

**UPPER MISSISSIPPI RIVER RESTORATION FEASIBILITY REPORT
WITH INTEGRATED ENVIRONMENTAL ASSESSMENT**

**GREEN ISLAND
HABITAT REHABILITATION AND ENHANCEMENT PROJECT**

**POOL 13, UPPER MISSISSIPPI RIVER
RIVER MILES 545.9 THROUGH 548.7
JACKSON COUNTY, IOWA**

**APPENDIX C
REAL ESTATE PLAN**

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UPPER MISSISSIPPI RIVER RESTORATION FEASIBILITY REPORT WITH INTEGRATED ENVIRONMENTAL ASSESSMENT

GREEN ISLAND HABITAT REHABILITATION AND ENHANCEMENT PROJECT

APPENDIX C REAL ESTATE PLAN

1. PURPOSE

1.1. Purpose. The information in this Real Estate Plan (REP) is based on preliminary data and is subject to change even after approval of the REP.

This REP supports the Upper Mississippi River Restoration (UMRR), Green Island Habitat Rehabilitation and Enhancement Project's Feasibility Report. The Project area is within the Green Island Wildlife Management Area (GIWMA), which is considered the Study area. The GIWMA is managed by the Iowa Department of Natural Resources (IADNR). The Green Island Habitat Restoration and Enhancement Project (Project) is designed to address problems with degrading pool habitats for waterfowl and fisheries resources due to shallow, sediment-ridden oxbow lakes and the problems with the declining health and the reduced area of the existing forestry resources, which have resulted in numerous stressed and dying trees. The existing pump system utilizes an old, one-way, diesel-engine powered pump station that is inefficient and expensive to operate. Elevated water tables along the Mississippi River also adversely affect the floodplain forest composition and regeneration. Therefore, the potential Project features include a pump station powered by electricity for water level management, excavated channels for flow to the pump station and for overwintering habitats, water level structures, including windbreak islands, berms, sediment basins and traps, and the implementation of timber stand improvement techniques. These Project features intend to restore the historic hydraulic cycle, which will rehabilitate the ecosystem to become sustainable, as well as to enhance the quality, quantity, and diversity of plant and wildlife habitat. This REP identifies the overall real estate requirements for the Project and provides the estimated real estate costs of the recommended plan as proposed.

1.2. Project Authority. The Upper Mississippi River Restoration (UMRR) Program was originally authorized by Congress in Section 1103 of the Water Resources Development Act (WRDA) of 1986, Public Law 99-662, codified at 33 U.S.C. § 652 as the Upper Mississippi River Management Act. The original authorizing legislation has been amended several times since its enactment. Two elements of the latest version now focus on the evaluation, planning, and construction of measures for fish and wildlife habitat improvements through Habitat Rehabilitation and Enhancement Projects (HREPs), as well as long-term monitoring, computerized data inventory and analysis, and applied research.

The UMRR is a Federal-State partnership program to evaluate, plan, and construct fish and wildlife HREPs and to monitor the natural resources of the Mississippi River system. For this HREP, the IADNR is the Project Sponsor, which is the governmental agency that operates and maintains the GIWMA encompassing the Project area for this HREP Project. The U.S. Fish and Wildlife Service (USFWS) is the Project Partner.

2. DESCRIPTION OF THE LANDS, EASEMENTS, RIGHTS-OF-WAY, RELOCATIONS, AND DISPOSAL/BORROW AREAS (LERRD) FOR CONSTRUCTION, OPERATION, AND MAINTENANCE OF THE PROJECT

The Project is located between river miles 546 and 548.5 along the right descending bank of the Mississippi River within Pool 13 of the Upper Mississippi River 9-foot Channel Project, just southeast of the confluence with the Maquoketa River. The Project area lies within portions of the Sections 7, 8, 16, 17, 18, 19, 20, 21, and 29 of Township 85 North, Range 6 East of the 5th Principal Meridian in Jackson County, Iowa.

