

APPENDIX J
CLEAN WATER ACT

*Feasibility Report with Integrated Environmental Assessment
Rip Rap Landing HREP*

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Clean Water Act
Section 404 (b)(1) Evaluation

I. PROJECT DESCRIPTION

A. Location. Rip Rap Landing is located in Pool 25 of the Mississippi River (Figure 1). It includes 2,338 acres of primarily river bottomlands along the left descending bank of the Mississippi River in Calhoun County, Illinois adjacent to the Village of Mozier. All of the state and federal lands included in this UMRR project are between Mississippi River Miles 260.5 and 267. The IDNR owns approximately 2,055 acres of project lands, while the remaining 283 acre Dog Island complex is federally owned but managed by IDNR. There are 793 acres of IDNR owned property enrolled in the NRCS Wetland Reserve Program.

B. General Description. By definition and Federal regulatory jurisdiction, much of the site is classified as wetland or "waters of the United States" and is therefore subject to evaluation and regulation under Section 404 of the Clean Water Act.

This evaluation focuses on the proposed project features that would improve aquatic and wetland habitat and enhance overall value of the bottomland forest. The project is consistent with USFWS, HREP and the St. Louis District's UMRR management goals and was planned for the benefit of fish, resident and migratory birds and other wildlife.

C. Authority and Purpose. The Upper Mississippi River Restoration (UMRR) is currently a federal-State partnership designed to (a) plan, construct and evaluate measures for fish and wildlife habitat improvement through HREPs and (b) monitor the natural resources of the river system through the Long Term Resource Monitoring (LTRM). The Water Resources Development Act (WRDA) of 1986 (P.L. 99-662) states:

To ensure the coordinated development and enhancement of the Upper Mississippi River system, it is hereby declared to be the intent of Congress to recognize that system as a nationally significant ecosystem and a nationally significant commercial navigation system. Congress further recognizes that the system provides a diversity of opportunities and experiences. The system shall be administered and regulated in recognition of its several purposes (Section 1103).

D. General Description of Dredged and Fill Material.

1. General Characteristics of Material (grain size, soil type)

a. Fill Material. Fill materials include rock (quarry run limestone consisting of graded A stone, concrete, corrugated metal culvert pipes, water control structures and earthen materials including silt, sand and clays.

b. Dredged Material. Dredged material is defined as material that is either hydraulically dredged or mechanically excavated from waters of the United States. Earthen material excavated/ dredged from Sny Creek and the backwater sloughs within Dog Island will consist of alluvial sand, silt and clay and will be beneficially reused within the site for construction of various project features where feasible. Mechanically excavated sediments may be placed on the existing levee embankments where vegetation makes it feasible.

2. Quantity of Material. An estimated 38,500 cubic yards of material will be removed from Sny Creek in Zone 4 and an estimated 27,860 cubic yards of material will be removed from Sny Creek in Zone 5. These estimates will be confirmed prior to construction.

3. Source of Material. Stone used for the project will be obtained from commercial stone quarries in the vicinity of the project area. Concrete will be obtained commercially. Earthen material will be obtained onsite from borrow areas associated with dredging and or water conveyance channel excavation.

E. Description of Proposed Placement Sites

1. Location. The proposed placement sites are located in the interior of the project area and are shown on the Project Features Map (Figure 2) and design plates 5-1 through 5-5. Exact placement locations for each zone have not been identified; however, final placement for each project feature will be done as to avoid and minimize impacts to wetlands and other aquatic resources. Placement sites will also target specific areas that may be enhanced through the beneficial reuse of dredged materials. Temporary stabilization measures will be employed on disturbed areas of the main pump channel, Sny Creek and Roadside Lake connection to Sny Creek until stabilization occurs. Stabilization practices may include mulching, temporary seeding, and /or the erection of silt fencing.

In summary, placement sites within Zone 1 will include a 25 foot corridor adjacent to the small excavated channel to connect Goose Pasture Lake. Additionally, material excavated as part of the installation of the shallow well will be placed within a 50 foot radius of the proposed shallow well. Placement site within Zone 2 will be limited to open agriculturally influenced areas that are currently disturbed from annual tilling. Beneficial reuse of recovered soil may be used to create slightly higher ridges within the open cropland for bottomland hardwood establishment. The existing channel along the boundary of Zone 2 and Zone 3 between the pump and the water control structures will be mechanically excavated. The mechanically excavated material will be used in adjacent croplands within Zone 2 to create ridge topography. Placement sites within Zone 3 will be associated with various sized corridors around the new pump station, water conveyance channel to Waverly Lake, culverts associated with water control in the north units and dredging with Sny Creek. Placement sites within Zone 4 will result from repair of two scours in the riverfront levee and construction of a water control levee at the south end of this zone. Mechanically dredged sediments from Sny Creek in Zones 3, 4 and 5 will be placed adjacent to Sny Creek. The material will be side cast onto the adjacent bankline and will provide additional flood protection. Material will be placed at or above flood elevation on the existing levee crown and will be stabilized with a small ridge constructed with earthen material to prevent erosion.

2. Size (acres) and Types of Habitat. Final placement of project features will result in the loss or conversion of minor amounts of natural habitat. Existing areas of cropland that are annually disturbed will be used to the greatest extent possible for placement of excess sediment. Approximately 99 acres of cropland will be converted to bottomland hardwood forest through installation of mast trees. Prior to planting, these areas may be used for excess soil placement if required. Previously disturbed sites such as existing levees, roads, and other existing infrastructure will also be used to the greatest extent possible to avoid loss of additional natural habitat.

Temporary, short-term impacts to wetlands would result from construction activities in Zones 1, 2, 3, and 4. Less than 0.5 acres of wetland could be converted to non-wetland depending on final placement of water control structures, levees, pump station, well, water conveyance channels, etc.

Permanent impacts from construction activities in Zones 1, 2, 3, and 4 (water control structures, levees, pump stations and water conveyance channels) will result in the conversion of approximately 20 acres of wetland habitat to non-wetland.

Mechanically dredged sediments from Sny Creek in Zones 3, 4 and 5 will be placed onto the adjacent bankline at or above flood elevation on the existing levee crown. Approximately 20,767 linear feet of existing levee has been targeted for potential placement; however, final placement will be determined during final design.

Scour repair within the river ridge levee will result in the placement of sediment within approximately 500 linear feet of the existing levee embankment. Permanent placement of material will result in approximately 0.5 acres of habitat conversion.

Overall, installation and construction of the project features will cumulatively enhance the functionality of these aquatic resources, making them more predictable for refuge management.

3. Type of Site

a. Permanent Deposits of Dredged and Fill Material. The construction sites for the pump station, water control structures, well, levees, and roads will be impacted by permanent placement of these features. Additionally, material excavated as part of the water conveyance channel feature will be used in nearby cropland areas to create elevated ridges for regeneration of bottomland hardwood tree species. Material dredged from Sny Creek will also be permanently placed within the site in various disturbed cropland fields, along existing levees, and will also be used to aid the creation of topographic variation within the site.

