



# Appendices to the Resource and Programmatic Assessment for the Proposed Revised Definition of “Waters of the United States”

U.S. Environmental Protection Agency  
and  
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# Appendices

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## Acronyms

Agencies	Environmental Protection Agency and U.S. Army Corps of Engineers
Army	Department of Army
AJD	Approved Jurisdictional Determinations
ATTAINS	Assessment and Total Maximum Daily Load Tracking and Implementation System
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
DA	District Attorney
DEM	Department of Environmental Management
DEP	Department of Environmental Protection
DNR	Department of Natural Resources
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FRP	Facility Response Plan
FWPA	Freshwater Wetlands Protection Act
FY	Fiscal Year
GIS	Geographic Information Systems
ICIS-NPDES	Integrated Compliance Information System National Pollutant Discharge Elimination System
ICR	Information Collection Request
IR	Integrated Report
JD	Jurisdictional Determination
NED	National Elevation Dataset
NFPA	National Fire Prevention Association
NJPDES	New Jersey Pollutant Discharge Elimination System
NHD	National Hydrography Dataset
NHDPlus	National Hydrography Dataset Plus
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center

NRCS	Natural Resources and Conservation Service
NRPA	Natural Resources Protection Act
NWI	National Wetlands Inventory
ORM2	Operation and Maintenance Business Information Link, Regulatory Module
PJD	Preliminary Jurisdictional Determinations
PPT	Parts per Thousand
PSTR	Petroleum Storage Tank Remediation
<i>Rapanos</i>	<i>Rapanos v. United States</i> , 547 U.S. 715 (2006)
RPW	Relatively Permanent Waters
RPA	Resource and Programmatic Assessment
SDWIS/FED	Safe Drinking Water Information System/Federal Version
SPAs	Source Protection Areas
SPCC	Spill Prevention, Control, and Countermeasure
<i>SWANCC</i>	<i>Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers</i> , 531 U.S. 159 (2001)
TMDLs	Total Maximum Daily Load determinations
TNW	Traditional Navigable Water
UAA	Use Attainability Analysis
USGS	U.S. Geological Survey
WBD	Watershed Boundary Dataset
WQS	Water Quality Standards
WRRDA	Water Resources Reform and Development Act

## Appendix A. **Methodology for Aquatic Resources and Programmatic Data Analyses**

### **1. Overview**

This appendix describes the data and methodology the Environmental Protection Agency and U.S. Army Corps of Engineers (Agencies) used or attempted to use in the various aquatic resource analyses referenced in the preceding chapters of the Resource and Programmatic Assessment (RPA). This includes analyses or attempted analyses to estimate the distribution of the type of streams across the country that are: 1) perennial, intermittent, or ephemeral; 2) listed as impaired under Section 303(d) of the Clean Water Act (CWA); 3) have completed Total Maximum Daily Load determinations (TMDLs) applied to them; 4) lie within surface water source protection areas (SPAs) for drinking water intakes; and 5) occur on tribal reservations. Graphics containing key findings, limitations, and caveats to the analyses are included. Though some chapters of the RPA discuss general limitations and caveats, they are discussed in further detail in this appendix.

### **2. Data Sources**

#### **A. Operation and Maintenance Business Information Link, Regulatory Module (ORM2)**

ORM2 (Operation and Maintenance Business Information Link, Regulatory Module) is the U.S. Army Corps of Engineers' (Corps) internal database system that documents CWA section 404 application and permit data, including information on jurisdictional determinations (JDs). AJD<sup>1</sup> is a written Corps determination that a water is subject to regulatory jurisdiction under section 404 of the CWA<sup>2</sup> or a written determination that a water is subject to regulatory jurisdiction under section 9 or 10 of the Rivers and Harbors Act of 1899.<sup>3</sup> JDs are identified as either preliminary or approved,<sup>4</sup> and both types are recorded in ORM2. An approved JD (AJD) is an official Corps document stating the presence or absence of “waters of the United States” on a parcel or a written statement and map identifying the limits of “waters of the United States” on a parcel. A preliminary JD (PJD) is a non-binding written indication that there may be “waters of the United States” on a parcel;<sup>5</sup> an applicant can elect to use a PJD to voluntarily waive or set aside questions regarding CWA jurisdiction over a particular site, usually in the interest of allowing the applicant to move ahead expeditiously to obtain a Corps permit authorization.

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<sup>1</sup> 33 CFR 331.2.

<sup>2</sup> 33 U.S.C. 1344.

<sup>3</sup> 33 U.S.C. 401 *et seq.*

<sup>4</sup> 33 CFR 331.2.

<sup>5</sup> *Id.*

## B. National Hydrography Dataset (NHD)

The U.S. Geological Survey's (USGS) National Hydrography Dataset (NHD) High Resolution (1:24,000 scale<sup>6</sup> or better) was used to provide the location and length of streams by stream flow type. The USGS created the NHD to assist scientists in modeling hydrologic features and for cartographic mapping purposes.<sup>7</sup> The NHD is designed to be used in general mapping and in the analysis of surface water systems.<sup>8</sup> In Alaska, the NHD is available only at the 1:63,360-scale. The NHD depicts aquatic resources such as lakes, ponds, streams, rivers, wetlands, and oceans throughout the United States (including many canals and ditches). The agencies used NHD data from March 2017 for all states except California, which were September 2017 data.<sup>9</sup>

The NHD contains both linear and polygonal data. For the data analyses, the agencies used the hydrography feature class of "NHDFlowline." NHDFlowlines consist of routes that make up a linear surface water drainage network, including streams/rivers and canals/ditches. NHDFlowlines are classified by feature type or "Ftype," a unique identifier of a feature type, and is further attributed with descriptive information by a feature code or "Fcode." NHD Flowline feature types include Stream/River, Artificial Path, Canal/Ditch, Coastline, Connector, Pipeline, and Underground Conduit. For purposes of this analysis, the agencies focused on the Stream/River feature type, which is defined as a body of flowing water. Stream/River features are further classified by hydrographic category of "intermittent," "perennial," and "ephemeral," as further described below. Some Stream/River flowlines are unclassified for hydrographic category, meaning that the NHD does not further classify them by intermittent, perennial, or ephemeral.

Stream and river "flowlines" in NHD are characterized as ephemeral, intermittent, or perennial based on the original pre-digital mapping effort of USGS topographic maps. In NHD, perennial reaches are presumed to carry water throughout the year except during drought, whereas intermittent reaches are assumed to lack flow for some duration. The NHD defines ephemeral as having water only during or after a local rainstorm or heavy snowmelt. In the arid West, some ephemeral streams are captured in the dataset as "washes." A wash in the NHD is defined as the usually dry portion of a stream bed that contains water only during or after a local rainstorm or heavy snowmelt.

Many, but not all, canals and ditches are also mapped in the NHD. The NHD definition for a "canal/ditch" feature specifies that it is an artificial open waterway constructed to transport water, to drain or irrigate land, to connect two or more water bodies, or to serve as a waterway

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<sup>6</sup> Scale is the relationship between distance on the map and distance on the ground. If the scale were 1:24,000, for instance, then one inch on the map would represent 24,000 inches or 2,000 feet on the ground. If the scale were 1:63,360, then one inch on the map would represent 63,360 inches or one mile on the ground. See "Map Scales," available at <https://pubs.usgs.gov/unnumbered/70039582/report.pdf>.

<sup>7</sup> U.S. Geological Survey. 2014. "Frequently Asked Questions about the NHD & WBD Datasets." *See also*, Simley, Jeff. 2018. *GIS for Surface Water: Using the National Hydrography Dataset*. Redlands, CA: ESRI Press.

<sup>8</sup> *Id.*

<sup>9</sup> U.S. Geological Survey. 2007-2018. National Hydrography Dataset available at <https://www.usgs.gov/core-science-systems/ngp/national-hydrography/national-hydrography-dataset>, accessed March 2017 and September 2017.

for watercraft. The “lake/pond” feature is defined in a NHD as a standing body of water with a predominantly natural shoreline surrounded by land. The “reservoir” feature in the NHD is defined as a constructed basin formed to contain water or other liquids.

The USGS did not consistently identify ephemeral streams on the 1:24,000-scale topographic maps from which the NHD high resolution dataset is based. Many ephemeral streams that were included in the topographic maps were mapped there as intermittent streams, and many ephemeral streams were not mapped at all. In the arid West in particular, many ephemeral streams were represented as intermittent on the topographic maps and in NHD when it was initially digitized. In the 2000s, however, NHD began classifying some streams in the digital dataset as ephemeral.<sup>10</sup> Such mapping is most complete in the arid West, where an effort in 2015-2016 led to USGS attempting to correct many of the misclassified ephemeral streams. This effort reclassified unnamed streams classified as intermittent to ephemeral, assuming that in the arid West, any intermittent source of water would be named, and therefore unnamed streams classified as intermittent were most likely ephemeral. This correction was applied only in portions of Arizona, California, Colorado, Idaho, New Mexico, Nevada, Texas, and Utah, while other areas remain uncorrected.<sup>11</sup> The USGS validated this effort using stream flow modeling and original field notes, and also found the reclassified streams to be comparable with updates provided by federal data stewards that were based on field work and local knowledge.<sup>12</sup> In other limited areas, state and federal data stewards have specifically mapped ephemeral streams when providing updated NHD data to the USGS.<sup>13</sup> Many ephemeral streams remain included in the “intermittent” category, particularly those outside of the arid West. The NHD is the most comprehensive national dataset of the location of streams in the United States. Despite being a high-quality dataset, the high resolution NHD data has been demonstrated to under-represent the

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<sup>10</sup> Simley, Jeff. 2006. “USGS National Hydrography Dataset Newsletter.” Vol. 5, No. 4, February 2006. Available at: <https://www.usgs.gov/core-science-systems/ngp/national-hydrography/newsletters>. See also, Simley, Jeff. 2015. “USGS National Hydrography Dataset Newsletter.” Vol. 14, No. 6, April 2015. Available at: <https://www.usgs.gov/core-science-systems/ngp/national-hydrography/newsletters>.

<sup>11</sup> Corrections were made for Watershed Boundary Dataset Hydrologic Regions 13, 15, 16, and parts of 18, which are the Rio Grande Region (encompassing portions of Colorado, New Mexico, and Texas), the Lower Colorado Region (encompassing portions of Arizona, New Mexico, and Nevada), the Great Basin Region (encompassing portions of California, Idaho, Nevada, and Utah), and the California Region (encompassing portions of California), respectively. For a map of the hydrologic regions, visit <https://www.usgs.gov/core-science-systems/ngp/national-hydrography/nhdplus-high-resolution>.

<sup>12</sup> Before proceeding with the reclassification effort, the USGS’ validated the plan by comparing the NHDPlus Enhanced Runoff Method (EROM) flow volume estimates to the NHD high resolution reclassification and by researching USGS’ original field notes from when the topographic maps were created. In addition, the USGS found the results of the reclassification were comparable with NHD high resolution stewardship updates to the dataset for specific areas provided by the Bureau of Land Management (BLM) in Idaho and the U.S. Forest Service (USFS) in New Mexico. BLM and the USFS had based their revisions on field work and local knowledge. See Simley, Jeff. 2015. “USGS National Hydrography Dataset Newsletter.” Vol. 14, No. 10, August 2015. Available at: <https://www.usgs.gov/core-science-systems/ngp/national-hydrography/newsletters>. See also, Simley, Jeff. 2015. “USGS National Hydrography Dataset Newsletter.” Vol. 14, No. 6, April 2015. Available at: <https://www.usgs.gov/core-science-systems/ngp/national-hydrography/newsletters>.

<sup>13</sup> The NHD datasets are regularly updated and maintained through stewardship partnerships with states and other collaborative bodies, such as Federal agencies. An agency in each state manages the maintenance activities within the state, and updates are made available in the national dataset. For example, the U.S. Forest Service and the Bureau of Land Management were some of the first data stewards to add ephemeral streams within certain federal lands to the NHD.

upstream-downstream extent of channel networks.<sup>14</sup> It does not map all surface waters and sometimes maps streams that do not exist or no longer exist on the ground (*i.e.*, it has errors of omission and commission). Smaller features would generally not be included in the NHD. In general, streams longer than one mile were included and lakes/ponds greater than six acres were included in the dataset. The dataset also has positional inaccuracies. At high-resolution, 90 percent of well-defined features are within 40 feet of their true geographic position. In addition, a designation of perennial, intermittent, or ephemeral in the NHD does not guarantee an accurate depiction of on-the-ground flow conditions. For example, a study comparing the field-verified flow regime (*i.e.*, perennial, intermittent, or ephemeral) of 105 headwater stream reaches in nine mesic forests across the contiguous United States and 178 headwater stream reaches in Oregon to the flow regime documented in various mapping resources found that high resolution NHD misclassified the flow regime 44.8 percent of the time across the mesic forest headwater reaches and 57.9 percent of the time across the Oregon headwater reaches.<sup>15</sup> Misclassifications of NHD stream permanence are known to occur among flow regime types, including field-verified perennial streams identified as ephemeral and field-verified ephemeral streams identified as perennial.<sup>16</sup> While the USGS conducted some on-the-ground field inspection 30 to 60 years ago when creating the topographic maps from which the NHD was created, the resulting hydrographic classifications do not necessarily represent current hydrographic conditions. Misclassifications can occur for a variety of reasons, from changes in land use and/or climate, observational errors, errors in data transcription (from the paper files to digital files), changes in data standards and definitions, inconsistent mapping techniques, differences in source material for creating the original topographic maps, or for cartographic reasons.

Finally, the NHD is not a regulatory dataset and does not indicate whether streams and other features are jurisdictional for CWA purposes.<sup>17</sup> For example, some river and stream features mapped in the NHD would not meet the proposed definition of tributary because they do not contribute perennial or intermittent flow to a traditional navigable water (TNW) in a typical year.

The NHD is also available at medium resolution (1:100,000-scale). Both datasets are publicly available on the USGS website. The agencies decided to utilize the high-resolution dataset to represent streams and rivers for several reasons. The high-resolution dataset is the most up-to-date and detailed hydrography dataset for the nation, mapping more streams than the medium resolution dataset. And although many ephemeral streams are not mapped, the high-resolution dataset includes the stream flow type of “ephemeral,” which is not included in the medium resolution dataset. The agencies are aware that states may have their own geospatial datasets of streams and other aquatic resources. The agencies chose to analyze the NHD over such datasets in order to utilize a national, publicly-available dataset with nationally-consistent data standards,

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<sup>14</sup> Fritz, Ken M., *et al.* 2013. “Comparing the Extent and Permanence of Headwater Streams from Two Field Surveys to Values from Hydrographic Databases and Maps. *Journal of the American Water Resources Association* 49(4) 867-882.

<sup>15</sup> *Id.*

<sup>16</sup> *See, e.g., id.*

<sup>17</sup> It is the agencies’ longstanding position that the NHD and the NWI do not represent waters subject to CWA jurisdiction. *See, e.g.,* letter dated July 28, 2014 from EPA Office of Water Acting Assistant Administrator Nancy Stoner to Congressman Lamar Smith. Available at: [https://science.house.gov/sites/republicans.science.house.gov/files/documents/epa\\_releases\\_maps\\_letter.pdf](https://science.house.gov/sites/republicans.science.house.gov/files/documents/epa_releases_maps_letter.pdf).

instead of using a collection of potentially inconsistent data. In addition, the NHD data are regularly updated and maintained through stewardship partnerships with states and other collaborative bodies. An agency in each state manages the maintenance activities within the state, and updates are made available in the national dataset.

### *1. National Hydrography Dataset Plus*

The National Hydrography Dataset Plus (NHDPlus) is a suite of geospatial products that build upon and extend the capabilities of the NHD, the National Elevation Dataset (NED) and the Watershed Boundary Dataset (WBD). The NHDPlus includes a stream network, catchments, and streamflow estimates, as well as other attributes that enable stream “navigation” (e.g., allow users to “navigate” up- and downstream from a given point in the stream network).<sup>18</sup> An NHDPlus catchment is the geographic area which drains to a single stream segment (reach) in the NHD stream network.<sup>19</sup> The NHDPlus is currently available for the NHD at medium resolution for the conterminous United States, Hawaii, and the U.S. territories. The NHDPlus High Resolution is currently being developed in “Beta” version in an iterative fashion throughout the country. Data are available at <https://epa.gov/waterdata/nhdplus-national-hydrography-dataset-plus> and <https://www.usgs.gov/core-science-systems/ngp/national-hydrography/access-national-hydrography-products>. For portions of these analyses, the agencies used NHDPlus at medium resolution, as discussed in the “Methodology” section of this document.

### *C. National Wetlands Inventory*

The National Wetlands Inventory (“NWI”) is also discussed in Chapter I: “Aquatic Resource Analyses” of the RPA. The U.S. Fish and Wildlife Service (FWS) established the NWI to conduct a nationwide inventory of wetlands to provide biologists and others with information on the distribution and type of wetlands to aid in conservation efforts. Today, NWI is used for general mapping of wetlands and deepwater habitats and for purposes of data analyses and modeling. The NWI is a mapping dataset that provides detailed information on the extent, characteristics, functions, and distribution of wetlands and deepwater habitats across the United States. These data are primarily derived from manual aerial image interpretation. The NWI is available as digital data at the 1:24,000-scale or higher throughout the country, except for large portions of Alaska (data in Alaska are at the 1:63,360-scale). Approximately 65 percent of Alaska is not currently available as digital data. In 2016, the FWS updated the dataset to Version 2, which added any linear wetland or surface water features that were on the original NWI hard copy maps but missed in the first digital transformation to the geospatial dataset. In addition, FWS supplemented the hydrography data by adding any single-line stream features that were not mapped by the NWI and completing previously segmented connections.

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<sup>18</sup> “Navigate” and “navigation” in this context refer to the ability to trace a stream network upstream and downstream using GIS. The terms do not refer to actual navigability of a water and do not imply that a feature is or is not navigable.

<sup>19</sup> See [ftp://ftp.horizon-systems.com/NHDplus/NHDPlusV21/Documentation/NHDPlusV2\\_User\\_Guide.pdf](ftp://ftp.horizon-systems.com/NHDplus/NHDPlusV21/Documentation/NHDPlusV2_User_Guide.pdf).

The structure of the Cowardin classification<sup>20</sup> that NWI utilizes is hierarchical, progressing from Systems and Subsystems at the most general levels to Classes, Subclasses, and Dominance Types. See Figure 1 for the classification hierarchy. The five major system types are Marine, Estuarine, Riverine, Lacustrine, and Palustrine. The first four of these include both wetlands and deepwater habitats, but the Palustrine includes only wetland habitats.<sup>21</sup> Wetlands and deepwater habitats are defined separately in the classification system because traditionally the term wetland has not included deep, permanent water. The NWI considers deepwater habitats to be permanently flooded lands lying below the deepwater boundary of wetlands.<sup>22</sup> The boundary between wetlands and deepwater habitat in the Riverine and Lacustrine Systems in NWI typically occurs at a depth of 2.5 meters (8.2 feet) below low water, and this boundary was selected because it approximates the maximum depth to which emergent vegetation normally grows and the depth beyond which soil does not occur.<sup>23</sup>

The Marine System consists of the open ocean overlying the continental shelf and its associated high-energy coastline.<sup>24</sup> The Estuarine System consists of deepwater tidal habitats and nearby tidal wetlands that are usually semi-enclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land.<sup>25</sup> The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergent vegetation, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 parts ppt or greater.<sup>26</sup> Water is usually, but not always, flowing in the Riverine System, and upland islands or Palustrine wetlands may occur in the channel, but they are not included in the Riverine System.<sup>27</sup> The Lacustrine System includes wetlands and deepwater habitats with all of the following characteristics: (1) situated in a topographic depression or a dammed river channel; (2) lacking trees, shrubs, persistent emergent vegetation, emergent mosses or lichens with 30 percent or greater areal coverage; and (3) total area of at least eight hectares (20 acres).<sup>28</sup> The Lacustrine System includes permanently flooded lakes and reservoirs (*e.g.*, Lake Superior), intermittent lakes (*e.g.*, playa lakes), and tidal lakes with ocean-derived salinities below 0.5 ppt (*e.g.*, Grand Lake, Louisiana).<sup>29</sup> Typically, there are extensive areas of deep water and there is considerable wave action. Islands of Palustrine wetlands may lie within the boundaries of the Lacustrine System. The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergent vegetation, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-

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<sup>20</sup> See *Classification of Wetlands and Deepwater Habitats of the United States* (1<sup>st</sup> Edition), available at: <https://www.fws.gov/wetlands/documents/Classification-of-Wetlands-and-Deepwater-Habitats-of-the-United-States.pdf>.

<sup>21</sup> See *Classification of Wetlands and Deepwater Habitats of the United States* (2<sup>nd</sup> Edition), available at <https://www.fws.gov/wetlands/documents/Classification-of-Wetlands-and-Deepwater-Habitats-of-the-United-States-2013.pdf>.

<sup>22</sup> *Id.*

<sup>23</sup> *Id.*

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

<sup>28</sup> *Id.*

<sup>29</sup> *Id.*

derived salts is below 0.5 ppt.<sup>30</sup> It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than eight hectares (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 meters (8.2 feet) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt. The Palustrine System was developed to group the vegetated wetlands traditionally called by such names as marsh, swamp, bog, fen, and prairie, which are found throughout the United States.<sup>31</sup> It also includes the small, shallow, permanent or intermittent water bodies often called ponds.<sup>32</sup> Palustrine wetlands may be situated shoreward of lakes, river channels, or estuaries; on river floodplains; in isolated catchments; or on slopes.<sup>33</sup> They may also occur as islands in lakes or rivers.<sup>34</sup>

Thus, streams and rivers are generally mapped as Riverine features, lakes are generally mapped as Lacustrine features, and ponds are generally mapped as Palustrine features in the NWI. The Riverine System is divided into four Subsystems: the Tidal, the Lower Perennial, the Upper Perennial, and the Intermittent. Each is defined in terms of water permanence, gradient, substrate, and the extent of floodplain development.<sup>35</sup> The Tidal Subsystem extends from the upstream limit of tidal fluctuations down to the upper boundary of the Estuarine System, where the concentration of ocean-derived salts reaches 0.5 ppt during the period of average annual low flow.<sup>36</sup> The Lower Perennial Subsystem is characterized by a low gradient, with no tidal influence and a well-developed floodplain; some water flows all year, except during years of extreme drought.<sup>37</sup> The Upper Perennial Subsystem is characterized by a high gradient, with no tidal influence and very little floodplain development; some water flows all year, except during years of extreme drought.<sup>38</sup> The Intermittent Subsystem includes channels that contain flowing water only part of the year; when the water is not flowing, it may remain in isolated pools or surface water may be absent.<sup>39</sup> The Lacustrine System is divided into two Subsystems: Limnetic and Littoral. The Limnetic Subsystem includes all deepwater habitats in the Lacustrine System (many small Lacustrine Systems have no Limnetic Subsystem).<sup>40</sup> The Littoral Subsystem includes all wetland habitats in the Lacustrine System and extends from the shoreward boundary of the System to a depth of 2.5 meters (8.2 feet) below low water, or to the maximum extent of nonpersistent emergent vegetation if these grow at depths greater than 2.5 meters.<sup>41</sup> The Palustrine System has no Subsystems.

The NWI Class describes the general appearance of the habitat in terms of either the dominant life form of the vegetation or the physiography and composition of the substrate—features that can be recognized without the aid of detailed environmental measurements.<sup>42</sup> Classes in the

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<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> *Id.*

<sup>37</sup> *Id.*

<sup>38</sup> *Id.*

<sup>39</sup> *Id.*

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

<sup>42</sup> *Id.*

Riverine System include Rock Bottom, Unconsolidated Bottom, Aquatic Bed, Streambed, Rocky Shore, Unconsolidated Shore, and Emergent Wetland (nonpersistent). Classes in the Lacustrine System include Rock Bottom, Unconsolidated Bottom, Aquatic Bed, Rocky Shore, Unconsolidated Shore, and Emergent Wetland (nonpersistent). Classes in the Palustrine System include Rock Bottom, Unconsolidated Bottom, Aquatic Bed, Unconsolidated Shore, Moss-Lichen Wetland, Emergent Wetland, Scrub-Shrub Wetland, and Forested Wetland. The Classes are defined in the Glossary to this Appendix.

The NWI contains a Water Regime modifier in the classification of wetlands and deepwater habitats, which provides a description in general terms of hydrologic characteristics. For example, “Temporarily Flooded” is defined as when surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for most of the season.<sup>43</sup> “Intermittently Flooded” in NWI indicates that surface water is present for variable periods without detectable seasonal periodicity, and that weeks, months, or even years may intervene between periods of inundation.<sup>44</sup> “Seasonally Flooded” means that surface water is present for extended periods (generally for more than a month) during the growing season, but is absent by the end of the growing season in most years; when surface water is absent, the depth to substrate saturation may vary considerably among sites and among years.<sup>45</sup> Ephemeral streams, lakes, and ponds typically have the Water Regime modifier of Temporarily Flooded or Intermittently Flooded in the NWI, while intermittent streams are typically coded as Seasonally Flooded.<sup>46</sup> Note that not all features are assigned a Water Regime modifier.

The NWI has both errors of omission (where wetlands that exist on the ground are not mapped in the dataset) and errors of commission (where wetlands that do not exist on the ground are mapped in the dataset). For example, many wetlands less than half-an-acre in size are not included in the dataset. The minimum size threshold for a wetland to be included is 1/20th of an acre. NWI wetlands are identified from the imagery based on vegetation, visible hydrology, and geography. A margin of error is inherent in the use of imagery interpretation; thus, detailed on-the-ground inspection of a particular site may result in revision of the wetland boundaries or wetland classification. The accuracy of the data depends on the original image quality, analyst experience, amount and quality of collateral data, and any ground truth verification. Some of the imagery used for NWI dates back to the 1990s. As with stream reaches in NHD, wetlands or other mapped aquatic resources can and do change over time, such that a previously valid interpretation no longer reflects ground conditions due to either man-made or natural changes to the landscape. Some wetland habitats are excluded from the dataset due to the difficulty of identification or correct delineation of these habitats from aerial imagery. For example, drier wetlands and forested wetlands (especially evergreen forested wetlands) are often difficult to map from photointerpretation. Farmed wetlands are usually not mapped in the NWI, except for pothole wetlands, cranberry bogs, and diked former tidelands. The NWI contains a Special Modifier for “Farmed” for wetlands that occur where the soil surface has been mechanically or

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<sup>43</sup> *Id.*

<sup>44</sup> *Id.*

<sup>45</sup> *Id.*

<sup>46</sup> Ephemeral streams are typically coded as either R4SBA (Riverine Intermittent Streambed Temporarily Flooded) or R4SBJ (Riverine Intermittent Streambed Intermittently Flooded) in the NWI, while intermittent streams found in the NWI are typically coded as R4SBC (Riverine Intermittent Streambed Seasonally Flooded).

physically altered for production of crops, but where hydrophytes (plants typically found in wet habitats) would become reestablished if the farming were discontinued.

The agencies decided to utilize the NWI to represent wetlands for several reasons. The NWI is the most comprehensive and most detailed national dataset of the potential location of wetlands in the United States and is publicly available on the U.S. FWS website. That said, like the NHD, the NWI is not a dataset of CWA jurisdiction, and the agencies are not aware of maps prepared by any agency of waters that are currently jurisdictional under the CWA or that would be jurisdictional under the proposed rule.<sup>47</sup> The agencies are aware that states may have their own geospatial datasets of wetlands and deepwater habitats, and that such datasets may be more accurate or up-to-date than the NWI. The agencies chose the NWI over such datasets in order to utilize a national, publicly-available dataset with nationally-consistent data standards, instead of using a collection of potentially inconsistent data. In addition, the NWI data are regularly updated and maintained.

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<sup>47</sup> See *supra* at footnote 17.

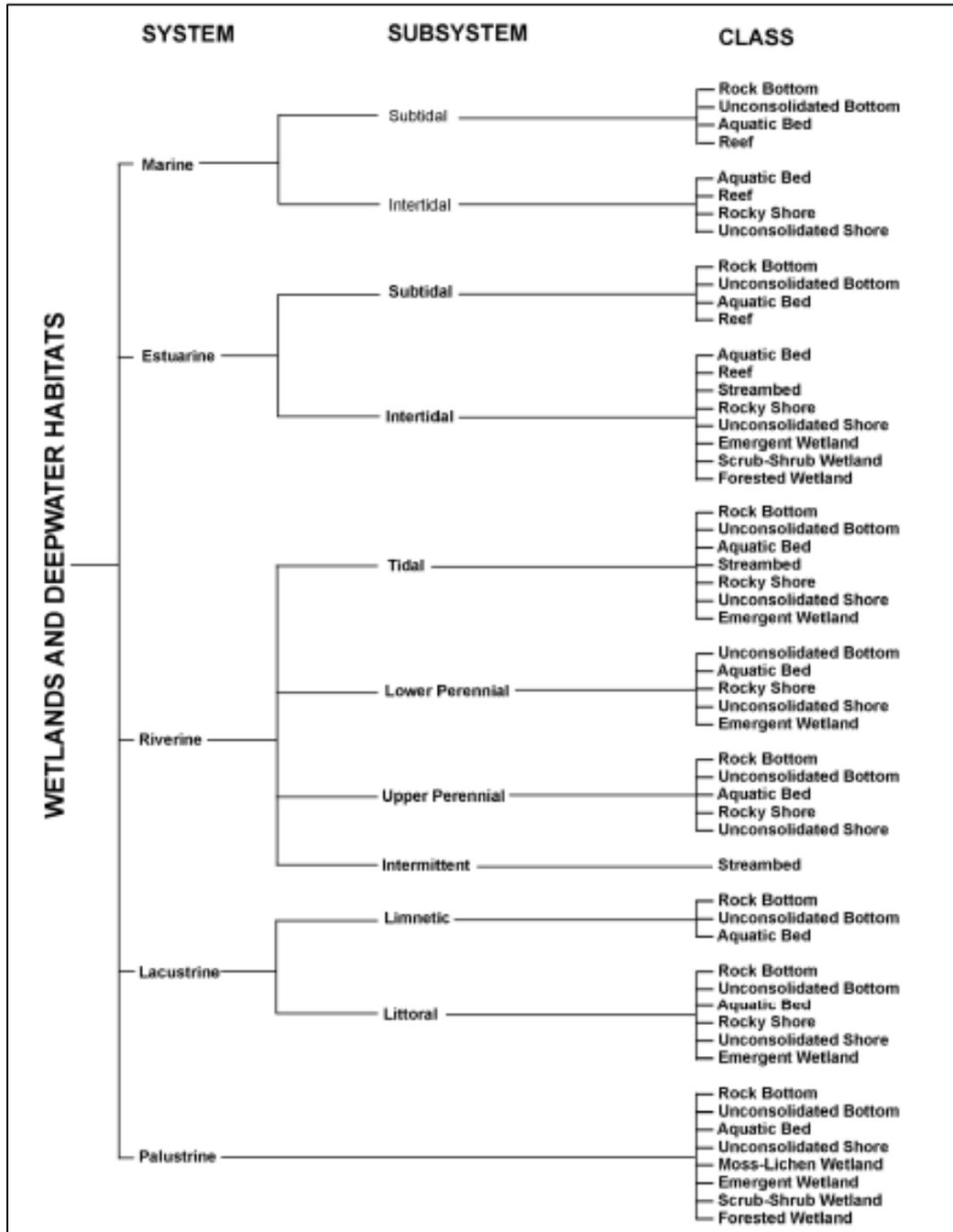


Figure 1. Classification hierarchy of wetlands and deepwater habitats in the Cowardin System, showing Systems, Subsystems, and Classes.<sup>48</sup>

## D. ATTAINS

Assessment and Total Maximum Daily Load Tracking and Implementation System (ATTAINS) is an U.S. Environmental Protection Agency (EPA) website and database that is used to share state water quality assessment decisions made under CWA sections 303(d) and 305(b), as well as

to share information on TMDLs, alternative restoration, and protection approaches.<sup>49</sup> As described in the “Programmatic Analyses” section, states are required under section 303(d) of the CWA to identify all waters that do not meet state water quality standards (WQS). This list is often referred to as the 303(d) list or the list of impaired waters. For waters identified on a 303(d) list, states must establish TMDLs for all pollutants preventing or expected to prevent attainment of WQS.

The agencies used ATTAINS to obtain information for the impaired waters and TMDL portion of the analysis. The data used are the “303(d) Listed Impaired Waters NHDPlus Indexed Dataset” and the “Impaired Waters with TMDLs NHDPlus Indexed Dataset.” The national geospatial datasets are produced and periodically updated by EPA using state-submitted data. The “303(d) Listed Impaired Waters NHDPlus Indexed Dataset” is a national geographic information system (“GIS”) dataset of EPA-approved 303(d) listed waters. To be included in the datasets, states and other jurisdictions must have submitted information to the program database. The EPA compiles the state datasets, reconciles differences in format, and indexes the data to NHDPlus Medium Resolution to provide a nationally consistent dataset. The “303(d) Impaired Waters with TMDLs NHDPlus Indexed Dataset” identifies all impaired waters for which at least one TMDL has been developed. This dataset was developed by relating all mapped, impaired waters to all information on existing TMDLs. To appear in this dataset, impaired waters must have been mapped and at least one of their impairment causes must have been addressed by a TMDL. These national datasets are publicly available on the EPA’s website.<sup>50</sup> Location and pollutant information for 303(d) waters and waters with TMDLs are from the May 1, 2015, update of the ATTAINS Database.<sup>51</sup>

### E. Facility Response Plan Facilities (Section 311)

Under the Facility Response Plan (FRP) rule,<sup>52</sup> the EPA requires a subset of Spill Prevention, Control, and Countermeasure (SPCC) facilities to prepare and submit an FRP to the EPA Regional Administrator for the state where the facility is located. These FRP facilities are identified as those that could, because of their location, reasonably be expected to cause substantial harm to the environment should they discharge oil into or on the navigable waters or adjoining shorelines. Facility owners or operators must submit their FRP to the EPA. The EPA maintains an internal database on FRP facilities, including their locations and characteristics. This internal database was used to identify the location of FRP facilities in this analysis.

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<sup>48</sup> The Palustrine System does not include deepwater habitats. From FGDC 2013.

<sup>49</sup> See <https://www.epa.gov/waterdata/assessment-and-total-maximum-daily-load-tracking-and-implementation-system-attains>.

<sup>50</sup> Data are available at <https://www.epa.gov/waterdata/waters-geospatial-data-downloads>.

<sup>51</sup> Data for 303(d) Listed Impaired Waters are available at <https://www.epa.gov/waterdata/waters-geospatial-data-downloads#303dListedImpairedWaters>. Data for Impaired Waters with TMDLs are available at <https://www.epa.gov/waterdata/waters-geospatial-data-downloads#ImpairedWatersWithTMDLs>.

<sup>52</sup> 40 CFR 112.20 and 112.21.

## F. National Pollutant Discharge Elimination System Databases

### 1. ICIS-NPDES

Data on regulated facilities or activities subject to individual permits or general permits under the Section 402 program is primarily from the EPA's Integrated Compliance Information System National Pollutant Discharge Elimination System (ICIS-NPDES) database. ICIS-NPDES is an information management system maintained by the EPA's Office of Compliance to track permit compliance and enforcement status of facilities regulated by the National Pollutant Discharge Elimination System (NPDES) under the CWA.<sup>53</sup> ICIS-NPDES is designed to support the NPDES program at the state, regional, and national levels.

Active facilities are those currently in operation. Major/federally-reportable are facilities for which states must submit compliance and enforcement data to the EPA. Under the CWA, a major facility is any NPDES facility or activity classified as such by the Regional Administrator, or in the case of approved state programs, by the Regional Administrator in conjunction with the state director. Major municipal dischargers include all facilities with design flows of greater than one million gallons per day and facilities with EPA/state approved industrial pretreatment programs. Major industrial facilities are determined based on specific ratings criteria developed by the EPA/state.

Minor/not federally-reportable facilities are facilities for which states are not required to submit data to the EPA. The EPA is therefore not able to verify the accuracy or comparability of data for these permits, although the Agency tracks permittee names and locations and may have some data about their inspections and enforcement activity.

ICIS-NPDES records included in the download files are those with any permit status code value for the current permit record. ICIS-NPDES includes the following data types:

- Permit facility data
- Inspection information
- Permit schedule violations
- Effluent violations
- Compliance schedule violations
- Single Event violations
- Enforcement actions

ICIS-NPDES data are available for download from EPA's Enforcement and Compliance History Online website at <https://echo.epa.gov/tools/data-downloads>.

### 2. New Jersey Department of Environmental Protection DataMiner

Due to known quality issues in ICIS-NPDES for data from New Jersey, the agencies extracted data for that state from the New Jersey Department of Environmental Protection (DEP)

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<sup>53</sup> See ICIS-NPDES Download Summary and Data Element Dictionary, available at <https://echo.epa.gov/tools/data-downloads/icis-mpdes-download-summary>.

DataMiner.<sup>54</sup> The agencies used the “NJPDES Active Permit List.” This report displays a list of all active NJPDES permits and contains both facility information (*i.e.*, name, address, and coordinates) and permit information (*i.e.*, NJPDES permit number, expiration dates, major/minor status, and discharge category).

### G. Safe Drinking Water Information System/Federal Version (SDWIS/FED)

Safe Drinking Water Information System/Federal Version (SDWIS/FED) is EPA’s national database that manages and collects public water system information from states, territories, EPA Regions, and tribes, including reports of drinking water standard violations, reporting and monitoring violations, and other basic information, such as water system location, type, and population served. Intake locations are considered sensitive data and not available to the public. Publicly available SDWIS data can be found at: <https://ofmpub.epa.gov/apex/sfdw/f?p=108:200>. Data from SDWIS/FED were used for the drinking water analysis that is described in more detail later in this Appendix.

The SDWIS Federal Data Warehouse stores population information at the system level, not the facility level (*e.g.*, intakes). Some double counting can occur when individuals are served by multiple systems. For example, an individual can be served at their home and also at their workplace. Systems may be drawing or receiving water from multiple sources (facilities). These sources get combined and therefore the populations for each of the individual sources are combined to ensure protection across all potential populations served. The population for those systems corresponding to a given SPA is an aggregation of both the population each system is serving plus the population served by the systems it may be selling water to (see Figure 2). Note that many systems do not buy or sell any water, and in these cases only the population served by the individual system is used. If the system is a wholesaler, they only sell water to other systems. These wholesalers have been included in the SPA analysis, and in order to get the total population the agencies applied the populations from the systems they sold water to (see Figure 3).

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<sup>54</sup> See State of New Jersey Department of Environmental Protection DataMiner, available at: <https://www13.state.nj.us/DataMiner>.

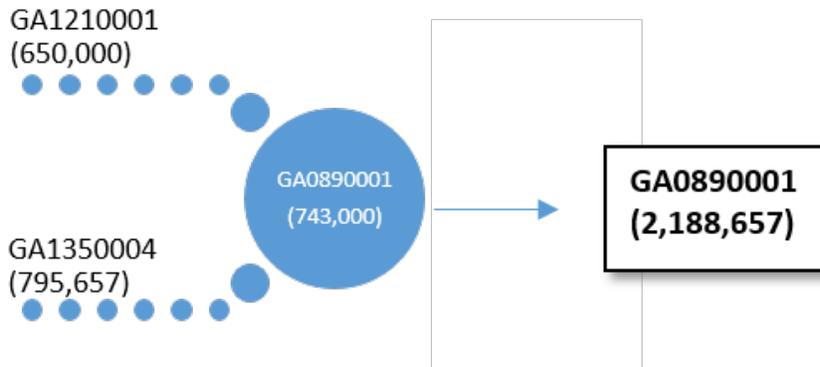


Figure 2. Illustration of population served calculations. In this example, system GA0890001 is serving water to a population of 743,000 and also selling water to GA1210001 and GA1350004. All three populations were added together and applied for a total population served of 2,188,657 for GA0890001.

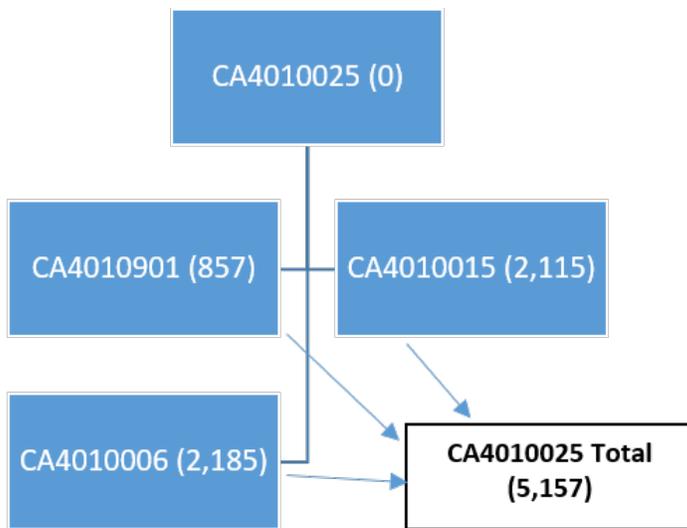
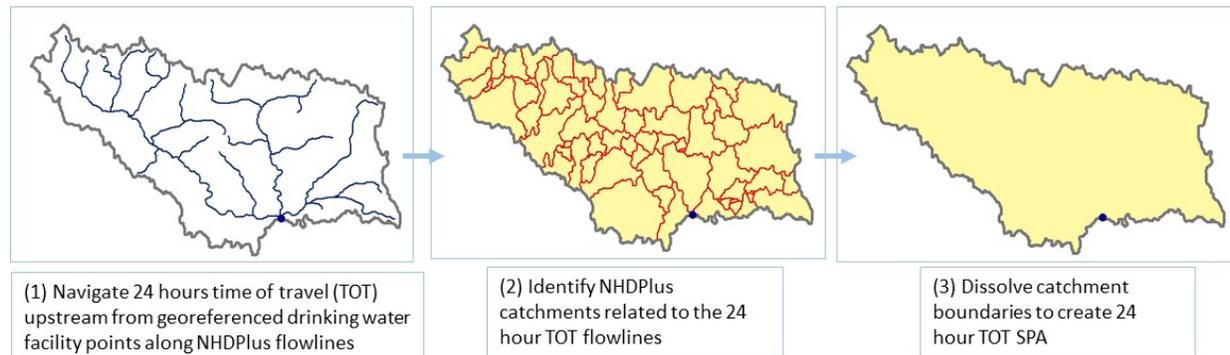


Figure 3. Illustration of population served calculations for purchasers from a wholesaler. In this example, System CA4010025 has a population served entry in SDWIS of zero, meaning it sells its water to other systems. Here it is selling water to CA4010901, CA4010015, and CA4010006. The populations of purchasers were added together for the total population.

## H. Surface Water Source Protection Areas

SPAs delineations are composed of NHDPlus version 2.1 catchments located 24-hour time of travel upstream of all georeferenced active surface water source facilities (*i.e.*, intakes, reservoirs, infiltration galleries, and springs with valid locations). Hence, a SPA is the area upstream from a drinking water source that provides water to a public drinking water system during a 24-hour period. The NHDPlus catchments are dissolved together to form the SPA for

the surface water facility. SPAs used for this analysis were derived from 2017 3<sup>rd</sup> Quarter SDWIS/FED data. Figure 4 illustrates how SPAs are delineated.



*Figure 4. Illustration of a SPA. The black dot represents the intake. In (1), the blue lines represent streams whose flow will reach the intake in a 24-hour period. In (2), the NHDPlus catchments for those streams are identified. In (3), the yellow shaded area is a SPA, made by dissolving the applicable catchments.*

## I. EPA Tribal Areas

EPA has developed a dataset called “EPA Tribal Areas” that is comprised of four different components of national federal data to approximate tribal lands. This dataset is a collection of certain readily available information related to Indian country locations. These locations are suitable only for general spatial reference and do not necessarily reflect EPA’s position on any tribal area locations or boundaries or the land status of any specific location. The first data component represents locations of American Indian tribal lands in the lower 48 states.<sup>55</sup> The areas include all lands associated with federally-recognized tribal entities—federally-recognized reservations, off-reservation trust lands, and Census Oklahoma Tribal Statistical Areas. The EPA uses Census Oklahoma Tribal Statistical Areas for tribal boundaries in Oklahoma because EPA did not have accurate publicly-available boundaries of tribal reservations in Oklahoma at the time of the analysis. The second data component represents locations of American Indian reservations in Alaska.<sup>56</sup> The third data component is Alaska native allotments, which uses data from the Public Land Survey System in Alaska, generated from land survey records.<sup>57</sup> The data in this component represent a seamless spatial portrayal of native allotment land parcels, their legal descriptions, corner positioning and markings, and survey measurements. The allotment data are intended for mapping purposes only and are not a substitute or replacement for legal land survey records or other legal documents. Measurement and attribute data are collected from survey records using data entry screens into a relational database. The database design is based upon the Federal Geographic Data Committee Cadastral Content Data Standard. Corner positions are derived by geodetic calculations using measurement records. Closure and edge-matching are applied to produce a seamless dataset. The resultant features do not preserve the original

<sup>55</sup> See <https://edg.epa.gov/metadata/catalog/search/resource/details.page?uuid=%7B8077CD55-74FB-4107-8047-3DEC0D55966A%7D>.

<sup>56</sup> See <https://edg.epa.gov/metadata/catalog/search/resource/details.page?uuid=%7BE37B0B2C-EB0B-436C-B993-C18D8895E522%7D>.

<sup>57</sup> See <https://edg.epa.gov/metadata/catalog/search/resource/details.page?uuid=%7B15FEB09B-752E-4B48-B01B-D9F2D360623A%7D>.

geometry of survey measurements, but the record measurements are reported as attributes. Additional boundary data are derived by spatial capture, protraction and GIS (*i.e.* geospatial) processing. The spatial features are stored and managed within the relational database, with active links to the represented measurement and attribute data.

These three data components were used in the agencies' tribal analyses. The analyses did not include the fourth data component of Alaska Native Villages.<sup>58</sup> This component represents center points of Alaska Native Villages. The Alaska Native Villages are associated with federally-recognized tribal entities. This component was not used because the data are point files and thus could not be easily incorporated into an overlay analysis. All four components of the EPA Tribal Areas dataset are available for download at <https://edg.epa.gov/data/Public/OEI/OIAA/Tribes/EPATribes.zip>. The latest revisions to the EPA Tribal Areas dataset took place on February 27, 2017.

