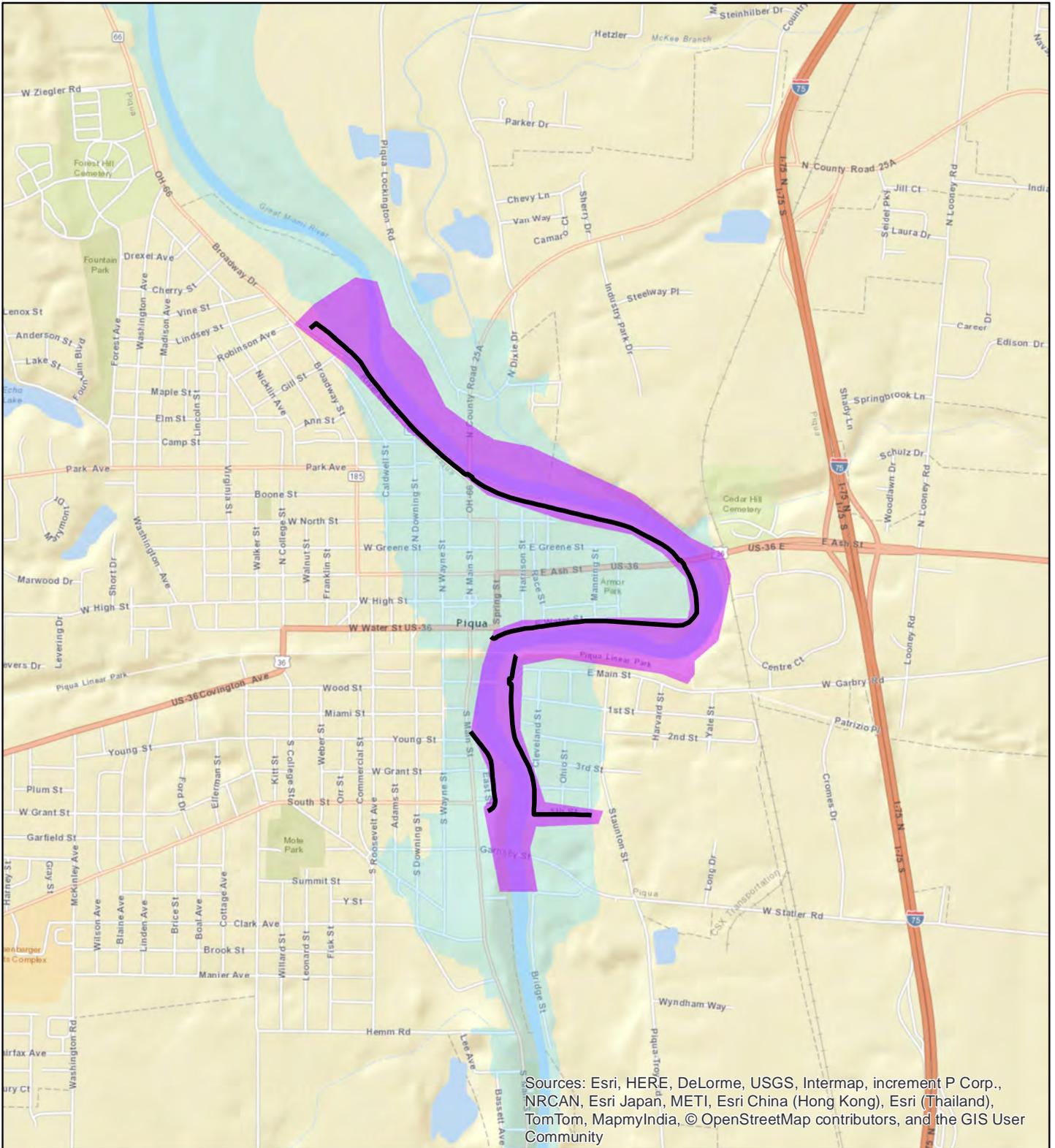
Tab 4  
**Community Maps**



**MCD**

MIAMI CONSERVANCY DISTRICT

# Interest Area for Piqua Region

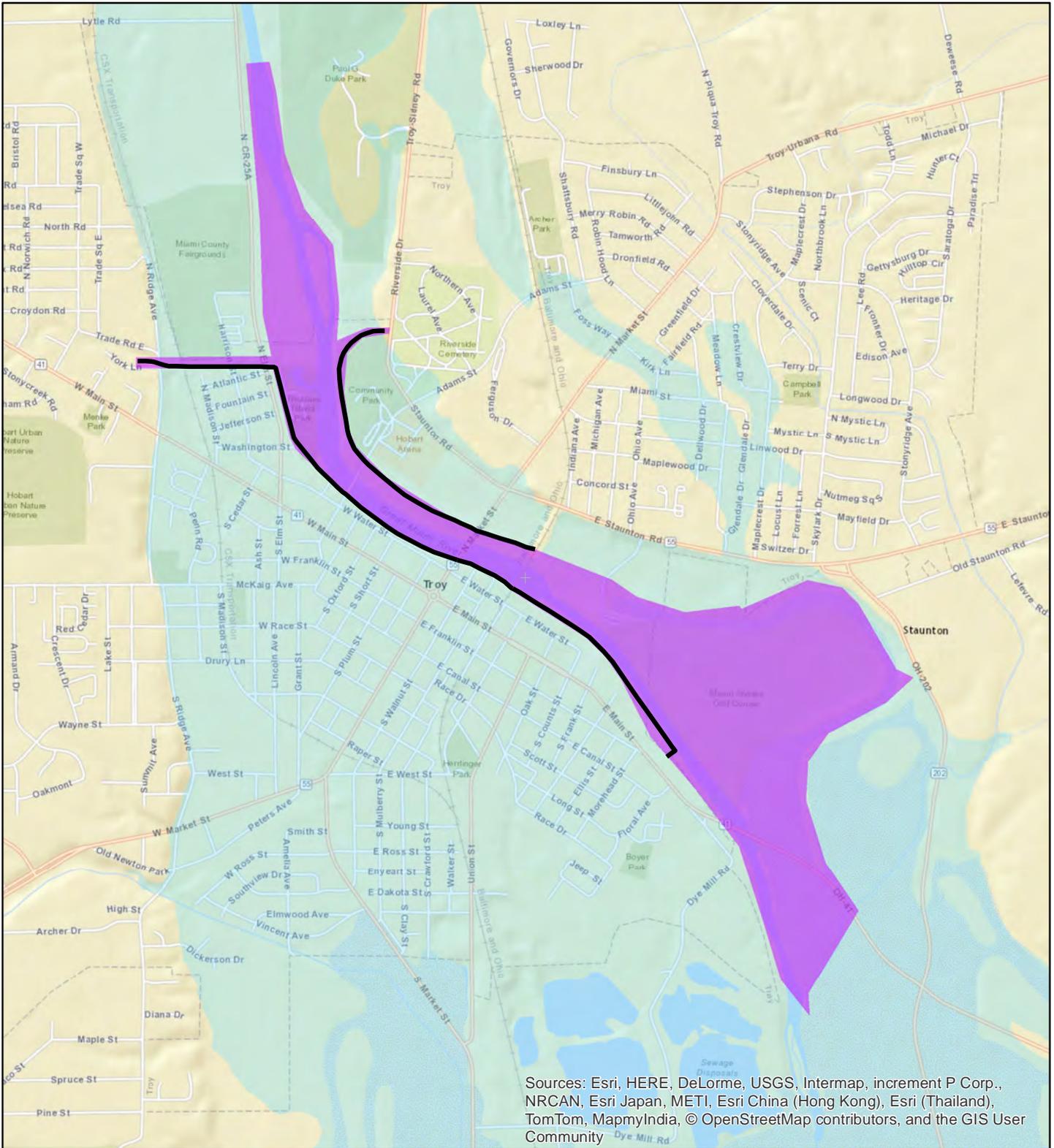


Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

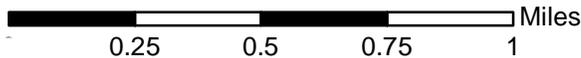


-  Levee
-  Interest Area
-  1913 Flood Approximate

The areas shown on the map are for general use. Additional detailed information is available from MCD property administrator. Contact Roxanne Farrier at (937) 223-1271 or [rfarrier@mcdwater.org](mailto:rfarrier@mcdwater.org)



Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

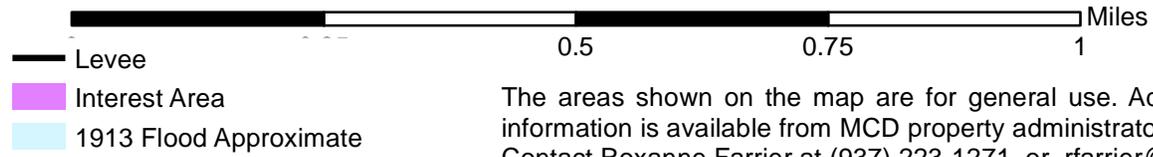


-  Levee
-  Interest Area
-  1913 Flood Approximate

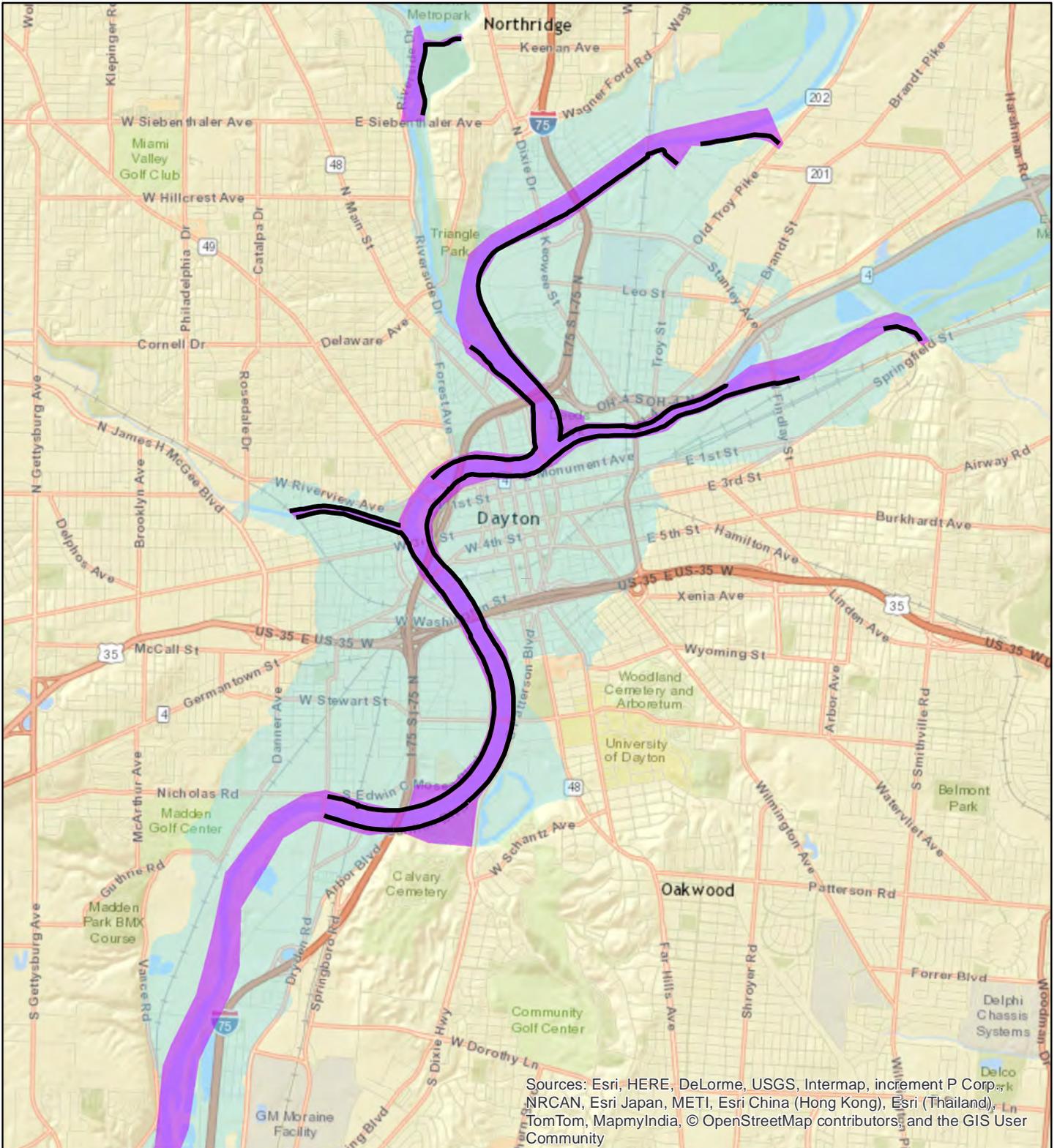
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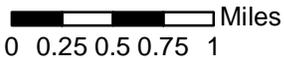
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