Sny Creek Dredging and Zone 2 Water Conveyance Channel. Dredged material from the Sny Creek and the water conveyance channel from the new pump station will be beneficially reused and placed in areas that are currently being used as cropland. Sediments placed within the cropland will be spread and compacted as necessary to create higher ridges that will aid in the establishment of mast producing bottomland hardwood forest. This area is currently low quality and annually farmed when conditions are suitable. When the dredged material has dried sufficiently, it will be graded to the proper slope, and planted to bottomland mast producing trees. The species to be planted include northern pecan, swamp white oak, bur oak, pin oak, sycamore, and shellbark hickory. The final elevation of the ridges will be approximately 2 to 3 feet higher and enhance likelihood of producing and maintaining desirable bottomland hardwood tree species.

b. Temporary Deposits of Fill Materials. Temporary cofferdams may be used in some aquatic areas to construct water control structures; however, temporary placement of fill material will be done in such a manner as to avoid and minimize impacts to wetlands and other natural features. Temporary stockpiles of material may also be necessary during construction of the various project features. Construction staging areas will be created in a logical manner that avoids impacts to wetlands.

4. Timing and Duration of Placement. Work to be performed will need to be accomplished during normal (non-flood) pool conditions. Depending on local weather and river flooding conditions, the construction period may occur over several years.

F. Description of Placement Method. Sediment removed from Sny Creek will be dredged mechanically and placed on the existing levee (side cast) adjacent to the creek bank. Some mechanically excavated material will also be hauled and placed into disturbed croplands. Bulldozers or other earth-moving equipment will be used to grade and shape the material. Minor clearing and grubbing may be required in some areas. After the material has been placed to the desired depth, the sediments would be re-graded. Croplands will be planted with bottomland hardwood mast plantings. Shoreline disturbance is expected to be minimal.

Material excavated from the water conveyance channel will be placed either on nearby agricultural land or adjacent to the channel on the north side using a mechanical excavator. If cropland is used, the material would be placed to a 1-foot depth and worked into the existing soil. After the material has dried sufficiently, the area would be graded and planted with mast trees.

Placement of material for water control structures includes: pumps, riprap, corrugated metal culverts and concrete would typically involve use of trucks, backhoes, and bulldozers. Placement of the rock may involve the use of deck-mounted cranes with draglines, barges, end loaders, quarter boats, and tender craft.

II. FACTUAL DETERMINATIONS

A. Physical Substrate Determinations

1. Substrate Elevation and Slope. Rip Rap Landing lies in the floodplain of the upper Mississippi River and consists of typical alluvial material and maintains typical LSA for its location. The floodplain area is relatively flat, with elevations ranging from about 450 up to 440 feet NGVD, but much of the area is below 445 NGVD. The minimum water surface elevation ranges from 438.0 to 441.0 ft NGVD. Much of the project site is sloped no greater than 1-2 percent.

Areas dredged in the Sny Creek would be cut to a final water depth of 4 to 8 feet with final slopes to be 6H: 1V side slopes, based on a winter pool water elevation of 441.5 AMSL (plate 5-8 of the DPR). Over the life of the project, flood flows would reintroduce sediment into the dredged areas. Silty fine grained material excavated or dredged from the creek would be placed onto disturbed agricultural fields would be graded and planted to mast trees. Although a 2- to 3-foot increase in elevation will occur, the site is expected to retain bottomland forest characteristics and hydrology. However, the increase in elevation is expected to increase survival and regeneration of mast trees. Following placement, the dredged material will be incorporated into the existing material to a depth of 1 foot. This work will create a better seal between the new and existing materials. It is anticipated that natural herbaceous wetland vegetation will germinate on the site after construction.

2. Sediment Type. The soil survey for Calhoun County describes the soils within the project area as silt loams and silty clay loams (Beaucoup, Hamburg, Raddle, Tice, and Wakeland). Sediments within the interior sloughs consist of fine silts, clays, and organics. All sediments to be dredged from the interior of Sny Creek are expected to be of fine silt; however, it

is possible that significant areas of sand may also be present. Two representative samples will be taken (as soon as river levels are conducive to allow site access). These materials will be classified for particle size, 24 hr-supernatant, and settling rates respectively. Analysis of this material is discussed in Appendix E, Water Quality.

3. Dredged/Fill Material Movement. Earthen material used for levee construction, levee repair, and as backfill will be compacted. Stone riprap used in water control structures and other project features on the interior dike/levees has been sized to withstand the force of flood waters, and is not expected to move. Earthen material used for levees is subject to erosion but will be stabilized through the use of relatively flat side slopes and re-vegetation measures. For all of the proposed dredge cuts within the Sny, normal flood flows would reintroduce sediment into the dredged areas.

4. Physical Effects on Benthos. Material placement should not significantly affect benthic inhabitants. Benthos are found only in the aquatic portions of the project area. Replacement of the water control structure and pump may result in the loss of some benthic organisms. Removal of sediment from Sny Creek and the channel will also result in loss of benthic organisms. However, these areas are expected to be re-colonized within one year, possibly with different assemblages of benthic organisms. Effects to existing benthos populations along the shoreline are expected to be minimal due to the degraded and unstable condition of the banks.

5. Actions Taken to Minimize Impacts. Numerous actions will be taken to avoid adverse effects of sediment related impacts. Project features will be designed with stable slopes will incorporate the use of immobile stone (rather than earthen material). Earthen embankments will be properly compacted and provided with the proper re-vegetation features to minimize erosion. All fills will be controlled and placed in appropriate non-wetland locations.

Minimal vegetation impacts are expected to result from the proposed action. Projects features will be positioned to minimize impacts to vegetation. Existing vegetative communities in areas of disturbance would be removed. Areas of disturbance will be confined and re-vegetated at the completion of the project. Sediment placement along the Sny Levee will temporarily disrupt vegetative communities established along the levee. Sediment placement will be done in a manner to avoid vegetative impacts outside of the existing levee.

Faunal impacts from the construction of project features would be limited to short-term disruption of the aquatic and terrestrial shoreline community in the areas of the disturbance. Removal of the fine grained silt within Sny Creek will temporarily displace aquatic species during dredging; however, these species and/or different benthos will return quickly and re-colonize the freshly disturbed substrates. Construction would be scheduled in such a way as to avoid impacting threatened and endangered species. The proposed actions would also provide a more diverse aquatic substrate than presently exists within the channel.

B. Water Circulation, Fluctuation, and Salinity Determinations

1. Water.

a. Salinity - Not applicable.

b. Water Chemistry - Mechanical excavation or hydraulic dredging is expected to have a short-term temporary effect on water chemistry. Increased turbidity in the areas

of sediment removal is expected; however; turbidity levels are not expected to significantly affect any aquatic organisms or downstream habitat. Non-riverine originated components such as rock fill, capstone, concrete, and steel that may be placed temporarily or permanently during construction would be physically stable and chemically non-contaminating. Water chemistry will be dramatically improved through the removal of fine grained sediments that currently impair the functionality of Sny Creek. By removing accumulated sediment Sny Creek will provide a functional backwater connection to Roadside and Waverly Lakes.

c. Clarity - Elevated suspended sediment levels are expected to occur in a localized nature within Sny Creek during dredging. Likewise, slightly elevated suspended sediment levels can be expected during the replacement of the pump and water control structure. Decreased water clarity is expected to be short-term at these sites.

d. Color - No change is expected.

e. Odor - The project is not expected to have an impact on water odors.

f. Taste - The project is not expected to impact water taste.

g. Dissolved Gas Levels - Construction activities associated with the project are not expected to have a significant adverse impact on dissolved gas levels.

h. Nutrients - Nutrients will be released to the water column during sediment removal; however, this will represent a temporary increase and is not considered significant.

i. Eutrophication - The project is not expected to contribute toward eutrophication of the water column.

j. Water Temperature - Temperatures are not expected to change.