### 3. Methodology

The methodology for the ORM2 and aquatic resources analyses are also discussed in the "Aquatic Resource Analyses" section of the RPA. The methodology for CWA programmatic analyses are discussed in the "CWA Programmatic Analyses" section of the RPA. The methodologies are discussed in this section for completeness.

#### A. Baseline Analyses

##### 1. ORM2 Data Analyses

To examine how assertion of jurisdiction could change under the proposed rule as compared to pre-2015 practice, the agencies reviewed CWA AJDs from ORM2<sup>59</sup> in fiscal years<sup>60</sup> (FY) 2013 through 2017. As the agency that manages day-to-day implementation of the CWA section 404 program, the Corps conducts tens of thousands of preliminary and approved JDs each year.<sup>61</sup> For other federal CWA programs, the EPA typically does not conduct JDs, except for enforcement purposes. Thus, most of the nation's JDs for CWA purposes originate from the Corps. Corps AJDs are generally valid for five years unless new information warrants a revision or a District Engineer identifies specific geographic areas with rapidly changing environmental conditions that merit re-issuance on a more frequent basis.<sup>62</sup> The agencies chose to analyze AJD data from the last five fiscal years for this analysis. During this period, under pre-2015 practice the Corps conducted AJDs for 82,738 aquatic resources in the ten categories that are described below in the "Baseline" section of this chapter. Of these AJDs, 60,116 aquatic resources were determined to

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<sup>58</sup> See <https://edg.epa.gov/metadata/catalog/search/resource/details.page?uuid=%7BE4341D1B-656F-4E76-86DB-9216E8A968EA%7D>.

<sup>59</sup> This includes only those JDs completed under current implementation, not any completed under the 2015 Rule.

<sup>60</sup> The fiscal year is the accounting period for the federal government which begins on October 1 and ends on September 30. The fiscal year is designated by the calendar year in which it ends; for example, fiscal year 2013 begins on October 1, 2012, and ends on September 30, 2013.

<sup>61</sup> Only New Jersey and Michigan have assumed administration of the CWA 404 program, although the Corps retains permitting authority over certain waters.

<sup>62</sup> See Regulatory Guidance Letter 05-02 for more information, available at [http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/cwa\\_guide/app\\_f\\_rgl05-02.pdf](http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/cwa_guide/app_f_rgl05-02.pdf).

be jurisdictional. In addition, the Corps conducted 14,357 upland determinations in that same period. A single AJD may include multiple aquatic resources.

For the ORM2 analysis, the agencies generally did not review hardcopy AJD forms to analyze which aquatic resources might change jurisdictional status under the proposed rule. Instead, the agencies reviewed the FY2013-2017 ORM2 data to collect summary statistics regarding whether the Corps had made positive or negative AJDs under pre-2015 practice for the various categories of aquatic resources in ORM2, which are described in Chapter I of the RPA. After the 2015 Rule was finalized, the ORM2 database was updated so that the Corps could enter AJDs using the 2015 Rule’s “waters of the United States” definition. The agencies are not using data from ORM2 for AJDs that were made under the 2015 Rule for this analysis. Because the 2015 Rule has been effective for a brief time for only certain portions of the country,<sup>63</sup> the 2015 Rule AJDs are not a representative sample compared to the large numbers of AJDs conducted under pre-2015 practice. The agencies were also concerned about using AJD information reflecting the categories of waters that the agencies would have found jurisdictional or non-jurisdictional under the 2015 Rule, because a disproportionate number of the AJDs that were finalized under the 2015 Rule were for exclusions and for non-significant nexus determination categories.

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<sup>63</sup> The day before the 2015 Rule’s August 28, 2015 effective date, the U.S. District Court for the District of North Dakota preliminarily enjoined the 2015 Rule in the 13 States that challenged the rule in that court (Alaska, Arizona, Arkansas, Colorado, Idaho, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, South Dakota, and Wyoming). *North Dakota v. EPA*, 127 F. Supp. 3d 1047 (D.N.D. 2015). The 2015 Rule was then stayed nationwide on October 9, 2015, by the U.S. Court of Appeals for the Sixth Circuit. *In re EPA & Dep’t of Def. Final Rule*, 803 F.3d 804 (6th Cir. 2015). On January 22, 2018, the Supreme Court, in a unanimous opinion, held that the 2015 Rule is subject to direct review in the district courts. *Nat’l Ass’n of Mfrs. v. Dep’t of Def.*, 138 S. Ct. 617, 624 (2018). In response to the Supreme Court’s decision, on February 28, 2018, the Sixth Circuit lifted the stay and dismissed the corresponding petitions for review. *In re Dep’t of Def. & EPA Final Rule*, 713 Fed. App’x 489 (6th Cir. 2018). Shortly after the Supreme Court decided that the courts of appeals do not have original jurisdiction to review challenges to the 2015 Rule and directed the Sixth Circuit to dismiss the consolidated challenges to the 2015 Rule for lack of jurisdiction, the agencies issued a final rule (83 FR 5200, Feb. 6, 2018), after providing notice and an opportunity for public comment, that added an applicability date to the 2015 Rule (*hereafter*, the Applicability Date Rule). The applicability date was established as February 6, 2020. When adding the applicability date to the 2015 Rule, the agencies clarified that they will continue to implement nationwide the previous regulatory definition of “waters of the United States,” consistent with the practice and procedures the agencies implemented before and immediately following the issuance of the 2015 Rule (pre-2015 practice) pursuant to the preliminary injunction issued by the District of North Dakota and the nationwide stay issued by the Sixth Circuit. On August 16, 2018, the U.S. District Court for the District of South Carolina enjoined the Applicability Date Rule nationwide. *South Carolina Coastal Conservation League, et al., v. Pruitt*, No. 2-18-cv-330-DCN, 2018 U.S. Dist. LEXIS 138595 (D.S.C. Aug. 16, 2018). In addition, on November 26, 2018, the U.S. District Court for the Western District of Washington vacated the Applicability Date Rule nationwide. See *Puget Soundkeeper Alliance, et al. v. Andrew Wheeler, et al.*, No. C15-1342-JCC (W.D. Wash. November 26, 2018). The 2015 Rule continues to be subject to a preliminary injunction issued by the U.S. District Court for the District of North Dakota for the original 13 states, plus Iowa. (On September 18, 2018 the District Court issued an order finding that the preliminary injunction should be extending to the State of Iowa in addition to the original 13 state plaintiffs. *North Dakota v. EPA*, No. 3:15-cv-59 (D.N.D. 2018).) The 2015 Rule also is subject to a preliminary injunction issued by the U.S. District Court for the Southern District of Georgia as to 11 more states: Georgia, Alabama, Florida, Indiana, Kansas, Kentucky, North Carolina, South Carolina, Utah, West Virginia, and Wisconsin. *Georgia v. Pruitt*, No. 15-cv-79 (S.D. Ga.). The 2015 Rule is also subject to a preliminary injunction issued by the U.S. District Court for the Southern District of Texas as to an additional three states: Louisiana, Mississippi, and Texas. *Texas v. United States EPA*, No. 3:15-CV-00162 (S.D. Tex. Sep. 12, 2018). Additional information is in the “Baseline” section of Chapter I of the RPA.

Furthermore, the 2015 Rule was not implemented in 13 states prior to the nationwide stay<sup>64</sup> and currently is not being implemented in 28 states,<sup>65</sup> so the available data are not national in scope for AJDs under that rule since AJDs in those states were completed consistent with the *Rapanos v. United States*, 547 U.S. 715 (2006) (*Rapanos*) Guidance and pre-2015 practice.<sup>66</sup>

## 2. Aquatic Resource Analyses

The agencies used the NHD High Resolution in a GIS analysis to provide estimates of the extent of selected waterbody types within the dataset, with a specific focus on NHD mapped Stream/River features based on their Hydrographic Categories – those Streams/Rivers that are ephemeral (FCode 46007), intermittent (46003), and perennial (46003). The agencies also looked at the extent of unclassified streams/rivers (46000) – those streams and rivers that have not been assigned a flow permanence in the dataset – as well as canal/ditch features mapped in the dataset. The agencies do not believe that estimates of the extent of these waters in NHD correspond to the CWA jurisdiction under either baseline, but instead conducted this analysis in an attempt to better understand the mapped extent and distribution of different stream types throughout the country. Because ephemeral streams are explicitly not included in the proposed rule’s definition of tributary, the agencies wanted to evaluate the potential extent of these streams across the country. As mentioned above, since the NHD maps some ephemeral streams as intermittent in the dataset, the agencies also wanted to estimate the potential extent of these stream systems across the country. The agencies are unable to estimate what percentage of intermittent streams in NHD are in fact ephemeral, nor are the agencies able to estimate the extent of ephemeral streams that are not mapped in the dataset. Furthermore, as discussed previously, designation of perennial, intermittent, or ephemeral in the NHD does not guarantee an accurate depiction of on-the-ground flow conditions.<sup>67</sup>

The agencies also used the NWI in a GIS analysis in an attempt to provide estimates of the extent of wetlands across the country. Prior to finalizing the exploratory analysis, the agencies determined that there were too many confounders introduced at each step of the analysis described below such that the analytical results were inconclusive for purposes of indicating potential changes in federal jurisdiction. However, the attempted methodology of the attempted analysis is described for completeness.

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<sup>64</sup> The 13 states party to the District Court for the District of North Dakota Southeastern Division’s August 27, 2015 preliminary injunction included Alaska, Arizona, Arkansas, Colorado, Idaho, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, South Dakota, and Wyoming.

<sup>65</sup> See *supra* at footnote 63. As of October 12, 2018, the 2015 Rule is preliminary enjoined in Alabama, Alaska, Arizona, Arkansas, Colorado, Georgia, Florida, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Montana, Nebraska, Nevada, New Mexico, North Carolina, North Dakota, South Carolina, South Dakota, Texas, Utah, West Virginia, Wisconsin, and Wyoming.

<sup>66</sup> See “Clean Water Act Jurisdiction Following the U.S. Supreme Court’s Decision in *Rapanos v. United States & Carabell v. United States*,” (hereafter “*Rapanos* Guidance”), first issued on June 6, 2007 and revised on December 2, 2008, available at [https://www.epa.gov/sites/production/files/2016-02/documents/cwa\\_jurisdiction\\_following\\_rapanos120208.pdf](https://www.epa.gov/sites/production/files/2016-02/documents/cwa_jurisdiction_following_rapanos120208.pdf).

<sup>67</sup> See, e.g., *supra* at footnote 14.

To better approximate the NWI wetlands that might be more likely to meet the federal regulatory definition of wetland,<sup>68</sup> the agencies identified vegetated NWI wetlands as a reasonable surrogate. These wetland types are more likely to meet the regulatory definition of “wetland” than non-vegetated NWI wetlands, as the regulatory definition requires all three wetland delineation factors to be present under normal circumstances, including hydrophytic vegetation.<sup>69</sup> In an attempt to estimate the NWI wetlands that are likely to be abutting streams mapped in NHD, the agencies performed an intersection analysis of the two datasets. Because the NWI is one of the largest polygonal datasets in the nation and national analyses of the data are challenging and time-consuming, the agencies determined they would need to rasterize (*i.e.*, convert into pixels) the NWI data so that the agencies could aggregate NWI wetlands that are touching each other into one feature. The agencies converted NWI polygon features to raster cells (*i.e.*, grids of pixels) at a 30-meter resolution and then attributed features of the polygon with the maximum combined area of overlap with the raster cell to the entire cell. The wetlands were then examined to see if they were physically-connected to the NHD stream network, to approximate those wetlands that are abutting. For this portion of the analysis, the agencies associated the vegetated NWI wetlands with the nearest stream category (ephemeral, intermittent, or perennial) derived from the high resolution NHD flowlines. NHD flowlines were also converted into 30-meter raster cells. All “ArtificialPath” features in NHD were attributed as “Other” for this analysis.

To generate the physically-connected layer, the agencies used a combination of NHD data and NWI data. For the NHD data, the agencies first selected certain reaches from the NHD High-Resolution stream network. As the NHD network includes many artificial constructs such as aqueducts, pipelines, and canals, the agencies included only those network features that they deemed appropriate to assess physical connectivity (through a visual inspection process). While most of the feature types included were non-artificial (*i.e.*, Stream/River features), the agencies did include some artificial features that allowed physical connectivity between natural features. Some of the artificial features are straight-forward, such as artificial pathways linking the stream network across waterbodies such as Lake/Pond features. However, in other cases, the agencies needed to include a limited set of canals, underground conduits, and pipeline features that were part of the drainage network. For example, in cases where a Stream/River feature flows under a roadway, the portion of the reach directly under the road is defined as an “underground conduit.” If that reach was not included in our analysis, the connectivity of the stream upstream and downstream of that reach would not have been established. Table 1 shows the features the agencies included based on the “Ftype” attribute associated with the reach and any exceptions to their inclusion. The selected set of NHD features were also converted into raster format at a 30-meter resolution with cell boundaries snapped to be consistent to the NWI raster data. The NHD raster layer was then combined with the NWI raster dataset to generate a final raster layer of all NHD and NWI features.

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<sup>68</sup> The agencies are proposing no changes to the longstanding regulatory of “wetland” at 33 CFR 328.3 and 40 CFR 230.3, meaning “those areas that are inundated or saturated by surface or groundwater 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.”

<sup>69</sup> U.S. Army Corps of Engineers. 1987. Corps of Engineers Wetlands Delineation Manual. Wetlands Research Program Technical Report Y-87-1. Department of the Army, Vicksburg, VA. Available at <https://el.erdc.dren.mil/elpubs/pdf/wlman87.pdf>.

*Table 1: NHD feature types (Ftype) included to determine physical connectivity*

<b>Ftype</b>	<b>Description</b>	<b>Exceptions</b>
334	Connector	None
420	Underground conduit	None
428	Pipeline	Not inclusive where “name” field explicitly contained: “Aqueduct” or “Canal” or was empty (null).
460	Stream/River	None
558	Artificial Pathway	None

Figure 5 describes the process by which the combined NHD and NWI raster dataset was used to classify wetlands as either “physically connected” (abutting) or “not physically connected” (not abutting). The wetlands then were attributed with the stream category (ephemeral, intermittent, or perennial) of the nearest NHD raster cell, as derived from the NHD High Resolution flowlines. All “ArtificialPath” features, unclassified streams (Fcode 46000), and Connector features in NHD were attributed as “Other” for this exercise, as shown in

Table 2.

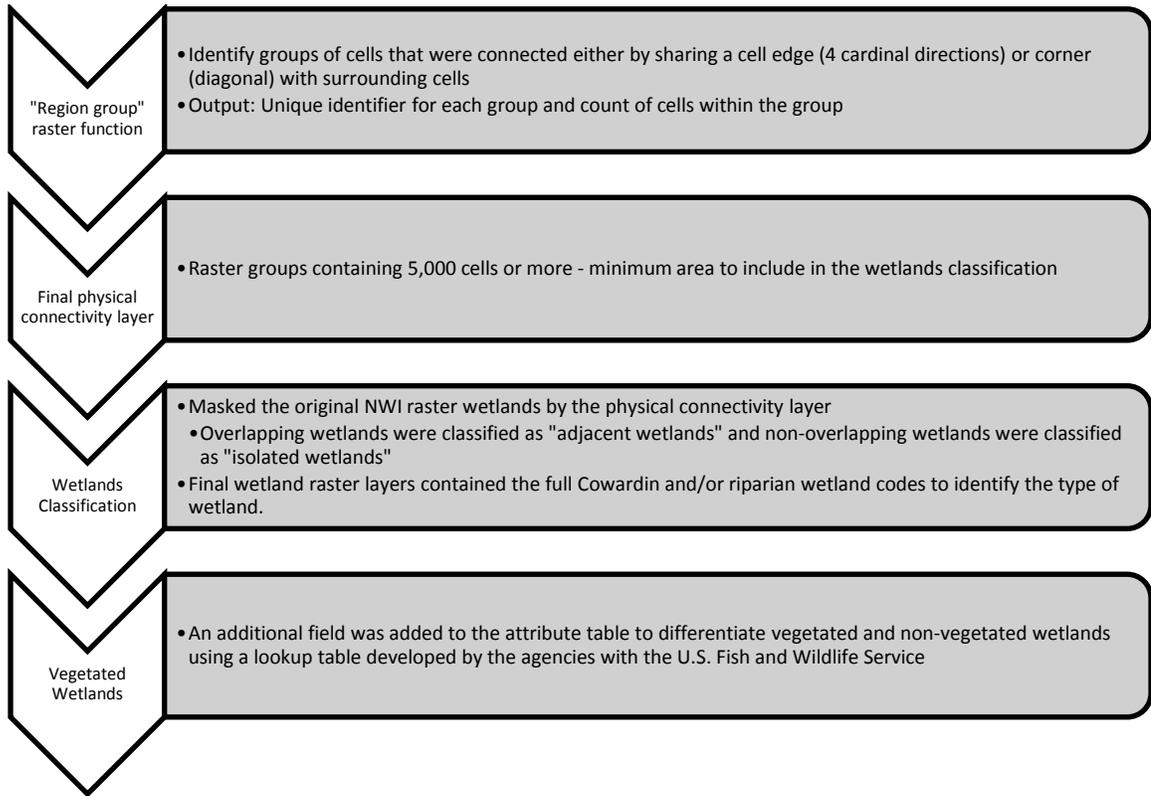


Figure 5. Process for classifying NWI wetlands as either abutting or not abutting.

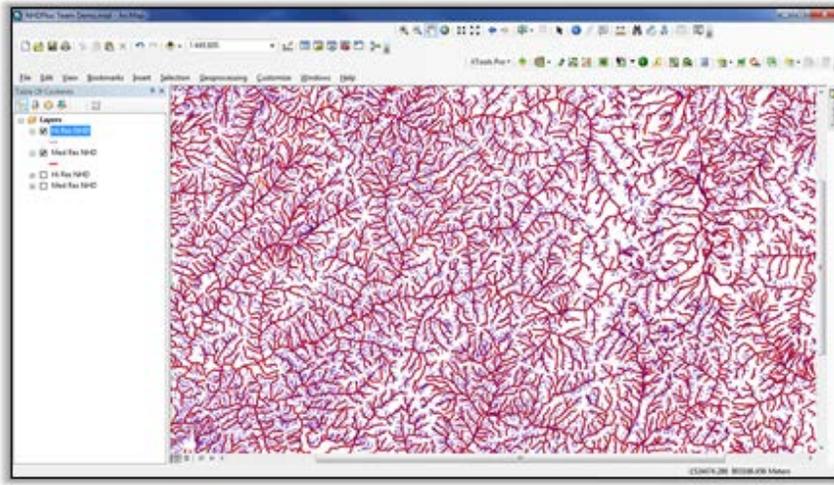
Table 2. Crosswalk between NHD Fcode and assigned stream type.

<i>Fcode</i>	<i>Description</i>	<i>Stream Type</i>
46007	Ephemeral Stream	Ephemeral
46003	Intermittent Stream	Intermittent
46006	Perennial Stream	Perennial
46000, 55800, 33400	Stream/River, Artificial Path, Connector	Other

## B. Estimating Stream Types of Impaired and TMDL Streams

For this programmatic analysis, the agencies used the NHD High Resolution in a GIS analysis in an attempt to provide estimates of the stream types (Hydrographic Categories) of streams that are on a state’s section 303(d) list and of streams that have a TMDL. However, due to data limitations of the NHD, the agencies have concluded that such an analysis does not appropriately or accurately assess the potential effects of the proposed rule on the 303(d) and TMDL programs. Information about the attempted analysis are included here for completeness. Stream type information used in this analysis (ephemeral, intermittent, perennial, and unclassified) is contained in the NHD High Resolution, but the NHD High Resolution does not convey the impairment or TMDL attributes, as discussed further in the “Uncertainties and Limitations to the Data and Analyses” section of this Appendix. Impairment and TMDL attributes are contained in ATTAINS’ NHD Medium Resolution-based data. Further, no crosswalk indexing currently exists to facilitate straightforward identification of specific NHD Medium Resolution stream segments of interest (*e.g.*, impaired waters) to their corresponding NHD High Resolution stream segments and the stream type designations therein (*e.g.* ephemeral, intermittent, perennial, or unclassified). Figure 6 illustrates a comparison of the relative detail and density between NHD Medium Resolution and NHD High Resolution features.

Medium (red) and hires (blue) NHD flowlines shown together illustrates difference in detail/number of features.



*Figure 6. Comparison between NHD High Resolution and NHD Medium Resolution Flowlines. Medium Resolution lines are in red and High Resolution lines are in blue to illustrate the difference between the two datasets in detail and the number of features.*

GIS tools were employed to identify which NHD High Resolution stream segments corresponded to NHD Medium Resolution segments of interest. As the more detailed NHD High Resolution flowlines capture in more detail the meandering nature of streams than their NHD Medium Resolution counterparts, a given stream segment in NHD High Resolution will typically intersect that same segment depicted in NHD Medium Resolution multiple times. Figure 7 illustrates the multiple intersections between the NHD at both resolutions.

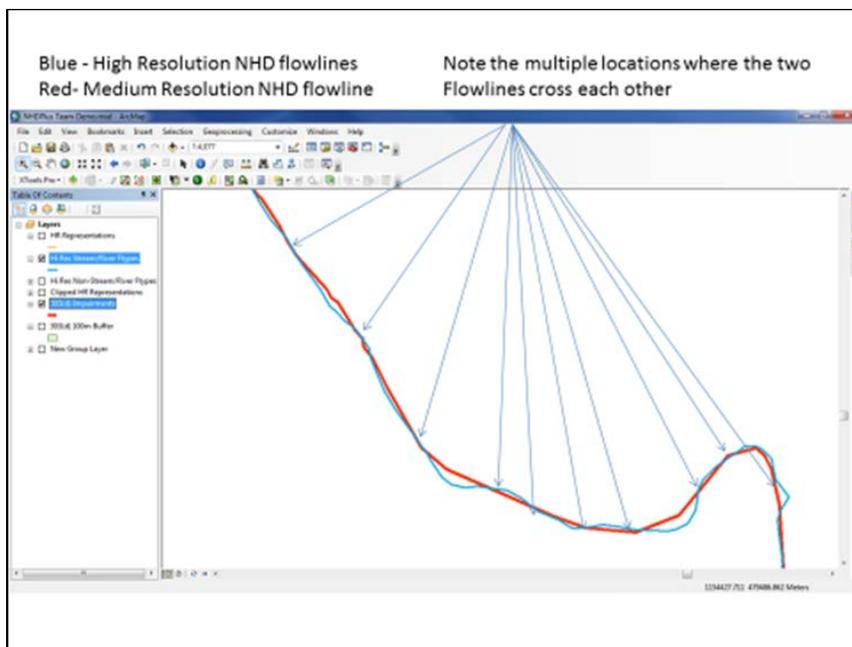


Figure 7. Illustration of Multiple Intersections between High and Medium Resolution NHD.

This GIS exercise to crosswalk NHD High Resolution with Medium Resolution was repeated for each Impaired and TMDL stream, yielding estimates of the breakout of Impaired and TMDL streams by stream type. In order to minimize false-positives (*i.e.*, NHD High Resolution stream segments not associated with specific NHD Medium Resolution segments), a 100-meter buffer was used surrounding the NHD Medium Resolution flowlines, corresponding to the general positional accuracy of the NHD Medium Resolution dataset. The length and percentages of NHD High Resolution segments were summarized by stream type within the buffers associated with NHD Medium Resolution flowlines.

The agencies utilized ArcGIS 10.4.1<sup>70</sup> as the GIS platform to perform this set of geographic analyses.

### C. Analysis of Section 311 Programs

There are no universal reporting requirements for the SPCC program (oil spill prevention), as discussed further in the Economic Analysis. The agencies therefore relied on imputed estimates and data for a small subset of inspected facilities to characterize SPCC-regulated facilities, as described in further detail in this section.

In an exploratory effort to estimate potential effects to EPA-regulated facilities under section 311, the agencies first estimated the potentially affected universe of regulated facilities. EPA SPCC-regulated facilities are not required to notify the EPA nor are they required to submit plans to the EPA. Conversely, as discussed in the “CWA Programmatic Analyses” section, FRP-

<sup>70</sup> Environmental Systems Research Institute (ESRI). 2016. ArcGIS Desktop: Release 10.4.1. Redlands, CA: Environmental Systems Research Institute. See <http://www.esri.com/arcgis/about-arcgis>.

subject facilities are required to submit FRPs to their respective EPA regional offices. Thus, the SPCC universe has been estimated from various data sources as explained in the latest SPCC Information Collection Request (ICR) renewal.<sup>71</sup> EPA’s internal database to track FRP-subject facilities was used to estimate the number of active FRP facilities (data from January 2018).

The agencies used the EPA’s FRP universe in an attempt to estimate the number of facilities potentially affected by the proposed change in jurisdictional waters. The agencies anticipate that an FRP-subject facility could initially file a reconsideration request per 40 Code of Federal Regulations (CFR) 112.20(i) that the potentially impacted waterbody is no longer jurisdictional under the CWA. In an attempt to assess the magnitude of the potential changes, the agencies overlaid the location of FRP facilities, based on geographical coordinates from the EPA’s internal database, with Stream/River features mapped in the high resolution NHD and with NWI wetlands. Before finalizing the results of this exploratory analysis, however, the agencies determined that this estimate cannot be used to extrapolate the number of SPCC-subject facilities nationally that could potentially be affected by the proposed change in the definition of “waters of the United States” because the NHD even at high resolution does not sufficiently map ephemeral streams nationwide so as to support an estimate of potential jurisdictional change, and the NWI similarly does not sufficiently map wetlands nationwide so as to support an estimate of potential change in jurisdiction.

#### D. Analysis of Section 402 Program

In an exploratory analysis, the agencies conducted a geospatial analysis of facility outfall coordinates from the EPA’s ICIS-NPDES database and high resolution NHD water feature location in an attempt to estimate the potential effects of the proposed rule on the section 402 program. Intermittent streams that meet the proposed definition of “tributary” would remain “waters of the United States” under the proposal. However, discharges to ephemeral features would be potentially affected (mainly because of the change in applicable WQSs) by changes to the definition of “waters of the United States. Given the NHD used to map streams for this analysis does not differentiate between intermittent and ephemeral streams for most of the country and the fact that neither intermittent nor ephemeral streams are categorically jurisdictional under pre-2015 practice according to the *Rapanos* Guidance, the numbers and percentages of NPDES permits with a discharge point near ephemeral and intermittent streams do not equate to a quantification of waters that will or will not be jurisdictional under the proposed rule nor do they equate to a quantification of waters that are or are not jurisdictional under pre-2015 practice. For these reasons, the agencies determined that such an analysis was not appropriate for estimating the potential effects of the proposed rule on the section 402 program at a national level but describe the attempted analysis for completeness.

Data were pulled from ICIS-NPDES on August 17, 2017. New Jersey data were pulled from the state’s DataMiner tool on August 14, 2017, due to known data quality issues in ICIS-NPDES for the state at the time of the data pull. Additional data were pulled from ICIS-NPDES on December 20, 2017, to incorporate data on existing facilities that were missing from the initial pull as they had not yet been entered into the database or were otherwise absent from the initial

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<sup>71</sup> See EPA ICR No. 0328.17, OMB No. 2050-0021

pull. Also, data were pulled from ICIS-NPDES between August 2017 and January 2018 to obtain address data for facilities missing coordinates in the database.

The data pulled from ICIS-NPDES include the current version (at the time of the data extraction) of all NPDES individual permits and general permit covered facilities with a status of “effective,” “administratively continued,” “expired,” or “pending.” Expired permits were included because in many cases, these permits are administratively continued but this information has not yet been entered into the database. The data were then evaluated by the EPA staff to remove permits that had likely been entered incorrectly and are likely not NPDES permits. For example, for general permit covered facilities, the associated master general permit ID was compared to a list of State Issued Master General Permits (Non-NPDES), and any general permit covered facilities with a master general permit ID on the non-NPDES list was removed from the data. For the individual permits, several Connecticut permits with IDs indicating they were pretreatment facilities were removed (CTCIUXXXX). In addition, any individual permits or general permit covered facilities with “test” in the NPDES ID or as the permit name were removed. As a general caveat, there still may be data included that have been mislabeled, as well as permit data that may be missing if it has not been entered into ICIS by a state or EPA Region.

For the New Jersey data, coordinates for the facilities were provided in the New Jersey State Plane projection and were converted to decimal degree coordinates using the ArcGIS “Calculate Geometry” tool.<sup>72</sup> The dataset contained no information on the permitted features, so the facility information only was used for New Jersey.

Additional quality control and quality assurance steps were taken with the NPDES data. The agencies first checked to see if the permit records had valid locational information. Permit records were screened for valid permitted feature coordinates and valid facility coordinates. Invalid coordinates included those that were listed as either null or zero. For individual permits only, if the agencies could not locate a valid address for facilities that lacked valid coordinates, the record was removed from the analysis. For general permits, records that lacked valid coordinate information for both the permitted feature and the facility were removed from the analysis. The agencies also checked to ensure that the listed coordinates were mapping in the correct hemisphere and made coordinate modifications where needed. To accomplish this task, the agencies plotted both the permitted feature and facility coordinates to find and correct any permitted features or facilities located in the wrong hemisphere. Coordinate fields were sorted to find anomalies and potential fixes. Latitude and longitude values were corrected if obvious errors were found. In addition, any whole number values were invalidated, as they were assumed to have lacked the necessary level of detail (*e.g.*, decimal places) needed to pinpoint the location of the permitted feature or facility. Types of errors the agencies corrected included where the coordinates appeared to be flipped (*e.g.*, the latitude was reported as the longitude and vice versa), incorrect latitude or longitude value signs, and decimals positioned in wrong place. The agencies then used the coordinates (including those corrected) to plot both permitted feature

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<sup>72</sup> See “Calculating area, length, and other geometric properties,” available at: <http://desktop.arcgis.com/en/arcmap/10.3/manage-data/tables/calculating-area-length-and-other-geometric-properties.htm>.

coordinates and facility coordinates. These coordinates were spatially joined to state boundaries derived from the 2009 TIGER/Line<sup>®</sup> Shapefiles from the U.S. Census Bureau<sup>73</sup> to obtain a geographic state value. Any facilities with reported states values that did not match the state name of the intersecting geographic state were analyzed to find the distance to their reported state. Permit records were eliminated if the permitted feature or facility was located more than three miles from the reported state. Permitted features and facilities that were located more than three nautical miles off the coast of the state GIS file described above were considered invalid for this analysis.<sup>74</sup>

The agencies set up a preferential order of locational information to use in the analysis. First, the agencies used the coordinates for the permitted feature (*e.g.*, outfall), where valid. If the permit record did not have valid coordinates for the permitted feature, the agencies used the coordinates for the facility, where valid. If the permit record also lacked valid coordinates for the facility, the agencies used the address of the facility, where valid.

### E. Analysis of Section 404 Programmatic Data

There are two approaches to looking at potential effects of a proposed definition of “waters of the United States” on the CWA section 404 program. One potential approach is to look at existing data for section 404 permits issued by the Corps. The other potential approach is to look at existing determinations of whether a water is considered to be a jurisdictional “water of the United States,” which may be a first step in the section 404 permitting process. Both approaches could be used in geospatial analyses utilizing the high resolution NHD and the NWI, as described for other programmatic analyses. For example, 404 permitting data can be overlaid with the high resolution NHD and NWI in an attempt to approximate if the permit is located on an ephemeral stream or a non-abutting wetland (using the rasterization approach described in the “Aquatic Resources Analyses” section of this appendix).

Both analytical approaches have limitations. The ORM2 permit data often does not contain the actual geospatial footprint of an action but instead often includes a center point of the project. Even where geospatial information about the project area is available, aquatic resource impacts may not occur throughout the entirety of the project boundary. Additionally, all aquatic resources on a project site may not be “waters of the United States.” Using the AJD data may also not give an accurate sense of potential impacts to the 404 program because, as discussed in the “Uncertainties and Limitations to the Data and Analyses” section of this appendix, Corps Districts vary in their use of PJDs and AJDs. Some Districts primarily utilize PJDs and thus potential impacts in thus districts could potentially be misrepresented in an analysis of AJDs. The agencies at this time have not conducted the same type of overlay analysis of Corps 404

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<sup>73</sup> 2009 TIGER/LINE<sup>®</sup> Shapefiles, prepared by the U.S. Census Bureau, 2009. Available at: <https://www.census.gov/geo/maps-data/data/tiger-line.html>. This represents a seamless national coverage shapefile with no overlaps or gaps between parts, providing a way to ascertain the correct state for each NPDES permit record, even when a point falls on inland water such as the Chesapeake Bay, where the reported facilities would typically be tagged with a state value such as “Maryland” or “Virginia.” Additional documentation on the dataset is available at: <https://www2.census.gov/geo/pdfs/maps-data/data/tiger/tgrshp2009/TGRSHP09.pdf>.

<sup>74</sup> CWA jurisdiction extends seaward approximately three miles (*i.e.*, the territorial seas). *See* Clean Water Act section 502(8) (33 U.S.C. 1362(8)).

permit data and the AJD data with the NHD and NWI as they have with other programs in an attempt to estimate the potential effects of the proposed rule. An overlay analysis of the section 404 program data with the NHD and NWI poses a variety of challenges. As previously described, neither the NHD or the NWI are representative of the waters that are jurisdictional under either baseline or the proposed rule.

The agencies instead summarized section 404 permit data from the Corps' ORM2 database from fiscal years 2011-2015.<sup>75</sup> In addition, for purposes of the Economic Analysis, the agencies attempted to evaluate the potential avoided costs and foregone benefits for the section 404 program associated with the proposed rule (see the Economic Analysis for more details). The agencies acknowledge that this analysis required a number of assumptions. Therefore, the agencies are uncertain of the actual number of permits that would no longer be required following a change in the definition of "waters of the United States."

#### F. Estimating the Stream Types and Impaired Waters within Source Water Protection Areas (SPAs)

In an exploratory effort, the agencies attempted to evaluate the spatial distribution of drinking water sources in relation to NHD streamflow classification (e.g., perennial, intermittent, ephemeral) type by overlaying the SPAs for surface water intakes on the National Hydrography Dataset at high resolution. Due to data limitations of the NHD – in particular the fact that the NHD does not map ephemeral streams in many parts of the country – coupled with uncertainty regarding the jurisdictional status of many intermittent streams and all ephemeral streams subject to a case-specific significant nexus analysis under pre-2015 practice, the agencies have concluded that the exploratory analysis cannot appropriately or accurately assess the potential effects of the proposed rule on public water systems. The attempted analysis is discussed here for completeness.

In this attempted analysis, GIS tools were used to overlay over 8,000 surface water SPAs across the country with the high resolution NHD stream network. The data from SDWIS/Fed was accessed on October 2, 2017. The agencies attempted to estimate the percentage of stream length within SPAs designated as ephemeral, intermittent, perennial, and unclassified. The agencies also attempted this analysis for the subset of SPAs that contained streams impaired (*i.e.*, not meeting WQS) due to one or more of the following key pollutants: pathogens, pesticides, sediment, metals other than mercury, and nutrient-related pollutants. These are pollutant categories of special concern to drinking water. The methodology outlined in the "Baseline Analyses" section of this Appendix was followed. See Section 2.G. for a description of how population served statistics could be estimated for SPA areas.

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<sup>75</sup> Calendar year 2015 was the most recent complete year available at the time the agencies accessed data for use in this analysis. Note that the dates of the Corps' section 404 permit data from ORM2 examined for the programmatic analysis are different from the dates of the Corps' approved jurisdictional determination data from ORM2 examined for the aquatic resource assessment discussed in this document.

The agencies utilized ArcGIS 10.4.1<sup>76</sup> as the GIS platform to perform this set of geographic analyses.

## G. Examining EPA Tribal Areas

Methodologies outlined in sections B and F of this Methodology were followed to estimate the extent of stream types in EPA Tribal Areas and within SPAs on EPA Tribal Areas. For the reasons previous discussed, the agencies determined that their attempted analysis was not appropriate for estimating the potential effects of the proposed rule on tribal lands.

## 4. Uncertainties and Limitations to the Data and Analyses

The analyses described above are necessarily based on available information and the accuracy of that information. All data carry unavoidable uncertainties and associated limitations. In addition, each of the analyses that the agencies conducted have drawbacks. Thus, the results of the analyses should be viewed with these constraints in mind. This section expands on “Uncertainties and Limitations” section in Chapter I of the RPA: Aquatic Resource Analyses and further discusses the limitations, uncertainties, and caveats to the data, the analyses, and the results of the analyses.

The agencies note that the NHD and NWI datasets are not intended to identify jurisdictional waters but instead represent the most comprehensive data available at a national level that show the potential extent of streams, rivers, lakes, and wetlands across the country. The NHD and NWI datasets do not use terms equivalent to the categories in the 2015 Rule, pre-2015 practice, or the proposed rule, so the agencies describe potential changes qualitatively and not quantitatively. While the ORM2 database does identify aquatic resources that the Corps has determined are “waters of the United States” on a site-specific basis, there are no national datasets of all jurisdictional waters. Finally, these analyses do not address the specific jurisdictional status of individual waters and do not address how states and tribes may currently address them through state/tribal authorities and programs.

No available datasets depict the full jurisdictional extent of waters under the 2015 Rule or pre-2015 practice. While ORM2 contains data on individual aquatic resources that the Corps has determined are or are not jurisdictional on a site-specific basis, AJDs are typically conducted at the request of the landowner. On a national level, ORM2 data are analyzed for reasonableness; when a correction is warranted, it is accomplished by Corps field project managers. Not all individual records, however, are verified and data entry errors may exist. The ORM2 database used in this analysis does not track all the categories of “waters of the United States” under the Corps’ 1986 regulations. The categories in ORM2 for AJDs made under pre-2015 practice are drawn primarily from the 2007 *Rapanos* AJD form.<sup>77</sup> The *Rapanos* AJD form was developed in coordination with the agencies’ *Rapanos* Guidance following the consolidated Supreme Court

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<sup>76</sup> Environmental Systems Research Institute (ESRI). 2016. ArcGIS Desktop: Release 10.4.1. Redlands, CA: Environmental Systems Research Institute. See <http://www.esri.com/arcgis/about-arcgis>.

<sup>77</sup> A copy of the Corps’ Approved Jurisdictional Determination Form used under current implementation is available at [http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/cwa\\_guide/app\\_b\\_approved\\_jd\\_form.pdf](http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/cwa_guide/app_b_approved_jd_form.pdf).

cases *Rapanos v. United States* and *Carabell v. United States*<sup>78</sup>. The *Rapanos* Guidance was intended to address only those waters at issue in *Rapanos*,<sup>79</sup> and thus does not discuss other categories of “water of the United States” covered by the 1986 Corps and 1988 EPA regulations.<sup>80</sup> The 2007 AJD form also includes the category of waters at issue in *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*, 531 U.S. 159 (2001) (*SWANCC*)—nonnavigable, isolated, intrastate waters. Thus, the ORM2 database lacks a separate category for interstate waters or the territorial seas for AJDs made under pre-2015 practice.

For the ORM2 analysis, it is important to note the limitations of using CWA AJDs to assess potential changes in jurisdiction that would result from the proposed rule. First, CWA JDs are typically made at the request of the landowner or project proponent and do not represent a random sample. In other words, they usually represent where landowners or project proponents want to know if jurisdictional waters are located within their properties or project sites, including but not limited to for purposes of conducting dredged or fill activities. Thus, some aquatic resource types may be over or under represented in the population of CWA AJDs. Second, there may be selection bias in terms of where the Corps has available information on AJDs. A landowner or applicant can decide whether they would like an AJD – meaning the Corps makes an official determination of whether an aquatic resource is jurisdictional – or whether they would prefer to voluntarily waive or set aside questions regarding jurisdiction with the use of a PJD. In addition, Corps Districts across the country vary in their use of AJDs or PJDs. However, PJDs cannot determine that something is not a “water of the United States” and/or whether there are no “waters of the United States” on the site.<sup>81</sup> Thus, the agencies have determined that only AJDs are appropriate to use in this analysis, while recognizing that these records may not be uniformly distributed across the country.

The States of New Jersey and Michigan have assumed administration of the CWA section 404 permit program for certain waters within their states. The Corps, however, retains administration of the section 404 permitting program for specific waters. Thus, the Corps conducts AJDs for only a subset of waters within New Jersey and Michigan, which have been included in the

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<sup>78</sup> 126 S. Ct. 2208 (2006).

<sup>79</sup> “Clean Water Act Jurisdiction Following the U.S. Supreme Court’s Decision in *Rapanos v. United States & Carabell v. United States*,” (hereafter “*Rapanos* Guidance”), first issued on June 6, 2007 and revised on December 2, 2008, available at [https://www.epa.gov/sites/production/files/2016-02/documents/cwa\\_jurisdiction\\_following\\_rapanos120208.pdf](https://www.epa.gov/sites/production/files/2016-02/documents/cwa_jurisdiction_following_rapanos120208.pdf). Footnote 19 states, “This guidance focuses only on those provisions of the agencies’ regulations at issue in *Rapanos* -- 33 C.F.R. §§ 328.3(a)(1), (a)(5), and (a)(7); 40 C.F.R. . §§ 230.3(s)(1), (s)(5), and (s)(7). This guidance does not address or affect other subparts of the agencies’ regulations, or response authorities, relevant to the scope of jurisdiction under the CWA.”

<sup>80</sup> 51 FR 41206 (Nov. 13, 1986), amending 33 CFR 328.3; 53 FR 20764 (June 6, 1988), amending 40 CFR 232.2.

<sup>81</sup> When the Corps provides a PJD, or authorizes an activity through a general or individual permit relying on a PJD, the Corps is not making a legally binding determination of any type regarding whether jurisdiction exists over the particular aquatic resource in question even though the applicant or project proponent proceeds as though the resource were jurisdictional. A PJD is “preliminary” in the sense that a recipient of a PJD can later request and obtain an AJD if that becomes necessary or appropriate during the permit process or during the administrative appeal process. See 33 CFR 331.2.

analysis of ORM2 data where available. The agencies did not supplement the ORM2 data with information from the state programs.<sup>82</sup>

The agencies do not have comprehensive data from ORM2 to analyze AJDs made under the 2015 Rule, in light of the reasons discussed above.

The NHD and NWI both have data limitations. As discussed above, the NHD does not map all streams, and sometimes maps features that do not exist or no longer exist on the ground (*e.g.* due to fill activities, drainage, or stream burial). Similarly, the NWI does not map all wetlands, and sometimes maps features that do not exist or no longer exist on the ground. The NHD and NWI both tend to undermap small features due to the scale of the data.

The terms used in the NHD and NWI datasets are different from terms used in the 2015 Rule and the previous longstanding regulations, and they do not directly match the terms in the proposed rule. Not all streams mapped in the NHD would be considered tributaries under either baseline or under the proposed rule because they are “isolated” streams that do not flow into a TNW, interstate water, territorial sea, or jurisdictional impoundment (*e.g.*, streams in a certain closed basins). As further discussed below, under current implementation, terms like “relatively permanent waters” (RPW) in ORM2 do not directly equate to the NHD’s intermittent and perennial streams. Under the proposed rule, the term “intermittent” does not directly correspond to definition of intermittent used by the NHD. The proposed rule includes streams that receive prolonged, continuous flow from melting snowpack, whereas such streams would likely fall under the NHD’s definition of ephemeral. Even if the terms did match, as described above, the dataset includes some ephemeral streams in the intermittent classification. Additionally, misclassifications of NHD stream permanence are known to occur among flow regime types, including field-verified perennial streams identified as ephemeral and field-verified ephemeral streams identified as perennial.<sup>83</sup> As such, the estimated extents of perennial, intermittent, and ephemeral streams are likely not precise on a national level. In addition, the NHD does not include a flow permanence characterization for features that are classified as canals or ditches in the dataset as it does for stream and river features. The NHD does include a separate category for a stormwater canal/ditch, and aqueduct, as well as the general canal/ditch category.

As previously discussed, the NWI definition of wetlands does not match the regulatory definition. Though the agencies used vegetated wetlands types in NWI to better estimate wetlands that likely meet the regulatory definition, some wetlands in NWI might not match their classification on the ground. In addition, a vegetated NWI wetland still might not have all of the three factors (hydric soils, hydrophytic vegetation, and hydrology) required to meet the regulatory definition of wetland. NWI data in Alaska are not complete (approximately 65 percent of Alaska is not currently available as digital data). The Corps’ ORM2 data is more comprehensive as it includes data for the entire state, where an AJD was requested. The agencies

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<sup>82</sup> Dredged or fill permits issued by New Jersey and Michigan under their assumed programs are not federal section 404 permits; they are state-issued permits subject to the requirements of the CWA for “waters of the State.” “Waters of the State” at a minimum encompass “waters of the United States” but may or may not be broader than “waters of the United States,” as discussed further in Chapter II.

<sup>83</sup> See, *e.g.*, *supra* at footnote 14.

also did not include the U.S. Territories in the analysis. The NHDPlus is not available in Alaska, so the agencies did not include Alaska in the analyses utilizing NHDPlus catchments.

The raster analysis used to analyze the NWI data introduces another source of uncertainty. The grid cell size of the raster data is 30 by 30 meters – resulting in pixels representing 900 square meters or approximately 0.22 acres on the ground. The minimum size threshold for a wetland to be included in NWI is 1/20<sup>th</sup> of an acre, or 0.05 acres. That means that the grid size should be large enough to capture all wetlands that are mapped in NWI; however, with raster, the NWI polygons are converted to coarse grids, so mapped boundaries will most likely be larger than the polygon itself. In addition, the NHD flowlines were also rasterized into 30-meter grid cells, and the raster layer may not accurately depict the actual size of the stream or river on the ground. Thus, when conducting an overlay analysis, the gridded, generalized NWI data may capture wetlands as “intersecting” the gridded, generalized NHD flowlines which in fact may not actually intersect. The agencies are not able to estimate the magnitude of this error.

While the agencies utilized the NHD High Resolution to represent streams in their analyses, data in ATTAINS for impaired waters and waters with TMDLs are mapped in NHD Medium Resolution. There is no cross-walk linking specific NHD High Resolution features to their Medium Resolution counterparts. Thus, as discussed, the agencies devised a GIS methodology to facilitate assigning of Medium Resolution attributes such as impaired or TMDL stream designation to their counterpart High Resolution streams, as described in the “Methodology” section above. Though visual quality assurance and quality control of the results confirmed the appropriateness of this methodology, it is not precise and minor false negative and false positive assessments of specific streams segments could occur. For the purposes of this analysis, broad data summaries such as those in the “Results” section and as shown in the “Summary Graphics” section should be used.