The Project area is comprised of 2,511 acres and lies entirely within the GIWMA, which is operated and maintained by the IADNR. The GIWMA is bordered and located behind a portion of the Green Island Levee system, which is managed and maintained by the IADNR and the Jackson County Board of Supervisors, acting as the complete authority for the Green Island Levee and Drainage District No. 1. The Green Island Levee consists of approximately 10.8 miles of levee that protects nearly 4,500 acres of land, approximately 3,000 of which are within the GIWMA. A 2005 Cooperation Agreement (CA) between the IADNR and the Jackson County Board of Supervisors defines the flood protection efforts required by each entity for a period of 25 years. The GIWMA is also surrounded by the Upper Mississippi River National Wildlife and Fish Refuge along the northern riverside, as well as to the east and west, of the GIWMA, which is controlled by USFWS.

The GIWMA consists of a managed wetland complex that includes shallow oxbow lakes, emergent vegetation, managed moist soil areas, and braided channels surrounded by degrading riparian timber. Multiple degraded 1950's-era drainage ditches, which are remnants of the area's farming history, exist within the Project area and provide some water control. Water flows into the GIWMA from Mooney Hollow Creek and the Maquoketa River. The GIWMA wetland complex is listed as a Ramsar site, being recognized as a wetland of international significance. The GIWMA is a critical waterfowl migration habitat in the fall, winter, and early spring, known as the Mississippi Valley Flyway. The GIWMA permits public recreational uses, such as hunting (deer, turkey, pheasant, squirrel, waterfowl, and dove), trapping, fishing, recreational paddling, and bird watching. The Canadian Pacific Railway has tracks that run through the GIWMA, but outside of the Project area and operate in Iowa as the Dakota, Minnesota and Eastern Railroad Corporation. The Project is located in the 1st Congressional District in Iowa. The Project area within the GIWMA is shown in Figure C-1.