2. Current Patterns and Circulation.

a. Current Patterns and Flow - Small floods (those occurring once every one to two years) will be excluded from the project area by repairing the existing scour holes in the exterior dike/levee. Overall, the project will slightly alter circulation and flow patterns; however, these alterations are not expected to significantly change river hydraulics.

b. Velocity - There should be no detectible changes in current velocity in the Mississippi River or Sny Creek.

c. Stratification - Stratification does not occur within the project area because of flowing water and shallow depths.

d. Hydrologic Regime - The project will not alter the hydrologic regime of Pool 25 or the flood profile of the Mississippi River.

Dredging Sny Creek would have positive impacts on current patterns, backwater connectivity and circulation of water from the Sny to the Mississippi River. Increased

water depths from sediment removal will provide access to overwintering habitat that is currently thought to be limiting for aquatic organisms. Dredging the access channels would improve water circulation to those areas as well as provide improved escape routes for fish should water conditions become unfavorable. There would not be any noticeable alteration in current patterns upstream or downstream of the project. Main stem river channel or interior velocities would not be affected by the proposed action.

3. Normal Water Level Fluctuations. The project will not affect normal water fluctuations in the elevation of Pool 25. No effects on normal seasonal river or project area interior stages are anticipated to result from any of the proposed placements. Levee restoration is expected to increase flood protection to the project area.

4. Salinity Gradients. The proposed action would take place in a freshwater river system. Therefore, no consideration of salinity gradients is warranted for these actions.

5. Actions Taken to Minimize Impacts. Measures taken to avoid state water quality standard exceedances could include avoidance of hydraulic dredging activities in the toxic, unionized during the summer months when water temperatures are higher and a greater percentage of the ammonia is form, and/or utilizing a confined placement facility to allow for settling of the suspended solids. A relatively small mixing zone can also be effective at reducing ammonia-nitrogen and metal concentrations to acceptable levels.

C. Suspended Particulate/Turbidity Determinations. In an effort to assess existing sediment characteristics within the vicinity of the proposed project, bed sediment samples and overlying water will be collected for analysis. Elutriate and grain size analyses will performed on two samples collected from potential dredging areas within Sny Creek. Sediment analysis results will dictate the proper treatment alternatives.

1. Expected Changes in Suspended Particles and Turbidity Levels in Vicinity of Placement Sites. The proposed project would have short-term adverse impacts during construction due to localized turbidity plumes, but long-term beneficial effects would occur from improved fisheries habitat, riverine-backwater connectivity and protection of the interior wetlands from flood related scour or levee failure. Increases in suspended particulates and turbidity due to construction of water control structures are expected to be minimal because cofferdams and/or turbidity curtains and silt fence will confine the construction sites, during dewatering and for the duration of the construction process.

2. Effects on Chemical and Physical Properties of Water Column. The proposed project would have short-term adverse impacts to the chemical and physical properties within Sny Creek during construction due to turbidity. As sediment is removed plumes of sediment become suspended in the water; however, as dredging ceases Turbidity returns to normal. The positive effects from dredging include improved fisheries habitat and protection of the interior from flooding or levee failure. No impacts are anticipated for the dredging actions with confined placement sites or those to be accomplished through mechanical dredging.

The proposed action is not expected to have any long-term impacts on light penetration, dissolved oxygen levels, toxic metals and organics, pathogens, or aesthetics.

Short Term Impacts from Dredging or Excavation

| | |
|------------------------------|---|
| a) Light Penetration | Slight reductions in light penetration will last up to several days; however, will return to pre dredging conditions. |
| b) Dissolved Oxygen | Localized decrease in dissolved oxygen (DO) levels are expected during dredging; however oxygen levels will reestablish to pre dredging concentrations quickly after dredging halts |
| c) Toxic Metals and Organics | Results of the sediment sample analysis have not been received. |
| d) Pathogens | It is unlikely that pathogens exist in any of the proposed areas of construction. |
| e) Aesthetics | Increased levels of suspended particulates and turbidity could be aesthetically unpleasant to the visiting public. |
| f) Water Temperature | No short-term changes in water temperatures are expected |

3. Effects on Biota.

a. Primary Production, Photosynthesis - Minor short-term impacts to primary production and photosynthetic processes are expected to occur locally.

b. Suspension/Filter Feeders - A localized, short-term, and minor reduction in benthos production due to increased suspended sediments is expected for Sny Creek.

c. Sight Feeders - Impacts to sight-feeders associated with dredging are expected to be short-term and range from slight to substantial.

Adverse effects to biota, including primary producers (i.e. zooplankton and phytoplankton), suspension/filter feeders, and sight feeders, are expected to be short-term. Invertebrate populations of mayflies, caddisflies, stoneflies, and other aquatic insects, as well as fish use, would increase on the rock substrate used for future project construction. Areas of deeper water or access to deeper water would result in increased survival of fish during freezing or low oxygen conditions. This project should have net beneficial impacts to the Rip Rap Landing complex and to the regional ecosystem. This project facilitate the creation of habitat connectivity to Roadside and Waverly Lake, while also enhancing the moist soil management units, and increasing the sustainability an diversity of the bottomland hardwood forest. Actions taken to minimize impacts associated with suspended particulates and turbidity include encircling the dredging areas with turbidity curtains. Furthermore, proper detention of return water from dewatering sites will allow particulate and turbidity levels to return to ambient condition before returning back into the Mississippi River.

D. Contaminant Determinations. The 404(b)(1) Guidelines provide, in part, that chemical and biological testing will not be required "Where the discharge site is adjacent to the extraction site and subject to the same sources of contaminants, and materials at the two sites are substantially similar,... and "when dissolved material and suspended particulates can be controlled to prevent carrying pollutants to

less contaminated areas,..." A phase I environmental assessment has been done for the site and found no contamination issues. Rock fill material would be clean, uncontaminated stone from an approved source. No significant increase in contaminants in the aquatic environment would result from dredging or placing sediments from the Mississippi River or from the sites inside the main stem levee. Possible introduction of equipment or construction-related contaminants would be controlled by adherence to strict disturbance minimization during construction activity. Soil and erosion control plans will also be used to minimize impacts. No toxic materials would be introduced into the area because of construction.

E. Aquatic Ecosystem and Organism Determinations. The proposed project features are anticipated to benefit fish and wildlife at Rip Rap Landing through enhancement of the moist soil management units, increased diversity and regeneration of bottomland hardwood forest, fisheries enhancements (deepwater and access), and increased protection of the interior features from flood events.