The ATTAINS data used to extract Impaired and TMDL stream designations was based on the most current state data available in ATTAINS as of 2015. Although more recent ATTAINS submittals by states could indicate changes to designations for some stream segments, the statewide and nationwide data summaries such as those shown in the “Summary Graphics” section are more appropriate. As mentioned above, the ATTAINS information used for the analysis is at NHD Medium Resolution. If a state does not provide their geospatial information to the EPA using the NHD Medium Resolution (*e.g.*, if it is provided in High Resolution or using a state stream geospatial dataset), then the EPA manually conflates the state data to NHD Medium Resolution in order to provide a nationally consistent scale, state-to-state, within ATTAINS. To obtain the original state geospatial files provided to the EPA, a user would need to visit the respective state’s water quality agency website.

The EPA’s national 303(d) impaired waters dataset does not contain all of the state’s impaired waters. The dataset only includes the 303(d) EPA-approved impaired waters (Integrated Reporting [IR] Category 5) and do not represent all impaired waters reported in a state’s IR to the EPA. Therefore, the state-level geospatial data do not include waters that are impaired but have an EPA-approved TMDL established (IR Category 4a), impaired waters for which other pollution control mechanisms are in place and expected to attain WQS (IR Category 4b), or waters with impairments such as flow alteration that are not caused by a pollutant (IR Category 4c). The EPA does have both Category 4 and 5 (303(d)) impaired waters in the 2002 Impaired

Waters Baseline National Geospatial Dataset. However, the agencies chose not to utilize that dataset because it is not the most recently nationally-available dataset on impaired waters. State data in the national 303(d) dataset are not all from the same reporting year nationally. This can be due to circumstances that prevent states from submitting a 303(d) list to the EPA by the biennial deadline. Generally, what is available for each state represents their most recent GIS submittal. In addition, the Impaired Waters with TMDLs dataset does not encompass all waters with all TMDLs, because numerous TMDLs are completed before their state GIS data are finalized and new TMDLs are continually being developed. Nevertheless, the Impaired Waters with TMDLs dataset provides a valuable spatial record of the availability of thousands of TMDLs.

There are no universal reporting requirements for the section 311 SPCC program, and the EPA therefore relies on imputed estimates and data for a small subset of inspected facilities to characterize SPCC-regulated facilities. The EPA does have detailed information on FRP-subject facilities, as these facilities are required to submit plans to the agency. For the section 311 programmatic analysis, the agencies utilized a half-mile screen radius for FRP-facilities. The half-mile distance used in this screening analysis does not necessarily indicate whether a facility would no longer be subject to 40 CFR 112. Instead, the agencies evaluated waters within a half-mile radius based on the EPA's planning guidance for FRP preparers which suggests using this distance to identify resources that could be immediately affected in the event of a release.<sup>84</sup> Facility owners or operators would still need to evaluate that there is a reasonable expectation of an oil discharge as defined in section 112.1(b) reaching jurisdictional waters in the immediate proximity to the facility, after accounting for potential conveyance of spilled oil via non-jurisdictional features, stormwater conveyance systems, or other pathways to jurisdictional waters. In this case, a facility may still be subject to SPCC requirements. Owners of facilities with no jurisdictional waters, including wetlands, within the half-mile radius may still conclude, after a site-specific evaluation, that the facility has the potential to cause *substantial* harm to

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<sup>84</sup> As per Appendix C to 40 CFR part 112:

- 5.5 A facility owner or operator whose nearest opportunity for discharge is located within 0.5 mile of a navigable water must complete the planning distance calculation (D3) for the type of navigable water near the facility or use a comparable formula.
- 5.6 A facility that is located at a distance greater than 0.5 mile from a navigable water must also calculate a planning distance (D3) if it is in close proximity (i.e., D1 is less than 0.5 mile and other factors are conducive to oil travel over land) to storm drains that flow to navigable waters. Factors to be considered in assessing oil transport over land to storm drains shall include the topography of the surrounding area, drainage patterns, man-made barriers (excluding secondary containment structures), and soil distribution and porosity. Storm drains or concrete drainage channels that are located in close proximity to the facility can provide a direct pathway to navigable waters, regardless of the length of the drainage pipe. If D1 is less than or equal to 0.5 mile, a discharge from the facility could pose substantial harm because the time to travel the distance from the storm drain to the navigable water (D2) is virtually instantaneous.
- 5.7 A facility's proximity to fish and wildlife and sensitive environments not bordering a navigable water, as depicted as D4 in Figure C-I of this attachment, must also be considered, regardless of the distance from the facility to navigable waters. Factors to be considered in assessing oil transport over land to fish and wildlife and sensitive environments should include the topography of the surrounding area, drainage patterns, man-made barriers (excluding secondary containment structures), and soil distribution and porosity.
- 5.8 If a facility is not found to pose substantial harm to fish and wildlife and sensitive environments not bordering navigable waters via oil transport on land, then supporting documentation should be maintained at the facility. However, such documentation should be submitted with the response plan if a facility is found to pose substantial harm.

jurisdictional waters located farther than a half-mile or to other resources in the event of a discharge and may prepare an FRP.

Data on the universe of regulated facilities and activities for section 402 varies in the level of detail and coverage. For example, data on facilities or permitted features subject to minor individual permits or general permits under the Section 402 program is limited to the permit information included in the EPA's ICIS-NPDES database, as described in the section "National Pollutant Discharge Elimination System Databases" of this Appendix. Some industrial facilities or activities subject to section 402 requirements may be underrepresented in the database if states did not provide relevant permit information in ICIS. As a general caveat, even though the agencies did take measures to review the NPDES data used in the section 402 data analysis, there still may be data included that have been mislabeled, as well as permit data that may be missing if it has not been entered into ICIS by a state or EPA Region. Though the agencies took additional steps to clean up the locational data, data entry errors could have occurred. In addition, the facility address, which the agencies used when valid coordinates were not available, may not be located near the discharge location(s). The permit records included in the spatial analysis are limited to those for which the ICIS-NPDES database includes locational information and an industry code.

Permit data maintained by the Corps under the section 404 program provide high-level characteristics of the projects such as the type of project and affected acres or linear feet. However, the affected waters are not described in sufficient details to determine how proposed changes in the scope of "waters of the United States" could potentially change the permitting requirements for these projects. In addition, some general permits under section 404 are non-reporting general permits, meaning that no application or notification to the Corps is required, so long as the project proponent complies with all applicable terms and conditions of the general permit. Because these permits are not reported to the agency, they are not tracked and cannot be included in analysis. In addition, because New Jersey and Michigan have assumed administration of the section 404 permit program for certain waters within state boundaries, ORM2 only contains a subset of federal permit actions for those two states (where the Corps has retained administration of the permitting program for specific waters).

For the drinking water analysis, as previously noted, the SPAs were derived by identifying the NHDPlus catchments intersected while traveling 24 hours upstream from surface drinking water intakes and other surface water sources. Though each SPA identifies those waters that will reach a drinking water intake within 24 hours, it does not necessarily represent an area that receives special protection. The use of the 24-hour time of travel for SPAs does not imply that activities in drainage areas greater than 24 hours upstream could not impact water quality to affected drinking water supplies. Rather, the 24-hr transport polygons were chosen as a consistent nationwide metric upon which to evaluate plausible potential consequences to drinking water supplies. In addition, the underlying SDWIS/Fed data store population information at the system level, not the facility level (*e.g.*, intake level). Although some double counting was avoided by not assigning population served attributes to individual SPAs when jurisdictions have multiple intakes (as described in the "Methodology" section), some double counting can occur when individuals are served by multiple systems. For example, an individual can be served at their home and also at their workplace.

While the EPA Tribal Areas dataset is the EPA’s most comprehensive dataset of likely tribal areas, it does not depict all tribal areas or boundaries. For example, the dataset does not include the boundaries of reservations in Oklahoma, as no publicly-available data exist for those reservations. In addition, the Alaska Native Villages dataset is comprised of center points of Alaska Native Villages and thus does typically not contain boundaries of the Alaska Native Villages. The agencies did not use this point dataset in their analysis to identify tribal areas, as polygonal data were required to assess the stream types and any associated programmatic data for the overlay analyses. The Alaska Native Allotments dataset is derived from the official Bureau of Land Management U.S. Survey plats, and the accuracy of the dataset is dependent on the accuracy, reliability, and completeness of its source as well as the accuracy of the conversion of the data into a geospatial dataset. In addition, the agencies did not include an analysis of the stream type breakout for SPAs located in EPA Tribal Areas in Alaska because catchments, the central landscape features that are used to delineate SPA boundaries via NHDPlus, have not yet been identified for Alaska.

The results of the aquatic resource analyses are not meant to represent waters that are or are not jurisdictional under either baseline or the proposed rule. Data do not exist to calculate the extent of such waters. Finally, these analyses do not address the specific jurisdictional status of individual waters and do not address how states and tribes may currently address them through state/tribal authorities and programs. State and tribal authorities and programs are discussed in the Economic Analysis and elsewhere in the RPA.

## 5. Results

### H. Baseline Analyses

In this section, the agencies do not repeat the qualitative discussion of results that is presented in RPA Chapter I: “Aquatic Resource Analyses.” Instead, this section expands on the discussion in that chapter, where such discussion is warranted, and also highlights any numerical results of the agencies’ analyses, where available.

#### 1. Traditional Navigable Waters

According to ORM2 data for FY13-FY17, 17,630 waters were determined to be jurisdictional as TNWs under pre-2015 practice (see Table 3). This number includes any tidal wetlands that the Corps has determined are (a)(1) waters, but the agencies are unable to parse out how many of these determinations were for such wetlands. As described in Chapter I, TNWs are generally determined for purposes of a specific AJD, and some Corps Districts have chosen to document an aquatic resource as a perennial RPW instead of a case-specific TNW for ease of documentation and workload. Some AJDs for RPWs therefore in fact represent TNWs, so the ORM2 data on TNWs likely underestimate the number of TNWs. However, those aquatic resources would be captured in the RPW category described in the “Tributaries” section below.

TNWs are not mapped as a category in NHD, and the agencies do not have a national map of TNWs. In the NHD, TNWs likely consist of some perennial streams, some intermittent streams, some lakes/ponds, and some wide streams that are mapped as “NHDArea” features (*e.g.*, mapped

as two-dimensional streams). NHDWaterbody features mapped “Estuary”<sup>85</sup> or “Sea/Ocean”<sup>86</sup> also would be considered TNWs, though such NHD categories may also capture waters beyond the jurisdiction of the CWA.<sup>87</sup> In addition, the agencies have not mapped the location of all TNWs across the country, in part because most TNW determinations are made at a site-specific level and the up- and downstream limits of the TNW are generally not delineated. The extent of tidal waters, including ditches and wetlands, regulated as (a)(1) waters under pre-2015 practice and the 2015 Rule also cannot be ascertained from available data. Though streams/rivers and canals/ditches are mapped in the NHD, the dataset does not include all streams or ditches and contains no information about whether the stream or ditch is tidal. In NWI, systems of wetlands and deepwater habitats that would contain tidal waters include all “Marine” and “Estuarine” systems, while the “Riverine” system has a subsystem of “Tidal.” Lacustrine and Palustrine systems may also be tidal, and the “Water Regime” classifications of “Temporarily Flooded-Tidal,” “Seasonally Flooded-Tidal,” “Semipermanently Flooded-Tidal,” and “Permanently Flooded-Tidal” are available to indicate if a system is tidally influenced. However, not all wetlands that are tidally influenced have been classified to contain such a modifier. For these reasons, baseline estimates using NHD or NWI are not possible for this category.

## 2. Interstate Waters

Interstate waters are not included as their own category of waters in ORM2 under pre-2015 practice, so the agencies have no existing data for that category of waters under this baseline. Instead, these waters are being captured under other ORM2 categories of aquatic resources. “Interstate waters” are also not mapped as a distinct category in either the NHD or the NWI. No data currently exist that indicates the extent of these waters.

## 3. The Territorial Seas

As discussed in RPA Chapter I: “Aquatic Resource Analyses,” the ORM2 database does not track under pre-2015 practice whether a water is a “territorial sea.” Territorial seas would all be categorized as TNWs in AJDs conducted under pre-2015 practice. The NHD does not specifically map “the territorial seas.” NHDWaterbody features mapped as “Estuary” or “Sea/Ocean” would encompass waters that are territorial seas as well as waters that are beyond the scope of the territorial seas, as discussed in the TNW section above. Thus, the extent of these waters cannot be quantified for purposes of this analysis.

## 4. Impoundments

According to ORM2 data from FY13-FY17, 751 waters were determined to be jurisdictional impoundments under pre-2015 practice. Based on these ORM2 data, 7.5 percent of impoundments were located on non-RPWs.

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<sup>85</sup> The NHD defines the “Estuary” feature as “[t]he lower end of a river, or a semi enclosed coastal body of water with access to the open ocean, which is affected by the tides and where fresh and salt water mix.” See [https://nhd.usgs.gov/userguide.html?url=NHD\\_User\\_Guide/Feature\\_Catalog/NHD\\_Feature\\_Catalog.htm](https://nhd.usgs.gov/userguide.html?url=NHD_User_Guide/Feature_Catalog/NHD_Feature_Catalog.htm).

<sup>86</sup> The NHD defines the “Sea/Ocean” feature as “[t]he great body of salt water that covers much of the earth.” See *id.*

<sup>87</sup> CWA jurisdiction extends seaward approximately three miles (*i.e.*, the territorial seas). See Clean Water Act section 502(8) (33 U.S.C. 1362(8)).

Though many lakes and ponds are mapped in both the NHD and the NWI, neither dataset explicitly specifies if a waterbody is an impoundment of another waterbody. The NHD does have the feature category of reservoir, but that feature class does not capture all impoundments or all reservoirs. Some waters that are known as reservoirs are mapped as lake/ponds. In the NWI, impoundments can be mapped as either Lacustrine or Palustrine features. The NWI does include special modifiers to describe human alterations to wetlands and deepwater habitats, as well as a “Beaver” modifier (for wetlands created or modified by beavers, including impoundments). When used, Special Modifiers like “Managed,” “Diked/Impounded,” and “Beaver” could be helpful in identifying likely impoundments, but not all features that would be considered impoundments have been classified in the NWI with these Special Modifiers. The NWI also has a “Water Regime” of “Artificially Flooded” which includes waters that are dammed, but this modifier also includes waters that are not impoundments and is typically not used for impoundments unless both water inputs and outputs are controlled to achieve a specific depth and duration of flooding. Further, there is not a way to identify if these NWI features are impoundments of jurisdictional waters. In addition, no national datasets exist that comprehensively map all in-stream dams. For example, dams included in the Corps’ National Inventory of Dams must meet at least one of four criteria.<sup>88</sup> Thus, the National Inventory of Dams likely excludes many dams located on smaller streams. The NHD also includes dams in the dataset, but likewise does not map all dams. In light of these data limitations, the agencies are unable to use the NHD or the NWI to quantify the extent of impoundments across the country that are jurisdictional under either baseline and whose jurisdictional status might change as a result of the proposed rule.

## 5. Tributaries

As discussed in Chapter I of the RPA, under pre-2015 practice 15,980 waters in ORM2 from FY13-FY17 were determined to be jurisdictional as RPWs. Data from ORM2 indicate that the agencies have determined under pre-2015 practice that many but not all non-RPWs are jurisdictional. From FY13-FY17, 3,776 waters in ORM2 were determined to be jurisdictional non-RPWs after a case-specific significant nexus evaluation, while 2,012 non-RPWs were determined to be non-jurisdictional after a case-specific significant nexus evaluation.

As discussed previously, the NHD at high resolution primarily maps ephemeral streams as such in the arid West (approximately 99 percent of all streams mapped as ephemeral in the high resolution NHD are in the arid West, demonstrating how underrepresented such streams are in the dataset in the rest of the country). In the rest of the country, ephemeral streams are typically either not mapped or are mapped as intermittent. In addition, Corps-categorized RPWs and non-RPWs cannot be neatly split into the categories of flow regime that the NHD uses of perennial, intermittent, and ephemeral. RPWs include perennial and seasonal intermittent tributaries. Non-RPWs include non-seasonal intermittent and ephemeral tributaries under pre-2015 practice. Thus, it would be impossible to use the NHD to describe the potential change in CWA jurisdiction from both the 2015 Rule and pre-2015 practice. The agencies are not able to quantify what percentage of ephemeral streams are mapped incorrectly in the NHD as intermittent or

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<sup>88</sup> These criteria relate to potential hazard, height, and storage capacity of the dam. See the National Inventory of Dams website at: [http://nid.usace.army.mil/cm\\_apex/f?p=838:1:0::NO::APP\\_ORGANIZATION\\_TYPE,P12\\_ORGANIZATION:15](http://nid.usace.army.mil/cm_apex/f?p=838:1:0::NO::APP_ORGANIZATION_TYPE,P12_ORGANIZATION:15).

perennial (nor are the agencies able to quantify the percentage of perennial or intermittent streams incorrectly mapped as ephemeral) or the extent of ephemeral streams that are unmapped.

In the NHD at high resolution, of identified streams, 30 percent are mapped as perennial, 52 percent are mapped as intermittent, and 18 percent are mapped as ephemeral.<sup>89</sup> However, as discussed previously, the actual percentage of ephemeral streams across the country is likely higher than 18 percent since many are not mapped or are mapped as intermittent. In the arid West (Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Texas, Utah, Washington, and Wyoming), 13 percent of streams (by stream length) are mapped as perennial, 48 percent are mapped as intermittent, and 39 percent are mapped as ephemeral. As discussed previously, NHD streams cannot be equated to waters that are or are not jurisdictional under either baseline or under the proposed rule. Some streams mapped as ephemeral in NHD may meet the proposed rule's definition of intermittent and thus might be considered jurisdictional because their prolonged flow comes from a significant melting of snowpack. Some features mapped in the NHD as streams may not exist on the ground or may be erosional features and not streams. Some ephemeral streams in the arid West are mapped as washes. Like waters mapped as streams, not all washes would have an indicator of ordinary high water mark, and others that are mapped might not exist on the ground or may be erosional features and not streams. Some streams and washes mapped in NHD may not be found to have a significant nexus under pre-2015 practice. For these reasons, it is not possible to use NHD to accurately quantify a potential change in CWA jurisdiction based on either baseline.

#### *6. Nonnavigable, Intrastate Lakes and Ponds*

As discussed in Chapter I, ORM2 does not specifically have a category for "Lakes and Ponds." Instead, available data from ORM2 under pre-2015 practice on the jurisdictional status of lakes and ponds that are tributaries are discussed in the "Tributaries" section above. The agencies are not able to easily parse out from the available AJD data if the tributary at issue is a lake, a pond, or a stream, as there is no field in ORM2 for the project manager to denote such. Thus, the agencies are not able to estimate the percentage of non-relatively permanent lakes and ponds which are being called jurisdictional as tributaries under pre-2015 practice. Furthermore, as discussed above in the "Tributaries" section, the agencies do not further indicate if a non-RPW is a non-seasonal intermittent water or an ephemeral water, further complicating any quantification of potential change for this category of waters.

The NHD and the NWI map many but not all lakes and ponds. The hydrologic classifications of these lakes and ponds in both the NWI and the NHD do not line up precisely with the definitions used in the proposed rule as discussed above. Ephemeral lakes and ponds are not included as their own features in the NHD. Some ephemeral lakes are captured as playas, but playas typically are not part of the stream network. The NWI does include a Water Regime of "Intermittently Flooded" for lakes and ponds, but this water regime would include those lakes and ponds that are flooded ephemerally. "Intermittently Flooded" in the NWI indicates that surface water is present for variable periods without detectable seasonal periodicity, and that

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<sup>89</sup> These percentages do not account for artificial paths, unclassified streams, ditches/canals, and other flowlines that are mapped in the NHD.

weeks, months, or even years may intervene between periods of inundation. Generally, this water regime is limited to the arid West.

## 7. Wetlands

Data in ORM2 from FY13-FY17 indicate that 5,261 waters were determined to be jurisdictional as wetlands adjacent to TNWs. The agencies, as described in Chapter I of the RPA, are unable to further parse out directly from ORM2 whether a wetland is abutting or not abutting a TNW. To better assess the potential effect of the proposed rule on the CWA jurisdiction of wetlands adjacent to TNWs under pre-2015 practice, 25 of the 38 Corps Districts examined specific AJD ORM2 data for wetlands adjacent to TNWs<sup>90</sup> to assess whether the wetlands are abutting or not abutting a TNW (see Table 4). Some Districts examined all AJDs under pre-2015 practice for this wetland category from FY13-FY17, while other Districts analyzed a random sample of AJDs. The Corps examined 3,581 of the 5,261 wetlands adjacent to TNWs in the analysis. The Districts used AJD hard copies, information in the administrative file, remote tools, as well as experience with regional resources and the specific review area in this analysis to assess whether the wetlands were adjacent and likely abutting, or whether they were likely neighboring or were likely behind a berm or similar feature. Finally, the assessments of whether wetlands were likely abutting or not abutting were compiled in spreadsheets, and the agencies used this raw data to calculate the following statistics. The Corps Districts found that 55 percent of wetlands adjacent to TNWs in the AJDs that were evaluated were abutting (*i.e.*, touching) and 45 percent of wetlands adjacent to TNWs in the AJDs that were evaluated were not abutting.<sup>91</sup>

The agencies are proposing to include as “waters of the United States” wetlands that are separated from the waters to which they are adjacent by berms, levees, and the like only when such wetlands have a direct hydrologic surface connection in a typical year to the waters which they are adjacent. A direct hydrologic surface connection occurs as a result of inundation from the jurisdictional water to the wetland or via perennial or intermittent flow between a wetland and the jurisdictional water. Such a direct hydrologic surface connection in a typical year can occur, for example, due to regular flooding of the jurisdictional water to the wetland. A direct hydrologic surface connection may also occur due to a wetland overtopping a berm during periods of elevated surface water, or through features like culverts or tide/flood gates so long as perennial or intermittent flow occurs between the wetland and the jurisdictional water. According to the analysis of the of the wetlands adjacent to TNWs reviewed by the Corps Districts, about 10 percent of wetlands adjacent to TNWs that do not abut the TNW have a surface connection to the TNW via a culvert or tide gate. The agencies do not have additional information to estimate how many of these wetlands adjacent to TNWs would be found jurisdictional under the proposed rule due to overtopping where they otherwise do not abut.

From FY13-FY17, 11,203 waters were determined to be jurisdictional wetlands abutting an RPW. Under pre-2015 practice, the agencies’ data indicate that most wetlands that are adjacent to but that do not abut RPWs are found to be jurisdictional following a significant nexus

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<sup>90</sup> All but 38 of the 5,261 wetlands adjacent to TNWs made under pre-2015 practice from FY13-17 were completed in those 25 Corps Districts.

<sup>91</sup> The agencies have placed in the docket as a “Supporting Document” a table of the Corps wetlands adjacent to TNW determinations that were evaluated listed by their Department of Army (DA) Number. Docket materials are available at <https://www.regulations.gov/> (Docket ID: EPA-HQ-OW-2018-0149).

analysis. In ORM2 from FY13-FY17, there were 3,939 adjacent wetlands that do not abut an RPW, and thus required additional jurisdictional analysis. Of these, 3,834 waters were determined to be jurisdictional because they had a significant nexus, and 105 were found non-jurisdictional because they lacked a significant nexus – meaning approximately 97 percent of such wetlands were determined to be jurisdictional under pre-2015 practice. Available data from AJDs indicate that under pre-2015 practice, most wetlands adjacent to non-RPWs have been determined to be jurisdictional after a case-specific significant nexus analysis that considered both the non-RPW and its adjacent wetlands. In ORM2 from FY13-FY17, 1,681 waters were determined to be jurisdictional wetlands adjacent to a non-RPW<sup>92</sup> and 152 wetlands adjacent to a non-RPW were determined to be non-jurisdictional – 92 percent of wetlands adjacent to non-RPWs were determined to be jurisdictional.

The agencies are unable to use the NHD or the NWI datasets to accurately estimate the extent of wetlands that would be jurisdictional under either baseline or under the proposed rule and thus are unable to quantify using these datasets what the potential effects of the proposed rule might be on the jurisdictional status of wetlands. Wetlands that are adjacent under the 2015 Rule also include wetlands that are bordering, contiguous, or neighboring, including wetlands behind a berm, beach dune, or the like. Neighboring was further defined in the 2015 Rule to include some distance limitations or location within a 100-year floodplain. While the Federal Emergency Management Agency (FEMA) does map some 100-year floodplains for flood insurance purposes, not all 100-year floodplains are mapped throughout the country, and FEMA maps may not accurately delineate the 100-year floodplain.<sup>93</sup> Thus, there is not a nationally consistent and comprehensive dataset of 100-year floodplains that the agencies could use to determine which NWI wetlands might meet that portion of the 2015 Rule’s definition of adjacent.

In terms of pre-2015 practice, there is no ideal way to estimate which wetlands (as mapped in the NWI) are adjacent to jurisdictional waters. Adjacent wetlands under pre-2015 practice include those that are bordering, contiguous, and neighboring, including wetlands behind a berm, beach dune, and the like, without a requirement for a direct hydrologic surface connection in a typical year for wetlands behind a barrier. Neighboring wetlands are physically proximate to the water they are adjacent to, but the agencies under pre-2015 practice do not have a distance limitation for adjacency, so there would be no representative buffer distance that could be used to approximate adjacent wetlands. Under pre-2015 practice, non-jurisdictional swales and ditches can serve as a continuous surface hydrologic connection for adjacency, and there is no way to capture in the NHD or NWI which wetlands would likely have such surface hydrologic connections. Swales are not captured in the NHD, and not all ditches are mapped. In addition, while the NHD does include a feature class of “Levee,” not all levees are mapped, and datasets are not available regarding the location of beach dunes, berms, and the like. The NWI does contain the Special Modifiers of “Diked/Impounded” and “Managed,” as well as the “Water Regime” of “Artificially Flooded,” that could be used to better ascertain if a wetland is behind a berm or a dike. Not all wetlands behind a berm or a dike, however, contain such modifiers in their NWI classification. Even if the agencies could identify potentially adjacent wetlands under

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<sup>92</sup> The non-RPWs were also determined to be jurisdictional in these cases, as under current implementation the agencies evaluate the tributary along with any adjacent wetlands for a case-specific significant nexus.

<sup>93</sup> See, e.g., Department of Homeland Security, Office of the Inspector General Report: “FEMA Needs to Improve Management of Its Flood Mapping Programs.” OIG-17-110. September 27, 2017.

pre-2015 practice, they would be unable to approximate which of these wetlands would likely have a significant nexus (if such an analysis is required), since the agencies require site-specific information for a significant nexus evaluation. Further, the agencies are unable to estimate the extent of wetlands that are adjacent to ephemeral streams, which would not be jurisdictional under the proposed rule. Some of these wetlands are jurisdictional today (where they are found to have a significant nexus to at TNW), but the agencies cannot use NHD or NWI to accurately approximate the extent of these wetlands because not all ephemeral streams are mapped in the NHD, the NHD may misclassify a stream's actual flow regime, and—unless a significant nexus test is performed—the jurisdictional status of wetlands subject to a case-specific significant nexus evaluation is unknown.

Only those wetlands that are abutting otherwise jurisdictional waters or that have a direct hydrologic surface connection to jurisdictional waters in a typical year would be considered “waters of the United States” under the proposed rule. Wetlands in NWI are not classified based on whether they are physically abutting other waters. Though the agencies could perform an intersection analysis of the NHD and the NWI to approximate when NWI wetlands are likely abutting an NHD stream,<sup>94</sup> this would not capture all wetlands that are physically abutting due to positional inaccuracies in the two datasets (*e.g.*, both wetlands and streams may be mapped a few feet away from where they occur on the ground), and because most streams in NHD are mapped as linear features, thus not accurately capturing the actual width of a stream or a river. The agencies could help resolve these data issues by using a small buffer of the NHD, such that any NWI wetlands that fall within the buffer of the NHD flowline would be considered to likely be abutting and thus jurisdictional. Using a buffer, however, would mean that some wetlands that are in fact separated from the jurisdictional water by a small strip of upland or a small berm would also be captured in the buffer, when such wetlands would not always be jurisdictional under the proposed rule. The proposed rule would include as adjacent any wetlands that are separated from a “water of the United States” by a berm or the like but that maintain a direct hydrologic surface connection with the “water of the United States” in a typical year. The agencies are unable to estimate what the extent of such wetlands are using NHD or NWI, as there is no national dataset on the location of culverts, flood gates, and the like, and no national datasets that can be used to show that a wetland has a direct hydrologic surface connection to a wetland in a typical year as defined in the proposed rule. Though the NWI does contain the “Special Modifier” of “Managed” and “Diked/Impounded” as well as the “Water Regime” of “Artificially Flooded” that might be used to narrow down which NWI wetlands could potentially be connected hydrologically, for example, via a floodgate or culvert to the water from which it is separated, these modifiers likely capture wetlands that do not have such a connection, and not all wetlands that do have such a connection are identified by these modifiers. In addition, not all wetlands that have such a modifier would have a direct hydrologic surface connection with a jurisdictional water in a typical year as defined in the proposed rule.

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<sup>94</sup> The agencies did rasterize the NWI and NHD data in an attempt to approximate which NWI wetlands intersected the NHD flowlines (and could be presumed to be physically connected or abutting), but as discussed in section 3.A.2. “Aquatic Resource Analyses” of this appendix, the agencies were unable to use this analysis to estimate the extent of adjacent wetlands that are jurisdictional under either baseline or the proposed rule due to limitations of the datasets and of the raster analysis.

## *8. Nonnavigable, Isolated, Intrastate Waters*

In ORM2 from FY13-FY17, 20,353 waters were determined to be non-jurisdictional non-navigable, isolated, intrastate waters. As compared to pre-2015 practice, the agencies do not anticipate that there will be a change in jurisdiction for nonnavigable, intrastate, intrastate waters.

These features are not mapped in NHD/NWI as their own category; therefore, identifying baseline and mapping these waters in NHD/NWI would be impracticable.

## *9. Waters Excluded from the Definition of “Waters of the United States”*

Under pre-2015 practice, the agencies do not record in the ORM2 database if a water is excluded from the definition of “waters of the United States” due to the regulatory exclusions. Such waters may be entered into the database as “uplands.” However, other aquatic resources or features that the Corps determines to not meet the regulatory definition of “waters of the United States” are also categorized as “uplands” in the database. The Corps conducted 14,357 upland determinations in FY13-17.

The agencies are unable to use the NHD or the NWI to estimate the extent of excluded waters. The NHD and the NWI cannot be parsed into waters that are excluded from the definition of “waters of the United States” under pre-2015 practice, as they do not explicitly map or characterize waters that are prior converted cropland and waters that are waste treatment systems. As mentioned previously, the NWI does not map most farmed wetlands. This means that some waters that may be prior converted cropland are not mapped in the NWI. Because U.S. Department of Agriculture’s Natural Resources Conservation Service (NRCS) is statutorily prohibited from sharing data and information on program participants and their land, the agencies are unable to obtain information from that agency about their prior converted cropland designations. In order to estimate any potential effect of the proposed rule’s clarification of prior converted cropland, the agencies would need to have estimates of the acreage of prior converted cropland areas that are or have been abandoned versus the acreage of prior converted cropland that are or have been subjected to a change in use. In addition to being abandoned or having a change in use, such areas must also meet the federal regulatory definition of wetland as well as the definition of “waters of the United States.” The NHD and NWI cannot be utilized for such estimates, and the agencies are not aware any national datasets to assist with such estimates. In terms of the new exclusions added to the 2015 Rule and the proposed rule, as previously discussed, though the NHD does include a “ditch/canal” feature, the hydrologic permanence of these features is not noted, making an accurate analysis of excluded ditches impossible. Further, some canals are TNWs and some ditches are tidal – such waters would not be excluded from the definition of “waters of the United States” under the 2015 Rule or the proposed rule, but they cannot be easily identified. Neither the proposed rule’s exclusion for stormwater control features, nor the 2015 Rule’s exclusion for certain stormwater control features are easily identifiable in NWI or NHD. The agencies are also unable to clearly identify which features in NHD or NWI would meet the other new exclusions in the 2015 Rule.

## I. Estimating Stream Types of Impaired and TMDL Streams

The agencies estimate that approximately 33 percent (by stream length) of 303(d) listed impaired streams and 32 percent of streams (by stream length) with approved TMDLs nationwide are mapped in high resolution NHD as ephemeral or intermittent. The available data indicate that most streams that are on the 303(d) list or that have TMDLs are mapped as perennial, with approximately 67 percent of streams (by stream length) of 303(d) listed impaired streams and 67 percent of streams (by stream length) with approved TMDLs nationwide mapped in the high resolution NHD as perennial, according to the agencies' analysis. The distribution of 303(d) listed impaired waters and streams with approved TMDLs varies nationwide. For instance, the agencies' analysis found that states in the West (particularly the arid West) had the highest percentage (by stream length) of ephemeral 303(d) listed impaired streams, including Arizona (19 percent of listed streams), Nevada (15 percent of listed streams), New Mexico (13 percent of listed streams), Idaho (nine percent of listed streams), Wyoming (five percent of listed streams), and California (three percent of listed streams). This makes sense, considering that most ephemeral streams in the high resolution NHD are mapped in the arid West. The geographic distribution of intermittent 303(d) listed streams was more varied than that for ephemeral streams. Colorado (68 percent), North Dakota (63 percent), Ohio (54 percent), Kansas (49 percent), Idaho (47 percent), California (39 percent), and Arizona (36 percent) had the highest percentages of 303(d) listed stream length mapped as intermittent in the high resolution NHD.

Similarly, the highest percentages of streams with approved TMDLs mapped in the high resolution NHD as ephemeral are for states in the arid West. Nevada (51 percent), Utah (19 percent), Arizona (13 percent), New Mexico (five percent), California (two percent), and Idaho (1 percent) were the states with the highest percentages of streams with approved TMDLs that are mapped as ephemeral in the high resolution NHD. States with the highest percentage of approved TMDL stream length that is intermittent include North Dakota (63 percent), Ohio (55 percent), Colorado (54 percent), Kansas (51 percent), and California (39 percent). Several states have 30-37 percent of their streams with approved TMDLs mapped as intermittent, including Hawaii, Texas, Utah, Louisiana, South Dakota, Arizona, and Idaho.

## J. Analysis of Section 311 Programs

The agencies estimate that nearly 540,000 facilities may be regulated by the SPCC rule in the 2016 baseline year for the ICR renewal. Oil production facilities (43 percent), electric utilities (12 percent), real estate rental and leasing (six percent), and farms (four percent) account for the majority of SPCC-regulated facilities (see Table 5).<sup>95</sup> The estimate does not explicitly account for the location of the facilities and reasonable potential for a discharge to a "waters of the United States." The current inventory of FRP-subject facilities that have submitted and are currently maintaining an FRP as of January 2018 is approximately 3,800 facilities nationwide, inclusive of federal facilities. The data are summarized by EPA Region in Table 6.

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<sup>95</sup> U.S. Environmental Protection Agency. 2016. Regulatory Impact Analysis for the Proposed Amendments to the Oil Pollution Prevention Regulations (40 CFR PART 112). September 2017.

In a 2013 Report to Congress,<sup>96</sup> PHMSA estimated that hazardous liquid pipelines cross inland waterbodies at 18,136 locations and that 5,110 of these crossings are 100 feet or greater, but this count likely understates the number of water crossings since it was based on a relatively coarse hydrographic dataset that would not account for most ephemeral and intermittent streams. In addition, more than 11,000 oil spills<sup>97</sup> were reported to the National Response Center (NRC) during calendar year 2017 from sources other than vessels or platforms. Of these incidents, more than 7,000 reportedly impacted waters. The number of incidents that impacted or threatened waters that would potentially no longer be subject to federal protection under the proposed definition of “waters of the United States” is uncertain, since notifications to the NRC generally do not provide sufficient detail on the resources at risk to determine their potential jurisdictional status under the proposed rule. While impact or threat to waters is one of the criteria for notifying the NRC of an incident, the NRC also receives notifications for a wide range of incidents of public concern, and therefore, changes in the definition of “waters of the United States” could potentially have a limited impact on the frequency of NRC notifications, even as responsibilities for overseeing the response to some incidents shift from the federal on-scene coordinators to state, local, or tribal governments. During the period of 2014-2016, EPA federal on-scene coordinators oversaw emergency removal activities for 60 incidents involving the discharge of oil from non-transportation-related sources.<sup>98</sup> The average volume discharged in these incidents was approximately 6,500 gallons.

## K. Analysis of Section 402 Program

The agencies downloaded 522,536 permitted features and 223,114 facilities from ICIS-NPDES and the New Jersey DataMiner.<sup>99</sup> This included 378,591 NPDES general permit records and 215,869 NPDES individual permit records. Of these, 87 percent (329,823) of the general permits and 97 percent (209,648) had valid locational information that the agencies could use in the analysis. As discussed previously, the agencies determined that their attempted analysis was not appropriate for estimating the potential effects of the proposed rule on the section 402 program at a national level.

## L. Analysis of Section 404 Programmatic Data

Data from Corps permits issued under the 404 program in fiscal years 2011 to 2015<sup>100</sup> indicate the amount of wetlands, streambanks, and shorelines affected by dredged and fill activities and the extent of mitigated impacts under the 404 permitting process. During this timeframe,

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<sup>96</sup> Pipeline and Hazardous Material Safety Agency (PHMSA). 2013. Report to Congress: Results of Hazardous Liquid Incidents at Certain Inland Water Crossings Study. August 2013. Available at <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Report%20to%20Congress%20on%20Hazardous%20Liquid%20Pipelines%20Crossing%20Inland%20Waterways%20-%20August%202013.pdf>.

<sup>97</sup> Count reflects NRC’s Calendar Year 2017 incident data involving substances with names containing the terms “oil” or “gasoline” or “diesel.”

<sup>98</sup> Based on the number of incidents overseen by EPA OSCs during this period, excluding removals that addressed historical releases or abandoned facilities, or originated from a pipeline, truck or other transportation-related source.

<sup>99</sup> These numbers represent the permit records after the agencies removed permits that had likely been entered incorrectly and that are not truly NPDES permits.

<sup>100</sup> Calendar year 2015 was the most recent complete year available at the time the agencies accessed data for use in this analysis.

available data indicate 248,688 permits were issued under the 404 program. Permits are divided into 10 different general project types: agriculture, aquaculture, development, dredging, energy generation, mining and drilling, mitigation, structure, transportation, and an “other” type for purposes of this analysis. Table 7 provides authorized permanent impacts, temporary impacts, and mitigation requirements for each project type.

Without knowing each state’s and tribe’s likely response to changes to the definition of “waters of the United States,” the agencies can only identify states that *could* have potentially large impacts based on the authorized impact areas of 404 permits. The proposed rule, if finalized, could have a significant effect in states with large impact areas and large mitigation areas in non-coastal waters. Table 8 shows authorized impact areas and large mitigation requirements from non-coastal 404 permits issued in 2011-2015 for each EPA region. The states of Florida, Louisiana, Alaska, and Texas had the largest areas of authorized permanent impacts for permitted activities on non-ocean and non-tidal water resources. States with large mitigation requirements—including Florida, South Carolina, Texas, Louisiana, and Indiana—would likely experience significant impacts from the proposed “waters of the United States” definitional changes if the states do not require similar mitigation following the change. Permits utilizing mitigation credits are presented instead of total credits because the number of acres or linear feet per credit varies among and within Corps Districts. Summing mitigation credits thus would not provide meaningful results.

### M. Estimating the Stream Types and Impaired Waters within Source Water Protection Areas (SPAs)

As discussed previously, the agencies determined that their attempted analysis was not appropriate for estimating the potential effects of the proposed rule on source water protection areas.

### N. Examining EPA Tribal Areas

As discussed previously, the agencies determined that their attempted analysis was not appropriate for the potential effects of the proposed rule in EPA Tribal Areas.

## 6. Summary Graphics

This section includes summary graphics of the data and analyses described in the sections above. Many of these graphics were originally created for other purposes and retain their original formatting.

### O. ORM2

*Table 3. Summary of the Corps Fiscal Year 2013-2017 ORM2 Approved Jurisdictional Determination Data under Pre-2015 Practice.* During this period, the Corps conducted AJDs under pre-2015 practice for 82,738 aquatic resources in the 10 categories that are described in the “Baseline” section of this chapter. Of these AJDs, 60,116 aquatic resources were determined to be jurisdictional. In addition, the Corps conducted 14,357 upland determinations in that same period.

	<b>Total Number of Waters in ORM2</b>	<b>Total Number of Jurisdictional Waters in ORM2</b>
<b>TNW</b>	17,630	17,630
<b>Wetlands Adjacent to TNWs</b>	5,261	5,261
<b>Interstate Waters</b>	0	0
<b>Isolated Waters</b>	20,353	0
<b>Impoundments</b>	751	751
<b>RPWs</b>	15,980	15,980
<b>Non-RPWs</b>	5,788	3,776
<b>Wetlands Directly Abutting RPWs</b>	11,203	11,203
<b>Wetlands Not Directly Abutting RPWs</b>	3,939	3,834
<b>Wetlands Adjacent to Non-RPWs</b>	1,833	1,681
<b>Sum Totals</b>	<b>82,738</b>	<b>60,116</b>
<b>Uplands</b>	<b>14,357</b>	<b>0</b>

*Table 4. Summary of the Corps Fiscal Year 2013-2017 ORM2 Data Analyzed for Approved Jurisdictional Determinations for Wetlands Adjacent to Traditional Navigable Waters (TNWs) Made under Pre-2015 Practice.*

<b>Total Number of Waters in ORM2 Identified as “Wetlands Adjacent to TNWs”</b>	<b>Number “Wetlands Adjacent to TNWs” that were Examined in the Adjacency Analysis</b>	<b>Number of Examined “Wetlands Adjacent to TNWs” Assessed to be Wetlands Directly Abutting TNWs</b>
5,261	3,581	2,660

## P. Section 311 Analysis

Table 5. Estimated Number of Facilities Subject to SPCC in 2016.

<b>Sector</b>	<b>Number of Facilities</b>
Farms <sup>1</sup>	21,864
Oil Production	230,405
Electric Utility <sup>2</sup>	64,919
Petroleum Refining and Related Industries	2,075
Chemical Manufacturing	2,654
Food Manufacturing	3,684
Manufacturing facilities using and storing AFVO	7,859
Metal Manufacturing	2,828
Other Manufacturing	15,781
Real Estate Rental and Leasing	30,395
Retail Trade	18,158
Contract Construction	17,327
Wholesale Trade	14,883
Other Commercial	18,764
Transportation	15,846
Arts Entertainment & Recreation	15,054
Other Services (Except Public Administration)	7,493
Education	9,317
Petroleum Bulk Stations and Terminals	4,405
Hospitals & Other Health Care	7,239
Accommodation and Food Services	5,330
Fuel Oil Dealers	4,225
Gasoline stations	3,715
Information Finance and Insurance	4,596
Mining	3,145
Religious Organizations	1,563
Warehousing and Storage	3,545
Military Installations	789
Pipelines	647
Government	613
<b>Total</b>	<b>539,118</b>
<sup>1</sup> Reflects changes in SPCC applicability to farms due to the Water Resources Reform and Development Act (WRRDA)	
<sup>2</sup> Electric utility includes generation plants, distribution substations, and other types of facilities	
Source: EPA (2016)	

*Table 6. Summary of the number of active FRP facilities by EPA region.*

<b>EPA Region</b>	<b>Number of Facilities</b>
1	133
2	203
3	283
4	531
5	527
6	956
7	259
8	225
9	278
10	407
<b>Total</b>	<b>3,802</b>
Source: EPA, Oil Program Database, 2018	

## Q. Analysis of Section 404 Programmatic Data

Table 7. Authorized impact area of Corps 404 permits issued in 2011-2015, by project type

Project Type	Permanent Impacts		Temporary Impacts (Per Year)		Mitigation Required (Per Year)		
	Acres	Length Feet	Acres	Length Feet	Acres	Length Feet	Permits Using Credits <sup>1</sup>
Agriculture	583	966,813	99	73,963	311	47,383	8
Aquaculture	13,758	16,603	6,599	581	2	49	0
Development	19,099	2,563,048	275	108,992	9,859	278,370	990
Dredging	4,997	932,081	2,272	523,532	294	24,269	19
Energy Generation	2,320	741,194	166	93,718	676	235,181	57
Mining and Drilling	6,187	2,992,779	508	1,731,983	2,648	679,215	146
Mitigation	14,063	15,418,091	1,064	530,120	869	97,926	13
Structure	7,000	3,237,833	1,242	568,435	898	177,000	330
Transportation	13,224	5,932,043	1,994	796,314	4,592	231,032	1,546
Other	3,463	6,772,584	626	543,839	3,911	227,144	53
<b>Total</b>	<b>84,694</b>	<b>39,573,069</b>	<b>14,844</b>	<b>4,971,478</b>	<b>24,060</b>	<b>1,997,569</b>	<b>3,163</b>

<sup>1</sup> Mitigation credits are the trading medium that is used to represent the ecological gains at mitigation bank sites. The number of credits available from a mitigation bank depends on the quantity and quality of the resources that are restored, created, enhanced, or preserved. The number of acres or linear feet per credit varies among and within U.S. Army Corps of Engineers Districts. This variability makes summing credits across regions inappropriate, so the number of permits utilizing mitigation credits is provided instead of total mitigation credits.

Table 8. Authorized impact area of section 404 permits issued in 2011-2015<sup>1</sup>, excluding permits affecting resources categorized as “ocean” or “tidal.”

EPA Region	Permanent Impacts		Temporary Impacts (Per Year)		Mitigation Required (Per Year)		
	Acres	Length Feet	Acres	Length Feet	Acres	Length Feet	Permits Using Credits <sup>2</sup>
1	687	392,280	175	65,712	1,656	5,038	30
2	401	546,025	79	55,851	364	13,202	18
3	5,111	2,406,621	819	509,094	459	305,507	140
4	18,229	3,842,185	682	319,864	12,317	335,565	1,066
5	5,738	5,289,594	510	409,753	1,373	488,018	419
6	11,208	2,183,522	1,909	610,310	3,149	368,462	684
7	1,662	2,963,411	114	1,629,274	313	88,826	130
8	1,478	1,507,359	235	146,724	274	94,709	74
9	3,349	986,347	284	189,385	925	105,071	323
10	5,154	1,687,844	371	163,967	644	79,697	134
<b>Total</b>	<b>53,017</b>	<b>21,805,188</b>	<b>5,178</b>	<b>4,099,934</b>	<b>21,474</b>	<b>1,884,095</b>	<b>3,018</b>

Source: Analysis of U.S. Army Corps of Engineers’ ORM2 data.

