
**Section 404(b)(1) Evaluation
For
Chicago Area Waterway Systems (CAWS)
Dredged Material Management Plan (DMMP)**



June 2020



**US Army Corps
of Engineers®**
Chicago District



CDOT
CHICAGO DEPARTMENT
OF TRANSPORTATION

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Attachments:

- 1.) U.S. Army Corps of Engineers - Decision Document Nationwide Permit 16
- 2.) Illinois Environmental Protection Agency - Final Notice of Issuance of Nationwide Permits, January 6, 2017 Section 401 Certifications, Denials, General and Regional Conditions
- 3.) U.S. Army Corps of Engineers - Chicago District Regional Permit Program

Section 404(b)(1) Evaluation
For
Chicago Area Waterway Systems (CAWS)
Dredged Material Management Plan (DMMP)

1.0 Project Description

1.1 Introduction

The U.S. Army Corps of Engineers Chicago District proposes to construct a vertical expansion of the existing Chicago Area Confined Disposal Facility (CDF) located at the mouth of the Calumet River. The expanded confined disposal area, drying pads, and staging areas will occupy the same approximately 45 acre footprint of the existing Chicago Area CDF (Figure 1).

1.2 General Description

Construction of the DMDF facility would include berms composed of clean dredged material from Calumet Harbor, a series of perimeter drainage ditches to control stormwater runoff, and a restoration of existing filter cells ultimately discharging to the Calumet River. Once the berms are fully constructed, contaminated material will be placed in the new DMDF. The berms will be constructed in two stages. Once capacity provided by the initial approximately 11-foot berm is reached, a second berm will be constructed above it, adding additional capacity. When the facility is filled to its 530,000 cubic yard capacity at the end of the projected 20-year project life, a minimum 3-foot cover, consisting of clean dredged material and topsoil, would be placed on top of the contaminated material for final site closure. The closed site would then be turned over to the Chicago Park District.

1.3 Authority and Purpose

The proposed plan would provide capacity for material dredged from the Chicago Area Waterway System federal navigation projects. Dredged material management is authorized under the navigation project authorities, listed below.

- Calumet Harbor and River, Illinois and Indiana (River and Harbor Acts of 1899 and 1902, as amended)
- Cal-Sag Channel, Illinois (River and Harbor Act of 1930, as amended)
- Chicago Harbor, Illinois (River and Harbor Act of 1870, as amended)
- South Branch of the Chicago River, Illinois (River and Harbor Act of 1896, as amended)
- Chicago Sanitary and Ship Canal, Illinois (River and Harbor Act of 1930, as amended)