1. Effects on Plankton. Effects on plankton are anticipated to be minimal and associated with increased suspended sediments and turbidity levels. This impact will be short-term for the duration of the dredging. Long term, the project will help to maintain and protect plankton production by preventing the conversion of aquatic habitat to terrestrial habitat due to sedimentation.

2. Effects on Benthos. Negative effects on benthos would be limited to elimination of those organisms currently inhabiting the immediate dredging sites, and water control structure sites. Benthic organisms in the immediate vicinity of open-water sites designated for the placement of earthen material or rock for the water control structures will be lost due to burial; however, the placement of rock fill for site protection should provide interstitial spaces for invertebrate production and limited vertebrate spawning potential. Impacts to benthos are likely short-term as re-colonization from impacts sediment is expected to occur soon after dredging.

3. Effects on Nekton. One of the primary purposes of this project is to restore aquatic habitat connectivity. Dredging will re-create deep-water habitat, as well as restore access within Sny Creek, Roadside Lake and Waverly Lake. Fish will benefit greatly from these habitat improvements. Increased water exchange, resulting in improved dissolved oxygen concentrations during seasonal stress periods would be an additional benefit. Negative effects on nekton would be limited to displacement and temporary disruption of foraging patterns. Dredging of known overwintering areas or hard bottom habitat in Sny Creek will be avoided, further reducing any adverse fisheries impacts.

4. Effects on Aquatic Food Web. Effects on the aquatic food web are expected to be beneficial overall by increasing production at the lower trophic levels.

5. Effects on Special Aquatic Sites. Effects on special aquatic sites should be negligible in the project area; no sanctuaries or refuges would be adversely affected by the proposed action. Project goals and features have been developed in coordination with multiple state and federal partners. Project goals and features have been specifically chosen to match the management objectives of the U.S. Fish and Wildlife Service and the Illinois Department of Natural Resources, and these features are expected to be enhanced by implementation of the project.

a. Sanctuaries and Refuges. The project area is located within the Upper Mississippi River Fish and Wildlife Refuge System, and is managed by the Illinois Department of Natural Resources, NRCS and U.S. Fish and Wildlife Service as a migratory wildlife management area. The project is expected to greatly benefit migratory and resident migratory wildlife, fisheries, and other wetland wildlife and vegetation.

b. Wetlands, Mud Flats, and Vegetated Shallows. No wetlands or mudflats, vegetated shallows, coral reefs, or riffle and pool complexes would be adversely affected over the long-term by the proposed action. Levee restoration activities and new slopes may extend beyond the existing levee footprint, affecting existing wetland areas and open water areas; however, the protection provided by the levee restoration and the large acreage of wetlands within the levee area offset any impacts to wetlands by construction activities. The placement of dredged material in previously disturbed agricultural areas would avoid impacts to wetlands and would create slightly higher topographic elevations. The final elevations would still be considered wetland, and the mast tree planting would increase bottomland forest diversity, resulting in improved value of the area for wildlife. Project planning considered to the full extent the minimization of wetland loss, and it is intended that wetland values and extent would be improved as a result of project implementation.

6. Threatened and Endangered Species. The list of animals and plants below was compiled from the USFWS website for Calhoun County, Illinois and satisfies the “request for species list requirement” for Section 7 consultation.

| | | |
|----------------------|--------------------------------|--------------------------------|
| Endangered | Indiana Bat | <i>Myotis sodalis</i> |
| Threatened | Decurrent False Aster | <i>Boltonia decurrens</i> |
| Threatened | Eastern Prairie Fringed Orchid | <i>Platanthacon leucophaea</i> |
| Endangered | Spectaclecase | <i>Cumberlandia monodonta</i> |
| Proposed for Listing | Northern Long-eared Bat | <i>Myotis septentrionalis</i> |

Indiana Bat. Indiana bats hibernate during winter in caves, or occasionally, in abandoned mines. For hibernation, they require cool, humid caves with stable temperatures, under 50 degrees F but above freezing. Very few caves within the range of the species have these conditions. After hibernation the bats migrate to their summer habitat in wooded areas where they usually roost under loose tree bark on dead or dying trees. Males roost alone or in small groups, while females roost in larger groups of up to 100 bats or more. Indiana bats forage in or along the edges of forested areas, and especially prefer forest along rivers or small streams. Mist net surveys on Dog Island in 2012 captured several.

Construction activities would be timed to avoid impacts Indiana bats. During the summer, Indiana bats roost in trees and forage for insects in or near floodplain and upland forests. Tree clearing would not be conducted during the April 1-September 30 timeframe. Prohibiting clearing activity during this 6-month time window would avoid potential impacts to summer roosting Indiana bats. No tree clearing is proposed for the area Indiana Bats where found to be using.

Decurrent False Aster. This plant is found on moist, sandy floodplains and prairie wetlands along the Illinois River. It has been found along the Mississippi River in Madison County, Illinois. The plant relies on periodic flooding to scour away other plants that compete for the same habitat. Excessive silting seems to be a major cause of the plant’s decline. Decurrent false asters have been known to occur in areas of low-intensity agriculture. This plant has not been found in the project area.

Eastern Prairie Fringed Orchid. This plant occurs in a wide variety of habitats, from mesic prairie to wetlands such as sedge meadows, marsh edges, and even bogs. It requires full sun and a grassy habitat with little or no woody encroachment for optimum growth and flowering.

Flowering begins from late June to early July, with blossoms often rising just above the height of the surrounding grasses and sedges. This plant is not known to occur in the project area.

Spectaclecase. This large mussel is greatly elongated, sometimes curved, and moderately inflated, with solid and moderately thick valves. Key characteristics for distinguishing the spectaclecase from other mussels are the large size, elongate shape, arcuate ventral margin, dark coloration, roughened surface, poorly developed teeth, and white nacre. No other North American mussel species has this suite of characters. The spectaclecase occurs in large rivers and is a habitat-specialist, relative to other mussel species, often occurring on outside river bends below bluff lines. It most often inhabits riverine microhabitats that are sheltered from the main force of current and occurs in substrates from mud and sand to gravel, cobble, and boulders in relatively shallow riffles and shoals. The spectaclecase has not been found in or adjacent to the project area.

The IDNR EcoCat Natural Heritage Data Base lists the Bald Eagle and Black Sand Shell and Butterfly mussels as occurring in Calhoun County. The Bald Eagle is a frequent visitor to the site and may be nesting within the project area. Information on the Bald Eagle is covered elsewhere in this document. The Black Sand Shell (*Liguma recta*) and Butterfly mussels (*Ellipsaria lineolata*) are State Listed, threatened large river species that have historically occurred in the Mississippi River. They favor small to large gravel substrate and strong current, habitat conditions that may be present in the river adjacent to the project area. Mussel surveys may be required for some areas if thalweg placement is used for sediment dredged from sloughs on Dog Island.