<sup>1</sup> The estimated impact area does not include projects from New Jersey and Michigan.

<sup>2</sup> Mitigation credits are the trading medium that is used to represent the ecological gains at mitigation bank sites. The number of credits available from a mitigation bank depends on the quantity and quality of the resources that are restored, created, enhanced, or preserved. The number of acres or linear feet per credit varies among and within U.S. Army Corps districts. This variability makes summing credits across regions inappropriate, so the number of permits utilizing mitigation credits is provided instead of total mitigation credits.

## 7. Glossary of Acronyms and Terms<sup>1</sup>

Some terms are denoted by CWA, NHD, or NWI to indicate if they are being defined in the context of the CWA, National Hydrography Dataset, or National Wetlands Inventory, respectively.

*Approved Jurisdictional Determination (CWA)*: An approved JD (AJD) means a Corps document stating the presence or absence of “waters of the United States” on a parcel or a written statement and map identifying the limits of “waters of the United States” on a parcel. Approved JDs are clearly designated appealable actions and will include a basis of JD with the document.<sup>2</sup>

*Aquatic Bed (NWI)*: The Class Aquatic Bed includes wetlands and deepwater habitats where plants that grow principally on or below the surface of the water (*i.e.*, surface plants or submergents) are the uppermost life form layer with at least 30 percent areal coverage. Water Regimes include Subtidal, Irregularly Exposed, Regularly Flooded, Permanently Flooded, Intermittently Exposed, Semipermanently Flooded, Seasonally Flooded, Permanently Flooded-Tidal Fresh, Semipermanently Flooded-Tidal Fresh, Regularly Flooded-Tidal Fresh, and Seasonally Flooded-Tidal Fresh. Not all Water Regimes apply to all subclasses.

*Artificially Flooded (NWI)*: The amount and duration of flooding are controlled by means of pumps or siphons in combination with dikes, berms, or dams. The vegetation growing on these areas cannot be considered a reliable indicator of Water Regime. Examples of Artificially Flooded wetlands are some agricultural lands managed under a rice-soybean rotation, and wildlife management areas where forests, crops, or pioneer plants may be flooded or dewatered to attract wetland wildlife. Neither wetlands within or resulting from leakage from man-made impoundments, nor irrigated pasture lands supplied by diversion ditches or artesian wells, are included under this Modifier. The Artificially Flooded Water Regime Modifier should not be used for impoundments or excavated wetlands unless both water inputs and outputs are controlled to achieve a specific depth and duration of flooding.

*ATTAINS*: Assessment and Total Maximum Daily Load Tracking and Implementation System (ATTAINS) is an EPA website and database that is used to share state water quality assessment decisions made under CWA sections 303(d) and 305(b), as well as to share information on TMDLs, alternative restoration, and protection approaches. *See* <https://www.epa.gov/waterdata/assessment-and-total-maximum-daily-load-tracking-and-implementation-system-attains>.

*Catchment (NHD)*: The geographic area which drains into a single stream segment in the Medium Resolution NHD stream network. *See*

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<sup>1</sup> Many of the NHD definitions are from the *NHD Feature Catalog*, available at: [https://nhd.usgs.gov/userguide.html?url=NHD\\_User\\_Guide/Feature\\_Catalog/NHD\\_Feature\\_Catalog.htm](https://nhd.usgs.gov/userguide.html?url=NHD_User_Guide/Feature_Catalog/NHD_Feature_Catalog.htm). Similarly, many of the NWI definitions are from *Classification of Wetlands and Deepwater Habitats*, available at <https://www.fws.gov/wetlands/documents/Classification-of-Wetlands-and-Deepwater-Habitats-of-the-United-States-2013.pdf>.

<sup>2</sup> 33 CFR 331.2.

[ftp://ftp.horizon-systems.com/NHDplus/NHDPlusV21/Documentation/NHDPlusV2\\_User\\_Guide.pdf](ftp://ftp.horizon-systems.com/NHDplus/NHDPlusV21/Documentation/NHDPlusV2_User_Guide.pdf)

*Cowardin Code:* The Cowardin Classification System classifies wetlands and deepwater habitats in the United States. The classification codes are a series of letter and number codes that have been developed to adapt the national wetland classification system to map form. These alphanumeric codes correspond to the classification nomenclature that best describes the habitat. The scope of wetlands under the Cowardin system is broader than wetlands that meet the regulatory definition of wetlands under the CWA. See <https://www.fws.gov/wetlands/data/wetland-codes.html>.

CWA: Clean Water Act.

*Emergent Wetland (NWI):* In this wetland Class, emergent plants (*i.e.*, erect, rooted, herbaceous hydrophytes, excluding mosses and lichens) are the tallest life form with at least 30 percent areal coverage. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants. All Water Regimes are included except Subtidal and Irregularly Exposed. Not all Water Regimes apply to all subclasses.

*Ephemeral Stream (NHD):* Contains water only during or after a local rainstorm or heavy snowmelt. These features are assigned an f-code of 46007 in the NHD.

*Estuarine System (NWI):* The Estuarine System consists of deepwater tidal habitats and nearby tidal wetlands that are usually semi-enclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. Along some low-energy coastlines there is appreciable dilution of sea water. Offshore areas with typical estuarine plants and animals, such as red mangroves (*Rhizophora mangle*) and eastern oysters (*Crassostrea virginica*), are also included in the Estuarine System.<sup>3</sup>

*Farmed (NWI):* A special modifier in NWI. Farmed wetlands occur where the soil surface has been mechanically or physically altered for production of crops, but where hydrophytes would become reestablished if the farming were discontinued. Farmed wetlands should be classified as Palustrine-Farmed. Cultivated cranberry bogs may be classified Palustrine-Farmed or Palustrine Scrub-Shrub Wetland-Farmed.

*FCode (NHD):* A featured code in NHD that is a five-digit integer value. It is comprised of the feature type and combinations of characteristics and values. In these analyses, the FCode provides information on the Hydrographic Category (*e.g.*, stream type) for Stream/River features, as assigned by the U.S. Geological Survey.

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<sup>3</sup> The Coastal Zone Management Act of 1972 defines an estuary as “that part of a river or stream or other body of water having unimpaired connection with the open sea, where the sea-water is measurably diluted with freshwater derived from land drainage.” The Act further states that “the term includes estuary-type areas of the Great Lakes.” However, the Cowardin Classification System does not consider areas of the Great Lakes as Estuarine.

*Forested Wetland (NWI)*: In Forested Wetlands, trees are the dominant life form (*i.e.*, the tallest life form with at least 30 percent areal coverage. Trees are defined as woody plants at least 6 meters (20 feet) in height. All Water Regimes except Subtidal and Regularly Flooded-Tidal Fresh are included. Not all Water Regimes apply to all subclasses.

*FType (NHD)*: Each NHD Feature Class is broken down by feature type (FType) which have a 3-digit coded value and a name. In these analyses, the agencies focused on the FType of “Stream/River” (460).

*Hydrophyte*: Any macrophyte that grows in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content; plants typically found in wet habitats.<sup>4</sup>

*Impaired Stream*: Streams listed as not meeting State or Tribal WQSs according to Section 303(d) of the Clean Water Act. Location and pollutant information taken from the ATAINS Database for May 1, 2015. See <https://www.epa.gov/waterdata/waters-geospatial-data-downloads#303dListedImpairedWaters>.

*Intermittent (NWI)*: This Subsystem includes channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.

*Intermittent Streams (NHD)*: Contains water for only part of the year, but more than just after rainstorms and at snowmelt. These features are assigned an f-code of 46003 in the NHD.

*Intermittently Flooded (NWI)*: The Water Regime of “Intermittently Flooded” indicates that the substrate is exposed, but surface water is present for variable periods without detectable seasonal periodicity. Weeks, months, or even years may intervene between periods of inundation. Generally, this water regime is limited to the arid West.

*Jurisdictional Determination (CWA)*: A jurisdictional determination (JD) means a written Corps determination that a water is subject to regulatory jurisdiction under section 404 of the Clean Water Act (33 U.S.C. 1344) or a written determination that a waterbody is subject to regulatory jurisdiction under Section 9 or 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401 *et seq.*). Additionally, the term includes a written reverification of expired JDs and a written reverification of JDs where new information has become available that may affect the previously written determination. For example, such geographic JDs may include, but are not limited to, one or more of the following determinations: the presence or absence of wetlands; the location(s) of the wetland boundary, ordinary high water mark, mean high water mark, and/or high tide line; interstate commerce nexus for isolated waters; and adjacency of wetlands to other “waters of the United States.” All JDs will be in writing and will be identified as either preliminary or approved. JDs do not include determinations that a particular activity requires a DA permit.<sup>5</sup>

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<sup>4</sup> U.S. Army Corps of Engineers. 1987. Corps of Engineers Wetlands Delineation Manual. Wetlands Research Program Technical Report Y-87-1. Department of the Army, Vicksburg, VA. Available at: <https://el.erdc.dren.mil/elpubs/pdf/wlman87.pdf>.

<sup>5</sup> 33 CFR 331.2.

*Lacustrine System (NWI)*: The Lacustrine System includes wetlands and deepwater habitats with all of the following characteristics: (1) situated in a topographic depression or a dammed river channel; (2) lacking trees, shrubs, persistent emergent vegetation, emergent mosses or lichens with 30 percent or greater areal coverage; and (3) total area of at least eight hectares (20 acres). Similar wetlands and deepwater habitats totaling less than 8 hectares are also included in the Lacustrine System if an active wave-formed or bedrock shoreline feature makes up all or part of the boundary, or if the water depth in the deepest part of the basin equals or exceeds 2.5 meters (8.2 feet) at low water. Lacustrine waters may be tidal or nontidal, but ocean-derived salinity is always less than 0.5 parts per thousand.

*Lower Perennial (NWI)*: This Subsystem is characterized by a low gradient. There is no tidal influence, and some water flows all year, except during years of extreme drought. The substrate consists mainly of sand and mud. Oxygen deficits may sometimes occur. The fauna is composed mostly of species that reach their maximum abundance in still water, and true planktonic organisms are common. The gradient is lower than that of the Upper Perennial Subsystem and the floodplain is well developed.

*Marine System (NWI)*: The Marine System consists of the open ocean overlying the continental shelf and its associated high-energy coastline. Marine habitats are exposed to the waves and currents of the open ocean and the Water Regimes are determined primarily by the ebb and flow of oceanic tides. Salinities exceed 30 parts per thousand, with little or no dilution except outside the mouths of estuaries. Shallow coastal indentations or bays without appreciable freshwater inflow, and coasts with exposed rocky islands that provide the mainland with little or no shelter from wind and waves, are also considered part of the Marine System because they generally support typical marine biota.

*Moss-Lichen Wetland (NWI)*: The Moss-Lichen Wetland Class includes areas where mosses or lichens cover at least 30 percent of substrates other than rock and where emergents, shrubs, or trees alone or in combination cover less than 30 percent. Water Regimes include Seasonally Flooded, Seasonally Flooded-Saturated, Continuously Saturated, and Seasonally Saturated.

*National Hydrography Dataset (NHD)*: The NHD is a digital geospatial dataset that maps surface water features in the United States. The NHD represents the nation's drainage networks and related features, including rivers, streams, canals, lakes, ponds, glaciers, coastlines, dams, and streamgages. The dataset is available at high resolution (1:24,000-scale or higher) or medium resolution (1:100,000-scale). See <https://www.usgs.gov/core-science-systems/ngp/national-hydrography/national-hydrography-dataset>.

*National Hydrography Dataset Plus (NHDPlus)*: The NHDPlus is a suite of geospatial products that build upon and extend the capabilities of the National Hydrography Dataset (NHD), the National Elevation Dataset (NED) and the Watershed Boundary Dataset (WBD). The NHDPlus includes a stream network, catchments, and streamflow estimates, as well as other value-added attributes that enable stream “navigation.”<sup>6</sup> See <https://epa.gov/waterdata/nhdplus-national->

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<sup>6</sup> “Navigation” in this context refers to the ability to trace a stream network upstream and downstream using GIS. The term does not refer to actual navigability of a water and does not imply that a feature is or is not navigable.

[hydrography-dataset-plus](#) and <https://www.usgs.gov/core-science-systems/ngp/hydrography/nhdplus-high-resolution>.

*National Wetlands Inventory (NWI)*: The U.S. Fish and Wildlife Service’s National Wetlands Inventory (NWI) is a publicly available resource that provides detailed information on the abundance, characteristics, and distribution of wetlands<sup>7</sup> in the United States. See <https://www.fws.gov/wetlands/>.

*NHDFlowline (NHD)*: NHDFlowlines consist of routes that make up a linear surface water drainage network. Flowlines have a reach code and a measure, allowing for the establishment of upstream/downstream relationships. This network allows for powerful analysis and modeling capabilities. Each Feature type is attributed with descriptive information by an Fcode.

*ORM2 (Operation and Maintenance Business Information Link, Regulatory Module)*: The Corps’ internal database system that tracks CWA section 404 application and permit data, including information on jurisdictional determinations.

*Palustrine System (NWI)*: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 parts per thousand. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than eight hectares (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than two meters at low water; and (4) salinity due to ocean-derived salts less than 0.5 parts per thousand.

*Perennial Stream (NHD)*: Contains water throughout the year, except for infrequent periods of severe drought. These features are assigned an f-code of 46006 in the NHD.

*Preliminary Jurisdictional Determination (CWA)*: A preliminary jurisdictional determination (PJD) is a written indication that there may be “waters of the United States” on a parcel or indications of the approximate location(s) of “waters of the United States” on a parcel. Preliminary JDs are advisory in nature and may not be appealed. Preliminary JDs include compliance orders that have an implicit JD, but no AJD.<sup>8</sup>

*Riverine System (NWI)*: The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergent vegetation, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater.<sup>9</sup> A channel is “an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water” (Langbein and Iseri 1960:5).

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<sup>7</sup> Note that when discussing wetlands in an NWI context, the agencies are using the NWI definition of wetland and not the regulatory definition of wetland.

<sup>8</sup> 33 CFR 331.2.

<sup>9</sup> *Id.*

*Rock Bottom (NWI)*: The Class Rock Bottom includes all wetlands and deepwater habitats with substrates having an areal cover of stones, boulders, or bedrock 75 percent or greater and vegetative cover of less than 30 percent. Water Regimes are restricted to Subtidal, Permanently Flooded, Intermittently Exposed, Semipermanently Flooded, Permanently Flooded-Tidal Fresh, and Semipermanently Flooded-Tidal Fresh.

*Rocky Shore (NWI)*: The Class Rocky Shore includes wetland habitats characterized by bedrock, stones, or boulders, which singly or in combination have an areal cover of 75 percent or more, and an areal coverage by vegetation of less than 30 percent. Water Regimes are restricted to Irregularly Exposed, Regularly Flooded, Irregularly Flooded, Seasonally Flooded, Temporarily Flooded, Intermittently Flooded, and Regularly Flooded-Tidal Fresh.

*Safe Drinking Water Information System/Federal Version (SDWIS/FED)*: Safe Drinking Water Information System/Federal Version (SDWIS/FED) is EPA's national database that manages and collects public water system information from states, including reports of drinking water standard violations, reporting and monitoring violations, and other basic information, such as water system location, type, and population served. Publicly available SDWIS data can be found at: <https://ofmpub.epa.gov/apex/sfdw/f?p=108:200>.

*Scale*: Scale is the relationship between distance on the map and distance on the ground. If the scale were 1:24,000, for instance, then one inch on the map would represent 24,000 inches or 2,000 feet on the ground. If the scale were 1:63,360, then one inch on the map would represent 63,360 inches or one mile on the ground. See "Map Scales," available at <https://pubs.usgs.gov/unnumbered/70039582/report.pdf>.

*Scrub-Shrub Wetland (NWI)*: In Scrub-Shrub Wetlands, woody plants less than 6 meters (20 feet) tall are the dominant life form (*i.e.*, the tallest life form with at least 30 percent areal coverage. The "shrub" life form actually includes true shrubs, young specimens of tree species that have not yet reached 6 meters in height, and woody plants (including tree species) that are stunted because of adverse environmental conditions. All Water Regimes except Subtidal and Regularly Flooded-Tidal Fresh are included. Not all Water Regimes apply to all subclasses.

*Seasonally Flooded (NWI)*: Surface water is present for extended periods (generally for more than a month) during the growing season, but is absent by the end of the season in most years. When surface water is absent, the depth to substrate saturation may vary considerably among sites and among years.

*Stream/River (NHD)*: A body of flowing water. Also exists as an NHDFlowline. May be a named feature.

*Streambed (NWI)*: The Class Streambed includes all wetlands contained within the Intermittent Subsystem of the Riverine System and all channels of the Estuarine System or of the Tidal Subsystem of the Riverine System that are completely dewatered at low tide. Water Regimes are restricted to Irregularly Exposed, Regularly Flooded, Irregularly Flooded, Seasonally Flooded, Temporarily Flooded, Intermittently Flooded, and Regularly Flooded-Tidal Fresh. Not all Water Regimes apply to all subclasses.

*Surface Water Source Protection Areas (SPAs):* Surface Water Source Protection Areas (SPAs) delineations are composed of NHDPlus version 2.1 catchments located 24-hour time of travel upstream of all georeferenced active surface water source facilities (*i.e.*, intakes, reservoirs, infiltration galleries, and springs with valid locations).

*Temporarily Flooded (NWI):* Surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for most of the season.

*TMDL (Total Maximum Daily Load) (CWA):* A calculation of the maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet water quality standards for that pollutant.

*TMDL Stream:* Streams with Total Maximum Daily Loads (TMDLs) established in accordance with section 303(d) of the Clean Water Act. Location and pollutant information taken from the ATTAINS Database for May 1, 2015. See <https://www.epa.gov/waterdata/waters-geospatial-data-downloads#ImpairedWatersWithTMDLs>.

*Unclassified Stream (NHD):* Does not have a “Hydrographic Category” (stream type) assigned to it in the NHD. These features are assigned an FCode of 46000 in the NHD.

*Unconsolidated Bottom (NWI):* The Class Unconsolidated Bottom includes all wetlands and deepwater habitats with at least 25 percent cover of particles smaller than stones and a vegetative cover less than 30 percent. Water Regimes are restricted to Subtidal, Permanently Flooded, Intermittently Exposed, Semipermanently Flooded, Permanently Flooded-Tidal Fresh, and Semipermanently Flooded-Tidal Fresh.

*Unconsolidated Shore (NWI):* The Class Unconsolidated Shore includes all wetland habitats having three characteristics: (1) unconsolidated substrates with less than 75 percent areal cover of stones, boulders, or bedrock; (2) less than 30 percent areal cover of vegetation other than pioneer plants; and (3) any of the following Water Regimes: Irregularly Exposed, Regularly Flooded, Irregularly Flooded, Seasonally Flooded, Seasonally Flooded-Saturated, Temporarily Flooded, Intermittently Flooded, Regularly Flooded-Tidal Fresh, Seasonally Flooded-Tidal Fresh, and Temporarily Flooded-Tidal Fresh. Intermittent or intertidal channels of the Riverine System and intertidal channels of the Estuarine System are classified as Streambed. Not all Water Regimes apply to all subclasses.

*Upper Perennial (NWI):* This Subsystem is characterized by a high gradient. There is no tidal influence, and some water flows all year, except during years of extreme drought. The substrate consists of rock, cobbles, or gravel with occasional patches of sand. The natural dissolved oxygen concentration is normally near saturation. The fauna is characteristic of running water, and there are few or no planktonic forms. The gradient is high compared with that of the Lower Perennial Subsystem, and there is very little floodplain development.

*Wetlands (CWA)*: “The term wetlands means those areas that are inundated or saturated by surface or groundwater 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.”<sup>10</sup> The definition of wetlands under the Cowardin system is broader than the regulatory definition under the Clean Water Act (see below).

*Wetlands (NWI)*: Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes;<sup>11</sup> (2) the substrate is predominantly undrained hydric soil;<sup>12</sup> and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year. The definition of wetlands under the Cowardin system is broader than the regulatory definition under the Clean Water Act (see above).

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<sup>10</sup> 33 CFR 328.3(c) and 40 CFR 232.2.

<sup>11</sup> Lichvar, R. W., and J. T. Kartesz. 2009. *North American Digital Flora: National Wetland Plant List*, version 2.4.0 U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, New Hampshire, and BONAP, Chapel Hill, North Carolina. See [http://wetland-plants.usace.army.mil/nwpl\\_static/home/home.html](http://wetland-plants.usace.army.mil/nwpl_static/home/home.html).

<sup>12</sup> U.S. Department of Agriculture, Natural Resources Conservation Service. 2010. *Field Indicators of Hydric Soils in the United States*. Version 7. L.M. Vasilas, G.W. Hunt, and C.V. Noble, eds. USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils. Version 8.1. (2017) is available at: [https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_053171.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_053171.pdf).

## Appendix B.State-by-State Program Descriptions

### 1. OVERVIEW

States play an important role in managing aquatic resources across the country and implementing Clean Water Act (CWA) programs. This appendix provides a snapshot of the current status of states, including the District of Columbia and the U.S. Territories, regarding CWA programs, definitions of state waters, and the scope of state jurisdiction, as well as additional information on state-level regulations and/or policies that affect waters of the state. The U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Agencies) compiled this information to describe the breadth of state authorities and to provide a current picture of federal and state regulatory management of aquatic resources.

For the purpose of this snapshot, information has been drawn from multiple state and federal sources, as well as from previous analyses undertaken by independent associations and institutions. Definitions for state and territorial waters, including wetlands, were drawn from online directories of regulatory titles and codes, therefore pulled directly from state laws. Information on state and territorial water laws and programs was found through state and territorial agency websites, and information on the various CWA programmatic areas (*e.g.*, 303, 311, 401, 402, and 404) was drawn from the EPA websites, numerous publications, maps, and from EPA regional staff. As many state definitions of wetlands, directly or indirectly, rely on the federal regulatory definition of wetlands:

“Wetlands are 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.”<sup>13</sup>

The CWA programs outlined in this chapter, including the section 303 water quality standards (WQS) program, the section 311 oil spill and response program, the section 401 water quality certification program, the section 402 National Pollutant Discharge Elimination System (NPDES) permit program, and the section 404 permit program for the discharge of dredged or fill material rely on the definition of “waters of the United States” to establish CWA jurisdiction for program implementation. A revised definition of “waters of the United States” could have some effects on all of these CWA programs as implemented at the state level, as described further. However, any future effects would vary from state to state based on a state’s independent legal authority to regulate aquatic resources beyond the jurisdictional scope of the CWA following a revised definition.

These summaries were shared with state and territorial agencies for corrections, and the agencies welcome further comments to ensure the accuracy of the information.<sup>14</sup>

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<sup>13</sup> 33 CFR 328.3(c) and 40 CFR 232.2.

<sup>14</sup> To date, the EPA has received responses to the assessments from twenty-four states and two territories from all regions of the country. Of those responses, twenty-five were from that state or territory department for the environment or natural resources, and one was from the department of public health.

## 2. ALABAMA

### Definition of Waters of the State:

- All waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership or corporation unless such waters are used in interstate commerce.<sup>15</sup>

### Definition of Wetlands:

- Those areas delineated pursuant to the technical criteria described in the Federal Wetland Delineation Manual that is currently being used by the Corps and/or any updated manual that may be used in the future. Wetlands do not include those areas which exist solely due to man-induced conditions such as roadside ditches or man-made impoundments excepting those areas created as mitigation sites.<sup>16</sup>
- Those areas as defined by the Corps regulations.<sup>17</sup>

### Additional State Conditions and Requirements:

- No limitations identified.

### State Programs:

- Alabama Water Pollution Control Act<sup>18</sup>
  - Under Alabama Water Pollution Control Act, waters within wetlands are by definition waters of the state.
- Alabama Water Resources Act<sup>19</sup>
  - Establishes the Office of Water Resources and the Alabama Water Resources Commission; vests them with powers and responsibilities.
  - The Commission advises on all matters related to waters of the state<sup>20</sup>; establishes, adopts, promulgates, modifies, repeals, and suspends any rules or regulations applicable to the state; advises on policy implementation, plans and programs governing the waters of the state; additional commission member duties.
- Alabama Environmental Management Commission<sup>21</sup>
- Alabama Coastal Area Management Plan<sup>22</sup>
  - Joint effort between Alabama Department of Environmental Management (DEM) and the Alabama Department of Conservation & Natural Resources that ensures the protection and preservation of Alabama's coastal resources.

### 303 Water Quality Standards:

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<sup>15</sup> Ala. Code section 22-22-1(2).

<sup>16</sup> Ala. Admin. Code r. 335-8-1-.02(nnn).

<sup>17</sup> Ala. Admin. Code r. 335-13-1-.03(146).

<sup>18</sup> Ala. Code sections 22-22 *et seq.*

<sup>19</sup> Ala. Code sections 9-10B-1 *et seq.*

<sup>20</sup> Exceptions for certain waters provided at Ala. Code section 9-10B-2(7).

<sup>21</sup> Ala. Code section 22-22A-6.

<sup>22</sup> Ala. Admin. Code r. 335-8-1.01 *et seq.*

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 4 in coordination with the state of Alabama.
- Facilities with aboveground storage tanks must register with state, completing a form with location, tanks capacity, substance store and use. State has a spill trust fund, and facilities must comply with state of Alabama DEM code and 40 CFR part 112 to be eligible to access trust fund.<sup>23</sup>
- State code authorizes cost recovery for spills and related damages.<sup>24</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Alabama. The state issues its permits through the Alabama DEM. Alabama has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Alabama does not have an authorized biosolids program.<sup>25</sup>
- EPA has issued one NPDES permit for aquaculture in offshore waters.<sup>26</sup>

#### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in coastal waters and wetlands.<sup>27</sup>
- Relies on federal permitting authority and CWA section 401.

*Table 9. Alabama Wetland Program Summary*

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal			X	
State Issues Permits for Dredged and Fill Activities	X			Coastal only
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Program development in progress (as of 2015)

*Source: Alabama State Wetland Program Summary (2015) Status and Trends Report*

<sup>23</sup> Ala. Admin. Code chapter 335-6-15.

<sup>24</sup> Ala. Code section 22-22-9.

<sup>25</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>26</sup> EPA, Alabama NPDES Permits, available at <https://www.epa.gov/npdes-permits/alabama-npdes-permits>.

<sup>27</sup> Ala. Admin. Code r. 335-8-2-.02. State regulations require mitigation through the creation or restoration of wetlands when there are wetland impacts resulting from an approved project. Ala. Admin. Code r. 335-8-2-.03.

### 3. ALASKA

#### Definition of Waters of the State:

- Lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, straits, passages, canals, the Pacific Ocean, Gulf of Alaska, Bering Sea, and Arctic Ocean, in the territorial limits of the state, and all other bodies of surface or underground water, natural or artificial, public or private, inland or coastal, fresh or salt, which are wholly or partially in or bordering the state or under the jurisdiction of the state.<sup>28</sup>

#### Definitions of Wetlands:

- *Freshwater wetlands*: environments characterized by rooted vegetation that is partially submerged either continuously or periodically by surface freshwater with less than 0.5 ppt salt content and not exceeding three meters in depth.<sup>29</sup>
- *Saltwater wetlands*: coastal areas along sheltered shorelines characterized by halophilic hydrophytes and macro algae extending from extreme low tide to an area above extreme high tide that is influenced by sea spray or tidally induced water table changes.<sup>30</sup>

#### Additional State Conditions and Requirements:

- No limitations identified.

#### State Programs:

- Alaska Coastal Zone Management Act<sup>31</sup>
- Alaska Land Act<sup>32</sup>
  - Includes wetlands in regulated public lands.
- Habitat Protection Program<sup>33</sup>
  - Permits required for projects that may impact anadromous fish habitat which can be found in some types of wetlands.

#### 303 Water Quality Standards:

- Has EPA-approved WQS.<sup>34</sup>

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 10 in coordination with the state of Alaska.
- Facilities with small aboveground storage tanks are regulated by State Fire Marshal. State regulates facilities with larger storage capacities (>420,000 gallons for refined

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<sup>28</sup> Alaska Stat. section 46.03.900(37).

<sup>29</sup> Alaska Admin. Code tit. 6, section 80.900(19).

<sup>30</sup> *Id.*

<sup>31</sup> Alaska Stat. section 46.40; Alaska Admin. Code tit. 6, sections 50, 80, 85.

<sup>32</sup> Alaska Stat. section 38.05.

<sup>33</sup> Alaska Stat. sections 16.05.871-874.

<sup>34</sup> Antidegradation Policy: Alaska has not designated any Tier 3 waters for the state (or Outstanding National Resource Waters). Outstanding National Resource Waters or Tier 3 waters are provided the highest level of protection under the antidegradation policy of the State of Alaska. Alaska Department of Environmental Conservation, Outstanding National Resource Water (2015), available at [https://dec.alaska.gov/water/wqsar/Antidegradation/docs/Workshop\\_notebook/Tier-3-Fact-Sheet-4-20-15\\_Final.pdf](https://dec.alaska.gov/water/wqsar/Antidegradation/docs/Workshop_notebook/Tier-3-Fact-Sheet-4-20-15_Final.pdf).

products; lower for crude oil); state relies on EPA’s SPCC regulations for facilities (>1,320 up to 420,000 gallons).<sup>35</sup>

- State code authorizes cost recovery for spills and related damages; state has a spill trust fund.<sup>36</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Alaska. The state issues its permits through the Alaska Department of Environmental Conservation. Alaska has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Alaska does not have an authorized biosolids program.<sup>37</sup>
- EPA issues all NPDES permits for federally-owned facilities located in Denali National Park; facilities operating outside State waters (three miles offshore); facilities that have been issued CWA Section 301(h) waivers; and all permits on tribal lands.<sup>38</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.<sup>39</sup>
- Does not issue state permits for dredged and fill activities in waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

Table 10. Alaska Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		Not currently pursuing
Isolated Wetland Permitting		X		
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		

Source: Alaska State Wetland Program Summary (2015) Status and Trends Report

<sup>35</sup> Alaska Admin. Code tit. 18, chapter 75.

<sup>36</sup> Alaska Stat. sections 46.03.822, 46.03.824, 46.03.758-759, 46.08.005 *et seq.*

<sup>37</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>38</sup> EPA, Alaska NPDES Permits, available at <https://www.epa.gov/npdes-permits/alaska-npdes-permits>.

<sup>39</sup> Local governments have adopted wetland management plans & some administer Corps-issued regional general permits; Alaska supports delegating authority to local governments. Alabama State Wetland Program Summary, Alaska (2017), available at <https://www.aswm.org/aswm/58-wetland-programs/state-summaries/state-summaries/750-alaska>.

## 4. AMERICAN SAMOA

### Definition of Waters of the Territory:

- Waters of the United States as defined in 40 CFR 122.2, as well as those that are located within the jurisdiction of the territory.<sup>40</sup>

### Definition of Wetlands:

- Those areas that are inundated or saturated by ground or surface water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include, but are not limited to, swamps, marshes, mangroves, streams, springs, cultivated marshes, and similar areas.<sup>41</sup>

### Additional Territory Conditions and Requirements:

- No limitations identified.

### Territory Programs:

- Territorial Environmental Quality Act
  - It is the public policy of this Territory and the purpose of this chapter to achieve and maintain such levels of air and water quality as will protect human health and safety and to provide for a coordinated Territory-wide program of air and water pollution prevention, abatement, and control.<sup>42</sup>

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

- Territory does not have an aboveground storage tank management or regulatory program and relies on EPA to directly implement federal spill prevention and preparedness regulations.

### 401 Certification:

- The territory has authority to certify, conditionally certify, waive review or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

### 402 NPDES Program:

- EPA issues all NPDES permits within American Samoa.<sup>43</sup>

### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues territory permits for dredged and fill activities in coastal waters and wetlands.<sup>44</sup>
- Relies on federal permitting authority and CWA section 401.

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<sup>40</sup> American Samoa Admin. Code section 24.0201.

<sup>41</sup> *Id.*

<sup>42</sup> American Samoa Code Ann. section 24.0102.

<sup>43</sup> EPA, American Samoa NPDES Permits, available at <https://www.epa.gov/npdes-permits/american-samoa-npdes-permits>.

<sup>44</sup> American Samoa Admin. Code sections 26.0201 *et seq.*

## 5. ARIZONA

### Definition of Waters of the State:

- All waters within the jurisdiction of the state including all perennial or intermittent streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, aquifers, springs, irrigation systems, drainage systems, and other bodies or accumulations of surface, underground, natural, artificial, public or private water situated wholly or partly in or bordering on the state.<sup>45</sup>

### Definition of Wetlands:

- An area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. A wetland includes a swamp, marsh, bog, cienega, tinaja, and similar areas.<sup>46</sup>

### Additional State Conditions and Requirements:

- The Governor's Regulatory Review Council is prohibited from approving a state rule that is more stringent than a corresponding federal law unless there is a statutory authority to exceed the requirements of that federal law.<sup>47</sup>
- Arizona Department of Environmental Quality also must ensure that all state laws, rules, standards, permits, variances, and orders are adopted and construed to be consistent with and no more stringent than the corresponding federal law that addresses the same subject matter.<sup>48</sup>
- Department of Environmental Quality is specifically prohibited from adopting any requirement that is more stringent than the point source permitting requirements under the federal CWA.<sup>49</sup>

### State Programs:

- Arizona Water Initiative<sup>50</sup>
  - Water planning initiative for the state to maintain a sustainable water supply; involves AZ Department of Water Resources and works with stakeholders to address planning areas, water conservation opportunities and infrastructure needs.

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 9 in coordination with the state of Arizona.
- Facilities with aboveground storage tanks must register with State Fire Marshal.<sup>51</sup>

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<sup>45</sup> Ariz. Rev. Stat. section 49-201(41).

<sup>46</sup> Ariz. Admin. Code section 18-11-101(49).

<sup>47</sup> Ariz. Rev. Stat. section 41-1052.

<sup>48</sup> Ariz. Rev. Stat. section 49-104.

<sup>49</sup> Ariz. Rev. Stat. section 49-203.

<sup>50</sup> ADWR, 2017. Arizona Water Initiative, available at <https://new.azwater.gov/water-initiative>.

<sup>51</sup> Ariz. Admin. Code sections 4-36-201 *et seq.*

- State code authorizes cost recovery for spills and related damages; state has a spill trust fund.<sup>52</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Arizona. The state issues its permits through the Arizona Department of Environmental Quality. Arizona has an authorized state NPDES permit program, state pretreatment program, general permits program, biosolids program, and is authorized to regulate federal facilities.<sup>53</sup>
- EPA issues all NPDES permits on tribal lands.<sup>54</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.<sup>55</sup>
- Does not issue state permits for dredged and fill activities in waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

*Table 11. Arizona Wetland Program Summary*

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal			X	
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Possibly monitor through other non-wetland monitoring programs

*Source: ASWM (2015) Status and Trends Report*

## 6. ARKANSAS

Definition of Waters of the State:

- All streams, lakes, marshes, ponds, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and

<sup>52</sup> Ariz. Rev. Stat. sections 49-285, 49-262, 49-282.

<sup>53</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>54</sup> EPA, Arizona NPDES Permits, available at <https://www.epa.gov/npdes-permits/arizona-tribal-lands-npdes-permits-excluding-navajo-nation>.

<sup>55</sup> Arizona Department of Environmental Quality is actively pursuing 404 assumption; plans to submit an assumption application package in March 2019.

underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion of the state.<sup>56</sup>

#### Definition of Wetlands:

- An area that has water at or near the surface of the ground at some time during the growing season (wetland hydrology). It contains plants that are adapted to wet habitats (hydrophytic vegetation) and is made up of soils that have developed under wet conditions (hydric soils) or any other definition promulgated by the Commission.<sup>57</sup>

#### Additional State Conditions and Requirements:

- The Arkansas Pollution Control and Ecology Commission is subject to stringency requirements; prior to promulgating certain rules and regulations that are more stringent than federal requirements the Commission must consider its economic impact on and environmental benefit for the people of Arkansas.<sup>58</sup>

#### State Programs:

- Regulation for the Prevention of Pollution by Salt Water and other Oil Field Wastes Produced by Wells in All Fields or Pools<sup>59</sup>
  - Water law that applies to all oil and gas wells in existing fields or pools and to waters of the state.
- Regulation to Require a Disposal Permit for Real Estate Subdivisions in Proximity to Lakes and Streams.<sup>60</sup>
- Arkansas Wetland Mitigation Bank Act<sup>61</sup>
  - State acquires degraded wetlands, restores wetland functions, and sells credits to section 404 permittees (for compensatory mitigation).
- Arkansas Private Wetland and Riparian Zone Creation and Restoration Incentive Act<sup>62</sup>
  - Creates a tax credit program targeted to private land owners.
- The Multi-Agency Wetland Planning Team
  - Consortium of Arkansas state agencies that work together on wetland restoration and conservation; this is a non-regulatory initiative.

#### 303 Water Quality Standards:

- Has EPA-approved WQS.<sup>63</sup>

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<sup>56</sup> Ark. Code section 8-4-102(10).

<sup>57</sup> Ark. Code R. 138.00.07-003, available at <http://170.94.37.152/REGS/138.00.07-003F-9429.pdf>.

<sup>58</sup> ELI, 2013. State Constraints: State-Imposed Limitations on the Authority of Agencies to Regulate Waters Beyond the Scope of the Federal CWA, available at <https://www.eli.org/sites/default/files/eli-pubs/d23-04.pdf>.

<sup>59</sup> Arkansas Pollution Control and Ecology Commission, 1993. Regulation No. 1, available at [https://www.adeq.state.ar.us/regs/files/reg01\\_final\\_930316.pdf](https://www.adeq.state.ar.us/regs/files/reg01_final_930316.pdf).

<sup>60</sup> Arkansas Pollution Control and Ecology Commission, 1973. Regulation No. 4, available at [https://www.adeq.state.ar.us/regs/files/reg04\\_final\\_730707.pdf](https://www.adeq.state.ar.us/regs/files/reg04_final_730707.pdf).

<sup>61</sup> Ark. Code section 15-22-1001 *et seq.*

<sup>62</sup> Ark. Code section 26-51-1501 *et seq.*

<sup>63</sup> Unless otherwise indicated in Chapter 4: General Standards, or in Appendix A, the general standards outlined in Arkansas's WQS (Regulation No. 2) are applicable to all surface waters of the State at all times. They apply specifically with regard to substances attributed to discharges, nonpoint sources or instream activities as opposed to natural phenomena. Waters may, on

311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 6 in coordination with the state of Arkansas.
- Facilities with aboveground storage tanks must register tanks with the state and are subject to inspection by the state.<sup>64</sup>
- State code authorizes cost recovery for spills and related damages; state has a spill trust fund.<sup>65</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Arkansas. The state issues its permits through the Arkansas Department of Environmental Quality. Arkansas has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Arkansas does not have an authorized biosolids program.<sup>66</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Does not issue state permits for dredged and fill activities in waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

*Table 12. Arkansas Wetland Program Summary*

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal			X	
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Applies existing WQS for surface waters to wetlands (not wetland-specific).
Wetland Monitoring & Assessment Program		X		Possibly monitor through other non-wetland monitoring programs

*Source: ASWM (2015) Status and Trends Report*

occasion, have natural background levels of certain substances outside the limits established by these criteria, in which case these criteria do not apply.

<sup>64</sup> Arkansas Pollution Control and Ecology Commission, 2014. Regulation No. 12, available at [https://www.adeg.state.ar.us/regs/files/reg12\\_final\\_20140714.pdf](https://www.adeg.state.ar.us/regs/files/reg12_final_20140714.pdf).

<sup>65</sup> Ark. Code sections 8-4-103, 8-7-514, 8-7-509.

<sup>66</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

## 7. CALIFORNIA

### Definition of Waters of the State:

- Any surface water or groundwater, including saline waters, within boundaries of the State.<sup>67</sup>

### Definitions of Wetlands:

- There is no single accepted definition of wetlands agreed upon by the California Water Boards;
  - The proposed State Wetland Definition and Procedures for the Discharge of Dredged or Fill Material to Waters of the State<sup>68</sup> states:
    - An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.
    - The draft rule goes on to define which wetlands are waters of the state.
- Under the California Coastal Act, wetlands are: lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.<sup>69</sup>
- The California Coastal Commission provides a further definition of coastal wetlands: land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include types of wetland where vegetation is lacking and soil is poorly developed or absent as a result of frequent drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentration of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some during each year and their location within, or adjacent to vegetated wetland or deepwater habitats.<sup>70</sup>

### Additional State Conditions and Requirements:

- No limitations identified

### State Programs:

- Porter-Cologne Water Quality Control Act:<sup>71</sup>
  - Primary legislation regarding water quality protection for the state; incorporates NPDES requirements and section 401 certification, WQS, and applies to all waters of the state.

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<sup>67</sup> Cal. Wat. Code section 13050(e).

<sup>68</sup> See Draft at [https://www.waterboards.ca.gov/water\\_issues/programs/cwa401/wrapp.shtml](https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.shtml).

<sup>69</sup> Cal. Proc. Code section 30121.

<sup>70</sup> Cal. Code Regs. tit. 14 section 13577(b)(1).

<sup>71</sup> Cal. Wat. Code sections 13000 *et seq.*

- It established a program to protect water quality and water usage and applies to surface water, wetlands, and ground water, and to both point source and nonpoint source pollution.
- Established nine Regional Water Boards and the State Water Board which implement the Act, protect water quality of the state, and also implement many of the federal CWA programs.
- California Coastal Act:<sup>72</sup>
  - Provides conservation and planned development for the coastal zone.
  - Prohibits dredged and fill activities in coastal wetlands (with exception of low impact allowable uses such as restoration or research); no “coastal-dependent development” is permitted in wetlands; California Coastal Act authorizes local governments to administer coastal development permits if they have a Local Coastal Program.
- State Water Board Antidegradation Policy<sup>73</sup>
  - This is formally known as the ‘Statement of Policy with Respect to Maintaining High Quality Waters in California’ and it restricts degradation of surface and ground waters.
- McAtter-Petris Act<sup>74</sup>
  - Establishes regulations for San Francisco Bay resources, including wetlands.

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 9 in coordination with the state of California.
- Facilities with aboveground storage tanks are regulated by the State Fire Marshal by state code are required to register tanks. State inspects facilities with total storage capacities above 10,000 gallons. All subject facilities required to comply with EPA’s regulation, 40 CFR part 112.<sup>75</sup>
- State code authorizes cost recovery for spills and related damages; state has a spill trust fund.<sup>76</sup>

### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

### 402 NPDES Program:

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<sup>72</sup> Cal. Proc. Code sections 30000 *et seq.*

<sup>73</sup> California EPA, 2018. Federal, State and Local Laws, Policy and Regulations, available at [https://www.waterboards.ca.gov/water\\_issues/programs/nps/encyclopedia/0a\\_laws\\_policy.shtml](https://www.waterboards.ca.gov/water_issues/programs/nps/encyclopedia/0a_laws_policy.shtml).

<sup>74</sup> Cal. Gov. Code sections 66650 *et seq.*

<sup>75</sup> Cal. Health and Safety Code sections 25270 *et seq.*

<sup>76</sup> Cal. Gov. Code sections 8670.56.5, 8670.66, 8670.67, 8670.46, 8670.48.

- EPA has delegated authority to issue NPDES permits to the state of California. The state issues its permits through the California EPA. California has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. California does not have an authorized biosolids program.<sup>77</sup>
- EPA issues all NPDES permits on tribal lands and for any discharges into federal ocean waters.<sup>78</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in waters and wetlands.<sup>79</sup>

Table 13. California Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			In addition, has a formal “Net Gain/Increase” goal
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting	X <sup>80</sup>			Proposed WOTS definition would regulate all "natural wetlands," presumably including isolated wetlands.
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Interagency wetlands monitoring workgroup is aiming to develop statewide monitoring and assessment capabilities as part of 2017-22 WPP. Regional Board 2 (SF Bay) is currently working to develop a wetlands monitoring program.

Source: ASWM (2015) Status and Trends Report

## 8. COLORADO

Definition of Waters of the State:

- Any and all surface and subsurface waters which are contained in or flow in or through this state, but does not include waters in sewage systems, waters in treatment works of

<sup>77</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>78</sup> EPA, NPDES Permits in California, available at <https://www.epa.gov/npdes-permits/npdes-permits-california-excluding-tribal-permits>.

<sup>79</sup> Cal. Wat. Code sections 13000 *et seq.* (dredging and filling constitutes a discharge of waste to waters of the state); Cal. Prc. Code sections 30000 *et seq.* (protection of coastal wetlands from dredged and fill activities); See also Memorandum from Celeste Cantu, Executive Director, California Environmental Protection Agency to Regional Board Executive Officers (Jun. 2, 2004), available at [http://www.swrcb.ca.gov/water\\_issues/programs/cwa401/docs/isol\\_waters\\_guid.pdf](http://www.swrcb.ca.gov/water_issues/programs/cwa401/docs/isol_waters_guid.pdf).

<sup>80</sup> Memorandum from Celeste Cantu, Executive Director, California Environmental Protection Agency to Regional Board Executive Officers (Jun. 2, 2004), available at [http://www.swrcb.ca.gov/water\\_issues/programs/cwa401/docs/isol\\_waters\\_guid.pdf](http://www.swrcb.ca.gov/water_issues/programs/cwa401/docs/isol_waters_guid.pdf); ELI, 2013. State Constraints: State-Imposed Limitations on the Authority of Agencies to Regulate Waters Beyond the Scope of the Federal Clean Water Act, available at <https://www.eli.org/sites/default/files/eli-pubs/d23-04.pdf>.

disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed.<sup>81</sup>

#### Definition of Wetlands:

- Those areas that are inundated or saturated by surface or groundwater 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.<sup>82</sup>

#### Additional State Conditions and Requirements:

- The Colorado Department of Public Health and Environment is prohibited from requiring permits for irrigation flows (or return flows), or permits for various kinds of agricultural waste, except as required by the federal CWA. Where permits are required, their provisions cannot be more stringent than what is required by the federal CWA.<sup>83</sup>
- State imposes limitations regarding water quality provisions with respect to the right to divert and use water.<sup>84</sup>
- The Water Quality Control Commission may adopt rules more stringent than corresponding enforceable federal requirements only if it is demonstrated at a public hearing, and the commission finds, based on sound scientific or technical evidence in the record, that state rules more stringent than the corresponding federal requirements are necessary to protect the public health, beneficial use of water, or the environment of the state. Those findings shall be accompanied by a statement of basis and purpose referring to and evaluating the public health and environmental information and studies contained in the record which form the basis for the commission's conclusion. The existing policies, rules, and regulations of the commission and division shall be applied in conformance with section 25-8-104 and this section.<sup>85</sup>

#### State Programs:

- Waters of the state are administered by the Colorado Division of Water Resources (DWR).
- Water Quality Control Commission administers the Water Quality Control Act.<sup>86</sup>
- Protection of Fishing Streams Program<sup>87</sup>
  - Requires state agencies to obtain wildlife certification from Colorado Parks and Wildlife prior to altering the bed or banks of a natural stream. Construction plans are reviewed by Colorado Parks and Wildlife to minimize project design impacts to the stream and ensure best management practices will be followed to minimize erosion and control sediment runoff into the stream.

