

**QUINCY BAY AREA**  
**HABITAT REHABILITATION AND ENHANCEMENT PROJECT**  
**UPPER MISSISSIPPI RIVER, POOL 21, ADAMS COUNTY, ILLINOIS**  
**UPPER MISSISSIPPI RIVER RESTORATION PROGRAM**  
**ROCK ISLAND DISTRICT**

**FACT SHEET**

**I. LOCATION**

Quincy Bay is located in the southernmost portion of Pool 21 adjacent to Quincy, Adams County, Illinois, between river mile 332 and 327 (Figure 1). It is the first game preserve in the State of Illinois and one of the largest natural bays of the Upper Mississippi River. The Quincy Bay Area Habitat Rehabilitation and Enhancement Project (Project) is located within the Quincy Bay Area Restoration and Enhancement Association (QBAREA) Planning Area.

**II. EXISTING RESOURCES**

Quincy Bay is a backwater lake complex measuring approximately 4 miles long with a variable width of up to 2 miles. The area is composed of interconnected channels and small bays, an existing small boat harbor, and a small boat access channel. Land within Quincy Bay consists of bottomland deciduous forests that provide nesting habitat for Neotropical migratory birds and roosting and foraging habitat for bat species. Existing floodplain forests are dominated by silver maple and remnant patches of emergent aquatic vegetation remain.

**III. PROBLEM IDENTIFICATION**

The construction of Lock & Dam 21 (1938), a railroad bridge (late 1950s), levees and the opening of a small-boat access channel across Bay Island (1969) resulted in changes to water flow patterns and sediment accumulation in the Middle and Upper Bay. Those features, along with the naturally occurring sedimentation from Mississippi River flooding and tributary streams, have resulted in shallower waters in Quincy Bay and a higher flood frequency and duration over the past several years. Upwards of 245,000 tons of sediment is estimated to be deposited into Quincy Bay annually. Approximately 70% is attributable to flooding, 22% is transported through the access channel, and approximately 8% is delivered by creeks that drain into Quincy Bay. This sedimentation has caused the water volume of Quincy Bay to decrease by an estimated 72%.

This increased sedimentation and loss of connectivity has resulted in significant degradation of deep-water habitat and fragmentation of fish, wildlife, and migratory bird habitat. Historically, Upper Quincy Bay was an important stopover point for diving ducks during spring/fall migrations; however, there is evidence that the failure of species to use Quincy Bay has resulted in reduced reproductive output. Furthermore, the relatively diverse pre-settlement floodplain forest consisting of hackberry, pecan, elm, willow and cottonwood is now largely dominated by silver maple.

Without restoration, the important ecosystem of Quincy Bay could be lost forever. Open waters will continue to convert to shallow backwaters and drier bottomland forests that will continue to develop into plant communities dominated by flood-tolerant species and invasive species such as reed canary grass and Japanese hops.

#### **IV. PROJECT GOALS**

The desired outcome for the Project is a high quality and diverse forest and wetland habitat for wildlife and aquatics, with reductions in sedimentation into Quincy Bay, and an increased resiliency against future sedimentation. Dredging within Quincy Bay and connected sloughs and lakes will provide both shallow lotic and deep lentic backwater habitats for fish to reproduce, feed, and overwinter in Pool 21. This restored habitat has the potential to recruit additional fish and wildlife species to the area. The dredged material will be used to create topographic diversity to promote and protect habitat for aquatic and terrestrial vegetative species, including native trees. These actions will restore a more natural hydrogeomorphic condition in Quincy Bay area. Additionally, modification to the small boat access channel will decrease sediment load entering into Quincy Bay from the main channel, decreasing total suspended solids concentrations and improving conditions for aquatic vegetation.

The Project goals align with the Habitat Needs Assessment II *Future Desired Habitat Condition* developed by the River Resources Coordinating Team for the Project area and include:

- restoring floodplain habitat and connectivity to the main channel;
- restoring diversity of aquatic habitat types with desire for more lentic and backwater habitats;
- restoring aquatic vegetation in backwater areas;
- restoring floodplain forest diversity, including hard-mast trees;
- enhancing floodplain topographic diversity; and
- restoring floodplain vegetation diversity in hand with diversifying floodplain inundation periods.

