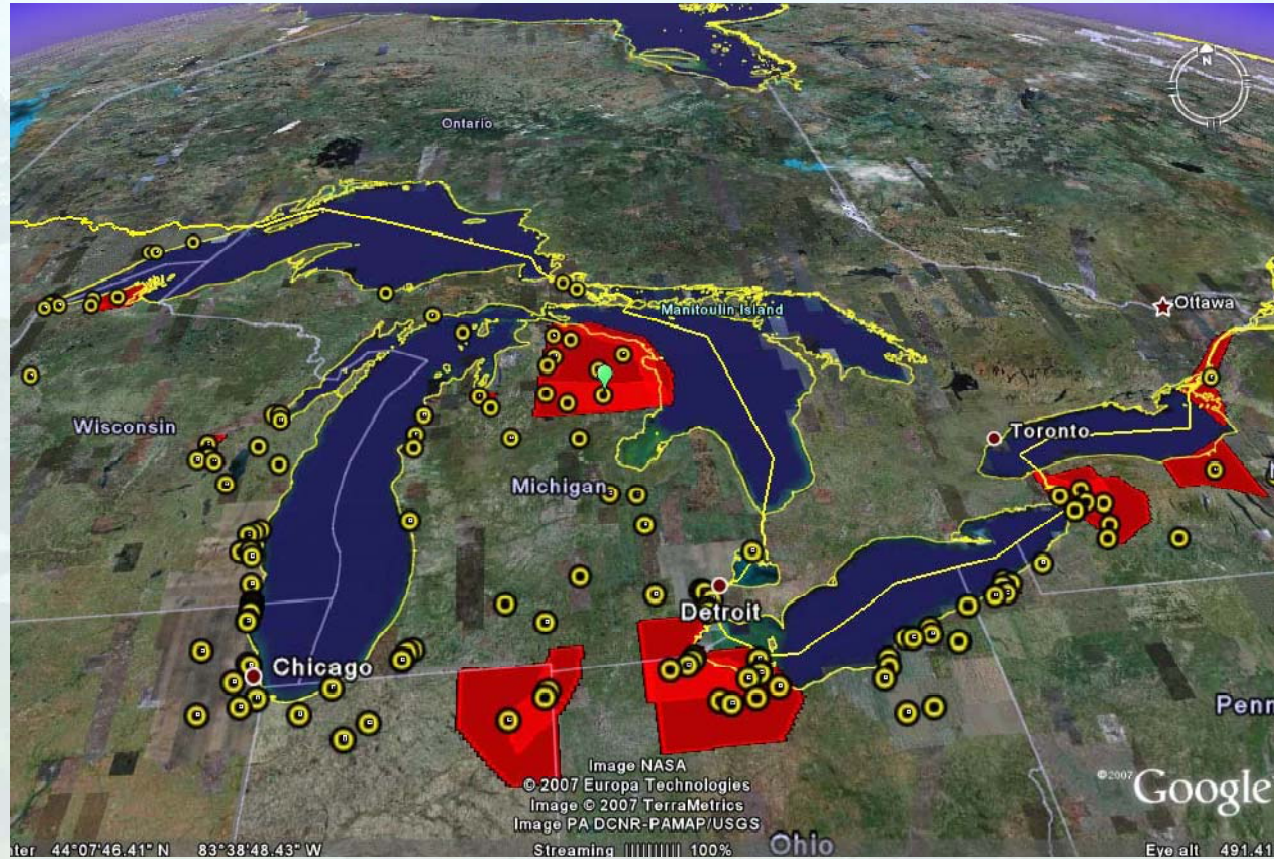


GLRC Habitat/Species Subcommittee Restoration/Protection Web Tools



An aerial photograph of a winding river flowing through a lush green landscape. The river meanders across the terrain, creating a series of loops and curves. The surrounding area is covered in dense vegetation, with some darker patches of trees and lighter areas of grass or fields. In the background, a range of low mountains or hills is visible under a clear sky. The word "Background" is overlaid in the center of the image in a large, black, sans-serif font.

