

## Instructions for completing the Section 401 Water Quality Certification and Isolated Wetlands Permit Application

This application must be completed whenever a proposed activity requires an individual Clean Water Act Section 401 Water Quality Certification (401 WQC) from Ohio EPA. A 401 WQC from the State is required to obtain a federal Clean Water Act Section 404 permit (404 permit) from the U.S. Army Corps of Engineers (USACE), or any other federal permits or licenses for projects that will result in a discharge of dredged or filled material to any waters of the State.

This application is also intended to be used when applying for a State Isolated Wetlands Permit. Isolated wetlands are regulated under Ohio's State Isolated Wetlands law ([Ohio Revised Code \(ORC\) Sections 6111.02 through 6111.028](#)). Isolated wetlands are not connected to other surface waters. For this reason they are not classified as waters of the United States by the U.S. Army Corps of Engineers. Nevertheless, they are waters of the State of Ohio and are therefore regulated by the Ohio EPA, Division of Surface Water, Section 401 Wetlands and Streams Permitting Section. For more information about isolated wetlands permitting, access the State Isolated Wetlands section on our Website: [www.epa.ohio.gov/dsw/401/IWP.aspx](http://www.epa.ohio.gov/dsw/401/IWP.aspx).

To determine whether you need to submit this application to Ohio EPA, contact the USACE District Office with jurisdiction over your project ([www.usace.army.mil/cecw/pages/cecwo\\_reg.aspx](http://www.usace.army.mil/cecw/pages/cecwo_reg.aspx)), or other federal agencies reviewing your application for a federal permit to discharge dredged or fill material to waters of the State, or Ohio EPA Section 401 Coordinator at (614) 644-2001.

The Ohio EPA Section 401 Water Quality Certification Program is authorized by Section 401 of the Clean Water Act (33 U.S.C. 1251) and the ORC Section 6111.03(P). Ohio Administrative Code (OAC) Chapter 3745-32 outlines the application process and criteria for decision by the Director of Ohio EPA. In order for Ohio EPA to issue a 401 WQC, the project must comply with Ohio's Water Quality Standards (OAC 3745-1) and not potentially result in an adverse long-term or short-term impact on water quality. Included in the Water Quality Standards is the Anti-degradation Rule (OAC 3745-1-05), effective October 1, 1996, revised October, 1997 and May, 1998. The Rule includes additional application requirements and public participation procedures. **Because there is a lowering of the water quality associated with every project being review for 401 WQC, every 401 WQC applicant must fully complete this document.** In addition, applications for projects that will result in discharges of dredged or fill material to wetlands must include a wetland delineation report approved by the USACE, a wetland assessment with proposed assignment of wetland category(ies), official documentation on evaluation of the wetland for threatened and/or endangered species, and appropriate avoidance, minimization, and mitigation as prescribed in OAC 3745-1-50 to 3745-1-54. Ohio EPA will evaluate the applicant's proposed wetland category assignment and make the final assignment.

Information provided in the application will be used to evaluate the project for certification and is a matter of public record. If the Director determines that the application lacks information necessary to determine whether the applicant has demonstrated the criteria set forth in OAC Rule 3745-32-05(A) and OAC Chapter 3745-1, Ohio EPA will inform the applicant in writing of the additional information that must be submitted. The application will not be considered complete until all required information has been received and an Ohio EPA Section 401 Coordinator has notified you in writing that your application is determined to be complete.

In order to ensure the most efficient and consistent review of every Section 401 Water Quality Certification Application, Ohio EPA has determined that every application must be completed and submitted utilizing the same organizational structure.

Incorrect, incomplete, and/or inaccurate applications may result in delays in application processing or a denial of the Section 401 WQC. You will be notified within 15 business days of receipt of the application if your application is

incomplete. A resubmittal of the application begins a new 15-business day review period. A review period of 180 calendar days commences on the date Ohio EPA sends notification to the applicant that the application is considered to be complete. Once an application has been deemed complete, Ohio EPA can request materials to clarify impacts, mitigation, or other aspects of the application. If an application is incomplete for more than one year, Ohio EPA may issue a Denial without Prejudice or request that the applicant withdraw their application.

The following instructions are intended to help the Applicant prepare a complete application in compliance with Ohio rule. Following these guidelines will help reduce delays in processing your application. Answer each question completely. If there is insufficient room on the form for a complete response, please provide an attachment, labeled according to corresponding Section, title and question number. **Additional documents must support information given within the application form; they are NOT a substitute for completing the form.** For example, “see attached” is not an adequate response to any question or field within the application form. Supplemental documents must be specifically cited within the application form.

Appropriate fees must accompany the printed copy of the complete application (see Section 1 Part D). Failure to submit appropriate fees or not filling out all sections completely may result in the application being considered administratively incomplete.

**Choose ONE Option to Submit Your Application:**

- One (1) signed and printed copy of the complete application and supporting documentation and upload an electronic file of the complete application and supporting Attachments (only pdf files of the supporting documentation will be accepted) to the following web link: (**no link yet available – coming soon**); or
- One (1) signed and printed copy of the complete application and supporting documentation and e-mail the complete application (excel workbook) and supporting Attachments (only pdf files of the supporting documentation will be accepted) to [dsw.webmail@epa.state.oh.us](mailto:dsw.webmail@epa.state.oh.us); or
- If electronic versions of the documents cannot be provided, submit the original signed and completed application and three (3) copies of the signed and completed application (print the entire excel workbook) and supporting Attachments

Printed copies, disks and fees shall be submitted to:

Ohio EPA, Attn: Manager DSW/401 Section, P.O. Box 1049, Columbus, OH 43216-1049

## ***Application for Section 401 Water Quality Certification***

This page serves as the cover for the application. Ohio EPA will use this page to record information about the application including date received, the appropriate 401 Coordinator, Ohio EPA ID#, USACE Public Notice#, Project Name and Date of the Site Visit(s). The Division of Surface Water will also use this cover page to record fiscal processing information.

Please enter a revision number and date in the top, right-hand corner of the page. When submitting revised versions of the application because you want to update application information, or based on comments received during the completeness review or technical review, please be sure to update this section by providing a new revision number and date. Revision numbers should be in the following sequence: 1, 2, 3, 4, 5, etc.

### ***A. Pre-Application and Type of Review***

#### ***1. Pre-Application Coordination***

If you plan to apply for a 401 WQC and/or Isolated Wetlands Permit, it is in your best interest to request pre-application coordination. For more information, see the DSW Pre-Application Website:

[www.epa.ohio.gov/dsw/401/WQC.aspx#pre-app](http://www.epa.ohio.gov/dsw/401/WQC.aspx#pre-app).

1. Pre-application coordination: If pre-application coordination has taken place for this project, indicate that here. If no pre-application coordination has taken place for this project, skip to Section A.2. If some type of coordination has taken place (meeting, conference call, site visit, or the like), select “yes.” If no coordination has taken place, select “no.”
2. 401 Contact: Select the name of the Ohio EPA 401 Section staff person that you have contacted regarding your project.
3. Pre-application request form: If you submitted a pre-application request form, enter the date the form was submitted to Ohio EPA. You can either manually enter the date in the cell or select the cell and pick the date in the pop-up window. To delete or change a date, select the cell and in the formula bar, delete or type a new date.
4. Site visit/meeting occurred: Enter/select the date that the pre-application site visit or meeting was held.
5. Date of Ohio EPA's follow-up letter: Enter/select the date of Ohio EPA's pre-application meeting follow-up letter.
6. Date of response letter: Enter/select the date of your response letter.

## 2. Type of Review

Check the box next to the appropriate review type to indicate the type of review that is anticipated for this project. More than one review type may be selected.

**1. Section 401 WQC Review:** A 401 WQC from the State is required to obtain a federal Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers (USACE), or any other federal permits or licenses for projects that will result in a discharge of dredged or fill material<sup>1</sup> to any waters of the State. After your application is considered administratively complete, Ohio EPA will conduct the technical review and take action on your application in 180 days or less. This is in accordance with Ohio Revised Code (ORC) Section 6111.30.

**2. State Isolated Wetlands Level 1 Review:** When a project proposes to place fill into 0.5 acres or less of Category 1 or Category 2 wetlands, an isolated wetland permit level 1 review is required. Once the application is considered administratively complete, Ohio EPA will conduct the technical review and take action on your application in 30 days or less.

**3. State Isolated Wetlands Level 2 Review:** When a project proposes to place fill into more than 0.5 acre of Category 1 and/or more than 0.5, but less than or equal to 3 acres of Category 2 wetlands, an isolated wetland permit level 2 review is required. Once the application is considered administratively complete, Ohio EPA will conduct the technical review and take action on your application in 90 days or less.

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<sup>1</sup> Fill material - means any material that is used to fill an aquatic area, to replace an aquatic area with dry land, or to change the bottom elevation of a wetland for any purpose and that consists of suitable material that is free from toxic contaminants in other than trace quantities. “Fill material” does not include either of the following:

(1) Material resulting from normal farming, silviculture, and ranching activities, such as plowing, cultivating, seeding, and harvesting, for the production of food, fiber, and forest products;

(2) Material placed for the purpose of maintenance of existing structures, including emergency reconstruction of recently damaged parts of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, and bridge abutments or approaches, and transportation structures.

“Filling” means the addition of fill material into a wetland for the purpose of creating upland, changing the bottom elevation of the wetland, or creating impoundments of water. “Filling” includes, without limitation, the placement of the following in wetlands: fill material that is necessary for the construction of any structure; structures or impoundments requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, or other uses; causeways or road fills; dams and dikes; artificial islands, property protection, or reclamation devices such as riprap, groins, seawalls, breakwalls, and bulkheads and fills; beach nourishment; levees; sanitary landfills; fill material for structures such as sewage treatment facilities, intake and outfall pipes associated with power plants, and underwater utility lines; and artificial reefs.

**4. State Isolated Wetlands Level 3 Review:** When a project proposes to place fill into more than 3 acres of Category 2 and/or any size Category 3 wetlands, an isolated wetland permit level 3 review is required. Once the application is considered administratively complete, Ohio EPA will conduct the technical review and take action on your application in 180 days or less.

**5. After-the-fact Review:** If all or part of the project has already been completed without authorization, the after-the-fact permit application will be reviewed under the 401 WQC time frame. Keep in mind that your application may result in enforcement actions and you may be required to restore the impacted water bodies.

## ***B. Section 401 WQC Administrative Completeness Check List***

Complete this section if you answered yes to A.2.1 above. This section serves as check lists for both the applicant and the 401 Coordinator. Indicate that you have provided the specified content, that you have included it in the appropriate location within the application and that you have provided the applicable attachments by checking the box to the left of each of the required items.

The ORC §6111.30 requires applicants for a 401 WQC to include specific items necessary for the Agency's review of the application. The intention of the statute is to ensure the Agency has the basic information necessary to begin review of 401 WQC applications. The completeness review, since it must be completed within 15 business days, is considered a purely administrative review. This should not be confused with the more in depth technical review which is to be completed within 180 days from when the application is considered administratively complete.

## ***C. State Isolated Wetland Level 1 Administrative Completeness Check List***

Complete this section if you answered yes to A.2.2 above. This section serves as check lists for both the applicant and the 401 Coordinator. Indicate that you have provided the specified content, that you have included it in the appropriate location within the application and that you have provided the applicable attachments by checking the box to the left of each of the required items.

The ORC §6111.022, requires applicants for Isolated Wetland Level 1 Review, to include specific items necessary for the Agency's review of the application. The intention of the statute is to ensure the Agency has the basic information necessary to begin review of the State Isolated Wetland Permit application. The completeness review, since it must be completed within 15 business days, is considered a purely administrative review. This should not be confused with the more in depth technical review which is to be completed within 30 days from when the application is considered administratively complete for an IWP Level 1 Review.

## ***D. State Isolated Wetland Level 2 Administrative Completeness Check List***

Complete this section if you answered yes to A.2.3 above. This section serves as check lists for both the applicant and the 401 Coordinator. Indicate that you have provided the specified content, that you have included it in the appropriate location within the application and that you have provided the applicable attachments by checking the box to the left of each of the required items.

The ORC §6111.023 requires applicants for Isolated Wetland Level 2 to include specific items necessary for the Agency's review of the application. The intention of the statute is to ensure the Agency has the basic information necessary to begin review of the State Isolated Wetland Permit application. The completeness review, since it must be completed within 15 business days, is considered a purely administrative review. This should not be confused with the more in depth technical review which is to be completed within 90 days from when the application is considered administratively complete for an IWP Level 2 Review.

## ***E. State Isolated Wetland Level 3 Administrative Completeness Check List***

Complete this section if you answered yes to A.2.4 above. This section serves as check lists for both the applicant and the 401 Coordinator. Indicate that you have provided the specified content, that you have included it in the appropriate location within the application and that you have provided the applicable attachments by checking the box to the left of each of the required items.

The ORC §6111.024 requires applicants for Isolated Wetland Level 3 to include specific items necessary for the Agency's review of the application. The intention of the statute is to ensure the Agency has the basic information necessary to begin review of the State Isolated Wetland Permit application. The completeness review, since it must be completed within 15 business days, is considered a purely administrative review. This should not be confused with the more in depth technical review which is to be completed within 180 days from when the application is considered administratively complete for an IWP Level 3 Review.

### ***SECTION 1: Administrative Information***

#### ***1.1 Applicant Information***

**1-13. Applicant Contact Name and Title:** Provide the contact name (Last, Middle and First), title, company name, telephone number, fax number, an alternate telephone number (if desired), e-mail address, the company website, and the company's mailing address (not the project address), including the street, township, city and county, state and zip code.

**14-26. Applicant Technical Point-of-Contact:** A technical point-of-contact name and appropriate contact information MUST be provided. The technical point-of-contact may be the applicant contact listed above, or it may be someone else within the company that has the authority to act in the applicant's behalf in regards to the processing of this 401 WQC/IWP application. For complex projects or projects with multiple contractors and responsible parties, designation of a single point of contact will speed up the process and enable more timely responses to requests for information.

#### ***1.2 Consultant/Agent Information (if applicable)***

**1-13. Consultant/Agent Technical Point-of-Contact:** The primary consultant/agent's role is to oversee the processing of the 401 WQC/IWP application and to make the day-to-day decisions regarding the application. You are not required to have an agent. If you choose to be represented by an agent, provide the agent's information in 1-13 of this Section. Ohio EPA recommends that the primary agent be a consultant familiar with the 401 WQC and/or IWP regulatory process.

**14-26. Other Consultant/Agent:** You may choose to provide contact information for a secondary consultant/agent. You are not required to have a secondary consultant/agent. The secondary consultant/agent would not have the authority to make decisions on your behalf regarding the processing of your 401 WQC/IWP application. Provide the secondary consultant/agent's information in 14-26 of this Section. The secondary consultant/agent's role would strictly be to provide additional technical information regarding the 401 WQC/IWP application, such as engineering diagrams, stormwater pollution prevention plans, etc. that are not routinely prepared by the primary consultant/agent.

**27. Main Point of Contact:** From ALL of the contact information entered above, indicate which ONE is to be the designated point of contact for all correspondence and questions. Ohio EPA will direct all communications, letters, phone calls and e-mails to this person.

### 1.3 Agent Authorization and Application Signatures

**Statement of Authorization:** To designate and authorize a primary consultant/agent to act on your behalf in the processing of this 401 WQC/IWP, print your name and sign and date on the appropriate lines. By signing this document, you are certifying that the consultant/agent named in Section 1.2. is authorized to act in your behalf in the processing of the 401 WQC/IWP application, and may furnish supplemental information in support of the application.

Regardless of whether or not you designate a consultant/agent, you must sign the 401 WQC/IWP application in Section 1.3. Print your name and sign and date on the appropriate line. If you have designated a consultant/agent, then this person must also print their name and sign and date on the appropriate line. These signatures certify that the information that is contained in the application is true, complete, and accurate. Failure to have the necessary signatures in this portion of the application will result in the application being considered administratively incomplete.

### 1.4 Fees

Ohio Revised Code (ORC) §3745.114(A), requires payment of appropriate fees when the 401 WQC application is submitted.

