TECHNICAL GUIDANCE DOCUMENT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

State Regulated Wetland Class Determination

Worksheet Guidance/OWQ Wetlands and Stormwater

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Background

- Under Indiana Code, wetlands which are determined by the U.S. Army Corps of Engineers to be exempt from federal regulation are then subject to review under the State Regulated Wetlands Law. A wetland must first be evaluated by the U.S. Army Corps of Engineers and determined to be "non-WOTUS" or not a Water of the United States prior to review under state law.
- Effective January 2, 2021, the definitions of Class 1, Class 2 and Class 3 State Regulated Wetlands have been updated.
- State law exempts the discharge of dredged or fill material into specific wetland classes or fill associated with certain activities in some of the wetland classes. This guidance has been created to assist with class determinations in state regulated wetlands and does not address any exemptions as outlined in IC 13-18-22 or IC 13-11-2-74.5
- Class III Definitions (IC 13-11-2-25.8(3):
  - "that is one (1) of the following rare and ecologically important types…"
  - "that is located in a setting undisturbed or minimally disturbed by human activity or development and that supports more than minimal wildlife or aquatic habitat or hydrologic function"
- Class II Definitions (IC 13-11-2-25.8(2):
  - "that supports moderate habitat or hydrological functions,"
  - "including an isolated wetland that is dominated by native species "
  - "but is generally without: *(A) the presence of; or (B) habitat for; rare, threatened or endangered species"*
- Class I Definitions (IC 13-11-2-25.8(1):
  - "At least fifty percent (50%) of the wetland has been disturbed or affected by human activity or development by one (1) or more of the following:
    - (i) Removal or replacement of the natural vegetation
    - (ii) Modification of the natural hydrology
  - "The wetland supports only minimal wildlife or aquatic habitat or hydrologic function because the wetland does not provide critical habitat for threatened or endangered species…and the wetland is characterized by at least one (1) of the following:
    - (i) The wetland is typified by low species diversity
    - (ii) The wetland contains greater than fifty percent (50%) areal coverage of non-native invasive species vegetation.
    - (iii) The wetland does not support significant wildlife or aquatic habitat
    - (iv) The wetland does not possess significant hydrologic function

General

- Homogeneous wetlands which may have multiple classification characteristics shall be classified as the highest represented class for permitting purposes because there are indistinct boundaries between the areas with varying characteristics.
- Wetlands with distinct boundaries around areas with multiple classification characteristics within the same wetland may have different classification determinations for those distinct acreages, but the wetland will be considered as a whole for exemption calculations.

- Wetlands evaluated for Class III criteria which are not one of the rare or ecologically important types must meet one of the following criteria:
    - generally possess the presence of, or habitat for rare, threatened, or endangered species within a ½ mile radius according to the IDNR Natural Heritage Database **AND** the species uses the habitat for any stage of its life cycle
    - meet **both** the level of disturbance criteria and more than minimal hydrology or more than minimal habitat.
- Wetlands which do not meet Class III or Class II are considered Class I. By completing the worksheet and checking "No" in all the locations, the wetland will then meet the Class I definition.
- Remarks sections are included in all sections. If an unlisted scientific method has been used to evaluate a wetland, you may include this in your remarks and attach the documentation. This will be evaluated and verified by staff.
- You must include a U.S. Army Corps of Engineers Approved Jurisdictional Determination or Corps. Correspondence regarding federal jurisdiction
- If a wetland is not a Class III wetland based on habitat for rare, threatened, or endangered species or defined as one of the listed rare or ecologically important wetland types, you should complete both the habitat and hydrologic functional assessments.
- Complete a worksheet for each wetland

Class Evaluation Criteria

Rare or Ecologically Important Wetland:

- To determine if the wetland is one of the listed rare or ecologically important types of wetlands listed in IC 13-11-2-25.8(3) refer to the **Class III Wetland Technical Guidance** document for detailed descriptions.

Presence of, or habitat for rare, threatened, or endangered species:

- To determine the presence or absence of a rare, threatened, or endangered species or associated habitat, correspondence from the Indiana Division of Nature Preserves (DNP) must be provided.
- Review within ½ mile radius is consistent with State Regulated Wetland Permitting as well as Section 401 Review for federally jurisdictional wetlands.
- If consultation with the DNP results in species located within ½ mile radius, consult with Nature Serve (https://explorer.natureserve.org) to determine the habitat used within the life cycle of the species.
- Additional consultation may be coordinated through the Department of Natural Resources, Division of Fish and Wildlife (information will be provided on the DNP letter).
- If the species is located within ½ mile radius and the species uses the habitat that exists in the wetland under review, the wetland has the habitat for rare, threatened, or endangered species.
- Field documentation during the wetland delineation should be provided

Undisturbed or Minimally Disturbed Setting

- The setting is the area surrounding the wetland. The wetland's immediate surroundings, tract, abutting tracts and/or abutting parcels may comprise the wetland's setting. Model my watershed https://modelmywatershed.org/ provides one option of review for a wetland's watershed in the abutting tracts or parcels.