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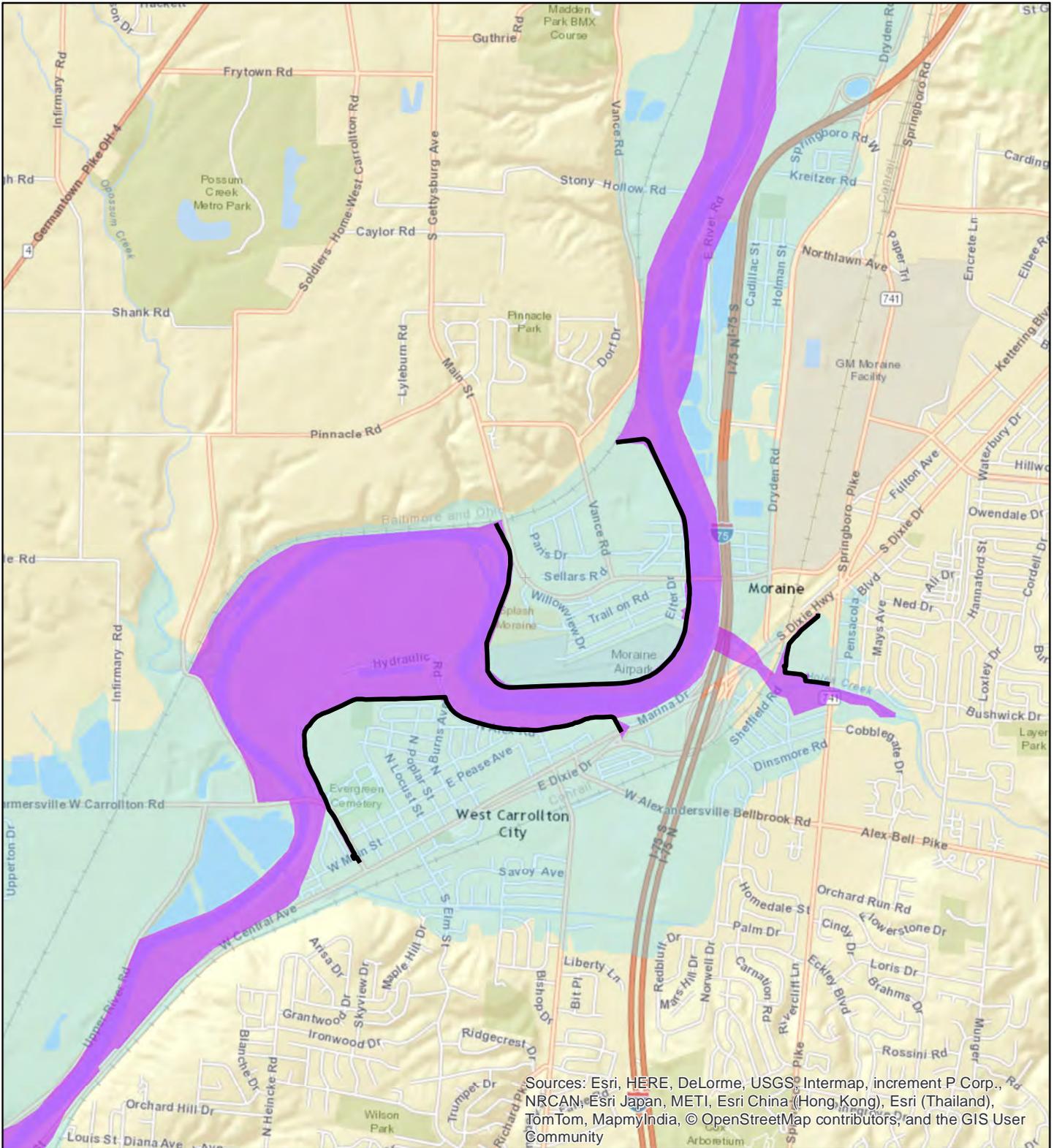
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



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-  Interest Area
-  1913 Flood Approximate

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# Interest Area for Moraine / West Carrollton Region



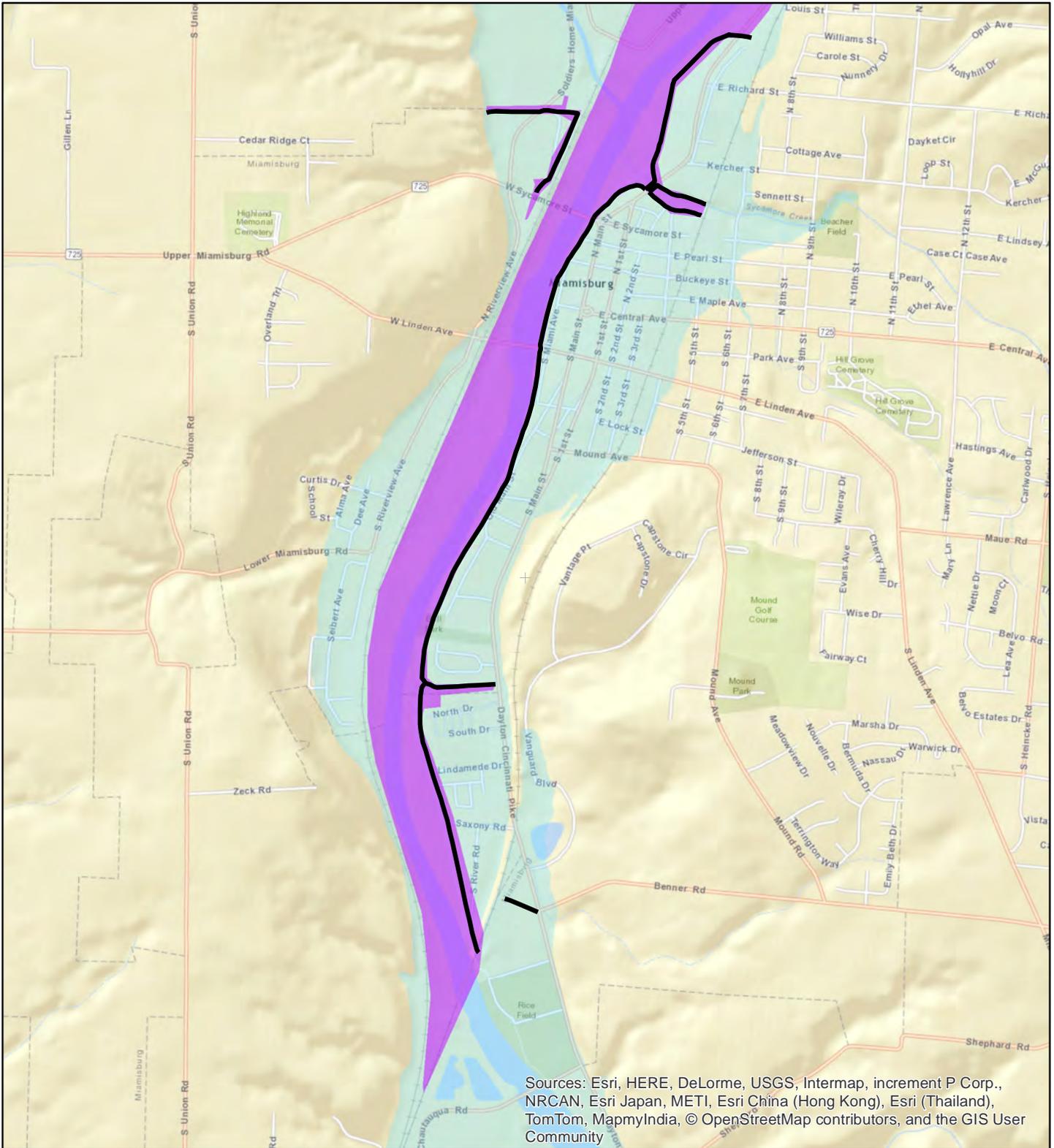
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



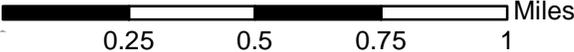
-  Levee
-  Interest Area
-  1913 Flood Approximate

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# Interest Area for Miamisburg Region