**1. Application Fee:** A \$200.00 fee that must be paid **in full** for **ALL** 401 WQC applications at the time of submittal. A separate \$200.00 fee that must be paid **in full** for **ALL** IWP applications at the time of submittal. Both fees are required if you are applying for both permits. For example, if you are submitting both a 401 WQC and an IWP application, a (\$200.00 + \$200.00) \$400.00 application fee is required at the time of submittal. If you are only submitting a State Isolated Wetland Permit Level 2 Review, a \$200.00 fee is due at the time of submittal.

**2. Water Quality Certification Impact Review Fees:** A fee amount that is calculated based on the quantity of water resource impact included in the **PREFERRED** Alternative, regardless of which alternative is actually proposed for implementation. **One-half of all review fees** must be paid for ALL 401 applications at the time of submittal. The remainder of the review fees will be due at the time of final disposition of the application.

- **Wetlands Impact Review Fee:** \$500.00 per acre, with impacts rounded to the nearest hundredth of an acre.
- **Streams Impact Review Fee:** calculated based on the hydrological classification of the stream. The hydrological classification of each stream on the project site will usually be indicated in the jurisdictional determination (referred to as the JD) letter issued by the USACE. If for some reason the USACE jurisdictional determination letter does not indicate the hydrological classification of an impacted stream, then Ohio EPA will make the final determination.
  - **Ephemeral:** \$5.00 per linear foot of impact;
  - **Intermittent:** \$10.00 per linear foot of impact;
  - **Perennial:** \$15.00 per linear foot of impact;
- **Lakes Impact Review Fee:** \$3.00 per cubic yard of dredged or fill material to be moved.

#### Exceptions to Fee Requirements:

- The ORC §3745.114(B) places a fee cap of \$25,000.00 on **ALL** 401 WQC applications.
- If the applicant is a county, as governed by Title III of the Ohio Revised Code; a township, as governed by Title V of the Ohio Revised Code; or municipal corporation, as governed under Title VII of the Ohio Revised Code, the fee cap is \$5,000.00.
- If the applicant is a state agency, fees are waived.
- Fees do not apply to projects that are authorized by Ohio EPA's certification of the nationwide permits. Nationwide Permits are defined in ORC §6111.

**3. State Isolated Wetland Permit Impact Review Fees:** A fee amount that is calculated based on the quantity of water resource impact. **All review fees** must be paid in full for ALL IWP applications at the time of submittal.

- **Wetlands Impact Review Fee:** \$500.00 per acre, with impacts rounded to the nearest hundredth of an acre.

**Exceptions to Fee Requirements:**

- The ORC §3745.113 places a fee cap of \$5,000.00 on **ALL** IWP applications.
- Fees do not apply to Counties, as governed by Title III of the Ohio Revised Code; Townships, as governed by Title V of the Ohio Revised Code; and Municipalities, as governed under Title VII of the Ohio Revised Code.
- If the applicant is a state agency or department of the state, fees are waived.

**4. Fee Submission:** A check for the applicable fees (for a 401 WQC, the full \$200.00 application fee and one-half of the applicable impact review fees. For an IWP, the full \$200.00 application fee and full impact review fees) must be submitted along with the application. The check must be made payable to "Treasurer, State of Ohio" and should be provided as Attachment 5.2 of the application.

### 1.5 Other Permit Information

Check the appropriate boxes indicating whether or not other Federal, State, or Local Permits are necessary for this project. If so, check "yes" and provide the date of application and the current status of the permit or if no permit application has been submitted, please indicate why. If a permit is not applicable, select the "no" box.

#### Federal Permits

1. Section 10 - USACE issues Section 10 Permits. Section 10 of the Rivers and Harbors Act of 1899 requires that regulated activities conducted below the Ordinary High Water (OHW) elevation of traditionally navigable waters of the United States be approved/permitted by the USACE. Regulated activities include the placement/removal of structures, work involving dredging, disposal of dredged material, filling, excavation, or any other disturbance of soils/sediments or modification of a traditionally navigable waterway.
2. Section 404 - USACE issues Section 404 Permits. Section 404 of the Clean Water Act (33 United States Code 1344) requires regulation of the discharge of dredged and fill material into all waters of the U.S., including wetlands. The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.
3. Nationwide Permits - USACE Nationwide Permits. Nationwide Permits are activity specific and are designed to relieve some of the administrative burdens associated with permit processing for both the applicant and the Federal government. They provide a simplified, expeditious means of project authorization under the various authorities of the USACE. (Current NWP were published in the March 12, 2007 Federal Register, 72 FR 11092-11198)
4. Other Federal Permits - If any other Federal permit is required for this project, list it and explain the need/requirement.

#### State Permits

DSW Permits - Ohio Environmental Protection Agency Division of Surface Water also issues General NPDES, Individual NPDES and PTI permits.

5. General NPDES - A general National Pollutant Discharge Elimination System (NPDES) permit is one permit that covers facilities that have similar operations and type of discharge. A general NPDES

permit is a potential alternative to an individual NPDES permit and affords coverage to new and existing dischargers that meet the eligibility criteria given in the general permit. The NPDES general permit is intended for storm water discharges associated with construction activities (Construction General Permit or CGP): Any construction activity (i.e., clearing, grading, grubbing, filling, excavating) that disturbs one acre or more over a total common plan of development is required to obtain coverage under the NPDES CGP.  
([www.epa.ohio.gov/dsw/permits/gpfact.aspx](http://www.epa.ohio.gov/dsw/permits/gpfact.aspx))

6. Individual NPDES - An individual NPDES permit is unique to each facility. The limitations and other conditions in an individual permit are based on the facility's operations, type and amount of discharge, and receiving stream, among other factors.  
([www.epa.ohio.gov/dsw/permits/individuals.aspx](http://www.epa.ohio.gov/dsw/permits/individuals.aspx))

7. PTI - A Permit To Install (PTI) is needed when a person wishes to construct any wastewater collection, storage or treatment system or wishes to modify any existing wastewater collection, storage or treatment system.  
([www.ohiodnr.com/Ohio\\_Coast/RegulatoryHome/ShoreStructureGuide2/tabid/9287/Default.aspx](http://www.ohiodnr.com/Ohio_Coast/RegulatoryHome/ShoreStructureGuide2/tabid/9287/Default.aspx))

CZM Permits - Ohio Department of Natural Resources (ODNR) Office of Coastal Management (CZM) issues Shore Structure Permits, Submerged Lands Leases and Coastal Erosion Area Permits.

8. A Shore Structure Permit must be obtained prior to the construction of an erosion, wave or flood control structure along the Ohio shore of Lake Erie. Shore structures commonly include nourished beaches, seawalls, stone revetments, bulkheads, breakwaters, groins, docks, piers and jetties.  
([www.ohiodnr.com/Ohio\\_Coast/RegulatoryHome/ShoreStructureGuide2/tabid/9287/Default.aspx](http://www.ohiodnr.com/Ohio_Coast/RegulatoryHome/ShoreStructureGuide2/tabid/9287/Default.aspx))

9. Submerged Lands Lease - A Submerged Lands Lease is a contract between a shoreline property owner and the State of Ohio. The lease grants a private or public entity the special use of a portion of Public Trust (i.e. Lake Erie submerged lands) in exchange for a rental fee.  
([www.ohiodnr.com/Ohio\\_Coast/RegulatoryHome/SubmergedLandsLeaseGuide3/tabid/9288/Default.aspx](http://www.ohiodnr.com/Ohio_Coast/RegulatoryHome/SubmergedLandsLeaseGuide3/tabid/9288/Default.aspx))

10. Coastal Erosion Area Permit - The Coastal Erosion Area Permit application must demonstrate that measures to control erosion and bluff instability will be constructed prior to or concurrent with construction of the building, septic system or addition, and will meet certain criteria. These criteria generally require the erosion control measure to function effectively for an equivalent period of 30 years.  
([www.ohiodnr.com/Ohio\\_Coast/RegulatoryHome/CEA\\_Permits/tabid/9290/Default.aspx](http://www.ohiodnr.com/Ohio_Coast/RegulatoryHome/CEA_Permits/tabid/9290/Default.aspx))

DMRM Permits - ODNR Division of Mineral Resources Management (DMRM) issues oil and gas well permits and coal and industrial minerals permits.

11. Oil and gas well permits are regulated under provisions of Chapter 1509 of the Ohio Revised Code and rules established in Chapter 1501:9 of the Ohio Administrative Code.

12. Permitting of coal and industrial minerals mining is conducted under provisions of Chapters 1513 & 1514 of the Ohio Revised Code, respectively. Additional rules in Chapters 1501:13 and 1501:14 of the Ohio Administrative Code also govern mining permit activities.  
(<http://ohiodnr.com/mineral/permbond/tabid/17942/Default.aspx>)

13. Other Permits (State of Ohio) - If any other *State of Ohio permit* is required for this project, list the name of the permit and explain the need/requirement.

14. Other Permits (local) - If any other *local* permit is required for this project, list the name of the permit and explain the need/requirement.

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## **SECTION 2: Project Information**

### **2.1 Project Overview**

**1. Project Name:** title the project with an obvious project (site) name. The Site Name will be used when entering the project into the 401 database, as well as, in all correspondence referencing the project. Be sure this title is consistent with other agency applications

**2. Project Purpose and Activity:** Provide a technically accurate narrative description of the proposed project purpose, entire activity and associated impacts, both permanent and temporary, including areas outside of jurisdictional and non-jurisdictional waters. (Use your preferred alternative to provide project details). Your description should include, but not be limited to the following points, as applicable:

- Numbers, locations and dimensions of existing and proposed buildings, structures, and facilities to be built on the site;
- Numbers, locations and dimensions of proposed fill to be placed below the ordinary high water mark<sup>2</sup> within waters of the State, including waters of the U.S., such as culverts, gabions, riprap, wing walls, dikes, cofferdams, and excavations;
- The location and dimension of all associated access roads, work staging areas, and structures to be constructed on fill, piles or floating platforms in waterbodies. Indicate if the structures are permanent or temporary. If temporary, provide a schedule or otherwise describe how long they will be placed in waterbodies, and how the site will be revegetated, restored or otherwise reconditioned on their removal;
- Temporary or permanent dewatering or water diversions;
- The number of streams that will be impacted (crossings, filling, rerouting, etc.) and the linear footage of each stream;
- The number of wetlands that will be impacted (crossing, filling, etc.) and the acreage of each wetland;
- The number of other water bodies that will be impacted and the total linear feet of shoreline or total square feet of lake bottom or lakeward extent;
- The acreage/areas of tree clearing;
- The number and size of storm water detention ponds; and
- The linear feet and width of proposed roadways, bridges, parking lots, etc.

If the minimal degradation alternative differs from the preferred alternative with regard to the project purpose and activity, describe those differences here.

**Example:** The applicant proposes to construct a commercial and residential development. The Site comprises \_\_\_\_ square feet (ft<sup>2</sup>) of commercial space and \_\_\_\_ condominium and apartment residential units. The commercial space consists of \_\_\_\_ ft<sup>2</sup> of commercial retail space; \_\_\_\_ ft<sup>2</sup> of medial office space; \_\_\_\_ ft<sup>2</sup> of corporate office space; and \_\_\_\_ ft<sup>2</sup> of hotel space. The project also involves the construction of \_\_\_\_ ft of internal roadways; \_\_ parking lots totaling \_\_\_\_square feet; and \_\_ storm water ponds totaling \_\_\_\_square feet.

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<sup>2</sup> Ordinary High Water Mark - 33 CFR 328.3(e) defines OHWM as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas". The OHWM is the elevation within waters of the U.S. (streams/wetlands/ditches) at which USACE jurisdiction begins.

The project will impact   #   wetlands, totaling        acres from the construction of buildings and parking lots and        linear feet of streams from the construction of        foot wide roadways. One acre of trees will be cleared on the site.

The minimal degradation alternative differs from the preferred alternative in the following details: The Site will comprise   (less)   ft<sup>2</sup> of commercial space and   (fewer)   condominium and apartment units. The commercial space consists of   (less)   ft<sup>2</sup> of commercial retail space;   (less)   ft<sup>2</sup> of medial office space;   (less)   ft<sup>2</sup> of corporate office space; and   (less)   ft<sup>2</sup> of hotel space. The project also involves the construction of        ft of internal roadways;   (fewer)   parking lots totaling        square feet; and        storm water ponds totaling        square feet.

The project will impact   (lesser #)   wetlands, totaling   (less)   acres from the construction of buildings and parking lots and   (less)   linear feet of streams from the construction of        foot wide roadways. One acre of trees will be cleared on the site.

**3. Site Description of Project Area:** Describe what the proposed project area looks like. Describe the predominant vegetation, the topography, if the site is located in a rural or urban setting, if the site was previously disturbed by past activities (such as grazing, farming or mining), and if the site is adjacent to a roadway, to industrial activity or to farming activities. Include the types of receiving water bodies present on the site.

## 2.2 Project Location

Provide specific information relating to the location of your proposed project.

**1. Project Location:** Determine the project coordinates for the center point of your project in degrees/minutes/seconds (to two decimal places) using <http://findlatitudeandlongitude.com/>.

**2. Total Project Acres:** Provide the total project area in acres.

**3-9. Location Information:** For every project provide a project street address or closest point of reference including the nearest intersection referencing both street names; nearest city, village and township; county; and zip code.

**10. Direction to Project Site:** Provide directions to the site. Use a known location or landmark and include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide a description of the proposed project location, such as lot number, tract numbers, or you may choose to locate the proposed project site from a known point (such as the right descending bank of the Muskingum River, one mile upstream from the mouth).

**11. Other Project Location Information:** Provide other project location descriptions. If available, provide the Tax Parcel Identification number of the site, Section, Township, and Range of the site (if known), and/or local Municipality that the site is located in.

**12-14. Hydrologic Unit Code (HUC):** Provide the Hydrologic Unit Code (HUC) 8/10/12 Digit which can be found here: (<http://gis.epa.ohio.gov/map.php>). If the project is on a stream for which there is a River Mile map or on Lake Erie, also provide a River Mile or Shoreline Mile using <http://www.epa.ohio.gov/dsw/gis/RiverMileSystem.aspx>.

**15. Watershed Name:** Project location must also include information about the Watershed. Provide the watershed name(s). If you know the stream name, the watershed name is referred to as "River Basin" on this Web page: <http://wwwapp.epa.ohio.gov/dsw/ir2010/search.html>. To use the project location zip code to identify the watershed, use US EPA's Surf Your Watershed Web page: <http://cfpub.epa.gov/surf/locate/index.cfm>. To use a map to identify the watershed, use the USGS Science in Your Watershed map : [http://water.usgs.gov/wsc/map\\_index.html](http://water.usgs.gov/wsc/map_index.html).

## 2.3 General Project Questions

**1. Total Maximum Daily Load (TMDL)<sup>3</sup>:** Check the appropriate box indicating whether or not the project site is within a watershed that has a (TMDL) report issued for it. If so, list the name of the TMDL watershed. Use this map to determine if your project is located in a watershed in which a TMDL assessment was conducted: <http://wwwapp.epa.ohio.gov/dsw/gis/tmdl/>. Attachment 5.23 shall include copies of the applicable portions of the TMDL that identify pollutants of concern and recommended actions for the HUC that contains the project site.

**2. Has Project Been Started or Completed?** Check the appropriate box indicating whether or not any portion of the project has already been started or completed. This is not limited to activities within waters of the state. It includes tree cutting, clearing, and grading in upland areas. Explain in detail the activities that have been started or completed.

**3. Unauthorized Impacts?** Check the appropriate box indicating whether or not stream or wetland impacts have already occurred on the site from construction or earth disturbance activities. If streams or wetlands have been impacted prior to receiving a permit, provide details including the stream and/or wetland identification (name), the length (in linear feet) of stream impacted, the acreage of wetland impacted, and a description of the work that has been done. If you have indicated that this is an after-the-fact permit application (A.2.5), you must complete this section. Provide an As-Built drawing. As-built Drawings are the amended "As-designed" drawings revised to show the project as the contractor built and constructed it. The as-built drawings include modifications during construction, field requested changes, shop drawing modifications, and contractor designs. Refer to **page \_\_** for general instructions for drawings.

