The Navigable Waters Protection Rule: Definition of "Waters of the United States"

TRAINING ON ADJACENT WETLANDS AND
LAKES, PONDS, AND IMPOUNDMENTS OF JURISDICTIONAL WATERS
FOR STATES AND TRIBES - JUNE 30, 2020

Upcoming Presentations in State and Tribal Series

July 7: Exclusions and More

The webinars from this series will be available on EPA's website:

https://www.epa.gov/nwpr

Today's Presentation

- Lakes, ponds, and impoundments of jurisdictional waters
- Adjacent wetlands
- Tools and resources
- Questions and answers

What Are Lakes, Ponds, and Impoundments?

- Lakes, ponds, and impoundments of jurisdictional waters are described in the NWPR paragraph (c)(6) as “standing bodies of open water.”
- Some lakes and ponds are naturally formed through a variety of events, including fluvial, glacial, tectonic, and volcanic activity.
- Lakes, ponds, and impoundments can be man-made features constructed for industrial and agricultural uses, power generation, domestic water supply, or for aesthetic or recreational purposes.
- Lakes, ponds, and impoundments can also be subsequently modified to change surface elevation, depth, and size.

Certain Excluded Lakes and Ponds

- The NWPR identifies certain artificial lakes and ponds that are excluded under paragraph (b)(8):
  - Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in non-jurisdictional waters, so long as those artificial lakes and ponds are not impoundments of jurisdictional waters that meet the conditions of paragraph (c)(6).

When Are Lakes, Ponds, and Impoundments Jurisdictional?

- Lakes, ponds, and impoundments of jurisdictional waters are jurisdictional if they meet the conditions of an (a)(1) water.
- Lakes, ponds, and impoundments of jurisdictional waters are jurisdictional as (a)(3) waters if they:
  - Contribute surface water flow to an (a)(1) water in a typical year either directly or indirectly through one or more (a)(2) through (a)(4) waters or through channelized non-jurisdictional features, or
  - Are inundated by flooding from a paragraph (a)(1) through (a)(3) water in a typical year.
- Note that impoundments must be impoundments *of jurisdictional waters* to meet the (a)(3) criteria above.

(a)(3) Water—Contribution of Surface Water Flow

A lake, pond, or impoundment of a jurisdictional water is jurisdictional when it contributes surface water flow to an (a)(1) water in a typical year either directly or indirectly through one or more (a)(2) through (a)(4) waters.

(a)(3) Water—Contribution of Surface Water Flow

Lakes, ponds, and impoundments of jurisdictional waters do not lose their jurisdictional status if they contribute surface water flow to a downstream jurisdictional water in a typical year through a channelized non-jurisdictional surface water feature, through a culvert, dike, spillway, or similar artificial feature, or through a debris pile, boulder field, or similar natural feature.

Exclusions That Sever Jurisdiction of Upstream Waters

- Lakes, ponds, and impoundments of jurisdictional waters upstream of excluded features are not jurisdictional if:
  - the excluded feature isn't channelized (e.g., diffuse stormwater runoff/directional sheet flow);
  - the excluded feature doesn't convey surface water flow to an (a)(1) water (e.g., connected through groundwater); or
  - the excluded feature doesn't convey surface water flow to an (a)(1) water in a typical year (e.g., flow is only conveyed in the 100-year storm event).

(a)(3) Water—Inundation by Flooding

Lakes, ponds, and impoundments of jurisdictional waters are jurisdictional if they are inundated by flooding from an (a)(1) through (a)(3) water in a typical year.

Impounded Wetlands

- Impoundments of wetlands are jurisdictional as ‘‘impoundments of jurisdictional waters’’ if the wetlands being impounded first meet the definition of ‘‘adjacent wetlands’’ and then meet the conditions of the lakes, ponds, and impoundments of jurisdictional waters category.
  - If an adjacent wetland is impounded and now meets the conditions of paragraph (c)(6), it is jurisdictional as an (a)(3) water.
- If an adjacent wetland is impounded and continues to satisfy the definition of adjacent wetlands (i.e. paragraph (a)(4) water) it would remain jurisdictional as an (a)(4) wetland.

Adjacent Wetlands

What Are Wetlands?