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<sup>81</sup> Colo. Rev. Stat. section 25-8-103(19).

<sup>82</sup> 5 Code Colo. Regs. 1002-31.5(51).

<sup>83</sup> Colo. Rev. Stat. section 25-8-504.

<sup>84</sup> Colo. Rev. Stat. section 25-8-104.

<sup>85</sup> Colo. Rev. Stat. section 25-8-202(8).

<sup>86</sup> State of Colorado, 2018. Water Quality Control Commission Regulations, available at <https://www.colorado.gov/pacific/cdphe/water-quality-control-commission-regulations>.

<sup>87</sup> Colo. Rev. Stat. section 33-5-101-107.

- Classifications and standards<sup>88</sup>
- Pollutant discharge<sup>89</sup>
- Colorado Oil and Gas Conservation Commission<sup>90</sup>

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 8 in coordination with the state of Colorado.
- State aboveground storage tank regulations apply to tanks with capacities greater than 660 gallons and less than 40,000 gallons; tanks at crude oil production and mining facilities are exempt. Regulations require permits, registration and facility inspection.<sup>91</sup>
- State code authorizes cost recovery for spills and related damages; state has a spill trust fund.<sup>92</sup>

### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Colorado. The state issues its permits through the Colorado Department of Public Health & Environment. Colorado has an authorized state NPDES permit program and general permits program. Colorado does not have an authorized biosolids program, state pretreatment program, and is not authorized to regulate federal facilities.<sup>93</sup>
- EPA issues all NPDES permits on tribal lands.<sup>94</sup>

### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Does not issue state permits for dredged and fill activities in waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

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<sup>88</sup> Colo. Rev. Stat. section 25-8-207.

<sup>89</sup> Colo. Rev. Stat. section 25-8-501.

<sup>90</sup> Colo. Rev. Stat. section 34-60-130.

<sup>91</sup> 7 Code Colo. Regs. 1101-14.

<sup>92</sup> Colo. Rev. Stat. sections 34-60-121, 34-60-124.

<sup>93</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>94</sup> EPA, Colorado NPDES Permits (2017) available at <https://www.epa.gov/npdes-permits/colorado-npdes-permits>.

Table 14. Colorado Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Informal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Wetland-specific WQS
Wetland Monitoring & Assessment Program		X		Conducts project-specific M&A only

Source: ASWM (2015) Status and Trends Report; Colorado DPHE, email, March 19, 2018

## 9. THE COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

### Definitions of Waters of the Territory:

- All marine, fresh water bodies, and ground water in the Commonwealth.<sup>95</sup>
- Commonwealth or state waters means all waters, fresh, brackish, or marine, including wetlands, surrounding or within the Commonwealth.<sup>96</sup>

### Definition of Wetlands:

- Areas that are inundated or saturated by surface or groundwater with a frequency sufficient to support a prevalence of plant or aquatic life that requires seasonally saturated soil conditions for growth and/or reproduction. Wetlands include swamps, marshes, mangroves, lakes, natural ponds, surface springs, streams, estuaries and similar areas in the Northern Mariana Islands archipelago. Wetlands include both wetlands connected to other waters and isolated wetlands. Wetlands do not include those artificial wetlands intentionally created to provide treatment of wastewater or stormwater runoff.<sup>97</sup>

### Additional Territory Conditions and Requirements:

- No limitations identified.

### Territory Programs:

- Commonwealth Environmental Protection Act<sup>98</sup>
  - Protects the right of each person to a clean and healthful public environment.
- Commonwealth Environmental Amendments Act.<sup>99</sup>
- Commonwealth Groundwater Management and Protection Act.<sup>100</sup>

### 303 Water Quality Standards:

- Has EPA-approved WQS.

<sup>95</sup> NMIAC section 65-130-001.

<sup>96</sup> NMIAC section 65-130-015(l).

<sup>97</sup> Commonwealth of the Northern Mariana Islands Admin. Code section 65-130-015(aa).

<sup>98</sup> 2 Commonwealth of the Northern Mariana Islands Code sections 3103 *et seq.*

<sup>99</sup> Commonwealth of the Northern Mariana Islands Public Law 11-103.

<sup>100</sup> 2 Commonwealth of the Northern Mariana Islands Code sections 3311 *et seq.*

#### 311 Oil Spill Prevention, Preparedness and Response:

- Territory has prescriptive aboveground storage tank regulations, incorporating the Uniform Fire Code, industry standards, and spill prevention requirements.<sup>101</sup>

#### 401 Certification:

- The territory has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA issues all NPDES permits within the Commonwealth of the Northern Mariana Islands.<sup>102</sup>

#### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues territory permits for dredged and fill activities in coastal waters and wetlands.<sup>103</sup>
- Relies on federal permitting authority and CWA section 401.

## 10. CONNECTICUT

#### Definition of Waters of the State:

- All tidal waters, harbors, estuaries, rivers, brooks, watercourses, waterways, wells, springs, lakes, ponds, marshes, drainage systems, and all other surface or underground streams, bodies, or accumulations of water, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion thereof.<sup>104</sup>

#### Definitions of Wetlands:

- The term wetlands refers to freshwater wetlands under the Under the Inland Wetlands and Watercourses Act and refers to tidal wetlands under the Tidal Wetlands Act.
- Tidal Wetlands Act: those areas which border on or lie beneath tidal waters, such as, but not limited to banks, bogs, salt marsh, swamps, meadows, flats, or other low lands subject to tidal action including those areas now or formerly connected to tidal waters, and whose surface is at or below an elevation of one foot above local extreme high water; and upon which may grow or be capable of growing some, but not necessarily all, of the following species.<sup>105</sup>
- Inland Wetlands and Watercourses Act: land, including submerged land, not regulated pursuant to sections 22a-28 to 22a-35, inclusive, which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the

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<sup>101</sup> Commonwealth of the Northern Mariana Islands Admin. Code sections 65-5-001 *et seq.*

<sup>102</sup> EPA, Commonwealth of the Northern Mariana Islands NPDES Permits, available at <https://www.epa.gov/npdes-permits/commonwealth-northern-mariana-islands-mpdes-permits>.

<sup>103</sup> Commonwealth of the Northern Mariana Islands Admin. Code sections 15-10-001 *et seq.*

<sup>104</sup> Conn. Gen. Stat. section 22a-423.

<sup>105</sup> Conn. Gen. Stat. section 22a-29.

National Cooperative Soils Survey, as may be amended from time to time, of the Natural Resources Conservation Service of the United States Department of Agriculture.<sup>106</sup>

Additional State Conditions and Requirements:

- No limitations identified

State Programs:

- Inland Wetlands and Watercourses Act<sup>107</sup>
- Tidal Wetlands Act<sup>108</sup>
- Coastal Management Act<sup>109</sup>
- Structures, Dredging and Fill Statutes<sup>110</sup>

303 Water Quality Standards:

- Has EPA-approved WQS.

311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 1 in coordination with the state of Connecticut.
- Connecticut does not have any specific rules governing aboveground storage tanks. Connecticut's Flammable and Combustible Liquids Code adopts by reference the National Fire Protection Association standards that govern aboveground storage tank design, installation, upgrade, repair, and closure. The requirements are administered locally.<sup>111</sup>
- State code authorizes cost recovery for spills and related damages; state does not have a spill trust fund covering aboveground storage tanks.<sup>112</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Connecticut. The state issues its permits through the Connecticut Department of Energy and Environmental Protection. Connecticut has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Connecticut does not have an authorized biosolids program.<sup>113</sup>

404 Dredged and Fill Permitting:

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<sup>106</sup> Conn. Gen. Stat. section 22a-38.

<sup>107</sup> Conn. Gen. Stat. sections 22a-36 *et seq.*

<sup>108</sup> Conn. Gen. Stat. sections 22a-28 *et seq.*

<sup>109</sup> Conn. Gen. Stat. sections 22a-90 *et seq.*

<sup>110</sup> Conn. Gen. Stat. sections 22a-359 *et seq.*

<sup>111</sup> Conn. Gen. Stat. sections 29-291 *et seq.*

<sup>112</sup> Conn. Gen. Stat. sections 22a-438, 22a-452.

<sup>113</sup> EPA, Connecticut NPDES Permits, available at <https://www.epa.gov/npdes-permits/connecticut-npdes-permits>.

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in waters and wetlands.<sup>114</sup>

Table 15. Connecticut Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal			X	
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting	X			All resources which meet the definition of a wetland are regulated by the state
State Wetland Permitting Fees	X			For activities in tidal wetlands, fees are required for Structures and Dredging permits; and, for activities in inland (freshwater) wetlands, fees vary by municipality. Fees are not required for CT state agency projects or projects on CT state lands.
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetlands Monitoring & Assessment Program		X		

Source: ASWM (2015) Status and Trends Report

## 11. DELAWARE

### Definition of Waters of the State:

- All water, on the surface and under the ground, wholly or partially within, or bordering the State of Delaware, or within its jurisdiction including but not limited to: (a) Waters which are subject to the ebb and flow of the tide including, but not limited to, estuaries, bays and the Atlantic Ocean; (b) All interstate waters, including interstate wetlands; (c) All other waters of the State, such as lakes, rivers, streams (including intermittent and ephemeral streams), drainage ditches, tax ditches, creeks, mudflats, sandflats, wetlands, sloughs, or natural or impounded ponds; (d) All impoundments of waters otherwise defined as waters of the State under this definition; and (e) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in (a) through (d). Waste and stormwater treatment systems including, but not limited to, treatment ponds or lagoons designed to meet the requirements of the Act (other than cooling ponds which otherwise meet the requirements of subsection (1) of this definition) are not “State waters” or “Waters of the State.”<sup>115</sup>

### Definitions of Wetlands:

- Those 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

<sup>114</sup> Conn. Gen. Stat. section 22a-42a. Inland wetlands are primarily regulated at the municipal level by Municipal Inland Wetland Agencies under the Inland Wetlands and Watercourses Act; activities by state agencies or on state land are regulated by Connecticut Department of Energy and Environmental Protection – Land and Water Resources Division. Conn. Gen. Stat. sections 22a-36 *et seq.* Conn. Gen. Stat. section 22a-361 (regulates costal waters and wetlands).

<sup>115</sup> 7-7201 Del. Admin. Code 2.0.

prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bog and similar areas.<sup>116</sup>

- Under the Subaqueous Lands Act, “submerged lands” and “tidelands”: Submerged lands means (1) lands lying below the line of mean low tide in the beds of all tidal waters within the boundaries of the State; (2) Lands lying below the plane of the ordinary high water mark of nontidal rivers, streams, lakes, ponds, bays and inlets within the boundaries of the State as established by law; and (3) Specific manmade lakes or ponds as designated by the Secretary. Tidelands include lands lying between the line of mean high water and the line of mean low water.<sup>117</sup>
- Under the Delaware Wetlands Act<sup>118</sup> and Wetlands Regulations<sup>119</sup>: Those lands above the mean low water elevation including any bank, marsh, swamp, meadow, flat or other low land subject to tidal action in the State of Delaware along the Delaware Bay and Delaware River, Indian River Bay, Rehoboth Bay, Little and Big Assawoman Bays, the coastal inland waterways, or along any inlet, estuary or tributary waterway or any portion thereof, including those areas which are now or in this century have been connected to tidal waters, whose surface is at or below an elevation of two feet above local mean high water, and upon which may grow or is capable of growing any but not necessarily all of the following plants...

#### Additional State Conditions and Requirements:

- No limitations identified.

#### State Programs:

- Subaqueous Lands Act<sup>120</sup>
  - Permit required for depositing material upon, removing or extracting materials from, or constructing, modifying, repairing or reconstructing or occupying any structure or facility on submerged lands.
  - Activities in ephemeral channels (wet for only a short period of time after a rain event), roadside ditches, lateral or grid ditches in agricultural fields, and isolated ponds that are not connected to other surface waters, are not regulated.<sup>121</sup>
  - Delaware regulates all tidal waters as well as all non-tidal rivers, streams, lakes, ponds, bays and inlets.<sup>122</sup>
- Tidal Wetlands Act<sup>123</sup>

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<sup>116</sup> *Id.*

<sup>117</sup> Del. Code tit. 7, section 7202(h), (i).

<sup>118</sup> Del. Code tit. 7, section 6601 *et seq.*

<sup>119</sup> 7-7502 Del. Admin. Code 5.0.

<sup>120</sup> Del. Code tit. 7, section 7201 *et seq.*

<sup>121</sup> DNREC, 2018. Wetlands and Subaqueous Lands Section: What is Regulated and Where Is It Regulated? Available at <http://www.dnrec.delaware.gov/wr/Information/regulations/Pages/WLSL%20What%27s%20Regulated.aspx>.

<sup>122</sup> In practice, Delaware’s jurisdiction in non-tidal streams typically includes perennial and intermittent watercourses. Many of the “ditches” found in Delaware are really streams that have been relocated, straightened, enlarged or otherwise modified by humans at some point over the past 200 years. Such “ditches” which were historically streams, are also typically regulated by DNREC. Delaware DNREC, email, March 26, 2018.

<sup>123</sup> Del. Code tit. 7, section 6601 *et seq.*

- All tidal wetlands as well as those non-tidal wetlands that include 400 or more contiguous acres are regulated by the State; the activities regulated in wetlands (that require a permit) include dredging, draining, filling, construction, bulk heading, mining, drilling and excavation.<sup>124</sup>
- By law, tidal wetlands regulated by the State of Delaware are depicted on State Wetland Maps. This specified mapping to identify regulated tidal wetlands is substantially different than the federal jurisdictional determination process. Changing the existing Delaware process would require substantial political and administrative resources which is not possible now or in the foreseeable future.
- Delaware Wetlands Act<sup>125</sup>
  - Permit required for all activities in a wetland except for exempted activities. (Exemptions include mosquito control activities, construction of directional aids to navigation, duck blinds, foot bridges, boundary stakes, wildlife nesting structures, grazing, haying, hunting, fishing and trapping).
  - Provides clarity and specificity to regulated activities of the Tidal Wetlands Act.

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 3 in coordination with the state of Delaware.
- Facilities with aboveground storage tanks greater than 250 gallons must register with state; additional technical requirements and fees apply based on tank size.<sup>126</sup>
- State code authorizes cost recovery for spills and related damages; state does not have a spill trust fund covering aboveground storage tanks.<sup>127</sup>

### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Delaware. The state issues its permits through the Delaware Department of Natural Resources (DNR) and Environmental Control. Delaware has an authorized state NPDES permit program and

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<sup>124</sup> Although the Tidal Wetlands Act refers to “non-tidal wetlands that include 400 or more contiguous acres”, this provision has never been instituted or used to regulate any non-tidal wetlands in by the State of Delaware. Delaware DNREC, email, March 26, 2018.

<sup>125</sup> Del. Code tit. 7, section 6601 *et seq.*; 7 Del. Admin. Code 7502.

<sup>126</sup> 7-1352 Del. Admin. Code 1.0 *et seq.*

<sup>127</sup> Del. Code tit. 7, sections 6205, 6207.

state general permits program. Delaware does not have an authorized biosolids program, pretreatment program, and is not authorized to regulate federal facilities.<sup>128</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.<sup>129</sup>
- Issues state permits for dredged and fill activities in tidal waters and wetlands.<sup>130</sup>
- Relies on federal permitting authority and CWA section 401.

Table 16. Delaware Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			<b>YES:</b> In Chesapeake Bay drainage only (30% of state) Delaware (along with, among others, Maryland, Virginia, West Virginia and Pennsylvania) is one of the signatories to the Chesapeake Bay 2014 Agreement, which includes the following outcome for wetlands within the Chesapeake Bay watershed (which includes portions of Delaware): “Continually increase the capacity of wetlands to provide water quality habitat benefits throughout the watershed. Create or re-establish 85,000 acres of tidal and non-tidal wetlands and enhance the function of an additional 150,000 acres of degraded wetlands by 2025. However, due to fixed tidal wetland maps, permitted losses, and natural wetland loss (coastal), Delaware is a net-loss state.
State Issues Permits for Dredged and Fill Activities	X			Tidal Only
404 Assumption		X		Not currently working toward assumption.
Isolated Wetland Permitting		X		
State Wetland Permitting Fees	X			For tidal wetlands only
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific) and only when there is a federal permit action (issued together)
Wetland Monitoring & Assessment Program	X			Assessment methodologies developed

Source: ASWM (2015) Status and Trends Report; Delaware DNREC, email, March 26, 2018

## 12. DISTRICT OF COLUMBIA

Definition of Waters of the District:

- Flowing and still bodies of water, whether artificial or natural, whether underground or on land, so long as in the District of Columbia, but excludes water on private property prevented from reaching underground or land watercourses, and also excludes water in closed collection or distribution systems.<sup>131</sup>

Definition of Wetlands:

<sup>128</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>129</sup> Two state programmatic general permits for impacts associated with piers, docks, mooring piles, boat lifts, breakwaters, etc.

<sup>130</sup> Del. Code tit. 7, sections 7201 *et seq.*, 6601 *et seq.*

<sup>131</sup> D.C. Code section 8-103.01(26).

- A marsh, swamp or other area periodically inundated by tides or having saturated soil conditions for prolonged periods of time and capable of supporting aquatic vegetation.<sup>132</sup>

Additional District Conditions and Requirements:

- No limitations identified.

District Programs:

- Erosion & Sediment Control<sup>133</sup>
- Stormwater Management<sup>134</sup>
- Construction, Repair and Dredging Program<sup>135</sup>

303 Water Quality Standards:

- Has EPA-approved WQS.

311 Oil Spill Prevention, Preparedness and Response:

- Aboveground storage tanks are primarily regulated by the DC Fire Building Officials and Code Administrators (BOCA) codes administered by the Fire Prevention Branch of DC Fire and Emergency Medical Services. DC does not have authority to regulate aboveground storage tank operations or the release of petroleum products from aboveground storage tanks, and relies on EPA to directly implement federal spill prevention and preparedness regulations.<sup>136</sup>

401 Certification:

- The District has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA issues all NPDES permits in the District of Columbia.<sup>137</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues district permits for dredged and fill activities shoreward of the bulkhead line.<sup>138</sup>
- Relies on federal permitting authority and CWA section 401.

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<sup>132</sup> *Id.*

<sup>133</sup> D.C. Mun. Regs., tit. 21, sections 540 *et seq.*

<sup>134</sup> D.C. Mun. Regs., tit. 21, sections 516 *et seq.*

<sup>135</sup> D.C. Mun. Regs., tit. 21, section 600.

<sup>136</sup> D.C. Department of Energy & Environment, Underground Storage Tanks, available at <https://doee.dc.gov/service/underground-storage-tanks-faqs>.

<sup>137</sup> EPA, District of Columbia NPDES Permits, available at <https://www.epa.gov/npdes-permits/district-columbia-npdes-permits>.

<sup>138</sup> D.C. Mun. Regs., tit. 21, section 600.

Table 17. D.C. Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			D.C. (along with, among others, Maryland, Pennsylvania, Delaware, Virginia and West Virginia) is one of the signatories to the Chesapeake Bay 2014 Agreement, which includes the following outcome for wetlands within the Chesapeake Bay watershed (which includes D.C.)
State Issues Permits for Dredged and Fill Activities	X			Not specific to wetlands
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees			X	
WQS for Wetlands	X			In a wetland, the numerical and the narrative criteria shall be applied to the column of water above the wetland in accordance with the designated use; Wetlands with rooted vascular aquatic vegetation, except those specifically constructed or created as waste water treatment devices and except as provided in D.C. Official Code sections 8-103.03(d) and 8-103.06(a)(3), shall be protected from significant adverse hydrologic modifications, excessive sedimentation, deposition of toxic substances in toxic amounts, nutrient imbalances, and other adverse anthropogenic impacts <sup>139</sup>
Monitoring & Assessment Program	X			

Source: EPA Region 3

### 13. FLORIDA

#### Definitions of Waters of the State:

- Waters include, but are not limited to, rivers, lakes, streams, springs, impoundments, wetlands, and all other waters or bodies of water, including fresh, brackish, saline, tidal, surface, or underground waters. Waters owned entirely by one person other than the state are included only in regard to possible discharge on other property or water. Underground waters include, but are not limited to, all underground waters passing through pores of rock or soils or flowing through in channels, whether manmade or natural. Solely for purposes of s. 403.0885, waters of the state also include navigable waters or waters of the contiguous zone as used in s. 502 of the CWA, as amended, 33 U.S.C. ss. 1251 et seq., as in existence on January 1, 1993, except for those navigable waters seaward of the boundaries of the state set forth in s. 1, Art. II of the State Constitution.<sup>140</sup>
- Any and all water on or beneath the surface of the ground or in the atmosphere, including natural or artificial watercourses, lakes, ponds, or diffused surface water and water percolating, standing, or flowing beneath the surface of the ground, as well as all coastal waters within the jurisdiction of the state.<sup>141</sup>

<sup>139</sup> D.C. Mun. Regs., tit. 21, section 1103.

<sup>140</sup> Fla. Stat. section 403.031(13).

<sup>141</sup> Fla. Stat. section 373.019(22).

#### Definition of Wetlands:

- Those areas that are inundated or saturated by surface water or groundwater at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils. Soils present in wetlands generally are classified as hydric or alluvial, or possess characteristics that are associated with reducing soil conditions. The prevalent vegetation in wetlands generally consists of facultative or obligate hydrophytic macrophytes that are typically adapted to areas having soil conditions described above. These species, due to morphological, physiological, or reproductive adaptations, have the ability to grow, reproduce, or persist in aquatic environments or anaerobic soil conditions. Florida wetlands generally include swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, riverine swamps and marshes, hydric seepage slopes, tidal marshes, mangrove swamps and other similar areas. Florida wetlands generally do not include longleaf or slash pine flatwoods with an understory dominated by saw palmetto.<sup>142</sup>

#### Additional State Conditions and Requirements:

- Requires that the state DEP study the economic and environmental impact of any proposed standards that would be more stringent than federal law.<sup>143</sup>
- For a Florida standard to be a stricter or more stringent standard than one which has been set by federal agencies pursuant to federal law or regulation, the federal standard must be in counterpoise to the state standard.<sup>144</sup>

#### State Programs:

- Florida Water Resources Act<sup>145</sup>
- Florida Environmental Reorganization Act<sup>146</sup>
- Beach and Shore Preservation Act<sup>147</sup>
- Florida Coastal Management Act<sup>148</sup>
- The Uniform Mitigation Assessment Method<sup>149</sup>
  - Establishes a standardized procedure for assessing functions provided by wetlands and other surface waters, the amount those functions are reduced by proposed impact, and the amount of mitigation needed to offset that impact.

#### 303 Water Quality Standards:

- Has EPA-approved WQS

#### 311 Oil Spill Prevention, Preparedness and Response:

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<sup>142</sup> Fla. Stat. section 373.019(27).

<sup>143</sup> Fla. Stat. section 403.804.

<sup>144</sup> Florida Elec. Power Coordinating Group, Inc. v. Askew, 366 So.2d 1186, 1188 (Fla. Dist. Ct. App., 1st Dist. 1978).

<sup>145</sup> Fla. Stat. section 373.012 *et seq.*

<sup>146</sup> Fla. Stat. section 373.4135.

<sup>147</sup> Fla. Stat. sections 161.011 *et seq.*

<sup>148</sup> Fla. Stat. sections 380.20 *et seq.*

<sup>149</sup> Fla. Admin. Code chapter 62-345.

- The 311 program is administered by EPA Region 4 in coordination with the state of Florida.
- Facilities with aboveground storage tanks greater than 550 gallons of oil and hazardous substances are required to register, pay fees, and comply with technical requirements, including secondary containment and inspections.<sup>150</sup>
- State code authorizes cost recovery for spills and related damages; state has a spill trust fund.<sup>151</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Florida. The state issues its permits through the Florida DEP. Florida has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Florida does not have an authorized biosolids program.<sup>152</sup>
- EPA issues all NPDES permits to offshore oil and gas facilities operating in federal waters off the coast of Florida.<sup>153</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.<sup>154</sup>
- Issues state permits for dredged and fill activities in waters and wetlands.<sup>155</sup>

Table 18. Florida Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Informal “No Net Loss” goal; “an activity cannot cause a net adverse impact on wetland functions and other surface water functions that is not offset by mitigation.”
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		Florida began the process of seeking authorization to assume the 404 program in 2017.
Isolated Wetland Permitting	X			
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Possibly monitors through other non-wetland monitoring programs

Source: ASWM (2015) Status and Trends Report; Florida DEP, email, March 26, 2018

<sup>150</sup> Fla. Admin. Code chapter 62-762.

<sup>151</sup> Fla. Stat. sections 376.11, 376.12, 376.16, 376.121.

<sup>152</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>153</sup> EPA, Florida NPDES Permits (2017) available at <https://www.epa.gov/npdes-permits/florida-npdes-permits>.

<sup>154</sup> Began the process of seeking authorization to assume the program in 2017.

<sup>155</sup> Fla. Stat. sections 373.413(1), 373.414(11)(a), 161.011 *et seq.*

## 14. GEORGIA

### Definition of Waters of the State:

- Any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wells, and other bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the state, which are not entirely confined and retained completely upon the property of a single individual, partnership, or corporation.<sup>156</sup>

### Definition of Wetlands:

- Freshwater Wetlands mean those areas that are inundated or saturated by surface or groundwater 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. (33 CFR 32.93). The ecological parameters for designating wetlands include hydric soils, hydrophytic vegetation, and hydrological conditions that involve a temporary or permanent source of water to cause soil saturation.<sup>157</sup>

### Additional State Conditions and Requirements:

- No limitations identified.

### State Programs:

- Georgia Water Quality Control Act<sup>158</sup>
- Georgia Erosion and Sedimentation Act<sup>159</sup>
- Coastal Marshlands Protection Act<sup>160</sup>
  - Regulates all dredging, draining, or other alterations to marshlands; activities are prohibited without obtaining a Marsh Permit.
- Comprehensive Planning Act
  - Focuses on land use planning at the local level and recognizes wetlands.<sup>161</sup>
  - DNR develops minimum standards for protecting natural resources including wetlands. State must define, identify, and map open water, non-forested emergent wetlands, scrub/shrub wetlands, forested wetlands, and altered wetlands.
  - Only applies to freshwater wetlands (not coastal marshlands).

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

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<sup>156</sup> Ga. Code Ann. sections 12-7-3(16), 12-5-22(13).

<sup>157</sup> Ga. Comp. R. & Regs. 391-3-16.03(3).

<sup>158</sup> Ga. Code Ann. section 12-5-2 *et seq.*

<sup>159</sup> Ga. Code Ann. section 12-7-1 *et seq.*

<sup>160</sup> Ga. Code Ann. section 12-5-280 *et seq.*

<sup>161</sup> Ga. Code Ann. section 12-2-8 (b).

- The 311 program is administered by EPA Region 4 in coordination with the state of Georgia.
- Facilities with aboveground storage tanks exceeding 60 gallons are covered and administered by the State Fire Marshal. Plans for storage installations > 660 gallons must be submitted for review by the State Fire Marshal.<sup>162</sup>
- State code authorizes cost recovery for spills and related damages; state does not have a spill trust fund.<sup>163</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Georgia. The state issues its permits through the Georgia DNR. Georgia has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Georgia does not have an authorized biosolids program.<sup>164</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in coastal waters and wetlands.<sup>165</sup> Relies on federal permitting authority and CWA section 401.

Table 19. Georgia Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities	X			Coastal Only
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Program development in progress (as of 2015)

Source: ASWM (2015) Status and Trends Report

## 15. GUAM

### Definition of Waters of the Territory:

<sup>162</sup> Ga. Code Ann. section 120-3-11.

<sup>163</sup> Ga. Code Ann. 12-5-51, 12-5-51, 12-14-4.

<sup>164</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>165</sup> Ga. Code Ann. sections 12-5-280 *et seq.*

- Water shall be construed to include ponds, springs, wells and streams and all other bodies of surface or underground water, natural or artificial, inland or coastal, fresh or salt, public or private.<sup>166</sup>

#### Definitions of Wetlands:

- Those areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, mangroves, natural ponds, surface springs, estuaries and similar such areas.<sup>167</sup>
- An area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands typically include swamps, marshes, bogs and similar areas.<sup>168</sup>

#### Additional Territory Conditions and Requirements:

- No limitations identified.

#### Territory Programs:

- Guam EPA Act<sup>169</sup>
  - States the policy and purpose of the Act; creates Guam EPA and sections governing the administration of the Agency, its powers, duties, rules and regulations and other operating mandates.
- Water Pollution Control Act<sup>170</sup>
  - Outlines procedures for protecting waters of the Territory from pollution and/or contamination
- Toilet Facilities and Sewage Disposal Act – Pertinent to Guam EPA<sup>171</sup>
  - No toilet or sewage facilities or single-family residences, subdivisions, apartments, motels, hotels or other multihousing facilities may be constructed without the approval of the Administrator, or put into operation without his inspection and approval.
  - No septic tank, leaching system, or privy shall be located within a horizontal distance of three hundred (300) feet of any river, creek, pond, reservoir, stream, well, spring, or body of fresh water.<sup>172</sup>

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- Territory is working on spill prevention legislation (Aboveground Storage of Regulated Substances Act) that intends to cover petroleum oils and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) hazardous substances. Currently,

<sup>166</sup> 10 Guam Code Ann. section 46102(b).

<sup>167</sup> 18 Guam Admin. Rules and Regs. section 3504(b).

<sup>168</sup> Guam Water Quality Standards 2001 Revision Section 5105.

<sup>169</sup> 10 Guam Code Ann. chapter 45.

<sup>170</sup> 10 Guam Code Ann. chapter 47.

<sup>171</sup> 10 Guam Code Ann. chapter 48.

<sup>172</sup> 10 Guam Code Ann. section 48106.

R9 implements federal spill prevention and preparedness regulations in Guam, and will continue to do so for non-petroleum oils after that Law is enacted.

401 Certification:

- The territory has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA issues all NPDES permits within Guam.<sup>173</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues territory permits for dredged and fill activities in coastal waters and for wetlands.<sup>174</sup>
- Relies on federal permitting authority and CWA section 401.

## 16. HAWAII

Definition of Waters of the State:

- All waters, fresh, brackish, or salt around and within the State, including, but not limited to, coastal waters, streams, rivers, drainage ditches, ponds, reservoirs, canals, ground waters, and lakes; provided that drainage ditches, ponds, and reservoirs required as part of a water pollution control system are excluded.<sup>175</sup>

Definitions of Wetlands:

- Land that is transitional between terrestrial and aquatic ecosystems where the water table is usually at or near the surface or the land is covered by shallow water. A wetland shall have one or more of the following attributes:
  - At least periodically the land supports predominantly hydrophytic vegetation,
  - The substratum is predominantly undrained hydric soil; or
  - The substratum is non-soil (gravel or rocks) and is at least periodically saturated with water or covered by shallow water.<sup>176</sup>
- Wetlands may be fresh, brackish, or saline and generally include swamps, marshes, bogs, and associated ponds and pools, mud flats, isolated seasonal ponds, littoral zones of standing water bodies, and alluvial floodplains.<sup>177</sup>

Additional State Conditions and Requirements:

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<sup>173</sup> EPA, Guam NPDES Permits, available at <https://www.epa.gov/npdes-permits/guam-npdes-permits>.

<sup>174</sup> 21 Guam Code Ann. section 63101.

<sup>175</sup> Haw. Rev. Stat. section 342D-1.

<sup>176</sup> Haw. Code R. section 11-54-1.

<sup>177</sup> *Id.*

- Hawaii has limitations to regulate low wetland and coastal wetlands as well as the elevated wetlands under “basic water quality criteria applicable to all State waters.”<sup>178</sup>

#### State Programs:

- Water pollution.<sup>179</sup>
- Hawaii’s water quality parameters (for WQS).<sup>180</sup>
- Water pollution control that addresses NPDES permit issuance and conditions.<sup>181</sup>

#### 303 Water Quality Standards:

- Has EPA-approved WQS.<sup>182</sup>

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 9 in coordination with the state of Hawaii.
- State does not have specific aboveground storage tank requirements except spill reporting requirements.
- State code authorizes cost recovery for spills and related damages; state does have a spill trust fund.<sup>183</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.<sup>184</sup>

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Hawaii. The state issues its permits through the Hawaii Department of Health. Hawaii has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Hawaii does not have an authorized biosolids program.<sup>185</sup>
- EPA issues all NPDES permits for any discharges into federal ocean waters in Hawaii.<sup>186</sup>

#### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in coastal waters and wetlands.<sup>187</sup>

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<sup>178</sup> Haw. Code R. section 11-54-4.

<sup>179</sup> Haw. Rev. Stat. 342D.

<sup>180</sup> Haw. Code R. 11-54.

<sup>181</sup> Haw. Code R. 11-55.

<sup>182</sup> In addition, has specific water quality criteria (pH) established for the elevated wetlands. Haw. Code R. section 11-54-5.2(c); Elevated wetlands mean natural freshwater wetlands located above 100 m (330 ft) elevation. Haw. Code R. section 11-54-1. Wetlands are classified (class 1 (include 1a and 1b and class 2) by the Hawaii DOH as “Inland Waters” in Haw. Code R. section 11-54-2 and subject to the “designated uses” protection as specified in section 11-54-3.

<sup>183</sup> Haw. Rev. Stat. sections 128D-2, 5, 6, 8.

<sup>184</sup> Haw. Rev. Stat. section 342D-53.

<sup>185</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>186</sup> EPA, Hawaii NPDES Permits, available at <https://www.epa.gov/npdes-permits/hawaii-npdes-permits>.

<sup>187</sup> Haw. Rev. Stat. sections 205A-21 *et seq.*; Haw. Code R. 15-150.

- Relies on federal permitting authority and CWA section 401.

Table 20. Hawaii Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Requirement in Section 401 WQC
State Issues Permits for Dredged and Fill Activities	X			Coastal Only
404 Assumption		X		
Isolated Wetland Permitting	X			NPDES permits for activities discharging to wetlands.
State Wetland Permitting Fees	X			NPDES permits for activities discharging to wetlands.
WQS for Wetlands	X			Specific WQS criteria for inland waters, including low and coastal wetlands. Specific criteria for elevated wetlands.
Wetland Monitoring & Assessment Program		X		Conducts project-specific M&A only

Source: ASWM (2015) Status and Trends Report; Hawaii Department of Health, email, March 2, 2018

## 17. IDAHO

### Definition of Waters of the State:

- All accumulations of water, surface and underground, natural and artificial, public and private or parts thereof, which are wholly or partially within the state, and flow through or border upon the state, except for private waters.<sup>188</sup>

### Definition of Wetlands:

- Areas 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.<sup>189</sup>

### Additional State Conditions and Requirements:

- The Idaho Department of Environmental Quality is to ensure surface water quality in Idaho and meet the goals of the CWA, but is prohibited from enacting rules that impose requirements beyond those of the CWA.<sup>190</sup>
- When the Department of Environmental Quality recommends to the Board of Environmental Quality issuance of a rule that is broader in scope or more stringent than federal law or regulations, or proposes to regulate an activity not regulated by the federal government, the rule is subject to an additional statutory requirement. The agency must clearly specify that the proposed rule, or portions of it, are broader in scope or more stringent than federal law or regulations, or regulate an activity not regulated by the

<sup>188</sup> Idaho Code Ann. section 39-103(18).

<sup>189</sup> Idaho Admin. Code r. 58.01.25.010(01)(110).

<sup>190</sup> Idaho Code Ann. section 39-3601.

federal government, and delineate which portions of the proposed rule trigger this provision.<sup>191</sup>

State Programs:

- Parallel to section 303, for state standards<sup>192</sup>
- Parallel to section 311<sup>193</sup>
- Parallel to section 402<sup>194</sup>
- Stream channel alterations<sup>195</sup>
- Navigable lake encroachments, parallel to section 404<sup>196</sup>

303 Water Quality Standards:

- Has EPA-approved WQS.

311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 10 in coordination with the state of Idaho.
- State does not regulate aboveground storage tanks, but references EPA's SPCC rule and National Fire Prevention Association (NFPA) code. Local fire districts, cities and counties may have aboveground storage tank ordinances.<sup>197</sup>
- State does not have a codified cost recovery program for spills or a spill trust fund.

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- Idaho assumed some program components of the NPDES program on July 1, 2018 and will assume others in the following three years.<sup>198</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in waters and wetlands.<sup>199</sup>

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<sup>191</sup> Idaho Code Ann. section 39-107D.

<sup>192</sup> Idaho Code Ann. section 39-3601 *et seq.*; Idaho Admin. Code r. 58.01.02.

<sup>193</sup> Idaho Admin. Code r. 58.01.02.800 *et seq.*

<sup>194</sup> Idaho Code Ann. section 39-175A *et seq.*; Idaho Admin. Code r. 58.01.25.

<sup>195</sup> Idaho Code Ann. section 42-3801 *et seq.*; Idaho Admin. Code r. 37.03.07.

<sup>196</sup> Idaho Code Ann. section 58-1301 *et seq.*; Idaho Admin. Code r. 20.03.04.

<sup>197</sup> See Idaho DEQ, Storage Tanks in Idaho, available at <https://www.deq.idaho.gov/waste-mgmt-remediation/storage-tanks.aspx>.

<sup>198</sup> Idaho's schedule to assume NPDES program components is as follows: individual municipal permits and pretreatment on July 1, 2018; individual industrial permits on July 1, 2019; general permits (for aquaculture, pesticide, CAFO, suction dredged, and remediation) on July 1, 2020; and federal facilities, general and individual stormwater permits and biosolids on July 1, 2021.

EPA, Idaho NPDES Program Authorization, available at <https://www.epa.gov/npdes-permits/idaho-npdes-program-authorization>.

<sup>199</sup> Idaho Code Ann. sections 42-3801 *et seq.* (regarding stream channels), 58-1301 *et seq.* (regarding lakes). Both programs deal primarily with waters, and can occasionally cover wetlands. ASWM, Idaho State Wetland Program, available at [https://www.aswm.org/pdf\\_lib/state\\_summaries/idaho\\_state\\_wetland\\_program\\_summary\\_111615.pdf](https://www.aswm.org/pdf_lib/state_summaries/idaho_state_wetland_program_summary_111615.pdf).

Table 21. Idaho Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal		X		
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Possibly monitor through other non-wetland monitoring programs

Source: ASWM (2015) Status and Trends Report; Idaho DEQ, email, March 16, 2018

## 18. ILLINOIS

### Definition of Waters of the State:

- All accumulations of water, surface and underground, natural, and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon this State.<sup>200</sup>

### Definition of Wetlands:

- Land that has a predominance of hydric soils (soils that are usually wet and where there is little or no free oxygen) and that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of hydrophytic vegetation (plants typically found in wet habitats) typically adapted for life in saturated soil conditions. Areas which are restored or created as the result of mitigation or planned construction projects and which function as a wetland are included within this definition even all three wetland parameters are not present.<sup>201</sup>

### Additional State Conditions and Requirements:

- No limitations identified

### State Programs:

- Illinois Environmental Protection Act<sup>202</sup>
- Interagency Wetland Policy Act<sup>203</sup>
  - Same as federal exempted activities; except that all wetlands are regulated in Illinois, not just wetlands greater than 1/10 acre.

<sup>200</sup> 415 Ill. Comp. Stat. section 5/3.550.

<sup>201</sup> 20 Ill. Comp. Stat. section 830/1-6(a).

<sup>202</sup> 415 Ill. Comp. Stat. section 5.

<sup>203</sup> 20 Ill. Comp. Stat. section 830.

- Provides limited exemptions for agricultural and silvicultural practices and some wetland management actions on State wildlife management areas.
- Rivers, Lakes, and Streams Act<sup>204</sup>

### 303 Water Quality Standards:

- Has EPA-approved WQS.
- Wetlands are subject to General Use WQS.
- Some anti-degradation policies include wetlands.

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 5 in coordination with the state of Illinois.
- State program regulates all new tanks over 110 gallons that store flammable substances, requiring permits and registration, secondary containment and site plans. Administered by the State Fire Marshal.<sup>205</sup>
- State code authorizes cost recovery for spills; state has a spill trust fund.<sup>206</sup>

### 401 Certification:

- The state has authority to certify, conditionally certify, waive review or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Illinois. The state issues its permits through the Illinois EPA. Illinois has an authorized state NPDES permit program, general permits program, and is authorized to regulate federal facilities. Illinois does not have an authorized biosolids program or state pretreatment program.<sup>207</sup>
- EPA issues all NPDES permits on tribal lands.<sup>208</sup>

### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.<sup>209</sup>
- Issues state permits for dredged and fill activities in waters and their floodplains<sup>210</sup>, as well as state funded activities in wetlands.<sup>211</sup>

<sup>204</sup> 615 Ill. Comp. Stat. section 5.

<sup>205</sup> Ill. Admin. Code tit. 41, section 180.20.

<sup>206</sup> 415 Ill. Comp. Stat. sections 5/25c-1, 5/42.

<sup>207</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>208</sup> EPA, Illinois NPDES Permits (2017) available at <https://www.epa.gov/npdes-permits/illinois-npdes-permits>.

<sup>209</sup> Explored in 1990s found to be too expensive. ASWM, Illinois State Wetland Program, [https://www.aswm.org/pdf\\_lib/state\\_summaries/illinois\\_state\\_wetland\\_program\\_summary\\_083115.pdf](https://www.aswm.org/pdf_lib/state_summaries/illinois_state_wetland_program_summary_083115.pdf).

<sup>210</sup> 615 Ill. Comp. Stat. sections 5/4.9 to 5/35.

<sup>211</sup> 20 Ill. Comp. Stat. sections 830/1-1 to 830/4-1

Table 22. Illinois Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal IL Interagency Wetland Policy Act 1989
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees	X			
WQS for Wetlands		X		Developing wetland WQS (as of 2015)
Wetland Monitoring & Assessment Program		X		

Source: ASWM (2015) Status and Trends Report; Illinois EPA, email, March 16, 2018

## 19. INDIANA

### Definition of Waters of the State:

- (1) The accumulations of water, surface and underground, natural and artificial, public and private; or (2) a part of the accumulations of water; that are wholly or partially within, flow through, or border upon Indiana.
  - The term “waters” does not include: (1) an exempt isolated wetland; (2) a private pond; or (3) an off-stream pond, reservoir, wetland, or other facility built for reduction or control of pollution or cooling of water before discharge.
  - The term includes all waters of the United States, as defined in Section 502(7) of the federal CWA (33 U.S.C. 1362(7)), that are located in Indiana.<sup>212</sup>

### Definitions of Wetlands:

- 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: (1) swamps; (2) marshes; (3) bogs; and (4) similar areas.<sup>213</sup>
- A state regulated wetland is defined as an isolated wetland located in Indiana that is not an exempt isolated wetland.<sup>214</sup>

### Additional State Conditions and Requirements:

- Under Indiana’s rulemaking process, the DEM and the Water Pollution Control Board must provide notice of a proposed rule in the Indiana Register for each of two required public comment periods.<sup>215</sup>
  - The notice for the first public comment period must describe the subject matter and basic purpose of the proposed rule, including a list all alternatives under consideration.
  - The notice for the second public comment period must identify each element of the proposed rule that imposes a restriction or requirement that is more stringent

<sup>212</sup> Ind. Code section 13-11-2-265.

<sup>213</sup> Ind. Code section 13-11-2-265.7.

<sup>214</sup> Ind. Code section 13-11-2-221.5. Exempt isolated wetland is defined at Ind. Code section 13-11-2-74.5.

<sup>215</sup> Ind. Code sections 13-14-9-3, 13-14-9-4.

than a restriction or requirement imposed under federal law, or that applies in a subject area in which federal law does not impose a restriction or requirement.

- State imposes a qualified stringency prohibition; House Bill 1082<sup>216</sup> requires any new state environmental rule that is either more stringent than federal requirements or applies in a subject area where federal law does not impose restrictions or requirements, to be notified to the Indiana legislative branch. Following this the rule cannot take effect until adjournment of a regular session of the General Assembly, providing the opportunity to reject the rule via legislation<sup>217</sup>.

#### State Programs:

- Lake Preservation Act<sup>218</sup>
- Flood Control Act<sup>219</sup>
- State Regulated Wetlands<sup>220</sup>
  - All exemptions under Section 404(f) of the CWA apply (agriculture and silviculture), as well as discharges of fill materials in a *de minimis* amount.
  - Exempts all activities subject to the USDA Swampbuster provisions on agricultural lands

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 5 in coordination with the state of Indiana.
- Aboveground storage tanks are regulated by the Indiana Fire Prevention Code, which follows the Uniform Fire Code (NFPA 30 and 30A) and specifies design, installation and permitting requirements. Administered by the State Fire Marshal.<sup>221</sup>
- State code authorizes cost recovery for spills; state has a spill trust fund.<sup>222</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Indiana. The state issues its permits through the Indiana DEM. Indiana has an authorized state NPDES

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<sup>216</sup> Indiana. HB1082, available at <https://iga.in.gov/legislative/2016/bills/house/1082#digest-heading>.

<sup>217</sup> Council of State Governments Midwest (2017). Policy and Research, available at <http://www.csgmidwest.org/policyresearch/qom-0317.aspx>

<sup>218</sup> Ind. Code section 14-26-2.

<sup>219</sup> Ind. Code section 14-28-1.

<sup>220</sup> Ind. Code section 13-18-22.

<sup>221</sup> 675 Ind. Admin. Code 22-2.3.

<sup>222</sup> Ind. Code sections 13-24-1-4, 13-30-4-1, 13-25-4-2.

permit program, general permits program, and is authorized to regulate federal facilities. Indiana does not have an authorized biosolids program or state pretreatment program.<sup>223</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in isolated wetlands<sup>224</sup> and lakes.<sup>225</sup>
- Relies on federal permitting authority and CWA section 401.