**4. Is the Project Part of a Phased Development?** Check the appropriate box indicating whether the project will be constructed in multiple phases. If so, provide details as indicated on the overall development plan for the entire project. Provide the anticipated water resource impacts associated with each phase. Provide the proposed or actual start date and the anticipated completion date for each phase. Provide the number of phases in the overall development, explain which phases have already been started or completed, and explain and provide details if phases have already been permitted.

**5. Has Information Changed from Pre-Application?** Check the appropriate box indicating whether or not changes or revisions have been made to the information supplied to the agency during the pre-application meeting or site visit. If so, provide a list of what has been changed. Make sure the updated information is included in the appropriate section of the application, such as updated maps, assessment forms, water resources/impact tables, etc.

## **2.4 Section 401 and State Isolated Wetland Level 3 Project Questions**

**1. Human Health Impacts:** Describe in detail how the project adversely impacts human health. The discussion should consider how the placement of dredge or fill material may impact human health. Typical considerations include, but are not limited to, whether the fill material is contaminated and could reach a human receptor and whether the placement of fill may result in contamination of a public water supply.

**2. Conservation Projects:** To the extent that information is available, list and describe any government and/or privately sponsored conservation projects that exist or may have been formed to specifically target improvement of water quality or enhancement of recreational opportunities on the affected water resource. Such projects may be found by searching for, but are not limited to the following:

*WAP: Watershed Action Plan (WAP): Watershed coordinators across Ohio work with diverse partnerships of stakeholders to develop and implement watershed action plans (WAPs), which are reviewed and endorsed by Ohio*

<sup>3</sup> TMDLs: The Total Maximum Daily Load (TMDL) program, established under Section 303(d) of the Clean Water Act (33 U.S.C. 1313), focuses on identifying and restoring polluted rivers, streams, lakes and other surface waterbodies. A TMDL is a written, quantitative assessment of water quality problems in a waterbody and contributing sources of pollution. It specifies the amount a pollutant needs to be reduced to meet water quality standards (WQS), allocates pollutant load reductions, and provides the basis for taking actions needed to restore a waterbody.

Department of Natural Resources (ODNR) Division of Soil and Water Conservation, and Ohio Environmental Protection Agency (Ohio EPA) Division of Surface Water.

The goal of each plan is to restore and maintain the chemical, physical and biological integrity of water resources within the watershed. Implementation of these plans can include:

- targeting of “best management practices”;
- installation of restoration projects such as dam removal and stream restoration;
- upgrading local land use policies; and/or
- protection of high quality resources through easement purchase and other voluntary set-aside programs.

Ohio Department of Natural Resources, Ohio Watershed Program:

<http://www.dnr.state.oh.us/tabid/9192/Default.aspx>

Watershed Action Plan Endorsement Status Map:

[http://www.dnr.state.oh.us/portals/12/water/watershedprograms/Endorsement\\_Status\\_Map\\_8\\_2010.pdf](http://www.dnr.state.oh.us/portals/12/water/watershedprograms/Endorsement_Status_Map_8_2010.pdf)

Endorsed Watershed Action Plans:

[ftp://ftp.dnr.state.oh.us/Soil\\_&Water\\_Conservation/WatershedActionPlans/EndorsedPlans/](ftp://ftp.dnr.state.oh.us/Soil_&Water_Conservation/WatershedActionPlans/EndorsedPlans/)

Conditionally Endorsed Watershed Action Plans:

[ftp://ftp.dnr.state.oh.us/Soil\\_&Water\\_Conservation/WatershedActionPlans/Conditionally%20Endorsed%20WAPs/](ftp://ftp.dnr.state.oh.us/Soil_&Water_Conservation/WatershedActionPlans/Conditionally%20Endorsed%20WAPs/)

Total Maximum Daily Load Program: <http://www.epa.ohio.gov/dsw/tmdl/index.aspx>

TMDL Project Status Map: <http://wwwapp.epa.ohio.gov/dsw/gis/tmdl/>

SWERP: Surface Water Enhancement, Restoration, and Protection (SWERP) Clearinghouse: The purpose of the SWERP Clearinghouse is to serve as a networking tool to facilitate the identification and implementation of potential surface water improvement and protection projects that include restoration, protection or enhancement projects. It is intended to facilitate the process of identifying potential projects that may be selected as compensation for environmental impacts to surface waters throughout Ohio. It includes options submitted by land owners, government agencies, watershed coordinators and others that may result in improvement and/or protection of streams, wetlands and lakes. <http://www.epa.ohio.gov/dsw/swerp/index.aspx>

OWO: Ohio Watersheds Online: Ohio Watershed Network's link to Watershed Groups in Ohio. Through the link, find more than 100 Ohio watershed groups, who may have information about conservation projects occurring in the watershed. <http://ohiowatersheds.osu.edu/>

**3. Public Need<sup>4</sup>** (Answer only if impacts are proposed to Category 3 wetlands.): The wetland designated use shall be maintained and protected in wetlands assigned to Category 3, and no lowering of water quality shall be allowed, unless it is demonstrated to the satisfaction of the director that the proposed activity is necessary to meet a demonstrated public need, as defined in OAC rule 3745-1-50 and the wetland is not scarce regionally and/or statewide, or if the wetland is scarce, the project will cause only a short-term disturbance of water quality that will not cause long-term detrimental effects.

In addition to and different from the demonstration of social and economic justification (SEJ), impacts to Category 3 wetlands are not allowable unless the applicant demonstrates the proposed activity is necessary to meet a demonstrated public need, as defined in rule 3745-1-50 of the Ohio Administrative Code, which states "Public need means an activity or project that provides important tangible or intangible gains to society, that satisfies the expressed or observed needs of the public where accrued benefits significantly outweigh reasonably foreseeable

<sup>4</sup> Public Need: An activity or project that provides important tangible and intangible gains to society that satisfies the expressed or observed needs of the public where accrued benefits significantly outweigh reasonably foreseeable detriments.

detriments." Thus, public need is defined in terms of societal gains and losses, not the local gains and losses discussed in the SEJ demonstration in Section 3, Part B.8.

**4. Adverse Impacts:** When making determinations regarding proposed activities that lower water quality, the director shall consider the extent to which resources or characteristics are adversely impacted by the lowering of water quality are unique or rare within the locality or state. Therefore, the applicant should identify if any streams or wetlands within the project area are scarce regionally and/or statewide. Examples of scarce wetlands would include bogs, fens, or other water bodies that support characteristics that make it unique or rare.

## **2.5 State Isolated Wetland Level 1 Project Questions**

**1. Acreage Subject to Filling:** Describe in detail the impacts to wetlands on the proposed project site. The discussion should include:

- The acreage and type of wetlands that will be impacted (permanent and temporary impacts must be included);
- Loss of habitat within the affected portion of wetland;
- The potential impacts to wetland biota, including amphibians and macroinvertebrates;
- Indicate the overall quality of the aquatic community structure of the affected water body(ies) and if it will be adversely impacted;
- Discuss if the project will result in the elimination of aquatic life from the affected portion of the water body, or if the number of species will decline. (Ohio EPA may request biological monitoring on a case-by-case basis to evaluate this question.)

**2. Project Map:** Refer to the General Project Drawing and Map Guidance on **page \_\_\_** of the Instructions for more detailed information about what to include on the map.

Submit a scaled drawing containing only the following information:

- a) An aerial photograph as the base layer;
- b) The project boundaries;
- c) The final constructed design for the project showing all buildings, structures, roads, parking lots and the like;
- d) All water resources including streams, wetlands, ditches, and other water bodies, with each resource identified and labeled;
- e) All post-construction storm water management features such as detention/retention basins, etc; (indicate the direction of flow and discharge points for storm sewers, detention basins, etc.)
- f) All existing and proposed post-development easements, covenant areas or restrictions;
- g) All proposed impacts and clearly identified buffer areas.

**3. Topographic Map:** Refer to the General Project Drawing and Map Guidance on **page \_\_\_** of the Instructions for more detailed information about what to include on the map.

Submit a scaled topographic map containing only the following information:

- a) Provide the name of the USGS quad map;
- b) Super-impose the property boundaries for the proposed project.
- c) Be certain that all mapped water features on the project site can be seen and are labeled with the same IDs used in the impacts tables in Section 3. If streams are named, make sure the name is shown on the map;
- d) Clearly show and label all post-construction contours and contour intervals;

## **2.6 State Isolated Wetland Level 2 Project Questions**

Applicants must answer questions and provide maps as indicated in Section 2.5 above in addition to answering the following questions.

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**1. Analysis of Practicable On-Site Alternatives:** Describe in detail how impacts to wetlands have been avoided to the greatest extent practicable. This should include an examination of off-site locations and on-site design considerations that would allow you to reach your project goals with less impact to the wetland ecosystem.

**2. High Quality Waters Avoidance:** Determine if high quality waters<sup>5</sup> (as defined in OAC rule 3745-1-05) are located on the project site and if so, describe how they are to be avoided by the proposed filling of the isolated wetland(s). Items to consider:

- 
- The acreage and type of wetlands that will be impacted (permanent and temporary impacts must be included);
  - Loss of habitat within the affected portion of wetland;
  - The potential impacts to wetland biota, including amphibians and macroinvertebrates;
  - Indicate the overall quality of the aquatic community structure of the affected water body(ies) and if it will be adversely impacted;
  - Discuss if the project will result in the elimination of aquatic life from the affected portion of the water body, or if the number of species will decline. (Ohio EPA may request biological monitoring on a case-by-case basis to evaluate this question.)
- 

**3. Buffer Avoidance:** Describe the current wetland buffers<sup>6</sup> on the project site and explain how they will be avoided on the project site. Wide buffers of 50 meters or more are preferred. Medium buffers average 25 meters to less than 50 meters. Narrow buffers average 10 meters to less than 25 meters. The key concept is whether the buffer area, whatever it is, functions to protect the wetland from degradation.

**4. Wetlands Are Not Locally and Regionally Scarce and Not Containing Threatened or Endangered Species:** Provide documentation and a narrative explanation that the wetland(s) to be filled are not locally or regionally scarce and do not contain rare, threatened or endangered species. You may wish to refer to the National Heritage Database ([www.dnr.state.oh.us/tabid/2010/default.aspx](http://www.dnr.state.oh.us/tabid/2010/default.aspx)) which contains 19,000 records which represent known locations for Ohio's rare plants and animals, high quality plant communities and other natural features; US Fish and Wildlife Service endangered species program homepage for summary lists of endangered and threatened species in Ohio and Region 3 at [www.fws.gov/endangered/](http://www.fws.gov/endangered/); and contact US EPA Region 3 Headquarters [www.epa.gov/aboutepa/region3.html](http://www.epa.gov/aboutepa/region3.html).

**5. No Significant Degradation to Aquatic Ecosystem:** Explain how the project impacts would not result in significant degradation to the aquatic ecosystem.

**6. Post-Development Stormwater Plan:** Describe in detail the plans necessary to manage stormwater runoff post-construction of the development. Provide details on all best management practices that are anticipated to be used, all sediment/detention/retention basins to be used, all stormwater quality improvement features to be incorporated into the stormwater plans, and all stormwater discharge points.

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## **SECTION 3: Alternatives Analysis**

### **Alternatives Analysis**

The following represents the sequence in which proposals shall be approached:

- (1) Avoid – avoid impacts to waters;

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<sup>5</sup> *High Quality Waters - All surface waters of the state except limited quality waters. Four categories of high quality waters are recognized: General high quality waters, Superior high quality waters, Outstanding state waters, and Outstanding national resource waters.*

<sup>6</sup> Buffer – means non-anthropogenic landscape features which have the capability of protecting the biological, physical, and/or chemical integrity of the wetland from effects of human activity.

- (2) Minimize – modify project to minimize impacts to waters;
- (3) Alternatives Analysis – document avoidance and minimization;
- (4) Mitigate – provide adequate mitigation for the loss of water resource size and function where impacts cannot be avoided.

**Avoidance:** Determine if another location– that requires less of an impact to water resources, less of an impact to riparian and buffer vegetation, less river bank disturbance – is practicable<sup>7</sup>. Then describe, in detail, why avoidance of impacts to the potential wetland, shoreline and river bottom is not practicable.

**Minimization:** Describe, in detail, how the project has been modified to minimize impacts to water resources on-site.

**Alternatives Analysis<sup>8</sup>:** To address requirements of the antidegradation rule (OAC rule 3745-1-05), you must submit three alternatives that were considered during the project planning process that would avoid impacts to the aquatic resource(s). The three alternatives shall be referred to as: Preferred Alternative<sup>9</sup>, Minimal- Degradation Alternative<sup>10</sup> and Non-Degradation Alternative<sup>11</sup>. Your alternatives must explain the rationale, methods and techniques used to avoid impacts to the aquatic resource(s) on-site. If it is not possible to avoid or minimize impacts to water resources, provide the reasoning and evidence for that conclusion.

**Mitigation:** The purpose of compensatory mitigation is to replace those aquatic ecosystem functions that would be lost or impaired as a result of the project. Compensatory mitigation should generally be “in-kind” (meaning wetland for wetland, stream for stream) and occur as close to the site of the adverse impact as practicable. The goals of mitigation must be specific, measurable and attainable within a specified timeframe. Typically, the objective is to provide a minimum of functional replacement, i.e. no net loss of functions, with an adequate margin of safety to reflect anticipated success. When submitting the 401 WQC application, be prepared to provide rationale for mitigation site selection and goals. This is discussed further in Section 4.

### 3.1 Preferred Alternative

- 1. Project Description for the Preferred Alternative.** Provide a narrative description of the proposed project for the preferred alternative. Your preferred alternative should reflect project details as you would prefer them to be. Provide the proposed or actual start date and the anticipated completion date. Also provide a brief description of any related activities to be developed as the result of the proposed project.
- 2. Avoidance:** Determine if another location– that requires less of an impact to water resources, less of an impact to riparian and buffer vegetation, less river bank disturbance – is practicable. If it is not possible to avoid

<sup>7</sup> *Practicable: Available and capable of being executed with existing technology and without significant adverse effect on the economic feasibility of the project in light of the overall project purposes and in consideration of the relative environmental benefit.*

<sup>8</sup> *Alternatives Analysis: A systematic review and evaluation of practicable alternatives including avoidance, minimization and/or compensatory mitigation for impacts. According to Ohio’s antidegradation rule, OAC rule 3745-1-05(C)(5), the director may approve activities that lower water quality only if there has been an examination of non-degradation, minimal degradation and mitigative technique alternatives, a review of the social and economic issues related to the activity, a public participation process and appropriate intergovernmental coordination, and the director determines that the lower water quality is necessary to accommodate important social or economic development in the area in which the water body is located.*

<sup>9</sup> *Preferred Alternative: The preferred alternative is typically the project site in its most developed state. It typically has the greatest degree of impacts to aquatic resources.*

<sup>10</sup> *Minimal Degradation Alternative: An alternative, other than the applicant’s preferred alternative, including pollution prevention alternatives that would result in a lesser lowering of water quality.*

<sup>11</sup> *Non-Degradation Alternative: An alternative, other than the applicant’s preferred alternative, including pollution prevention alternatives that would result in the elimination of the need to lower water quality because no material is removed or placed below the ordinary high water mark. Only if the project must be located entirely within water to fulfill the basic project purpose, meaning that it is a water-dependent activity, may this alternative be proposed as a no-build alternative. However, if the final project purpose requires a land base, this is not a water-dependent project, and a no-build alternative cannot be proposed.*

impacts to water resources, describe, in detail, why avoidance of impacts to the potential wetland, shoreline and river bottom is not practicable.

Items to consider:

- How could you implement your project without affecting water resources?
- How could the project be re-designed to fit the site without affecting water resources?
- How could the project be made smaller and still meet your needs?
- What other sites were considered?
- What geographical area was searched for alternative sites?
- How did you determine whether other non-wetland sites are available for development in the area?
- What are the consequences of not building the project?
- Are there logistical (location, access, transportation, etc.) reasons that limit the alternatives considered?
- Are there technological limitations for the alternatives considered?
- Are there other reasons certain alternatives are not feasible?

Wetland Avoidance and Minimization: According to OAC rule 3745-1-54(D)(1)(a), the applicant is required to demonstrate avoidance and minimization by maintaining and protecting the designated use and demonstrating that there is not practicable alternative which would have less adverse impact on the wetland ecosystem and that storm water and water quality controls have been installed to ensure that peak post-development rates of surface water runoff from the impacted wetland site do not exceed the peak pre-development rates of runoff from the on-site wetlands, **for all categories of wetlands**. Water quality improvement measures shall be incorporated into the design of the storm water control measures to the maximum extent practicable.

