

Wetlands and Regulations

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Wetlands

- Wetlands – OAC 3745-1-02(90) – those areas that are inundated or saturated by surface of ground water at a frequency and duration that are sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Typical Wetland Functions

- Water storage,
- Groundwater exchange,
- Biogeochemical cycling,
- Sediment/contaminant retention,
- Sediment/shoreline stabilization,

Typical Wetland Functions

- Maintenance of biodiversity,
- Habitat for threatened and endangered species,

Wetland Protection

- Today's focus should be on comprehensive watershed management, i.e. planning should consider all waterbodies, the riparian zone, and the upland zone, and should include a wide range of stakeholders in any plan development.

Clean Water Act

- National water quality objective, as contained in the Federal Clean Water Act, is "... to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

Wetlands in Ohio

- Federally Jurisdictional Wetlands
Regulated by ORC 6111, and
OAC 3745-1-50 through -54
- Isolated Wetlands
Regulated by ORC 6111.02 through
6111.029

Isolated Wetlands Program

- SWANCC Decision – January 9, 2001
 - Isolated wetlands no longer federally regulated
 - Ohio recognized the ecological importance of these waters and developed regulatory program which became effective in July 2001
 - ORC 6111.02 to 6111.029

Section 404 Permit and 401 Water Quality Certification

- Required for activities involving the discharge of dredged or fill material into jurisdictional waters of the US, including wetlands

What is Dredged Material

- Dredged Material means material that is excavated or dredged from water of the state.

What is Fill Material

- Fill Material means any pollutant used to create fill to replace an aquatic area with dry land or to change the bottom elevation of a water body for any purpose. Fill material does not include the following:
 - Material resulting for normal farming, silviculture, and ranching activities,
 - Material placed for the purpose of maintenance of existing structures.

Jurisdictional Wetlands

OAC 3745-1-50 through -54 establishes:

- 1) narrative and chemical criteria applicable to wetlands,
- 2) wetland categories,
- 3) a tiered review process for applications.

Wetland Narrative Criteria

- Narrative Criteria – The hydrology necessary to support the biological and physical characteristics naturally present in wetlands shall be protected

Wetland Chemical Criteria

- Chemical Criteria – Establishment of waste water discharge permit limits, shall use the numeric chemical criteria associated with “warmwater aquatic life habitat” use designation.

Jurisdictional Wetlands

OAC 3745-1-50 through –54 establishes:

- 1) narrative and chemical criteria applicable to wetlands,
- 2) wetland categories,
- 3) a tiered review process for Section 401 applications.

Wetland Categories

Categories are assigned based on a wetland’s relative functions and values, sensitivity to disturbance, rarity, and the potential to be adequately compensated for by wetland mitigation.

A wetland evaluation is conducted, usually by the applicant, and reviewed by Ohio EPA.

The typical evaluation method is the Ohio Rapid Assessment Method 5.0 (ORAM 5.0).

Wetland Categories

Category 1 wetlands – low quality, supports minimal wildlife habitat and hydrological functions.

Category 2 wetlands – moderate quality, supports moderate wildlife habitat and hydrological functions.

Wetland Categories

Category 3 wetlands – high quality, support superior habitat and hydrological functions.



Jurisdictional Wetlands

OAC 3745-1-50 through –54 establishes:

- 1) narrative and chemical criteria applicable to wetlands,
- 2) wetland categories,
- 3) a tiered review process for applications.

Tiered Review

- Category 1 wetland reviews –
 - 1) Avoidance and minimization,
 - 2) Storm water and water quality controls,
 - 3) Compensatory mitigation.

Tiered Review

- Category 2 wetland reviews –
 - 1) Avoidance and minimization,
 - 2) Storm water and water quality controls,
 - 3) Social and economic justification,
 - 4) Compensatory mitigation.

Tiered Review

- Category 3 wetland reviews –
 - 1) Avoidance and minimization,
 - 2) Storm water and water quality controls,
 - 3) Social and economic justification,
 - 4) Public need demonstration,
 - 5) Compensatory mitigation.