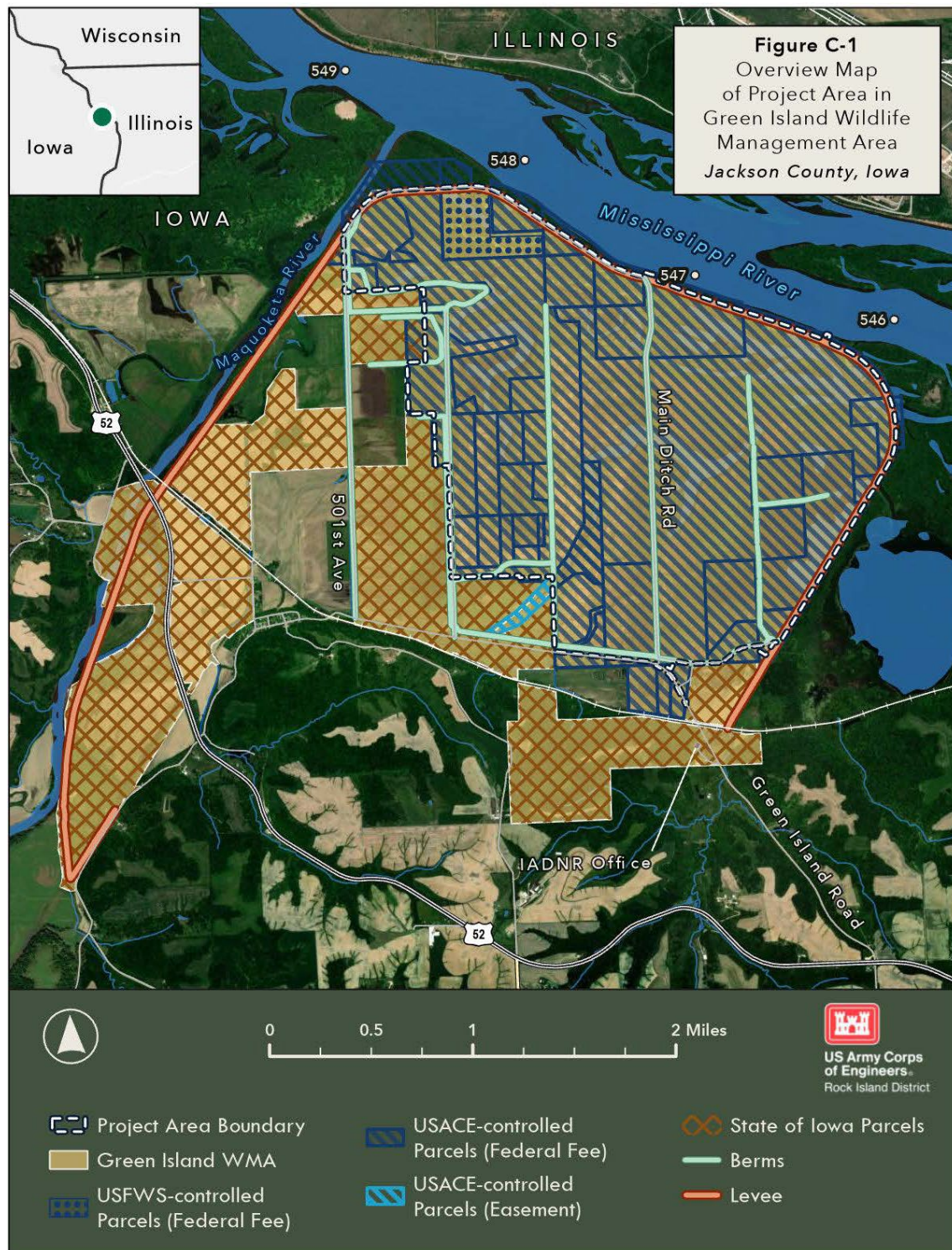


Figure C-1. Overview Map of the Project Area in Green Island Wildlife Management Area, Jackson County, Iowa

2.1. Staging and Access. All staging for the Project is located on Federal land and is planned to be located upon the parking lots within the Project area. Access to the GIWMA is via Highway 52 to Green Island Road, which feeds onto various roadways with the GIWMA, as well

as 501st Avenue, which travels along a portion of the northern boundary of the Project area. The real estate needed for the Project is shown in Figure C-2.

2.2. Project Features. The Project features include strategic mechanical dredging with adjacent dredge material placement to create berms and windbreak islands, replacement of the diesel-powered pump station with a new pump station powered by underground electricity, and implementation of timber stand improvements areas by clearing, grubbing, and planting trees within a ridge and swale landscape. All these features will occur on Federal land within the Project area and are shown in Figure C-2.