OAC Rules 3745-1-54(D)(1)(b) and (c) require the applicant to demonstrate avoidance and minimization of impacts to Category 2 and 3 wetlands through an evaluation of following criteria (a) through (e).

- The spatial requirements of the project;
- The location of existing structural or natural features that may dictate the placement or configuration of the proposed project;
- The overall and basic purpose of the project and how the purpose relates to the placement, configuration or density of the project;
- The sensitivity of the site design to the natural features of the site, including topography, hydrology and existing flora and fauna; and
- Direct<sup>12</sup> and indirect<sup>13</sup> impacts.

When evaluating these criteria, the applicant shall discuss the overall project design including, but not limited to, the square footage of building and structures, number of homes, number of parking spaces, and other factors that would determine the project's overall footprint, how the project related to sensitive environmental features, and how the project footprint has, or may be altered to avoid and minimize impacts to Category 2 and 3 wetlands.

- 3. Minimization:** Describe, in detail, how the project has been modified to minimize impacts to water resources on-site. It is often the case that "minimization" means the reduction in the size or area of the impacts from what the applicant would prefer. However, "minimization" may also mean impacts to a lower quality resource when higher quality waters are located on-site; use of best available technologies and designs that are implemented specifically to address water quality on-site; use of native vegetation or bio-engineering techniques for stabilization; structural selections that are low impact (for instance, a three-sided boxed culvert for a road crossing is less damaging than a pipe); or, any measure taken to maintain and/or improve lost water functions on-site that goes above and beyond the post-construction best management practices required.

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<sup>12</sup> *Direct Impacts: The effects which are caused by the action and occur at the same time and place.*

<sup>13</sup> *Indirect Impacts: The effects which are caused by the project that occur farther removed in distance from the project, but are still reasonable foreseeable. Indirect impacts may include related effects on air and water and other natural systems, including ecosystems, and other adverse environmental impacts that may be a consequence of the project.*

Items to consider:

- Determine how the footprint of the project site can be minimized so that there is less of an impact to water resources, less of an impact to riparian and buffer vegetation, and less river bank disturbance.
- Explain how water quality will be maintained after the proposed project is complete in order to serve beneficial uses and pre-construction hydrologic functions of waters within the project area.
- Can road widths be minimized?
- How big must the structures be?

**4. Magnitude of the Proposed Lowering of Water Quality:** Describe in detail the direct impacts to streams and wetlands on the project site.

The streams discussion should include:

- The linear footage and types of streams that will be impacted (permanent and temporary impacts must be included);
- The loss of habitat within the affected segment of stream;
- The potential impacts to stream biota, including fish and benthic macroinvertebrates;
- Indicate the overall quality of the aquatic community structure of the affected water bodies and if it will be adversely impacted;
- Discuss if the project will result in the elimination of aquatic life from the affected portion of the water body, or if the number of species will decline or composition of aquatic species will switch from pollution intolerant to pollution tolerant species (Ohio EPA may request biological monitoring on a case-by-case basis to evaluate this question.)

The wetlands discussion should include:

- The acreage and type of wetlands that will be impacted (permanent and temporary impacts must be included);
- Loss of habitat within the affected portion of wetland;
- The potential impacts to wetland biota, including amphibians and macroinvertebrates;
- Indicate the overall quality of the aquatic community structure of the affected water body(ies) and if it will be adversely impacted;
- Discuss if the project will result in the elimination of aquatic life from the affected portion of the water body, or if the number of species will decline. (Ohio EPA may request biological monitoring on a case-by-case basis to evaluate this question.)

**5. Technical Feasibility and Cost Effectiveness:** Discuss in detail the technical feasibility of the preferred alternative including any required technology to implement the preferred alternative, the resources necessary to implement the preferred alternative, and the availability of the required technology and resources. Then discuss the economic and operational feasibility of the preferred alternative, i.e. the cost effectiveness of implementing the preferred alternative. Discussion points should be the one-time costs, such as the construction costs (such as wages, equipment, etc), versus the recurring costs, such as operation and maintenance costs (wages, supplies, etc), of the preferred alternative.

**6. Cumulative Impact<sup>14</sup>:** Describe the impacts proposed in context with other past, present, and reasonably foreseeable future development in the watershed. Discuss the spatial and temporal aspects of both direct and indirect impacts to water resources within the watershed.

**7. Indirect Impacts:** Describe indirect impacts associated with activities proposed on the project site. When considering indirect impacts to streams, consider impacts outside of the area of direct impacts. For streams, this includes examining potential adverse impacts to physical habitat and aquatic species both upstream and

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<sup>14</sup> *Cumulative Impacts: The impact on the environment which results from the incremental impact of the action when added to other past, present and reasonable foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Cumulative impacts shall be considered on a water shed basis.*

downstream from the footprint of the project. Types of indirect impacts include but are not limited to, creating a barrier to the movement of aquatic organisms, elimination or reduction of riparian buffers, or creating instability resulting in aggradation or degradation to the stream bed.

Items to consider:

- Indirect changes in streambed slope, cross sectional dimension or area, vegetation and/or surfacing;
- Changes in the drainage patterns and potential impacts to onsite and downstream waterbodies, including groundwater; and
- Temporary or permanent dewatering or water diversions;

Indirect impacts to wetlands include loss of buffer, elimination of wetlands functions and values described in OAC 3745-1-51 through the loss of buffers, changes in wetland hydrology, and the like.

**8. Construction Stormwater Management Plans:** Describe in detail the plans necessary to manage stormwater runoff during construction of the development. Provide details on all best management practices that are anticipated to be used, all sediment/detention/retention basins to be used during construction of the project, and all stormwater discharge points. Include the applicable sections or pages from the Stormwater Pollution Prevention Plan (SWP3)<sup>15</sup>. Provide drawings as Attachment 5.11.

**9. Post-Construction Stormwater Management Plans:** Describe in detail the plans necessary to manage stormwater runoff post-construction of the development. Provide details on all best management practices that are anticipated to be used, all sediment/detention/retention basins, all stormwater quality improvement features to be incorporated into the stormwater plans, and all stormwater discharge points. This description should be consistent with the scaled drawing. Submit conceptual plans if engineered drawings are not available. Provide drawings as Attachment 5.12.

**10. Preferred Alternative Drawing:** Provide as Attachment 5.8.

Submit a scaled drawing of the preferred alternative containing only the following information:

- a) An aerial photograph as the base layer;
- b) The project boundaries;
- c) The final constructed preferred alternative design for the project showing all buildings, structures, roads, parking lots and the like;
- d) All water resources including streams, wetlands, ditches, and other water bodies, with each resource identified and labeled;
- e) All post-construction storm water management features such as detention/retention basins, etc; (indicate the direction of flow and discharge points for storm sewers, detention basins, etc.)
- f) All existing and proposed post-development easements, covenant areas or restrictions;
- g) All proposed impacts and clearly identified buffer areas associated with the preferred alternative.

<sup>15</sup> For more information on Storm water pollution prevention practices, refer to *Protecting Natural Wetlands: A Guide to Stormwater Best Management Practices*: [www.epa.gov/owow/wetlands/pdf/protecti.pdf](http://www.epa.gov/owow/wetlands/pdf/protecti.pdf), *Rainwater and Land Development Manual: Ohio's Standards for Stormwater Management Land Development and Urban Stream Protection*: [www.dnr.state.oh.us/tabid/9186/default.aspx](http://www.dnr.state.oh.us/tabid/9186/default.aspx), and Ohio EPA, *Division of Surface Water's Construction Stormwater Program*: [www.epa.ohio.gov/dsw/storm/construction\\_index.aspx#Construction%20General%20Permit](http://www.epa.ohio.gov/dsw/storm/construction_index.aspx#Construction%20General%20Permit)

### General Project Drawings and Maps Guidance:

For all **SCALED Drawings and Maps**, be sure you can affirmatively answer the following questions:

- Is the drawing/map legible?
- Did you provide the source (e.g. county highway map, USGS quadrangle map, Google Maps)?
- Has the drawing/map been provided in color, if originally produced that way?
- Does it have an accurate north arrow?
- Does it have an accurate scale (e.g. has been converted, if the original map has been reduced) or clearly state that it is "not to scale"?
- Have you provided a key, with clear and appropriate descriptions provided for anything abbreviated, shaded, marked or similarly illustrated?
- Can the symbols or markings used to designate features be distinguished from one another? For example: a black line is not used to label two separate features, leaving the reviewer wondering which one is which.
- Has it been produced at the highest resolution possible, while still showing the entire project site?

- 11. Preferred Alternative Cross Sections:** Provide as Attachment 5.9. Refer to the *General Drawings and Maps Guidance* above when submitting a scaled drawing of the preferred alternative containing a cross-sectional view portraying a cut-away portion of the project design. Be sure to describe in narrative form any features that are shown on the cross-sections.

Cross-sectional views of the proposed project should include:

- Bar scale and text scale (e.g. “1 inch = 100 feet”) for horizontal and vertical dimensions;
- Location of existing shoreline, wetland boundary or stream, and water elevation;
- Dimensions of the activity or structure, and the distance it extends into the waterbody;
- Dredge and/or fill grades as appropriate;
- Existing and proposed (separately) contours and elevations;
- Types and location of wetland and riparian vegetation present on the site; and
- Types and location of material used.

**12. Preferred Alternative Project Maps:**

**Topographic Map** Provide as Attachment 5.10.1

Submit a scaled topographic map containing only the following information:

- e) Provide the name of the USGS quad map;
- f) Super-impose the property boundaries for the proposed project.
- g) Be certain that all mapped water features, particularly streams, on the project site can be seen and are labeled with the same IDs used in the impacts tables in Section 3. If the streams are named, make sure the name is shown on the map;
- h) Clearly show and label all post-construction contours and contour intervals;
- i) Label the beginning and ending river or shoreline mile for the segments of the river(s) or shoreline within the property boundaries.

**Aerial Photograph** Provide as Attachment 5.10.2

Submit a scaled aerial photograph containing only the following information:

- a) Identify the year (and month, if available) that the aerial photo was taken;
- b) If the site is has wooded areas, provide an aerial with leaf on and one with leaf off, if available; (Note: these photos do not have to be taken during the same calendar year);
- c) Include property and project boundaries, road names, municipal boundaries, any easement or right-of-way boundaries, direction of flow for water resources, and enough of adjacent properties to see water resources that span **property boundaries**.

**Vicinity Map** Provide as Attachment 5.10.3

Provide a vicinity map that is separate and distinct from the topographic map requested above. The purpose of the vicinity map is to identify and provide general boundaries for the major land uses within one mile of the project site. An appropriate base for a vicinity map is either an aerial photograph or a topographic map; a local street map is **not** considered a vicinity map. Check all land uses that apply to the areas located in and within one mile of the project site. For each land use selected, identify the locations and boundaries on the vicinity map. Provide the vicinity map, identifying the project boundary and applicable land uses as Attachment 5.10.3.

**Floodplain/Flood Control Map** Provide as Attachment 5.10.4

During the Ohio EPA Section 401 public notice and/or public hearing process, one of the most common issues raised is the potential for flooding to occur and/or increase as a result of implementing the proposed project. In addition, floodplain/flood control maps can be used to:

- Verify ORAM Assessment scoring;

- Identify the potential for local, state or federal restrictions on placement of fill or structures within the floodplain;
- Identify areas where the designated floodplain boundaries and locations of wetlands overlap; and
- Identify where flood control fill/structures have been located within or adjacent to the floodplain in or near the project site.

Please include the following:

- A copy of the Federal Emergency Management Agency (FEMA) map showing the 100-year floodplain boundary (FIRM) with the project site boundaries identified.
- If applicable, a copy of an aerial photograph showing local flood control structures such as dams, levees, floodwalls, etc., with the project site boundaries identified. Note: county soils maps often show levees. This map is not required, but is useful for projects involving dams, levees, floodwalls and the like.

### ***3.2 Minimal-Degradation Alternative***

Refer to instructions provided in the Preferred Alternative when responding to the minimal-degradation alternative questions.

- 1. Provide a project description for the minimal-degradation alternative.** Your minimal-degradation alternative should represent a less environmentally-damaging or scaled-down version of the project that would result in less damage to surface water quality and still meet your project goals.
- 2. Minimization:** Describe, in detail, how the project has been modified to minimize impacts to water resources on-site. See the instructions above.
- 3. Magnitude of the Proposed Lowering of Water Quality:** Describe in detail the direct impacts to streams and wetlands on the project site. See instructions above.
- 4. Technical Feasibility and Cost Effectiveness:** See the instructions above.
- 5. Cumulative Impact:** See instructions above.
- 6. Indirect Impacts:** See instructions above.
- 7. Construction Stormwater Management Plans:** Provide as Attachment 5.16 if they are different from the Preferred Alternative Designs. See instructions above.
- 8. Post-Construction Stormwater Management Plans:** Provide as Attachment 5.16 if they are different from the Preferred Alternative Designs. See instructions above.
- 9. Minimal Degradation Alternative Drawing:** Provide as Attachment 5.13. See instructions above.
- 10. Minimal-Degradation Alternative Cross Sections:** Provide as Attachment 5.14. See instructions above.
- 11. Minimal-Degradation Alternative Project Maps:** Provide as a Topographic Map as Attachment 5.15.1 and an Aerial Photograph as Attachment 5.15.2. See instructions above for the two maps.

### ***3.3 Non-Degradation Alternative***

- 1. Is the project water dependent?** Select yes to indicate that the project is water-dependent or no to indicate that the project is not water dependent. If project is not water-dependent, complete information requested below. If project is water-dependent, do not complete the information requested below. Instead, explain how the project meets the definition of water dependent.

2. **Provide a project description for the non-degradation alternative.** Your non-degradation alternative should represent a further scaled-down version of the project that would result in NO damage to surface water quality and still meet your project goals.
3. **Minimization:** Describe, in detail, how the project has been modified to minimize impacts to water resources on-site. See the instructions above.
4. **Technical Feasibility and Cost Effectiveness:** See the instructions above.
5. **Construction Stormwater Management Plans:** Provide as Attachment 5.20 if they are different from the Preferred and Minimal-Degradation Alternative Designs. See instructions above.
6. **Post-Construction Stormwater Management Plans:** Provide as Attachment 5.21 if they are different from the Preferred and Minimal-Degradation Alternative Designs. See instructions above.
7. **Non-Degradation Alternative Drawing:** Provide as Attachment 5.18. See instructions above.
11. **Non-Degradation Alternative Project Maps:** Provide a Topographic Map as Attachment 5.19.1 and an Aerial Photograph as Attachment 5.19.2. See instructions above for the two maps.

### **Section 3.4 – 3.6 Impact Tables**

Fill out the Resources and Impact Comparison Tables as they apply to the project. If there are no streams on the site, delete the stream table. If there are not wetlands on the site, delete the wetland table. If there are no open waters on the site, delete the open water table. However, if there is a stream(s), wetland(s) or other water body(ies) on the project site, even if there are no impacts proposed for that water resource, you must complete and submit the applicable table(s).

1. **Applicant Name:** Provide the same name of the company as used in Section 1.
2. **Project Name:** Provide the same name used in Section 2.
3. **Jurisdictional Determination Letter Dated:** Provide the date of the USACE Jurisdictional Determination Letter.
4. **Select the 12-Digit Hydrologic Unit Code:** An error code may show after entering your 12-digit HUC code. The error message results from the cell being coded as “text” instead of a “number” to ensure that 0s are not dropped.

To determine your 12-digit HUC code:

- Ohio EPA’s 2010 Integrated Report: [http://www.epa.ohio.gov/portals/35/tmdl/2010IntReport/Section%20K%20-%20HUC8\\_basemap.pdf](http://www.epa.ohio.gov/portals/35/tmdl/2010IntReport/Section%20K%20-%20HUC8_basemap.pdf), or
- Ohio EPA’s Query Map by Location: <http://gis.epa.ohio.gov/map.php>, or
- Ohio EPA’s List of River Basins in Ohio: <http://wwwapp.epa.ohio.gov/dsw/ir2010/basin.php>.