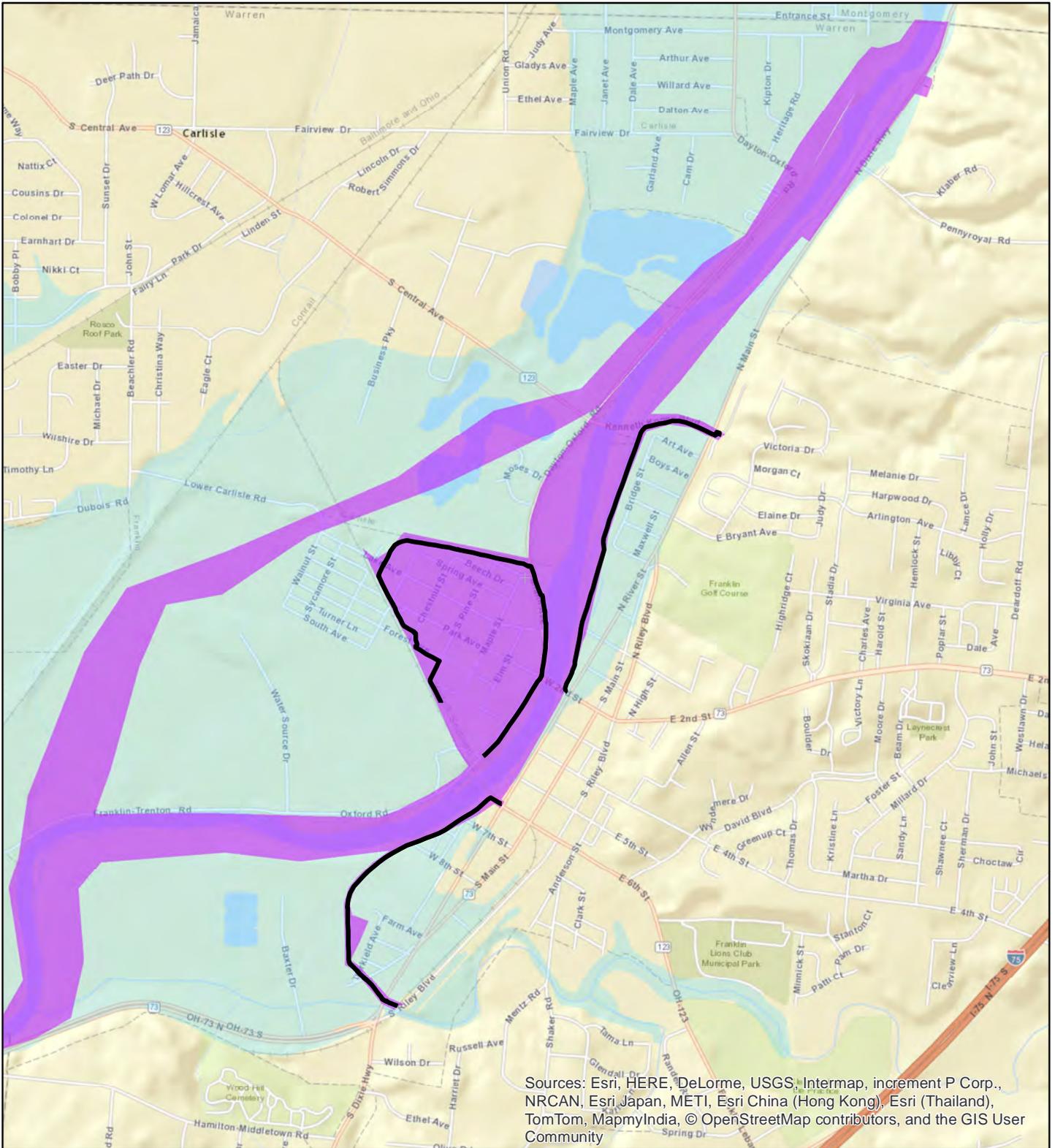


Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

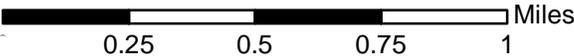


-  Levee
-  Interest Area
-  1913 Flood Approximate

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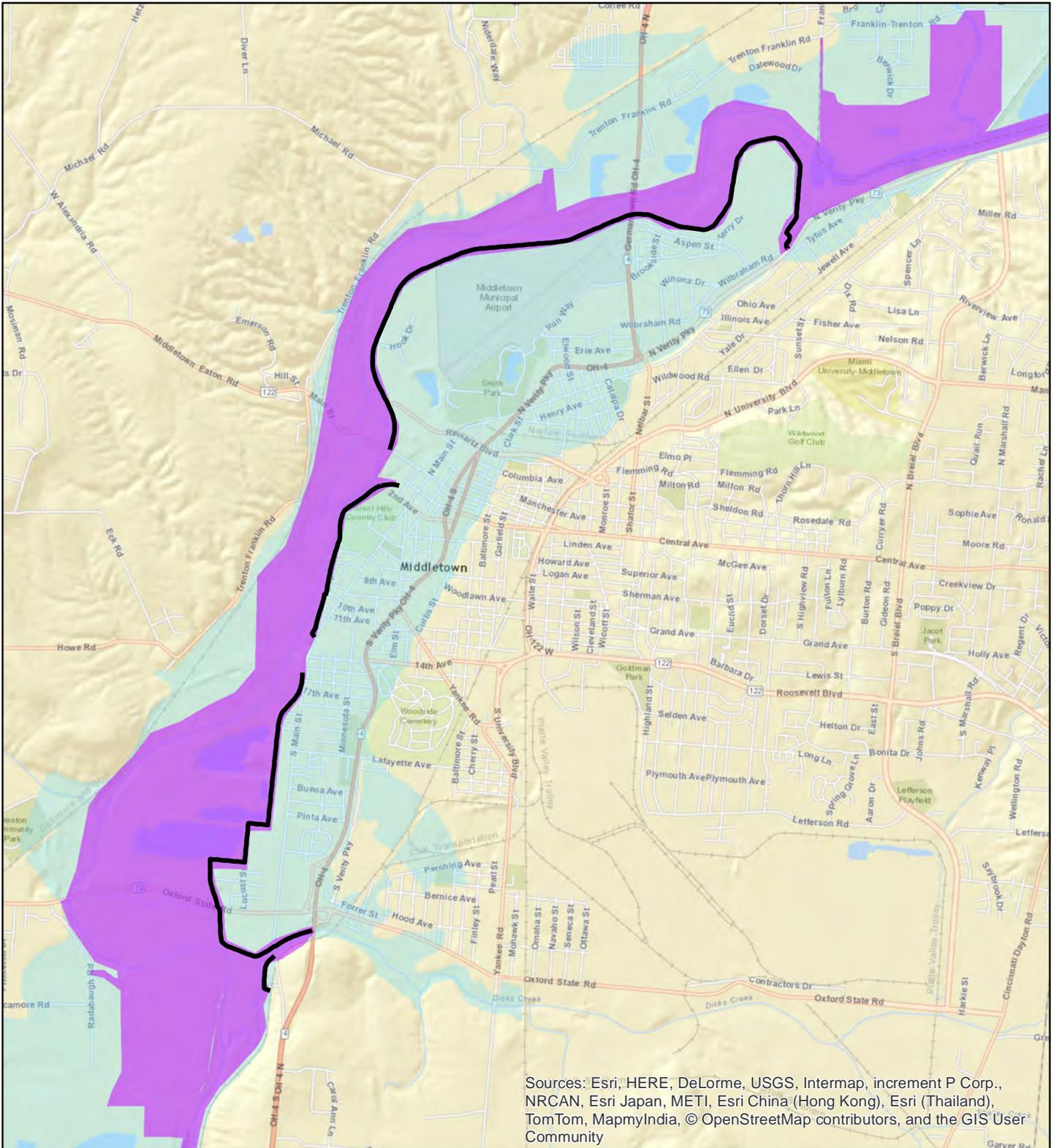
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



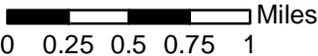
-  Levee
-  Interest Area
-  1913 Flood Approximate

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# Interest Area for Middletown Region

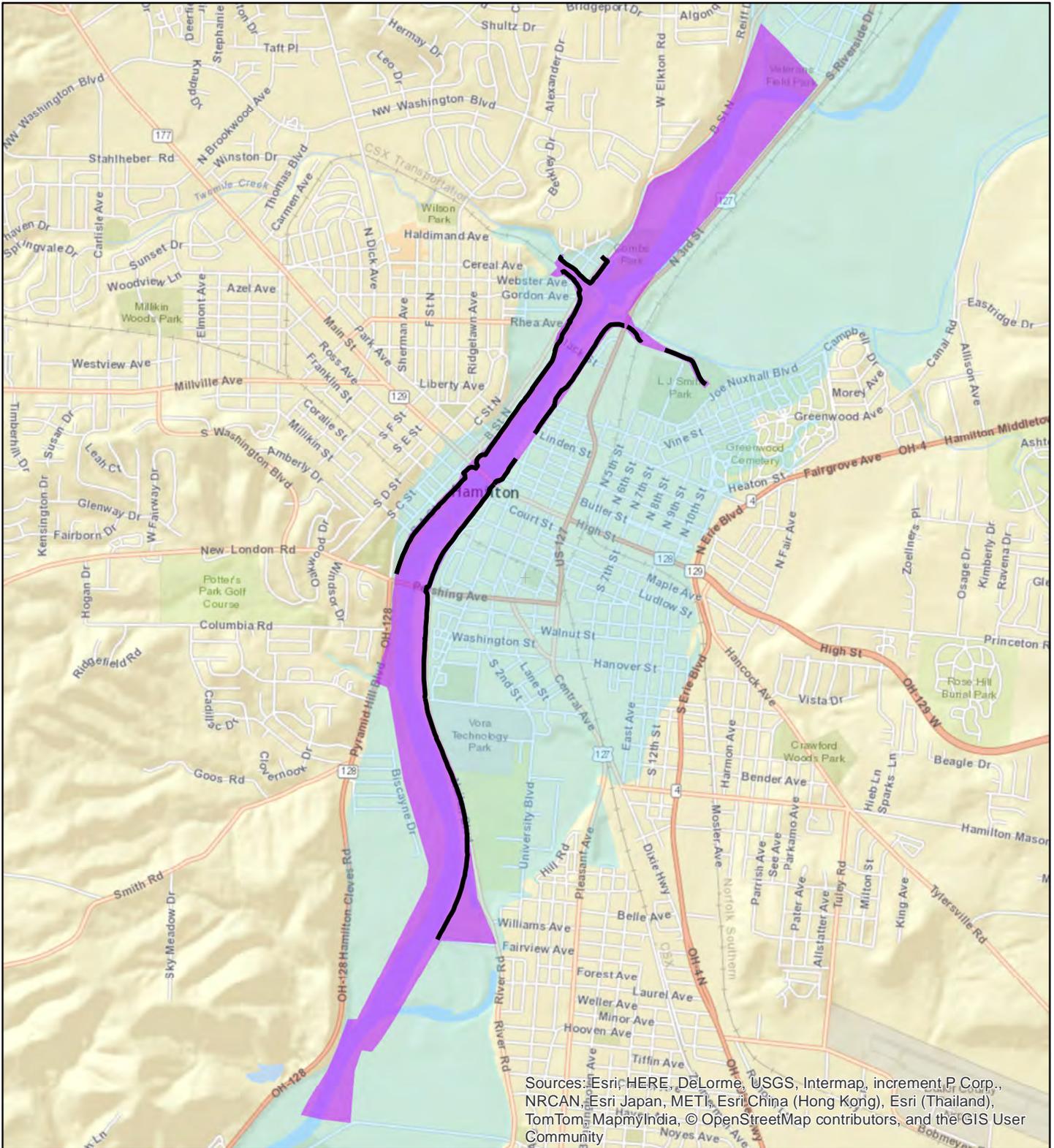


Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

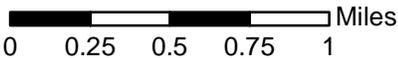


-  Levee
-  Interest Area
-  1913 Flood Approximate

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-  Levee
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Tab 5

# Other Permit Fact Sheets



# MCD

MIAMI CONSERVANCY DISTRICT

# **U.S. Army Corps of Engineers Huntington District**

## **Goals of the Regulatory Program**

**To enhance the efficiency of the Corps administration of its regulatory program.**

**To provide strong protection of the Nation's aquatic environment, including wetlands.**

**To ensure that the Corps provides the regulated public with fair and reasonable decisions.**

## **A Brief Guide to The Regulatory Permit Program**

### **Corps of Engineers Regulatory Program**

Water is one of our nation's most valuable resources. It is becoming increasingly important that we protect the quality of our inland waters and wetlands for the use and benefit of future generations.

This brochure discusses the regulatory program of the U.S. Army Corps of Engineers: what it is, how it began, how it may affect you, and what you as a concerned American can do to help.

If you are planning work in a river, stream, or wetland, a Corps permit may be required.

The program provides for the consideration of all concerns of the public - environmental, social, and economic - in the Corps' decision-making process to either issue or deny permits. As part of its responsibility to protect water quality, the Corps of Engineers Section 404 permit program extends to many areas that were not regulated prior to the Clean Water Act.

The purpose of the Section 404 program is to insure that the physical, biological, and chemical quality of our nation's water is protected from irresponsible and unregulated discharges of dredged or fill material that could permanently alter or destroy these valuable resources.

## History

The U.S. Army Corps of Engineers has been involved in regulating certain activities in the nation's water since 1890. Until 1968, the primary thrust of the Corps' regulatory program was the protection of navigation. As a result of several new laws and judicial decisions, the program evolved to one that considers the full public interest by balancing the favorable impacts against the detrimental impacts.

## What Work Requires a Permit?

Section 10 of the Rivers and Harbors Act of 1899 requires approval prior to the accomplishment of any work in or over navigable waters of the United States, or which affects the course, location, condition or capacity of such waters. Typical activities requiring Section 10 permits are:

- Construction of piers, commercial and recreational docks, bulkheads, marinas, ramps, intake structures, and aerial or submerged cable and/or pipeline crossings.
- Dredging and excavation

Section 404 of the Clean Water Act requires approval prior to discharging dredged or fill material into the waters of the United States. Typical activities requiring Section 404 permits are:

- Depositing of fill or dredged material in waters of the U.S. or adjacent wetlands.
- Site development fill for residential, commercial, or recreational developments.
- Construction of rip-rap, gabion baskets or other bank protection, and stream channelization.
- Placement of riprap and road fills.

## Who Should Obtain a Permit?

Any person, firm, or agency (including Federal, state, and local government agencies) planning to work in navigable waters of the United States, or dump or place dredged or fill material in waters of the United States, must first obtain a permit from the Corps of Engineers. Permits, licenses, variances, or similar authorization may also be required by other Federal, state and local statutes.

## Waters of the United States

Waters of the United States includes essentially all surface waters such as all navigable waters and their tributaries, all interstate waters and their tributaries, all wetlands adjacent to these waters, and all impoundments of these waters.

**"Wetlands"** are areas characterized by growth of wetland vegetation (bulrush, cattails, rushes, sedges, willows, button bush) where the soil is saturated during a portion of the growing season or the surface is flooded during some part of most years. Wetlands generally include swamps, marshes, bogs, and similar areas.

The Corps' provides a brochure on titled Recognizing Wetlands which is available on the Huntington District website at <http://www.lrh.usace.army.mil/Missions/Regulatory/Wetlands.aspx>

The landward regulatory limit for non-tidal waters (in the absence of adjacent wetlands) is the **ordinary high water mark**. The ordinary high water mark is the line on the shores established by the fluctuations of water and indicated by physical characteristics such as:

- a clear natural line impressed on the bank;
- shelving;
- changes in the character of the soil;
- destruction of terrestrial vegetation;
- the presence of litter and debris;
- or other appropriate means that consider the characteristics of the surrounding areas.

### **Navigable Waters**

Navigable waters are defined as waters that have been used in the past, are now used, or are susceptible to use as a means to transport interstate or foreign commerce up to the head of navigation. Section 10 and/or Section 404 permits are required for construction activities in these waters. A complete list is available in the District Office.

### **Pre-Application Consultation**

You are encouraged to contact the Corps of Engineers for proposed work in waters in your area.

Exemptions, nationwide, regional and individual permit requirements will be reviewed. By discussing all information prior to application submittal, your application will be processed more efficiently.

An official determination as to the need for a Department of the Army permit will be provided upon request.

## **TYPES OF PERMITS**

### **Individual Permits**

Individual permits are issued following a full public interest review of an individual application for a Department of the Army permit. A public notice is distributed to all known interested persons. After evaluating all comments and information received, final decision on the application is made.

The permit decision is generally based on the outcome of a public interest balancing process where the benefits of the project are balanced against the detriments. A permit will be granted unless the proposal is found to be contrary to the public interest.

To apply for an individual permit, an application form must be completed. This application is available from all regulatory offices.

## Nationwide Permits

A nationwide permit is a form of general permit which authorizes a category of activities throughout the nation. These permits are valid only if the conditions applicable to the permits are met. If the conditions cannot be met, a regional or individual permit will be required. Summaries of the nationwide permits are available.

## Regional Permits

Regional permits are issued by the District Engineer for a general category of activities when

1. the activities are similar in nature and cause minimal environmental impact (both individually and cumulatively), and
2. the regional permit reduces duplication of regulatory control by State and Federal agencies.

Contact the District Regulatory office in your area for information regarding regional permits.

## You Can Help

The understanding and support of the American people is vital to the success of this program. To protect our nation's water resources and assure their use and enjoyment for future generations, we must all join this vital effort. We ask your help in "passing the word" to others concerning the permit requirements outlined in this brochure and solicit your views and comments on better ways of attaining the goals of this program. Your comments, questions, and suggestions should be directed to one of our regulatory offices.

For additional information please visit the Huntington District Regulatory Branch website at <http://www.lrh.usace.army.mil/Missions/Regulatory.aspx>

### North Branch (Serving Ohio)

U.S. Army Corps of Engineers  
Attn. CELRH-RD-N  
502 Eighth Street  
Huntington, WV 25701  
(304) 399-5210

### South/Transportation Branch (Serving West Virginia & Ohio)

U.S. Army Corps of Engineers  
Attn. CELRH-RD-S  
502 Eighth Street  
Huntington, WV 25701  
(304) 399-5710

### Energy Resource Branch (Serving West Virginia & Ohio)

U.S. Army Corps of Engineers  
Attn. CELRH-RD-E  
502 Eighth Street  
Huntington, WV 25701  
(304) 399-5610

### Cincinnati Field Office (Serving southwestern Ohio)

10557 McKelvey Road  
Cincinnati, OH 45240-3929  
(513) 825-2752

## Section 401 Water Quality Certification and Isolated Wetland Permit Introduction

When a project is planned in Ohio that will impact a wetland, stream, river, lake, or other water of the U.S., the Ohio Environmental Protection Agency (Ohio EPA) must issue a Section 401 Water Quality Certification (401 WQC) or a state isolated wetland permit. A Section 401 WQC is a required component of a federal permit and must be issued before a federal permit or license can be granted. The bulk of federal permits requiring 401 WQC from Ohio EPA are Section 404 Dredge and Fill Permits, which are issued by the U.S. Army Corps of Engineers (USACE).