Background

Web Tools Purposes

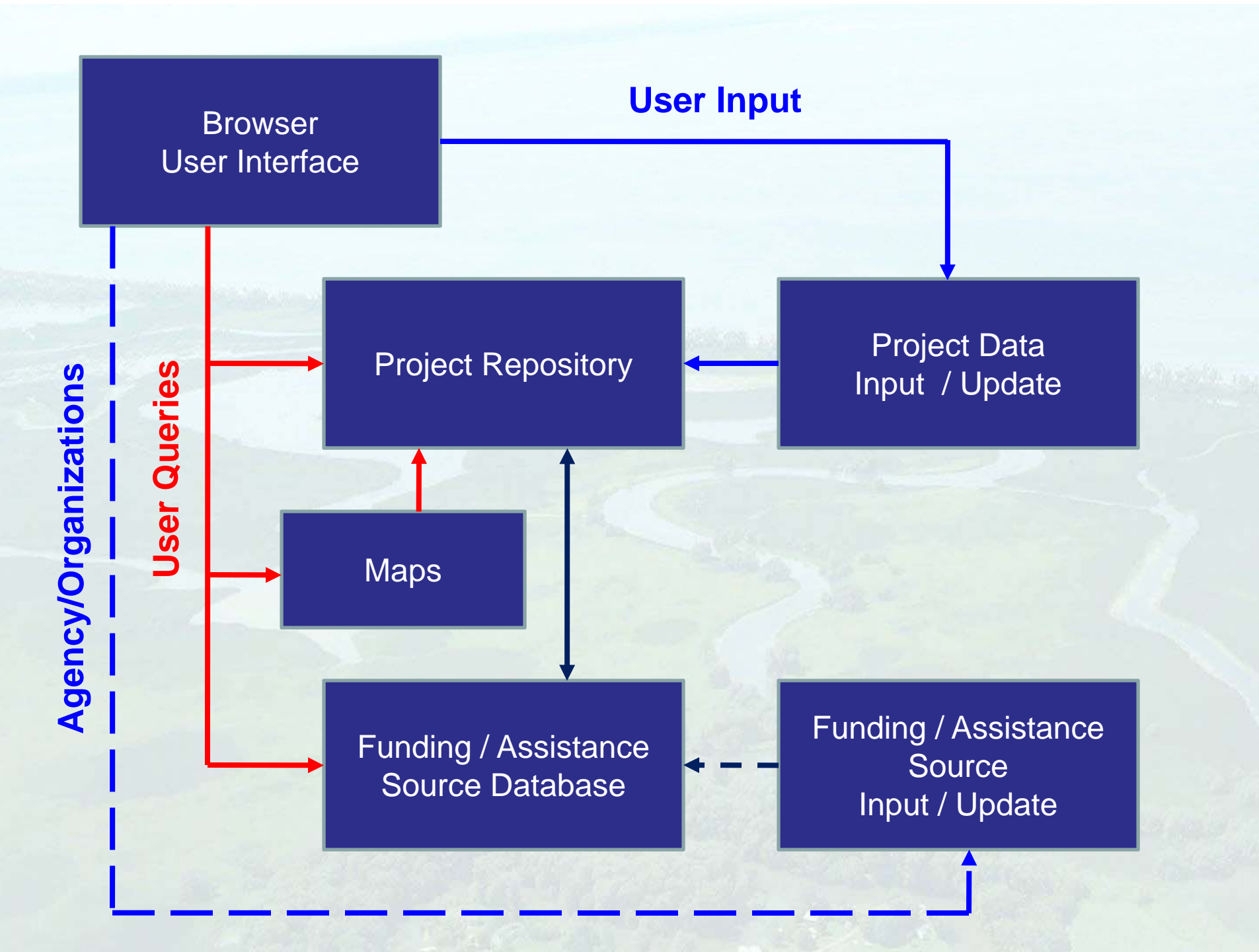
- Web-based entry/query tools designed to collect information about potential restoration projects and applicable funding / assistance programs
- Three key objectives:
 - Enhance collaboration between potential project sponsors at all levels of government to advance projects from one phase to the next
 - Provide consistent and comprehensive information to help agencies to prioritize resource allocations
 - Help define unmet funding needs under specific authorities to advance advocacy efforts by the Great Lakes Commission

Web Tools Features

- Consistent, comparable data and information about habitat protection and restoration projects across a state and/or entire Great Lakes basin
- Version 1.0 of the tools has about 240 prospective projects and 130 funding sources identified
- Version 2.0 includes improved “look and feel,” project benefit assessments, greater emphasis on project phases, enhanced query capabilities and a link between projects and most likely funding sources

An aerial photograph of a river delta, showing a large body of water branching into several smaller channels that flow through a lush green landscape. The text "Components of Web Tools" is overlaid in the center of the image.