- The rule defines "**wetlands**" as areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.
- The rule defines "**upland**" as any land area that under normal circumstances does not satisfy all three wetland factors (i.e., hydrology, hydrophytic vegetation, hydric soils) identified in the definition of "wetlands", and does not lie below the ordinary high water mark or the high tide line of a jurisdictional water.

When Are Wetlands Jurisdictional?

As defined in the NWPR, (a)(4) wetlands are "adjacent" and thus jurisdictional waters when they meet one of the following criteria:

- i) abut, meaning to touch at least at one point or side of, an (a)(1) through (a)(3) water;
- ii) are inundated by flooding from an (a)(1) through (a)(3) water in a typical year;
- iii) are physically separated from an (a)(1) through (a)(3) water only by a natural berm, bank, dune, or similar natural feature; or
- iv) are physically separated from an (a)(1) through (a)(3) water only by an artificial dike, barrier, or similar artificial structure so long as that structure allows for a direct hydrologic surface connection between the wetlands and the jurisdictional water in a typical year, such as through a culvert, flood or tide gate, pump, or similar artificial feature.

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When Are Wetlands Jurisdictional?

The rule provides that an adjacent wetland is jurisdictional in its entirety when a road or similar artificial structure divides the wetland, as long as the structure allows for a direct hydrologic surface connection through or over that structure in a typical year. A direct hydrologic surface connection can be provided through a culvert or similar feature.

Tools and Resources

- Point-in-time data sources
  - On-site field observations
  - Aerial photographs (current and historic)
- LiDAR/Digital Elevation Model (DEM) data
- USGS topographic maps
- National Hydrography Dataset (NHD)
- National Wetlands Inventory (NWI)
- Soil surveys (current and historic)
- Stream gage data
- Other data
- Physical/visual indicators of inundation

On-site Field Observations

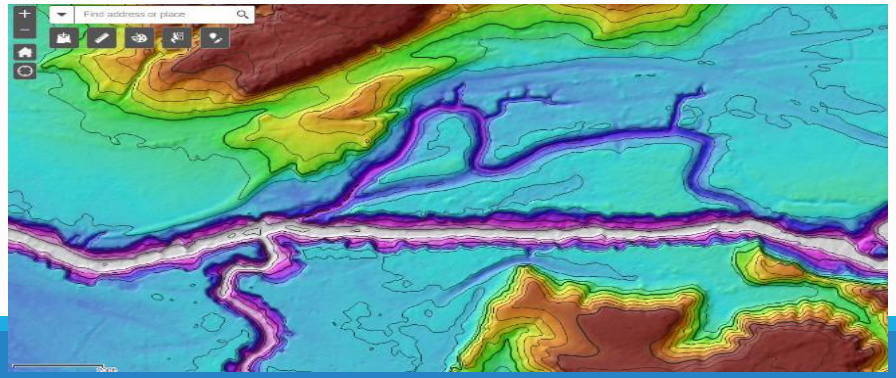
- Field observations are an ideal method for:
  - Identifying surface water features
  - Identifying contribution of surface water flow downstream
  - Identifying inundation by flooding
  - Identifying natural barriers or artificial structures
- However, an assessment should be conducted to determine whether observations reflect “typical year” conditions.

Aerial Photographs

- Current and historic aerial photographs can be valuable tools for determining:
  - inundation of lakes, ponds, impoundments, and wetlands by flooding in a typical year, and
  - contribution of surface flow from lakes, ponds, and impoundments to downstream jurisdictional waters in a typical year.
- Aerial photographs may also detect the presence of natural barriers and artificial structures that may be useful in determining the jurisdictional status of wetlands.
- A typical year assessment should be conducted for each point in time data source, including aerial imagery. This will generally be accomplished by using the Antecedent Precipitation Tool.