Northern Long-eared Bat. Northern Long-eared bats hibernate during winter in caves, or occasionally, in abandoned mines. For hibernation, they require cool, humid caves with stable temperatures, under 50 degrees F but above freezing. Very few caves within the range of the species have these conditions. After hibernation the bats migrate to their summer habitat in wooded areas where they usually roost under loose tree bark on dead or dying trees. Males roost alone or in small groups, while females roost in larger groups of up to 100 bats or more. Northern Long-eared bats forage in or along the edges of forested areas, and especially prefer forest along rivers or small streams. Acoustic surveys on Dog Island in 2012 recorded the presence of several bats of this species.

Construction activities would be timed to avoid impacts Northern Long-eared bats. During the summer, Northern Long-eared bats roost in trees and forage for insects in upland forests and less frequently along open water or roads. Tree clearing would not be conducted during the April 1-September 30 roosting timeframe. Prohibiting clearing activity during this 6-month time window would avoid potential impacts to summer roosting Northern Long-eared bats. No tree clearing is proposed for zone 5, the area Northern Long-eared Bats were found to be using.

No significant impacts to threatened or endangered species are anticipated to result from the proposed project as **none of these species listed above, except for the Indiana and Northern Long-eared Bat have been documented within the project area. In terms of the Indiana Bat, the proposed project feature may affect, but not likely to adversely affect this species because the project features are aimed to improve the species' summer roosting habitat of bottomland hardwood forest.**

F. Proposed Placement Site Determinations

1. Mixing Zone Determination. The material dredged from the Sny Creek for fisheries access is fine-grained material. This material will be removed via both hydraulic and mechanical dredging and placed into designated placement sites. Mechanical dredging along Sny Creek will result in the placement of excavated material along the existing levee embankment. A small amount of fine-grained material would migrate from placement sites and quickly become diluted with the creek waters. In addition, during construction, this fine material would result in temporary localized increases in suspended material. A confining turbidity curtain may be used to minimize the zone of influence during removal. The riprap fill material, used for water control structure protection, is inert and would not mix with the water. The lack of fine particulates typically contained in rock fill and main channel sand, used for levee restoration, indicates negligible chemical or turbidity effects resulting from this action.

2. Determination of Compliance with Applicable Water Quality Standards. The project is expected to comply with applicable water quality standards. The District will coordinate with the Illinois Environmental Protection Agency (IEPA) in regard to water quality requirements for dredging and incorporate that agency's recommendations into the proposed project. Elutriate analyses will be performed in order to evaluate the impacts of dredged material placement on water quality.

3. Potential Effects on Human Use Characteristics. The proposed project would have no adverse effects on municipal and private water supplies; recreational and commercial fisheries; water-related recreation; or parks, national and historic monuments, wilderness areas, research sites, or similar preserves.

a. Municipal and Private Water Supply - No municipal water supply will be adversely impacted by project construction.

b. Recreational and Commercial Fisheries - The proposed project is expected to improve winter and summer habitat conditions for fish, and thereby the likelihood of successful recreational fishing opportunities.

c. Water Related Recreation - Water-related recreation (hunting, boating, fishing, etc.) is not expected to be adversely impacted by the project in the long-term. Certain opportunities may be unavailable during the construction period, such as boating in Sny Creek while dredging is in progress. Hunting is not expected to be adversely affected.

d. Aesthetics - Construction activities will have minor impacts on the aesthetic quality of the project area during the duration of the work. The most visible activities will occur adjacent to the Illinois River. Most construction activities will not be visible except from the main channel of the Mississippi River.

e. Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites and Similar Preserves - The project will not impact any of these resources.

G. Determination of Cumulative Effects on the Aquatic Ecosystem. No negative cumulative impacts are expected to result from this action. The Environmental Management Program should have a positive impact on the Upper Mississippi River System. Habitat modifications should have long-term benefits to the fish and wildlife utilizing this area. Long-term productivity would be enhanced by the proposed action. This project, in concert with other EMP projects in the Upper Mississippi River System,

should counter other impacts to the river ecosystem such as sedimentation, pollution, and general decline in riverine habitats.

H. Determination of Secondary Effects on the Aquatic Ecosystem. Any negative impacts resulting from the proposed placement are expected to remain localized and short-term in nature. Re-suspension of existing substrate material during project construction would not contribute to any significant impacts to the aquatic ecosystem. No significant negative secondary impacts to the aquatic ecosystem have been identified for this project. Long-term benefits to aquatic vegetation, fish, and wildlife are expected.

III. FINDINGS OF COMPLIANCE OR NONCOMPLIANCE WITH THE RESTRICTIONS ON DISCHARGE

A. Adaptation of the Section 404(b)(1) Guidelines to this Evaluation. No significant adaptations of the 404(b)(1) guidelines were made relative to this evaluation.

B. Evaluation of Availability of Practicable Alternatives to the Proposed Discharge Site Which Would Have Less Adverse Impact on the Aquatic Ecosystem. Alternatives that were considered for the proposed action were as follows:

No Federal Action. No Federal action in this instance means no change in land use, land cover or current management practices or facilities.

Preferred Alternative. The preferred alternative components for the project are listed in the following table.

| Zones | Features, Measures or Functional Units |
|-------------------|---|
| Zone 1 | 2,500gpm Well and water control Structures w/Channel to Goose Pasture Lake |
| Zones 1 and 3 | Conversion of Cropland to BLH |
| Zone 3 | Water Control, Roadside Lake |
| Zones 3 and 4 | Channel to Waverly Lake, Water Control in Channel, WCS in North Units, Pump Station, Pump Channel Widening, Pipe and Concrete at Road, WCS Pipes Under Sand Levee, WCS Pipes Under Road, South Spillway, WCS South Spillway, River Ridge Scour Swales |
| Zones 3, 4, and 5 | Roadside Lake Channel to Sny, Sny Dredging Roadside Channel to Dog Island, Sny Dredging Along Dog Island |

Management Features Considered but Not Selected. Several management features were considered for construction, but not selected based on engineering feasibility, environmental impacts, cost, and/or inability to meet the goals and objectives of the Corps of Engineers, the U.S. Fish and Wildlife Service, and the State of Illinois. The management features considered but not selected for the project are listed in the following table.

| Zones | Features, Measures or Functional Units |
|--------|---|
| Zone 1 | All items within the Zone 1 plan were approved. |

| | |
|--------|---|
| Zone 2 | The River Ridge Levee System |
| Zone 3 | Dredging of the Sny north of the County highway bridge |
| Zone 4 | The river ridge levee system; Dredging of the Sny north of the roadside lake connection channel and south of the County highway bridge, tree planting |
| Zone 5 | Dredging of backwater sloughs within Dog Island; Water control structures in Dog Island sloughs |

C. Compliance with Applicable State Water Quality Standards. Permits, certification, or waiver of certification under Section 404 of the Clean Water Act would be obtained before construction begins. The project would be in compliance with water quality standards of the State of Illinois, as applicable.

D. Compliance with Applicable Toxic Effluent Standard or Prohibition Under Section 307 of the Clean Water Act. The project is not anticipated to introduce toxic substances into nearby waters or result in appreciable increases in existing levels of toxic materials. The proposed activity is in compliance with Applicable Toxic Effluent Standards or Prohibition under Section 307 of the Clean Water Act.