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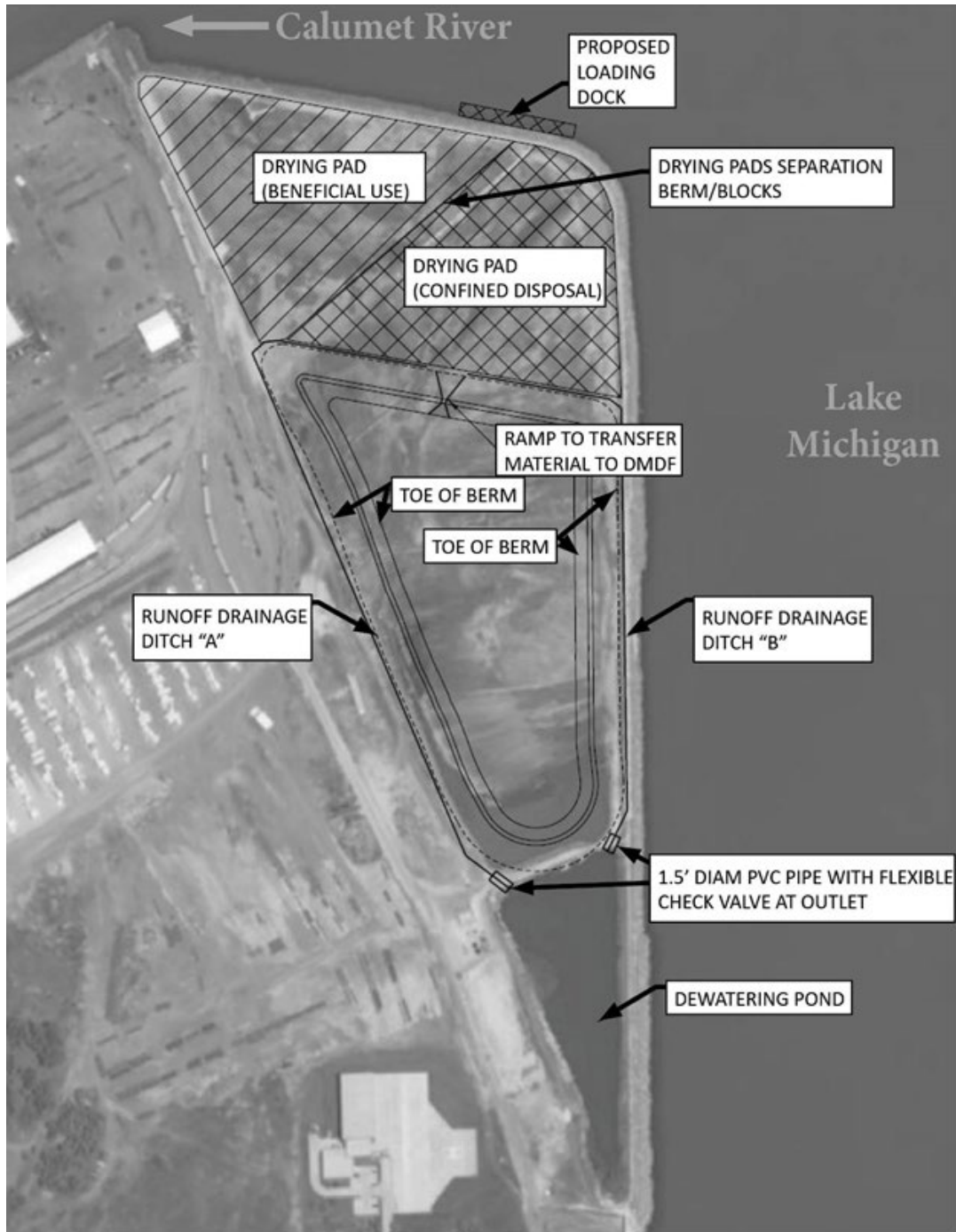


Figure 1: Existing Chicago Area CDF with proposed new dredged material disposal facility plan overlaid.

1.4 Regulatory Considerations

Section 404 of the Clean Water Act contains the permit requirements for the discharge of dredged or fill material into the navigable waters of the United States, and Section 401 of the Clean Water Act explains that no permit shall be granted unless a water quality certification has been obtained from the State in which the discharge originates, or will originate.

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Although Section 404 authorizes the Corps to issue permits for the discharge of dredged or fill material, 33 C.F.R. 336.1(a) explains that the Corps does not process and issue permits for its own activities. The Corps authorizes its own discharges of dredged or fill material by applying all applicable substantive legal requirements, including public notice, opportunity for public hearing, and application of the Section 404(b)(1) guidelines, which are described in 40 C.F.R. 230.

Correspondence between USACE and the IEPA was included with the 1982 EIS for the Chicago Area CDF and USACE has continued to coordinate with IEPA periodically over the years and throughout CDF operations. The IEPA reviews the data generated by the water quality monitoring program for CDF operations and has consistently issued Water Pollution Control Permits (or operating permits) since the beginning of the project. These permits have been granted for a duration of five (5) years but the IEPA has, on occasion, issued supplemental (revised or modified) permits. The initial IEPA Water Pollution Control Permit for the project was issued to the Chicago District in 1982. This permit was for the construction and operation of the facility. According to the 1998 Supplemental EIS, the IEPA Water Pollution Control (operating) Permits granted water quality certification under Section 401 of the Clean Water Act. However, in 1992 USACE also submitted an application to the IEPA and received an individual Section 401 water quality certification. The most recent IEPA Water Pollution Control Permit was issued in June 2016 and is set to expire in May 2021. The IEPA Water Pollution Control Permits include specific conditions that cover facility operations in addition to the discharge of effluent following treatment in the filter cells. Neither operation of the facility nor the associated discharge are anticipated to change or cause significant adverse impacts, as documented in the CAWS DMMP and EIS. USACE will continue to coordinate with IEPA in order to maintain Water Pollution Control Permits in the future.

