U.S. Department of Homeland Security
FEMA Region 5
536 South Clark Street, 6th Floor
Chicago, Illinois 60605-1521

FEMA

December 21, 2022

Environmental Assessment Scoping Document

SECTION ONE: BACKGROUND

1.1 Project Information:

Project ID:	LPDM-PJ-05-IL-2022-006
Recipient:	Illinois Emergency Management Agency
Subrecipient:	Lake County Stormwater Management Commission
Title:	Dady Slough Flood Storage and Wetland Enhancement Project
Address:	East of Ruth Wilcox Avenue, north of Illinois Route 120 (Belvidere Road), and west of S. Green Bay Road
Locality:	Lake County, Illinois
GPS:	42.352858, -87.880761
PLSS:	S30 T45N R12E

1.2 Purpose and Need:

The objectives of the Federal Emergency Management Agency (FEMA) Pre-Disaster Mitigation (PDM) grant program are to provide technical and financial assistance to states and local governments to assist in the implementation of pre-disaster hazard mitigation measures that are cost effective and designed to reduce injuries, loss of life, and damage and destruction of property, including damage to critical services and facilities resulting from natural disasters.

The project area is in Waukegan Township in Lake County, Illinois, and is directly east and south of Park City, as shown on Figure 1. The purpose of the Proposed Action is to reduce flood risk. The project is needed because the Dady Slough wetland system discharges to an outlet structure with stop logs that creates an artificial impoundment. This impoundment keeps water levels in the wetland complex artificially high, which reduces the flood storage capacity of the wetland complex and results in flood impacts in areas upstream of the project area, including Park City. Park City is a small, incorporated community and roughly two-thirds of the city's residences are manufactured residential housing. The area is prone to flooding because of flat channel slopes, urbanization, and a lack of overland flow at hydraulic structures, such as the outlet structure for the Dady Slough wetland complex. Flooding in Park City is primarily the result of tailwater conditions and floodwater depths are related to the heights of hydraulic structures.

Flooding of residential and secondary roads within Park City occurs at a high frequency. The recurrent inundation by floodwaters in this area causes repetitive flood damage in the region. In flood events as frequent as the 10-year event, the Skokie River headwaters experience overbank flooding, which results in damage to structures and closure of local

and state roads, including Lake County Highway A22 (Washington Street), State Route 120 (Belvidere Road), and other city roads. Flooding of local residential streets limits access to residences, businesses, commercial properties, and public works buildings. During a 5-year flood event, a total of 43 structures and secondary roads are inundated; during a 100-year flood event, approximately 863 primary structures, 25 businesses, 2 primary roads, and 31 secondary roads are inundated or indirectly impacted.

A 36-inch storm sewer runs from the Dady Slough outlet water control structure to the 42-inch storm sewer at the intersection of Belvidere Road and Ruth Wilcox Avenue. Flood flows in excess of the storm sewer are conveyed to an overland grass channel parallel to the storm sewer; flows are directed to a culvert under Belvidere Road. The culvert has no outlet downstream of Belvidere Road, so runoff ponds on the north and south of Belvidere Road, which can contribute to flooding along Knight Avenue.

Furthermore, decades of artificial impoundment within the Dady Slough wetland complex have limited the ecologic functions of the wetland, such as water quality and habitat benefits. Over thirty acres of natural open space within the wetland complex are degraded by these conditions and largely exist as stands of invasive vegetation.

SECTION TWO: ALTERNATIVE ANALYSIS

The National Environmental Policy Act (NEPA) requires FEMA to evaluate alternatives to the Proposed Action and describe the environmental impacts of each alternative. NEPA also requires an evaluation of the No Action alternative, which is the future condition without the project. This section describes the No Action alternative, the Proposed Action, and alternatives considered but eliminated from further evaluation.

2.1 Alternative 1 –No Action Alternative

The No Action alternative is included to describe potential future conditions if no action is taken to reduce flood risks. Under the No Action alternative, the Lake County Stormwater Management Commission (Subapplicant) would not have FEMA funds for comprehensive hazard mitigation or flood risk management. Under the No Action alternative, no flood mitigation measures would be implemented within Dady Slough. Structures and infrastructure upstream of Dady Slough would remain at risk of inundation and damage and water levels in Dady Slough would remain artificially high, maintaining the degraded conditions resulting from the artificial impoundments.