5. **Date:** Enter the date the form was completed.
6. **Ohio EPA ID#:** If the project has an EPA Identification number, enter the number here. If the project does not yet have an EPA ID number, leave this space blank.

7. **Delineation Acreage:** Provide the total number of acres delineated.
8. **Watershed Name:** This field will automatically populate with the watershed name based on the 12-digit HUC that was entered in #4 above. Cross-check the name using:
- If you know the stream name, the watershed name is referred to as “River Basin” on this Web page: <http://wwwapp.epa.ohio.gov/dsw/ir2010/search.html>,
  - To use the project location zip code to identify the watershed, use US EPA’s Surf Your Watershed Web page: <http://cfpub.epa.gov/surf/locate/index.cfm>
9. **Revision Number:** Indicate if the table has been revised by providing a revision number using the following format: [number the revision starting with the first revision at 1]. Make sure the revision number matches the one entered on the Application Cover.
10. **Revision Date:** Indicate the date of the revision.

### 3.4 Stream Impact and Comparison Tables

1. **Stream ID:** Each stream on-site shall be identified and listed individually – whether it is proposed to be impacted or not. All streams on-site shall be listed in the table.
2. **Jurisdictional determination:** Indicate whether the stream is jurisdictional by selecting “yes” for jurisdictional and “no” for not jurisdictional. A jurisdictional determination (JD) is the process of identifying and locating jurisdictional Waters of the United States (including wetlands) regulated by the USACE under Section 404 of the Clean Water Act. An approved JD will be documented in a letter from the USACE and/or on a plat that clearly identifies the jurisdictional area and contains a verification statement dated and signed by a USACE Regulatory Official.

- USACE Regulatory Guidance Letter regarding JDs: <http://www.usace.army.mil/CECW/Documents/cecwo/reg/rgls/rgl08-02.pdf>
- To determine which USACE office you should contact: [http://www.usace.army.mil/cecw/pages/cecwo\\_reg.aspx](http://www.usace.army.mil/cecw/pages/cecwo_reg.aspx)

To obtain a JD from the USACE, contact your local USACE Regulatory field office:

- Buffalo: <http://www.lrb.usace.army.mil/regulatory/wetlands/JDchecklist.doc>
- Huntington: [http://www.lrh.usace.army.mil/Documents/index.cfm?id=15386&pge\\_prg\\_id=11065&pge\\_id=1072](http://www.lrh.usace.army.mil/Documents/index.cfm?id=15386&pge_prg_id=11065&pge_id=1072)
- Pittsburgh: <http://www.lrp.usace.army.mil/or/or-f/PGH%20JDRequest.pdf>

3. **Stream Flow Type:** Select the appropriate type of stream flow. The USACE determines/confirms the appropriate flow regime.
- Ephemeral Stream- “Ephemeral stream” means a stream that flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice and that has a channel bottom that is always above the local water table.
  - Intermittent Stream – “Intermittent stream” means a stream that is below the local water table and flows for at least a part of each year and obtains its flow from both surface runoff and ground water discharge.

- Perennial Stream - “Perennial stream” means a stream or a part of a stream that flows continuously during all of the calendar year as a result of ground water discharge or surface water runoff. “Perennial stream” does not include an intermittent stream or an ephemeral stream.

#### 4. Use Designations:

Select the stream’s use designation when the stream has been assigned that use.

Water Quality Use Designations describe existing or potential uses of water bodies. Ohio EPA assigns beneficial use designations to water bodies in the state. There may be more than one use designation assigned to a water body. Examples of beneficial use designations include: public water supply, primary contact recreation, and aquatic life uses (warmwater habitat, exceptional warmwater habitat, etc.).

Use designations are defined in paragraph (B) of rule 3745-1-07 of the Ohio Administrative Code (OAC): <http://www.epa.ohio.gov/portals/35/rules/01-07.pdf>

Each of the rules in OAC rules 3745-1-08 to 3745-1-32 covers a major drainage basin. Use designations are assigned in rules 3745-1-08 to 3745-1-32 of the OAC. Use the Water Body Use Designation Index on that page to find the rule number and page number of your water body of interest:

[http://www.epa.ohio.gov/dsw/rules/3745\\_1.aspx#use%20designations](http://www.epa.ohio.gov/dsw/rules/3745_1.aspx#use%20designations)

#### Aquatic Life Habitat

- Warmwater Habitat – these are waters capable of supporting and maintaining a balanced, integrated, adaptive community of warmwater aquatic organisms....the attributes of species composition, diversity and functional organization will be measured using the index of biotic integrity, the modified index of well-being and the invertebrate community index.
- Exceptional Warmwater Habitat – these are waters capable of supporting and maintaining an exceptional or unusual community of warmwater aquatic organisms... The attributes of species composition, diversity, and functional organization will be measured using the same indices stated above.
- Modified Warmwater Habitat –these are waters that have been the subject of a use attainability analysis and have been found to be incapable of supporting and maintaining a balanced, integrated, adaptive community of warmwater organisms due to irretrievable modifications of the physical habitat. Such modifications are of a long-lasting duration (i.e., twenty years or longer) and may include the following examples: extensive stream channel modification activities.
- Seasonal Salmonid Habitat –these are rivers, streams and embayments capable of supporting the passage of salmonids from October to May and are water bodies large enough to support recreational fishing. This use will be in effect the months of October to May. Another aquatic life habitat use designation will be enforced the remainder of the year (June to September).
- Cold Water Habitat – these are waters that meet one or both of the following characteristics:
  - “Coldwater habitat, inland trout streams” these are waters which support trout stocking and management under the auspices of the Ohio department of natural resources, division of wildlife, excluding certain waters listed in the rule.
  - “Coldwater habitat, native fauna” these are waters capable of supporting populations of native coldwater fish and associated vertebrate and invertebrate organisms and plants on an annual basis.
- Limited Resource Water – these are waters that have been the subject of a use attainability analysis and have been found to lack the potential for any resemblance of any other aquatic life habitat as determined by the biological criteria in OAC rule 3745-1-07 Table 7-15.

#### Water Supply

- Public Water Supply – these are waters that, with conventional treatment, will be suitable for human intake and meet federal regulations for drinking water.

- Agricultural Water Supply – these are waters suitable for irrigation and livestock watering without treatment.
- Industrial Water Supply – these are waters suitable for commercial and industrial uses, with or without treatment.

#### Recreation

- Bathing waters - these are waters that, during the recreation season, are suitable for swimming where a lifeguard and/or bathhouse facilities are present, and include an additional such areas where the water quality is approved by the director.
- Primary contact – these are waters that, during the recreation season are suitable for full-body contact recreation such as, but not limited to, swimming, canoeing, and scuba diving with minimal threat to public health as a result of water quality.
- Secondary contact – these are waters that, during the recreation season, are suitable for partial body contact recreation such as, but not limited to, wading with minimal threat to public health as a result of water quality.

#### 5. Stream Assessment Scores:

Provide the available data for all of the streams on-site, including streams proposed to be impacted. If the stream's watershed is greater than one square mile and if the stream has maximum pool depth greater than 40 centimeters, it should be evaluated using QHEI. If the stream's watershed is less than one square mile and its maximum pool depth is less than 40 centimeters, it should be evaluated using HHEI. If there is reason to question the HHEI survey results, an HMFEL shall be performed.

QHEI: Qualitative Habitat Evaluation Index –

Provide the QHEI score, as determined by the applicant, in the space provided. If the QHEI has been reviewed by Ohio EPA, provide the score agreed upon by Ohio EPA.

Streams with a watershed greater than 1 square mile should be evaluated using the *Qualitative Habitat Evaluation Index* (QHEI). The QHEI is a composite of six habitat variables: substrate, in stream cover, riparian characteristics, channel characteristics, pool and riffle quality and gradient and drainage area. It helps to distinguish the influence of habitat effects on fish communities in Ohio streams.

- *Ohio EPA's Biological Criteria Web page (including QHEI):*  
<http://www.epa.ohio.gov/dsw/bioassess/BioCriteriaProtAqLife.aspx#qhei>
- *Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index Manual:* <http://www.epa.ohio.gov/portals/35/documents/QHEIManualJune2006.pdf>

Ohio's Biocriteria (IBI, MIwb and ICI): Index of Biotic Integrity, Modified Index of Well-Being and Invertebrate Community Index -

If an IBI, MIwb or ICI has been completed for the stream, provide that information here.

Ohio has pioneered the use of numerical biocriteria to judge the attainment or impairment of Clean Water Act goals. Numerical biological criteria in Ohio are based on multimetric biological indices including the Index of Biotic Integrity (IBI) and modified Index of Well-Being (MIwb), indices measuring the response of the fish community, and the Invertebrate Community Index (ICI), which measures the response of the macroinvertebrate community. The IBI and ICI are multimetric indices patterned after an original IBI described by Karr (1981) and Fausch et al. (1984). The ICI was developed by Ohio EPA (1987b) and further described by DeShon (1995). The MIwb is a measure of fish community abundance and diversity using numbers and weight information and is

a modification of the original Index of Well-Being originally applied to fish community information from the Wabash River (Gammon 1976; Gammon et al. 1981).

- *Tiered Aquatic Life Uses and Comparison of Biological-based Attainment/Impairment Measures One vs. Two Organism Groups*: <http://www.epa.gov/bioiweb1/pdf/CABBFactSheet2-OnevsTwoGroups.pdf>

HHEI: Primary Headwater Habitat Evaluation Index –

Provide the HHEI score in the space provided. If the HHEI has been reviewed by Ohio EPA, provide the score agreed upon by Ohio EPA.

Many streams and drainage ways have a watershed of less than one square mile. We refer to these as “primary headwater” streams. Ohio EPA has developed a manual to promote the standardized assessment of primary headwater habitat streams in Ohio. It contains the Primary Headwater Habitat Evaluation (HHEI) Form which should be used in conjunction with this evaluation manual.

- *Division of Surface Water’s Primary Headwater Habitat Streams Web page*: <http://www.epa.ohio.gov/dsw/wqs/headwaters/index.aspx>
- *Field Evaluation Manual for Ohio’s Primary Headwater Habitat Streams - October 2009*: [http://www.epa.ohio.gov/portals/35/wqs/headwaters/PHWHManual\\_2009.pdf](http://www.epa.ohio.gov/portals/35/wqs/headwaters/PHWHManual_2009.pdf)

HMEFEI: Headwater Macroinvertebrate Field Evaluation (HMEFEI) –

A rapid bio-assessment field method using benthic macroinvertebrates. It is a method to predict the number of cool water taxa present.

- *Starting on Page 66 of the Field Evaluation Manual for Ohio’s Primary Headwater Habitat Streams - October 2009*: [http://www.epa.ohio.gov/portals/35/wqs/headwaters/PHWHManual\\_2009.pdf](http://www.epa.ohio.gov/portals/35/wqs/headwaters/PHWHManual_2009.pdf)

**6. Total Length Delineated:** Provide the total length of each stream on-site. Provide the length in linear feet (lf).

**7. Proposed Impacts:** In the Proposed Impacts Section, for the preferred and minimal degradation alternatives, provide the linear feet of impacts associated with jurisdictional and non-jurisdictional waters on the project site, as well as the impact type (bank stabilization, stream crossing, culvert, culvert extension, etc.).

\*\*\* Add more lines when needed to include all streams on-site.

\*\*\* Add more tables when project spans across two HUC boundaries. Be sure to add the appropriate 12-digit HUC code at the top of the subsequent table(s).

### 3.5 Wetland Impact and Comparison Tables

**1. Wetland ID:** Each wetland on-site shall be identified and listed individually regardless of whether the wetland is proposed to be impacted. All wetlands on-site shall be listed in the table.

**2. Jurisdictional determination:** Indicate whether the wetland is jurisdictional by entering yes or no. See the *Stream Impact and Comparison Tables instruction #2 above for more information about jurisdictional determinations.*

**3. Forested:** Indicate if the wetland is forested or non-forested.

- Forested Wetland- means wetland class characterized by woody vegetation that is twenty feet tall or taller.
- Non-forested Wetland –means that the wetland class is NOT characterized by woody vegetation that is twenty feet tall or taller.

**4. Wetland Assessment Scores:**

At the very least, provide the ORAM scores for all wetlands on-site including wetlands proposed to be impacted by the project. If VIBIs have been performed, provide those scores as well as any AmphIBI survey scores.

ORAM: Ohio Rapid Assessment Method –

Provide the ORAM score in the space provided. If the ORAM has been reviewed by Ohio EPA, provide the score agreed upon by Ohio EPA.

OAC rule 3745-1-54(B)(2)(a)(ii) states that “In assigning a wetland category, the director will consider the results of an appropriate wetland evaluation method(s) acceptable to the director, and other information necessary in order to fully assess the wetland’s functions and values.” The Ohio Rapid Assessment Method for Wetlands, version 5.0 (ORAM) is an acceptable wetland assessment method to the director and is the Agency’s preferred method of wetland evaluation for wetland category assignment. ORAM includes the 10-page forms for Background Information, Scoring Boundary Worksheet, Narrative Rating, Field Form, Qualitative Rating, ORAM Summary Worksheet, and Wetland Category Worksheet. All of this information constitutes an ORAM characterization and must be completed for each wetland.

- Ohio EPA’s Wetland Ecology Group:  
<http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx>
- ORAM Documents:  
<http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx#ORAM>

VIBI: Vegetative Index of Biotic Integrity

Provide the VIBI score in the space provided.

The Vegetation IBI is a multimetric index comprised of 10 metrics with a maximum score of 100 and a minimum score of 0. The VIBI is calculated by summing the 10 metric scores. Metrics can receive a score of 0, 3, 7, or 10 based on the value of the metric (Table 2). The VIBI is actually three IBIs: the VIBI-EMERGENT (VIBI-E, including substitute metrics for Lake Erie coastal marshes and mitigation wetlands), the VIBI-FOREST (VIBI-F), and VIBI-SHRUB (VIBI-SH). Each VIBI is designed to be used for wetlands dominated by emergent, forest, or shrub vegetation, respectively. There are 19 metrics in all and each VIBI has its own set of 10 metrics. Detailed data collection, reduction, and analysis procedures for calculating the VIBI are discussed in the links provided below:

- *INTEGRATED WETLAND ASSESSMENT PROGRAM Part 9: Field Manual for the Vegetation Index of Biotic Integrity for Wetlands v. 1.4. Ohio EPA Technical Report WET/2007-6*  
[http://www.epa.ohio.gov/portals/35/wetlands/Part9\\_field\\_manual\\_v1\\_4rev4sept07.pdf](http://www.epa.ohio.gov/portals/35/wetlands/Part9_field_manual_v1_4rev4sept07.pdf)

Other related VIBI documents:

- *Integrated Wetland Assessment Program. Part 4: A Vegetation Index of Biotic Integrity (VIBI) and Tiered Aquatic Life uses (TALUs) for Ohio Wetlands:*  
[http://www.epa.ohio.gov/portals/35/wetlands/PART4\\_VIBI\\_OH\\_WTLDs.pdf](http://www.epa.ohio.gov/portals/35/wetlands/PART4_VIBI_OH_WTLDs.pdf)
- *Addendum to: INTEGRATED WETLAND ASSESSMENT PROGRAM. Part 4: Vegetation Index of Biotic Integrity for Ohio Wetlands and Part 7: Amphibian Index of Biotic Integrity for Ohio Wetlands:* [http://www.epa.ohio.gov/portals/35/wetlands/Part4&7\\_Addendum.pdf](http://www.epa.ohio.gov/portals/35/wetlands/Part4&7_Addendum.pdf)

#### AmphIBI Amphibian Index of Biotic Integrity –

Provide the AmphIBI score in the space provided.

The Amphibian Index of Biotic Integrity (AmphIBI) is used to evaluate the ecological integrity of wetlands using amphibians as indicator taxa using an ecoregional approach.

To a larger degree than other taxa groups, monitoring amphibians in wetlands provides an indication of the integrity of the wetland but also gives direct measures of the condition of the adjacent uplands. Without appropriate upland areas to support many amphibian species there can be no possibility of their occurrence in wetlands (Semlitsch 1998). The amphibians reflect more what is going on from an ecological wetland boundary rather than the more limited “jurisdictional” boundary. Yet, there is no chance of survival of these species without the presence of the jurisdictional wetland. The inundated wetland is essential to their breeding efforts and some amphibian species (i.e. newts) utilize them for much longer periods.