The Corps' National Regulatory (permit) Program includes a Nationwide Permit Program (NWP) that provides effective protection for wetlands and other aquatic resources, while helping to improve the efficiency and administration of the regulatory program. NWPs have specific project limitations and conditions to ensure environmental effects are no more than minimal and that the aquatic environment is protected. For similar reasons, the USACE Chicago District created a Regional Permit Program (RPP) for projects in the Chicago area (Cook, DuPage, Kane, Lake, McHenry, and Will Counties in Illinois). Although the RPP replaced many nationwide permits for projects within the Chicago Area, one of the nationwide permits that was retained was Nationwide Permit (NWP) 16– Return Water from Upland Contained Disposal Areas. The vertical expansion of the existing Chicago Area CDF was determined to meet the conditions and qualify for coverage under NWP 16. Since NWP 16 has a general water quality certification, USACE does not need an individual water quality certification. NWP 16 satisfies the technical requirement for a Section 404 permit for the return water where the quality of the return water is controlled by the State through the Section 401 certification procedures. Further Details on the Chicago District's Regulatory Program for Illinois, including permit conditions, issuance, and expiration dates is currently available at the following website:

<https://www.lrc.usace.army.mil/Missions/Regulatory/Illinois.aspx>

1.4.1 Facility Construction and Operation

With regard to the USACE final notice of issuance of NWPs, dated January 6, 2017, the IEPA reviewed the final rules and sent a reply letter, dated February 27, 2017, that issued Section 401 certifications for some of the different NWPs, subject to certain general and/or regional conditions. The letter also denied some of the NWPs. As explained in this correspondence, the IEPA-issued water quality certification for NWP 16 is subject to general as well as certain regional conditions. The proposed vertical expansion of the existing Chicago Area CDF meets these conditions. Attachment seven (7) of the IEPA letter contains

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regional conditions for NWP 16, including one condition that applicants must obtain a Subtitle C State Construction and Operating Permit for the construction and operation of any dredged material disposal facility or upland contained disposal facility. As a consequence, the Chicago District will continue to coordinate with the IEPA in order to obtain a Water Pollution Control Permit.

1.4.2 Discharge of Effluent

The text of NWP 16 reads as follows. NWP 16 is included as an attachment to this document.

Return Water From Upland Contained Disposal Areas. Return water from an upland contained dredged material disposal area. The return water from a contained disposal area is administratively defined as a discharge of dredged material by 33 CFR 323.2(d), even though the disposal itself occurs in an area that has no waters of the United States and does not require a section 404 permit. This NWP satisfies the technical requirement for a section 404 permit for the return water where the quality of the return water is controlled by the state through the section 401 certification procedures.[...]

Water is only removed from the CDF settling pond during dredging events, when dredged material is actively placed into the facility. The water pumped from the CDF pond is removed in approximately direct proportion to the incoming water associated with the incoming dredged material (sediment). After water is removed from the CDF pond, it is passed through a filter cell and the effluent is discharged to the Calumet River. The water quality monitoring program includes analytical testing of the influent to and effluent from the filter cell, as well as the analysis of water samples collected from the CDF pond. The test results from past dredging events are included with the dredging reports in Appendix C of the 2020 Chicago Area Waterways Dredged Material Management Plan (CAWS DMMP). In accordance with the conditions of NWP 16, the effluent must not violate the applicable water quality standards.