2.2 Alternative 2—Proposed Action

Lake County proposes to implement stormwater management measures in Dady Slough in Lake County, Illinois (general project coordinates: 42.352858, -87.880761). The Proposed Action would mitigate riverine flooding of residential and commercial structures and roadways upstream of Dady Slough. Proposed improvements would include grading to create an additional 60 acre-feet of flood storage and restore approximately 28 acres of wetlands, installing conveyance improvements in the channel connecting the Dady Slough outlet to the inlet of the downstream 42-inch storm sewer, and constructing trails, boardwalks, and overlooks. These project components are discussed in more detail below and shown on Figure 2.

Additional Flood Storage and Wetland Restoration

The Proposed Action would include grading to restore the wetland complex in the center of the project area and the upland area along the perimeter of the project area, as shown in Figure 2. The wetland restoration area would be graded to create three ponds or shallow depressions connected by channels. The maximum depth of grading in the wetland restoration area would be approximately 3 feet. Approximately 9 acres of native upland habitats would be restored surrounding the wetland restoration site. The maximum depth of grading within the upland restoration area would be approximately 8 feet and would occur along the border of the wetland restoration work and the native upland restoration work. Grading activities would add an additional 60 acre-feet of flood storage and restore approximately 28 acres of wetlands.

Grading would clear trees, vegetation, concrete, and other materials identified for removal from the site. Non-native vegetation would be removed during grading activities and trees would be removed, as necessary. Desirable native species, if any are present, would be retained. The existing vegetated community is largely characterized by invasive species including phragmites (*Phragmites australis*), reed canary grass (*Phalaris arundinacea*), non-native and hybrid cattails (*Typha* spp.), buckthorn (*Rhamnus* spp.), and honeysuckle (*Lonicera* spp.). Existing trees primarily consist of less-desirable species such as box elder (*Acer negundo*) and cottonwood (*Populus sect. Aigeiros*). Excavated materials would be hauled offsite to an authorized location. Herbicides may be applied for spot treatment of stumps during brush clearing. Herbicides would be applied using accepted industry standard practices and chemicals. Largescale broadcast herbicide application is not anticipated to be needed because much of the non-native vegetation would be removed during grading.

The existing water level control structure would be used to dewater the wetlands during construction to the extent practicable. The water control structure would be used to keep the majority of the project area dry, but a small quantity of water may still be present in the central part of the project area. Water discharge from the site would be managed at the downstream end of the complex to prevent sediment from being discharged off-site during construction. Erosion and sediment control measures would be implemented in accordance with state and county requirements. Specifically, construction of the Proposed Action would comply with the General National Pollution Discharge Elimination System (NPDES) Permit for Stormwater Discharges from Construction Site Activities (General NPDES Permit No. ILR10) or General Construction Permit, which is required for construction disturbance of one or more acres. In accordance with the General Construction Permit, the Subapplicant would develop a stormwater pollution prevention plan (SWPPP) for the Proposed Action, which would require implementation of measures to reduce pollutants in stormwater discharges erosion and sedimentation from construction activities. Example control measures include minimizing areas of exposed soil, retaining natural buffers around waters, and installing erosion controls.

Much of the construction work would be accomplished with traditional earth-moving equipment such as excavators and dump trucks. Specialty amphibious equipment may be necessary for portions in the central part of the project area. Construction access to the site would occur from Ruth Wilcox Avenue and staging and stockpiling would be in the southeastern portion of the upland restoration area, as shown on Figure 2.

The project area would be restored to establish a native hemi-marsh system, a type of wetland that is roughly equal parts open water and emergent vegetation. Restoration would include planting native seed and plants consistent with the desired marsh and upland habitat types. Limited numbers of shrubs and trees may be planted during restoration. The temporary site access, if used, would be removed and restored to its pre-construction condition.

Water Control Structure and Conveyance Improvements

The Proposed Action would repair the outlet water control structure and remove the artificial impoundment caused by the structure that limits the available flood storage, holds water surface elevations in the Dady Slough complex artificially high, and impacts flood elevations upstream.

As mentioned in Section 1.2, flood flows in excess of the 36-inch storm sewer that runs from the Dady Slough outlet water control structure to the 42-inch storm sewer at Belvidere Road, are conveyed to an overland grass channel parallel to the storm sewer. As part of the Proposed Action, the overland grass channel would be regraded from the Dady Slough outlet to the 42-inch storm sewer at the intersection of Belvidere Road and Ruth Wilcox Avenue to expand the capacity of the channel and better convey runoff in excess of the 36-inch storm sewer. The maximum depth of grading required for the conveyance channel would be approximately 1 foot.