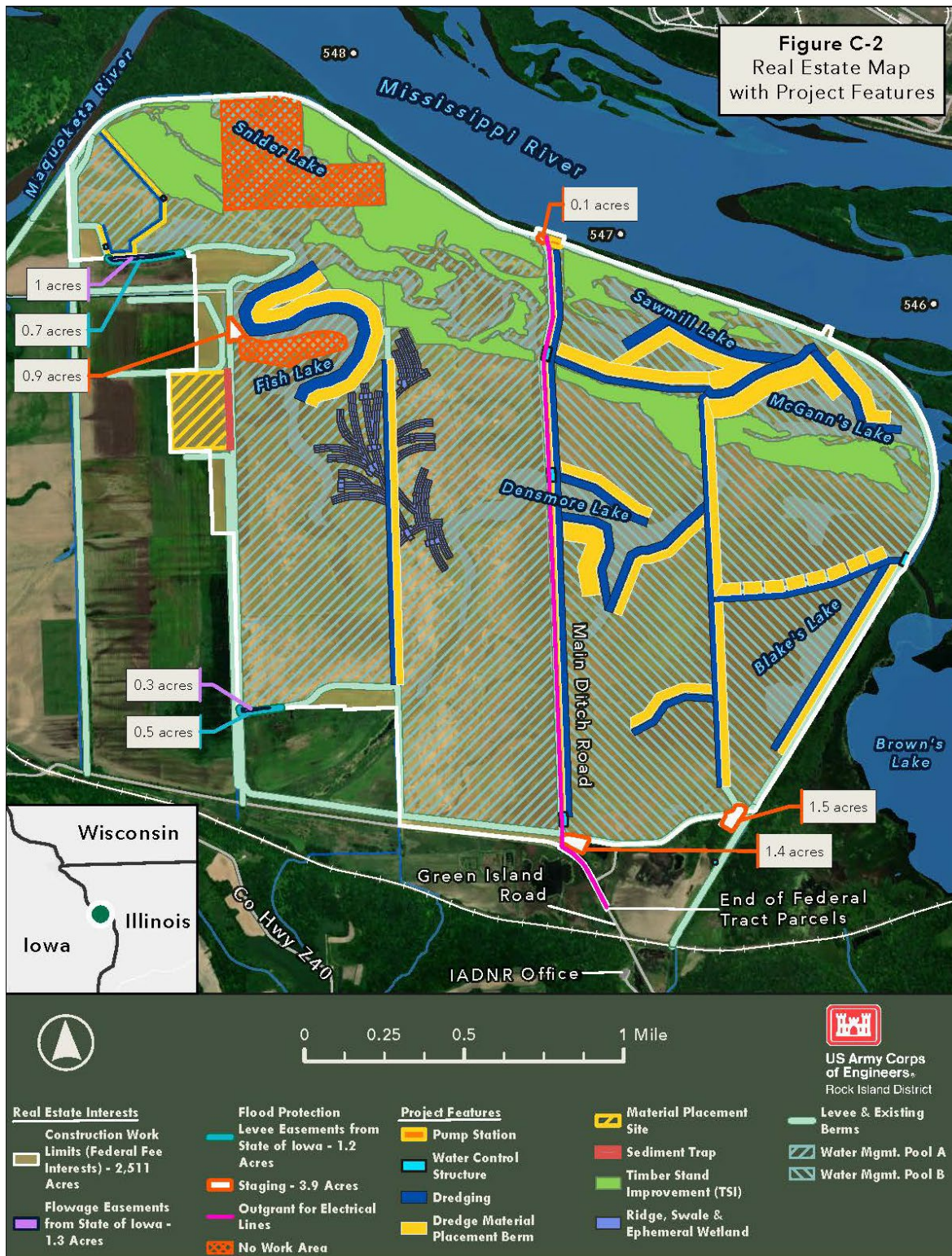


Figure C-2. Real Estate Map with Project Features

Electrical lines, though not within the Project area, will need to cross the Canadian Pacific Railroad tracks that run through the GIWMA for electricity to reach the new pump station in the

Project area. After crossing the railroad tracks along Green Island Road, the electrical lines will run underground adjacent to the “Main Ditch Road” within the Project area until it reaches the pump station near the Mississippi River.

2.3. Number of Tracts, Ownership, Easement Estates Required, and Acres. The Project is a full Federal project. The minimum standard estate for the staging is Temporary Work Area easement and the minimum standard estate for the construction of the Project features is Fee. All lands within the Project area are owned by the United States of America in Fee. The Federal tracts containing the Green Island Levee system are subject to the right of the Green Island Levee and Drainage District to maintain the levee. The Project area is comprised of 41 USACE-controlled, IA DNR-operated and managed, Federal tracts that total 2,511 acres.

A portion of two State of Iowa parcels that are outside the Project area, but within the GIWMA, may potentially remain impacted by current maximum water levels stemming from Pool A at times. These lands are currently in a routine state of inundation and, although the area will benefit from the water level management Project features, the area will continue to experience periods of inundation. Therefore, Flowage and Flood Protection Levee easements may need to be acquired from the State of Iowa in these two locations to ensure the Project remains fully Federal following a survey of the parcel lines.

The estates required for the Project are outlined in Table C-1.