Section 404 of the Clean Water Act establishes a program to regulate the discharge of dredged and fill materials into waters of the United States. The basic premise of the USACE's Section 404 Regulatory program is that dredged or fill material cannot be discharged into water if the nation's waters would be significantly degraded or if a feasible alternative exists that is less damaging to the aquatic environment. Dredge and fill activities are controlled by a permit process administered by the U.S. Army Corps of Engineers and overseen by the U.S. Environmental Protection Agency (U.S. EPA).

This means that any person or company planning to discharge fill materials to Ohio wetlands or other water bodies such as streams, rivers, and lakes by filling, excavating, open-trench cutting, or mechanical clearing, must receive 401 WQC authorization from Ohio EPA and must also apply for, and receive, a federal Section 404 Dredge and Fill Permit from the USACE.

Ohio EPA works closely with the USACE and coordinates the permit application processes as much as possible. Ohio EPA recommends that any potential applicant first contact the USACE to begin the application process and determine if the proposed project will impact waters of the U.S. and to determine whether or not a federal permit is required.

*Ohio EPA recommends that any potential applicant first contact the USACE to begin the application process and determine if the proposed project will impact waters of the U.S. and to determine whether or not a federal permit is required.*

Although both Ohio EPA and the USACE regulate impacts to wetlands and other waters of the U.S., they have different authority and jurisdictions. This is why both Ohio EPA and the USACE need to be contacted before any discharge to or activity in a wetland, stream, river, lake, or other water of the U.S. occurs.

If the USACE determines that a proposed project will require a USACE Section 404 Permit, then the applicant must also apply for, and obtain, a Section 401 Water Quality Certification from Ohio EPA. The Ohio EPA will review the proposed activities to determine if they will comply with Ohio law, including state water quality standards.

Isolated wetlands (those wetlands not regulated under the federal Clean Water Act) are regulated under Ohio's State Isolated Wetlands law. Impacts to isolated wetlands require State Isolated Wetland Permits from Ohio EPA. Again, because the federal government's jurisdiction is different than the state's, Ohio EPA must be contacted to determine which, if any, state authorization(s) is/are needed before an applicant may legally discharge pollutants (including fill materials) to wetland, streams, rivers, lakes, and other waters.

Ohio EPA encourages you to read more about our Section 401 Water Quality Certification Program and State Isolated Wetlands Permitting Program by visiting our [Web site](#).

### Authority

According to the federal [Clean Water Act](#), anyone who wishes to discharge dredged or fill material into the waters of the U.S., regardless of whether on private or public property, must obtain a Section 404 permit from the U.S. Army Corps of Engineers (Corps) and a Section 401 Water Quality Certification (WQC) from the state.

- **Section 404** of the Clean Water Act. Many waterbodies and wetlands in the nation are waters of the U.S. and are subject to the Corps Section 404 regulatory authority. An applicant for a 404 permit must also submit an application to the state for certification under Section 401. [Section 404 permit from Corps](#)

NOTE: If the waterbody or wetland is not a water of the U.S., it is not subject to the Corps authority; however, it is subject to Ohio EPA authority.

- **Section 401** of the Clean Water Act requires that any applicant for a Section 404 permit also obtain a Water Quality Certification from the State. The purpose of the certification is to confirm that the discharge of fill materials will be in compliance with the State’s applicable Water Quality Standards.
- **State Isolated Wetlands Permit** . About 90 percent of Ohio’s original wetlands have been destroyed. An estimated 45 percent of Ohio’s remaining wetlands are isolated. Isolated wetlands are not connected or adjacent to waterways like rivers and streams, but they provide many of the same benefits to the environment as non-isolated wetlands, and exhibit many of the same characteristics. These isolated wetlands are regulated differently than USACE jurisdictional waters; they are regulated solely by the state. House Bill 231 was signed into law on July 17, 2001, giving the authority to regulate isolated waters of the state to Ohio EPA.

## Purpose of the pre-application meeting

Planning a project that will impact wetlands, streams, rivers, lakes, or other regulated water resources, and anticipating how Ohio EPA will respond to your application can be difficult. In an effort to avoid delays, confusion, and ensure that Ohio's environment is protected, Ohio EPA offers pre-application coordination for all applicants who need to apply for a Section 401 Water Quality Certification or Isolated Wetland Permit. Most delays in the application review process are caused by applicants not providing all the information required by Ohio EPA. Through the pre-application coordination process, Ohio EPA representatives can help ensure you know exactly what you need before you submit your application.

A Pre-Application meeting is an informal, completely voluntary (though highly recommended) process where you meet with an Ohio EPA 401 Coordinator to discuss a project that is in its early planning stages.

*NOTE: If the waterbody or wetland is not a water of the U.S., it is not subject to the Corps authority; however, it is subject to Ohio EPA authority.*

## Purpose of the request form for pre-application meeting

If your project is large, complex, or has the potential to impact sensitive areas, Ohio EPA recommends that you contact program staff to discuss your project. You may also wish to contact Ohio EPA, Section 401 staff if you have never applied for permits before or to simply gather information on needed permits. Ohio EPA 401 Coordinators each cover a specific district or industry, so please contact the specific [Ohio EPA 401 Coordinator](#) for the county/industry in which you will be working.

You can call, e-mail, or write a letter to Ohio EPA 401 Coordinator to open the lines of discussion regarding your project. It may also be beneficial for Ohio EPA staff to meet you or your environmental consultant on-site to discuss your project. Contact the corresponding Ohio EPA 401 Coordinator to arrange a pre-application meeting or discussion on a project. Staff from the 401 WQC/Isolated Wetlands Program may, if needed, invite staff from the Ohio Environmental Protection Agency, Storm Water Section and the U.S. Army Corps of Engineers (USACE) to attend on-site meetings. Ohio EPA staff may also provide you with contact information for Ohio Department of Natural Resources or other regulatory staff and request that you contact these agencies to invite them to a pre-application meeting.

To obtain the most useful, project specific comments, we recommend you provide as much information as possible to the Ohio EPA 401 Coordinator.

## Who must submit a request form for pre-application meeting?

A pre-application meeting is a preliminary step in the process of applying for a Section 401 Water Quality Certification and/or Isolated Wetlands Permit. A pre-application meeting is completely voluntary ; however, there are many benefits to having a pre-application meeting, including:

- You may be able to avoid delays and confusion regarding what permits are necessary for your project and what you are required to submit with the permit application.
- You and the 401 Coordinator can discuss potential problems, timeframes, and ways to change your project to reduce or further minimize impacts.
- You will have direct contact with the 401 Coordinator who will be reviewing your application for a Section 401 Water Quality Certification and/or Isolated Wetlands Permit;

Any person or company planning to discharge fill materials to Ohio wetlands or other water bodies such as streams, rivers and lakes by filling, excavating, open-trench cutting, or mechanical clearing, must receive 401 WQC authorization from Ohio EPA and must also apply for, and receive, a federal Section 404 Dredge and Fill Permit from the USACE.

Isolated wetlands (those wetlands not regulated under the federal Clean Water Act) are regulated under Ohio's State Isolated Wetlands law. Impacts to isolated wetlands require State Isolated Wetland Permits from Ohio EPA. Again, because the federal government's jurisdiction is different than the state's, Ohio EPA must be contacted to determine which, if any, state authorization(s) is/are needed before an applicant may legally discharge pollutants (including fill materials) to wetland, streams, rivers, lakes, and other waters.

If you plan to apply for a Section 401 Water Quality Certification and/or Isolated Wetlands Permit, it is in your best interest to request a pre-application meeting.

## How do I know if my project will impact wetlands, streams, lakes or other regulated water resources?

In order to know if wetlands are on your property, it is highly recommended that you hire a wetland or environmental consultant to conduct a wetland delineation on the property. The wetland consultant will put together a report for you, called a wetland delineation report. This report must be submitted to the U.S. Army Corps of Engineers for review and approval before the delineation report is considered accurate and legal. The U.S. Army Corps of Engineers has the responsibility of making wetland determinations and determining the limits of federal jurisdiction. The U.S. Army Corps of Engineers will write a letter to you once they have reviewed your wetland delineation report – this letter will state the jurisdiction of the delineated wetlands and will also state whether or not the U.S. Army Corps of Engineers concurs with the delineation. Keep this letter, and your wetland delineation report, in a safe place as you will need to submit a copy of both to OhioEPA if you wish to apply for permits.

- [U.S. Army Corps of Engineers - "Recognizing Wetlands" Brochure \[PDF\]](#)

Please note – there does not have to be standing water in a wetland in order for it to be regulated by Ohio EPA or the U.S. Army Corps of Engineers. Determining the boundaries of wetlands is a task that must be conducted by a qualified wetland consultant. Wetlands are delineated by carefully examining a site for the presence of wetland indicators. In order to be a legal wetland, an area must have all three of the following present:

- A dominance of wetland vegetation;
- The presence of soils exhibiting hydric characteristics; and,
- Indicators of hydrology (the presence of surface water or waterlogged soils) for a sufficient period of time in most years to influence the types of plants and soils that occur in that area, in order to legally be considered a wetland.

To obtain additional information regarding Ohio EPA Section 401 Water Quality Certifications and Isolated Wetland Permits, or to obtain an application form, contact Ohio EPA at (614) 644-2001. You can also visit the [401 Water Quality Certification Program](#) page.

## What projects typically impact wetlands, streams, lakes or other regulated water resources?

It is important to not only know what aspects of your project may have a significant impact on water resources, but it is important to know when you need permits. You will need a Section 401 Water Quality Certification if your project involves any of the following:

- Filling a wetland
- Excavating a wetland
- Mechanical clearing in a wetland (using heavy equipment such as bulldozers to remove or clear trees and stumps)
- Constructing a pond in a wetland
- Stabilizing a streambank or shoreline
- Relocating a stream
- Constructing a roadway, bridge or other pedestrian/vehicle crossing in or over a stream
- Constructing, refacing, or repairing any seawall
- Constructing an underwater beach
- Filling out into a lake, stream, or river
- Dredging a wetland, stream, lake, or river
- Dredging or excavation of any potentially contaminated sediments.
- Sand, gravel, peat, or other related mining activity within any waterbody.
- Channelizing or removing meanders from any stream, ditch, or river.
- Excavating a stream to construct in-stream stormwater detention/retention.
- Construction of any type of permanent or temporary dam, causeway, or other related structure.

The previous list of activities is NOT all-inclusive. There are other activities that trigger the need for Section 401 Water Quality Certification from Ohio EPA and a Section 404 Dredge and Fill Permit from the U.S. Army Corps of Engineers, but the aforementioned activities are more common.

The previous list of regulated activities can involve or contribute to adverse impacts to water quality. You must be able to demonstrate to Ohio EPA how your project is avoiding and minimizing impacts associated with all regulated activities.

## How can I save time and money?

If you design your project in a manner that avoids impacts to and/or conserves and protects wetlands, streams, lakes, rivers, and other regulated waterbodies, you can avoid delays and potential additional expenses. It is highly recommended that you do not begin to plan or lay out your site/development until you have had a wetland delineation completed and verified by the U.S. Army Corps of Engineers.

Early in the project planning process, after you have had a wetland delineation completed and have identified wetlands and streams on your proposed site, review your plans and consider if you can avoid filling wetlands and moving, culverting or crossing streams.

In many cases, you may be able to reconfigure buildings/layouts on a site in a manner that will avoid impacts to wetlands, streams, and other regulated waters. Any money you spend to re-design your site plans to avoid impacts to regulated water resources may be money you save later. Specifically, by avoiding impacts to wetlands, streams, lakes, and other regulated areas, you will gain huge benefits; first, you may not need to get permits if you simply avoid wetlands and waterbodies. Second, you will save time and effort by not having to budget for, plan, engineer, build,

plant, and monitor wetland and stream mitigation, which is required for almost all impacts to wetlands and streams. Last, if you don't avoid impacts to these regulated water resources, Ohio EPA will require you to demonstrate avoidance. This is much easier to do early in the process, not days before you are scheduled to build.

## **What happens after the form is submitted to Ohio EPA?**

Once the request form is received by Ohio EPA. A 401 Coordinator will be assigned based the location or type of project. The 401 Coordinator will review the request form, assign an EPA Identification number to the project, and determine if it is appropriate to hold the meeting at Ohio EPA or at the project site. The meeting location is determined by Ohio EPA and will depend on the size and complexity of the project, the experience level of the applicant and/or consultant/agent, the applicant's agenda goals, as well as the amount of assessment completed on the project at the time of application. The 401 Coordinator will contact the applicant to arrange the pre-application meeting, clarify project and/or request form details, and possibly, request that additional information be submitted.

## **What happens at the Pre-Application meeting?**

In general terms, the pre-application meeting is the potential applicant's first chance to discuss their project ideas with an Ohio EPA 401 Coordinator, and the 401 Coordinator's first chance to review and comment on the project.

What happens at the pre-application meeting will depend on the applicant's stated goals (on the pre-application request form) and the amount of information provided in Section 4 of the form.

