NAVIGABLE WATERS PROTECTION RULE (NWPR) IMPLEMENTATION IN MASSACHUSETTS

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Contact us directly if you have follow-up NWPR questions.

Key Potential NWPR Issues

- Adjacent vs. Non-Adjacent System
  - Paul's Presentation on tools for making adjacency determinations.
- Non-Jurisdictional Conveyances
  - Case by case review is necessary.
- Prior Converted Determinations
  - Case by case review is necessary.
- Preliminary and Approved JD Reviews
  - Ruth's Presentation.

Adjacency Determinations Tools:

Determining contribution of flow downstream:

- May use, for example, USGS maps, state and local maps, aerial photography, or other remote sensing information or models that have been verified to be to assess a feature's flow path.
- A trace analysis in a Geographic Information System (GIS), can be used to trace the flow path from a reliable user selected point on a map, downstream along the stream network until the network ends. The USGS StreamStats application incorporates such a tool called the "Flow (Raindrop) Path," available at: https://streamstats.usgs.gov/ss/.

Adjacency Determinations Tools:

Determining perennial or intermittent flow:

- May use a combination of the best available mapping sources, including the NHD* or local maps, as well as other remote tools and datasets such as aerial photographs, NRCS hydrologic tools and soil maps, NOAA snow maps, desktop tools that estimate the discharge sufficient to generate intermittent or perennial flow, or modeling tools.
- Site visits may be needed to perform on-site observations of hydrology or collect indicators of perennial or intermittent flow.
- Where available, streamflow duration assessment methods (SDAMs) that use physical and biological indicators to determine the flow duration class of a stream reach in a single site visit may be used.

* As described in the Resource and Programmatic Assessment for the final rule, the agencies note that 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.

Adjacency Determinations Tools:

Determining surface flow and surface water connections that occur in a typical year:

- The agencies have developed an Antecedent Precipitation Tool (APT) that collects NOAA precipitation from nearby weather stations and compares precipitation from the time period of interest with precipitation data from the past 30 years, that may be used to determine whether precipitation conditions fall within the normal range.
- Other data sources and tools that may be used to inform whether hydrologic flows or surface water connections occur under normal climatic conditions include: drought indices, water-budget models, snow telemetry data, continuous flow monitor data, physical and biological indicators of typical flow conditions, or remote sensing data and hydrologic models.

Adjacency Determinations Tools:

Determining adjacency:

- A variety of remote tools and resources may be used to inform a wetland jurisdictional determination, including, federal, state and local maps, aerial photography and satellite imagery.
- The agencies will continue to use existing resources, methods, and practices to verify the presence of wetlands and to delineate wetland boundaries (*e.g.,* the Corps' 1987 Wetland Delineation Manual).
- Natural berms, banks, dunes, or similar natural features that physically separate wetlands from jurisdictional waters may in certain instances be identified through on-site observations or remotely using aerial photography and satellite imagery, or other remote sensing information.
- Artificial structures that allow for a direct hydrologic surface connection (*e.g.,* through a culvert, tide gate, pump, or similar artificial feature) may in certain instances be identified through on-site observations or remotely using construction design plans, permitting data, state and local information, or levee or drainage district information.

Adjacency Determinations Tools:

Determining inundation by flooding:

- May use a combination of remote tools and datasets such as USGS stream gage records, recurrence intervals of peak flows, wetland surface water level records, flood records, aerial photography and satellite imagery, or inundation modeling techniques and tools.
- The Corps' Hydrologic Engineering Center's River Analysis System (HEC-RAS) software allows users to perform inundation mapping and create inundation depth datasets. The HEC-RAS software is available for download at: https://www.hec.usace.army.mil/software/hec-ras/.
- Site visits may be needed to perform on-site observations of hydrology or field-based indicators of recent inundation (*e.g.,* the presence of water marks, sediment and drift deposits, water-stained leaves, or algal mats).

NWPR Implementation

- NWPR went into effect June 22, 2020
- New implementation tools are being developed and will be publicly available for download on the EPA's website in the near future:
  - Antecedent Precipitation Tool (APT) https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/techbio/
  - Regionally-specific SDAMs will be released over time