Table 23. Indiana Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal Department of Environmental Management, also IC 13-18-22
State Issues Permits for Dredged and Fill Activities	X			Isolated wetlands and lakes only
404 Assumption		X		
Isolated Wetland Permitting	X			
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Possibly monitors through other non-wetland monitoring programs

Source: ASWM (2015) Status and Trends Report; Indiana DEM, email, March 2, 2018

## 20. IOWA

Definition of Waters of the State:

- Any stream, lake, pond, marsh, watercourse, waterway, well, spring, reservoir, aquifer, irrigation system, drainage system, and any other body or accumulation of water, surface or underground, natural or artificial, public or private, which are contained within, flow through or border upon the state or any portion thereof.<sup>226</sup>

Definition of Wetlands:

- An area of two or more acres in a natural condition that is mostly under water or waterlogged during the spring growing season and is characterized by vegetation of hydric soils.<sup>227</sup>

Additional State Conditions and Requirements:

- The Iowa Environmental Protection Commission may not establish an effluent standard for a source that is more stringent than a federal effluent standard under the CWA for such source. However, the Commission may establish a more restrictive effluent limitation for a point source if doing so is necessary to meet WQS and the federal government has not established an effluent standard for that source or class of sources.<sup>228</sup>

<sup>223</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>224</sup> Ind. Code section 13-18-22-1 *et seq.*

<sup>225</sup> Ind. Code sections 14-26-2-1 *set seq.*

<sup>226</sup> Iowa code 455B.171.

<sup>227</sup> Iowa Code 456B.1.

<sup>228</sup> Iowa Code 455B.173.

- Additionally, NPDES rules adopted by the Commission with respect to concentrated animal feeding operations can be no more stringent than requirements under the federal CWA.<sup>229</sup>
- When the Environmental Protection Commission proposes or adopts rules to implement a “specific federal environmental program,” and the rules are more restrictive than the federal program requires, the Commission must: (1) identify in its notice of intended action or adopted rule preamble each rule that is more restrictive than the federal program requires; (2) state the reasons for proposing or adopting the more restrictive requirement; and (3) include with its reasoning a “financial impact statement” detailing the general impact of the rules on affected parties.<sup>230</sup>

#### State Programs:

- Iowa River Restoration Strategy<sup>231</sup>
- Iowa Lake Restoration Program<sup>232</sup>
  - Provides additional funding to DNR and requires a science-based approach to achieve lake water quality improvements.

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 7 in coordination with the state of Iowa.
- State requires facilities with aboveground storage tanks greater than 1,100 gallons to register and to receive approval of their plan prior to being placed in service. State has adopted the Uniform Fire Code (NFPA 30 and 30A). Administered by the State Fire Marshal.<sup>233</sup>
- State code authorizes cost recovery for spills and related damages; state has a spill trust fund.<sup>234</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Iowa. The state issues its permits through the Iowa DNR. Iowa has an authorized state NPDES permit

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<sup>229</sup> Iowa Code 459.311.

<sup>230</sup> Iowa Code 455B. 105(3).

<sup>231</sup> Iowa DNR, 2018. River Restoration, available at <http://www.iowadnr.gov/Environmental-Protection/Water-Quality/River-Restoration>.

<sup>232</sup> Iowa DNR, 2018. Lake Restoration Program and Water Quality Improvement, available at <http://www.iowadnr.gov/Environmental-Protection/Water-Quality/Lake-Restoration>.

<sup>233</sup> Iowa Code sections 101.1 *et seq.*

<sup>234</sup> Iowa Code sections 455B.191, 455B.392, 455B.423, 481A.151.

program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Iowa does not have an authorized biosolids program.<sup>235</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in floodplains and sovereign waters.<sup>236</sup>.
- Relies on federal permitting authority and CWA section 401.

Table 24. Iowa Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal			X	
State Issues Permits for Dredged and Fill Activities	X			Floodplains and sovereign waters
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands		X		Applies existing WQS to wetlands (not wetland-specific); this is mostly narrative not quantitative.
Wetland Monitoring & Assessment Program		X		No formal RAM developed.

Source: ASWM (2015) Status and Trends Report

## 21. KANSAS

Definition of Waters of the State:

- All streams and springs, and all bodies of surface and subsurface waters within the boundaries of the state.<sup>237</sup>

Definition of Wetlands:

- Water bodies meeting the technical definition for jurisdictional wetlands given in the corps of engineers wetlands delineation manual, as published in January 1987.<sup>238</sup>

Additional State Conditions and Requirements:

- No limitations identified.

State Programs:

- Parallel to section 303 for standards.<sup>239</sup>
- Parallel to section 311.<sup>240</sup>
- Parallel to section 402.<sup>241</sup>
- Regulation of dams and obstructions for public safety and property.<sup>242</sup>

<sup>235</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>236</sup> Iowa Admin. Code r. 561-70.1 *et seq.*, 571-13.1 *et seq.*

<sup>237</sup> Kan. Stat. Ann. section 65-161(a)

<sup>238</sup> Kan. Admin. Regs. section 28-16-28b(ff)(3).

<sup>239</sup> Kan. Admin. Regs. section 28-16-28b *et seq.*

<sup>240</sup> Kan. Admin. Regs. section 82-3-603.

<sup>241</sup> Kan. Stat. Ann. section 65-162 *et seq.*; Kan. Admin. Regs. section 28-16-1 *et seq.*

<sup>242</sup> Kan. Stat. Ann. section 82a-301 *et seq.*

303 Water Quality Standards:

- Has EPA-approved WQS.

311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 7 in coordination with the state of Kansas.
- State requires facilities with aboveground storage tanks to register, pay fees, and obtain operating permits. State has adopted the Uniform Fire Code (NFPA 30 and 30A). Administered by the State Fire Marshal.<sup>243</sup>
- State code authorizes cost recovery for spills; state has a spill trust fund.<sup>244</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Kansas. The state issues its permits through the Kansas Department of Health and Environment. Kansas has an authorized state NPDES permit program, general permits program, and is authorized to regulate federal facilities. Kansas does not have an authorized biosolids program or state pretreatment program.<sup>245</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in floodplains.<sup>246</sup>
- Relies on federal permitting authority and CWA section 401.

*Table 25. Kansas Wetland Program Summary*

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal			X	
State Issues Permits for Dredged and Fill Activities	X			Floodplains Only
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees	X			
WQS for Wetlands		X		Applies existing WQS to wetlands (not wetland-specific): this is mostly narrative not quantitative.
Wetland Monitoring & Assessment Program		X		No RAM developed.

*Source: ASWM (2015) Status and Trends Report*

<sup>243</sup> Kan. Admin. Regs. sections 28-44-12 *et seq.*

<sup>244</sup> Kan. Stat. Ann. section 65-171.

<sup>245</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>246</sup> Kan. Admin. Regs. section 5-44-1.

## 22. KENTUCKY

### Definition of Waters of the State:

Means and includes any and all rivers, streams, creeks, lakes, ponds, impounding reservoirs, springs, wells, marshes, and all other bodies of surface or underground water, natural or artificial, situated wholly or partly within or bordering upon the Commonwealth or within its jurisdiction.<sup>247</sup>

### Definition of Wetlands:

- Defined by 40 C.F.R. 122.2, effective July 1, 2008.<sup>248</sup>

### Additional State Conditions and Requirements:

- An administrative body may adopt administrative regulations to implement a statute only when the legislature authorizes the adoption of such regulations or when regulations are required by federal law, in which case such regulations may be no more stringent than federal law or regulations.<sup>249</sup>
- Qualified prohibitions allow for a Kentucky administrative body to issue a regulation more stringent than federal law, but this is arguably in conflict with the broader stringency prohibition provision.<sup>250</sup>
  - If a Kentucky administrative body issuing a regulation is (1) not required by federal law to do so, and (2) is required or authorized by state law to issue a regulation governing the subject matter, the regulation must conform to a federal law or regulation governing a subject matter.
  - When enacting a regulation in response to a federal mandate, an administrative body is required to compare its proposed compliance standards with any minimum or uniform standards suggested or contained in the federal mandate. The comparison must contain a written determination as to whether the proposed state regulation will impose stricter requirements or other responsibilities on regulated entities than required by the federal mandate. If so, the comparison analysis must further include a written statement justifying the imposition of stricter standards, requirements, or responsibilities.

### State Programs:

- None identified.

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 4 in coordination with the state of Kentucky.

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<sup>247</sup> Ky. Rev. Stat. Ann. section 224.1-010(32).

<sup>248</sup> 401 Ky. Admin. Regs. 5:002(177).

<sup>249</sup> Ky. Rev. Stat. section 13A.120.

<sup>250</sup> Ky. Rev. Stat. section 13A.245.

- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks. Administered by the State Fire Marshal, including permitting requirements.<sup>251</sup>
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund.<sup>252</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.
- For general state permits, Kentucky requires an individual water quality certification for otherwise minor impacts to cold water streams.<sup>253</sup>

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Kentucky. The state issues its permits through the Kentucky Department for Environmental Protection. Kentucky has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Kentucky does not have an authorized biosolids program.<sup>254</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activity in streams and their floodplains.<sup>255</sup>
- Relies on federal permitting authority and CWA section 401.

*Table 26. Kentucky Wetland Program Summary*

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Informal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities	X			Streams and Floodplains
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees	X			
WQS for Wetlands		X		
Wetland Monitoring & Assessment Program	X			

*Source: ASWM (2015) Status and Trends Report*

## 23. LOUISIANA

### Definition of Waters of the State:

<sup>251</sup> 815 Ky. Admin. Regs. 7:120(3)(7)(i).

<sup>252</sup> Ky. Rev. Stat. sections 224.1-400(15), 224.1-070, 224.46-580, 224.99-010.

<sup>253</sup> ASWM (2014) Section 401 Certification Best Practices in Dredged and Fill Permit Programs, available at [https://www.aswm.org/pdf\\_lib/401\\_best\\_practices\\_summary.pdf](https://www.aswm.org/pdf_lib/401_best_practices_summary.pdf).

<sup>254</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>255</sup> Ky. Rev. Stat. section 151.250.

- Both surface and underground waters within the state including all rivers, streams, lakes, estuaries, groundwater, and all other water courses and waters within the confines of the state and all bordering waters and the Gulf of Mexico.<sup>256</sup>

#### Definition of Wetlands:

- An open water area or an area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, but specifically excluding fastlands<sup>257</sup> and lands more than five feet above mean sea level which occur within the designated coastal area of the state. Wetlands generally include swamps, marshes, bogs, and similar areas.<sup>258</sup>

#### Additional State Conditions and Requirements:

- No limitations identified.

#### State Programs:

- Louisiana State and Local Coastal Resources Management Act<sup>259</sup>

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 6 in coordination with the state of Louisiana.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks. Administered by the State Fire Marshal.<sup>260</sup>
- State has requirements for spill contingency planning and implementation of operating procedures and best management practices similar to SPCC.<sup>261</sup>
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund with limits tied to Oil Spill Liability Trust Fund coverage.<sup>262</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

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<sup>256</sup> La. Stat. Ann. section 30:2073(7).

<sup>257</sup> Fastlands are defined as lands surrounded by publicly owned, maintained or otherwise validly existing levees or natural formations that normally prevent activities, not to include the pumping of water for drainage purposes, within the surrounded area from having a direct and significant impact on coastal waters. La. Stat. Ann. section 49:214.23(6).

<sup>258</sup> La. Stat. Ann. section 49:214.2(16).

<sup>259</sup> La. Stat. Ann. section 49:214.21.

<sup>260</sup> La. Admin. Code tit. 33, chapter 9.

<sup>261</sup> *Id.*

<sup>262</sup> La. Stat. Ann. sections 30:2479, 30:2483, 30:2488, 30:2491.

- EPA has delegated authority to issue NPDES permits to the state of Louisiana. The state issues its permits through the Louisiana Department of Environmental Quality. Louisiana has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Louisiana does not have an authorized biosolids program.<sup>263</sup>
- EPA issues all NPDES permits on all tribal lands.<sup>264</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in coastal waters and wetlands<sup>265</sup>, as well as nontidal waters.<sup>266</sup>
- Relies on federal permitting authority and CWA section 401.

Table 27. Louisiana Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees	X			Permitting and associated fees in LA Coastal Zone only. Coastal Use Permits include application and permit processing fees, and mitigation processing fees.
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		

Source: ASWM (2015) Status and Trends Report

## 24. MAINE

Definition of Waters of the State:

- Any and all surface and subsurface waters that are contained within, flow through, or under or border upon this State or any portion of the State, including the marginal and high seas, except such waters as are confined and retained completely upon the property of one person and do not drain into or connect with any other waters of the State, but not excluding waters susceptible to use in interstate or foreign commerce, or whose use, degradation or destruction would affect interstate or foreign commerce.<sup>267</sup>

Definitions of Wetlands:

- Freshwater wetlands: freshwater swamps, marshes, bogs and similar areas that are inundated or saturated by surface or groundwater at a frequency and for a duration

<sup>263</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>264</sup> EPA, Louisiana NPDES Permits, available at <https://www.epa.gov/npdes-permits/louisiana-npdes-permits>.

<sup>265</sup> La. Rev. Stat. Ann. sections 49:214.21 *et seq.*

<sup>266</sup> La. Rev. Stat. Ann. sections 41:1701 *et seq.*

<sup>267</sup> Me. Stat. tit. 38, section 361-A(7).

sufficient to support, and which under normal circumstances do support, a prevalence of wetland vegetation typically adapted for life in saturated soils; and not considered part of a great pond, coastal wetland, river, stream or brook.<sup>268</sup>

- Coastal wetlands: all tidal and subtidal lands; all areas with vegetation present that is tolerant of salt water and occurs primarily in a salt water or estuarine habitat; and any swamp, marsh, bog, beach, flat or other contiguous lowland that is subject to tidal action during the highest tide level for the year in which an activity is proposed as identified in tide tables published by the National Ocean Service. Coastal wetlands may include portions of coastal sand dunes.<sup>269</sup>

#### Additional State Conditions and Requirements:

- Maine's DEP must, when feasible, identify any proposed rule that is anticipated to be more stringent than the federal standard, if an applicable federal standard exists. During consideration of a proposed rule, the Department must, when feasible: (1) identify provisions of the proposed rule that it believes would impose a regulatory burden more stringent than the burden imposed by the federal standard, if such a federal standard exists; and (2) justify the difference between the rule and the federal standard.<sup>270</sup>

#### State Programs:

- Natural Resources Protection Act (NRPA)<sup>271</sup>
  - Wetlands are regulated by the Maine DEP in organized municipalities (*i.e.*, towns and cities).
  - In the unorganized and deorganized areas of Maine, wetlands are regulated by the Land Use Planning Commission of the Maine Department of Agriculture, Conservation, and Forestry.
- Mandatory Shoreland Zoning Act<sup>272</sup>
  - Gives authority to local government to regulate non-forested wetlands greater than ten acres in size.
- Permit-by-Rule regulations<sup>273</sup>
  - Apply to certain activities covered under the NRPA. The regulations identify activities taking place in or adjacent to wetlands and waterbodies that should not significantly affect the environment if carried out according to the standards contained in the regulations.
- In Lieu Fee Program<sup>274</sup>
  - Provides permit applicants with another option to traditional permittee-responsible compensation projects.

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<sup>268</sup> Me. Stat. tit. 38, section 480-B.

<sup>269</sup> *Id.*

<sup>270</sup> Me. Stat. tit. 38, section 341-H(3).

<sup>271</sup> Me. Stat. tit. 38, sections 480-A *et seq.*

<sup>272</sup> Me. Stat. tit. 8, sections 435-449.

<sup>273</sup> 06-096-305 Me. Code R. section 1.

<sup>274</sup> Me. Stat. tit. 38, sections 480-Z.

- Voluntary program that allows entities impacting natural resources, primarily wetlands, to make a payment directly to the DEP as an alternative to the traditional mitigation process.
- Fees collected by DEP are deposited into funds allocated to specific biophysical regions in which the impacts occurred.

### 303 Water Quality Standards:

- Has EPA-approved WQS; there are some EPA-issued WQS in place as well.

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 1 in coordination with the state of Maine.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks. Administered by the State Fire Marshal.<sup>275</sup>
- State has also incorporated federal SPCC requirements by code; failure to follow federal requirements is violation of state code.<sup>276</sup>
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund.<sup>277</sup>

### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Maine. The state issues its permits through the Maine DEP. Maine has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Maine does not have an authorized biosolids program.<sup>278</sup>

### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in waters and wetlands.<sup>279</sup>

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<sup>275</sup> Me. Stat. tit. 25, section 2482.

<sup>276</sup> *Id.*

<sup>277</sup> Me. Stat. tit. 38, sections 551, 552.

<sup>278</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>279</sup> Me. Stat. tit. 38, sections 480-A *et seq.*

Table 28. Maine Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting	X			All resources which meet the definition of a wetland are regulated by the state
State Wetland Permitting Fees	X			
WQS for Wetlands		X		Developing wetland WQS (as of 2015)
Wetland Monitoring & Assessment Program	X			

Source: ASWM (2015) Status and Trends Report; Maine DEP, email, March 15, 2018

## 25. MARYLAND

### Definition of Waters of the State:

- Both surface and underground waters within the boundaries of the state subject to its jurisdiction; the portion of the Atlantic Ocean within the boundaries of the state (territorial seas); the Chesapeake Bay and its tributaries; all ponds, lakes, rivers, streams, tidal and nontidal wetlands, public ditches, tax ditches, and public drainage systems within the state (does not include public drainage systems designed and used to collect, convey, or dispose of sanitary sewage); and the floodplain of free-flowing waters determined by the department on the basis of the 100 year flood frequency.<sup>280</sup>

### Definitions of Wetlands:

- Nontidal wetland: (a) Means an area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support and that under normal circumstances does support a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation; (b) Is determined according to the Federal Manual; (c) Does not include tidal wetlands regulated under Environmental Article, Title 16, Annotated Code of Maryland.<sup>281</sup>
- State wetlands: means any land under the navigable waters of the State below the mean high tide, affected by the regular rise and fall of the tide.<sup>282</sup>

### Additional State Conditions and Requirements:

- By executive order, each unit of Maryland state government is required to take certain steps when it proposes to adopt a regulation that “provides a standard that is more restrictive or stringent than an applicable standard established under a federal law or regulation which governs the same program or conduct.” The agency must: (1) identify the manner in which the proposed regulation is more restrictive than the applicable federal standard; (2) identify the benefit to public health, safety, welfare, or the environment, expected from adopting the standard; (3) in consultation with the Department of Business and Economic Development, identify whether having a more

<sup>280</sup> Md. Code, Env. section 5-101(l).

<sup>281</sup> Md. Code, Env. section 5-901(m).

<sup>282</sup> Md. Code, Env. section 16-101(p).

restrictive standard places an additional burden or cost on regulated persons; and (4) justify the need for the standard.<sup>283</sup>

#### State Programs:

- Maryland Nontidal Wetlands Protection Act<sup>284</sup>
- Appropriation or Use of Waters, Reservoirs, and Dams Statute<sup>285</sup>
- Wetlands and Riparian Rights Statute<sup>286</sup>
- Tidal Wetlands Protection Act<sup>287</sup>
- Chesapeake and Atlantic Coastal Bays Critical Area Protection Program<sup>288</sup>
- Water Pollution Control Act<sup>289</sup>

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 3 in coordination with the state of Maryland.
- State requires facilities with aboveground oil storage capacities of 1,000 gallons of used oil or 10,000 gallons or more of virgin oil to obtain oil operations permits and meet specific technical requirements such as secondary containment.<sup>290</sup>
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks. Administered by the State Fire Marshal.<sup>291</sup>
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund.<sup>292</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Maryland. The state issues its permits through the Maryland Department of the Environment. Maryland has an authorized state NPDES permit program, state pretreatment program, general permits

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<sup>283</sup> Md. Exec. Order No. 01.01.1996.03 (1996).

<sup>284</sup> Md. Code, Env. sections 5-901 *et seq.*

<sup>285</sup> Md. Code, Env. sections 5-501 *et seq.*

<sup>286</sup> Md. Code, Env. sections 16-101 *et seq.*

<sup>287</sup> *Id.*

<sup>288</sup> Md. Code, Nat. Res. sections 8-1801 *et seq.*

<sup>289</sup> Md. Code, Env. sections 4-401 *et seq.*

<sup>290</sup> Md. Code Regs. 26.10.01.

<sup>291</sup> *Id.*

<sup>292</sup> Md. Code, Env. sections 4-408, 4-409, 4-411, 4-417, 4-418.

program, and is authorized to regulate federal facilities. Maryland does not have an authorized biosolids program.<sup>293</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.<sup>294</sup>
- Issues state permits for dredged and fill activities in waters and wetlands.<sup>295</sup>

Table 29. Maryland Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Maryland (along with, among others, West Virginia, Virginia, Delaware and Pennsylvania) is one of the signatories to the Chesapeake Bay 2014 Agreement, which includes the following outcome for wetlands within the Chesapeake Bay watershed (which includes almost all of Maryland): “Continually increase the capacity of wetlands to provide water quality habitat benefits throughout the watershed. Create or re-establish 85,000 acres of tidal and non-tidal wetlands and enhance the function of an additional 150,000 acres of degraded wetlands by 2025
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		Has explored in the recent past and determined not to seek assumption
Isolated Wetland Permitting	X			
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program	X			

Source: ASWM (2015) Status and Trends Report

## 26. MASSACHUSETTS

Definition of Waters of the State:

- All waters within the jurisdiction of the commonwealth, including, without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, coastal waters, and groundwaters.<sup>296</sup>

Definitions of Wetlands:

- Coastal wetlands: Any bank, marsh, swamp, meadow, flat or other lowland subject to tidal action or coastal storm flowage.<sup>297</sup>
- Freshwater wetlands: Wet meadows, marshes, swamps, bogs, areas where the groundwater, flowing or standing surface water or ice provide a significant part of the supporting substrate for a plant community for at least five months of the year; emergent

<sup>293</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>294</sup> Implements a state programmatic general permit pursuant to CWA Section 404(e) for specified activities. The currently operative SPGP is MDSPGP-5 issued September 26, 2016. See <http://www.nab.usace.army.mil/Portals/63/docs/Regulatory/MDSPGP-5.pdf>.

<sup>295</sup> Md. Code, Env. sections 5-501 *et seq.*, 16-101 *et seq.*

<sup>296</sup> Mass. Gen. Laws ch. 21 section 26A.

<sup>297</sup> Mass. Gen. Laws ch. 131 section 40.

and submergent plant communities in inland waters; that portion of any bank which touches any inland waters.<sup>298</sup>

Additional State Conditions and Requirements:

- No limitations identified.

State Programs:

- Massachusetts Wetlands Protection Act<sup>299</sup>
  - Administered by the Massachusetts DEP in a decentralized way. While the policies and regulations are promulgated by Massachusetts DEP, permits are actually issued by the 351 local conservation commissions.
- Inland<sup>300</sup> and Coastal<sup>301</sup> Wetlands Restriction Acts
  - The Commissioner of the DEP may issue orders to prohibit certain activities in specified wetlands prior to any work being proposed.

303 Water Quality Standards:

- Has EPA-approved WQS.

311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 1 in coordination with the state of Massachusetts.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks. Administered by the State Fire Marshal. Permit, inspection and technical requirements apply to tanks greater than 10,000 gallons in capacity.<sup>302</sup>
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund.<sup>303</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- Massachusetts is not authorized to run a state NPDES program.<sup>304</sup>
- EPA issues all NPDES permits in Massachusetts.<sup>305</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.

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<sup>298</sup> *Id.*

<sup>299</sup> *Id.*

<sup>300</sup> Mass. Gen. Laws Ch. 131, section 40A.

<sup>301</sup> Mass. Gen. Laws Ch. 130, section 105.

<sup>302</sup> 527 Mass. Code Regs. 5.00, 9.00

<sup>303</sup> Mass. Gen. Laws ch. 21E sections 5, 11; ch. 21M section 8.

<sup>304</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>305</sup> EPA, Massachusetts NPDES Permits (2017) available at <https://www.epa.gov/npdes-permits/massachusetts-mpdes-permits>.

- Issues state permits for dredged and fill activities in waters and wetlands.<sup>306</sup>

Table 30. Massachusetts Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting	X			Some isolated wetlands are regulated if they meet the definition of an Isolated Land Subject to Flooding. Certified Vernal Pools are regulated if they are located within a state resource area.
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program	X			

Source: ASWM (2015) Status and Trends Report

## 27. MICHIGAN

### Definition of Waters of the State:

- Groundwater, lakes, including the Great Lakes bordering the state, rivers, streams, and all other water courses and bodies of water within the jurisdiction of the state, including wetlands.<sup>307</sup>

### Definition of Wetlands:

- Land characterized by the presence of water at a frequency and duration sufficient to support, and that under normal circumstances does support, wetland vegetation or aquatic life, and is commonly referred to as a bog, swamp, or marsh, and which is any of the following: i) Contiguous to the Great Lakes or Lake St. Clair, an inland lake or pond, or a river or stream; (ii) Not contiguous to the Great Lakes, an inland lake or pond, or a river or stream; and more than 5 acres in size; (iii) Not contiguous to the Great Lakes, an inland lake or pond, or a river or stream; and 5 acres or less in size if the department determines that protection of the area is essential to the preservation of the natural resources of the state from pollution, impairment, or destruction and the department has so notified the owner.<sup>308</sup>

### Additional State Conditions and Requirements:

- No limitations identified.

### State Programs:

- The Natural Resources and Environmental Protection Act<sup>309</sup>
  - Includes many provisions to protect waters within Michigan.

### 303 Water Quality Standards:

<sup>306</sup> Mass. Gen. Laws ch. 131, section 40; ch. 130, section 105; ch. 91.

<sup>307</sup> Mich. Comp. Laws section 324.3101.

<sup>308</sup> Mich. Comp. Laws section 324.30301(m).

<sup>309</sup> Mich. Comp. Laws sections 324.101 *et seq.*

- Has EPA-approved WQS.

311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 5 in coordination with the state of Michigan.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks. Administered by the State Fire Marshal. Applications for plan review required for tanks greater than 1,100 gallons in capacity.<sup>310</sup>
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund.<sup>311</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Michigan. The state issues its permits through the Michigan Department of Environmental Quality. Michigan has an authorized state NPDES permit program, state pretreatment program, general permits program, biosolids program, and is authorized to regulate federal facilities.<sup>312</sup>
- EPA issues all NPDES permits on tribal lands.<sup>313</sup>

404 Dredged and Fill Permitting:

- Michigan has assumed administration of the 404 program (has full state permitting authority).<sup>314</sup>

Table 31. Michigan Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption	X			
Isolated Wetland Permitting	X			If over 5 acres, within 500 feet of a stream or lake, 1000 feet of Great Lakes or Lake St. Clair, or essential to preservation of natural resources. <sup>315</sup>
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program	X			

Source: ASWM (2015) Status and Trends Report; Michigan DEQ, email, March 21, 2018

<sup>310</sup> Mich. Comp. Laws sections 29.1 *et seq.*

<sup>311</sup> Mich. Comp. Laws sections 324.2010, 324.20119, 324.20126a.

<sup>312</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>313</sup> EPA, Michigan NPDES, Permits, available at <https://www.epa.gov/npdes-permits/michigan-npdes-permits>.

<sup>314</sup> EPA, State or Tribal Assumption of the Section 404 Permit Program, available at <https://www.epa.gov/cwa-404/state-or-tribal-assumption-section-404-permit-program>. For Michigan’s assumed Section 404 Program, state statutes provide similar protections and ensure compliance with the CWA by being at least as protective as the CWA (however, Michigan’s laws do not use the exact same definitions or exemption language as the CWA).

<sup>315</sup> MDEQ <[http://www.michigan.gov/deq/0,4561,7-135-3313\\_3687-10801--,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3687-10801--,00.html)>

## 28. MINNESOTA

### Definitions of Waters of the State:

- Definition that applies to CWA programs: All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.<sup>316</sup>
- Definition that applies to state Wetland Conservation Act: Surface or underground waters, except surface waters that are not confined but are spread and diffused over the land. Waters of the state includes boundary and inland waters.<sup>317</sup>

### Definition of Wetlands:

- Lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this definition, wetlands must have the following three attributes:
  - (1) have a predominance of hydric soils;
  - (2) are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions; and
  - (3) under normal circumstances support a prevalence of such vegetation.<sup>318</sup>

### Additional State Conditions and Requirements:

- 404 Assumption: In the event the state assumes responsibility for the federal 404 permitting program, the rules adopted to establish the program “may not be more restrictive” than the federal 404 program—or more restrictive than state law, if state law is more restrictive than the federal 404 program.<sup>319</sup>
  - The state has not assumed the 404 program, however, the Minnesota Legislature commissioned a study on the feasibility of 404 Assumption that was completed in 2017.<sup>320</sup>
- Feedlots: State limits NPDES feedlot permitting requirements in that (a) The agency must issue NPDES permits for feedlots only as required by federal law. However, the state also issues state disposal system permits for feedlots which may have additional state-only requirements.<sup>321</sup>

### State Programs:

- Clean Water Legacy Act<sup>322</sup>

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<sup>316</sup> Minn. Stat. section 115.03-22.

<sup>317</sup> Minn. Stat. section 103G.005-17.

<sup>318</sup> Minn. Stat. section 103G.005-19.

<sup>319</sup> Minn. Stat. section 103G.2375.

<sup>320</sup> Minnesota Section 404 Assumption Feasibility Study Report, available at [http://www.bwsr.state.mn.us/wetlands/cwa\\_404/Minn\\_Section\\_404\\_Assumption\\_Feasibility\\_Study\\_Report\\_Final.pdf](http://www.bwsr.state.mn.us/wetlands/cwa_404/Minn_Section_404_Assumption_Feasibility_Study_Report_Final.pdf)

<sup>321</sup> Minn. Stat. section 116.07.

<sup>322</sup> Minn. Stat. section 114D.

- Water Pollution Control<sup>323</sup>
- Public Waters and Public Waters Wetland<sup>324</sup>
- Wetlands Conservation Act<sup>325</sup>

### 303 Water Quality Standards:

- Has EPA-approved WQS.<sup>326</sup>

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 5 in coordination with the state of Minnesota.
- State has adopted technical requirements for aboveground storage tanks with capacities greater than 1,100 gallons, such as secondary containment, overfill prevention, recordkeeping and release reporting. Facilities with tanks of 1 million gallons or greater are required to obtain operating permits.<sup>327</sup>
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund.<sup>328</sup>

### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Minnesota. The state issues its permits through the Minnesota Pollution Control Agency. Minnesota has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Minnesota does not have an authorized biosolids program.<sup>329</sup>
- EPA issues all NPDES permits on tribal lands.<sup>330</sup>

### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.<sup>331</sup>
- Issues state permits for dredged and fill activities in waters and wetlands.<sup>332</sup>

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<sup>323</sup> Minn. Stat. section 115.

<sup>324</sup> Minn. Stat. section 103G; Minn. R. 6115.

<sup>325</sup> Minn. Stat. section 103G.221 *et seq.*

<sup>326</sup> Small number of wetlands are listed, narrative criteria in 305(b) reporting.

<sup>327</sup> Minn. R. 7151.1100.

<sup>328</sup> Minn. Stat. sections 115B.17, 116.155.

<sup>329</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>330</sup> EPA, Minnesota NPDES Permits (2017) available at <https://www.epa.gov/npdes-permits/minnesota-npdes-permits>.

<sup>331</sup> Completed a 404 Assumption Feasibility Study.

<sup>332</sup> Minn. Stat. Ann. sections 103G.222 *et seq.*, 103G.245.

Table 32. Minnesota Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			In addition, has a formal “Net Gain/Increase” goal at Minn. Statutes 103.201A
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Wetland-specific WQS
Wetland Monitoring & Assessment Program	X			

Source: ASWM (2015) Status and Trends Report; State of Minnesota, email, March 19, 2018

## 29. MISSISSIPPI

### Definition of Waters of the State:

- All waters within the jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems and all other bodies or accumulations of water, surface and underground, natural or artificial, situated wholly or partly within or bordering upon the state, and such coastal waters as are within the jurisdiction of the state, except lakes, ponds, or other surface waters which are wholly landlocked and privately owned, and which are not regulated under the Federal CWA (33 U.S.C. 1251 et seq.).<sup>333</sup>

### Definition of Wetlands:

- Coastal wetlands: All publicly-owned lands subject to the ebb and flow of the tide; which are below the watermark of ordinary high tide; all publicly-owned accretions above the watermark of ordinary high tide and all publicly-owned submerged water-bottoms below the watermark of ordinary high tide and includes the flora and fauna on the wetlands and in the wetlands.<sup>334</sup>

### Additional State Conditions and Requirements:

- The Mississippi Commission on Environmental Quality is prohibited from enacting a rule, regulation, or standard relating to water quality or water discharge standards that exceeds the requirements of federal statutes, regulations, standards, criteria, and guidance relating to water quality or water discharge standards promulgated under the federal Administrative Procedure Act.<sup>335</sup>

### State Programs:

- Coastal Wetlands Protection Act<sup>336</sup>

<sup>333</sup> Miss. Code Ann. section 49-17-5(f).

<sup>334</sup> Miss. Code Ann. section 49-27-5(a).

<sup>335</sup> Miss. Code Ann. Section 49-17-34(2).

<sup>336</sup> Miss. Code Ann. sections 49-27-1 et seq.

- Public Trust Tidelands Act<sup>337</sup>
- Surface Water and Groundwater Use and Protection Regulations<sup>338</sup>
  - The Mississippi Environmental Quality Permit Board will not authorize any surface water use that will impair the navigability of any watercourse identified as a navigable waterway under state or federal statute.

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 4 in coordination with the state of Mississippi.
- State has no specific aboveground storage tank regulations; State relies on EPA Region 4 to implement SPCC requirements.
- State code authorizes cost recovery for spills; state does not have a spill trust fund.<sup>339</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Mississippi. The state issues its permits through the Mississippi Department of Environmental Quality. Mississippi has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Mississippi does not have an authorized biosolids program.<sup>340</sup>
- EPA issues all NPDES permits on tribal lands and to offshore oil and gas facilities operating in federal waters off the coast of Mississippi.<sup>341</sup>

#### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in coastal wetlands.<sup>342</sup>
- Relies on federal permitting authority and CWA section 401.

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<sup>337</sup> Miss. Code Ann. sections 29-15-1 *et seq.*

<sup>338</sup> 11 Miss. Admin. Code Pt 7, R. 1.3(b)(4).

<sup>339</sup> Miss. Code Ann. section 49-17-43.

<sup>340</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>341</sup> EPA, Mississippi NPDES Permits, available at <https://www.epa.gov/npdes-permits/mississippi-npdes-permits>.

<sup>342</sup> Miss. Code Ann. sections 49-27-1 *et seq.*

Table 33. Mississippi Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities	X			Coastal Only
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program			X	MDEQ has worked with Southeast Wetlands Work Group towards wetland monitoring and assessment but that work has not yet been implemented to standards.

Source: ASWM (2015) Status and Trends Report; Mississippi DEQ, email, March 28, 2018

### 30. MISSOURI

#### Definition of Waters of the State:

- All water within the jurisdiction of this state, including all rivers, streams, lakes and other bodies of surface and subsurface water lying within or forming a part of the boundaries of the state which are not entirely confined and located completely upon lands owned, leased or otherwise controlled by a single person or by two or more persons jointly or as tenants in common.<sup>343</sup>

#### Definition of Wetlands:

- Those areas that are inundated or saturated by surface or groundwater 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. This definition is consistent with both the Corps wetlands definition at 33 CFR 328.3(b) and the U.S. EPA wetlands definition at 40 CFR 232.2(r).<sup>344</sup>

#### Additional State Conditions and Requirements:

- No limitations identified.

#### State Programs:

- None identified.

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

<sup>343</sup> Mo. Rev. Stat. section 644.016(27).

<sup>344</sup> Mo. Code Regs. tit. 10, 20-7.031(1)(FF).

- The 311 program is administered by EPA Region 7 in coordination with the state of Missouri.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks. State code includes financial responsibility requirements for facilities with aboveground storage tanks, except for refineries, pipeline terminals, rail terminals or marine terminals.<sup>345</sup>
- State code authorizes cost recovery for spills; state does have a spill trust fund.<sup>346</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Missouri. The state issues its permits through the Missouri DNR. Missouri has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Missouri does not have an authorized biosolids program.<sup>347</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Does not issue state permits for dredged and fill activities in waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

Table 34. Missouri Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal. Executive Order 96-03 ( <a href="https://www.sos.mo.gov/library/reference/orders/1996/eo1996_003">https://www.sos.mo.gov/library/reference/orders/1996/eo1996_003</a> )
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees	X			\$150 per non-EIS project, \$1500 per project with EIS [10 CSR 20-6.011(2)(I)]
WQS for Wetlands		X		Completed Wetland Program Development Grant CD97744201 at the end of 2017, which helped establish a set of candidate reference wetlands to be used in the development of wetland WQS. They plan to develop narrative wetland criteria in the next triennial review, and are collecting data in order to eventually establish numeric wetland criteria.
Wetland Monitoring & Assessment Program		X		They have developed a wetland monitoring and assessment program and are currently monitoring candidate reference wetlands. They have developed MORAM, but used for wetland condition only.

Source: ASWM (2015) Status and Trends Report; Missouri DNR, email, April 24, 2018

<sup>345</sup> Mo. Code Regs. tit. 26, 414.012 *et seq.*

<sup>346</sup> Mo. Rev. Stat. section 260.530, 260.535.

<sup>347</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

## 31. MONTANA

### Definition of Waters of the State:

- (a) a body of water, irrigation system, or drainage system, either surface or underground.
- (b) The term does not apply to: (i) ponds or lagoons used solely for treating, transporting, or impounding pollutants; or (ii) irrigation waters or land application disposal waters when the waters are used up within the irrigation or land application disposal system and the waters are not returned to state waters.<sup>348</sup>

### Definition of Wetlands:

- Those 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.<sup>349</sup>

### Additional State Conditions and Requirements:

- Montana has qualified stringency prohibitions that apply to rules implementing water quality and public water supply programs. The statutory language, identical for both programs, provides that the Board of Environmental Review may not adopt an implementing rule that is more stringent than the federal regulations or guidelines that address the same circumstances unless the Board makes a written finding— following a public hearing and comment, and based on record evidence—that the more-stringent state requirement: (1) protects public health or the environment of Montana; (2) can mitigate the harm to public health or the environment; and (3) is achievable under current technology.<sup>350</sup>
- The Board of Environmental Review may adopt rules implementing water quality law that are more stringent than corresponding draft or final federal regulations, guidelines, or criteria, only if it makes written findings, based on sound scientific or technical evidence in the record, stating that the stricter state requirements are necessary to protect the public health, beneficial use of water, or the environment of Montana.<sup>351</sup>

### State Programs:

- Streamside Management Program<sup>352</sup>
  - Regulate certain logging activities within a Streamside Management Zone.

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 8 in coordination with the state of Montana.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, which may be covered by the Petroleum Tank Release Cleanup Fund provided that

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<sup>348</sup> Mont. Code Ann. section 75-5-103.

<sup>349</sup> Mont. Admin. R. 17.30.502(12).

<sup>350</sup> Mont. Code Ann. section 75-5-203; 75-6-116.

<sup>351</sup> Mont. Code Ann. section 75-5-309.

<sup>352</sup> Mont. Code Ann. section 77-5-301 *et seq.*; Mont. Admin. R. 36.11.3.

they meet minimum design, construction, and installation standards (double-walled and have maximum storage capacities of less than 30,000 gallons).<sup>353</sup>

- State code authorizes cost recovery for spills; state does have a spill trust fund, accessible to facilities with aboveground storage tanks less than 30,000 gallons.<sup>354</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Montana. The state issues its permits through the Montana Department of Environmental Quality. Montana has an authorized state NPDES permit program, general permits program, and is authorized to regulate federal facilities. Montana does not have an authorized biosolids or state pretreatment program.<sup>355</sup>
- EPA issues all NPDES permits on tribal lands.<sup>356</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Does not issue state permits for dredged and fill activities in waters and wetlands.
  - Issues local permits for dredged and fill activities in lakes.<sup>357</sup>
- Relies on federal permitting authority and CWA section 401.

Table 35. Montana Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			In addition, has a formal “Net Gain/Increase” goal
State Issues Permits for Dredged and Fill Activities		X		Local permits for lakes
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees	X			401 certification fees
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program	X			Currently performing comprehensive wetland assessments within a few watersheds

Source: ASWM (2015) Status and Trends Report; Montana DEQ, email, March 15, 2018

## 32. NEBRASKA

### Definition of Waters of the State:

<sup>353</sup> Mont. Admin. R. 17.58.326.

<sup>354</sup> Mont. Code Ann. sections 75-5-63, 75-5-635.

<sup>355</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>356</sup> EPA, Montana NPDES Permits (2017) available at <https://www.epa.gov/npdes-permits/montana-npdes-permits>.

<sup>357</sup> Mont. Code Ann. sections 75-7-201 *et seq.* This program is authorized by state law, but applied at the local government level.

- All waters within the jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes, wetlands, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state.<sup>358</sup>

#### Definition of Wetlands:

- Those areas that are inundated or saturated by surface or groundwater 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.<sup>359</sup>

#### Additional State Conditions and Requirements:

- No limitations identified.

#### State Programs:

- Nebraska Environmental Protection Act<sup>360</sup>
- Parallel to 303 standards<sup>361</sup>
- Parallel to section 311<sup>362</sup>
- Parallel to section 402<sup>363</sup>
- Parallel to section 401<sup>364</sup>

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 7 in coordination with the state of Nebraska.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks. Installation and replacement of aboveground storage tanks require a permit from the State Fire Marshal.<sup>365</sup>
- State code authorizes cost recovery for spills; state has a spill trust fund for releases from aboveground storage tanks (Petroleum Release Remedial Action Reimbursement Fund).<sup>366</sup>

#### 401 Certification:

<sup>358</sup> Neb. Rev. Stat. section 81-1502(21).

<sup>359</sup> 117 Neb. Admin. Code, ch. 1, section 082.

<sup>360</sup> Neb. Rev. Stat. sections 81-1501 *et seq.*

<sup>361</sup> 117 Neb. Admin. Code.

<sup>362</sup> 126 Neb. Admin. Code; 153 Neb. Admin. Code; 158 Neb. Admin. Code; 159 Neb. Admin. Code.

<sup>363</sup> Neb. Rev. Stat. sections 81-1502, 81-1504, 81-1505, 81-1506; 119 Neb. Admin. Code.

<sup>364</sup> Neb. Rev. Stat. section 81-1505(2)(e); 120 Neb. Admin. Code.

<sup>365</sup> 153 Neb. Admin. Code, ch. 17.

<sup>366</sup> Neb. Rev. Stat. sections 81-1508; 126 Nebraska Admin. Code ch. 18.

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Nebraska. The state issues its permits through the Nebraska Department of Environmental Quality. Nebraska has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Nebraska does not have an authorized biosolids program.<sup>367</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Does not issue state permits for dredged and fill activities in waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

Table 36. Nebraska Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Informal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Nebraska has had wetland WQS since 1993 and they are contained in Title 117, Ch. 7, and codified in NE Legislation at 81-1501(1) and 81-1505(1)(2).
Wetland Monitoring & Assessment Program	X			NDEQ developed and provides oversight of their Wetland M&A program through the Nebraska Game and Parks Commission.

Source: ASWM (2015) Status and Trends Report

### 33. NEVADA

Definition of Waters of the State:

- All waters situation wholly or partly within or bordering upon the state, including but not limited to: all streams, lakes, ponds, impounding reservoirs, marshes, water courses, waterways, wells, springs, irrigation systems, and drainage systems; and all bodies or accumulations of water, surface and underground, natural or artificial.<sup>368</sup>

Definition of Wetlands:

- Land having a water table at, near or above the land surface, or land that has been saturated with water for a period of time long enough to promote wetland or aquatic processes indicated by hydric soil, hydrophytic vegetation and other biological activity adapted to a wet environment.<sup>369</sup>

<sup>367</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>368</sup> Nev. Rev. Stat. section 445A.415.

<sup>369</sup> Nev. Admin. Code section 321.448.

#### Additional State Conditions and Requirements:

- Nevada's Administrative Procedure Act provides that for purposes of a state agency's notice of intent to adopt a regulation, as well as in a statement to accompany an adopted regulation, the agency must summarize any state provisions that are more stringent than their federal counterparts. Additionally, when a small business impact statement is required, the agency must further explain why the more-stringent state provisions are necessary.<sup>370</sup>

#### State Programs:

- None identified.

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 9 in coordination with the state of Nevada.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, administered by the State Fire Marshal. Specific state requirements cover aboveground storage tanks at marinas for tanks less than 12,000 gallons, including registration, fees, and technical requirements for secondary containment and overfill prevention.<sup>371</sup>
- State code authorizes cost recovery for spills and resource damages; state does not have a spill trust fund.<sup>372</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Nevada. The state issues its permits through the Nevada Division of Environmental Protection. Nevada has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Nevada does not have an authorized biosolids program.<sup>373</sup>
- EPA issues all NPDES permits on tribal lands.<sup>374</sup>

#### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.

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<sup>370</sup> Nev. Rev. Stat. section 233B.0603(1)(a)(9); 233B.0609(6); 233B.066(1)(i).

<sup>371</sup> Nev. Admin. Code sections 459.9921, 477.323.

<sup>372</sup> Nev. Rev. Stat. section 445A.700, 445C.310.

<sup>373</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>374</sup> EPA, NPDES Wastewater & Stormwater Permits (2017), available at <https://www3.epa.gov/region9/water/npdes/permits.html>.

- Issues state permits for dredged and fill activities in waters.<sup>375</sup>
- Relies on federal permitting authority and CWA section 401.

Table 37. Nevada Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal		X		
State Issues Permits for Dredged and Fill Activities	X			Not wetlands
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		

Source: ASWM (2015) Status and Trends Report

## 34. NEW HAMPSHIRE

### Definition of Waters of the State:

- Surface waters of the state are perennial and seasonal streams, lakes, ponds, and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state, marshes, water courses, and other bodies of water, natural or artificial.<sup>376</sup>
- Groundwaters shall mean all areas below the top of the water table, including aquifers, wells and other sources of groundwater.<sup>377</sup>

### Definition of Wetlands:

- An area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions.<sup>378</sup>

### Additional State Conditions and Requirements:

- No limitations identified.

### State Programs:

- Water Pollution and Waste Disposal Act<sup>379</sup>
- Fill and Dredge in Wetlands Act<sup>380</sup>

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

<sup>375</sup> Nev. Rev. Stat. sections 322.100 *et seq.*, 503.425.