Table C-1. Real Estate Required for Project:
Number of Tracts, Ownership, Easement Estate Required, and Tract Acreage

Number of Tracts/Parcels	Landowner/Agency Managing	Estate Required	Acres
41	United States/ USACE	Fee	2510.64
7	United States/ USACE	Temporary Work Area Easement	3.8
2	State of Iowa/IADNR	Flowage Easement (Permanent Flooding)	1.3
2	State of Iowa/IADNR	Flood Protection Levee Easement	1.1

United States tracts within the Project area and within the GIWMA are shown in Figure C-3.

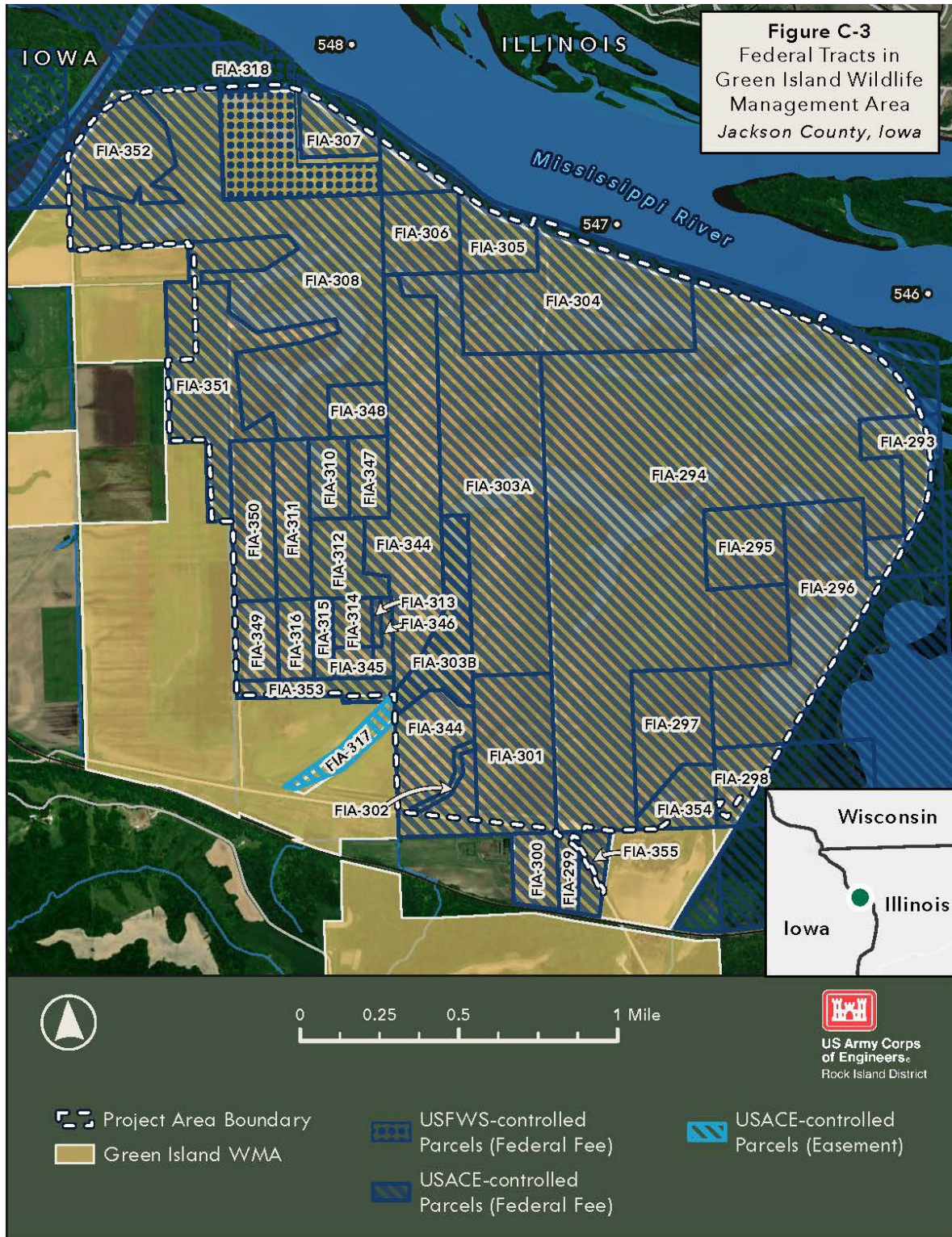


Figure C-3. Federal Tracts in Green Island Wildlife Management Area, Jackson County, Iowa.