#### **V. PROPOSED PROJECT FEATURES**

The proposed Project consists of three components that will restore fish and wildlife habitat and reduce future sediment accumulation rates in Quincy Bay. The following features were identified during previous feasibility studies; however, additional solutions may be identified in the current feasibility study:

1. Dredging of portions of Quincy Bay and connected sloughs and lakes to restore aquatic habitat
2. Construction of a rock dike/weir structure or friction channel at the small boat access channel to reduce velocity and sediment transport

3. Increase topographic diversity above-flood elevation areas for reforestation and wetland vegetation species.

## **VI. IMPLEMENTATION CONSIDERATIONS**

Quincy Bay is located near the following HREPs: Monkey Chute, Cottonwood Island, and Long Island Division of Great River National Wildlife Refuge. These projects are similar to the Quincy Bay Project in that they have experienced sedimentation issues and degraded habitat. Together, these completed projects will function to curb the rate of ecosystem degradation and maintain existing conditions in the face of future disturbances and stressors in the Lower Impounded cluster.

The Project provides a unique opportunity to expand upon the following local landscape restoration sites and efforts (Figure 2):

- Triangle Lake Wetland Enhancement & Restoration waterfowl refuge
- Privately-owned lands within the Indian Grave Drainage District enrolled in habitat programs
- Bob Bangert Park wetland restoration
- Quincy Park District “Green Corridor.”

## **VII. FINANCIAL DATA**

Project features are located entirely on Federal land within QBAREA limits. The total estimated cost of the proposed Project components, depending on features chosen, ranges from 15 to 25 million dollars. Funding for the Project would be 100% Federal in accordance with Section 906(e) of the Water Resources Development Act of 1986. The operation, maintenance, repair, replacement, and rehabilitation (OMRR&R) costs will be the responsibility of the local sponsor, QBAREA.

## **VIII. STATUS OF PROJECT**

The Project was submitted to the Fish and Wildlife Interagency Committee on October 15, 2019 and endorsed by the River Resources Coordinating Team on November 21, 2019. This fact sheet was endorsed by the Upper Mississippi River Restoration Coordinating Committee on February 26, 2020.

## **IX. SPONSORSHIP**

The QBAREA is the local non-Federal Sponsor and would be responsible for OMRR&R of Project features.