- A wetland in and of itself comprises the entirety of its own setting if one acre or more.
- The setting for each wetland is site-specific.
- An undisturbed setting has not been disturbed by human activity or development.
- A minimally disturbed setting has been minimally disturbed by human activity or development beyond the historical disturbance of clear cutting and row crop agriculture that is universally present throughout the ecoregion. Settings that have been disturbed historically but not recently should be considered minimally disturbed.
- Examples of minimal disturbances include minor developments, equipment tracking, road construction, plowing and cultivation of crops, and temporary impacts where preexisting site conditions have been restored.
- If you respond No to "undisturbed or minimally disturbed", provide the reasoning in the remarks section along with your documentation.
- Evaluations of setting disturbance for the Class III Assessment should be completed using field observations as well as current and historical aerial imagery. Each evaluation of setting disturbance is site-specific.
- A wetland or setting is not considered disturbed or affected as a result of an action taken after January 1, 2004, for which a permit is required under IC 13-18-22 but has not been obtained.

Hydrologic Function:

- Evaluation of hydrologic function is based on a combination of hydrology indicators as indicated on a wetland determination data sheet and location in the landscape.
- Hydrologic function is broken into primary and secondary indicators where primary indicators will provide stronger support for greater hydrologic function.
- Wetlands which meet multiple primary hydrologic indicators on the wetland determination data form are shown to have moderate to high levels of hydrologic function.
- Wetlands located within floodways and floodplains play a vital role in flood storage and water filtration. Data layers from the Indiana Department of Natural Resources and/or the Federal Emergency Management Agency may be used to determine whether or not the wetland is located within a floodway or floodplain. The most up-to-date resource should be used to make a final determination for this criterion.
- Wetlands located higher in the watershed provide flood storage and slow downstream discharge. Streams should be classified according to the top down, Strahler Method and the catchment where the wetland is located should be used to determine whether the wetland position in the watershed is 1st through 5th order. A wetland meets this Primary Hydrology Indicator if the wetland is located within a 1st – 3rd order catchment or if it is located within a 4th or 5th order catchment and possesses substrates that are not till or clay according to the findings of the Wetland Science Advisory Group in 2004.
- Wetland soils with strong hydric soil indicators according to the Wetland Determination Datasheet such as a gleyed matrix or greater than 20% redox/mottles present also indicate prolonged hydrology.
- Of the primary indicators, only the identification of Wellhead Protection Areas will require external sources. The link provided on the form allows the user to enter a location to determine if the wetland is located in a Wellhead Protection Area. Wetlands located in Wellhead Protection Areas provide important water purification and filtration functions, protecting local drinking water supplies.
- Wetlands where two or more secondary indicators of hydrologic function are present also possess moderate to high levels of hydrologic function.
- Wetlands that are one (1) acre or larger in size provide considerable water storage and flood abatement hydrologic functions.
- Wetlands dominated by FACW or OBL species indicate prolonged hydrology. The longer hydroperiods allow for gradual infiltration, water storage and filtration of pollutants.

- Wetlands with substrates dominated by sand or silt according to mapped soil units and/or an on-site soil investigation possess higher hydraulic conductivity and an increased capacity to perform water purification and filtration functions in the wetland. This is based on the findings of the Wetland Science Advisory Group in 2004.
- Wetlands located within highly developed landscapes or border development, roads, or impervious surfaces receive increased quantities of storm water runoff. These wetlands support greater water filtration, purification, water storage, and flood abatement functions. Aerial photography and field observations may be used to assess whether these secondary indicators are present.
- If a wetland is located within a Source Water Susceptibility Areas or Source Water Assessment Area for public water supply wells, the wetland provides important water purification and filtration functions, enhancing local drinking water supplies. The link provided on the form for the Wellhead Protection Area Proximity Tool will also provide a response regarding Source Water Susceptibility Areas and Source Water Assessment Areas. IDEM's internal groundwater and surface water data may also be checked to determine whether a state regulated wetland is located within a Source Water Susceptibility Area or a Source Water Assessment Area.