<sup>376</sup> N.H. Rev. Stat. section 485-A:2(XIV).

<sup>377</sup> *Id.* at V. Although groundwaters are not included in the same definition as surface waters for the purposes of what is a water of the state, New Hampshire treats both surface and groundwater as waters of the state in its Water Pollution and Waste Disposal Act. N.H. Rev. Stat. section 485-A:1.

<sup>378</sup> N.H. Rev. Stat. section 482-A:2.

<sup>379</sup> N.H. Rev. Stat. chapter 485-A.

<sup>380</sup> N.H. Rev. Stat. chapter 482-A.

- The 311 program is administered by EPA Region 1 in coordination with the state of New Hampshire.
- Aboveground storage tanks are regulated by the state Department of Environmental Services and the Fire Marshal's Office; state has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks. Rules apply to facilities with a single tank with a capacity greater than 660 gallons or facilities with two or more tanks capacity greater than 1,320 gallons. Requirements include registration, construction standards, release detection and prevention, secondary containment, and an SPCC Plan (certified by PE licensed in NH).<sup>381</sup>
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund.<sup>382</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- New Hampshire is not authorized to run a state NPDES program.<sup>383</sup>
- EPA issues all NPDES permits in New Hampshire.<sup>384</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in waters and wetlands.<sup>385</sup>

Table 38. New Hampshire Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting	X			All resources which meet the definition of a wetland are regulated by the state.
State Wetland Permitting Fees	X			
WQS for Wetlands		X		
Wetland Monitoring & Assessment Program	X			

Source: ASWM (2015) Status and Trends Report

## 35. NEW JERSEY

Definition of Waters of the State:

- All surface waters and ground waters in the State.<sup>386</sup>

<sup>381</sup> N.H. Code Admin. R. Env-Or 300.

<sup>382</sup> N.H. Rev. Stat. chapter 146-A.

<sup>383</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>384</sup> EPA, New Hampshire NPDES Permits, available at <https://www.epa.gov/npdes-permits/new-hampshire-npdes-permits>.

<sup>385</sup> N.H. Rev. Stat. chapter 482-A.

<sup>386</sup> N.J. Rev. Stat. section 58:1A-3.

#### Definitions of Wetlands:

- Coastal wetland: any bank, marsh, swamp, meadow, flat or other low land subject to tidal action in the State of New Jersey along the Delaware bay and Delaware river, Raritan bay, Barnegat bay, Sandy Hook bay, Shrewsbury river including Navesink river, Shark river, and the coastal inland waterways extending southerly from Manasquan Inlet to Cape May Harbor, or at any inlet, estuary or tributary waterway or any thereof, including those areas now or formerly connected to tidal waters whose surface is at or below an elevation of 1 foot above local extreme high water, and upon which may grow or is capable of growing some, but not necessarily all, of the listed plants.<sup>387</sup>
- Freshwater wetland: an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation; provided, however, that the department, in designating a wetland, shall use the 3-parameter approach (i.e. hydrology, soils and vegetation) enumerated in the April 1, 1987 interim-final draft “Wetland Identification and Delineation Manual” developed by the United States EPA, and any subsequent amendments thereto.<sup>388</sup>

#### Additional State Conditions and Requirements:

- By executive order issued in 1994, New Jersey agencies adopting a rule or regulation to implement or otherwise comply with federal programs must provide a statement as to whether the rule or regulation contains any standards or requirements which exceed the standards or requirements imposed by federal law. The agency must include a cost-benefit analysis supporting its determination to impose the standards and showing that the standards are achievable under current technology.<sup>389</sup>
- A related requirement in a 2010 executive order prohibits a state agency from proposing a rule that exceeds the requirements of federal law, except when required to do so by state law, or when doing so is necessary to achieve a New Jersey specific public policy goal. Agencies are further required to detail and justify every instance where a proposed rule exceeds the requirements of federal law or regulation.<sup>390</sup>

#### State Programs:

- Flood Hazard Area Control Act<sup>391</sup>
- Freshwater Wetlands Protection Act<sup>392</sup>
  - Provides comprehensive permitting program that regulates all activities in freshwater wetlands and “transition areas” like upland buffers adjacent to these wetlands. Freshwater Wetlands Protection Act (FWPA) regulates fills, driving of pilings, excavation, drainage and disturbance of the water table, and destruction of

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<sup>387</sup> N.J. Rev. Stat. section 13:9A-2.

<sup>388</sup> N.J. Rev. Stat. section 13:9B-3.

<sup>389</sup> N.J. Exec. Order No. 27 (Gov. Whitman), Nov. 2, 1994.

<sup>390</sup> N.J. Exec. Order No. 2 (Gov. Christie), Jan. 20, 2010.

<sup>391</sup> N.J. Rev. Stat. section 58:16A50 et seq.

<sup>392</sup> N.J. Rev. Stat. section 13:9A-1 et seq.

wetland vegetation (exemptions include activities associated with farming and forestry).

- Pinelands Protection Act<sup>393</sup>
  - Provides protections and land use restrictions for areas within the Pinelands National Reserve (includes wetlands and wetland buffer protection);
- Wetlands Act of 1970<sup>394</sup>
  - Requires permits for activities proposed within tidal and estuarine wetlands. The Act regulates draining, dredging, excavation, and placement of structures or other obstructions (exemptions include production of salt hay and mosquito control activities).
- Highlands Water Protection and Planning Act<sup>395</sup>
  - Requires approval for activities in a 400,000-acre region of the state designated for preservation; the Act regulates “Highlands Open Waters” – Highlands Open Waters includes springs, perennial and intermittent streams, wetlands and bodies of surface water whether natural or artificial, and requires a 300-foot buffer adjacent to all Highlands open waters.

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 2 in coordination with the state of New Jersey.
- State has established specific requirements for facilities with aboveground storage tanks, including requirements for secondary containment, overflow prevention, and tank integrity, similar to SPCC requirements.<sup>396</sup>
- State has also adopted the Uniform Fire Code (NFPA 30 and 30A) as well as the National Building and Mechanical Code (under BOCA) for aboveground storage tanks.<sup>397</sup>
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund (New Jersey Spill Compensation and Control Act).<sup>398</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of New Jersey. The state issues its permits through the New Jersey DEP. New Jersey has an authorized state

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<sup>393</sup> N.J. Rev. Stat. section 13:18A-1 et seq.

<sup>394</sup> N.J. Rev. Stat. section 13:9A-1 et seq.

<sup>395</sup> N.J. Rev. Stat. section 13:20-1 et seq.

<sup>396</sup> N.J. Admin. Code section 7:1E.

<sup>397</sup> *Id.*

<sup>398</sup> N.J. Rev. Stat. section 58:10-23.11.

NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. New Jersey does not have an authorized biosolids program.<sup>399</sup>

**404 Dredged and Fill Permitting:**

- New Jersey has assumed the administration of the 404 program (has full state permitting authority).<sup>400</sup>
- Issues state permits for dredged and fill activities in coastal waters and wetlands.<sup>401</sup>

*Table 39. New Jersey Wetland Program Summary*

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption	X			Freshwater wetlands (only). New Jersey administers state permitting authority for tidal wetlands. The COE administers the 404 program in tidal wetlands.
Isolated Wetland Permitting		X		
State Wetland Permitting Fees	X			
WQS for Wetlands		X		Developing wetland WQS (as of 2015)
Wetland Monitoring & Assessment Program		X		Conducts project-specific M&A only

*Source: ASWM (2015) Status and Trends Report; New Jersey DEP, email, March 9, 2018*

## 36. NEW MEXICO

**Definition of Waters of the State:**

- All water, including water situated wholly or partly within or bordering upon the state, whether surface or subsurface, public or private, except private waters that do not combine with other surface or subsurface water.<sup>402</sup>

**Definition of Wetlands:**

- Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions in New Mexico. Wetlands that are constructed outside of a surface water of the state for the purpose of providing wastewater treatment and that do not impound a surface water of the state are not included in this definition.<sup>403</sup>

**Additional State Conditions and Requirements:**

- No limitations identified.

**State Programs:**

<sup>399</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>400</sup> EPA, 2018. State or Tribal Assumption of the Section 404 Permit Program, available at <https://www.epa.gov/cwa-404/state-or-tribal-assumption-section-404-permit-program>. Mitigation is required for all wetland and water impacts permitted under an individual permit as well as for three general permits (hazardous waste cleanup and remediation, landfill closures, and redevelopment of brownfields). See ASWM, New Jersey State Wetland Program Summary, available at [https://www.aswm.org/pdf\\_lib/state\\_summaries/new\\_jersey\\_state\\_wetland\\_program\\_summary\\_090415.pdf](https://www.aswm.org/pdf_lib/state_summaries/new_jersey_state_wetland_program_summary_090415.pdf).

<sup>401</sup> N.J. Rev. Stat. sections 13:9A-1 *et seq.*

<sup>402</sup> N.M. Stat. section 74-6-2.

<sup>403</sup> N.M. Code R. section 20.6.4.7.W(4).

- The New Mexico Environment Department has a Surface Water Quality Bureau with a mission to preserve, protect, and improve New Mexico’s surface water quality for present and future generations. In support of this mission, the Surface Water Quality Bureau is comprised of three sections:
  - The Monitoring, Assessment and Standards Section is responsible for (1) collecting surface water quality data for all lakes, streams, and rivers in the State of New Mexico; (2) reviewing and/or developing WQS for surface waters, including the Triennial Review of WQS; (3) revising the state’s listing methodology for assessment and incorporating assessment results into the CWA section 303(d)/section 305(b) IR; and, (4) developing TMDL or Use Attainability Analysis (UAA) documents for waterbodies not meeting standards.
  - The Point Source Regulation Section is responsible for the protection of surface water quality through implementation of Ground and Surface Water Protection Regulations dealing with point source discharges, NPDES permitting, and spill reporting. This section also assists the USEPA with implementation of the NPDES program by conducting inspections, and reviewing and certifying federal permits through CWA section 401.
  - The Watershed Protection Section administers three programs. The Nonpoint Source Program supports surface and ground water quality protection and restoration as well as education and outreach. The Wetlands Program maps, monitors, and restores wetlands, and also collects data for future development of wetland-specific WQS. The River Stewardship Program is a state-funded effort focused on improving water quality and stream habitat statewide.

303 Water Quality Standards:

- Has EPA-approved WQS.

311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 6 in coordination with the state of New Mexico.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, administered by the State Fire Marshal. State also has specific aboveground storage tanks regulations that apply to tanks that are 1,320 gallons or more, and less than 55,000 gallons. Requirements include registration, design, construction and installation standards, release detection, record-keeping and financial responsibility.<sup>404</sup>
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund.<sup>405</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

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<sup>404</sup> N.M. Code R. section 20.5.

<sup>405</sup> N.M. Stat. sections 74-4-7, 74-4-8, 74-4-10.

402 NPDES Program:

- New Mexico is not authorized to run a state NPDES program.<sup>406</sup>
- EPA issues all NPDES permits in New Mexico.<sup>407</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Does not have a state dredged and fill program for waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

*Table 40. New Mexico Wetland Program Summary*

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Informal no net loss goal stated in the NMED Wetlands Program Plan
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Applies existing WQS for surface waters to wetlands (not wetland-specific). Developing wetland-specific WQS under CWA 104(b)(3) wetlands program.
Wetland Monitoring & Assessment Program		X		Conducts project-specific M&A only; State is working toward a rotating basin schedule for wetlands, still conducting baseline mapping. M&A included in NMED’s 2016 10-year Monitoring and Assessment Strategy

*Source: ASWM (2015) Status and Trends Report; New Mexico Environment Department, email, March 21, 2018*

## 37. NEW YORK

Definition of Waters of the State:

- Includes lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic Ocean within the territorial limits of the state of New York and all other bodies of surface or underground water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.<sup>408</sup>

Definitions of Wetlands:

- Freshwater wetlands: lands and waters of the state as shown on the freshwater wetlands map which contain any or all of the following: (a) lands and submerged lands commonly called marshes, swamps, sloughs, bogs, and flats supporting aquatic or semi-aquatic

<sup>406</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>407</sup> EPA, New Mexico NPDES Permits, available at <https://www.epa.gov/npdes-permits/new-mexico-npdes-permits>.

<sup>408</sup> N.Y. Env. Law section 17-0105(2).

vegetation<sup>409</sup>; (b) lands and submerged lands containing remnants of any vegetation that is not aquatic or semi-aquatic that has died because of wet conditions over a sufficiently long period, provided that such wet conditions do not exceed a maximum seasonal water depth of six feet and provided further that such conditions can be expected to persist indefinitely, barring human intervention; (c) lands and waters substantially enclosed by aquatic or semi-aquatic vegetation as set forth in paragraph (a) or by dead vegetation as set forth in paragraph (b) the regulation of which is necessary to protect and preserve the aquatic and semi-aquatic vegetation as set forth in paragraph (a) or by dead vegetation as set forth in paragraph (b) the regulation of which is necessary to protect and preserve the aquatic and semi-aquatic vegetation; and (d) the waters overlying the areas set forth in (a) and (b) and the lands underlying (c).<sup>410</sup>

- Tidal wetlands: shall mean and include the following: (a) those areas which border on or lie beneath tidal waters, such as, but not limited to, banks, bogs, salt marsh, swamps, meadows, flats or other low lands subject to tidal action, including those areas now or formerly connected to tidal waters; (b) all banks, bogs, meadows, flats and tidal marsh subject to such tides, and upon which grow or may grow some or any specific vegetation.<sup>411</sup>

#### Additional State Conditions and Requirements:

- No limitations identified.

#### State Programs:

- Protection of Waters Act<sup>412</sup>
- Freshwater Wetlands Act<sup>413</sup>
- Tidal Wetlands Act<sup>414</sup>
- New York Water Resource Law<sup>415</sup>
- New York has adopted a federally-approved Coastal Management Program pursuant to the federal Coastal Zone Management Act (16 U.S.C. section 1451 et seq.).
  - The Coastal Management Program contains 44 statewide coastal policies, a Regional Coastal Management Plan (Long Island) with 13 regional coastal policies, and 68 Local Waterfront Revitalization Programs containing locally-refined versions of the state enforceable coastal policies.
  - The state enforceable coastal policies fall into the following broad categories: development, fish and wildlife, flooding and erosion hazards, general, public access, recreation, historic and scenic resources, agricultural lands, energy and ice management, water and air resources, and wetlands.

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<sup>409</sup> Definition includes descriptions of eight types of vegetation (wetland trees; wetland shrubs; emergent vegetation; rooted, floating-leaved vegetation; free-floating vegetation; wet meadow vegetation; bog mat vegetation; and submergent vegetation)

<sup>410</sup> N.Y. Env. Law section 24-0107(1).

<sup>411</sup> N.Y. Env. Law section 25-0103(1). Definition includes descriptions of ten types of vegetation (salt hay, black grass, saltworts, sea lavender, tall cordgrass, high tide bush, cattails, groundsel, marsh mallow, and low marsh cordgrass).

<sup>412</sup> N.Y. Env. Law article 15.

<sup>413</sup> N.Y. Env. Law article 24.

<sup>414</sup> N.Y. Env. Law article 25.

<sup>415</sup> N.Y. Env. Law article 15.

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 2 in coordination with the state of New York.
- State has established specific requirements for facilities with aboveground storage tanks, with a combined storage capacity of more than 1,100 gallons. Technical requirements include tank registration (every five years), secondary containment, comprehensive inspections, and cathodic protection.<sup>416</sup>
- Additional requirements apply to oil storage facilities with capacities of 400,000 gallons or more, including fees, operating licenses, and implementation of a spill prevention plan.<sup>417</sup>
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund.<sup>418</sup>

### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of New York. The state issues its permits through the New York Department of Environmental Conservation. New York has an authorized state NPDES permit program, general permits program, and is authorized to regulate federal facilities. New York does not have an authorized biosolids or state pretreatment program.<sup>419</sup>
- EPA issues all NPDES permits on tribal lands and for some federal facilities.<sup>420</sup>

### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.  
Issues state permits for dredged and fill activities in waters and wetlands.<sup>421</sup>

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<sup>416</sup> N.Y. Env. Law sections 17-1001 *et seq.*

<sup>417</sup> N.Y. Nav. Law article 12.

<sup>418</sup> N.Y. Nav. Law sections 171, 189.

<sup>419</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>420</sup> EPA, New York NPDES Permits, available at <https://www.epa.gov/npdes-permits/new-york-npdes-permits>.

<sup>421</sup> N.Y. Env. Law sections 24-0101 *et seq.*, 25-0101 *et seq.*, 15-0505. New York uses a size limitation for regulating activities in freshwater wetlands (limitation of 12.4 acres) with two exceptions: wetlands having unusual local importance and wetlands in Adirondack Park. N.Y. Env. Law section 24-0301.

Table 41. New York Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal		X		
State Issues Permits for Dredged and Fill Activities	X			Does not include all wetlands
404 Assumption		X		
Isolated Wetland Permitting	X			Some mapped/regulated DEC wetlands are isolated
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Conducts project-specific M&A only

Source: ASWM (2015) Status and Trends Report; New York DEC, email, March 20, 2018

### 38. NORTH CAROLINA

#### Definition of Waters of the State:

- Any stream, river, brook, swamp, lake, sound, tidal estuary, bay, creek, reservoir, waterway, or other body or accumulation of water, whether surface or underground, public or private, or natural or artificial, that is contained in, flows through, or borders upon any portion of this State, including any portion of the Atlantic Ocean over which the State has jurisdiction.<sup>422</sup>

#### Definition of Wetlands:

- Areas that are inundated or saturated by an accumulation of 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. Wetlands classified as waters of the state are restricted to waters of the United States as defined by 33 CFR 328.3 and 40 CFR 230.3.<sup>423</sup>

#### Additional State Conditions and Requirements:

- Subject to certain exceptions, North Carolina agencies that implement and enforce environmental laws may not adopt a rule for protection of the environment or natural resources that imposes a more restrictive standard, limitation, or requirement than those imposed by federal law or rule, if a federal law or rule pertaining to the same subject matter has been adopted. The exceptions, which are narrow, include where adoption of a more restrictive rule would be required by a serious and unforeseen threat to the public health, safety, or welfare.<sup>424</sup>
- Wetlands classified as waters of the state are restricted to waters of the United States as defined by 33 CFR 328.3 and 40 CFR 230.3.<sup>425</sup>

<sup>422</sup> N.C. Gen. Stat. 143-212(6).

<sup>423</sup> 15A N.C. Admin. Code 02B.0202.

<sup>424</sup> N.C. Gen. Stat. section 150B-19.3.

<sup>425</sup> 15A N.C. Admin. Code 02B .0202.

#### State Programs:

- Coastal Area Management Act<sup>426</sup>
  - Coastal wetlands are regulated within areas of environmental concern.
- Riparian Area Buffer Rules<sup>427</sup>
  - Buffers provided for intermittent or perennial streams, lakes, ponds, and estuaries; no buffers provided for ditches, ephemeral streams, or wetlands.

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 4 in coordination with the state of North Carolina.
- State regulates aboveground storage tanks at oil terminal facilities only, having a capacity of 21,000 gallons or higher (excluding retail gasoline operations). Facilities are required to must register with the state and provide a site plan and description of procedures for the prevention of oil spills.<sup>428</sup>
- Aboveground storage tanks are also covered by the NC Carolina Fire Code (following NFPA Standard 30 and 30A), administered by the State Fire Marshal.<sup>429</sup>
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund.<sup>430</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of North Carolina. The state issues its permits through the North Carolina Department of Environmental Quality. North Carolina has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. North Carolina does not have an authorized biosolids program.<sup>431</sup>
- EPA issues all NPDES permits on tribal lands.<sup>432</sup>

#### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in waters and for wetlands.<sup>433</sup>

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<sup>426</sup> N.C. Gen. Stat. section 113A-100.

<sup>427</sup> 15 N.C. Admin. Code 02B.0233, 02B.0250, 02B.0259.

<sup>428</sup> N.C. Gen. Stat. sections 143-215.95 *et seq.*

<sup>429</sup> NC DEQ, Underground Storage Tank Section, available at <http://portal.ncdenr.org/web/wm/ust/otfmain>.

<sup>430</sup> N.C. Gen. Stat. sections 143-215.87, 143-215.88, 143-215.88A, 143-215.90, 143-215.93.

<sup>431</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>432</sup> EPA, North Carolina NPDES Permits, available at <https://www.epa.gov/npdes-permits/north-carolina-npdes-permits>.

<sup>433</sup> N.C. Gen. Stat. sections 113-229, 113A-100 *et seq.*; 15A N.C. Admin. Code 2H .1300.

Table 42. North Carolina Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting	X			
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Wetland-specific WQS
Wetland Monitoring & Assessment Program		X		Conducts project-specific M&A only

Source, in part: ASWM (2015) Status and Trends Report

### 39. NORTH DAKOTA

#### Definition of Waters of the State:

- All waters within the limits of the state from the following sources of water supply: waters on the surface of the earth excluding diffused surface waters but including surface waters whether flowing in well-defined channels or flowing through lakes, ponds, or marshes which constitute integral parts of a stream system, or waters in lakes; waters under the surface of the earth whether such waters flow in defined subterranean channels or are diffused percolating underground water; all residual waters resulting from beneficial use, and all waters artificially drained; and all waters, excluding privately owned waters, in areas determined by the state engineer to be noncontributing drainage areas. A noncontributing drainage area is any area that does not contribute natural flowing surface water to a natural stream or watercourse at an average frequency more often than once in three years over the latest 30-year period.<sup>434</sup>

#### Definition of Wetlands:

- A natural depressional area that is capable of holding shallow, temporary, intermittent, or permanent water. It does not include sheetwater.<sup>435</sup>

#### Additional State Conditions and Requirements:

- The state department of health may only adopt rules more stringent than federal regulations if, after a public hearing, a written finding is made that federal regulations are not adequate to protect public health and the environment of the state; this law applies to rules adopted pursuant to a number of federal laws including the CWA.<sup>436</sup>

#### State Programs:

- None identified.

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

<sup>434</sup> N.D. Cent. Code section 61-01-01.

<sup>435</sup> N.D. Cent. Code section 61-31-02 (7).

<sup>436</sup> N.D. Cent. Code section 23-01-04.1.

311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 8 in coordination with the state of North Dakota.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, administered by the State Fire Marshal. All owners or operators of aboveground petroleum storage tanks are required to register tanks with the state and pay an annual registration fee for each tank.<sup>437</sup>
- State code authorizes cost recovery for spills; state has a spill trust fund (Petroleum Tank Release Compensation Fund; covers registered tanks).<sup>438</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of North Dakota. The state issues its permits through the North Dakota Department of Health. North Dakota has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. North Dakota does not have an authorized biosolids program.<sup>439</sup>
- EPA issues all NPDES permits on tribal lands.<sup>440</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Does issue state permits for dredged and fill activities in waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

*Table 43. North Dakota Wetland Program Summary*

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal			X	
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Conducts project-specific M&A only

*Source: ASWM (2015) Status and Trends Report*

<sup>437</sup> See North Dakota Attorney General, Above Ground Storage of Liquid Fuels, available at <https://attorneygeneral.nd.gov/public-safety/above-ground-storage-liquid-fuels>.

<sup>438</sup> N.D. Cent. Code, sections 23-20.3-05.1, 23-20.3-09, 23-31-01, 23-37-12.

<sup>439</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>440</sup> EPA, North Dakota NPDES Permits (2017) available at <https://www.epa.gov/npdes-permits/north-dakota-npdes-permits>.

## 40. OHIO

### Definition of Waters of the State:

- All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and other bodies or accumulations of water, surface and underground, natural or artificial, regardless of the depth of the strata in which underground water is located, that are situated wholly or partly within or border upon this state or are within its jurisdiction.<sup>441</sup>

### Definition of Wetlands:

- Those areas that are inundated or saturated by surface or 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. Wetlands includes swamps, marshes, bogs, and similar areas that are delineated in accordance with the 1987 United States army corps of engineers wetland delineation manual and any other procedures and requirements adopted by the United States army corps of engineers for delineating wetlands.<sup>442</sup>

### Additional State Conditions and Requirements:

- Prior to adopting any rule relating to environmental protection, state agencies must take steps involving a cost-benefits analysis and technological feasibility of the rule; the agency must submit information to the joint committee on agency rule review.<sup>443</sup>

### State Programs:

- Isolated Wetlands Law<sup>444</sup>

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 5 in coordination with the state of Ohio.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks (as Ohio Fire Code) administered by the State Fire Marshal. Permits are required to install, remove, repair or modify tanks.<sup>445</sup>
- State code authorizes cost recovery for spills; state has a spill trust fund for use by the state to investigate and respond to spills.<sup>446</sup>

### 401 Certification:

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<sup>441</sup> Ohio Rev. Code section 1501.30(A)(6).

<sup>442</sup> Ohio Rev. Code section 6111.02(P).

<sup>443</sup> Ohio Rev. Code section 121.39.

<sup>444</sup> Ohio Admin. Code 3745-1-50.

<sup>445</sup> Ohio Admin. Code 1301:7-7-01 *et seq.*

<sup>446</sup> Ohio Rev. Code sections 3745.12-.13.

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Ohio. The state issues its permits through the Ohio EPA. Ohio has an authorized state NPDES permit program, state pretreatment program, general permits program, biosolids program, and is authorized to regulate federal facilities.<sup>447</sup>
- EPA issues all NPDES permits on tribal lands.<sup>448</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.<sup>449</sup>
- Issues state permits for dredged and fill activities in isolated wetlands.<sup>450</sup>
- Relies on federal permitting authority and CWA section 401.

Table 44. Ohio Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities	X			Isolated Wetlands Only
404 Assumption		X		
Isolated Wetland Permitting	X			
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Wetland-specific WQS
Wetland Monitoring & Assessment Program	X			

Source: ASWM (2015) Status and Trends Report; Ohio EPA, email, March 5, 2018

## 41. OKLAHOMA

Definition of Waters of the State:

- All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, storm sewers, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion thereof, and includes under all circumstances the waters of the United States which are contained within the boundaries of, flow through or border upon the state.<sup>451</sup>

Definition of Wetlands:

<sup>447</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>448</sup> EPA, Ohio NPDES Permits, available at <https://www.epa.gov/npdes-permits/ohio-npdes-permits>.

<sup>449</sup> Ohio has considered assumption in 2012-2013. A 2012 attempt to amend the state statute (Ohio Revised Code) as part of an omnibus bill was never adopted by the legislature. Another attempt in 2013 to add it to the budget bill was removed by amendment prior to passing of the bill.

<sup>450</sup> Ohio Rev. Code sections 6111.021 *et seq.*

<sup>451</sup> Oklahoma Stat. tit. 27A, section 1-1-201 (20).

- Those lands subject to periodic or seasonal flooding by water as defined under Section 404 of the CWA and so designated by the State or Federal agency charged with making such determination.<sup>452</sup>

#### Additional State Conditions and Requirements:

- Each state environmental agency, prior to adopting rules that are more stringent than federal requirements, must prepare a statement outlining economic impacts and environmental benefits of the rules; the statement must be submitted to the governor and legislature.<sup>453</sup>

#### State Programs:

- None identified.

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 6 in coordination with the state of Oklahoma.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, administered by the State Fire Marshal.<sup>454</sup>
- Facilities with aboveground petroleum storage tanks (110 gallons or greater at retail, public airports, marinas, and emergency generators or 2100 gallons or greater at fleet and commercial facilities) must register tanks with Oklahoma Corporation Commission, pay fees, and meet technical requirements related to secondary containment, overflow protection, design, security, inspection and release reporting.<sup>455</sup>
- State code authorizes cost recovery for spills; state has a spill trust fund.<sup>456</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Oklahoma. The state issues its permits through the Oklahoma Dept. of Environmental Quality. Oklahoma has an authorized state NPDES permit program, state pretreatment program, general permits program, biosolids program, and is authorized to regulate federal facilities.<sup>457</sup>
- EPA issues permits on all tribal lands.<sup>458</sup>

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<sup>452</sup> Okla. Admin. Code 460:30-1-3.

<sup>453</sup> Oklahoma Stat. tit. 27A, section 1-1-206.

<sup>454</sup> Okla. Admin. Code 165:26-1 *et seq.*

<sup>455</sup> *Id.*

<sup>456</sup> Oklahoma Stat. tit. 27A, section 2-7-129; Okla. Admin. Code 252:205-13-1, 252:205-23-2.

<sup>457</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>458</sup> EPA, Oklahoma NPDES Permits, available at <https://www.epa.gov/npdes-permits/oklahoma-npdes-permits>.

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Does not issue state permits for dredged and fill activities in waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

Table 45. Oklahoma Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands		X		Developing wetland WQS (as of 2015); has been on hold due to a lack of stakeholder support, not current priority for the state and no clear objective on how to move forward
Wetland Monitoring & Assessment Program		X		Monitoring & Assessment/ Mapping and Classification has been partially completed for the state through 104(b)(3) funded projects; may be noted as “Project-specific” similar to NM, not yet on a rotating basin schedule.

Source: ASWM (2015) Status and Trends Report

## 42. OREGON

Definition of Waters of the State:

- Lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the state, and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.<sup>459</sup>

Definition of Wetlands:

- Those areas that are inundated or saturated by surface or groundwater 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.<sup>460</sup>

Additional State Conditions and Requirements:

- The Oregon Environmental Quality Commission and the Department of Environmental Quality are prohibited from promulgating or enforcing effluent limitations upon nonpoint source discharges of pollutants resulting from forest operations on forestlands, unless required to do so by the federal CWA.<sup>461</sup>

<sup>459</sup> Or. Rev. Stat. section 468B.005.

<sup>460</sup> Or. Admin. R. 340-055-0010.

<sup>461</sup> Or. Rev. Stat. section 468B.110(2).

- Oregon’s Administrative Procedure Act sets forth the state policy that agencies are to adopt rules that correspond with equivalent federal laws and rules, unless: (1) there is specific statutory direction to the agency that authorizes adoption of the rule; (2) a federal waiver authorizes the adoption of the rule; (3) local or special conditions in the state warrant a different rule; (4) the state rule clarifies federal rules, standards, procedures, or requirements; (5) the state rule achieves the goals of the federal and state law with the least impact on public and private resources; or (6) there is no corresponding federal regulation.<sup>462</sup>

State Programs:

- Removal-Fill Law<sup>463</sup>
  - Operated under the Oregon Department of State Lands and requires a permit before an applicant may remove or fill 50 cubic yards or more of material in any waters of the state (except in designated essential salmonid habitat and state designated scenic waterways, where the 50 cubic yard exemption doesn’t apply).
- Wetlands Mitigation Bank<sup>464</sup>

303 Water Quality Standards:

- Has EPA-approved WQS.

311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 10 in coordination with the state of Oregon.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, administered by the State Fire Marshal and local fire departments (OR Fire Code). OR Department of Environmental Quality enforces requirements for facilities with aboveground storage tanks with capacities of 10,000 gal or greater where petroleum oil is received from pipelines or vessels.<sup>465</sup>
- State also has worst case spill contingency plan requirements for oil storage facilities.
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund (Oil Spillage Control Fund) for use by the state for activities, such as reviewing contingency plans and carrying out cleanup activities.<sup>466</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

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<sup>462</sup> Or. Rev. Stat. section 183.332.

<sup>463</sup> Or. Rev. Stat. sections 196.800 *et seq.*

<sup>464</sup> Or. Rev. Stat. sections 196.600 *et seq.*

<sup>465</sup> Or. Admin. R. 837-040-0010 *et seq.*

<sup>466</sup> Or. Rev. Stat. sections 468B.45, 468B.310, 468B.320, 468B.455.

- EPA has delegated authority to issue NPDES permits to the state of Oregon. The state issues its permits through the Oregon Department of Environmental Quality. Oregon has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Oregon does not have an authorized biosolids program.<sup>467</sup>
- EPA issues permits on all tribal lands and in federal waters off the coast.<sup>468</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in waters and wetlands.<sup>469</sup>

Table 46. Oregon Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		Currently working towards assumption (as of 2017)
Isolated Wetland Permitting	X			
State Wetland Permitting Fees	X			
WQS for Wetlands		X		Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program	X			Wetland Monitoring and Assessment is a multi-agency effort.

Source: ASWM (2015) Status and Trends Report

### 43. PENNSYLVANIA

Definition of Waters of the State:

- Includes any and all rivers, streams, creeks, rivulets, impoundments, ditches, water courses, storm sewers, lakes, dammed water, ponds, springs and all other bodies or channels of conveyance of surface or underground water, or parts thereof, whether natural or artificial, within or on the boundaries of this Commonwealth.<sup>470</sup>

Definition of Wetlands:

- Areas that are inundated or saturated by surface water or groundwater 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, including swamps, marshes, bogs and similar areas.<sup>471</sup>

Additional State Conditions and Requirements:

<sup>467</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>468</sup> EPA, Oregon NPDES Permits, available at <https://www.epa.gov/npdes-permits/oregon-npdes-permits>.

<sup>469</sup> Or. Rev. Stat. sections 196.800 *et seq.*; Or. Admin. R. 660-015-0010.

<sup>470</sup> 35 Pa. Cons. Stat. section 691.1.

<sup>471</sup> *Id.*

- State agencies may not exceed federal standards unless justified by a compelling and articulable interest or required by state law.<sup>472</sup>

#### State Programs:

- The Clean Streams Law<sup>473</sup>
- Dam Safety and Encroachments Act<sup>474</sup>
- Flood Plain Management Act<sup>475</sup>
- Stormwater Management Act<sup>476</sup>

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 3 in coordination with the state of Pennsylvania.
- State has specific requirements for aboveground storage tank with capacities greater than 250 gallons, including registration, permitting, inspections (for tanks >5,000 gallons) and release reporting. Spill prevention response plans are required for facilities with capacities greater than 21,000 gallons. Specific technical requirements for containment, overflow prevention, corrosion protection, leak detection, and inspection/testing. Tanks located at oil production facilities and a food-related facilities are exempted.<sup>477</sup>
- State code authorizes cost recovery for taking corrective action in response to spills; state has a spill trust fund (Storage Tank Fund) for use by the state to operate the underground and aboveground storage tank programs and carrying out spill cleanup activities.<sup>478</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Pennsylvania. The state issues its permits through the Pennsylvania DEP. Pennsylvania has an authorized state NPDES permit program, general permits program, and is authorized to regulate federal facilities. Pennsylvania does not have an authorized biosolids or state pretreatment program.<sup>479</sup>

#### 404 Dredged and Fill Permitting:

<sup>472</sup> Pa. Exec. Order No. 1996-1 (Feb. 6, 1996); 4 Pa. Code section 1.371(5) .

<sup>473</sup> 35 Pa. Cons. Stat. sections 691.1 *et seq.*

<sup>474</sup> 32 Pa. Cons. Stat. sections 693.1 *et seq.*; 25 Pa. Code Chapter 105.

<sup>475</sup> 32 Pa. Cons. Stat. sections 679.101 *et seq.*; 25 Pa. Code Chapter 106.

<sup>476</sup> 32 Pa. Cons. Stat. sections 680.1 *et seq.*

<sup>477</sup> P.L. 169, No. 32.

<sup>478</sup> 35 Pa. Cons. Stat. sections 691.8, 691.602.

<sup>479</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

- Has not assumed the Section 404 program.<sup>480</sup>  
Issues state permits for dredged and fill activities in waters and wetlands.<sup>481</sup>

Table 47. Pennsylvania Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			25 Pa. Code Chapter 105 regulations include wetland replacement criteria that requires wetlands to be replaced at a minimum 1:1 ratio of area replacement and a minimum 1:1 ratio of functions and values replacement (25 Pa. Code sections 105.18a(a)(7); 105.18a(b)(7) and 105.20a). Pennsylvania (along with, among others, Maryland, Virginia, Delaware and West Virginia) is one of the signatories to the Chesapeake Bay 2014 Agreement, which includes the following outcome for wetlands within the Chesapeake Bay watershed (which includes portions of Pennsylvania): “Continually increase the capacity of wetlands to provide water quality habitat benefits throughout the watershed. Create or re-establish 85,000 acres of tidal and non-tidal wetlands and enhance the function of an additional 150,000 acres of degraded wetlands by 2025.
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting	X			Pennsylvania defines wetlands in a such a way that includes wetlands that might be considered isolated under federal law, including exceptional value and other wetlands; Pennsylvania has separate state permitting requirements for exceptional value wetlands (25 Pa. Code section 105.18a(a)) and other wetlands (25 Pa. Code section 105.18a(b)), whether isolated or not.
State Wetland Permitting Fees	X			
WQS for Wetlands		X		Applies existing WQS to wetlands (not wetland-specific). Under the Wetland Program Plan, there is a goal to develop numeric wetland-specific WQS
Monitoring & Assessment Program	X			Under PA’s Wetland Program Plan (prepared in connection with ESTP), there is a goal to develop a long-term assessment plan

Source: ASWM (2015) Status and Trends Report; Pennsylvania DEP, email, March 22, 2018

## 44. PUERTO RICO

### Definition of Waters of the Territory:

- All coastal waters, surface waters, estuarine waters, ground waters and wetlands as defined in this Regulation.<sup>482</sup>

<sup>480</sup> Implements a State Programmatic General Permit pursuant to CWA 404(e) for specifically identified activities under Section 404 of the CWA or section 10 of the Rivers and Harbors Act of 1899. The currently operative permit is PASPGP-5 (issued July 2016). 46 Pa. B. 3879; <http://www.nap.usace.army.mil/Portals/39/docs/regulatory/spgp/PASPGP-5.pdf?ver=2018-01-12-111748-487>.

<sup>481</sup> 32 Pa. Cons. Stat. sections 693.1 *et seq.*

<sup>482</sup> Puerto Rico Rule 1301.1.

Definition of Wetlands:

- A natural area saturated by surface or ground water, at an interval or duration sufficient to sustain, and under normal circumstances, does sustain or would sustain vegetation typically adapted to saturated, flooded, or marshy soil conditions, which includes areas such as swamps, marshes, coastal plains (salt flats and mud flats), open bodies of water, salt marshes or similar areas.<sup>483</sup>

Additional Territory Conditions and Requirements:

- No limitations identified.

Territory Programs:

- Protection of Puerto Rico’s Drinking Water<sup>484</sup>
- Conservation, Development and Water Resources Use in PR<sup>485</sup>
- Navigation and Water Safety<sup>486</sup>

303 Water Quality Standards:

- Has EPA-approved WQS.

311 Oil Spill Prevention, Preparedness and Response:

- Territory does not have an aboveground storage tank regulatory program and relies on EPA to directly implement federal spill prevention and preparedness regulations.

401 Certification:

- The territory has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA issues all NPDES permits within Puerto Rico.<sup>487</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Relies on federal permitting authority and CWA section 401.

Table 48. Puerto Rico Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			
Territory Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees			X	
WQS for Wetlands	X			
Wetland Monitoring & Assessment Program	X			

<sup>483</sup> 12 L.P.R.A. section 5005.

<sup>484</sup> 12 L.P.R.A. sections 405 *et seq.*

<sup>485</sup> 12 L.P.R.A. sections 1115 *et seq.*

<sup>486</sup> 12 L.P.R.A. sections 1401 *et seq.*

<sup>487</sup> EPA, Puerto Rico NPDES Permits, available at <https://www.epa.gov/npdes-permits/puerto-rico-npdes-permits>.

## 45. RHODE ISLAND

### Definition of Waters of the State:

- All surface waters including all waters of the territorial sea; tidewaters; all inland waters of any river, stream, brook, pond, or lake; and wetlands, as well as all groundwaters.<sup>488</sup>

### Definitions of Wetlands:

- Freshwater wetlands: Includes, but is not limited to, those areas that are inundated or saturated by surface or groundwater at a frequency and duration to support, and that under normal circumstances do support a prevalence of vegetation adapted for life in saturated soil conditions. Freshwater wetlands includes, but is not limited to: marshes, swamps, bogs, emergent, and submergent plant communities, and for the purposes of this chapter, rivers, streams, ponds, and vernal pools.<sup>489</sup>
- Coastal wetland: Any salt marsh bordering on the tidal waters of this state, whether or not the tidal waters reach the littoral areas through natural or artificial watercourses, and those uplands directly associated and contiguous thereto which are necessary to preserve the integrity of that marsh. Marshes shall include those areas upon which grow one or more of certain species.<sup>490</sup>

### Additional State Conditions and Requirements:

- No limitations identified.

### State Programs:

- Freshwater Wetlands Act<sup>491</sup>
- Coastal Resources Management Council<sup>492</sup>
  - Coastal wetlands are regulated exclusively by the Coastal Resources Management Council.
  - Coastal Resources Management Council also has regulatory authority for freshwater wetlands in the vicinity of the coast, which are designated via maps.

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 1 in coordination with the state of Rhode Island.

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<sup>488</sup> R.I. Gen. Laws section 46-12-1.

<sup>489</sup> R.I. Gen. Laws section 2-1-20.

<sup>490</sup> R.I. Gen. Laws section 46-23-6. Definition includes descriptions of seventeen types of vegetation (smooth cordgrass, salt meadow grass, spike grass, black rush, saltworts, sea lavender, saltmarsh bulrushes, hightide bush, tall reed, tall cordgrass, broadleaf cattail, narrowleaf cattail, spike rush, chairmaker's rush, creeping bentgrass, sweet grass, and wild rye).

<sup>491</sup> R.I. Gen. Laws sections 2-1-18, *et seq.*

<sup>492</sup> R.I. Gen. Laws sections 46-23-1, *et seq.*

- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, administered by the State Fire Marshal.
- State also has specific requirements for aboveground storage tanks with a combined storage capacity over 500 gallons, including overfill protection, secondary containment, cathodic protection for tank bottoms, and inspections (routine and for tanks of 10,000 gallons or more, detailed inspections required within 10 years of the tank installation). Spill Prevention and Emergency Plans are required; facilities can use federal SPCC plans to comply.<sup>493</sup>
- State code authorizes cost recovery for spills and resource damages; state has a spill trust fund.<sup>494</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Rhode Island. The state issues its permits through the Rhode Island DEP. Rhode Island has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Rhode Island does not have an authorized biosolids program.<sup>495</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.  
Issues state permits for dredged and fill activities in waters and wetlands.<sup>496</sup>

*Table 49. Rhode Island Wetland Program Summary*

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Informal “No Net Loss” goal for freshwater wetlands. CRMC has a “no net loss” policy for coastal wetlands as specified in CRMP Section 210.3
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting	X			All resources which meet the definition of a wetland are regulated by the state
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Conducts project-specific M&A only

*Source: ASWM (2015) Status and Trends Report*

<sup>493</sup> 250 R.I. Code R. 140-25-2.

<sup>494</sup> R.I. Gen. Laws sections 46-12.5.1-6, 46-12.5.1-7, 46-12.7-2.1.

<sup>495</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>496</sup> R.I. Gen. Laws sections 2-1-18 *et seq.*, 46-23-1 *et seq.*

## 46. SOUTH CAROLINA

### Definition of Waters of the State:

- Lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic Ocean within the territorial limits of the State and all other bodies of surface or underground water, natural or artificial, public or private, inland or coastal, fresh or salt, which are wholly or partially within or bordering the State or within its jurisdiction.<sup>497</sup>

### Definition of Wetlands:

- Coastal wetlands: include marshes, mudflats, and shallows and means those areas periodically inundated by saline waters whether or not the saline waters reach the area naturally or through artificial water courses and those areas that are normally characterized by the prevalence of saline water vegetation capable of growth and reproduction. Provided, however, nothing in this definition shall apply to wetland areas that are not an integral part of an estuarine system. Further, until such time as the exact geographic extent of this definition can be scientifically determined, the department shall have the authority to designate its approximate geographic extent.<sup>498</sup>

### Additional State Conditions and Requirements:

- No limitations identified.

### State Programs:

- South Carolina Pollution Control Act<sup>499</sup>
- Coastal Zone Management Act<sup>500</sup>
  - Provides the state with regulatory authority for permitting in critical areas of the coastal zone; critical areas include marshes, beaches, and coastal waters.
- Isolated Wetlands and Carolina Bays Task Force
  - Made recommendations for isolated wetlands in 2013 and is non-regulatory.

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 4 in coordination with the state of South Carolina.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, administered by the State Fire Marshal. Owners must register tanks with the State Fire Marshal's Office for review.<sup>501</sup>
- State code authorizes cost recovery for spills; state does not have a spill trust fund.<sup>502</sup>

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<sup>497</sup> S.C. Code Ann. section 48-1-10(2).

<sup>498</sup> S.C. Code Ann. section 48-39-10(G).

<sup>499</sup> S.C. Code Ann. section 48-1-10.

<sup>500</sup> S.C. Code Ann. sections 8-39-10 *et seq.*

<sup>501</sup> S.C. Code Ann. section 39-41-260.

<sup>502</sup> S.C. Code Ann. sections 48-43-560, 48-43-610.

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of South Carolina. The state issues its permits through the South Carolina Department of Health and Environmental Control. South Carolina has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. South Carolina does not have an authorized biosolids program.<sup>503</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in coastal waters and wetlands.<sup>504</sup>
- Relies on federal permitting authority and CWA section 401.

Table 50. South Carolina Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal			X	In 1990, the Freshwater Wetlands Task Force report recommended that state agencies adopt a no net loss goal for wetland activities; however, this goal is not stated in regulations and it is currently unclear whether or not there are any policy directives
State Issues Permits for Dredged and Fill Activities	X			Coastal Only
404 Assumption		X		
Isolated Wetland Permitting			X	Non-federally jurisdictional wetland impacts in the eight county coastal zone are reviewed by SC DHEC coastal zone consistency staff, pursuant to requirements in the S.C.C.A. 48-39-10 et. seq. and S.C. Code Regs 30-1 et. seq., if any State permit is sought
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetlands-specific)
Wetland Monitoring & Assessment Program		X		Conducts project-specific M&A only

Source: ASWM (2015) Status and Trends Report

## 47. SOUTH DAKOTA

Definitions of Waters of the State:

- All waters within the jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state.<sup>505</sup>

<sup>503</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>504</sup> S.C. Code Ann. sections 8-39-10 et seq.

<sup>505</sup> S.D. Codified Laws section 34A-2-2(12).