3. SPONSOR-OWNED LANDS

The Project Partner is the USFWS, and the Project Sponsor is the IADNR. A Project Partnership Agreement (PPA) will be executed by the IADNR for the operation and maintenance of the Project.

The Iowa DNR is also the entity that has been managing, operating, and maintaining the GIWMA via a CA with the USFWS since the early 1960s, as agreed to in the 1961 General Plan that directs the use of the Navigation Channel Project lands for wildlife conservation pursuant to the Fish and Wildlife Coordination Act. Two State of Iowa parcels, which are managed, operated, and maintained by the Project Sponsor as part of the GIWMA may remain flooded from Pool A waters on occasion, which the Project features intend to improve.

4. PROPOSED NON-STANDARD ESTATES

It is not anticipated any Non-Standard Estates will be required for the Project.

5. EXISTING FEDERAL OR OVERLAPPING PROJECTS

Brown's Lake Habitat Rehabilitation and Enhancement Project, Pool 13, River Miles 544-546, Upper Mississippi River, Jackson County, Iowa (1987). Brown's Lake is a 543-acre backwater complex managed by the USFWS as part of the Upper Mississippi River National Wildlife and Fish Refuge (UMR NWFR), adjacent to the GIWMA to the west. The Brown's Lake HREP Project consisted of hydraulic dredging to enhance aquatic and overwintering habitat, construction of a deflection levee to lower sedimentation rates, and planting mast trees to enhance terrestrial habitat and diversity.

Continuing Authorities Program, Section 1135 Water Resources Development Act (WRDA) of 1986, as amended, Green Island Headwall Modification Project (1994). A PPA was entered into between USACE and IADNR for Modification of the Mississippi River 9-Foot Channel Navigation Project for Improvement of the Environment at Green Island in 1994. Pursuant to the PPA, a new water control structure was constructed with the gate/headwall on the riverside to maximize the wildlife values in the area by protecting the habitat and wildlife food source from inundation by the Mississippi River during the growing season.

General Plan for Use of Project Lands and Water Areas for Wildlife Conservation and Management, Mississippi River Between the Missouri River and Minneapolis, Minnesota, State of Iowa (1961). In 1961, the General Plan For Use of Project Land and Water Areas for Wildlife Conservation and Management (Iowa General Plan) bound the Department of the Army, the Bureau of Sport Fisheries and Wildlife (Bureau), now known as the USFWS, and the Iowa State Conservation Commission, now known as the IADNR, to use certain Federal lands for wildlife purposes pursuant to the Fish and Wildlife Coordination Act and in support of the National Migratory Bird Management Program. The Federal lands to be used were acquired by the United States of America by the Department of the Army through USACE for the purposes of the Navigation Channel Project to improve the Mississippi River. As part of the Iowa General Plan, the Department of the Army, and the Secretary of the Interior executed a CA in 1963 for the lands to be provided to the Bureau for the purposes of conservation, maintenance, and management of wildlife resources. In turn, the Director of the Bureau and the Director of the Iowa Conservation Commission executed a CA in 1963 for the lands to be provided to the Iowa Conservation Commission for the purposes of conservation, maintenance, and management of

wildlife resources. These CAs, and subsequent Amendments, gave life to the GIWMA, which has been operated and maintained by the IADNR.