## **What happens after the Pre-Application meeting?**

Following the Pre-Application meeting, the applicant and/or the agent/consultant will receive a follow-up letter. The letter will include:

1. a narrative and possibly map defining the project location;
2. a summary description of the proposed work;
3. a summary of what took place at the pre-application meeting;
4. a list of any suggestions the 401 Coordinator made at the site visit;
5. potentially, a request for further information Ohio EPA will need if the applicant wishes to proceed with the project;
6. a list of possible/potential Ohio EPA concerns with the project;
7. an explanation of next steps; and,
8. a checklist of documentation required for the submittal of a complete application.

If the applicant plans to proceed with the project, the next logical step would be to submit an [application](#) to Ohio EPA. Mail the complete application to:

Section 401 Supervisor  
Ohio EPA/DSW  
P.O. Box 1049  
Columbus, Ohio 43216-1049



Office of Compliance Assistance and Pollution Prevention

August 2007

## Small Construction Projects Require Storm Water Permits

Small construction projects are required to comply with the storm water permitting requirements. This fact sheet will help you determine if your construction project needs a storm water permit and how to apply for a storm water permit under the National Pollutant Discharge Elimination System (NPDES) program.

### Why do construction projects require a storm water permit?

During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally over several decades. Sediment runoff from construction sites is typically 10 to 20 times greater than from agricultural activities.

The silt and other pollutants from construction sites can harm Ohio's waters. For example, excessive sedimentation from sites can quickly fill rivers and lakes, destroy aquatic habitats and require dredging. Storm water can also become contaminated from fuel or chemical spills and equipment cleaning at construction sites.

To help prevent soil erosion and control the amount of sediment and other pollutants that leave construction sites, Ohio EPA requires storm water management permits for construction projects.

### How do these regulations affect construction activities?

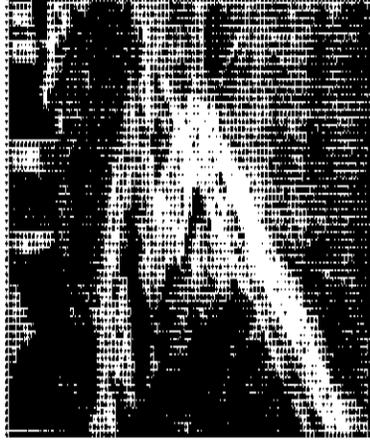
Initially a storm water permit was required for any construction activity disturbing five acres or more of land. Since 2003, a permit is required for any construction activity that disturbs one acre or more of land.

Even construction activities disturbing less than one acre must have permit coverage, if they are part of a larger common plan of development or sale. A larger common plan of development or sale is a contiguous area where multiple separate and distinct construction activities are occurring under one plan (for example, building on three half-acre lots in a six-acre development). The "plan" in a common plan of development or sale is broadly defined as any announcement, piece of documentation or physical demarcation indicating construction activities may occur on a specific plot.

Some examples of activities covered under the regulations include road building, construction of residential houses, office buildings, industrial sites and demolition.

#### **\*\* IMPORTANT \*\***

You must wait until you receive the Ohio EPA approval letter stating that you are covered under the general permit before you begin construction activity!



Poorly managed construction sites, even small ones, can contribute to environmental contamination.

### Who is required to apply for the permit?

The operator who is responsible for the construction plans and specifications or has the day-to-day operational control of the site needs to get the permit. For small commercial, industrial or residential development, the permit applicant is usually the developer. For individual home building sites, the home building company is commonly the permit applicant.

### Why is there more than one construction storm water permit?

One construction storm water permit was initially developed for every construction activity in the state. However, some watersheds need additional protection than what the standard permit provides. Therefore, Ohio EPA has developed specific storm water permits for construction activities in certain watersheds. These permits have



# Small Construction Projects Require Storm Water Permits

additional requirements beyond those in the standard construction storm water permit. You can see if your construction project is located in a watershed that has a specific construction storm water permit on Ohio EPA's Division of Surface Water Web site at [www.epa.state.oh.us/dsw/storm/construction\\_index.html](http://www.epa.state.oh.us/dsw/storm/construction_index.html) or by contacting your local Ohio EPA district office.

## How do I get a permit for a construction project?

To get a storm water permit, you need to submit an application form called a Notice of Intent (NOI) and NOI fee to Ohio EPA. The NOI must be submitted, either 21 days for the baseline permit or 45 days for watershed specific permits, before initiating construction activities (including ground disturbing activities). The NOI fee for small (one to five acres) construction activities is \$200.

In response to your NOI submission, Ohio EPA will notify you, in writing, that you either have been granted coverage under the permit or must apply for an individual storm water permit. Timely and complete NOIs are processed so that project start dates are not delayed.

### **\*\* IMPORTANT \*\***

Carefully read through the permit to understand what activities are authorized. The storm water permit does not authorize on-site wastewater discharges from painting equipment or cement trucks.

## What are my responsibilities if I sell/buy all or a portion of my permitted construction site?

If an entire development is bought or sold, the new operator must notify Ohio EPA that he will assume responsibility for the storm water permit requirements. This is done by submitting a permit transfer application.

If a portion of a development is bought/sold, the permit requirements will still apply to the individual lot, regardless of the size of the lot. The original permittee may retain responsibility or the new operator may take responsibility. If the new operator takes responsibility, then they need to submit an Individual Lot NOI at least seven days prior to the date they take responsibility for the permit requirements applicable to their lot.

## What will the permit allow me to do?

The permit allows you to discharge storm water from your construction activities. It also allows, under certain conditions, storm water discharges from support activities such as trench dewatering, on-site concrete and asphalt batch plants, equipment storage areas, excavated material disposal areas and borrow areas.

The permit may also allow for some non-storm water-related discharges. Check with your local Ohio EPA district office, Division of Surface Water, if you have any questions about what discharges are allowed under the permit.



*A sediment pond is effective in helping to control contaminated runoff.*

## In addition to submitting the NOI, is there anything else I need to do?

By submitting the NOI, you have committed to comply with the permit and should have already developed a storm water pollution prevention plan (SWP3) for the site. The SWP3 must be implemented upon the initial ground disturbing activities. All contractors and subcontractors involved in the SWP3's implementation must be informed of the SWP3.

You are expected to have read and understood the storm water general permit conditions before applying for permit coverage. This includes developing a SWP3 and going over the plan with your general contractor. You can get a copy of the general construction storm water permit and information on SWP3s from Ohio EPA's Division of Surface Water Web site at [www.epa.state.oh.us/dsw/storm/construction\\_index.html](http://www.epa.state.oh.us/dsw/storm/construction_index.html) or by contacting your local Ohio EPA district office.

## Small Construction Projects Require Storm Water Permits

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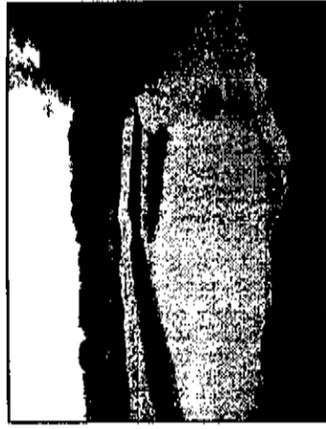
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## Small Construction Projects Require Storm Water Permits

### What goes into a storm water pollution prevention plan (SWP3)?

In the SWP3, you must identify the potential sources of pollution that may affect the quality of storm water discharges at the site. In addition, the plan must include a description of the best management practices that you will use to minimize the amount of pollution in your storm water discharges during construction as well as after development (post construction).

Erosion and sediment controls must be incorporated into your SWP3. And once you submit an NOI, these control requirements become enforceable under the general permit.

The erosion, sediment and storm water management controls in your SWP3 must meet the standards and specifications in Ohio's Rain Water and Land Development manual. This manual is available from the Ohio Department of Natural Resources, Division of Soil & Water Conservation's Web site ([www.dnr.state.oh.us/water/rainwater/default/tabid/9186/Default.aspx](http://www.dnr.state.oh.us/water/rainwater/default/tabid/9186/Default.aspx)). There may also be local sediment and erosion control requirements.

You are also required to perform regular inspections of your SWP3 controls every seven days and within 24 hours of a half inch or more rain event. You need to keep these inspection results in a log, which becomes part of your SWP3.

Most erosion and sediment controls require regular maintenance to operate properly. You should remove accumulated sediments



A silt fence can help keep sediment from running into nearby waterways.

frequently and check equipment or materials periodically for wear. If you need to repair your controls, the permit requires you to complete the repairs within three days or within ten days for sediment settling ponds.

Additional guidance on developing your SWP3 is available from Ohio EPA's Web site at [www.epa.state.oh.us/dsw/storm/construction\\_index.html](http://www.epa.state.oh.us/dsw/storm/construction_index.html).

### What are some recommended erosion and sediment controls for small construction sites?

The following practices and controls can be effective for small construction sites:

#### Non-Structural Controls

- Minimizing Disturbances
- Preserving Natural Vegetation
- Good Housekeeping

#### Structural Erosion Controls

- Mulch
- Grass
- Stockpile Covers

#### Structural Sediment Controls

- Silt Fence
- Inlet Protection
- Check Dams
- Stabilized Construction Entrances
- Sediment Traps

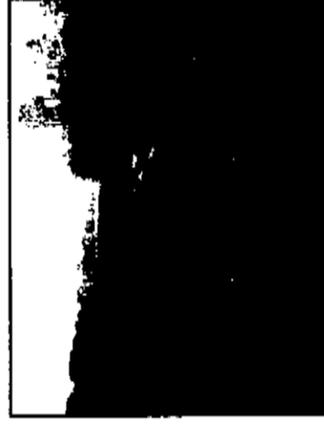
#### Post-Construction Controls

- Vegetated Swales and Filter Strips
- Extended Detention Basins (Dry Basins)
- Retention Basins (Wet Basins)
- Low Impact Development
- Infiltration Areas

### Are there additional best management practices to consider on construction sites?

In addition to the above, there are additional steps you can take on your construction sites to avoid environmental contamination:

- Do collect and properly dispose of trash and debris. Remember that open waste burning is illegal!
- Do cover trash bins to prevent leaks.
- Do store fuel, chemicals and paints within a diked area or indoors.
- Do maintain material storage piles behind silt fences.



Natural vegetation or grass cover can be effective in controlling erosion.

## Small Construction Projects Require Storm Water Permits

- Do require delivery trucks to use a rock construction entrance.
- Don't apply used oil to roadways or land parcels to control dust.

### What happens when my construction activity is done?

Once all of the soil disturbing activities are complete and the site has met the permit requirements for final stabilization, you need to submit a Notice of Termination (NOT) form to Ohio EPA's Division of Surface Water within 45 days.

You can get a copy of the NOT from Ohio EPA's Division of Surface Water Web site at

[www.epa.state.oh.us/dsw/storm/construction\\_index.html](http://www.epa.state.oh.us/dsw/storm/construction_index.html). Or, contact your local Ohio EPA district office for a copy.

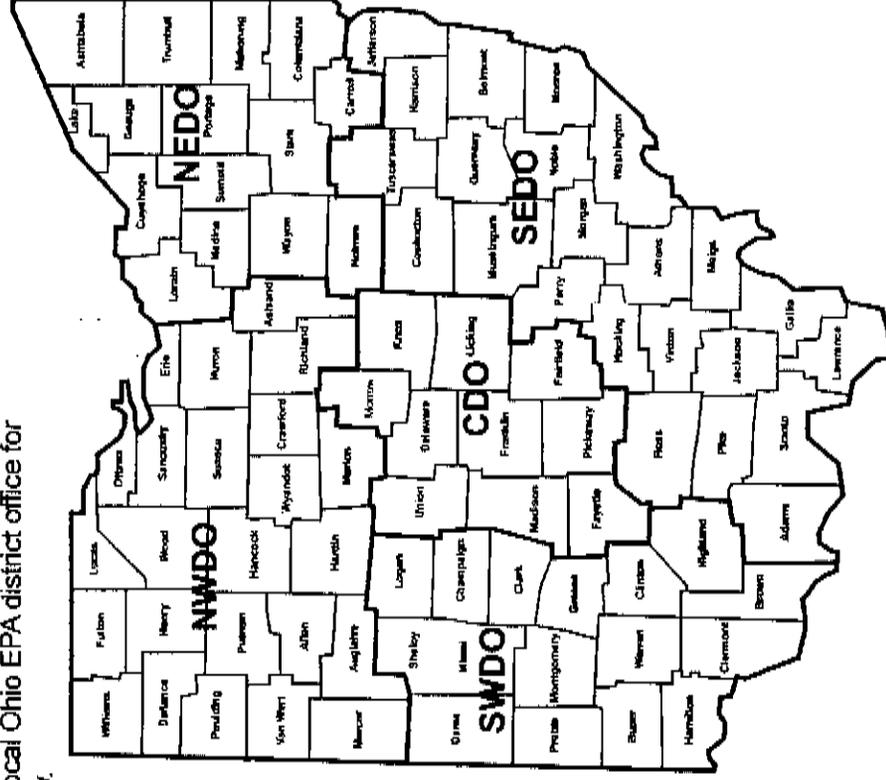
### Are there any exemptions from the permitting requirements?