What impacts to non-isolated waters do not need a “401”

- Any activities that meet the conditions of the Ohio EPA certification of the Corps' NWP's
- For NWP 39 (Residential, Commercial, and Institutional Developments) impacts under the following thresholds meet the Ohio EPA conditions and does not need a “401”:
 - Ephemeral streams-under 300 feet
 - Intermittent or perennial streams-under 200 feet
 - Category 1 and 2 wetlands-under 0.5 acres

Isolated Wetlands

Regulated by ORC 6111.02 through 6111.029

What activities are regulated?

- Wetlands
 - Impacts to hydrology or habitat. Could include vegetation removal in wetland or buffer, ditching in/near a wetland, etc. (Corps may not consider these activities regulated)
- Wetlands, Streams, and Lakes
 - Adding dredged or fill material

The hydrology necessary to support the biological and physical characteristics naturally present in wetlands shall be protected to prevent significant adverse impacts on:

- (1) Water currents, erosion or sedimentation patterns;
- (2) Natural water temperature variations;
- (3) Chemical, nutrient and dissolved oxygen regimes of the wetland;
- (4) The movement of aquatic fauna;
- (5) The pH of the wetland; and
- (6) Water levels or elevations, including those resulting from ground water recharge and discharge.

OAC3745-1-51(A)

Isolated Tiered Review

Tiered Review – based on amount of impacts and Category of the wetland to be impacted.

Level 1 – General Permit

Level 2 and 3 – Individual Permits

Level 1 Review – General Permit

- Impacts to category 1 or 2 isolated wetlands of $\frac{1}{2}$ acre or less,
- Ohio EPA must determine whether application is complete within 15 business days,
- Automatic approval after 30 calendar days unless Ohio EPA denies,
- Permit good for two years.

Level 2 Review – Individual Permit

Impacts to category 1 isolated wetlands greater than $\frac{1}{2}$ acre, or impacts to category 2 isolated wetlands greater than $\frac{1}{2}$ acre but less than or equal to 3 acres,

Submittal of an Individual Isolated Wetland Permit application,

Ohio EPA must determine whether application is complete within 15 business days,

Level 2 Review – Individual Permit

20-day public comment period,
90-day review period, but not automatic approval after that time.

Level 3 Review – Individual Permit

Impacts to category 2 isolated wetlands greater than 3 acres, or impacts to a category 3 isolated wetland,
Submittal of an Individual Isolated Wetland Permit application,
Ohio EPA must determine whether application is complete within 15 business days,

Level 3 Review – Individual Permit

20-day public comment period,
180-day review period, but not automatic approval after that time.

Processing Times

- WQC average time for decision
 - 3-4 months without a hearing
 - 5-6 months with a hearing
 - Can take up to a year
- Isolated Wetland Permit time for decision
 - Level 1-30 days
 - Level 2 -90 days
 - Level 3 -180 days

Alternative Analysis

- Preferred Design Alternative (PDA)
- Minimal Degradation Alternative (MDA)
 - Less environmentally damaging or a scaled down version that would result in less damage to surface water quality and still meet project goals.
- Non-Degradation Alternative (NDA)
 - Alternative resulting in no damage to surface water quality.

Public Notice

- Gather public comment relative to the proposed impacts on water quality prior to making a decision on the Section 401 Water Quality Certifications.
- Ohio EPA receives comments from: U.S. FWS, ODNR, U.S. EPA. (State Historic Preservation Office also provides comments to the Corps)

HB 66

- Fee Structure
- 15 Day Review Period
- Public Notice by Applicant

Compensatory Mitigation

Types of Wetland Mitigation:

Restoration,
Creation,
Enhancement,
Preservation.

Compensatory Mitigation

- How Much? - Factors to be considered:
 - Mitigation ratios - dependent on:
 - Jurisdictional versus Isolated wetland impacts,
 - Category of impacted wetland,
 - On-site versus off-site mitigation,
 - Forested versus non-forested wetland impacts.
 - Type of mitigation/One-to-one replacement
 - In-watershed versus out-of-watershed,

Restoration

Restoration - the re-establishment of a previously existing wetland at a site where it has ceased to exist.