1.4.3 Crane Pad/Loading Dock

On February 16, 2017, the IEPA granted Section 401 certification, with conditions, for all regional permits except for activities in certain waterways noted under RPs 4 and 8. On February 18, 2017, the IDNR Coastal Management Program granted the RPP a Federal Consistency Determination which is confirmation that the activities under the RPP are consistent with the State regulations. As a consequence, if the proposed loading dock qualifies for coverage under a regional permit, USACE would not need to apply for an individual water quality certification or Federal Consistency Determination. The construction of the proposed loading dock meets the conditions and qualifications for coverage under regional permit RP1. The text of RP1 reads as follows. The Chicago District Regional Permit Program description is included as an attachment to this document.

RP1 authorizes the construction of residential, commercial and institutional developments and associated infrastructure, such as roads, utilities, detention areas, and recreation areas. Authorization under RP1 is subject to the General Conditions of the Regional Permit Program [...]

The following Section 404(b)(1) evaluation was prepared for the construction of the loading dock for the proposed DMDF and its related facilities as part of the NEPA process and comprises Appendix J of the CAWS DMMP.

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2.0 404(b)(1) Analysis

The subject of the present 404(b)(1) evaluation includes the barge dock/crane platform of the tentatively selected Vertical Expansion alternative located at the site of the existing Chicago Area CDF at the mouth of the Calumet River. Construction materials that will constitute fill into waters of the United States include approximately 400 linear feet of sheet pile floodwall and 6,750 cubic yards of IDOT grade CA 5 riprap to serve to as a barge dock and crane platform from which to offload dredged material from Calumet River and Cal-Sag Channel dredging operations (Figure 1).

2.1 General Description of Fill and Dredged Materials

Fill material will consist of approximately 400 linear feet of steel sheet pile floodwall to form a barge dock and 6,750 cubic yards of IDOT grade CA 5 riprap to form a crane platform (see “Proposed Loading Dock” in Figure 1). The upland DMDF that it serves will cover approximately 45 acres and the berms/cap will contain approximately 158,000 cubic yards of clean dredge fill.

The proposed project also includes discharge of water that is drained out of the dredged material during drying. This effluent would have originated from Calumet Harbor and River or the Cal-Sag Channel, and would be treated in filter cells adjacent to the site before being discharged back to the Calumet River. This discharge is covered under NWP 16. Accordingly, the technical requirement for a section 404 permit for the return water where the quality of the return water is controlled by the state through the section 401 certification procedures. Chicago District will continue to coordinate with the IEPA in order to obtain an operating permit per the general conditions included in NWP 16.

2.2 Description of Proposed Discharge Site

The proposed discharge site for placement of fill is approximately 400 linear feet located on the northern boundary of the existing Chicago Area CDF. This area is currently characterized by rubble mound dikes that make up the Chicago Area CDF.

The current facility operation is permitted for effluent discharges by IEPA. After the vertical expansion, it is anticipated that the new facility will operate in essentially the same manner. A new or revised operating permit will be obtained for future discharges.

2.3 Description of Placement Method

Riprap and steel sheet pile used in the construction of the barge dock and crane platform will likely be brought to the project site by barge and placed into position using light weight machinery. Dredged sediment to be used for berm construction will likely be delivered by barge to the newly-constructed barge dock, offloaded to the DMDF site by crane and graded to design specifications using grading machinery.

3.0 Factual Determinations

3.1 Physical Substrate Determinations

Substrate Elevation and Slope

Elevation of the project area is approximately 600 feet NAVD83 with no appreciable slope.

Substrate Type

The placement of the proposed loading dock at the existing Chicago Area CDF would neither directly nor indirectly affect local or regional geology. The placement site was previously Lake Michigan bottom and is currently an active industrial area adjacent to the Calumet Harbor comprised of rubble mound perimeter containment dikes.

3.2 Water Circulation, Fluctuation, and Salinity Determinations

Water

The proposed fill activity would have no significant long-term negative impacts to water chemistry, water clarity, color, odor, taste, dissolved gas levels, nutrients, or increased eutrophication as a result.