E. Compliance with Endangered Species Act of 1973. No significant impact to Federal or state listed threatened or endangered species would result from the proposed action. Prior to construction, full compliance with the Endangered Species Act would be documented.

F. Compliance with Specified Protection Measures for Marine Sanctuaries Designated by the Marine Protection, Research, and Sanctuaries Act of 1972. The project is situated along an inland freshwater river system. No marine sanctuaries are involved or would be affected by the proposed action.

G. Findings of Significant Degradation of the Waters of the United States. The proposed activities would not have a significant adverse effect on human health and welfare, municipal and private water supplies, recreation and commercial fisheries, plankton, fish, shellfish, wildlife or special aquatic sties. No significant adverse effects on life stages of aquatic life and other wildlife dependent on aquatic ecosystems are expected to result. The proposed activities would have no significant adverse effects on aquatic ecosystem diversity, productivity, and stability.

No significant adverse effects on recreational, aesthetic, and economic values would occur. Environmental improvements resulting from the proposed actions would outweigh short-term construction impacts and offset some of the habitat degradation caused by siltation and levee failures. No long-term adverse effects to the river ecosystem are expected to result from this action.

H. Appropriate and Practicable Steps Taken to Minimize Potential Adverse Impacts of the Discharge on the Aquatic Ecosystem. Steps taken to minimize potential adverse impacts on the aquatic ecosystem include the use of previously disturbed habitat such as croplands and existing infrastructure. Furthermore the beneficial reuse of sediment recovered from the Sny Creek will minimize the need for additional borrow and habitat conversion.

I. On the Basis of the Guidelines the Proposed Disposal Sites for the Discharge of Dredged and Fill Material. No other practical alternatives have been identified. The proposed action

is in compliance with Section 404(b)(1) of the Clean Water Act, as amended. The proposed action would not significantly impact water quality. On the basis of the guidelines, the proposed placement sites for the discharge of dredged material are specified as complying with the requirements of these guidelines, with the inclusion of appropriate and practical conditions to minimize pollution or adverse effects to the environment.

Approved by: _____

ANTHONY P. MITCHELL
COL, EN
Commanding

Date: _____

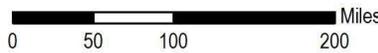


Figure B.1 - Project Location Map
 UMRS EMP
 Rip-Rap Landing Conservation Area
 Habitat Rehabilitation and Enhancement Project
 Mississippi River, Pool 25, Calhoun County, IL

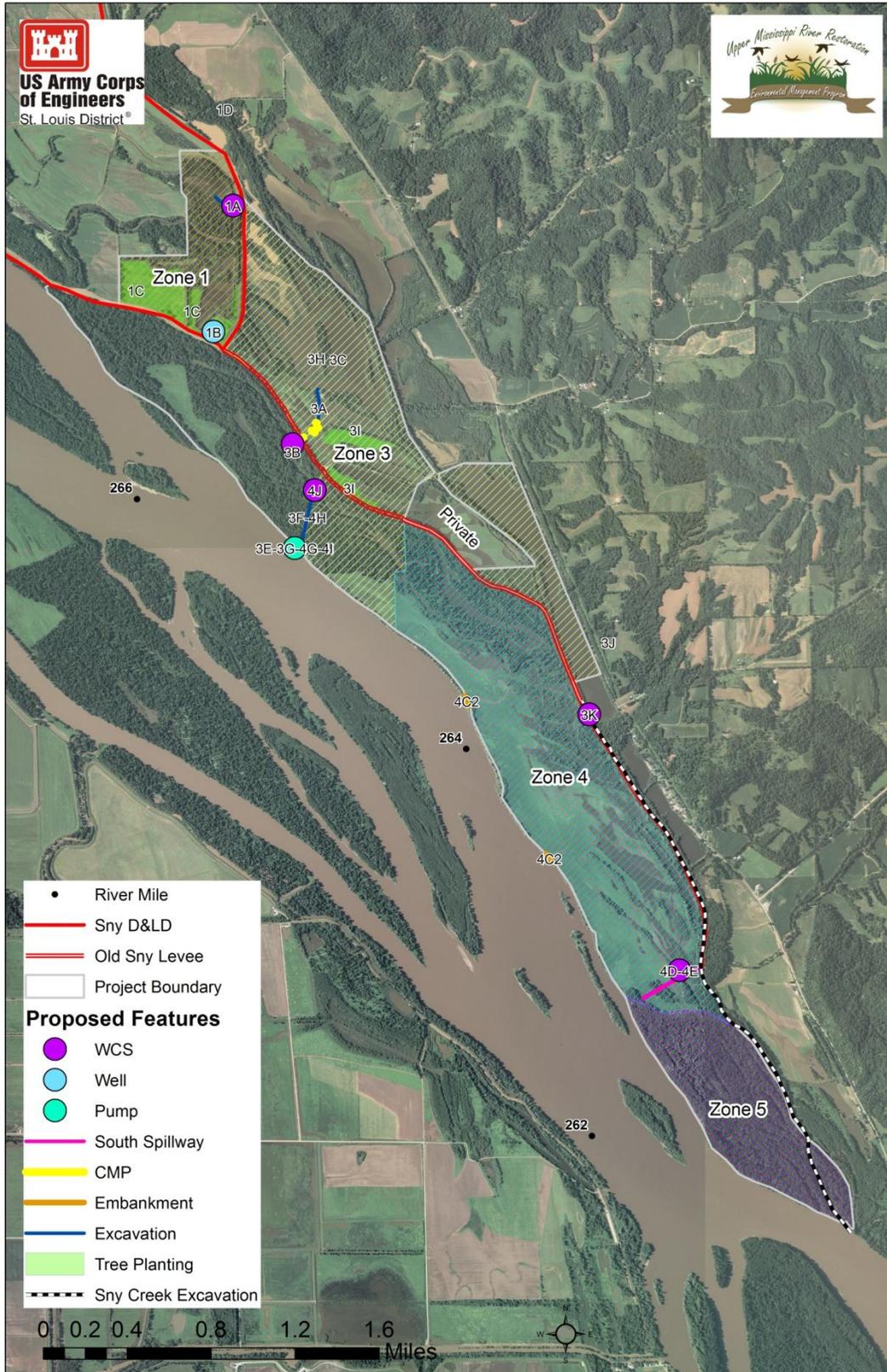


Figure B-2. Proposed Project Features of Preferred Alternative at Rip Rap Landing



DEPARTMENT OF THE ARMY
ST. LOUIS DISTRICT CORPS OF ENGINEERS
1222 SPRUCE STREET
ST. LOUIS, MISSOURI 63103-2833

REPLY TO
ATTENTION OF:

February 23, 2014

Regulatory Branch
File Number: MVS-2011-152

Mr. Charlie Hanneken
U.S. Army Corps of Engineers
Environmental Planning Section (PD-E)
1222 Spruce Street
St. Louis, Missouri 63103-2833

Dear Mr. Hanneken:

I have reviewed your request to reauthorize the Rip Rap Landing Habitat Rehabilitation and Enhancement Project (RRL). Minor project modifications have been incorporated since the original authorization on March 6, 2011. The project modifications include removing the previously proposed planting of 36 acres of trees in Zone 2 and 210 acres in Zone 4. However, the same areas will be reforested under a Wetland Reserve Program agreement between the Natural Resource Conservation Service and the project's non-federal sponsor, the Illinois Department of Natural Resources. The project purpose is to restore wetlands and habitat.