Upper Mississippi River National Wildlife and Fish Refuge (1924). The proposed Project area is surrounded by the UMR NWFR along the northern riverside of the GIWMA and to the east and west of the GIWMA. The UMR NWFR is managed by USFWS and was established by Public Law No. 268, 68th Congress on June 7, 1924, and is codified in 16 U.S.C. 8, Title 16, which authorized the acquisition of lands for Refuge purposes. Additional lands were acquired by the United States for the UMR NWFR in 1934, and the lands acquired by the United States in Fee for the Navigation Channel Project in 1935 and managed by USACE were provided to USFWS in 1963 for UMR NWFR purposes. The environmental purposes which led the United States to acquire the lands making up the UMR NWFR were to provide migratory birds a place to breed and to be protected in accordance with The Migratory Bird Treaty, which was ratified in 1916 (16 U.S.C. 8, § 723(a)).

Upper Mississippi River Navigation Channel Project (1935). The United States of America, through the Department of the Army, acquired certain lands in the State of Iowa under the authority of Acts amended in 1935 for the Navigation Channel Project to improve the Mississippi River between Locks and Dams Nos. 9 to 18.

6. FEDERALLY OWNED LANDS OR OTHER INTERESTS

The majority of the lands needed for the Project are owned in Fee by the United States. The waters the Project intends to manage may continue to inundate lands outside of the Project area boundary, but within the GIWMA, on State of Iowa parcels that are managed, operated, and maintained by the IADNR for conservation purposes. Flowage easements and Flood Protection Levee easements may need to be acquired in two areas in which existing berms may extend into the State of Iowa parcels that contain Pool A waters that will not be controlled by Project features. During design and construction, the lands will be surveyed to determine whether or not the existing berms that contain the Pool A waters fall outside the Federal Project area boundary onto State of Iowa lands.

7. NAVIGATION SERVITUDE

Navigation Servitude does not apply as there is no work contemplated below the ordinary high-water mark with a navigable channel.

8. PROJECT MAP

Figure C-1 is the Overview Map of the Project Area that contains Federal lands within the GIWMA.

Figure C-2 is the Real Estate Map with Project Features, which show the real estate, including specific easement estates needed for the Project and the corresponding quantity of acres needed. The Project features are also shown on the Real Estate Map, noting the locations for activities necessary during construction of the Project features.

Figure C-3 depicts the Federal ownership and Federal agency management interests within the GIWMA.

9. INDUCED FLOODING

The primary objective of the Project is water level management due to the excessive inundation of the lands creating areas of stagnant water within the Project area. While the Project features are designed to reduce the regularity and extents of inundation, the Project features will not eliminate water from all the inundated areas within the Project area. Additionally, the current maximum water levels may continue to inundate the adjacent State of Iowa parcels within the GIWMA. Berms may drape into State of Iowa parcels managed by the IADNR as part of the GIWMA in the southwest corner of the Project area and in the northwest portion of the Project area near Murphy's Cell, which may lead to Pool A waters flowing to the distance of the berms that may lie upon land owned by the State of Iowa.

10. BASELINE COST ESTIMATE FOR REAL ESTATE

The Real Estate Acquisition Costs associated with the Project are \$122,973.00, which account for the LERRD, incidental acquisition costs, and real estate labor costs during the planning and design phase.

11. RELOCATION ASSISTANCE BENEFITS, PUBLIC LAW 91-646

The Project does not require any relocation of persons, farms, or businesses; therefore, there are no anticipated Public Law 91-646 Relocation Assistance Benefit payments.

12. MINERAL OR TIMBER ACTIVITY OR HARVESTING

No mineral or timber activity or harvesting is anticipated to be impacted by the Project.

13. NON-FEDERAL SPONSOR'S LEGAL AND PROFESSIONAL ACQUISITION CAPABILITY TO ACQUIRE LANDS, EASEMENTS AND RIGHT-OF-WAYS

The IADNR is the Program Sponsor and the USFWS is the Program Partner. A PPA is anticipated to be executed between USACE and the IADNR for the IADNR to manage, operate, and maintain the Project features and lands. For the Project to remain fully Federal, Flowage easements and Flood Protection Levee easements may need to be acquired from the State of Iowa. Given that these State of Iowa lands are held for conservation purposes that are managed, operated, and maintained by the IADNR in the GIWMA, the acquisition of the Flowage easements and Flood Protection Levee easements, if necessary to acquire, appears to be feasible.