Salinity

The proposed fill activity is occurring in a freshwater environment so no significant impacts to salinity are expected.

Water Chemistry

The proposed activity associated with the construction of the proposed loading dock is not expected to have any significant long-term negative impacts to water chemistry.

Clarity

The proposed activity associated with construction of the proposed loading dock is expected to have minor temporary impacts to water clarity. Turbidity of the water is expected to increase during fill activities. The minor increase in turbidity, however, would be temporary in duration. Overall, the proposed activity is not expected to have any significant long-term impacts to water clarity.

Color

The proposed activity associated with construction of the proposed loading dock is not expected to have significant long-term negative impacts to water color.

Odor

The proposed activity associated with construction of the proposed loading dock is not expected to have any significant long-term negative impacts to water odor.

Taste

The proposed activity associated with construction of the proposed loading dock is not expected to have any significant long-term negative impacts to water taste.

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Dissolved Gas Levels

The proposed activity associated with construction of the proposed loading dock is not expected to have any significant long-term negative impacts to dissolved gas concentrations within the water.

Nutrients

The proposed activity associated with construction of the proposed loading dock is not expected to have any significant long-term negative effects upon nutrient concentrations within the water.

Eutrophication

The proposed activity associated with construction of the proposed loading dock is not expected to cause any significant long-term increase in eutrophication.

Other

The proposed activity associated with construction of the proposed loading dock is not expected to have any significant long-term effects to other system components not specifically defined above.

3.3 Suspended Particulate/Turbidity Determinations

3.3.1 Expected Changes in Suspended Particulates and Turbidity Levels in Vicinity of Fill Site

There would be minor increases in suspended particulates and turbidity levels in the immediate area of the proposed fill activity during construction of the dockwall and crane pad, which would likely be less than a typical summer thunderstorm that generates adverse weather conditions such as high winds and waves as well as strong currents. The increase in turbidity is expected to be temporary and no long-term changes to turbidity are expected as a result of the proposed fill activities.

3.3.2 Effects on Chemical and Physical Properties of the Water Column

It is expected that there would be negligible effects to light penetration or dissolved oxygen levels during construction. The placement of clean fill will not introduce metal, organic toxins or other pathogens into the project area.

Light Penetration

The proposed activity associated with construction of the proposed loading dock is expected to have localized and temporary impacts to light penetration due to the temporary increase in turbidity during construction. However, these effects are expected to be temporary in duration. Overall, no significant long-term negative effects to light penetration are expected with the proposed construction activities.

Dissolved Oxygen

The proposed activity associated with construction of the proposed loading dock is not expected to have any significant long-term negative effects to dissolved oxygen concentrations within the water column.

3.3.3 Toxic Metals and Organics

The proposed activity associated with construction of the proposed loading dock is not expected to introduce any toxic metals or organics to the project area.

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Pathogens

The proposed activity associated with construction of the proposed loading dock is not expected to introduce any pathogens into the project area.

Aesthetics

The proposed activity associated with construction of the proposed loading dock is not expected to have any significant long-term negative effects to aesthetics. Localized and temporary effects to aesthetics are expected during the construction period of the project, but these impacts are expected to be temporary in duration.

Other

No additional long-term negative impacts to system components not listed above are expected as a result of the proposed activity.

3.3.4 Effects on Biota

The CAWS is primarily a man-made system that was not intended to support aquatic communities. The fish and macro-invertebrate assemblage in the project area is comprised of transient species that are generally tolerant of poor water quality, inadequate habitat, and poor fluvial function. The proposed action would not change the adverse effects that fish and macro-invertebrate assemblages presently encounter at the project area.

Primary Production, Photosynthesis

The proposed activity associated with construction of the proposed loading dock for the DMDF is expected to have localized and temporary impacts to light penetration due to the temporary increase in turbidity during construction. This could in turn temporarily impact primary production and photosynthesis by submergent aquatic vegetation within the area. However, submergent aquatic vegetation has not been identified as currently existing within the study area, so no significant short- or long-term negative effects to primary production or photosynthesis are expected with the proposed construction activities.