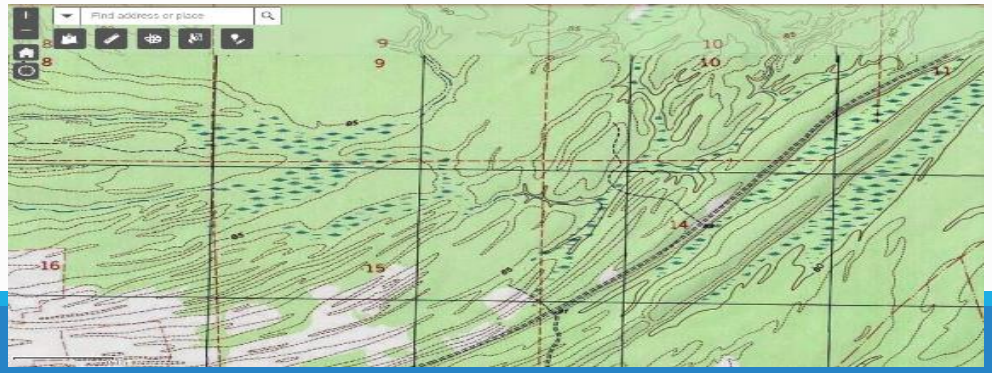
LiDAR and DEM Data

- LiDAR and DEM data may help in identifying floodplains along tributaries and (a)(1) waters, and possible connections from jurisdictional waters to wetlands, lakes, ponds, and impoundments of jurisdictional waters.
- These data sources may also aid in identifying the extent to which floodwaters may cover an area at a given elevation/stage along the tributary.
- This information may help in determining if a water or wetland receives flood waters and is inundated by flooding from an (a)(1) through (a)(3) water in a typical year.



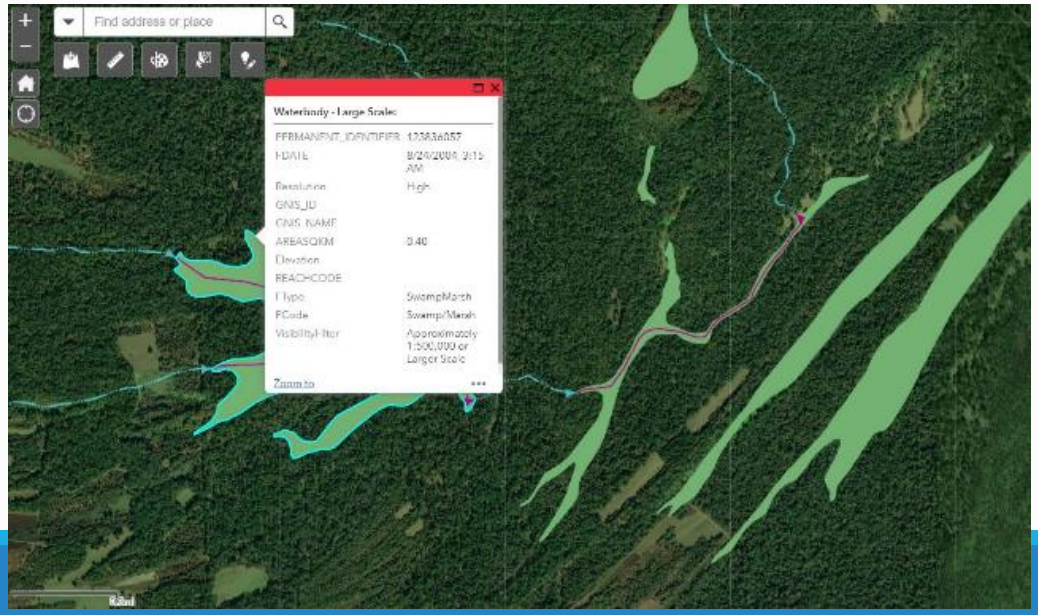
Topographic Maps

- USGS topographic maps use blue lines to represent rivers, streams, and canals, with different symbols depicting the type of features.
- They also incorporate certain symbols which indicate a marsh or another wetland type is likely present and may aid in identifying whether an area is inundated by flooding from a nearby (a)(1) through (a)(3) water in a typical year.
- While the USGS topographic maps identify streams in the United States, in many cases these maps may depict blue-line streams where they do not exist, or vice-versa.