Recreational Enhancements

The Proposed Action would include the construction of approximately 1,964 feet of trails and boardwalks in the southern part of the wetland restoration area. An east-west trail would be constructed to connect the Cristo Rey Saint Martin College Prep with the southern portion of the wetland restoration area. This trail would connect to two north-south trails that run along the eastern and western sides of the wetland restoration area. Boardwalks would be constructed to cross wetland areas as needed. Three overlooks would be installed, two at the northern ends of the north-south trails and one at the southeastern corner of the wetland restoration work. Recreational enhancements are shown on Figure 2.

Construction Duration and Maintenance

Construction is expected to last approximately 13 months. Lake County, Cristo Rey Saint Martin College Prep School, and Park City would enter into an agreement for long-term maintenance of the project area. Maintenance would largely consist of vegetation management, outlet structure inspection and maintenance, and trail maintenance. Site maintenance may include herbicide application for control of invasive species. The wetland areas may need to be dredged to maintain the flood storage capacity on an approximately 25-year cycle.

2.3 Alternatives Considered and Eliminated from Further Analysis

Three feasibility studies – Skokie Headwater and North Chicago Flood Damage Reduction Feasibility Study (2006), Lake Bluff Flood Storage Site Feasibility Study (2009), and Skokie Headwater Feasibility Study (2020) – were conducted to identify and screen alternatives for flood risk reduction in Lake County. These studies analyzed numerous flood-related issues and flood risk reduction options for the affected area. The

feasibility studies screened out flood control options that did not provide the same level of protection for the affected communities as the Proposed Action. Because of the lack of viable locations to construct large reservoirs, Lake County needs to use available open space to slow stormwater wherever possible. This includes expanding and increasing storage capacity at existing stormwater management areas, such as Dady Slough, to mitigate flood risks.

SECTION THREE: AFFECTED ENVIRONMENT

The Proposed Action area is approximately 37 acres in size and would affect the Dady Slough wetland complex directly east and south of Park City, Illinois. The project area is degraded and contains primarily invasive vegetation species.

3.1 Preliminary Screening of Assessment Categories:

The alternatives listed above are likely to result in impacts governed by the federal laws and executive orders listed below. Checked items will require closer coordination with the appropriate agencies to identify and mitigate potentially significant impacts.

☒ Clean Water Act (CWA)

☐ Clean Air Act (CAA)

☐ Coastal Barrier Resources Act (CBRA)

☐ Coastal Zone Management Act (CZMA)

☒ Endangered Species Act (ESA)

☒ Executive Order 11988 – Floodplains

☒ Executive Order 11990 – Wetlands

☒ Executive Order 12898 – Environmental Justice for Low Income & Minority Populations

☒ Executive Order 13112 – Invasive Species

☐ Farmland Protection Policy Act (FPPA)

☒ Executive Order 13175 – Consultation and Coordination with Indian Tribal Governments

☒ Migratory Bird Treaty Act (MBTA)

☒ National Historic Preservation Act (NHPA)

3.2 Reasonably Foreseeable Future Actions

Conveyance improvements are currently being designed downstream of Belvidere Road as part of a different grant program. The improvements are not dependent on the Proposed Action.