14. ZONING ORDINANCE REQUIREMENTS

It is not anticipated that any zoning classifications or ordinances will need adjustment for the Project.

15. ACQUISITION SCHEDULE

The acquisition schedule of Flowage and Flood Protection Levee (Table C-2) easements from the State of Iowa will be developed.

*Upper Mississippi River Restoration
Green Island Habitat Restoration and Enhancement Project
Appendix C, Real Estate Plan*

Table C-2. Acquisition Schedule

Task	Description	Responsible Party	Estimated Time To Complete
Survey	Survey parcel/tract ownership.	Survey	1 week
Design of Project features	Technical Engineering Lead determines if Pool A waters can be contained within the Federal Project area boundaries. If not, proceed to next step.	Engineering	2 months
Title Evidence	Obtain preliminary Title Opinion.	Realty Support	2 weeks
Communication with State of IA	Communication with Project Partner and POC for State of IA	Realty Specialist	1 week
Legal Descriptions and Mapping	Prepare legal descriptions and tract maps of the easements to be acquired.	Office of Counsel; Cartography	6 weeks
Draft easements	Draft Flowage and Flood Protection Levee easements.	Office of Counsel	1 week
CERCLA clearance	Obtain CERCLA clearance, certifications, and/or reports as required by regulation.	EC-N	
Appraisal	Preparation of valuation product for easements to be acquired.	Appraisal	1 month
Just Compensation Letter	Draft Just Compensation Letter.	Realty Specialist; Chief of Acquisition	1 week
Communication with State of IA	Communicate with State of IA POC regarding just compensation offer for acquisition or waiver of just compensation for Project purposes.	Realty Specialist/ Negotiator	1-3 weeks
Draft Offer to Sell or Waiver of Just Compensation	Draft Offer to Sell or Waiver of Just Compensation.	Realty Specialist/ Negotiator	1 week
Execute Offer to Sell Easements or Waiver of Just Compensation, and Execute easements deeds	Communicate with State of IA POC regarding execution of instrument.	Realty Specialist	2 months
If acquisition by purchase; RECO to execute Offer to Sell	RECO to execute seller-executed Offer to Sell easements if no Waiver of Just Compensation.	RECO	1 week
If acquisition by purchase, order funds check	If acquisition by purchase, order funds check for seller.	Realty Support	4 weeks
If purchase of easements, closing	Execute easement deeds with State of Iowa, and delivery of funds check to State of IA, if acquisition by purchase.	Office of Counsel	2 weeks
Conveyance Recordation	Record easement deeds in Jackson County Recorder's Office after execution of instrument(s), and upon receipt of complete closing documentation, if acquisition by purchase.	Office of Counsel	1 week
Close-out procedures	Complete close-out procedures, including REMIS and mapping/GIS layer updates.	Realty Support & Cartography	3 weeks

16. PUBLIC UTILITY OR FACILITIES RELOCATION, ALTERATIONS OR REPLACEMENT

There are currently no planned facility or utility relocations.

17. HAZARDOUS, TOXIC AND RADIOACTIVE WASTE

Appendix E, Attachment H, *Hazardous, Toxic and Radioactive Waste* notes that there were no observable indications of recognized environmental conditions. Further details are provided in Attachment H.

18. LANDOWNER OPPOSITION OR PUBLIC CONCERNS

Public input will be obtained through the public review process, which will begin in the fall of 2023.

19. NOTIFICATION OF RISKS OF ACQUIRING LANDS BEFORE EXECUTION OF THE PROJECT PARTNERSHIP AGREEMENT

The Project is fully Federal, so this section is not applicable.

20. OTHER RELEVANT REAL ESTATE ISSUES

None.

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