Creation

Creation – the establishment of a wetland where one did not formerly exist. This would involve wetland construction on non-hydric soils.

Enhancement

Enhancement – activities conducted in existing wetlands to improve or repair existing or natural wetland functions and values of that wetland.

Preservation

Preservation – 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.

Compensatory Mitigation

Mitigation Banks

Mitigation Monitoring Period

The typical mitigation monitoring period is 5 years, but can be adjusted based on the effectiveness of the mitigation project.

Annual reports must be submitted.

Mitigation Monitoring and Performance Criteria

- Performance Criteria may include:
 - Biology including for plants, amphibians, fish, and macroinvertebrates
 - Natural channel measurements (streams)
 - Delineations (wetlands)
 - Soils and water chemistry
 - Habitat
 - etc.

Enforcement Program

– Ohio EPA and ACOE investigate unauthorized fill activities

Wetlands Impacted without Prior Authorization

- OAC 3745-1-54(B)(6)- where a wetland has been degraded or destroyed without prior authorization, the wetland will be considered a category 3 wetland, unless the applicant demonstrates that a lower category is appropriate





Enforcement Program

– Consequences of unauthorized activity:

- Complete restoration
- After-the-fact permitting
- Increased mitigation requirements
- Civil penalties

Why is Ohio EPA concerned about small streams?

- Like the capillary system of a larger system
- Reduce sediment delivery to larger streams
- Reduce nutrients reaching larger streams
- Provide stormwater functions
- Provide biological diversity functions
- Nourish downstream sections with water and food materials (insects, fish, decaying organic matter)

Streams

- Not defined in Ohio rules or regulations.
- A general definition is that a stream is a surface watercourse having a channel with a well defined bank, either natural or artificial, which confines and conducts continuous or periodical flowing water.
- ACOE and Ohio EPA regulate the discharge of dredged or fill material into ephemeral, intermittent, and perennial stream channels below the Ordinary High Water Mark.

Streams Regulated Activities

- Placement of armor stone
- Culverting, impoundments
- Road crossings
- Heavy equipment in stream channels

Stream Assessments

- Biological Assessments
 - Use Attainability Analysis (UAA)
 - IBI – Index of Biotic Integrity (fish)
 - MIwb – Modified Index of Well Being (fish)
 - ICI – Invertebrate Community Index
- Physical Assessments
 - Qualitative Habitat Evaluation Index (QHEI)
 - Headwater Habitat Evaluation Index (HHEI)

- QHEI
 - Moderate Sized Watersheds (generally greater than 1.0 sq. mi. and pool depths greater than 40 cm.)
- HHEI
 - Small Sized Watersheds (generally less than 1.0 sq. mi. and pool depths less than 40 cm.)

Ephemeral Streams

- Ephemeral streams have flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Intermittent Streams

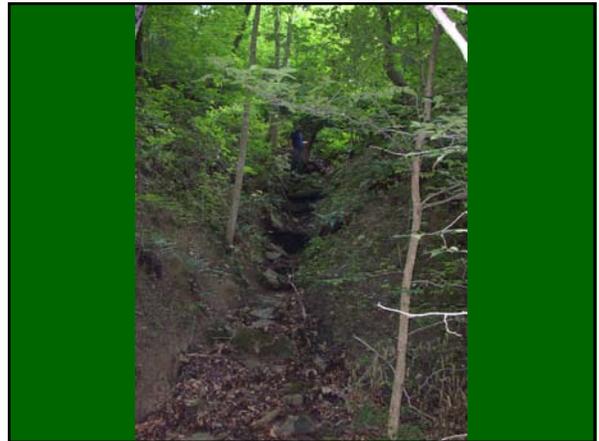
- Intermittent streams have flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Perennial Streams

- Perennial streams have flowing water year round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Headwater Streams

- Class I – generally ephemeral, low quality streams which lack a significant aquatic life function.
- Class II - generally intermittent streams which support a moderate quality aquatic life function.
- Class III – generally high quality with the potential to support cool and cold water vertebrate and macroinvertebrate aquatic communities. Often spring fed with perennial flow.





Questions?

Thank You

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