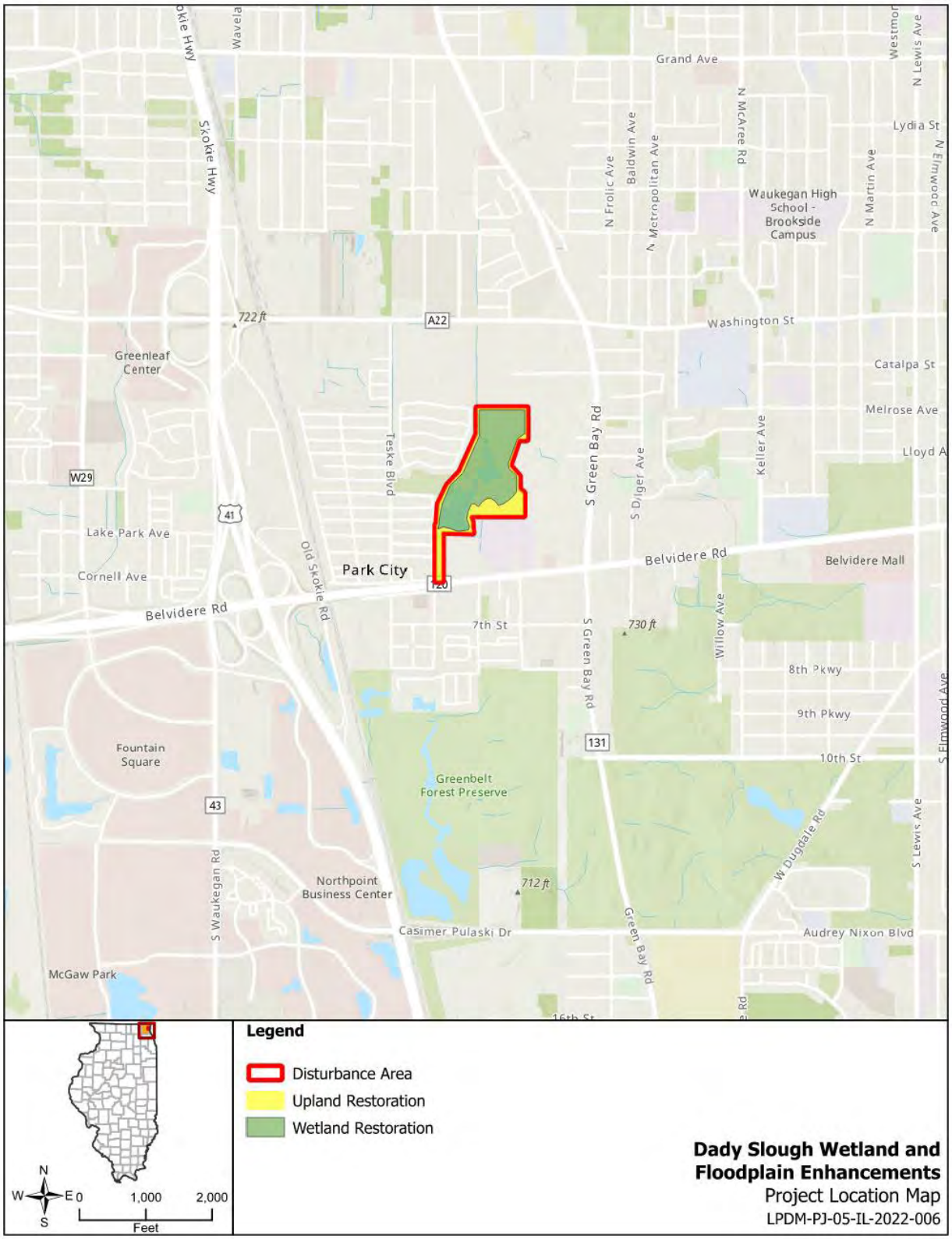

Figure 1: General Project Location Map

Figure 2: Project Area and Features

SECTION FOUR: REFERENCES

Bleck Engineering Company, Inc. 2022. Dady Slough H&H/BCA Report.

SECTION FIVE: AGENCY CONSULTATION

The Tribal Nations and agencies listed below have been provided a copy of this document or will be notified of this project through FEMA Region 5 standard consultation procedures as directed under individual environmental laws and Executive Orders. Other state and local agencies and interested parties including local officials and organizations not listed below will also be provided with this scoping document.

City of Park City, Illinois

Waukegan Township, Illinois

Lake County Division of Transportation

Lake County Emergency Management Agency

Lake County Stormwater Management Commission

Park City Mobile Home Park

Cristo Rey St. Martin College Prep

Illinois Commerce Commission

Illinois Department of Natural Resources

Illinois Department of Transportation

Illinois Emergency Management Agency

Illinois Environmental Protection Agency

US Army Corps of Engineers, Chicago District

US Environmental Protection Agency, Region 5

US Fish and Wildlife Service, Chicago Ecological Services Field Office

Forest County Potawatomi Community of Wisconsin

Miami Tribe of Oklahoma

SECTION SIX: FEMA CONTACT INFORMATION

Anyone interested in providing comments on this document may respond as noted below before January 20, 2023. Be sure to provide your name and contact information along with your comments.

Respond by Mail:

Federal Emergency Management Agency, Region 5

c/o Duane Castaldi, Regional Environmental Officer

536 South Clark Street, 6th Floor

Chicago, IL 60605-1521

Respond by Email:

Send comments to fema-r5-environmental@fema.dhs.gov, ATTENTION: Dady Slough.