- *Integrated Wetland Assessment Program. Part 7: Amphibian Index of Biotic Integrity (AmphIBI) for Ohio Wetlands. 2004:*  
[http://www.epa.ohio.gov/portals/35/wetlands/Integrated\\_Wetland\\_Assessment\\_Program\\_Part7\\_AmphIBI\\_formatted.pdf](http://www.epa.ohio.gov/portals/35/wetlands/Integrated_Wetland_Assessment_Program_Part7_AmphIBI_formatted.pdf)

Other related AmphIBI documents:

- *Addendum to: INTEGRATED WETLAND ASSESSMENT PROGRAM. Part 4: Vegetation Index of Biotic Integrity for Ohio Wetlands and Part 7: Amphibian Index of Biotic Integrity for Ohio Wetlands:* [http://www.epa.ohio.gov/portals/35/wetlands/Part4&7\\_Addendum.pdf](http://www.epa.ohio.gov/portals/35/wetlands/Part4&7_Addendum.pdf)

**5. Total Acreage Delineated:** Provide the total acreage of each wetland on-site.

**6. Proposed Impacts:** In the Proposed Impacts Section, for the preferred and minimal degradation alternatives, provide the acreage to the hundredth decimal place of impacts associated with jurisdictional and isolated waters on the project site, as well as the impact type (fill, trench, etc.).

\*\*\* Add more lines when needed to include all streams on-site.

\*\*\* Add more tables when project spans across two HUC boundaries. Be sure to add the appropriate 12-digit HUC code at the top of the subsequent table(s).

### 3.6. Other Water Body Impact and Comparison Tables

**1. Other Water Body ID** - Each open water on-site shall be identified and listed individually.

**2. Jurisdictional determination** – Indicate whether the open water is jurisdictional. See the Stream Impact and Comparison Tables instruction #2 above for more information about jurisdictional determinations.

3. **Use Designations** – Provide a use designation for the receiving stream. See the *Stream Impact and Comparison Tables instruction #4* above.
4. **Total Acres Delineated** - Provide the total acres of each open water on-site.
5. **Proposed Impacts** - In the Proposed Impacts Section, for the preferred and minimal degradation alternatives, provide the acreage, cubic yards and linear feet of impacts associated with jurisdictional and non-jurisdictional waters on the project site, as well as the impact type (dredge or fill).

\*\*\* Add more lines when needed to include all streams on-site.

\*\*\* Add more tables when project spans across two HUC boundaries. Be sure to add the appropriate 12-digit HUC code at the top of the subsequent table(s).

### 3.7. Social and Economic Justification

It is a mandatory element of state water quality standards that the antidegradation demonstration of a project, which seeks authority to lower water quality, provides effective demonstration that the lowering of water quality is necessary to accommodate important social and/or economic development in the area in which the water body is located. This requirement is included in OAC rules 3745-1-54(D)(1)(b)(iii) and (D)(2)(c)(iv) for Category 2 and 3 wetlands. Since Category 1 wetlands are by definition “limited quality waters,” the SEJ is not required.<sup>16</sup>

Explain the differences between the three alternatives regarding the important social and economic benefits to be gained and lost.

#### Economic factors [OAC rule 3745-1-05(C)(5)(e) and (l)]

- Recreational value (fishing, boating, bird watching, etc.);
- Tourism and other commercial activities (what is the local worth of the public attraction to the water body? Tourism is usually intertwined with recreational value);
- Aesthetics;
- Other use and enjoyment by humans;
- Condition of the local economy;
- The number and types of new direct and indirect jobs to be created;
- State and local tax revenue to be generated; and,
- Other factors as the director deems appropriate.

#### Social Factors [OAC rule 3745-1-05(C)(5)(b),(c),(d), and(f)]

- aquatic life and wildlife:
  - o Threatened and endangered species
  - o Important commercial or recreational sport fish species
  - o Other individual species
  - o Overall aquatic community structure and function
- human health and overall quality and value of the water resource;
- National, state and local parks;
- Preserves and wildlife areas;
- Waters listed as state resource waters;

<sup>16</sup> See OAC rules 3745-1-05(A)(12) and 3745-1-54(D)(1).

- Waters categorized outstanding national resource waters, outstanding state waters or superior high quality waters;
- “The extent to which the resources or characteristics adversely impacted by the lowered water quality are unique or rare within the locality or state.”
- 

A detailed discussion of the SEJ portion of an antidegradation review is beyond the scope of this document. Please refer to Table 1 and the following U.S. EPA guidance documents for additional information as to when and how this demonstration can be satisfied:

- *Water Quality Standards for Wetlands, National Guidance:*  
<http://www.epa.gov/waterscience/standards/library/wetlandsguidance.pdf>;  
[http://water.epa.gov/lawsregs/guidance/wetlands/quality.cfm#1.0\\_Introduction](http://water.epa.gov/lawsregs/guidance/wetlands/quality.cfm#1.0_Introduction)
- *Questions and Answers on Antidegradation:*<http://www.epa.gov/waterscience/standards/library/antidegqa.pdf>
- *Water Quality Standards Handbook, Second Edition:*  
<http://water.epa.gov/scitech/swguidance/waterquality/standards/handbook/index.cfm>
- *Interim Economic Guidance for Water Quality Standards Workbook:*  
[http://water.epa.gov/scitech/swguidance/waterquality/standards/economics/econworkbook\\_index.cfm](http://water.epa.gov/scitech/swguidance/waterquality/standards/economics/econworkbook_index.cfm)
- *Water Quality Guidance for the Great Lakes System: Supplementary Information Document:*  
[http://www.epa.gov/r5water/wqs5/pdf/supp\\_inf\\_doc.pdf](http://www.epa.gov/r5water/wqs5/pdf/supp_inf_doc.pdf)

**Table 1. Decision Matrix for SEJ demonstration. Matrix elements are nonbinding characterizations that an impact may be authorized given its size and the relative importance of development.**

Degree of lowering of water quality/degree of wetland impact			
Importance of social or economic development	Minor	Moderate	Major
	Not important	Not allowable	Not allowable
Important	Probably allowable	May be allowable or may not be allowable	May not be allowable
Very important	Probably allowable	May be allowable	May be allowable or may not be allowable

## **SECTION 4: Mitigation Information**

Compensatory mitigation should be considered a last resort and a final step of unavoidable, unminimizable impacts. The requirements of compensatory mitigation are outlined in OAC rule 3745-1-54. The purpose of compensatory mitigation is to replace those aquatic ecosystem functions that would be lost or impaired as a result of an approved activity. Compensatory mitigation should generally be “in-kind” and occur as close to the site of the adverse impact as practicable.

### **4.1 Mitigation Overview**

1. Indicate which alternative you propose to implement, the preferred alternative or the minimal-degradation alternative.
2. Select **all** of the applicable locations where mitigation is being proposed. Select more than one when mitigation is being proposed for more than one location.
3. Describe the mitigation proposal for the preferred alternative. Provide a clear discussion of how the amount of required mitigation was determined, indicating the amount of wetland, stream and other water body impacts and the mitigation ratio applied to each of those water resources. The mitigation ratios for wetland impacts must comply with the ratios listed in OAC rule 3745-1-54(F)(1).
4. Describe the mitigation proposal for the minimal-degradation alternative. Provide a clear discussion of how the amount of required mitigation was determined, indicating the amount of wetland, stream and other water body impacts and the mitigation ratio applied to each of those water resources. The mitigation ratios for wetland impacts must comply with the ratios listed in OAC rule 3745-1-54(F)(1).

### **4.2 Stream Mitigation Calculations**

Enter the amount of required mitigation, in linear feet, as determined by impacts associated with the preferred alternative for ephemeral, intermittent and perennial streams. Enter the linear feet of stream being proposed for on-site or off-site and indicate whether the proposal includes restoration<sup>17</sup>, creation<sup>18</sup>, enhancement<sup>19</sup> and/or preservation<sup>20</sup>. Be sure to include all types if more than one type is being proposed. Also indicate the amount of buffer that will be preserved with the associated mitigation. Keep in mind that when enhancement and preservation are proposed, the mitigation calculation should be at a higher ratio.

Repeat the above for the minimal-degradation alternative.

### **4.3 Wetland Mitigation Calculations**

Enter the amount of required mitigation, in acres, as determined by impacts associated with the preferred alternative for each wetland habitat type. Enter the acres of wetland being proposed for on or off-site and indicate whether the proposal includes restoration, creation, enhancement and/or preservation. Be sure to include all types if more than one type is being proposed. Also indicate the amount of buffer that will be preserved with the associated mitigation. Please refer to the following table, taken from the *Wetland Mitigation Table* in OAC rule

<sup>17</sup> Restoration – means the re-establishment of a previously existing wetland at a site where it has ceased to exist.

<sup>18</sup> Creation – means the establishment of a wetland where one did not formerly exist. This would involve wetland construction on non-hydric soils.

<sup>19</sup> Enhancement – means activities conducted in existing wetlands to improve or repair existing or natural wetland functions and values of that wetland.

<sup>20</sup> Preservation – means the protection of ecologically important wetlands in perpetuity through the implementation of appropriate legal mechanisms to prevent harm to the wetland. Preservation may include protection of adjacent upland areas as necessary to ensure protection of the wetland.

3745-1-54 to determine the correct ratios. Keep in mind that when enhancement and preservation are proposed, the mitigation calculation will be at a higher ratio. Refer to OAC rules 3745-1-54(E)(4) and (E)(5) respectively.

Wetland Category	On-site Mitigation Ratio	Off-site Mitigation Ratio	Replacement Category	Compensatory Mitigation location (off-site)
1	1.5:1 Non-Forested and Forested	1.5:1 Non-Forested and Forested	2 and 3	Within the U.S. Army Corps of Engineers District
2	1.5:1 Non Forested 2.0:1 Forested	2.0:1 Non Forested 2.5:1 Forested	2 and 3	Within the Watershed
3	2.0:1 Non-Forested 2.5:1 Forested	2.5:1 Non-Forested 3.0:1 Forested	3	Within the Watershed

Repeat the above for the minimal-degradation alternative.

#### 4.4 Other Water Body Mitigation Calculations

Enter the amount of required mitigation, in linear feet of shoreline or total square feet of lake bottom or lakeward extent, as determined by impacts associated with the preferred alternative for the appropriate habitat type. Enter the linear feet of shoreline or total square feet of lake bottom or lakeward extent being proposed for on or off-site and indicate whether the proposal includes restoration, creation, enhancement and/or preservation. Be sure to include all types if more than one type is being proposed. Also indicate the amount of buffer that will be preserved with the associated mitigation. Keep in mind that when enhancement and preservation are proposed, the mitigation calculation should be at a higher ratio.

Repeat the above for the minimal-degradation alternative.

#### 4.5 On-Site Individual Mitigation Project

If your stream and/or wetland and/or other water body mitigation project involves an on-site<sup>21</sup> individual mitigation project to satisfy some or all of your mitigation requirements, complete this section.

- Does the applicant currently own the proposed mitigation site property:** Select yes or no. If yes, provide as Attachment 5.30 any information on purchase agreements, options, etc. that verify the applicants right to construct on the mitigation property.
- Explain the on-site mitigation site setting:** This may be similar to the description provided in Section 2.1.3. Describe in detail, the location and size of the mitigation area(s), the predominant vegetation in the area, existing functions and values of water resources, existing soil, surface water and groundwater conditions, discuss if the mitigation site is located in a rural or urban setting, present and proposed land use and zoning restrictions, if the site was previously disturbed by past activities, if it is adjacent to a roadway, industry, farming, housing development or the like. Include type(s) of receiving waters.
- Explain the on-site mitigation site activities:** Explain the overall mitigation proposal for on-site mitigation. Then, in detail, explain what s proposed on-site for wetland, stream and other water body mitigation. Include the types of habitat, functions and values.

<sup>21</sup> On-site Mitigation – means restoration, creation, enhancement or preservation occurring within one mile of the project boundary but within the same watershed.

Wetland mitigation - For both the preferred alternative and the minimal degradation alternative, provide a summary of the proposed on-site wetland mitigation project. Be sure to indicate the type of wetland mitigation project this is, i.e. restoration, creation, preservation, or enhancement. Discuss the watershed setting, wetland hydrology, vegetation, soils, buffers, etc. Discuss how this on-site project satisfies all or part of the wetland mitigation requirements.

Stream mitigation - For both the preferred alternative and the minimal degradation alternative, provide a summary of the proposed on-site stream mitigation project. Be sure to indicate the type of stream mitigation project this is, i.e. restoration, relocation, preservation, daylighting, etc. Discuss the watershed setting, the stream hydrology, the vegetation, the soils, the buffers, etc. Discuss how this on-site project satisfies all or part of the stream mitigation requirements.

Other water body mitigation – For both the preferred alternative and the minimal degradation alternative, provide a summary of the proposed on-site other water body mitigation project. Be sure to indicate the type of mitigation project this is, i.e. enhancement, preservation, creating fish habitat, etc. Discuss the watershed setting, the vegetation, the buffers, etc. Discuss how this on-site project satisfies all or part of the mitigation requirements.

**4. Photographs:** Ohio EPA uses photographs of the mitigation site in a variety of ways. Include a legible color photograph for each stream, wetland and other water body to be addressed by the mitigation project. Provide as Attachment 5.31.

**5. Photo Location Map:** Provide a topographic map or aerial photograph marking the location where each photo was taken. Provide as Attachment 5.32

#### Stream Photo and Map Check List

- A clearly readable color photograph has been provided for EACH stream identified on the project site;
- All photos were taken without snow cover;
- A photo caption has been included below each picture identifying the date (month and year) when the picture was taken;
- Indicate if the photos were taken on the same date as the HHEI/QHEI Assessment;
- Indicate if the photos were taken on a different date from the HHEI/QHEI Assessment;
- A photo caption has been included below each picture identifying the photo number;
- A photo caption has been included below each picture identifying the stream ID;
- A photo caption identifying the direction (north, south, east or west) the photo was taken;
- The location of each photo taken has been clearly marked on a topographic map or aerial photograph.

#### Wetland Photo and Map Check List

- A clearly readable color photograph has been provided for EACH wetland identified on the project site;
- All photos were taken without snow cover;
- A photo caption has been included below each picture identifying the date (month and year) when the picture was taken;
- The photos were taken on the same date as the ORAM Assessment;
- The photos were taken on a different date from the ORAM Assessment;
- A photo caption has been included below each picture identifying the photo number;
- A photo caption has been included below each picture identifying the wetland ID;
- A photo caption identifying the direction (north, south, east or west) the photo was taken;
- The location of each photo taken has been clearly marked on a topographic map or aerial photograph.

#### Other Water Body Photo and Map Check List

- A clearly readable color photograph has been provided for EACH other water body identified on the project site;
- All photos were taken without snow cover;
- A photo caption has been included below each picture identifying the date (month and year) when the picture was taken;
- A photo caption has been included below each picture identifying the photo number;

- \_\_\_ A photo caption has been included below each picture identifying the other water body ID;
- \_\_\_ A photo caption identifying the direction (north, south, east or west) the photo was taken;
- \_\_\_ The location of each photo taken has been clearly marked on a topographic map or aerial photograph.

#### **4.6 Off-Site Individual Mitigation Project**

If your stream and/or wetland and/or other water body mitigation project involves an off-site<sup>22</sup> individual mitigation project to satisfy some or all of your mitigation requirements, complete this section.

- 4. Does the applicant currently own the proposed mitigation site property:** Select yes or no. If yes, provide as Attachment 5.33 any information on purchase agreements, options, etc. that verify the applicants right to construct on the mitigation property.
- 5. Explain the off-site mitigation site setting:** Describe in detail, the location and size of the mitigation area(s), the predominant vegetation in the area, existing functions and values of water resources, existing soil, surface water and groundwater conditions, discuss if the mitigation site is located in a rural or urban setting, present and proposed land use and zoning restrictions, if the site was previously disturbed by past activities, if it is adjacent to a roadway, industry, farming, housing development or the like. Include type(s) of receiving waters.
- 6. Explain the off-site mitigation site activities:** Explain the overall mitigation proposal for off-site mitigation. Then, in detail, explain what s proposed off-site for wetland, stream and other water body mitigation. Include the types of habitat, functions and values.