#### Definition of Wetlands:

- Those 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 including swamps, marshes, bogs, and similar areas.<sup>506</sup>

#### Additional State Conditions and Requirements:

- No rule that has been promulgated pursuant to South Dakota's laws regarding environmental protection, mining, oil, gas, and/or water may be more stringent than any corresponding federal law, rule, or regulation.<sup>507</sup>
- Another South Dakota stringency provision governs the rules pertaining to applications for a federal license or permit necessary to conduct an activity which may result in a discharge into waters of the state. It prohibits the Water Management Board from establishing rules for certification that exceed minimum federal requirements.<sup>508</sup>

#### State Programs:

- SD Game, Fish and Park's Shoreline Alteration Program<sup>509</sup>
- Concentrated animal feeding operations permit<sup>510</sup>
- Provides municipalities the authority to adopt ordinances to implement and enforce wellhead protection programs.<sup>511</sup>
- Parallel to section 303 for standards.<sup>512</sup>
- Parallel to TMDLs in section 303<sup>513</sup>
- Oil spill reporting, response, and remediation<sup>514</sup>
- Parallel to section 311<sup>515</sup>
- Parallel to section 402<sup>516</sup>

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 8 in coordination with the state of South Dakota.

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<sup>506</sup> S.D. Admin. R. 74:51:01:01(53).

<sup>507</sup> S.D. Codified Laws section 1-40-4.1.

<sup>508</sup> S.D. Codified Laws 34A-2-34.

<sup>509</sup> South Dakota Department of Game, Fish, and Parks, 2018. *Application to Alter Lakeshore or Bottom Lands*, available at <https://apps.sd.gov/GF55AquaticsOnline/ShorelineAlteration.aspx>.

<sup>510</sup> South Dakota DENR, General Water Pollution Control Permit for Concentrated Animal Feeding Operations, available at <http://denr.sd.gov/des/fp/documents/2017GeneralPermit.pdf>.

<sup>511</sup> S.D. Codified Laws section 9-12-17.

<sup>512</sup> S.D. Codified Laws section 34A-2-11.

<sup>513</sup> S.D. Codified Laws section 34A-2-6.

<sup>514</sup> S.D. Codified Laws section 34A-12.

<sup>515</sup> S.D. Codified Laws sections 34A-2-96, 34A-18.

<sup>516</sup> S.D. Codified Laws section 34A-2-36.

- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, administered by the State Fire Marshal.<sup>517</sup>
- State also has differentiated requirements for aboveground storage tanks for facilities with total capacities of 250,000 gallons or less and facilities with more 250,000 gallons, including secondary containment, overfill protection, cathodic protection, and internal inspections.<sup>518</sup>
- State code authorizes cost recovery for spills; state has a spill trust fund (Petroleum Release Compensation Fund).<sup>519</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of South Dakota. The state issues its permits through the South Dakota Department of Environment and Natural Resources. South Dakota has an authorized state NPDES permit program, state pretreatment program, general permits program, biosolids program, and is authorized to regulate federal facilities.<sup>520</sup>
- EPA issues all NPDES permits on tribal lands.<sup>521</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Does not issue state permits for dredged and fill activities in waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

*Table 51. South Dakota Wetland Program Summary*

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal		X		
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Possibly monitors through other non-wetland monitoring programs

*Source: ASWM (2015) Status and Trends Report; South Dakota DENR, email, February 28, 2018*

<sup>517</sup> S.D. Codified Laws section 34A-2-100.

<sup>518</sup> *Id.*

<sup>519</sup> S.D. Codified Laws sections 34A-12-3, 34A-12-12, 34A-2-53.

<sup>520</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>521</sup> EPA, South Dakota NPDES Permits, available at <https://www.epa.gov/npdes-permits/south-dakota-npdes-permits>.

## 48. TENNESSEE

### Definition of Waters of the State:

- Any and all water, public or private, on or beneath the surface of the ground, that are contained within, flow through, or border upon Tennessee or any portion thereof, except those bodies of water confined to and retained within the limits of private property in single ownership that do not combine or effect a junction with natural surface or underground waters.<sup>522</sup>

### Definition of Wetlands:

- Those 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.<sup>523</sup>

### Additional State Conditions and Requirements:

- The government operations committee reviewing an environmental protection or water pollution control rule must recommend to the general assembly termination of any rule that imposes on municipalities or counties environmental requirements or restrictions that are more stringent than federal statutes or rules on the same subject and that result in increased expenditure requirements on municipalities or counties beyond those required to meet the federal requirements – provided that, during the public comment period, the agency was made aware of the issue, and the increased expenditure level was specified. The provision does not apply if the general assembly has appropriated funds to cover the increased expenditures.<sup>524</sup>

### State Programs:

- Water Quality Control Act<sup>525</sup>

### 303 Water Quality Standards:

- Has EPA-approved WQS.

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 4 in coordination with the state of Tennessee.
- State has adopted the 2003 edition of the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, administered by the State Fire Marshal.<sup>526</sup>
- State code authorizes cost recovery for spills; state does not have a spill trust fund related to aboveground storage tanks (one exists for underground storage tanks).<sup>527</sup>

### 401 Certification:

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<sup>522</sup> Tenn. Code Ann. section 69-3-103.

<sup>523</sup> Tenn. Comp. R. & Regs. 0400-40-07-.03.

<sup>524</sup> Tenn. Code Ann. section 4-5-226(k).

<sup>525</sup> Tenn. Code Ann. sections 69-3-101 *et seq.*

<sup>526</sup> Tenn. Code Ann. sections 50-3-101 *et seq.*

<sup>527</sup> Tenn. Code Ann. sections 68-212-114, 68-216-103.

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Tennessee. The state issues its permits through the Tennessee Department of Environment and Conservation. Tennessee has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Tennessee does not have an authorized biosolids program.<sup>528</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in waters and wetlands.<sup>529</sup>

Table 52. Tennessee Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			0400-40-07.04 (5)(a) & (6)(c)
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting	X			State ARAP program regulates isolated wetlands unless they are entirely under ownership by a single entity and are shown to have no connection with ground water. (see def. of State waters above)
State Wetland Permitting Fees	X			
WQS for Wetlands		X		Developing wetland WQS (as of 2015)
Wetland Monitoring & Assessment Program		X		Program development in progress (as of 2015)

Source: ASWM (2015) Status and Trends Report; Tennessee DEC, email, March 26, 2018

## 49. TEXAS

Definition of Waters of the State:

- Groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or non-navigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.<sup>530</sup>

Definition of Wetlands:

- An area (including a swamp, marsh, bog, prairie pothole, or similar area) having a predominance of hydric soils that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and that under normal circumstances supports the growth and regeneration of hydrophytic vegetation. The term “hydric soil”

<sup>528</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>529</sup> Tenn. Code Ann. section 69-3-108; Tenn. Comp. R. & Regs. 1200-4-7.

<sup>530</sup> Tex. Water Code section 26.001(5).

means soil that, in its undrained condition, is saturated, flooded, or ponded long enough during a growing season to develop an anaerobic condition that supports the growth and regeneration of hydrophytic vegetation. The term “hydrophytic vegetation” means a plant growing in: water or a substrate that is at least periodically deficient in oxygen during a growing season as a result of excessive water content. The term “wetland” does not include irrigated acreage used as farmland; a man-made wetland of less than one acre; or a man-made wetland where construction or creation commenced on or after August 28, 1989, and that was not constructed with wetland creation as a stated objective, including but not limited to an impoundment made for the purpose of soil and water conservation that has been approved or requested by soil and water conservation districts. If this definition of wetland conflicts with the federal definition in any manner, the federal definition prevails.<sup>531</sup>

#### Additional State Conditions and Requirements:

- The Texas Commission on Environmental Quality is prohibited from entering into a memorandum of agreement or any other form of contract with or among state or federal agencies that would impose requirements on the state with respect to administering the water pollution control permitting program under the CWA that are “other than” or more stringent than those “specifically set forth” in CWA section 402(b). This narrow provision does not, on its face, prohibit Texas Commission on Environmental Quality from enacting regulatory requirements that are more stringent than federal law; rather, it prohibits Texas Commission on Environmental Quality from imposing stricter requirements by way of inter-agency agreements.<sup>532</sup>

#### State Programs:

- Wastewater facilities that dispose of treated effluent by land application (surface irrigation, evaporation, drainfields or subsurface land application) are required to obtain a Texas Land Application Permit.
- Permits Authorizing Reuse Water System Contributions and Discharges<sup>533</sup>
- Permits Authorizing Discharges from Certain Seawater Desalination Facilities<sup>534</sup>
- General Permits for Certain Sewage Treatment and Disposal Systems<sup>535</sup>
- Parallel to section 303 for standards<sup>536</sup>
- Parallel to section 311<sup>537</sup>
- Parallel to section 402<sup>538</sup>
- Parallel to section 404<sup>539</sup>

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<sup>531</sup> 30 Tex. Admin. Code section 307.3(a)(84).

<sup>532</sup> Tex. Water Code section 26.017(5).

<sup>533</sup> Tex. Water Code section 26.0271.

<sup>534</sup> Tex. Water Code section 26.0272.

<sup>535</sup> Tex. Water Code section 26.0405.

<sup>536</sup> Tex. Water Code section 26.023-.026; 30 Tex. Admin. Code chapter 307.

<sup>537</sup> Tex. Nat. Res. Code chapter 40; Tex. Water Code section 26.261-.267.

<sup>538</sup> Tex. Water Code section 26.027, 26.121.

<sup>539</sup> 30 Tex. Admin. Code chapter 279.

### 303 Water Quality Standards:

- Has EPA-approved WQS.<sup>540</sup>

### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 6 in coordination with the state of Texas.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, administered by the State Fire Marshal.<sup>541</sup>
- State also has specific requirements for aboveground storage tanks, including registration, fees, installation notification, reporting, recordkeeping, release reporting and corrective action; tanks located at petrochemical plants, petroleum refineries, electric generating facilities, or bulk facilities are exempted.<sup>542</sup>
- State code authorizes cost recovery for spills and related damages. State no longer has a spill trust fund; the Petroleum Storage Tank Remediation (PSTR) fund ended in 2012.<sup>543</sup>

### 401 Certification:

- The state has authority to certify, conditionally certify, waive review or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Texas. The state issues its permits through the Texas Commission on Environmental Quality. Texas has an authorized state NPDES permit program, state pretreatment program, general permits program, biosolids program, and is authorized to regulate federal facilities.<sup>544</sup>
- Texas is not authorized to issue permits for activities associated with the exploration, development, or production of oil or gas or geothermal resources, including transportation of crude oil or natural gas by pipeline. EPA is the permitting authority for those facilities.<sup>545</sup>
- EPA issues all NPDES permits on tribal lands.<sup>546</sup>

### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Does not have a state dredged and fill program for waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

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<sup>540</sup> 30 Tex. Admin. Code chapter 307.

<sup>541</sup> 30 Tex. Admin. Code chapter 334.

<sup>542</sup> *Id.*

<sup>543</sup> Tex. Nat. Res. Code sections 40.202, 40.251.

<sup>544</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>545</sup> *Id.*

<sup>546</sup> EPA, Texas NPDES Permits, available at <https://www.epa.gov/npdes-permits/texas-npdes-permits>.

Table 53. Texas Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific) Wetlands are presumed to have primary contact recreation standards, (See the 2010 TSWQS, 30 TAC section 307.4(j)(2)(A), which is the most recent version approved by EPA.) “Primary contact recreation is presumed for lakes, reservoirs, and tidal water bodies. Primary contact recreation is presumed to apply to intermittent streams, intermittent streams with perennial pools, nontidal wetlands, and perennial freshwater streams and rivers, except where site-specific information indicates that recreational activities that involve a significant risk of ingestion have little to no likelihood of occurring, in accordance with subparagraph (B) of this paragraph.”
Wetland Monitoring & Assessment Program		X		Possibly monitors through other non-wetland monitoring programs

Source: ASWM (2015) Status and Trends Report; Texas CEQ, email, March 19, 2018

## 50. U.S. VIRGIN ISLANDS

### Definition of Waters of the Territory:

- All waters within the jurisdiction of the United States Virgin Islands including all harbors, streams, lakes, ponds, impounding reservoirs, marshes, water-courses, waterways, wells, springs, irrigation systems, drainage systems and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the United States Virgin Islands, including the territorial seas, contiguous zones, and oceans.<sup>547</sup>

### Definition of Wetlands:

- Those areas that are inundated or saturated by surface or groundwater 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 salt ponds, marshes, swamps, and similar areas.<sup>548</sup>

### Additional Territory Conditions and Requirements:

- No limitations identified.

### Territory Programs:

- None identified.

<sup>547</sup> 12 V.I.C. section 182(f).

<sup>548</sup> Virgin Islands Rules and Regulations Title 12, Chapter 7, Subchapter 186, available at <https://www.epa.gov/sites/production/files/2014-12/documents/viwqs.pdf>.

303 Water Quality Standards:

- Has EPA-approved WQS.

311 Oil Spill Prevention, Preparedness and Response:

- N/A

401 Certification:

- The territory has authority to certify, conditionally certify, waive review or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the territory of the Virgin Islands. The territory issues its permits through the Virgin Islands Department of Conservation and Cultural Affairs. The Virgin Islands have an authorized state NPDES permit program, general permits program, and is authorized to regulate federal facilities. The Virgin Islands do not have an authorized biosolids or state pretreatment program.<sup>549</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues territory permits for dredged and fill activities in coastal waters and wetlands.<sup>550</sup>
- Relies on federal permitting authority and CWA section 401.

Table 54. Virgin Islands Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			
Territory Issues Permits for Dredged and Fill Activities	X			Coastal Only
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees			X	
WQS for Wetlands	X			
Wetland Monitoring & Assessment Program			X	

Source: EPA Region 2

## 51. UTAH

Definition of Waters of the State:

- All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion of the state; does not include bodies of water confined to and retained within the limits of private property, and which do not

<sup>549</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>550</sup> 12 V.I.C. sections 901 *et seq.*

develop into or constitute a nuisance, a public health hazard, or a menace to fish or wildlife.<sup>551</sup>

#### Definition of Wetlands:

- Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstance do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.<sup>552</sup>

#### Additional State Conditions and Requirements:

- The Utah Water Quality Board is prohibited from enacting a rule to administer any program under the federal CWA that is more stringent than the corresponding federal rule, except where specific conditions are satisfied. To enact a more stringent state rule, the Board must: (1) take public comment and hold a hearing; (2) make a written finding based on record evidence that the federal regulations are inadequate to protect public health and the environment in Utah; and (3) issue an accompanying opinion that cites and evaluates the public health and environmental information and studies in the record that form the basis for the Board's conclusion.<sup>553</sup>

#### State Programs:

- Stream Alteration Permit Program<sup>554</sup>
  - Requires any person, governmental agency, or other organization wishing to alter the bed or banks of a natural stream to obtain written authorization from the State Engineer prior to beginning work.

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 8 in coordination with the state of Utah.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) as Utah State Fire Code for aboveground storage tanks, administered by the State Fire Marshal for state-owned tanks and by local fire departments for all other tanks.<sup>555</sup>
- State does not have an authorized cost recovery mechanism for spills; state does not have a spill trust fund for aboveground storage tanks (applies to underground storage tanks only).<sup>556</sup>

#### 401 Certification:

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<sup>551</sup> Utah Code section 19-5-102.

<sup>552</sup> Utah Admin. Code r. 317-8-1.5(60)

<sup>553</sup> Utah Code section 19-5-105.

<sup>554</sup> Utah Code section 73-3-29.

<sup>555</sup> Utah Code section 53-7-106.

<sup>556</sup> Utah Code section 19-5-115

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Utah. The state issues its permits through the Utah Department of Environmental Quality. Utah has an authorized state NPDES permit program, state pretreatment program, general permits program, biosolids program, and is authorized to regulate federal facilities.<sup>557</sup>
- EPA issues permits on tribal lands.<sup>558</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Does not issue state permits for dredged and fill activities in waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

Table 55. Utah Wetland Program Summary

	YES	NO	UNCLEAR / UNKNOWN	NOTES
“No Net Loss” Goal	X			Informal “No Net Loss” goal
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Program development in progress (as of 2015)

Source: ASWM (2015) Status and Trends Report

## 52. VERMONT

Definitions of Waters of the State:

- Defined under the Wetlands Protection and Water Resources Management Act: Any and all rivers, streams, brooks, creeks, lakes, ponds or stored water, and groundwaters, excluding municipal and farm water supplies.<sup>559</sup>
- Defined under the Water Pollution Control Act: All rivers, streams, creeks, brooks, reservoirs, ponds, lakes, springs and all bodies of surface waters, artificial or natural, which are contained within, flow through or border upon the state or any portion of it.<sup>560</sup>

Definition of Wetlands:

<sup>557</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>558</sup> EPA, Utah NPDES Permits (2017) available at <https://www.epa.gov/npdes-permits/utah-npdes-permits>.

<sup>559</sup> Vt. Stat. Ann. tit. 10, section 902(3).

<sup>560</sup> Vt. Stat. Ann. tit. 10, section 1251(13).

- Those areas of the state that are inundated by surface or groundwater with a frequency sufficient to support significant vegetation or aquatic life that depend on saturated or seasonally saturated soil conditions for growth and reproduction. Such areas include but are not limited to marshes, swamps, sloughs, potholes, fens, river and lake overflows, mud flats, bogs and ponds, but excluding such areas as grow food or crops in connection with farming activities.<sup>561</sup>

Additional State Conditions and Requirements:

- No limitations identified.

State Programs:

- Wetlands Protection and Water Resources Management Act<sup>562</sup>
- Land Use and Development Act (Act 250)<sup>563</sup>
  - Requires a land use permit prior to certain kinds of development.
  - District Environmental Commissions are responsible for administering Act 250.
- Water Pollution Control Act<sup>564</sup>

303 Water Quality Standards:

- Has EPA-approved WQS.

311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 1 in coordination with the state of Vermont.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, administered by the State Fire Marshal.<sup>565</sup>
- State code authorizes cost recovery for spills and related damages. State has a spill trust fund for aboveground storage tanks (Petroleum Cleanup Fund) covering farm and residential tanks up to \$10,000. For bulk storage facilities storing motor fuel or heating oil, the reimbursement ceiling is \$990,000.<sup>566</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Vermont. The state issues its permits through Vermont Department of Environmental Conservation. Vermont has an authorized state NPDES permit program, state pretreatment program, and general

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<sup>561</sup> Vt. Stat. Ann. tit. 10, section 902(5).

<sup>562</sup> Vt. Stat. Ann. tit. 10, chapter 37.

<sup>563</sup> Vt. Stat. Ann. tit. 10, chapter 151.

<sup>564</sup> Vt. Stat. Ann. tit. 10, chapter 47.

<sup>565</sup> Vt. Stat. Ann. tit. 10, section 1929a, chapter 159.

<sup>566</sup> Vt. Stat. Ann. tit. 10, sections 6612, 6615, 6615d.

permits program. Vermont does not have an authorized biosolids program and is not authorized to regulate federal facilities.<sup>567</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Issues state permits for dredged and fill activities in waters and wetlands.<sup>568</sup>

Table 56. Vermont Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Formal “No Net Loss” goal <sup>569</sup>
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting	X			Some -- if they meet the criteria for Class I or II wetlands or if they are designated “significant” by the state (for Class III wetlands).
State Wetland Permitting Fees	X			
WQS for Wetlands		X		Developing wetland WQS (as of 2015)
Wetland Monitoring & Assessment Program	X			

Source: ASWM (2015) Status and Trends Report

### 53. VIRGINIA

Definition of Waters of the State:

- All water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands.<sup>570</sup>

Definition of Wetlands:

- Those areas that are inundated or saturated by surface or groundwater 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.<sup>571</sup>

Additional State Conditions and Requirements:

- Virginia imposes a state limitation on sewage systems that may be no more stringent than the CWA. The State Water Control Board may not require the state or any of its political subdivisions to upgrade the level of treatment in a sewage treatment works to a level more stringent than that required by applicable provisions of the federal CWA.<sup>572</sup>
- When the Virginia State Water Control Board proposes a standard or policy to be adopted by regulation under the Water Control Law that contains provisions that are “more

<sup>567</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>568</sup> Vt. Code R. 12 004 056; Vt. Stat. Ann., tit. 10, section 6081.

<sup>569</sup> Policy as stated in the Vermont Wetland Rules, Sec. 1.1 Purpose and Authority: “It is the policy of the State of Vermont to identify and protect significant wetlands and the values and functions which they serve in such a manner that the goal of no net loss of such wetlands and their functions is achieved.” The no net loss policy is also in state statute.

<sup>570</sup> Va. Code Ann. section 62.1-44.3.

<sup>571</sup> Va. Code Ann. section 62.1-44.3.

<sup>572</sup> Va. Code Ann. section 62.1-44.15:1.

restrictive than applicable federal requirements,” the Board must provide to the proper standing committee of each house of the state legislature a description of those provisions and the reason why they are needed.<sup>573</sup>

- When the Board adopts WQS, it is required to adopt them “according to applicable federal criteria or standards,” unless the Board determines that “an additional or more stringent standard” is necessary to protect public health, aquatic life, or drinking water supplies.<sup>574</sup>

#### State Programs:

- Virginia Tidal Wetlands Act<sup>575</sup>
- Chesapeake Bay Preservation Act<sup>576</sup>
- State Water Control Law<sup>577</sup>
  - Virginia Water Protection Permit Program<sup>578</sup>
    - Serves as the states 401 program authority for tidal and non-tidal wetland impacts permitted under CWA 404
  - Covers activities in isolated wetlands that are not covered by CWA 404 jurisdiction.

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 3 in coordination with the state of Virginia.
- State has a comprehensive oil spill prevention and preparedness program administered by the Virginia Department of Environmental Quality; the Virginia Aboveground Storage Tank Program requires registration, notification, and closure of tanks for owners of facilities with aggregate aboveground storage capacity of more than 1,320 gallons of oil or an operator of an individual tank with a storage capacity of more than 660 gallons.
- Facilities with aggregate storage of 25,000 gallons or more of oil are required to develop an Oil Discharge Contingency Plan and comply with pollution prevention standards and procedures (*e.g.*, inventory control, inspections, secondary containment, cathodic protection, training, leak detection and financial responsibility requirements).
- Facilities with 1 million gallons or more must comply with additional prevention standards and have a Groundwater Characterization Study to monitor the groundwater.
- State code authorizes cost recovery for spills and related damages. State has a spill trust fund (Petroleum Storage Tank Reimbursement Fund) covering releases from underground and aboveground storage tanks.

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<sup>573</sup> Va. Code Ann. section 62.1-44.15(3a), (10).

<sup>574</sup> Va. Code Ann. section 62.1-44.19:7(B).

<sup>575</sup> Va. Code Ann. section 28.2-13.

<sup>576</sup> Va. Code Ann. section 62.1-44.15:67 et seq.

<sup>577</sup> Va. Code Ann. section 62.1-3.1.

<sup>578</sup> 9 Va. Admin. Code section 25-210.

401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Virginia. The state issues its permits through the Virginia Department of Environmental Quality. Virginia has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. Virginia does not have an authorized biosolids program.<sup>579</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.<sup>580</sup>
- Issues state permits for dredged and fill activities in waters and wetlands.<sup>581</sup>

Table 57. Virginia Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			Virginia (along with, among others, Maryland, Pennsylvania, Delaware and West Virginia) is one of the signatories to the Chesapeake Bay 2014 Agreement, which includes the following outcome for wetlands within the Chesapeake Bay watershed (which includes portions of Virginia): “Continually increase the capacity of wetlands to provide water quality habitat benefits throughout the watershed. Create or re-establish 85,000 acres of tidal and non-tidal wetlands and enhance the function of an additional 150,000 acres of degraded wetlands by 2025
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		Has explored in the past (most recently in 2006 and 2012) and decided not to seek assumption
Isolated Wetland Permitting	X			Applies existing Virginia Water Protection (VWP) Permit requirements Virginia also implements Wetland Excavation Permitting, through existing VWP Permit requirements
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program	X			

Source: ASWM (2015) Status and Trends Report; Virginia DEQ, email, March 19, 2018

## 54. WASHINGTON

Definition of Waters of the State:

<sup>579</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>580</sup> Implements a State Programmatic General Permit pursuant to CWA 404(e) for specifically identified activities. The currently operative permit is 17-SPGP-01 (effective June 29, 2017).

<sup>581</sup> Va. Code Ann. sections 28.2-1300 *et seq.*, 62.1-44.5, 62.1-44.15; 9 Va. Admin. Code sections 25-210-10 *et seq.*

- Lakes, rivers, ponds, streams, inland waters, underground water, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.<sup>582</sup>

#### Definition of Wetlands:

- Areas that are inundated or saturated by surface water or groundwater 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. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990 that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands.<sup>583</sup>

#### Additional State Conditions and Requirements:

- No limitations identified.

#### State Programs:

- Water Pollution Control Act<sup>584</sup>
  - The Water Pollution Control Act, the Growth Management Act, and the Shoreline Management Act give state and local jurisdictions authority to regulate wetlands.
  - These state laws provide broader wetlands protections than the federal regulations and consider impacts to wetlands outside federal regulations like isolated wetlands, prior-converted cropland, and irrigation-influenced wetlands.
- Growth Management Act<sup>585</sup>
  - Gives local jurisdictions the authority and responsibility to develop critical areas ordinances for wetlands and other sensitive areas protection.
- Shoreline Management Act<sup>586</sup>

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 10 in coordination with the state of Washington.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, administered by local fire departments. If a facility transfers oil to or from a tank vessel, such as a barge or oil tanker, or to or from a pipeline, then it is subject to

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<sup>582</sup> Wash. Rev. Code section 90.48.020.

<sup>583</sup> Wash. Rev. Code section 36.70a.030(23).

<sup>584</sup> Wash. Rev. Code section 90.48.

<sup>585</sup> Wash. Rev. Code section 36.70A.

<sup>586</sup> Wash. Rev. Code section 90.58.

Washington State’s Contingency Planning and Facility Oil Handling Standards regulations.<sup>587</sup>

- State code authorizes cost recovery for spills and related damages. State has a spill trust fund; requires state to pursue funding from responsible party and federal sources (*e.g.*, Oil Spill Liability Trust Fund) before using fund.<sup>588</sup>

401 Certification:

- The state has authority to certify, conditionally certify, waive review or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Washington. The state issues its permits through the Washington Department of Ecology. Washington has an authorized state NPDES permit program, state pretreatment program, and general permits program. Washington does not have an authorized biosolids program and is not authorized to regulate federal facilities.<sup>589</sup>
- EPA issues permits for federally-owned facilities and for tribal lands.<sup>590</sup>

404 Dredged and Fill Permitting:

- Has not assumed the 404 program.  
Issues state permits for dredged and fill activities in waters and wetlands.<sup>591</sup>

Table 58. Washington Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			In addition, has a formal “Net Gain/Increase” goal, along with a Mitigation Banking rule
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting	X			State has authority to address permitting for isolated waters through writing administrative orders
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific); there are narrative criteria and an antidegradation clause specific to wetlands
Wetland Monitoring & Assessment Program		X		Program development in progress (as of 2015); Have an active interagency M&A team that meets monthly

Source: ASWM (2015) Status and Trends Report; State of Washington

## 55. WEST VIRGINIA

### Definition of Waters of the State:

<sup>587</sup> Wash. Admin. Code chapters 173-182, 173-180.

<sup>588</sup> Wash. Rev. Code sections 90.56.330, 90.56.360, 90.56.500.

<sup>589</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>590</sup> EPA, Washington NPDES Permits, available at <https://www.epa.gov/npdes-permits/washington-npdes-permits>.

<sup>591</sup> Wash. Rev. Code chapters 77.55, 90.58.

- Any and all water on or beneath the surface of the ground, whether percolating, standing, diffused or flowing, wholly or partially within this state, or bordering this state and within its jurisdiction, and includes, without limiting the generality of the foregoing, natural or artificial lakes, rivers, streams, creeks, branches, brooks, ponds (except farm ponds, industrial settling basins and ponds and water treatment facilities), impounding reservoirs, springs, wells, watercourses and wetlands.<sup>592</sup>

#### Definition of Wetlands:

- Those areas that are inundated or saturated by surface or groundwater 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.<sup>593</sup>

#### Additional State Conditions and Requirements:

- No legislative rule or program of the state DEP may be more stringent than any federal rule or program except to the limited extent that the agency first makes a written finding that there exists scientifically supportable evidence for such a rule or program reflecting factors unique to the state.<sup>594</sup>
- With certain exceptions, rules promulgated by the state DEP may include provisions which are more stringent than federal rules, provided the agency supplies information that demonstrates that such provisions are reasonably necessary to protect, preserve or enhance the quality of the environment, human health, or safety.<sup>595</sup>

#### State Programs:

- West Virginia Water Pollution Control Act<sup>596</sup>
  - West Virginia DEP uses a case by case basis to allow filling of isolated waters and wetlands based on WQS (even with non-jurisdictional waters).<sup>597</sup>

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 3 in coordination with the state of West Virginia.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks.<sup>598</sup>

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<sup>592</sup> W.Va. Code section 22-11-3(23).

<sup>593</sup> W.Va. Code R. section 47-10-2.58.

<sup>594</sup> W. Va. Code section 22-5-4.

<sup>595</sup> W. Va. Code section 22-1-3a.

<sup>596</sup> W. Va. Code section 22-11.

<sup>597</sup> ELI, 2013. State Constraints: State-Imposed Limitations on the Authority of Agencies to Regulate Waters Beyond the Scope of the Federal Clean Water Act, available at <https://www.eli.org/sites/default/files/eli-pubs/d23-04.pdf> (citation to personal communication)

<sup>598</sup> W. Va. Code sections 22-30, 22-31.

- State also has developed comprehensive aboveground storage tank requirements, including registration, release reporting requirements, submission of a Spill Prevention and Response Plan, inspection of secondary containment by a professional engineer or certified tank inspector, and financial responsibility requirements.<sup>599</sup>
- State code authorizes cost recovery for spills and related damages. State has a spill trust fund for releases from aboveground storage tanks (Protect Our Water Fund).<sup>600</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of West Virginia. The state issues its permits through the West Virginia DEP. West Virginia has an authorized state NPDES permit program, state pretreatment program, general permits program, and is authorized to regulate federal facilities. West Virginia does not have an authorized biosolids program.<sup>601</sup>

#### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Does not issue state permits for dredged and fill activities in waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

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<sup>599</sup> *Id.*

<sup>600</sup> W. Va. Code § 22-11-22, 22-11-25, 22-11-29, 22-19-2.

<sup>601</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

Table 59. West Virginia Wetland Program Summary

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
"No Net Loss" Goal	X			Informal "No Net Loss" goal; in lieu fee program premised on a goal of no net loss West Virginia (along with, among others, Maryland, Virginia, Delaware and Pennsylvania) is one of the signatories to the Chesapeake Bay 2014 Agreement, which includes the following outcome for wetlands within the Chesapeake Bay watershed (which includes portions of West Virginia): "Continually increase the capacity of wetlands to provide water quality habitat benefits throughout the watershed. Create or re-establish 85,000 acres of tidal and non-tidal wetlands and enhance the function of an additional 150,000 acres of degraded wetlands by 2025
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting			X	On a case-by-case basis
State Wetland Permitting Fees	X			No State Dredged and Fill Program – Fees would be the fees applicable under State Water Control Law
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Program development in progress (as of 2015); assessment methodology (West Virginia Stream and Wetland Valuation Metric) developed

Source: ASWM (2015) Status and Trends Report

## 56. WISCONSIN

### Definition of Waters of the State:

- Those portions of Lake Michigan and Lake Superior within the boundaries of this state, and all lakes, bays, rivers, streams, springs, ponds, well, impounding reservoirs, marshes, watercourses, drainage systems, and other surface water or groundwater, natural or artificial, public or private, within this state or its jurisdiction.<sup>602</sup>

### Definition of Wetlands:

- An area where water is at, near or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which has soils indicative of wet conditions.<sup>603</sup>

### Additional State Conditions and Requirements:

- The Wisconsin DNR is required to comply with and not exceed the requirements of the federal CWA and federal regulations in promulgating pollution discharge elimination rules, as those rules relate to: point source discharges, effluent limitations, municipal monitoring requirements, standards of performance for new sources, toxic effluent standards or prohibitions, and pretreatment standards.<sup>604</sup>

<sup>602</sup> Wis. Stat. Ann. section 281.01(18).

<sup>603</sup> Wis. Stat. Ann. section 23.32(1).

<sup>604</sup> Wis. Stat. Ann. section 283.11(2).

- If the DNR seeks to adopt an environmental quality standard more restrictive than a standard provided under corresponding federal law or regulation, the department must advise the board why the more restrictive standard is needed to protect public health, safety or the environment.<sup>605</sup>

#### State Programs:

- Wetland Regulatory Program<sup>606</sup>
- Water Quality Certification<sup>607</sup>
- Physical Alterations of Waterways<sup>608</sup>
- Shoreland Zoning, Shoreland Wetland Zoning and Floodplain Zoning<sup>609</sup>

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 5 in coordination with the state of Wisconsin.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks.<sup>610</sup>
- State (Department of Agriculture, Trade and Consumer Protection) regulates all aboveground storage tanks with a capacity of 110 gallons or greater and requires approval of construction plan, registration, permitting, inspections and fees.<sup>611</sup>
- State code authorizes cost recovery for spills and related damages. State has a spill trust fund for releases from aboveground storage tanks (Petroleum Environmental Cleanup Fund Act) that expires on June 30, 2020.<sup>612</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Wisconsin. The state issues its permits through the Wisconsin Department of Natural Resources. Wisconsin has an authorized state NPDES permit program, state pretreatment program, general permits program, biosolids program, and is authorized to regulate federal facilities.<sup>613</sup>

<sup>605</sup> Wisc. Admin. Code NR section 1.52(3); <http://www.ncsl.org/research/environment-and-natural-resources/state-agency-authority-to-adopt-more-stringent-environmental-standards.aspx>.

<sup>606</sup> Wis. Stat. Ann. section 281.36.

<sup>607</sup> Wis. Stat. Ann. section 227.11(2)(a), 281.11, 281.12(1), 283.001; Admin. Code Chapters. NR 299, 102 103, 106.

<sup>608</sup> Wis. Stat. Ann. chapters 30, 31. Admin. Code chapters NR 300-353.

<sup>609</sup> Wis. Stat. Ann. sections 144.26, 59.971, 62.63 and 61.351; Admin. Code. Chapter 115, 116, 117.

<sup>610</sup> Wisc. Admin. Code Comm. chapter 10.

<sup>611</sup> *Id.*

<sup>612</sup> Wis. Stat. Ann. sections 292.98-.99.

<sup>613</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

- EPA issues all NPDES permits on tribal lands.<sup>614</sup>

#### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.<sup>615</sup>
- Issues state permits for dredged and fill activities in waters and wetlands.<sup>616</sup>

*Table 60. Wisconsin Wetland Program Summary*

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal	X			In addition, has a formal “Net Gain/Increase” policy from WDRN
State Issues Permits for Dredged and Fill Activities	X			
404 Assumption		X		
Isolated Wetland Permitting	X			
State Wetland Permitting Fees	X			
WQS for Wetlands	X			Wetland-specific WQS
Wetland Monitoring & Assessment Program	X			

*Source: ASWM (2015) Status and Trends Report; Wisconsin DNR, email, March 18, 2018*

## 57. WYOMING

#### Definition of Waters of the State:

- All surface and groundwater, including waters associated with wetlands, within the state.<sup>617</sup>

#### Definition of Wetlands:

- Those areas in Wyoming having all three (3) essential characteristics: (A) Hydrophytic vegetation; (B) Hydric soils; and (C) Wetland hydrology.<sup>618</sup>

#### Additional State Conditions and Requirements:

- No limitations identified.

#### State Programs:

- Notice to drain waters<sup>619</sup>
- Parallel to section 303.<sup>620</sup>
- Parallel to section 311.<sup>621</sup>
- Parallel to section 402.<sup>622</sup>

<sup>614</sup> EPA, Wisconsin NPDES Permits, available at <https://www.epa.gov/npdes-permits/wisconsin-npdes-permits>.

<sup>615</sup> The state has conducted multiple assumption studies in 1991, 2000 and 2014. The Department would like to pursue assumption but lack of federal funding and jurisdictional differences are major blocks; WI LRF 4115/4110 granted WDNR authority to pursue assumption.

<sup>616</sup> Wisc. Stat. Ann., chs. 30, 31.

<sup>617</sup> Wyo. Stat. Ann. section 35-11-103(c)(vi)

<sup>618</sup> Wyo. Stat. Ann. section 35-11-103(c)(x)

<sup>619</sup> Wyo. Stat. Ann. section 35-11-310.

<sup>620</sup> Wyo. Stat. Ann. section 35-11-302(a)(i); 020.0011.1 Wyo. Code R.

<sup>621</sup> Wyo. Stat. Ann. section 35-11-301, 302; 020.0011.1, 020.0011.4 Wyo. Code R.

<sup>622</sup> Wyo. Stat. Ann. section 35-11-302(a)(ii), (v); 020.0011.2 Wyo. Code R.

- Dredged and fill for non-CWA wetlands, parallel to section 404.<sup>623</sup>

#### 303 Water Quality Standards:

- Has EPA-approved WQS.

#### 311 Oil Spill Prevention, Preparedness and Response:

- The 311 program is administered by EPA Region 8 in coordination with the state of Wyoming.
- State has adopted the Uniform Fire Code (NFPA 30 and 30A) for aboveground storage tanks, administered by the State Fire Marshal, including plan review.
- State requires notification to Wyoming Department of Environmental Quality for aboveground storage tanks containing gasoline and diesel fuel. State also has specific technical requirements for aboveground storage tanks, including construction, secondary containment, cathodic protection, overfill prevention (additional requirements for tanks > 100,000 gallons), and leak detection; for facilities with tanks of capacities of 100,000 gallons or greater, follow inspection requirements in API Standard 653.
- Facilities with storage capacities greater than 1,320 gallons required to have a federal SPCC plan filed with the state.
- State code authorizes cost recovery for spills and related damages. State does not have a spill trust fund.<sup>624</sup>

#### 401 Certification:

- The state has authority to certify, conditionally certify, waive review, or deny certification of federal permits and licenses. Without certification or waiver the federal agency cannot issue the permit or license.

#### 402 NPDES Program:

- EPA has delegated authority to issue NPDES permits to the state of Wyoming. The state issues its permits through the Wyoming Department of Environmental Quality. Wyoming has an authorized state NPDES permit program, general permits program, and is authorized to regulate federal facilities. Wyoming does not have an authorized biosolids or state pretreatment program.<sup>625</sup>
- EPA issues all NPDES permits on tribal lands.<sup>626</sup>

#### 404 Dredged and Fill Permitting:

- Has not assumed the 404 program.
- Does not issue state permits for dredged and fill activities in waters and wetlands.
- Relies on federal permitting authority and CWA section 401.

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<sup>623</sup> 020.0011.2 Wyo. Code R. sections 2, 7.

<sup>624</sup> Wyo. Stat. Ann. section 35-11-901, 903.

<sup>625</sup> EPA, State Program Authority, available at <https://www.epa.gov/npdes/npdes-state-program-information>.

<sup>626</sup> EPA, Wyoming NPDES Permits, available at <https://www.epa.gov/npdes-permits/wyoming-npdes-permits>.

*Table 61. Wyoming Wetland Program Summary*

	YES	NO	UNCLEAR/ UNKNOWN	NOTES
“No Net Loss” Goal		X		
State Issues Permits for Dredged and Fill Activities		X		
404 Assumption		X		
Isolated Wetland Permitting		X		
State Wetland Permitting Fees		X		
WQS for Wetlands	X			Applies existing WQS to wetlands (not wetland-specific)
Wetland Monitoring & Assessment Program		X		Conducts project-specific M&A only

*Source: ASWM (2015) Status and Trends Report*

## Appendix C. Tribe-by-Tribe CWA Authorization

Table 62. EPA Approvals of Tribal Water Quality Standards<sup>627</sup>

Tribe	EPA Region	Date Found Eligible to Administer a WQS Program (TAS)	Date Initial WQS Approved by EPA
<a href="#">Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation (MT)</a>	8	8/29/1996	4/25/2000
<a href="#">Bad River Band of Lake Superior Chippewa (WI)</a>	5	6/26/2009	9/21/2011
<a href="#">Big Pine Band of Owens Valley (CA)</a>	9	10/24/2005	1/18/2006
<a href="#">Blackfeet Tribe (MT)</a>	8	5/2/2012	
<a href="#">Coeur D'Alene Tribe (ID)</a>	10	8/5/2005	6/12/2014
<a href="#">Confederated Salish and Kootenai Tribes of the Flathead Reservation (MT)</a>	8	3/1/1995	3/18/1996
<a href="#">Confederated Tribes of the Chehalis Reservation (WA)</a>	10	3/7/1995	2/3/1997
<a href="#">Confederated Tribes of the Colville Reservation (WA)</a>	10	5/1/2018	7/6/1989 (promulgation by EPA; tribal WQS under development)
<a href="#">Confederated Tribes of the Warm Springs Reservation (OR)</a>	10	5/25/1999	9/28/2001
<a href="#">Confederated Tribes of Umatilla (OR)</a>	10	4/30/2001	10/18/2001
<a href="#">Cortina Band of Wintun Indians (CA)</a>	9	4/7/2016	

<sup>627</sup> For the latest information on EPA approvals of tribal water quality standards, please visit: <https://www.epa.gov/wqs-tech/epa-approvals-tribal-water-quality-standards-and-contacts/>.

<b>Tribe</b>	<b>EPA Region</b>	<b>Date Found Eligible to Administer a WQS Program (TAS)</b>	<b>Date Initial WQS Approved by EPA</b>
<a href="#">Dry Creek Rancheria Band of Pomo Indians (CA)</a>	9	10/17/2011	
<a href="#">Eastern Band of Cherokee Indians (NC)</a>	4	1/26/2015	
<a href="#">Fond du Lac Band of Chippewa (MN)</a>	5	5/16/1996	12/27/2001
<a href="#">Gila River Indian Community (AZ)</a>	9	10/30/2018	
<a href="#">Grand Portage Band of Chippewa (MN)</a>	5	7/16/1996	11/2/2005
<a href="#">Havasupai Tribe (AZ)</a>	9	4/26/2011	
<a href="#">Hoopa Valley Tribe</a>	9	5/17/1996	9/11/2002
<a href="#">Hopi Tribe (AZ)</a>	9	4/23/2008	7/8/2008
<a href="#">Hualapai Indian Tribe (AZ)</a>	9	7/22/2004	9/17/2004
<a href="#">Kalispel Indian Community (WA)</a>	10	11/4/2002	6/24/2004
<a href="#">Lac du Flambeau Band of Chippewa (WI)</a>	5	4/8/2008	9/17/2010
<a href="#">Lummi Tribe (WA)</a>	10	3/5/2007	9/30/2008
<a href="#">Makah Indian Nation (WA)</a>	10	12/23/2003	9/29/2006
<a href="#">Miccosukee Tribe (FL)</a>	4	12/20/1994	5/25/1999
			3/15/2001 (Miccosukee Reserve Area)
<a href="#">Mole Lake Band of the Lake Superior Tribe of Chippewa Indians, Sokaogon Chippewa Community (WI)</a>	5	9/29/1995	1/22/1996
Morong Band of Mission Indians	9	4/3/2018	
<a href="#">Navajo Nation (AZ, NM, UT)</a>	9	1/20/2006	4/11/2006

<b>Tribe</b>	<b>EPA Region</b>	<b>Date Found Eligible to Administer a WQS Program (TAS)</b>	<b>Date Initial WQS Approved by EPA</b>
<a href="#">Northern Cheyenne (MT)</a>	8	8/11/2006	3/21/2013
<a href="#">Ohkay Owingeh (NM) (formerly the Pueblo of San Juan)</a>	6	5/12/1993	9/16/1993
<a href="#">Paiute-Shoshone Indians of the Bishop Community (CA)</a>	9	4/11/2006	8/15/2008
<a href="#">Pala Band of Mission Indians (CA)</a>	9	4/19/2016	
<a href="#">Pawnee Nation (OK)</a>	6	11/4/2004	
<a href="#">Port Gamble S' Klallam (WA)</a>	10	9/24/2003	9/27/2005
<a href="#">Pueblo of Acoma (NM)</a>	6	4/17/2001	4/17/2001
<a href="#">Pueblo of Isleta (NM)</a>	6	10/13/1992	12/24/1992
<a href="#">Pueblo of Laguna (NM)</a>	6	12/20/2016	7/19/2017
<a href="#">Pueblo of Nambe (NM)</a>	6	8/18/1995	8/18/1995
<a href="#">Pueblo of Picuris (NM)</a>	6	8/7/1995	8/7/1995
<a href="#">Pueblo of Pojoaque (NM)</a>	6	3/21/1996	3/21/1996
<a href="#">Pueblo of Sandia (NM)</a>	6	12/24/1992	8/10/1993
<a href="#">Pueblo of Santa Ana (NM)</a>	6	7/20/2015	8/31/2015
<a href="#">Pueblo of Santa Clara (NM)</a>	6	7/19/1995	7/19/1995
<a href="#">Pueblo of Taos (NM)</a>	6	12/8/2005	6/19/2006
<a href="#">Pueblo of Tesuque (NM)</a>	6	4/29/1997	4/29/1997
<a href="#">Puyallup Tribe of Indians (WA)</a>	10	5/25/1994	10/31/1994
<a href="#">Pyramid Lake Paiute (NV)</a>	9	1/30/2007	12/19/2008
<a href="#">Quinalt Indian Nation (WA)</a>	10	9/20/2018	

<b>Tribe</b>	<b>EPA Region</b>	<b>Date Found Eligible to Administer a WQS Program (TAS)</b>	<b>Date Initial WQS Approved by EPA</b>
Rincon Band of Luiseño Indians	9	4/3/2018	
<a href="#">Saint Regis Mohawk Tribe (NY)</a>	2	10/16/2002	9/14/2007
<a href="#">Seminole Tribe (FL)</a>	4	6/1/1994	9/26/1997 (Big Cypress Reservation)
			11/18/1998 (Brighton Reservation)
<a href="#">Shoshone-Bannock Tribes (ID)</a>	10	9/5/2008	
<a href="#">Southern Ute Indian Tribe (CO)</a>	8	3/28/2018	
<a href="#">Spokane Tribe of Indians (WA)</a>	10	7/23/2002	4/22/2003
<a href="#">Swinomish Indian Tribal Community (WA)</a>	10	4/18/2008	8/25/2017
<a href="#">Tulalip Tribes (WA)</a>	10	5/9/1996	
<a href="#">Twenty-Nine Palms (CA)</a>	9	10/26/2006	8/20/2015
<a href="#">Ute Mountain Ute (CO)</a>	8	9/26/2005	10/19/2011
<a href="#">Walker River Paiute Tribe (NV)</a>	9	2/29/2016	
<a href="#">White Mountain Apache Tribe (AZ)</a>	9	2/3/1997	9/27/2001