There are two permit waivers for small (one to five acres) construction sites. However the conditions under which these waivers can be granted do not occur very often. One waiver, based on the universal soil loss equations, is for situations where little or no rainfall is expected during the construction activity. The other waiver is for situations where a specific analysis (called a total maximum daily load analysis) indicates that sediment controls on construction sites are not needed to protect water quality.

If you have questions about whether a site you are working at qualifies for a permit exemption, contact the Division of Surface Water at your local Ohio EPA district office.

### Where can I get more help?

Understanding and complying with the storm water permitting requirements is important to help you avoid violations and penalties. If you have any questions about the storm water regulations or permit requirements, contact your local Ohio EPA district office, Division of Surface Water (DSW), for assistance. See the map to find your local district office. You can also contact DSW's central office storm water program staff at (614) 644-2001.



## OhioEPA District Offices

|             |   |
|-------------|---|
| <b>CDO</b>  | <b>Central District Office</b><br>50 W. Town St. Suite 700<br>Columbus, OH 43215<br>(614) 728-3778    |
| <b>NEDO</b> | <b>North east District Office</b><br>2110 E. Auroa Rd.<br>Twinsburg, OH 44087<br>(330) 963-1200       |
| <b>NWDO</b> | <b>Northwest District Office</b><br>347 N. Dunbridge Rd.<br>Bowling Green, OH 43402<br>(419) 352-8461 |
| <b>SEDO</b> | <b>Southeast District Office</b><br>2195 Front St.<br>Logan, OH 43138<br>(740) 385-8501               |
| <b>SWDO</b> | <b>Southwest District Office</b><br>401 E. Fifth St.<br>Dayton, OH 45402-6357<br>(937) 285-6357       |

**Ohio Department of Natural Resources  
Floodplain Administrator Contact List**

[http://soilandwater.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List\\_8\\_15.pdf](http://soilandwater.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_15.pdf)

Tab 6

# Construction Permitting



# MCD

MIAMI CONSERVANCY DISTRICT

## BACKGROUND

MCD may issue Construction Permits for projects that have been granted a General Land Use Permit. Construction permits provide written authorization to contractors for access and use of MCD land during a defined period of time, for construction of approved projects. Authorization must be secured through a Construction Permit before any activities, construction, access or use begins.

## PERMIT PROCESS

- ✓
  - Complete a Short Term Land Use Permit Application or a written request. Provide detailed information about the proposed project and location.
  - Submit additional information as requested.
  - MCD reviews the application and may require changes to plans, staging areas or access routes. Staff will typically respond within 30 days. Complex projects may take more time.
  - If MCD approves all necessary submittals, a copy of the permit is sent to the applicant for signature.
  - Submit signed permit, fees, insurance and other required items. Once received, MCD signs and returns the permit to the applicant indicating approval to proceed.

*Please Note: The applicant is responsible for complying with all other federal, state and local requirements.*

*A maintenance bond will be required following project completion.*

## QUESTIONS

Roxanne Farrier, Property Administrator  
937-223-1278 x3230  
[rfarrier@mcdwater.org](mailto:rfarrier@mcdwater.org)

THE MIAMI CONSERVANCY DISTRICT  
38 East Monument Avenue  
Dayton Ohio, 45402  
937-223-1271  
[www.mcdwater.org](http://www.mcdwater.org)



**SHORT TERM LAND USE PERMIT APPLICATION**

*The undersigned hereby applies for permission to encroach on and/or use MCD property for the specified use. It is understood that completing this application does not constitute permission to access or use MCD property.*

*Please Print or type*

Date: \_\_\_\_\_ [ ] New Permit [ ] Renewal

Name/Company: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_ Mobile/Alternate Phone: (\_\_\_\_) \_\_\_\_\_

Email: \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_

Location of Proposed Land Use (*Attach location map*): \_\_\_\_\_

Description of proposed activity: \_\_\_\_\_

Starting date of proposed activity: \_\_\_\_\_

Duration or ending date of proposed activity: \_\_\_\_\_

Liability Insurance Available: [ ] Yes [ ] No

Additional Information: \_\_\_\_\_

**Type of Land Use**

- [ ] Construction
- [ ] Agriculture
- [ ] Excavation
- [ ] Temporary (Event/Other)

*Please Remit Form to MCD Property Administrator at the Above Address*

**For MCD use: additional items requested:**

- [ ] Construction plans / specifications
- [ ] Design and construction requirements
- [ ] Construction schedule
- [ ] Insurance certificate
- [ ] Technical requirements
- [ ] Financial capability
- [ ] Staging area
- [ ] Other permit compliance
- [ ] Access plan

The Miami Conservancy District

CONSTRUCTION PERMIT NO. 60-XXXX-X

THE MIAMI CONSERVANCY DISTRICT, a body corporate and political subdivision of the State of Ohio, hereinafter called "MCD", hereby grants to

XXXX  
XXX  
XXXX

hereinafter called the "Grantee" permission to access and/or use MCD property for the purpose of **XXXX for XXXX**.

The MCD property, **Part MCD Parcel No. XXXX**, is located in XXXXX, XXXX County, Ohio, and more specifically along the XXXXXXXXXX as shown on the attached Exhibit "A".

All real property, easements, land, structures, infrastructure, and facilities that are owned or controlled by MCD or any MCD subdistrict shall hereinafter be called "MCD property."

THIS PERMIT IS GRANTED SUBJECT TO COMPLIANCE WITH THE FOLLOWING TERMS, CONDITIONS AND RESTRICTIONS AS SET FORTH BY MCD IN ACCORDANCE WITH SECTION 6101.19 OF THE OHIO REVISED CODE:

**1. FINAL PLAN APPROVAL:** The Grantee AGREES that placement or construction of any structure and/or improvements on MCD property will be completed in accordance with those plans and specifications approved by MCD. MCD issued Land Use Permit XX-XXXX-1 to XXXX for XXX based on approved plans filed as MCD drawings XXX through XXX. Should modifications be required, written MCD approval will be required prior to making any changes. Upon project completion, the Grantee AGREES to provide a set of as-built drawings in an electronic format for any structure and/or improvements constructed on land owned or controlled by MCD.

**2. CONSTRUCTION NOTIFICATION:** The Grantee AGREES to notify the MCD Property Administrator **within forty-eight (48) hours** of beginning any construction on MCD property.

A copy of this Permit must be kept on site at all times.

**3. PROPERTY USE, MAINTENANCE, & RESTRICTIONS:** The approved activity includes clearing trees and underbrush, grading, and placing temporary pipes and gravel access road. The access road shall be located to minimize the required tree clearing. The Grantee AGREES to provide to the MCD Property Administrator for approval any plans, sketches, and other information describing any other use of MCD property during construction, including but not limited to excavations and backfill as required, embankments, staging areas, material stockpile areas, fences, barricades, utility locations, and parking.

All activities listed in the attached Exhibit "B" are prohibited unless specifically authorized in this Permit.

The Grantee AGREES all MCD property will be continually used and maintained in a safe and responsible manner to minimize any impact to MCD operations and maintenance. All activities granted in this Permit shall be contained within the approved work limits. The Grantee shall maintain all MCD Property within the work limits or coordinate access and maintenance with MCD staff.

All use of vehicles on MCD property shall be in compliance with the Ohio Revised Code and other applicable laws. Regulations regarding MCD land include but are not limited to the following:

- Motor vehicles necessary to perform the work may access MCD property for the purposes described in this Permit. No other motor vehicles use or parking on MCD property will be allowed.
- Motor vehicles must stay within the designated work limits.
- Driving any type vehicle on levee slopes is prohibited.
- Any trash or debris generated or deposited on the site during the term of this Permit shall be removed from the site by the Grantee.

The Grantee, prior to initiating any construction, AGREES to contact OUPS to confirm the location of all utilities within the Permit area. The Grantee further AGREES to protect all identified utilities from damage that could result from land use as outlined in this Permit.

**4. DAMAGE TO MCD PROPERTY:** Any damages, resulting from the land use granted, caused to the levees, dams, roads, gates, wells, gages, monitoring equipment, monuments and/or MCD property shall be repaired or replaced in a manner satisfactory to MCD within a reasonable amount of time. Revocation, termination or expiration of the permit does not release the Grantee from its obligation to repair damages. In the event the repair or replacement is not completed in a reasonable amount of time, MCD may, at its option, cause said repairs or replacements to be accomplished and Grantee shall reimburse MCD for any expenses incurred.

**5. TERM:** Land use granted under this Permit shall be permitted for a period beginning **XXX XX, XXXX** and expiring on **XXX XX, XXXX**.

**6. MCD's RIGHT OF REVOCATION**

- a. If the property use causes damage or imminent damage to MCD property, or creates a health or safety hazard, MCD will order all work be stopped immediately and notify the Grantee to repair, replace or remove the hazard. If the Grantee fails to respond in the time set by MCD, MCD will revoke the rights granted by this Permit. Such revocation would not release the Grantee from its obligation to restore the land as required by item 8 below.

- b. If, at any time, in the opinion of MCD, the said use interferes with the primary objectives of MCD; or should the best interests of MCD so justify; this Permit shall be revoked. MCD will provide seven (7) days written notice of revocation. Such revocation would not release the Grantee from its obligation to restore the land as required by item 8 below.

**7. GRANTEE'S RIGHT OF TERMINATION:** The Grantee may request termination of this Permit if the use of MCD property described in this Permit is no longer necessary or desired. The Grantee shall notify the MCD Property Administrator within forty-eight (48) hours following cessation of the permitted land use to request termination.

**8. RESTORATION:** Prior to termination of this Permit for any reason, the Grantee shall repair any damages caused by Grantee and restore all MCD property. The Grantee shall repair or replace all levees, roads, gates, wells, gages, monitoring equipment, and monuments in a manner satisfactory to MCD and in accordance with the general restoration specifications attached hereto as Exhibit "C". All areas disturbed by the activities in this Permit shall be seeded to establish grass cover.

**Within thirty (30) days of completion of work, the Grantee shall provide MCD a Maintenance Bond in the amount of XXXXX that is valid for one-year following project completion.**

**9. FINAL INSPECTION:** Within forty-eight (48) hours following cessation of all construction and restoration, the Grantee AGREES to notify the MCD Property Administrator for final inspection.

**10. OPTION OF RENEWAL:** This Permit may be renewed, subject to MCD approval, provided all terms, conditions, and restrictions of the Permit have been maintained to the reasonable satisfaction of MCD. All renewals will be subject to those terms, conditions, and Permit fees in effect at time of renewal.

**11. INDEMNIFICATION:** The Grantee AGREES to indemnify and hold MCD harmless, to the extent Permitted by law, from and against any and all claims, demands, and damages for injuries to persons or property and all direct cost and expenses associated therewith, arising on such property as herein described or in connection with Grantee's use as defined within this Permit, to the extent caused by the negligent act or omission of the Grantee, its agents, employees or contractors and not arising from the negligent act or omission of MCD, its agents, employees or contractors.

**12. INSURANCE:** MCD is to be insured in an amount not less than **One Million (\$1,000,000) Dollars**, from any liability resulting from injuries to persons or property and all direct cost and expenses associated therewith. Prior to issuance of this Permit the Grantee AGREES to provide to MCD verification of liability coverage naming "**The Miami Conservancy District**" as an additional insured for an amount of not less than **One Million (\$1,000,000) Dollars**. The Grantee AGREES to provide MCD a copy of a certificate of liability verifying that MCD has been named as an additional insured. Insurance coverage must be in force throughout the term of the permit. If insurance coverage is cancelled the permit will terminate.

**13. SOIL & WATER CONTAMINATION:** The Grantee AGREES to assume all liability and responsibility for clean-up and restoration required due to soil and water contamination resulting from the land use granted within this permit.

The contractor is responsible for installing and maintaining all required storm water runoff controls (silt fence, straw bales, sediment collection, areas etc.) for the duration of the project.

**14. RELEASE OF LIABILITY:** The Grantee herein releases MCD, to the extent permitted by law, from any and all liability resulting from injuries to persons or property and all direct cost and expenses associated therewith, resulting from or caused by floodwater, maintenance or construction operations and/or any other activities of MCD, its agents, employees or contractors provided such damages were not caused by the negligent act or omission of MCD, its agents, employees or contractors.

**15. RIGHT OF ACCESS:** MCD, shall at all times, have the right to enter upon any MCD property for the purpose of using, monitoring, maintaining, altering or repairing any infrastructure or improvements owned or controlled by MCD. MCD retains the right to photograph, for private and/or public use, any use, work or event, which takes place on MCD property.

At all times, during the term of this Permit, MCD shall have the right of inspection to determine compliance with this Permit. Upon notification of any violation, the Grantee shall promptly take corrective action taken as directed by MCD. Should corrective action not be taken within the time specified, MCD may revoke any land use subject to the terms and conditions as stated within this Permit.

**16. TRANSFER OF LAND USE RIGHTS:** Land use granted by this Permit is NOT assignable or transferable.

**17. PRE-EXISTING LAND USE RIGHTS:** All rights granted within this Permit will be limited by, and subject to, any rights and claims of record that exist prior to the effective date of this Permit. Said claims of record include, but are not limited to, any existing easements, rights-of-way, and/or permits.