Suspension/Filter Feeders

The proposed activity associated with construction of the proposed loading dock is expected to have localized and temporary increases to turbidity which could potentially impact suspension/filter feeders. These impacts are expected to be temporary in duration so no significant long-term negative effects to suspension/filter feeders are expected with the proposed construction activities.

Sight Feeders

The proposed activity associated with construction of the proposed loading dock is expected to have localized and temporary increases in turbidity that could potentially impact sight feeders. However, the impacts are expected to be temporary in duration and, since any fish/macroinvertebrate species present would likely be tolerant of poor water quality, no significant long-term negative effects to sight feeders are expected.

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Actions Taken to Minimize Impacts

Floating containment booms may be used to control spills, erosion, or other construction remains.

3.4 Contaminant Determinations

The proposed fill material is not expected to introduce any new contaminants into CAWS or release any significant amounts of existing contaminants (if any are present) through bottom disturbance within the construction zone.

3.5 Aquatic Ecosystem and Organism Determinations

3.5.1 Effects on Plankton

No long-term detrimental effects to planktonic organisms are expected.

3.5.2 Effects on Benthos

Any existing benthos directly beneath the area where the steel sheet pile and riprap would be placed would be temporarily covered, but the area is so small it would have insignificant effects on the macro-invertebrate population. There are no significant adverse effects expected.

3.5.3 Effects on Nekton

Fish eggs and larvae would not be smothered by the proposed fill activity since the anticipated construction activities will not occur during reproductive or rearing seasons. Fish and other free-swimming organisms will tend to avoid the construction area. The construction area will be used again by those organisms soon after construction ends, so overall species presence is not expected to decrease.

3.5.4 Effects on Aquatic Food Web

Since any fish/macro-invertebrate presence here is less a food web and more a simple assemblage of species tolerant of poor water quality, no adverse food web effects are expected.

3.5.5 Effects on Special Aquatic Sites

Sanctuaries and Refuges

No sanctuaries or refuges have been identified within the project area, therefore, the proposed activity associated with construction of the proposed loading dock for the DMDF is not expected to have a significant impact on these species aquatic sites.

Wetlands

No wetlands have been identified within the project area, so the proposed activity associated with construction of the proposed loading dock for the DMDF is not expected to have a significant impact on this habitat type.

Mud Flats

No mudflats have been identified within the study area, so the proposed activity associated with construction of the proposed loading dock for the DMDF is not expected to have a significant impact on this habitat type.

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Vegetated Shallows

No vegetated shallows have been identified within the study area, so the proposed activity associated with construction of the proposed loading dock for the DMDF is not expected to have a significant impact on this habitat type.

Coral Reefs

Not applicable to freshwater environments.

Riffle and Pool Complexes

No riffle and pool complexes have been identified within the study area, so the proposed activity associated with construction of the proposed loading dock for the DMDF is not expected to have a significant impact on this habitat type.

3.5.6 Threatened and Endangered Species

Federally-listed endangered and threatened species known to occur or potentially occur in Cook County include the northern long-eared bat (*Myotis septentrionalis*), currently proposed for listing; the piping plover (*Charadrius melodus*), listed as endangered; the eastern massasauga (*Cistrurus catenatus*), currently a candidate for listing; the Hine's emerald dragonfly (*Somatochlora hineana*), listed as endangered and with designated critical habitat within the county; the rattlesnake-master borer moth (*Papaipema eryngii*), currently a candidate for listing; the eastern prairie fringed orchid (*Platanthera leucophaea*), listed as threatened; the leafy-prairie clover (*Dalia foliosa*), listed as endangered; Mead's milkweed (*Asclepias meadii*), listed as threatened; and the prairie bush clover (*Lespedeza leptostachya*), listed as threatened. The Illinois Department of Natural Resources (IL-DNR) has identified 117 state listed threatened and endangered species as occurring or potentially occurring in Cook County.