National Hydrography Dataset (NHD)

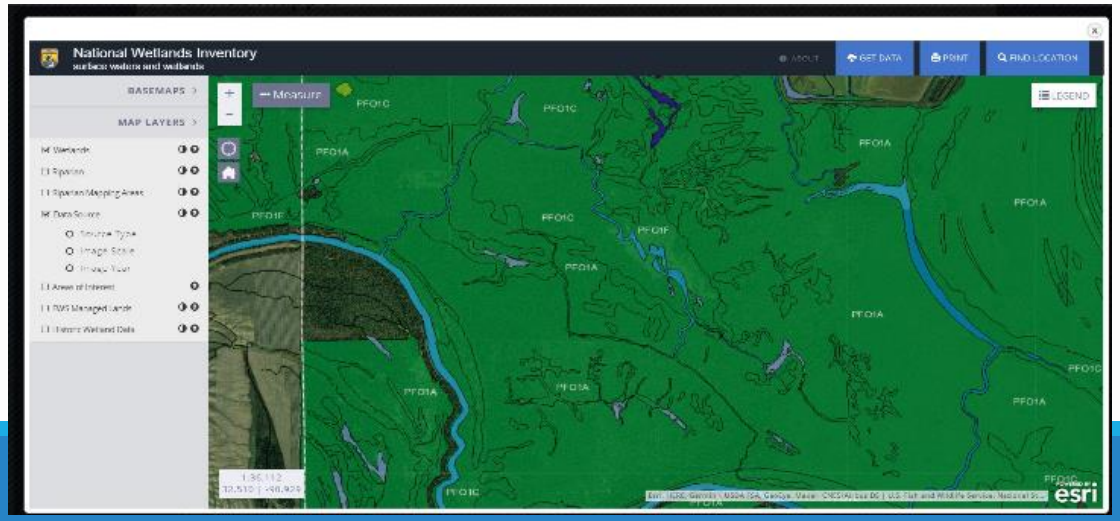
- The NHD can be used to indicate features within a drainage network including Hydrologic Unit Codes (HUC), rivers, streams, canals/ditches, ponds, swamps/marshes, dams, and similar features.
- Information regarding waterbody presence, waterbody type, waterbody extent, stream flow duration, and flow direction can be gathered using this source.



* NHD is not a regulatory dataset. For a discussion of the limitations of the NHD, including the fact that the NHD at High Resolution does not distinguish intermittent from ephemeral features in most parts of the country and may not accurately identify on-the-ground flow conditions, see the Resource and Programmatic Assessment supporting the NWPR.

National Wetlands Inventory (NWI)

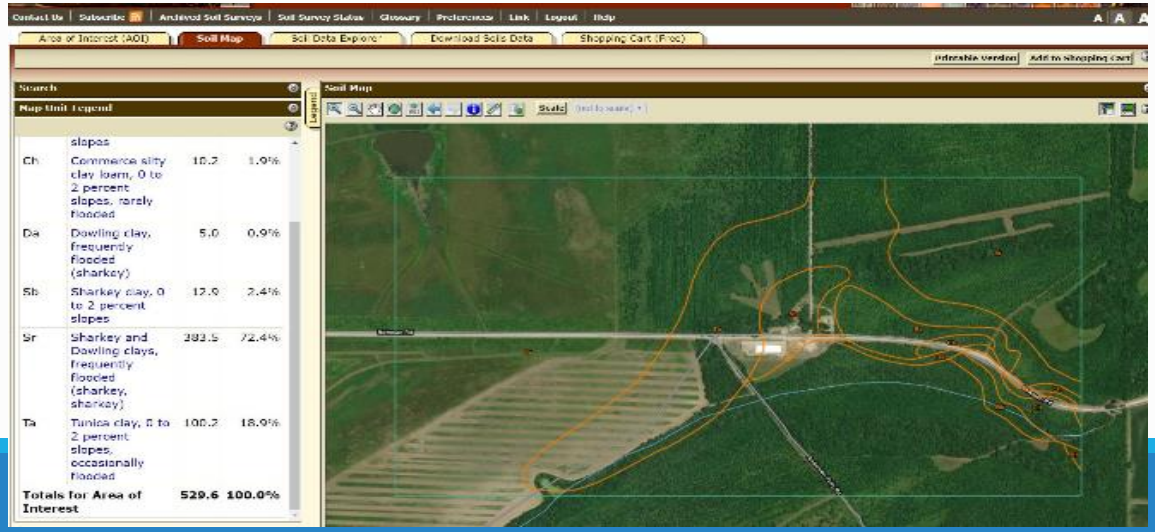
- The NWI was established by the U.S. Fish and Wildlife Service to conduct a nationwide inventory of wetlands to provide information on the distribution and type of wetlands.
- The NWI can be a useful tool in identifying the potential presence of wetlands, tributaries, lakes, ponds, and impoundments.
- Caution must be exercised when interpreting NWI data since the digitally presented data may not accurately depict conditions on the ground