Most of the project area has been severely impacted by flooding and over-bank scouring flows from the Mississippi River. In 1993 and 1995 the flood height and duration severely impacted the bottomland forest, lakes, sloughs and cut-off channels in the project area. Wetland impacts were primarily from siltation, but several sloughs were impacted by sand from the scouring flows from the river. The result has been a loss of habitat diversity, quality and productivity, both for the bottomland forest and the interior wetlands. The Sny Creek channel has been impacted by sediment from both the river and the hillside watersheds that drain into the creek, reducing depth of the creek to two feet or less and cutting off fish access from the Mississippi River except during periods of flooding (above elevation 441 feet AMSL). Consequently, the backwater lakes and wetlands are largely unavailable for use by fish for spawning, rearing and over-wintering.

Besides the above mentioned project modifications, the previously authorized RRL proposal would remain the same to convert cropland and former cropland to bottomland forest, enhance and improve water level management and delivery to wetlands, create year round access for fish from the Mississippi River up Sny Creek to Roadside Lake to provide spawning, rearing and over-wintering habitat. The RRL project is

located in Pool 25 of the Mississippi River along the left descending bank between river miles 260.5 and 267, near Mozier, in Calhoun County, Illinois.

Based upon a review of the U.S. Geological Survey 7.5-minute topographical map, we determined wetlands and other waters of the United States are located within the RRL project area. Therefore, the habitat enhancement activities involving the discharge of fill material in wetlands and below the ordinary high water elevation of other waters of the United States requires authorization from this office.

The Corps of Engineers has determined that this activity will have no effect on endangered species, and is authorized under Section 404 of the Clean Water Act by existing Department of the Army nationwide permits, as described in the February 21, 2012, Federal Register, Reissuance of Nationwide Permits; Notice (77 FR 10271), Appendix A (B) (27). **This verification is valid until March 18, 2017,** unless the District Engineer modifies, suspends, or revokes the nationwide permit authorization in accordance with 33 CFR 330.5(d). If you commence, or are under contract to commence, this activity before the nationwide permit expires, you will have 12 months after the date the nationwide permit expires or is modified, suspended, or revoked, to complete the activity under the present terms and conditions of this nationwide permit. Enclosed is a copy of the nationwide permit and conditions and management practices with which you must comply.

The Illinois Environmental Protection Agency Division of Water Pollution Control (IEPA/WPC) has conditionally issued general Section 401 Water Quality Certification for this nationwide permit, subject to the special conditions and three general conditions (see enclosure). These conditions are part of the Corps permit. If you have any questions regarding the water quality certification conditions, you may call Mr. Dan Heacock, IEPA/WPC, at 217-782-3362.

This determination is applicable only to the permit program administered by the Corps of Engineers Regulatory Branch. It does not eliminate the need to obtain other federal, state or local approvals before beginning work. This verification does not convey property rights, nor authorize any injury to property or invasion of other rights.

You are reminded that the authorization is based on submitted plans. Variations from these plans shall constitute a violation of Federal law and may result in the revocation of the authorization. If this nationwide permit is modified, reissued, or revoked during this period, the provisions described at 33 CFR 330.6(b) will apply.

If you have any questions, please contact me at (314) 331-8583. Please refer to file number **MVS-2011-152**. The St. Louis District Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete our Customer Service Survey found on our web site at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey.

Sincerely,

A handwritten signature in black ink that reads "Charles Frerker". The signature is written in a cursive style with a large, prominent initial "C".

Charles Frerker, PM
Regulatory Branch

Enclosures

STATE OF ILLINOIS
CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION
2012 GENERAL AND SPECIFIC CONDITIONS
NWP 27 – AQUATIC HABITAT RESTORATION, ESTABLISHMENT, AND ENHANCEMENT
ACTIVITIES

These conditions ensure that the activities carried out under Nationwide Permits (NWPs) do not violate the Water Quality Standards of the State of Illinois resulting in permanent damage to habitat, increased turbidity, reduced bank and channel stability, and/or impacts to the biological and chemical integrity of the waters. These conditions are in addition to, not a replacement for, those conditions included by the federal authorities. Proposed projects authorized by the NWPs listed above that cannot be conducted within the conditions listed below must apply for individual Clean Water Act Section 401 Water Quality Certification.

Applications for certification should be sent to the Illinois Environmental Protection Agency, Division of Water Pollution Control, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois, 62794-9276. An issued certification becomes part of the Clean Water Act Section 404 Permit. Therefore, it expires with the 404 Permit unless explicitly stated otherwise.

GENERAL CONDITIONS FOR ALL NWPs

1. An individual 401 water quality certification will be required for any activities permitted under these Nationwide Permits for discharges to waters designated by the State of Illinois as Outstanding Resource Waters under 35 Ill. Adm. Code 302.105(b).
2. Projects requiring authorization under Section 404 of the Clean Water Act must implement Best Management Practices (BMPs) to protect water quality, preserve natural hydrology and minimize the overall impacts to aquatic resources during and after construction. If the project involves a water with an approved Total Maximum Daily Load (TMDL) allocation for any parameter, measures which ensure consistency with the assumption and requirements of the TMDL shall be included. TMDL program information and water listings are available at www.epa.state.il.us/water/tmdl/. If the project involves an impaired water listed on the Illinois Environmental Protection Agency's Section 303(d) list for suspended solids, turbidity, or siltation, measures designed for at least a 25-year, 24-hour rainfall event shall be incorporated. Impaired waters are identified at www.epa.state.il.us/water/tmdl/303d-list.html.
3. Prior to proceeding with any work in accordance with any Nationwide Permit, potential impacts to threatened or endangered species shall be identified through use of the State's Ecological Compliance Assessment Tool (EcoCAT) at <http://dnrecocat.state.il.us/ecopublic/>. If potential impacts to State threatened or endangered species are identified, the Illinois Department of Natural Resources shall be consulted with.

SPECIFIC CONDITION FOR NWP 27 – Aquatic Habitat Restoration, Establishment, and Enhancement Activities

1. All activities conducted under NWP 27 shall be in accordance with the provisions of 35 Ill. Adm. Code 405.108. Work in reclaimed surface coal mine areas are required to obtain prior authorization from the Illinois EPA for any activities that result in the use of acid-producing mine refuse.



U.S Army Corps
Of Engineers
St. Louis District

Nationwide Permit Summary

No. 27, AQUATIC HABITAT RESTORATION, ESTABLISHMENT, AND ENHANCEMENT ACTIVITIES (NWP Final Notice, 77 FR 10275)

Activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas, the restoration and enhancement of non-tidal streams and other non-tidal open waters, and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities result in net increases in aquatic resource functions and services.