**18. ADDITIONAL RIGHTS:** MCD does not claim full warranty deed ownership to all MCD property. The Grantee must accept full responsibility for acquiring any additional rights to property not owned by MCD, when use of such property is necessary for the purposes of this Permit. Furthermore, MCD, in granting land use authorization, is to be released from any additional expense and/or all liability related to any unauthorized use of property.

**19. PUBLIC DISCLOSURE:** All MCD records are subject to Ohio Public Records laws. Permits and related correspondence may be available for public use and disclosure.

**20. COMPLIANCE WITH LAWS:** The Grantee AGREES that MCD property is not to be used or occupied for any unlawful purpose. Additionally, all use of MCD property will comply with all laws, ordinances, rules, regulations, requirements, and orders of the United States of America, the State of Ohio, and of all governmental authorities or agencies, including, without limitation, all bureaus, boards or officials thereof respecting said premises and the use and occupation thereof.

**21. ADDITIONAL IMPROVEMENTS:** The Grantee AGREES no additional temporary or permanent structures and/or improvements will be constructed by the Grantee on MCD property.

22. **PERMIT FEE:** The Permit fee is **XXXX (\$XXX.XX) Dollars.**

## **EXHIBIT “B” - PROHIBITED USE**

The following activities are prohibited on MCD property:

- a. Violating any federal, state, county, municipal, or other applicable law, ordinance, rule, regulation or requirement.
- b. Soliciting.
- c. Abandoning any animal.
- d. Lighting fires or burning any materials.
- e. Sledding, skiing, or ice skating.
- f. Camping.
- g. Operating any vehicle on dam or levee slopes.
- h. Moving, by-passing, or damaging any gate, barricade or barrier so placed to temporarily or permanently close a road or area to traffic.
- i. Hunting and trapping.
- j. Depositing burning material or hot ashes on grass, plants or in refuse receptacles.
- k. Dumping, depositing or discarding, intentionally or unintentionally, any trash, garbage, building debris, rubble, metal, concrete, asphalt, organic waste, or other noxious materials.
- l. Damaging, destroying, or disturbing any MCD land as described below:
  1. Removing any property, structures, facilities, or amenities, or any part thereof.
  2. Writing upon, painting, cutting, mutilating, defacing, or damaging in any manner any building, flood control structure, equipment, or other property, or part thereof.
  3. Climbing or rappelling any flood control structure, rock escarpment or other natural features.
  4. Willfully destroying, injuring or removing any bench marks, witness marks, stakes, or other reference marks (ORC 6101.81).
  5. Disturbing, defacing, removing, or injuring trees or other vegetation.

## EXHIBIT “C”

### Restoration Requirements

1. Notify MCD forty-eight (48) hours prior to restoring property that is controlled by MCD.
2. MCD must be present during reconstruction.
3. Earthen Areas
  - a. All disturbed earthen areas shall be restored to the lines and grades of the approved project plans or to original lines and grades as appropriate.
  - b. All areas shall be graded to avoid pockets that do not drain.
  - c. Areas graded to encourage concentrated flow shall be adequately armored against erosion.
4. Fill Materials
  - a. All fill materials for embankment construction and restoration must be approved by MCD.
  - b. Fill and embankment soil material is specified in Appendix V of the Land Use Policy and included in this Permit as Exhibit “D”.
  - c. Fill shall be clean earthen material free of loam, roots, organic matter, boulders, concrete, asphalt, wood, metal, building rubble, and other unsuitable material.
  - d. MCD reserves the right to reject any fill material.
  - e. MCD requires a Standard Proctor test to be performed on the proposed material prior to use to determine the optimal water content at which the soil can reach its maximum dry density. Copies of all test reports shall be provide to MCD for approval.
  - f. Contractor shall provide contact information of all sources of materials.
  - g. MCD may require environmental testing of material.
  - h. MCD may require a physical sample of the proposed material for approval.
  - i. Fill may not be placed on wet or frozen subgrade.
  - j. Fill for restoring levee slopes must be placed in six-inch lifts and compacted to 95% Standard Proctor as determined by a certified testing company. Testing will be performed every four (4) compacted lifts of height at one-hundred (100) foot intervals beginning fifty (50) feet from the ends of the project or as directed by MCD. Copies of all compaction and laboratory test reports shall be provided to MCD.
  - k. Lifts may not contain any veins of gravel material.
  - l. Fill material shall be no larger than three (3) inches in diameter.
  - m. Fill material shall have no more than 15% gravel.
  - n. MCD may require gradation testing of material to ensure the material conforms to the Fill and Embankment Soil Specifications per Appendix V of the Land Use Policy and included in this Permit as Exhibit “D”.
  - o. The fill shall be graded to the lines and grades of the adjoining areas.
  - p. All disturbed earth areas shall have six (6) inches of topsoil placed in loose lifts that construct a four (4) inch compacted depth.
  - q. The topsoil shall be tracked in with a dozer or approved equipment to compact and provide a good contact between the topsoil and the surface of the fill material.

- r. Topsoil shall be scarified prior to seeding. All disturbed earth areas shall be seeded, fertilizer and mulched. Seed, fertilizer and mulch specification and application rates are specified in Appendix V of the Land Use Policy and included in this Permit as Exhibit "D".
  - s. MCD will do a preliminary inspection after 4 weeks to ensure that grass is being established after final seeding.
  - t. MCD will inspect all seeded areas no earlier than 6 months and no later than 12 months after final seeding. For any area identified without uniform density of at least 90 percent grass cover, repair seeding and mulching will be required.
  - u. If seeding of an area is not successful, MCD may require sodding of disturbed areas.
5. Pavement
- a. Asphalt roads, trails, and parking lots disturbed by construction shall be overlain with 1-½ inches asphalt per ODOT 448.
  - b. In areas that MCD determines that the original grade must be maintained, 1-½ inches of the existing asphalt surface shall be milled and removed prior to placement of the new asphalt surface.
  - c. Concrete roads, trails, and parking lots disturbed by construction shall be restored to their original lines and grades. If necessary, damaged areas shall be removed by saw-cutting. The pavement shall be Class C per ODOT 499 with dowels per ODOT 509 and 510.
6. Gravel Surfaces
- a. Gravel roads, trails, and parking lots disturbed by construction shall be graded to remove ruts, holes, and uneven surfaces, and patched using accepted crushed aggregate similar to the existing surface material.
  - b. MCD may allow gravel placement for temporary access road. All gravel placed for access roads must be removed from the embankment.
7. Structures
- a. Curbs, catch basins, manholes, drainage pipes, and other existing structures disturbed by construction shall be repaired or replaced
8. Miscellaneous
- a. All fences, gates, railing, signs, posts and other incidentals disturbed by construction shall be replaced or restored to MCD satisfaction.

## EXHIBIT “D”

### APPENDIX V

#### MATERIAL SPECIFICATIONS

##### 1. Fill and embankment soil

- a. Dam embankment – MCD dams were constructed using hydraulic fill methods to place different gradations of soil materials in specific zones. Any fill material placed in a dam embankment must be specified to match the existing materials in the zone where it is to be placed. Soil boring or test pits may be required to define the characteristics of the existing material. Soil must be clean natural material free from masses of organic matter, sticks, branches, roots, broken concrete, asphalt, metal, building rubble, and other debris, including hazardous and regulated solid wastes. Under no circumstances shall frozen earth, snow, or ice in the material be considered acceptable.
- b. Levee embankment – material placed in levee embankments should be naturally occurring or contractor blended clayey material. Addition of lime, cement, or other soil amendments for any reason is not permitted. Soil that is classified in accordance with ASTM D2487 and the Unified Soil Classification System as CH and CL is suitable. Soil classified as ML shall be considered unsuitable; however, minor amounts of ML may be suitably blended with CH or CL to formulate a material that classifies as a CL as per ASTM D2487. Soil must be free from masses of organic matter, sticks, branches, roots, broken concrete, asphalt, metal, building rubble, and other debris, including hazardous and regulated solid wastes. Soil from a contractor-supplied earthen clay material source may not contain excessive amounts of wood. Not more than 1% (by volume) of objectionable material shall be contained in clay material. Pockets and/or zones of wood shall not be acceptable. Material consisting of greater than 35% sands (by dry weight) or materials with a Plasticity Index (PI) of less than 10 will not be accepted as well as material having an organic content exceeding 9% by weight. Under no circumstances shall frozen earth, snow, or ice in the material be considered acceptable.
- c. Berm or blanket – material placed in a berm or blanket designed to reinforce a dam or levee embankment must meet the design specifications for the berm or blanket. Soil must be clean natural material free from masses of organic matter, sticks, branches, roots, broken concrete, asphalt, metal, building rubble, and other debris, including hazardous and regulated solid wastes. Under no circumstances shall frozen earth, snow, or ice in the material be considered acceptable.
- d. Random fill – areas designed by MCD as not integral to dam and levee embankments may be filled with random fill material. Soil must be clean natural material free from masses of organic matter, sticks, branches, roots, broken concrete, asphalt, metal, building rubble, and other debris, including hazardous and regulated solid wastes. Under no circumstances shall frozen earth, snow, or ice in the material be considered acceptable.

##### 2. Grass Seed

- a. All disturbed earth areas shall be seeded. Seed types shall meet specifications of an 80/20 Turf Type Tall Fescue Mix with perennial rye.

- b. MCD must approve seed mix prior to seeding.
- c. Application rate of 8 pounds per 1000 square feet.
- d. Hydroseeding is acceptable, approved tackifier shall be applied at 2 gallons per acre.
- e. Fertilizer shall be 18-24-12 25% Polyplus Fertilizer.
- f. Mulch shall consist of straw, hay or wood fiber and be free of weed.
- g. Evenly place straw mulch over all seeded areas at the following rates:

| <u>Seeding Period</u>       | <u>Rate</u>     |
|-----------------------------|-----------------|
| From March 15 to October 30 | 2 Tons per acre |
| From October 31 to March 14 | 3 Tons per acre |

- h. Evenly place wood fiber mulch from March 1 to October 30 at the following rate:

| <u>Surface</u>        | <u>Rate</u>                    |
|-----------------------|--------------------------------|
| Slopes 3:1 or flatter | 46 Pounds per 1000 square feet |

- i. Apply a non-toxic and environmentally safe tackifier, at manufacturer's recommendations, to straw, hay or wood fiber mulch.

### 3. Plantings

All plantings subject to periodic flooding must be able to withstand inundation and be able to regenerate after being under water. In MCD maintained areas Turf Type Tall Fescue shall be used unless alternate planting materials are approved. Alternate planting materials shall be natural materials compatible with their surroundings (i.e. wetlands, mowed areas, prairies, woodlands). Species considered to be invasive to the area will not be allowed.

The following guidelines identify requirements for alternate planting materials within various defined areas of MCD-maintained channels and structures:

- a. Dam embankments
  - Species may be considered on a site-specific case-by-case basis
  - No woody vegetation will be permitted
  - All plantings are subject to periodic mowing (minimum once per year)
- b. Edge of water along maintained areas
  - Woody vegetation and twiggy plants that tend to catch floating debris will not be permitted
  - Roots structures should provide erosion control year around
  - Plants shall withstand high velocity flows and should be able to bend under the force of the water
  - Aesthetics of the plants in their surroundings and the view of the river from trails will be considered
  - Plants should regenerate after mowing
- c. Flat beach area between edge of water and toe of levee
  - Woody vegetation and twiggy plants that tend to catch floating debris will not be permitted
  - Roots structures should provide erosion control year around

- Plants shall withstand high velocity flows and should be able to bend under the force of the water
  - Aesthetics of the plants in their surroundings will be considered
  - Plants should be able to regenerate after periodic mowing
  - Plants shall withstand occasional vehicular traffic
  - MCD may require a hydraulic analysis to demonstrate that the plants do not affect flow patterns or channel capacity
- d. River side of levee slope
- Woody vegetation will not be permitted
  - Roots structures shall provide erosion control year around
  - Plants shall completely cover the planted area – no bare earth areas will be permitted
  - Plants shall withstand high velocity flows and should be able to bend under the force of the water
  - Plants shall not block vehicular access
  - Plants shall not affect MCD's ability to maintain and inspect the levee
  - Aesthetics of the plants in their surroundings will be considered
  - Plants should be able to regenerate after periodic mowing
  - MCD may require a hydraulic analysis to demonstrate that the plants do not affect flow patterns or channel capacity
  - Low growing plants that require infrequent mowing should be considered for steep slopes
- e. Top of levee
- Plants shall not block vehicular access
  - Trees and woody vegetation may be considered in a case-by-case basis using the following criteria:
    - The top width of the levee is more than 50 feet or the roots are physically contained by a root barrier
    - The trees or vegetation shall not affect MCD's ability to maintain and inspect the levee
    - Roots shall not surface on the levee slope
    - Roots shall not affect recreation trails
- f. Land side of levee slope
- Woody vegetation will not be permitted
  - Plants shall not block vehicular access
  - Plants shall not affect MCD's ability to maintain and inspect the levee
  - Aesthetics of the plants in their surroundings will be considered
  - Plants should regenerate after mowing
  - Low growing plants that require infrequent mowing should be considered for steep slopes
- g. Adjacent to land side levee toe
- Plants shall not block vehicular access
  - Plants, including canopies, shall not affect MCD's ability to maintain and inspect the levee
  - Plants shall not block access to or otherwise affect piezometers or wells

- Plants shall be able to regenerate after periodic mowing
- h. Under bridges
    - Plants must withstand deep shading and dry conditions
    - The requirements for beach areas and river side levee slopes apply for the appropriate location
  - i. Adjacent to concrete or stone walls, revetment or other structures
    - Plants shall not affect MCD's ability to maintain and inspect the structure
    - Roots shall not affect the structure
    - Vines and other climbing plants will not be permitted
4. Environmental Considerations
    - a. No natural material including plants, rocks, or soil shall be removed or destroyed without prior written approval.
    - b. The top ten (10) inches of topsoil is to be removed and stockpiled for restoration purposes prior to starting any excavation.
    - c. No tree four (4) inches in diameter or great may be removed without prior written approval. The planting of two (2) trees will be required for the removal of every tree larger than four (4) inches in diameter. Type and location of trees to be planted will be as directed.
    - d. Except for authorized activities, no bird nest or animal habitation shall be moved or destroyed.
    - e. Concerning the removal of trees located along MCD owned or controlled property lines
      - If MCD determines any portion of the tree presents a hazard, the tree will be trimmed or removed by MCD, subject to an agreement with adjacent property owner to have the tree trimmed or removed at no liability to MCD.
      - If MCD determines the tree is of no danger to the adjacent property no further action will be taken.
      - If written authorization is granted by MCD allowing the adjacent property owner or its agent to trim or remove any portion of the tree, MCD, subject to pre-approval, agrees to pay fifty (50%) percent of the cost of trimming or removal.
  5. Asphalt for recreation trails
    - a. Intermediate course shall be Type 2 per ODOT 441.02 (2013 Construction and Material Specifications).
    - b. Surface course shall be Type 1 per ODOT 441.02 (2013 Construction and Material Specifications).
  6. Other Materials – all other materials not specified herein shall be approved by MCD prior to use on MCD property.