In correspondence with the Corps, the IL-DNR indicated that seven of the species listed or proposed for listing as State threatened or endangered occur in the vicinity of the project and could potentially be affected by dredging in the CAWS (Table 1). Specific to the proposed dredged material placement sites, records of the state-threatened banded killifish (*Fundulus diaphanus*) occur in the Cal-Sag Channel and Calumet River. This species has the potential to be affected by construction of the proposed docks to sites 313R and 329L-B.

On 26 June 2020, USFWS concurred that the recommended plan would have no effect on federally listed threatened or endangered species.

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Table 1: State-listed threatened and endangered species potentially present in the project area.

Water Body	Common Name	Scientific Name	Status
LM, CSC, CR, CSSC, CHR	American Eel	<i>Anguilla rostrata</i>	Proposed as threatened
LM, CSC, CR, CSSC, CHR	Banded Killifish	<i>Fundulus diaphanus</i>	Threatened
CSSC, CHR	Blanding's Turtle	<i>Emydoidea blandingii</i>	Endangered
LM	Iowa Darter	<i>Etheostoma exile</i>	Threatened
LM, CR, CHR	Mud Puppy	<i>Catostomus catostomus</i>	Threatened
LM, CSC, CR, CSSC, CHR	Osprey	<i>Pandion haliaetus</i>	Endangered

CHR = Chicago River (N&S Branches)

CSSC = Chicago Sanitary and Ship Canal

CR = Calumet River

LM = Lake Michigan

CSC = Cal-Sage Channel

3.5.7 Other Wildlife

No other wildlife would be significantly impacted by the proposed activity.

3.5.8 Actions to Minimize

General construction scheduling and sequencing would minimize impacts to any reproducing macroinvertebrates and fishes present. Floating containment booms would be used to control spills, erosion or other construction remains.

3.6 Proposed Disposal Site Determinations

3.6.1 Mixing Zone Determination

A mixing zone is not applicable to this project since no violation of applicable water quality standards is expected during construction.

3.6.2 Determination of Compliance with Applicable Water Quality Standards

The proposed activity is not expected to cause significant or long-term degradation of water quality within the CAWS and would comply with all applicable water quality standards.

3.6.3 Potential Effects on Human use Characteristic

Overall, no significant impacts to municipal and private water supplies, water-related recreation, aesthetics, or recreational or commercial fisheries are expected. No known National Parks, National and Historic Monuments, National Seashores, Wilderness Areas, Research Sites or similar preserves are present within the project area. No significant adverse effects are expected.

Municipal and Private Water Supply

The proposed activity associated with construction of the proposed loading dock for the DMDF is not expected to have any significant short-term or long-term negative impacts on municipal or private water supply.

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Recreational and Commercial Fisheries

The proposed activity associated with construction of the proposed loading dock is not expected to have any significant long-term negative impacts on recreational or commercial fisheries in the area. Recreational fishing, should it occur within the proximity of the project site, could potentially be impacted in the short term due to construction activities that would likely scare fish from the area. These impacts are expected to be temporary.

Water Related Recreation

Two large Chicago city parks are near the project area, providing swimming, soccer and softball fields for area residents. Rainbow Park and Beach is located to the north of Calumet Harbor. Just south of Calumet Harbor is Calumet Park with its historic field house. Located on the Illinois portion of Wolf Lake to the east-southeast is the William W. Powers Recreation Area, a popular bird watching, boating and fishing area. Calumet Harbor and River provide access to Lake Michigan from mooring and storage areas on the Cal-Sag Channel. Recreation lockages through the O'Brien lock on the Calumet River exceed 7,000 craft annually. Recreational traffic is primarily from privately owned vessels docked at marinas on the Cal-Sag Channel and using the Calumet River for access to Lake Michigan.

Recreation near the project site could potentially be impacted in the short-term due to construction related noise. The proposed activity associated with construction of the proposed loading dock for the DMDF is not expected to have any significant long-term negative impacts on water related recreation in the area.