To the extent that a Corps permit is required, activities authorized by this NWP include, but are not limited to: The removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms, as well as discharges of dredged or fill material to restore appropriate stream channel configurations after small water control structures, dikes, and berms, are removed; the installation of current deflectors; the enhancement, restoration, or establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to restore or establish stream meanders; the backfilling of artificial channels; the removal of existing drainage structures, such as drain tiles, and the filling, blocking, or reshaping of drainage ditches to restore wetland hydrology; the installation of structures or fills necessary to establish or re-establish wetland or stream hydrology; the construction of small nesting islands; the construction of open water areas; the construction of oyster habitat over unvegetated bottom in tidal waters; shellfish seeding; activities needed to reestablish vegetation, bed preparation and the planting of appropriate wetland species; reestablishment of submerged aquatic vegetation in areas where those plant communities previously existed; reestablishment of tidal wetlands in tidal waters where those wetlands previously existed; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.

This NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands and streams, on the project site provided there are net increases in aquatic resource functions and services.

Except for the relocation of non-tidal waters on the project site, this NWP does not authorize the conversion of a stream or natural wetlands to another aquatic habitat type (e.g., stream to wetland or vice versa) or uplands. Changes in wetland plant communities that occur when wetland hydrology is more fully restored during wetland rehabilitation activities are not considered a conversion to another aquatic habitat type. This NWP does not authorize stream channelization. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments.

Compensatory mitigation is not required for activities authorized by this NWP since these activities must result in net increases in aquatic resource functions and services.

Reversion. For enhancement, restoration, and establishment activities conducted: (1) In accordance with the terms and conditions of a binding stream or wetland enhancement, or restoration agreement, or wetland establishment agreement, between the landowner and the U.S. Fish and Wildlife Service (FWS), the Natural

Resources Conservation Service (NRCS), the Farm Service Agency (FSA), the National Marine Fisheries Service (NMFS), the National Ocean Service (NOS), U.S. Forest Service (USFS), or their designated state cooperating agencies; (2) as voluntary wetland restoration, enhancement, and establishment actions documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or (3) on reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the Office of Surface Mining Reclamation and Enforcement (OSMRE) or the applicable state agency, this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or establishment activities). The reversion must occur within five years after expiration of a limited term wetland restoration or establishment agreement or permit, and is authorized in these circumstances even if the discharge occurs after this NWP expires. The five-year reversion limit does not apply to agreements without time limits reached between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS, or an appropriate state cooperating agency. This NWP also authorizes discharges of dredged or fill material in waters of the United States for the reversion of wetlands that were restored, enhanced, or established on prior-converted cropland or on uplands, in accordance with a binding agreement between the landowner and NRCS, FSA, FWS, or their designated state cooperating agencies (even though the restoration, enhancement, or establishment activity did not require a section 404 permit). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate state agency executing the agreement or permit. Before conducting any reversion activity the permittee or the appropriate Federal or state agency must notify the district engineer and include the documentation of the prior condition. Once an area has reverted to its prior physical condition, it will be subject to whatever the Corps Regulatory requirements are applicable to that type of land at the time. The requirement that the activity results in a net increase in aquatic resource functions and services does not apply to reversion activities meeting the above conditions. Except for the activities described above, this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion.

Reporting: For those activities that do not require pre-construction notification, the permittee must submit to the district engineer a copy of: (1) The binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement, or a project description, including project plans and location map; (2) the NRCS or USDA Technical Service Provider documentation for the voluntary stream enhancement or restoration action or wetland restoration, enhancement, or establishment action; or (3) the SMCRA permit issued by OSMRE or the applicable state agency. The report must also include information on baseline ecological conditions of the project site, such as delineation of wetlands, streams, and/or other aquatic habitats. These documents must be submitted to the district engineer at least 30 days prior to commencing activities in waters of the United States authorized by this NWP.

Notification. The permittee must submit a pre-construction notification to the district engineer prior to commencing any activity (see general condition 31), except for the following activities:

(1) Activities conducted on non-Federal public lands and private lands, in accordance with the terms and conditions of a binding stream enhancement or restoration agreement of wetland enhancement, restoration, or establishment agreement between the landowner and the U.S. FWS, NRCS, FSA, NMFS, NOS, USFS or their designated state cooperating agencies;

(2) Voluntary stream or wetland restoration, or enhancement, action, or wetland establishment action, documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or

(3) The reclamation of surface coal mine lands, in accordance with an SMCRA permit issued by the OSMRE or the applicable state agency.

However, the permittee must submit a copy of the appropriate documentation to the district engineer to fulfill the reporting requirement. (Sections 10 and 404)

Note: This NWP can be used to authorize compensatory mitigation projects, including mitigation banks and in-lieu fee projects. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition, since compensatory mitigation is generally intended to be permanent.

NATIONWIDE PERMIT CONDITIONS

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/ or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety, and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. **Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. **Wild and Scenic Rivers.** No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

17. **Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. **Endangered Species.** (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.)

from the U.S. FWS or the NMFS, The Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world web pages at <http://www.fws.gov/> or <http://www.fws.gov/ipac> and <http://www.noaa.gov/fisheries.html> respectively.

19. **Migratory Birds and Bald and Golden Eagles.** The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.

20. **Historic Properties.** (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties on which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see

36 CFR 800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWP's 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWP's 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 31, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWP's only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the

extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment.

(2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2)-(14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream rehabilitation, enhancement, or preservation, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWP's. For example, if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWP's.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water

quality or habitat loss concerns. If it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal

waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature: "When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

(Transferee)

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the work and mitigation..

31. Pre-Construction Notification. (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However,

if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWP's 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the United States expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(4) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWP's and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States, for NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of intermittent and ephemeral stream bed, and for all NWP 48 activities that require pre-construction notification, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the preconstruction notification. The district engineer will fully consider agency comments received within the specified time frame, concerning the proposed activity's compliance with the terms and conditions of the NWP's, including the need for mitigation to ensure the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

D. District Engineer's Decision:

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. For a linear project, this determination will include an evaluation of the

individual crossings to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to intermittent or ephemeral streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51 or 52, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in minimal adverse effects. When making minimal effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

2. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP, including any activity specific conditions added to the NWP authorization by the district engineer.

3. If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (a) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (c) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to

ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period, with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation..

E. Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

F. Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term "discharge" means any discharge of dredged or fill material.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

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

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the

piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

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

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities eligible for exemptions under Section 404(f) of the Clean Water Act are not considered when calculating the loss of waters of the United States.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of "open waters" include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas (see 33 CFR 328.3(e)).

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

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain in aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term "single and complete project" is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However,

individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/ developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of "independent utility"). Single and complete non-linear projects may not be "piecemealed" to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a wetland (i.e., water of the United States) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line, which is defined at 33 CFR 328.3(d).

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a jurisdictional water of the United States. If a jurisdictional wetland is adjacent— meaning bordering, contiguous, or neighboring—to a waterbody determined to be a water of the United States under 33 CFR 328.3(a)(1)–(6), that waterbody and its adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of "waterbodies" include streams, rivers, lakes, ponds, and wetlands.