Components of Web Tools



An aerial photograph of a river delta system, showing a main river channel that branches out into several smaller channels and ponds. The landscape is a mix of green fields and dense forest. The text "Project Repository" is overlaid in the center of the image.

Project Repository

Online Project and Funding Databases



Habitat/Species Subcommittee Protection/Restoration Web Tools

[Search Projects](#)

[Map Viewer](#)

[Login](#)

[Register](#)

Welcome to the Great Lakes Habitat / Species Subcommittee's web-based tools. The information contained in the project repository and funding assistance databases are being used to promote more integrated and comprehensive restoration activities across the region.

The details contained in these web tools are updated by a wide variety of potential project collaborators who are working to advance the Great Lakes Regional Collaboration Strategy report published in 2005. The information collected in these databases will be shared between various project collaborators to promote advancement of common habitat restoration goals. This information also will be used by various fundings and assistance sources to prioritize resource allocation decisions. Your input to this collaborative process will help the Great Lakes community to improve efficiencies and achieve results more rapidly.



US Army Corps
of Engineers



U.S. Fish &
Wildlife Service



Project Entry – Basic Information



Projects

My Projects

Enter New Project

Full Project Database

Query the Database

Download the Database

Map Projects

Demo Projects

Home

Contact

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Basic Information

Partners

Geography

Benefits

Costs

Other

Funding Match

[save](#) | [reset](#) | [help](#)

Title

Official title of project, inclusive of location and type of restoration work being done. Title limited to 255 characters.

Example

Abstract

Brief narrative summary of the project. Abstract limited to 6000 characters.

Example

Project Type

Select primary function

- Restoration/Rehabilitation/Creation ?
- Enhancement/Improvement ?
- Protection ?
- Other (eg education, monitoring, research) ?



Other input fields:

Project Phase

Project Timeline

Relevancy to GLRC Strategy

National/Regional Recognition

Organizational Ranking

Relations with Existing Projects

Compensatory Mitigation

Restoration Techniques and Measures

Access Constraints

Project Phases

Proposed - These projects should be part of a formal plan, grant application, or other official document and must include specified geographic areas, restoration objectives and identified anticipated benefits.

Planning Initiated – A formal planning study is underway but not yet complete

Design Initiated – Engineering design work has begun and/or non-structural preparations (land acquisition, conservation easements, biologic methods) are being investigated

Preparations Completed - Planning/design activities for the project have been completed but no on-the-ground restoration activities have begun.

Implementation Started - On-the-ground protection or restoration activities have begun

Post-Completion - On-the-ground implementation activities such as major construction and planting are completed. Project monitoring, adaptive management, and other project management activities may be ongoing.

Project Entry - Geography



Projects

My Projects

Enter New Project

Full Project Database

Query the Database

Download the Database

Map Projects

Demo Projects

Home Contact Logout

Basic Information Partners **Geography** Benefits Costs Other Funding Match

[save](#) | [reset](#) | [help](#)

Geographic Extent of Project Area

Use navigation tools to zoom into project area and delineate project area using the [Select Project Area](#) tool. To modify or remove a delineated area, use the [Modify/Remove Project Area](#) tool.

Defining an area allows for the automatic population of certain variables critical to the description of the project including the x/y coordinates, the county, state, and congressional district information, land cover information, soils information, Conservation Blueprint information, NWI information, rare, unique, or protected habitat/species information, and hydrologic unit (HUC) information for the project area.



Other input fields:

Detailed Habitat Types

Pan Map

Select Project Area

Modify/Remove Project Area

Geographic Coordinate Capture Tool

Automatically harvests:

- State
- County
- Township
- Congressional District
- Project acreage
- 8-digit watershed code
- NHD line segment
- Current land cover / habitat types
- Wetlands mapping (NWI, etc.)
- Soil types
- Rare, unique or protected species or habitats
- Part of TNC Conservation Blueprint
- Other available GIS features



Project Entry - Benefits



Projects

[My Projects](#)

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Full Project Database

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[Basic Information](#) [Partners](#) [Geography](#) **[Benefits](#)** [Costs](#) [Other](#) [Funding Match](#)

[save](#) | [reset](#) | [help](#)

Ecological Stressors/Threats Affecting Area

Identify ecological stressors/threats that affect the project area. Ctrl+Click for multiple selections.