Wetland mitigation - For both the preferred alternative and the minimal degradation alternative, provide a summary of the proposed off-site wetland mitigation project. Be sure to indicate the type of wetland mitigation project this is, i.e. restoration, creation, preservation, or enhancement. Discuss the watershed setting, wetland hydrology, vegetation, soils, buffers, etc. Discuss how this on-site project satisfies all or part of the wetland mitigation requirements.

Stream mitigation - For both the preferred alternative and the minimal degradation alternative, provide a summary of the proposed off-site stream mitigation project. Be sure to indicate the type of stream mitigation project this is, i.e. restoration, relocation, preservation, daylighting, etc. Discuss the watershed setting, the stream hydrology, the vegetation, the soils, the buffers, etc. Discuss how this on-site project satisfies all or part of the stream mitigation requirements.

Other water body mitigation – For both the preferred alternative and the minimal degradation alternative, provide a summary of the proposed off-site other water body mitigation project. Be sure to indicate the type of mitigation project this is, i.e. enhancement, preservation, creating fish habitat, etc. Discuss the watershed setting, the vegetation, the buffers, etc. Discuss how this on-site project satisfies all or part of the mitigation requirements.

**4. Photographs:** Ohio EPA uses photographs of the mitigation site in a variety of ways. Include a legible color photograph for each stream, wetland and other water body to be addressed by the mitigation project. Provide as Attachment 5.34.

**5. Photo Location Map:** Provide a topographic map or aerial photograph marking the location where each photo was taken. Provide as Attachment 5.35. See above for additional instructions.

#### **4.7 Protection in Perpetuity**

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<sup>22</sup> Off-site Mitigation – means wetland restoration, creation, enhancement or preservation occurring farther than one mile from the project boundary but within the same watershed.

Select the appropriate box to indicate how each of the mitigation parcels will be protected in perpetuity. If more than one mitigation site is being proposed and/or if more than one type of protection is being proposed, explain the details in the cell next to the appropriate type. If an Environmental Covenant with a Holder is proposed, provide the name of the Covenant Holder. If a Conservation Easement is proposed, provide the name of the Easement Holder. Do not select Deed Restrictions with Management Plan unless you have had prior discussions with Ohio EPA regarding this option.

#### **4.8 Proposed Project Site Constraints**

If you are proposing to place a conservation easement or environmental covenant on the property to protect on-site mitigation, please also include the following in Attachment XX:

- a draft copy of the proposed easement/covenant language;
- a topographic map or aerial photograph clearly showing the boundaries of the proposed mitigation area(s).

Complete the table for all proposed easements, deed restrictions, and/or lease agreements within the entire property boundaries (not just the project limits) and include in Attachment XX. Easements may include: utility easements, drainage easements, conservation easements, railroad easements, etc. Sample entries are provided on the application form to guide you in completing the table.

#### **4.9. Wetland Mitigation Bank Information**

If you propose to use a wetland mitigation bank to satisfy some or all of your mitigation requirements, complete this section. You must use a wetland mitigation bank whose service area includes the project site, if you proposed impacts to Category 2 or Category 3 wetlands. For impacts to Category 1 wetlands, you must use a wetland mitigation bank that is located within the USACE District in which the project is located.

1. Have you contacted mitigation banks to identify whether the required type and amount of mitigation credit is available? If yes, provide the names of mitigation banks along with information on their service areas that you have contacted concerning the availability of wetland credits. If no, explain why you have not contacted a bank.

2. For the chosen mitigation bank, provide the wetland mitigation bank name:

1. Is the required type and amount of mitigation credit available? If yes, attach documentation as Attachment 5.37.
2. If only a portion of the required type and amount of mitigation credit is available, specify the amount available.
3. Has the required type and amount of mitigation been reserved? If yes, attach documentation as Attachment 5.38.
4. If only a portion of the required type and amount of mitigation credit has been reserved, specify the amount reserved.
5. Number of Forested Credits to be Purchased:
6. What is the type of wetland mitigation credit?
7. Is the mitigated wetland isolated or non-isolated?
8. Number of Non-Forested Credits to be Purchased
9. What is the type of wetland mitigation credit?
10. Is the mitigated wetland isolated or non-isolated?
11. Bank's Hydrologic Unit Code (HUC) 8 Digit:
12. What Watersheds are within the service area of the Mitigation Bank?

If more than one mitigation bank is being proposed, fill in the second bank's information in the second set of entries on the form.

#### 4.10. Final Mitigation Plan Format

Following Ohio EPA's technical review of the application, a mitigation approach will be determined acceptable. At this time, the applicant will receive written notification from Ohio EPA. Within 30 days of your receipt of this notification, a full and detailed mitigation plan must be submitted for review. **The mitigation plan must act as a stand-alone document. At a minimum, the plan must address all of the components in the Mitigation Guidance Document, and all of the information listed below.** Keep in mind that the USACE may require additional information that is not listed below. The applicant should work with the USACE to ensure that all of the required information is provided to them.

##### A. On-site Water Resources and Impacts

###### 1. Watershed Setting

(Describe the site setting including HUC-11, drainage name, use designations, river mile, watershed impairment status and causes/sources of impairment, and attainment status.)

###### 2. Project Description

(Narrative description of the proposed project, i.e., what goal or outcome will be met by the construction of the project. Include number and acreage of wetlands on site, number and length of streams on site, etc.)

###### 3. Impacts

(Brief description of the wetland, stream and lake impacts and reason(s) for the impacts)

##### B. Description of Required Mitigation

Provide a brief description of mitigation for streams, wetlands and/or lakes and associated buffers. This should include, but not be limited to (if mitigation will occur at a bank, only the last bullet in this section needs addressed):

- Type (vegetation class and HGM class – provide all applicable subclasses) and how it will be restored, enhanced or preserved;
- Amount in acres of wetland, feet of stream, width of buffers, etc.;
- Will it be considered forested or non-forested mitigation;
- Provide information on reliability of source of water/ water budget for the mitigation areas. Identify sources of water for mitigation including current and proposed watershed size. Discuss manipulation of hydrology required for construction of the mitigation;
- Indicate if mitigation wetland footprints correspond to areas of hydric soils or hydric inclusions. Where wetlands are planned on non-hydric soils, provide justification for establishment, given the high likelihood of failure.
- If the upper soil profile will be disturbed, describe the extent to which productive topsoil will be provided or amended as the topmost layer in floodplain restoration or wetland creation/restoration areas;
- Provide a planting and seeding plan including size of stock to be planted, planting rates, seeding rates, list of species to be planted including scientific name and common name, and indicator status. Plantings may not consist of exotic, hybrid, or invasive or non-native species. Where plantings or seedlings are not planned, provide rationale.
- Describe invasive species control plan;
- Discuss if mitigation is proposed to be on-site, off-site and/or at a bank; Provide the name and location of mitigation site/bank (city, township, county, HUC, etc.); etc. If mitigation will occur at a bank provide a description of its service area.

1. Streams (associated discussion and described above)

2. Wetlands (associated discussion and described above)

3. Lakes (associated discussion and described above)

##### C. Timing of Mitigation Requirements

1. When will mitigation construction begin and end.

2. When will the mitigated or preserved areas be protected in perpetuity?

3. When will the mitigation bank agreement be executed?

##### D. Protection in Perpetuity

1. What legal mechanism will be used? Who are the parties involved?

- E. Monitoring Criteria (dependent on site conditions and impacts)
  - 1. Wetlands (preserved, enhanced, created)
    - a. water chemistry & hydrology monitoring
    - b. Soil monitoring
    - c. Vegetation monitoring
    - d. Monitoring of other taxa groups, measurements of functions or services, or other evaluations
  - 2. Streams
    - a. Substrate sampling
    - b. Stream stability rating
    - c. Water chemistry monitoring
    - d. Hydrology monitoring
    - e. Vegetation monitoring
    - f. Qualitative Habitat Evaluation Index (QHEI) (if applicable)
    - g. Headwater Habitat Evaluation Index (HHEI) (if applicable)
    - i. Invertebrate Community Index (ICI)
    - j. Index of Biotic Integrity (IBI)
  - 3. Lakes
- F. Performance Goals
  - 1. Wetlands (preserved, enhanced, created)
    - a. Amount of wetland created, enhanced or preserved
    - b. Planting and Seeding Plan
    - c. Vegetation Index of Biotic Integrity score
    - d. Numbers and diversity of healthy woody plants per acre
    - e. Relative cover of invasives/non-invasives, native perennial hydrophytes.
    - f. Amphibian Index of Biotic Integrity score or goals for other taxa groups, when applicable
    - g. Threshold measurements of wetland functions or ecological services, when applicable
    - h. Levels for soil and water parameters, if applicable
    - i. Monitoring period (non-forested requirement is five years, forested requirement is 10 years)
  - 2. Streams
    - a. Length of stream and Class developed
    - b. QHEI score (if applicable)
    - c. HHEI score (if applicable)
    - d. Invertebrate Community Index (ICI)
    - e. Index of Biotic Integrity (IBI)
    - f. Upland buffer preserved or developed
- G. Contingency Plan
- H. Plan Views and Drawings
  - a. Road map
  - b. USGS map
  - c. NWI map
  - d. NRCS County Soil map (identify as hydric, non-hydric w/ inclusions or non-hydric)
  - e. Recent aerial photography map showing boundary of mitigation property
  - f. Map showing both location of mitigation site and impact site
  - g. Map of proposed mitigation site showing the location of existing aquatic resources, vegetation communities, boundary of preservation property and areas presently dominated by invasive species.
  - h. Plan views showing expected approximate limits of cut and fill areas, limits of vegetation removal, ditch plug areas, tile cutoff areas berm locations, etc.
  - i. Conceptual plan view of boundaries showing existing aquatic resources, and limits of proposed enhanced, restored, created, and preserved aquatic resources, existing and proposed vegetation types, proposed planting areas, and proposed habitat features.

- j. Conceptual cross section of mitigation and buffer areas showing existing land surface, proposed land surface, expected maximum and normal water depths, and natural channel design measurements.
- k. For streams, also provide conceptual longitudinal profile of existing and proposed land surface.

## **SECTION 5: Attachments**

### **\*\*\*UNDER CONSTRUCTION\*\*\***

This portion of the application is CRITICAL, as the detailed information provided serves as the environmental back-drop for the proposed project.

#### **5.1 Permit Fees**

#### **5.2 USACE Public Notice** (must add Attachment for USACE 404 Application)

Include the 2-page US Army Corps of Engineers Application (ENG FORM 4345). Use this check sheet to assist you in submitting the appropriate information.

##### USACE 404 Permit Application Check List

- The applicant's name and contact information are the same as shown in the 401 application.  
YES\_\_\_ NO\_\_\_  
If no, list the difference(s) and explain:
- The authorized agent's name, title and contact information are the same as shown in 401 application.  
YES\_\_\_ NO\_\_\_  
If no, list the difference(s) here and explain:
- The proposed quantity of stream impact is the same as shown in the 401 application.  
YES\_\_\_ NO\_\_\_ NOT APPLICABLE\_\_\_  
If no, list the difference(s) here and explain:
- The proposed quantity of wetland impact is the same as shown in the 401 application.  
YES\_\_\_ NO\_\_\_ NOT APPLICABLE\_\_\_  
If no, list the difference(s) here and explain:
- The proposed quantity of fill to be placed below the OHWM in open waters is the same as shown in the 401 application.  
YES\_\_\_ NO\_\_\_ NOT APPLICABLE\_\_\_  
If no, list the difference(s) here and explain:
- The proposed quantity of material to be dredged below the OHWM in rivers, wetlands, or other water bodies is the same as shown in the 401 application.  
YES\_\_\_ NO\_\_\_ NOT APPLICABLE\_\_\_  
If no, list the difference(s) here and explain:

#### **5.3 USACE Jurisdictional Determination Letter**

It is not uncommon for Ohio EPA to receive a copy of the unrevised delineation information that was generated PRIOR to the Jurisdictional Determination letter. If there are changes to the delineation information as a result of the JD, it is sometimes not provided to Ohio EPA, leading to confusion and resulting inefficiencies in the application review process. This section is intended to ensure that this does not happen.

Please answer the questions and include a legible copy of the USACE Jurisdictional Determination (JD) Letter, with all attachments.

The jurisdictional determination provided is:

- A final verified jurisdictional determination  
 A preliminary jurisdictional determination  
 Have changes to the ORIGINAL delineation information occurred as a result of the USACE Jurisdictional Determination? YES  NO   
 If you answered yes, check all applicable items below  
 The original quantity of streams, wetlands or other water body was changed. Increased   
 Decreased   
 The change in quantity has been included:  
 On the stream, wetland and other water body delineation map boundaries;  
 On the stream, wetland and other water body impact tables;  
 On the assessment forms and summary table  
 Areas that were originally delineated as streams were determined to be wetlands  
 Areas that were originally delineated as wetlands were determined to be streams

The above referenced changes have been included:

- On the stream, wetland and other water body delineation map;  
 On the stream, wetland and other water body impact tables;  
 On the assessment forms and summary table.  
 There was a change in wetland status from jurisdictional to isolated or vice versa  
 The change in status has been included on the wetland impact tables.

#### **5.4 Delineation Report (of water resources) updated per Pre-Application Coordination**

This section of the application is intended to integrate **all known information** regarding the potential or confirmed presence of streams, wetlands and other water bodies on-site, as well as the boundaries, type(s) (forested or non-forested; ephemeral, intermittent and perennial); quantity (in acres), and quality (category 1, 2 or 3; score for QHEI,/HHEI) of those water resources.

##### **For Potential Wetland Indicators**

**National Wetland Inventory (NWI) Map:** Are Potential wetlands identified within the property boundaries of the proposed project are identified on the National Wetlands Inventory (NWI) map?

If you answered yes, include the following:

- a) A copy of the applicable portion of the NWI map(s) with the property boundaries for the proposed project identified;
- b) A key identifying each potential wetland type and narrative description for any abbreviations used;
- c) Where potential wetlands on the NWI map overlap with wetlands mapped in the delineation report, label them with the same wetland ID used in the delineation report.

**NRCS County Soil survey map:** Does the NRCS County Soils Maps identify hydric soils within the property boundaries of the proposed project?

Does the NRCS County Soils Map(s) identify soils with hydric inclusions within the property boundaries of the proposed project?

If you answered yes to either question, include the following:

- a) A copy of the applicable portion of the County soils map(s) with the property boundaries for the proposed project identified;
- b) Highlight or identify the boundaries of all hydric soils and/or soils with hydric inclusions on the soil map(s);
- c) A key identifying the name and description of each hydric soil type and/or soil with hydric inclusions that occurs with the property boundaries for the proposed project;
- d) Where the highlighted boundaries on the soils map(s) overlap with wetlands mapped in the delineation report, label them with the same wetland ID used in the delineation report;

**Historical Wetland Delineations:** It is not uncommon for previous wetland delineations to have been completed on, or immediately adjacent to, the proposed project property. This information can be used to track hydrological changes in and around the proposed project site and to identify wetland boundaries that cross property lines, they can serve as a baseline for the updated wetland boundaries in the delineation for the current project, and they provide information related to cumulative impacts.

This section is intended to document the applicant's contact with the USACE to obtain any available historical delineation information verified by the USACE.

If you answered yes to either question, include the following:

- a) A copy of the jurisdictional determination (JD) for the delineation, with all attachments;
- b) A topographic map or aerial photograph showing the property boundaries of the historical delineation AND the property boundaries of the current proposed project;
- c) If applicable, identify a permit number for the project associated with the JD.