* The NWI is not a regulatory dataset. For a discussion of the limitations of the NWI, including that the NWI uses a different definition of “wetlands” than the agencies’ regulatory definition of “wetlands” and may not accurately identify on-the-ground conditions, see the Resource and Programmatic Assessment supporting the NWPR.

Current and Historic Soil Surveys

- Soil survey maps developed by the Natural Resources Conservation Service may provide evidence of drainage patterns.
- In addition, soil surveys may identify existing flooding or ponding regimes along soil type boundaries
- This information may aid in identifying the presence of wetlands and the potential for wetlands, lakes, ponds, and impoundments to be inundated by flooding from an (a)(1) through (3) water in typical year.



Stream Gage Data

- Stream gage data from federal, state or local agencies, or other sources, may provide useful information that may assist in determining if a wetland, lake, pond, or impoundment is inundated by flooding from an (a)(1) through (a)(3) water in a typical year.

Additional Data

- Other information not specifically addressed here may be available to assist in identification of flow regimes and flooding probabilities and extents.
- Some examples may include, but are not limited to:
  - Site-specific construction plans, permitting data, and operating records
  - Flood predictions such as those from USGS StreamStats
  - Regional regression equations for streamflow and/or channel dimensions such as bankfull regional curves
  - Hydrologic and hydraulic models such as the Corps' Hydraulic Engineering Center Hydrologic Modeling System (HEC-HMS, https://www.hec.usace.army.mil/software/hec-hms/) or River Analysis System (HEC-RAS, https://www.hec.usace.army.mil/software/hec-ras/)

Physical/Visual Indicators of Inundation

- Some of the physical/visual indicators of inundation which are used in wetland delineations (Wetland Hydrology Indicators) may be applicable when determining if a wetland, lake, pond, or impoundment of a jurisdictional water has been inundated by flooding from an (a)(1) through (a)(3) water in a typical year. Some of the indicators include, but are not limited to:
  - Water Marks
  - Sediment Deposits
  - Drift Deposits
  - Moss Trim Lines

Water Marks

- Water marks are discolorations or stains on the bark of woody vegetation, rocks, bridge piers, buildings, fences, or other fixed objects. Water marks indicate a water level elevation and can be used to help determine the extent of flooding in lower elevation areas.

Sediment Deposits

- Sediment deposits are thin layers or coatings of fine-grained mineral material or organic matter, sometimes mixed with other detritus, remaining on tree bark, plant stems or leaves, rocks, and other objects after surface water recedes. Sediment deposits are indicative of inundation over a long enough period to allow for suspended sediments to settle out.

Drift Deposits

- Drift deposits consist of debris that has been deposited on the ground or become entangled in vegetation or other fixed objects. Deposits consist of vegetation, man-made debris (trash, bottles, cups, etc.), or other waterborne materials. Drift material is often deposited at the high water line in ponded or flooded areas.

Moss Trim Lines

- Moss trim lines on trees or other upright objects are formed when water intolerant mosses growing on tree trunks or other upright objects are killed by prolonged inundation, forming an abrupt lower edge to the moss community at the high water level. The elevation of a moss trim line can be extrapolated across a lower elevation area to determine the extent of flooding.

For Further Information

Visit https://www.epa.gov/nwpr for more information about the final rule, including the *Federal Register* notice of the final rule, supporting analyses, and fact sheets.

View the public webcast at - https://www.youtube.com/watch?v=dt_OoxYU0-M&feature=youtu.be

Additional questions may be directed to the EPA at: CWAwotus@epa.gov or to the Corps at: USACE_CWA_Rule@usace.army.mil.

Thank You