## **X. POINTS OF CONTACT**

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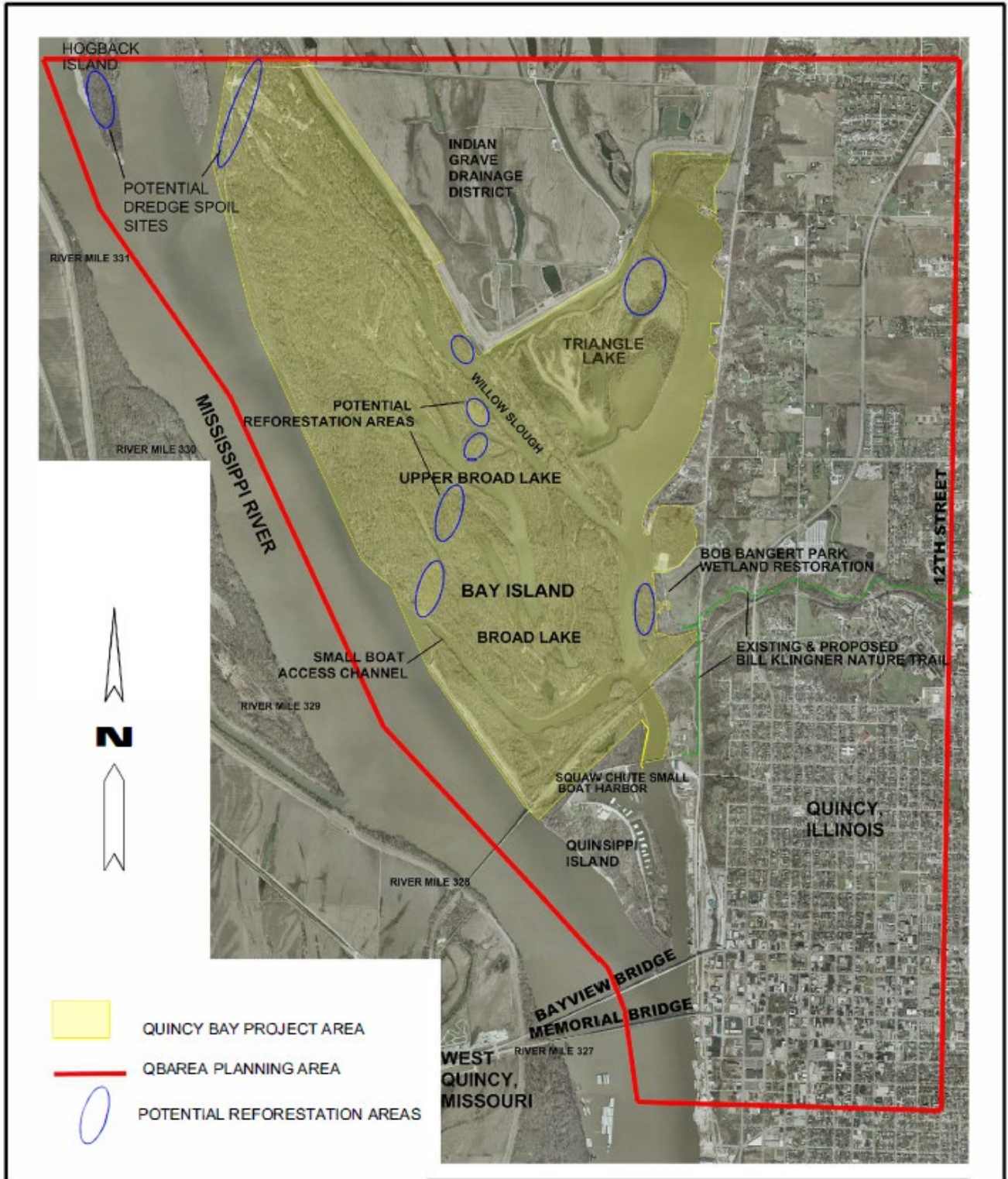
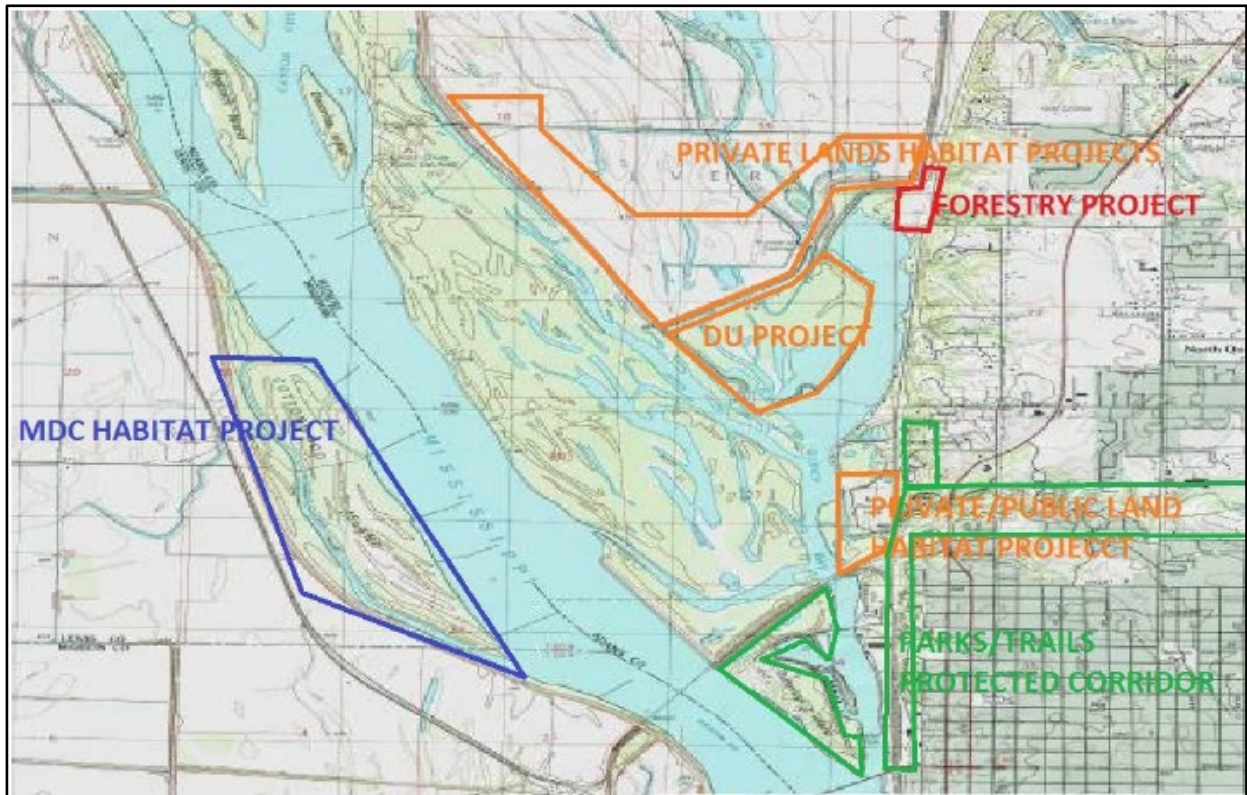


Figure 1. Map of proposed Quincy Bay Project Area (yellow shaded area) within the Quincy Bay Area Restoration and Enhancement Association (QBAREA; red outlined area). Also shown are potential sites for reforestation indicated in blue.



**Figure 2:** Local Landscape Restoration Efforts