**Confirmed Wetland Documentation:**

**Individual Wetland Delineation Sampling Points, Data Sheets, and Summary Table:** The presence/absence of the three wetland indicators (soils, hydrology and hydrophytic vegetation) are documented at specific locations known as wetland delineation sampling points. It may be helpful to complete a Delineation Sample Findings Summary Table similar to the one below. **Sample entries are provided on the application form to guide you in completing the table.**

In addition to the completed table, include ALL of the following:

- A topographic map or aerial photo showing the locations and sample point IDs for all sampling sites used as a basis for the wetland delineation findings;
- Completed wetland delineation data sheets with sample point IDs for all wetland sampling points;

**Summary Table, Delineation Sample Findings**

Sample Number	Hydric Soil	Wetlands Hydrology	Percent Wetlands Vegetation	Wetlands Present	Comments
1	Yes	Yes	67	Yes	Lowland Woods (Wetland J)
2	Yes	Yes	50	No	Successional Woods
3	Yes	No	50	No	Successional Woods

**Wetland Delineation Map:** Please provide either a topographic map or aerial photo with the locations, boundaries, and wetland IDs super-imposed. NOTE: If the project site is included in more than one delineation OR the delineation boundaries are larger than the project site, please clearly mark the portion of the delineation map that applies to this project.

**5.5 Stream Assessments** See instructions provided in 3.4.5 above.

## 5.6 Wetland Assessments See instructions provided in 3.5.4 above.

Additionally, use the following information as a guide.

**Individual ORAM Assessment Forms and Summary Table:** ORAM assessments are used to document the quality of each wetland on the project site, regardless of whether impacts to a given wetland are anticipated. Complete ORAM assessment instructions and the ORAM form that is to be used are available at <http://www.epa.state.oh.us/dsw/wetlands/WetlandEcologySection.aspx#ORAM>.

An ORAM Assessment Checklist has been provided to assist you in providing the necessary documentation. The checklist captures those ORAM Assessment items most commonly missing, incomplete, or inaccurate when applications are submitted. The ORAM User's Manual should still be used for comprehensive instructions on completing ORAM forms appropriately.

Please complete the ORAM Assessment Checklist and ORAM Assessment Summary and Wetland Description Table. **Sample entries are provided to guide you in completing the table.**

In addition to the completed table and checklist, include ALL of the following:

- A complete ORAM form for EACH wetland for which a separate scoring boundary has been established;
- Using the Latitude and Longitude information required in the Background Section of the ORAM Form, please provide a topographic map or aerial photo showing the ORAM assessment locations and wetland IDs super-imposed.

### ORAM Assessment Checklist

#### BACKGROUND INFORMATION

- The full name of the person completing the ORAM assessment is provided;
- The phone number and e-mail address of the person completing the ORAM assessment is provided;
- The Vegetation Communit(ies) and HGM class(es) are completed for each wetland for which an ORAM scoring sheet is completed;
- The latitude and longitude has been provided for each wetland for which an ORAM scoring sheet is completed;
- The USGS Quad Name, county, township, section and subsection has been provided;
- A sketch has been provided for each wetland for which an ORAM scoring sheet is completed; NOTE: this sketch is separate and distinct from the wetland boundaries shown on the delineation map. It is intended to provide data that is not included on a delineation map such as major vegetation classes; relationship to applicable nearby features (not always shown on pre-existing maps) such as trails, areas of disturbance, surface waters, swales, culverts, etc.

#### DETERMINING THE ORAM SCORING BOUNDARIES

The ORAM scoring boundaries do not always match the wetland delineation boundaries. To avoid confusion and unnecessary delays in Ohio EPA's confirmation of ORAM scores, use the checklist below. Check all that apply. If you check any of the items below, it indicates that the ORAM scoring boundary may differ from the wetland delineation boundary.

- There are two or more wetlands of less than 1 acre that are less than 100 feet apart on average (refer to Section 5.2 of the ORAM User's Manual);
- The forested portions of a wetland have been delineated separately from the emergent or scrub shrub portions of the same wetland (refer to Section 5.1 of the ORAM User's Manual);
- The portions of a wetland have been delineated separately on either side of a road, trail, culvert or similar man-made boundary (refer to Section 5.3 of the ORAM User's Manual);
- The wetland has been delineated exclusive of adjoining open water (see Section 5.4 of the ORAM User's Manual);
- Two or more wetlands that are contiguous to a stream, river or ditch AND that are separated from each other by non-wetland corridors less than 200 feet long have been delineated separately (see Section 5.5 of the ORAM User's Manual);

- \_\_\_Wetlands located on opposite sides of a stream, river or ditch that is less than 200 feet wide on average, are delineated separately (see Section 5.5. of the ORAM User's Manual).
- \_\_\_Portions of a wetland with Category 3 characteristics are delineated separately from portions with category 2 characteristics (see Section 5.7 of the ORAM User's Manual);

#### ORAM Assessment Summary and Wetland Description Table

Wetland ID	Forested* or Nonforested	Extends Off-site	ORAM Score*8	Wetland Category	Acres*8
A	F	Yes	59	2	60
B	NF	No	31	2	1.5
C	F	No	47	2	3.0
D	NF	No	45	2	4.0

\*Per Ohio Administrative Code (OAC) 3745-1-50(O) "forested wetland" means a wetland class characterized by woody vegetation that is 20 feet tall or taller.

\*\*ORAM score and acreage MUST be based on TOTAL wetland acreage, regardless of quantity and location of proposed impact and/or property boundaries

Four wetlands totaling 68.5 acres are located on the 200 acre project property. Two wetlands (A and C) are forested, one wetland (D) is scrub-shrub, and one (B) is emergent.

Forested Wetland A, located at the northeastern corner of the project site along Curvy Creek, consists of a mature second growth tree canopy (DBHs >45cm) dominated by red maple (*Acer rubrum*), pin oak (*Quercus palustris*), American elm (*Ulmus americana*), and green ash (*Fraxinus pennsylvanica*). Dominant herb and shrub species include silky dogwood (*Cornus amomum*), northern arrow-wood (*Viburnum recognitum*), spicebush (*Lindera benzoin*) and sensitive fern (*Onoclea sensibilis*). Logging and clearing of wetland buffer areas resulted in ORAM score in Category 2 range.

Emergent Wetland B, located on the southwest portion of the project site, adjacent to Straight Line Road, is dominated by narrow leaf cattail (*Typha angustifolia*), tussock sedge (*Carex stricta*) and soft rush (*Juncus effusus*). It appears that Wetland B may have been created as a result of abandonment of previously cultivated agricultural land (ceased ag. production within the last 10 years) and associated broken or plugged field tiles.

Forested Wetland C, located on the southeastern portion of the project site, adjacent to the Fashionable sub-division (developed within the last 5 years), consists of younger second growth forest (~40 years old). The tree canopy is dominated by red maple (*Acer rubrum*), pin oak (*Quercus palustris*), black gum (*Nyssa sylvatica*) and box elder (*Acer negundo*). Dominant shrub species include silky dogwood (*Cornus amomum*) and spicebush (*Lindera benzoin*). The herbaceous layer is largely absent.

Scrub-Shrub Wetland D is located in the center of the project site and is a floodplain wetland roughly parallel with intermittent Stream 1. The average width of the floodplain on either side of the stream is 4 feet. The wetland spans an approximately 1,000 foot segment of Stream 1. Dominant scrub-shrub species are arrowwood (*Viburnum dentatum*), serviceberry (*Amelanchier laevis*), red chokeberry (*Aronia arbutifolia*), and autumn willow (*Salix serissima*).

#### 5.7 Site Photographs

As the old saying goes, "a picture is worth a thousand words". Ohio EPA uses pictures of the project site in a multitude of ways. Key uses include verifying ORAM, HHEI and QHEI assessment scores; preparation for project field site visits; identifying general information about the streams, wetlands and other water bodies; and identifying general information about past disturbances.

**Individual Stream Photos and Photo Location Map:**

Please complete the check list. In addition to the checklist, please include the following:

- legible COLOR photograph for EACH stream identified in the jurisdictional determination;
- a topographic map or aerial photographic marking the location where each photo was taken, using the same photo ID or stream ID that is used elsewhere in this application.

**Stream Photo Check List**

- A clearly readable color photograph has been provided for EACH stream identified on the project site;
- All photos were taken without snow cover;
- A photo caption has been included below each picture identifying the date (month and year) when the picture was taken;
- The photos were taken on the same date as the HHEI/QHEI Assessment;
- The photos were taken on a different date from the HHEI/QHEI Assessment;
- A photo caption has been included below each picture identifying the photo number;
- A photo caption has been included below each picture identifying the stream ID;
- A photo caption identifying the direction (north, south, east or west) the photo was taken;
- The location of each photo taken has been clearly marked on a topographic map or aerial photograph.

**Individual Wetland Photos and Photo Location Map:**

Please complete the check list. In addition to the checklist, please include the following:

- legible COLOR photograph for EACH wetland identified in the jurisdictional determination;
- a topographic map or aerial photographic marking the location where each photo was taken, using the same photo ID or wetland ID that is used elsewhere in this application.

**Wetland Photo Check List**

- A clearly readable color photograph has been provided for EACH wetland identified on the project site;
- All photos were taken without snow cover;
- A photo caption has been included below each picture identifying the date (month and year) when the picture was taken;
- The photos were taken on the same date as the ORAM Assessment;
- The photos were taken on a different date from the ORAM Assessment;
- A photo caption has been included below each picture identifying the photo number;
- A photo caption has been included below each picture identifying the wetland ID;
- A photo caption identifying the direction (north, south, east or west) the photo was taken;
- The location of each photo taken has been clearly marked on a topographic map or aerial photograph.

**Individual Other Water Body Photos and Photo Location Map:**

Please complete the check list. In addition to the checklist, please include the following:

- legible COLOR photograph for EACH other water body identified in the jurisdictional determination;
- a topographic map or aerial photographic marking the location where each photo was taken, using the same photo ID or other water body ID that is used elsewhere in this application.

**Other Water Body Photo Check List**

- A clearly readable color photograph has been provided for EACH other water body identified on the project site;
- All photos were taken without snow cover;
- A photo caption has been included below each picture identifying the date (month and year) when the picture was taken;
- A photo caption has been included below each picture identifying the photo number;
- A photo caption has been included below each picture identifying the other water body ID;
- A photo caption identifying the direction (north, south, east or west) the photo was taken;
- The location of each photo taken has been clearly marked on a topographic map or aerial photograph.

**5.8 Preferred Alternative - Drawing:**

See instructions in Section 3.1.

**5.9 Preferred Alternative - Cross-Sections:**

See instructions in Section 3.1.

**5.10 Preferred Alternative – Maps:**

See instructions in Section 3.1.

**5.11 Preferred Alternative - Construction Storm Water Management Plans:**

See instructions in Section 3.1.

**5.12 Preferred Alternative - Post-Construction Storm Water Management Plans:**

See instructions in Section 3.1.

**5.13 Minimal-Degradation Alternative – Drawing:**

See instructions in Section 3.2.

**5.14 Minimal-Degradation Alternative - Cross-Sections:**

See instructions in Section 3.2.

**5.15 Minimal-Degradation Alternative – Maps:**

See instructions in Section 3.2.

**5.16 Minimal-Degradation Alternative - Construction Storm Water Management Plans:**

See instructions in Section 3.2.

**5.17 Minimal-Degradation Alternative - Post-Construction Storm Water Management Plans:**

See instructions in Section 3.2.

**5.18 Non-Degradation Alternative – Drawing:**

See instructions in Section 3.3.

**5.19 Non-Degradation Alternative – Maps:**

See instructions in Section 3.3.

**5.20 Non-Degradation Alternative - Construction Storm Water Management Plans:**

See instructions in Section 3.3.

**5.21 Non-Degradation Alternative - Post-Construction Storm Water Management Plans:**

See instructions in Section 3.3.

**5.22 Documentation Requesting Comments from ODNR and USFWS**

This portion of application is intended to capture key requirements, concerns and/or recommendations from other agencies that must be considered during the 401 review. At a minimum, the information provided will be used to ensure that the project proposed to other agencies is consistent with details provided in the 401 application; to develop and include any necessary special conditions in the 401 certification when issued; and to identify water resources that are critical because they contain or provide habitat for rare, threatened or endangered species.

Ohio Revised Code Section 6111.30(A)(7) requires that a 401 WQC application include “adequate documentation confirming that the applicant has requested comments from the Department of Natural Resources and the United States fish and wildlife service regarding threatened and endangered species, including the presence or absence of critical habitat.”

**US Fish and Wildlife Service Letter**

Contact information is as follows:

USFWS, Ohio Ecological Services Field Office  
4625 Morse Road, Suite 104  
Columbus, OH 43230  
Phone: (614) 416-8993

US Fish and Wildlife Service Coordination Checklist (Check all that apply; note that you MUST provide at least ONE of the following for the application to be considered administratively complete)

- 1) A letter with and accompanying map showing the boundaries of the project property and requesting available rare, threatened, and endangered species and critical habitat data for this area has been submitted to the US Fish and Wildlife. YES\_\_\_ NO\_\_\_  
If yes, provide a copy of the request letter.
  
- 2) Correspondence documenting review of the project site information and responses to the request for available rare, threatened, and endangered species and critical habitat data for this area has been received from the USFWS. YES\_\_\_ NO\_\_\_  
If a response has been received, provide a copy and provide an answer to the following questions.  
The potential for rare, threatened, and endangered species and/or critical habitat to occurs in or near the proposed project property has been confirmed. YES\_\_\_ NO\_\_\_  
If yes, provide a copy of the response letter.  
A habitat survey has been requested by the USFWS. YES\_\_\_ NO\_\_\_  
If yes, has the habitat survey been completed? YES\_\_\_ NO\_\_\_  
A mist net survey has been requested by the USFWS. YES\_\_\_ NO\_\_\_  
If yes, has the mist net survey been complete? YES\_\_\_ NO\_\_\_

**Ohio Department of Natural Resources Letter**

There are two ODNR Divisions with rare and endangered species/critical habitat authority. The applicant must send letters requesting a review of the proposed project site to both Divisions. The contact information is shown below:

ODNR, Division of Natural Areas & Preserves  
Attn: Natural Heritage Program  
2045 Morse Road, Building F-1  
Columbus, OH 43229-6693  
Phone: (614) 265-6818

ODNR, Division of Wildlife  
2045 Morse Rd., Bldg. G-3  
Columbus, Ohio 43229-6693  
Phone: (614) 265-6452

ODNR Coordination Checklist (Check all that apply; note that you MUST provide at least ONE of the following for the application to be considered administratively complete)

- 3) A letter with and accompanying map showing the boundaries of the project property and requesting available rare, threatened, and endangered species and critical habitat data for this area has been submitted to:  
\_\_\_ODNR, Division of Natural Areas & Preserves  
\_\_\_ODNR, Division of Wildlife  
Provide copies of both of the above-referenced letters

- 4) Correspondence documenting review of the project site information and responses to the request for available rare, threatened, and endangered species and critical habitat data for this area has been received from:  
 \_\_\_ODNR, Division of Natural Areas & Preserves  
 \_\_\_ODNR, Division of Wildlife  
 If responses have been received, provide copies and identify if rare threatened, and endangered species and/or critical habitat occurs in or near the proposed project property.

**5.23 *Appropriate Sections of TMDL***

**5.24 *After-the-fact Impacts As-built Drawing***

**5.25 *Project Footprint comparison from pre-application submittal***

**5.26 *State Isolated Wetland Level 1 or 2 Project Map***

**5.27 *State Isolated Wetland Level 2 Documentation: Wetland Scarcity and Threatened/Endangered Species***

**5.28 *State Isolated Wetland Level 2 Documentation: Project Impacts regarding Degradation of Aquatic Ecosystem***

**5.29 *State Isolated Wetland Level 2 Documentation: Post-Construction Stormwater Plan***

**5.30 *On-site Individual Mitigation Project Purchase Agreement/Options:***

In section 4.5, if it was indicated that the applicant does not own all the mitigation properties, provide information on any purchase agreement s/options that verify the applicant's right to construct on the mitigation property.

**5.31 *On-site Individual Mitigation Project Photographs***

**5.32 *On-site Individual Mitigation Project Photograph Location Map***

**5.33 *Off-site Individual Mitigation Project Purchase Agreement/Options***

**5.34 *Off-site Individual Mitigation Project Photographs***

**5.35 *Off-site Individual Mitigation Project Photograph Location Map***

**5.36 *Wetland Mitigation Bank Documentation that Required Mitigation is Available***

**5.37 *Wetland Mitigation Bank Documentation that Required Mitigation is Reserved***

**5.38 *Second Wetland Mitigation Bank Documentation that Required Mitigation is Available***

**5.39 *Second Wetland Mitigation Bank Documentation that Required Mitigation is Reserved***