Habitat Function:

- To determine the presence of Species of Special Concern (SSC), the Indiana Division of Nature Preserves (DNP) must provide documentation that there are SSC within ½ mile radius and they must use the type of habitat present (see the above section on the use of NatureServe).
- Field observations and/or correspondence from the Indiana Department of Natural Resources may be used to evaluate whether the wetland provides a habitat corridor for mobile, state-listed species within ½ mile radius according to the DNP.
- Important Bird Areas (IBA) have been identified by the Audubon Society as important locations for migrating birds and priority habitat for protection. Areas mapped on the IBA map are known locations of quality habitat.
- Wetlands that support multiple layers of species habitat for wading birds, dabblers, reptiles, amphibians, and others exhibit hydrologic function by providing drinking water and habitat for a range of water dependent species. This indicator can be evaluated based on field observations during a site visit or through data collected through a Rapid Assessment Method such as the Ohio Rapid Assessment Method (ORAM) or similar.
- Other methods of rapid assessment may be used. Most commonly used in Indiana is still the use of the Ohio Rapid Assessment Method (ORAM) however, EPA has evaluated multiple types of rapid assessment methods at: https://nepis.epa.gov/Exe/ZyPDF.cgi/P1003GXN.PDF?Dockey=P1003GXN.PDF . Note should be made of the assessment method used to evaluate habitat function and only methods for regions like Indiana and in particular, the mid-west should be used. Only the habitat portion of ORAM is needed for this evaluation.
- Any species using the wetland should be noted during the delineation and should be provided in any justification

Native Species Dominance:

- For purposes of this evaluation, a wetland dominated by native species is a wetland with 50% or more areal coverage by native species in the uppermost vegetative layers across the entire wetland.

- Characteristic data points from the wetland delineation and/or supplemental data collected for native species coverage should be included to support this determination. Wandering transect data may be necessary if data point locations do not illustrate the overall wetland.
- Native species are those species listed as native to Indiana at either or both http://bonap.org or http://plants.usda.gov.
- Non-native invasive species of vegetation includes all species listed either as invasive and exotic at http://bonap.net or as terrestrial invasive species at https://www.in.gov/dnr/rules-and-regulations/invasive-species/terrestrial-invasive-species-plants/
- Percent areal coverage of native species shall be determined following these guidelines:
    - The percent areal coverage of native species within a wetland that consists of the same uppermost vegetative layer across the entire wetland is simply the percent areal cover of natives in that layer.
    - An analysis of native species dominance in wetlands with multiple uppermost vegetative layers starts with the calculation of the percent native areal cover in the tree layer, then moves down to the shrub/sapling layer, then moves down to the herbaceous layer, prioritizing the uppermost vegetative layer present at every point in the wetland. Prioritizing the upper layers puts emphasis on the layers that have the strongest influence on the habitat use of the wetland.
    - Thus, if a wetland only has partial coverage by trees, determine the percent areal coverage of native trees. Then determine the percent areal cover of native shrub/sapling in areas without tree cover. Finally, determine the percent areal cover of natives in areas without trees, saplings, or shrubs. Combine the percent areal coverage of native tree, shrub/sapling, and herbaceous layers.
- Native Species Percent Areal Coverage Calculation:
    - Calculate the percent native areal coverage in a wetland with varying uppermost vegetative layers using the following:

1. Determine what percent of the site has each of the following uppermost layers:

    (Enter percentages in decimal form. For example, write 0.35 instead of 35%)

    TC = _____ (Percent of site with Tree Canopy)

    SC = _____ (Percent areal cover of Shrubs or Saplings as the uppermost layer)

    HC =_____ (Percent areal cover of herbaceous plants as the uppermost vegetative layer)

2. Determine the percent areal coverage by native species within each of the canopy types:

    (Enter percentages in decimal form. For example, write 0.35 instead of 35%)

    NT= _____ (Percent of areal coverage by native trees within the portion of the wetland with tree cover.)

    NS= _____(Percent areal coverage by native shrubs and saplings within the portion of the wetland that has shrubs/saplings as the uppermost vegetative layer)

    NH = _____(Percent area coverage by native herbaceous species within the portion of the wetland that only contains herbaceous vegetation.)

3. Calculate the percent of native cover:

    Percent native cover = (TC x NT) + (SC x NS) + (HC x NH)

Required Documentation

- Submittals for State Regulated Wetland Permits or for Waters of the State Determinations shall include:
  - State Regulated Wetland Class Determination Worksheet for each wetland
  - Wetland Determination Data Sheets or complete wetland delineation
  - Location maps (maps showing location as well as any location information used in the assessment)
  - Correspondence from Division of Nature Preserves.
  - Any follow up correspondence or data gathered to determine the presence of the species or presence of habitat for that species.
  - Any assessment method data sheets
  - A list of all species that constitute 5% or more of the areal cover of the uppermost vegetative layers across each wetland in the project area. The list must include the following attributes of each species:
    1. Common name
    2. Scientific name
    3. Percent areal cover
  - A list of all non-native invasive species present in each wetland in the project area. The list must include the following attributes:
    1. Common name
    2. Scientific name
  - Percent areal cover of non-native invasive species