I, THE GRANTEE OR AUTHORIZED REPRESENTATIVE FOR SAID GRANTEE, IN EXCHANGE FOR SUCH USE AS DEFINED WITHIN THIS AGREEMENT, DO HEREBY ACKNOWLEDGE ACCEPTANCE OF ALL TERMS AND CONDITIONS AS STATED WITHIN THIS PERMIT:

XXXXX

Date: \_\_\_\_\_

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

\* \* \* \* \*

AS AUTHORIZED REPRESENTATIVE FOR MCD I DO HEREBY GRANT APPROVAL, SUBJECT TO THE TERMS AND CONDITIONS OF THIS AGREEMENT, TO USE MCD PROPERTY FOR SUCH USE AS DEFINED WITHIN THIS PERMIT:

THE MIAMI CONSERVANCY DISTRICT

Date: \_\_\_\_\_

By: \_\_\_\_\_

Kurt A. Rinehart, Chief Engineer

Any questions concerning this Permit or the use of MCD property shall be directed to the **MCD PROPERTY ADMINISTRATOR** Roxanne Farrier at (937) 223-1278, ext. 3230.

**MCD CARETAKER:** XXX at (XXX) XXX-XXXX (office) or (937) 414-XXXX (cell).

**GRANTEE'S CONTACT PERSON:** XXX at (XXX) XXX-XXXX

Tab 7  
**Fact Sheets**



**MCD**

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MIAMI CONSERVANCY DISTRICT

## BACKGROUND

It is critical that MCD is able to access and maintenance all components of the flood protection system. Proposed project owners should evaluate the effect of the project on MCD property so that the ability to access and maintain the levees, floodwalls, and floodgates is not compromised during construction and throughout the life of the project.

## ACCESS AND MAINTENANCE

### Access to MCD Property

Proposed projects should

- Provide MCD access for routine maintenance, inspection, or emergency repairs
- Maintain a minimum 15-ft buffer from levee toe

### Maintenance of MCD Property

Proposed projects should

- Cause no obstruction to maintenance
  - MCD will not approve improvements, developments, or uses that permanently alter or diminish MCD's ability to maintain the flood protection
  - MCD may not approve stairways and other structures on levee slopes that could hinder MCD maintenance activities.
  - MCD may not approve a proposed project that creates an "orphan" maintenance area

### Maintenance of Project

Projects maintenance needs should be addressed throughout the entire project life-cycle

- Proposed project owners should develop long term maintenance plans
- Proposed project owners should identify sources of maintenance funding
- MCD will consider other projects and amenities owned and maintained by the requesting agency

## ADDITIONAL INFORMATION

Roxanne Farrier, Property Administrator  
937-223-1278 x3230  
[rfarrier@mcdwater.org](mailto:rfarrier@mcdwater.org)

# Plans and Specifications



## BACKGROUND

The Miami Conservancy District (MCD) may allow construction of projects on its land through a General Land Use Permit. Permit approval is subject to MCD review and approval of the project plans and specifications.

## PLANS AND SPECS

### Submit to MCD

- Final construction plans as part of Land Use Permit Application
- Final construction specifications, if applicable
- As-built plans following construction completion

### Construction plans should include

- Site information
  - Horizontal and vertical survey control
  - Existing contours
  - Property lines, right-of-way, easements
  - Existing utility locations
- Proposed Project Data
  - Extents of proposed work
  - Plan view, profiles and cross sections
  - Contractor access points
  - Proposed site contours

### Specifications should include

- Language meeting MCD Land Use Policy, Appendix III “*General Design and Construction Requirements*”
- Language meeting MCD Land Use Policy, Appendix V “*Material Specifications*” such as:
  - Fill material
  - Laboratory testing
  - Compaction
  - Seeding and mulching
- Notice to contractor that MCD Construction Permit is required

## QUESTIONS

Roxanne Farrier, Property Administrator  
937-223-1278 x3230  
[rfarrier@mcdwater.org](mailto:rfarrier@mcdwater.org)

# Hydraulic Analysis Model



## BACKGROUND

MCD requires hydraulic modelling to be performed for proposed construction projects or modifications to existing structures that may impact the flood protection system. HEC-RAS is the preferred modelling format. Models are to be certified by a Professional Engineer and submitted along with a hydraulics report.

## MODEL REQUIREMENTS

### Discharge/ Frequency Events

- MCD Official Plan Flood (OPF) to be modeled (MCD will provide discharge values)
- OPF analysis is separate from any FEMA requirements or local floodplain regulations

### Water Surface Impacts

- New or modified structures shall demonstrate **“no rise” in the OPF water surface profile**
- Channel encroachments for floodplain development projects shall demonstrate **“no rise” in the OPF water surface profile**
- Temporary cofferdams and causeways may increase OPF water surface profile, but may not result in overtopping of levees or floodwalls

### Models Submitted

- Electronic files of hydraulic analysis using HEC-RAS, or other approved hydraulic model
- Existing Conditions model reflecting pre-construction channel geometry and structure conditions
- Proposed Conditions model reflecting the final design or modifications to the structure and channel geometry
- Temporary Conditions model reflecting major appurtenances, such as cofferdams and causeways, used during a portion of construction
- Final as-built model after construction is completed

### Model Calibration

- Model to be calibrated to nearest USGS gage
- If not practical, model to be calibrated to 1959 Survey High Water Marks provided by MCD
- Other surveyed high water marks may be allowable

### Other Federal, State and Local Requirements

- Other Federal, State and Local floodplain development requirements may need to be satisfied
- MCD does not certify work for other jurisdictional or regulatory requirements

## QUESTIONS

Roxanne Farrier, Property Administrator  
937-223-1278 x3230  
[rfarrier@mcdwater.org](mailto:rfarrier@mcdwater.org)

# Hydraulic Analysis Erosion and Drift



## BACKGROUND

MCD may request that the potential and impact of erosion and drift accumulation be evaluated as part of the hydraulic analysis. If analyses are required models are to be certified by a Professional Engineer and submitted along with a hydraulics report.

## EROSION AND DRIFT

### Erosion Analysis

If proposed project could result in high flow velocities, eddies, swirling, or concentrated flow that would cause erosion to the levee, additional erosion analysis may be required

- Hydraulic analysis using HEC-RAS, or other approved hydraulic model to determine potential for high velocities and shear stress along levee embankments
- The guidelines of USACE EM 1110-2-1601 should be reviewed to determine scour resistance of embankment materials
- Temporary construction activities, such as cofferdams, should be evaluated for their potential to cause erosion along embankments
- If analyses indicate erosion potential, embankment armoring must be provided

### Drift Analysis

If proposed project could result in drift accumulation that would cause rise in the water surface elevation or erosion to the levee, additional analysis may be required

- Hydraulic analysis using HEC-RAS Pier Debris Option or other approved methods
- If an analysis demonstrates that the drift accumulation will raise the OPF water surface profile, the proposed use shall be modified to meet the OPF criteria for flood protection
- If an analysis demonstrates that the drift accumulation may cause eddies, swirling and concentrated flow that may result in embankment erosion, mitigation measures are necessary

## QUESTIONS

Roxanne Farrier, Property Administrator  
937-223-1278 x3230  
[rfarrier@mcdwater.org](mailto:rfarrier@mcdwater.org)

# Geotechnical Embankment Stability Analysis



## BACKGROUND

Proposed projects that would alter or relocate any part of a levee may require embankment stability analysis. The analysis and report documenting the findings should be certified by a Professional Engineer and submitted to MCD.

## PROJECT REQUIREMENTS

### Geotechnical Exploration

Geotechnical/subsurface exploration, analysis, and documentation may be required to develop parameters for the embankment stability analysis and are the responsibility of the project owner.

### Stability Analysis

- Embankment and slope stability analyses to be performed using OPF and effective FEMA base flood water surface elevations
- Embankment stability and slope stability analyses should follow guidelines of U.S. Army Corps of Engineers EM 1110-2-1902, *Slope Stability* (2003)
  - Four load cases (if applicable) need to be evaluated for each independent levee segment
    - End-of-construction
    - Steady-state seepage
    - Sudden drawdown
    - Seismic
  - Minimum Allowable Factors of safety can be found in EM 1110-2-1913, Table 6-1b

### Material Specifications

Materials used for embankment construction must conform to MCD Land Use Policy, Appendix V "*Material Specifications*":

- Fill material should be naturally occurring or blended clayey material
- Soil classified as CH and CL according to ASTM D2487 and USCS suitable for fill
- Soils must be clean, free of organic masses, concrete, other debris
- Environmental and inorganic composition testing may be required

## QUESTIONS

Roxanne Farrier, Property Administrator  
937-223-1278 x3230  
[rfarrier@mcdwater.org](mailto:rfarrier@mcdwater.org)

# Geotechnical Foundation Analysis



## BACKGROUND

Proposed projects that would alter or relocate any part of a levee may require foundation stability analysis. The analysis and report documenting the findings should be certified by a Professional Engineer and submitted to MCD.

## PROJECT REQUIREMENTS

### Geotechnical Exploration

Geotechnical/subsurface exploration, analysis, and documentation may be required to develop parameters for the embankment stability analysis and are the responsibility of the project owner.

### Stability Analysis

- Foundation analyses to be performed using OPF and effective FEMA base flood water surface elevations
- Seepage evaluations should follow guidelines of U.S. Army Corps of Engineers ETL 1110-2-569, *Design Guidance for Levee Underseepage* (2005)
- Minimum factors of safety for analyzing the FEMA Base Flood. are
  - Allowable Exit Gradients
    - At toe of levee – 0.5
    - At toe of seepage berm (150' beyond) – 0.8
  - Allowable Factors of Safety against Piping
    - At toe – 2.0
    - 150' Beyond – 1.25
  - Allowable Factors of Safety against uplift/heave
    - Minimum 1.5
- OPF factors of safety will be project specific as determined by MCD
- To achieve foundation stability requirements, additional measures including, but not limited to, soil modification, cut-off walls, toe berms, and toe drainage may be required.

## QUESTIONS

Roxanne Farrier, Property Administrator  
937-223-1278 x3230  
[rfarrier@mcdwater.org](mailto:rfarrier@mcdwater.org)

# Geotechnical Settlement and Wall Analysis



## BACKGROUND

Proposed projects that would alter or relocate any part of a levee may require embankment settlement analysis. Proposed projects that would alter or relocate any part of a floodwall or revetment may require structural analysis. The analysis and report documenting the findings should be certified by a Professional Engineer and submitted to MCD.

## PROJECT REQUIREMENTS

### Geotechnical Exploration

Geotechnical/subsurface exploration, analysis, and documentation may be required to develop parameters for the settlement analysis and is the responsibility of the project owner

### Settlement Analysis

- Settlement analysis should follow the guidelines of U.S. Army Corps of Engineers manual 1100-2-1904, "*Soil Mechanics Design – Settlement Analysis*"
- Analyses should address:
  - Embankment loads
  - Compressibility of embankment soils
  - Compressibility of foundation soils
  - Age of levee system or dam
  - Construction compaction methods
- MCD may require a higher finish elevation to mitigate potential settlement

### Wall Analysis

Any proposed improvement, development or use that alters or relocates concrete walls or revetment requires:

- Structural analysis of floodwalls, crest walls, and retaining walls should follow the guidelines of U.S. Army Corps of Engineers manual 1110-2-2502, "*Retaining and Flood Walls*"
  - Bearing Capacity
  - Overturning
  - Sliding
  - Flexural Capacity

## QUESTIONS

Roxanne Farrier, Property Administrator  
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[rfarrier@mcdwater.org](mailto:rfarrier@mcdwater.org)