Aesthetics

The proposed activity associated with construction of the proposed loading dock is not expected to have any significant long-term negative effects to aesthetics. Localized and temporary effects to aesthetics are expected during the construction period of the project, though these impacts are expected to be temporary. Overall, aesthetic value is likely to increase over the long-term once the DMDF is capped and seeded.

Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites and Similar Preserves

The proposed activity associated with construction of the proposed loading dock is not expected to have any significant short-term or long-term negative effects to parks, national and historical monuments, national seashores, wilderness areas, research sites, or similar preserves within the area.

3.7 Determination of Cumulative Effects on Aquatic Ecosystem

No cumulative adverse impacts to the aquatic ecosystem or to aquatic organisms are expected to result from the construction of the proposed loading dock for the DMDF and its related facilities. The proposed DMDF is on the site of the existing Chicago Area CDF, which has been operated safely and without significant adverse impacts on aquatic ecosystems since 1984.

3.8 Determination of Secondary Effects on the Aquatic Ecosystem

No significant impacts from the construction of the proposed loading dock for the DMDF and its related facilities are expected as a result of the proposed activity.

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4.0 Findings of Compliance or Non-Compliance with the Restrictions on Discharge

- a. No significant adaptations of the Section 404(b)(1) guidelines were made relative to this evaluation.*
- b. No practical alternatives are available that produce fewer adverse aquatic impacts than the proposed plan.*
- c. The proposed fill activity at the site of the existing Chicago Area CDF would not violate any applicable water quality standards.*
- d. The project is in compliance with applicable Toxic Effluent Standards under Section 307 of the Clean Water Act; with the Endangered Species Act of 1973; with the National Historic Preservation Act of 1966; and with the Marine Protection, Research, and Sanctuaries Act of 1972.*
- e. The proposed fill activity would not result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreation and commercial fishing, plankton, fish, shellfish, wildlife communities (including community diversity, productivity, and stability), or special aquatic sites. The life stages of aquatic life and other wildlife would not be adversely affected. Significant adverse effects on aquatic ecosystem diversity, productivity and stability, and recreational, aesthetic and economic values would not occur.*
- f. Appropriate erosion control measures will be taken to minimize potential adverse impacts of the fill activity on aquatic ecosystems. General construction scheduling and sequencing would minimize impacts to any reproducing macro-invertebrates and fishes present. Erosion control fabric, silt fencing and containment booms would be implemented to minimize any temporary turbidity, spill or debris impacts associated with the proposed activity.*
- g. On the basis of the Guidelines, the proposed site for the discharge of fill material is specified as complying with the inclusion of appropriate and practical conditions to minimize pollution or adverse impacts to the aquatic ecosystem.*

4.1 Compensatory Mitigation

Per RP1, “The impact to waters of the U.S. must not exceed 1.0 acre. For projects that impact over 0.10 acres of waters of the U.S., the permittee is required to provide compensatory mitigation.” The proposed crane pad/loading dock results in a potential disturbance up to approximately 0.25 acres. However, certain fill actions similar to the proposed action in Lake Michigan are often not required to implement compensatory mitigation if it can be demonstrated that the affected environment has low functional value and that no additional mitigation would be required to result in minimal impacts, as required by the intent of the RPP.

In this instance, the affected environment is within the footprint of the existing rubble mound dikes, a highly disturbed, man-made environment that lacks structural diversity. While this minimally productive ecosystem supports a small amount of flora and fauna, the proposed action will provide additional structural diversity to the rubble mound habitat that is unlikely to significantly impact the habitat’s productivity, and may have minor habitat benefits in the future. The proposed action is not expected to have a more than minimal impact on existing ecosystem functions (as described previously in Section 3)

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and therefore is consistent with the terms and intent of RP1. As such, compensatory mitigation is not being pursued as a result of the proposed action.

4.2 Conclusions

Based upon this evaluation, the construction of the proposed loading dock for the DMDF and its related facilities is, subject to appropriate and reasonable conditions, determined to be in compliance with Section 404(b)(1) Guidelines, and is determined to protect the public interest.