- Altered Hydrology
 - Water Level Changes
 - Draining
 - Filling and Dredging
 - Diking and Breakwalls
- Contaminants
 - Nutrient Loadings
 - Toxic/Chemical Loadings
 - Contaminated Sediments
- Invasive Species
 - Aquatic and Wetland Invasive Plants
 - Aquatic and Wetland Invasive Animals
 - Terrestrial Invasive Plants
 - Terrestrial Invasive Animals

[LSC Coastal Habitat Restoration and Conservation Habitat Stressors](#)



Other input fields:

Scarcity

Connectivity

Hydrologic Character

Geomorphic Condition

Reduction of Invasive Species

Rare, Threatened and Endangered Status

Recreation

Environmental Justice

Subsistence-Harvest Needs

Sacred Sites

Cultural Resources

Self-Sustaining Character

Anticipated Ecological Outcomes

Identify the anticipated ecological outcomes to be realized through this project. Ctrl+Click for multiple selections.

- Build Resiliency to Climate Change
 - Enhance normal ice dynamics
 - Reduce adverse effects of droughts
 - Reduce adverse effects of flooding/storms
 - Enhance normal temperature regimes
- Improve Anthropogenic Use
 - Increase ecotourism opportunities
 - Increase non-destructive recreation
 - Increase hunting and fishing opportunities
- Improve Native Habitats
 - Improve spawning habitat
 - Improve rearing habitat
 - Increase juvenile survival
 - Improve wildlife habitat

Project Entry – Funding Match



- Projects
 - My Projects
 - Enter New Project
- Full Project Database
 - Query the Database
 - Download the Database
 - Map Projects
 - Demo Projects
- [Home](#) [Contact](#) [Logout](#)

- Basic Information
- Partners
- Geography
- Benefits
- Costs
- Other
- Funding Match**

[save](#) | [reset](#) | [help](#)

Project Sponsorship

Likely Funding Sources

Based on the information that you provided so far, we have queried the funding source database and recommend that you explore the funding sources listed below to move this project ahead to the next phase. You can click on each of the listed items and will be directed to more detailed information in a pop-up window. You may have to temporarily allow for pop-ups to occur to see these details. After you have reviewed this information, please select the funding sources that you believe are most appropriate for this project. This information will be used to support long-range planning and advocacy efforts.

- [State and Tribal Assistance Grant Program \(STAG\) - U.S. EPA](#)
- [National Fish and Wildlife Foundation - NF&WF](#)
- [Planning Assistance to States - USACE](#)
- [Wetlands Reserve Program - USDA](#)
- [Land Conservation - Gaylord and Dorothy Donnelley foundation](#)

Other Funding Sources Desired

If you want to explore other funding sources, please review the eligibility requirements for other potential funding sources and check any that you feel are appropriate for your project.

- [American Rivers River Restoration Grants](#)
- [American Sportfishing Association's FishAmerica](#)
- [Anadromous Fish Grants](#)
- [Aquatic Ecosystem Restoration](#)
- [Aquatic Plant Control Program](#)

[Add to other sources to list](#)



An aerial photograph of a wetland landscape. A winding river flows through a vast, flat area of marshes and grasslands. The water is a light, silty brown color, contrasting with the green and brown tones of the surrounding land. The background shows a hazy horizon under a pale sky. The text "Funding / Assistance Sources" is overlaid in the center of the image.

Funding / Assistance Sources

Great Lakes Funding Programs

ID **Program name:** **Agency information:**

Program description: **Statutory authority:**

Geographic focus:

Project activities: *Check all that apply.*

<input type="checkbox"/> Aquatic invasive species	<input type="checkbox"/> Habitat restoration/improvement	<input type="checkbox"/> Public information	<input type="checkbox"/> Toxic pollutants
<input type="checkbox"/> Areas of concern / sedimentation	<input type="checkbox"/> Indicators and information	<input type="checkbox"/> Research/Monitoring	<input type="checkbox"/> Other
<input type="checkbox"/> Great Lakes coastal health	<input checked="" type="checkbox"/> Nonpoint source pollution	<input type="checkbox"/> Sustainable development	
<input checked="" type="checkbox"/> Habitat conservation and species management	<input checked="" type="checkbox"/> Habitat protection	<input type="checkbox"/> Terrestrial invasive species	

Financial Information

Applicant eligibility:

Funding authorization:

Award cap:

2003-2006 Average Annual:

Expenditures:

Number of projects:

Funding authorizations are contained in statutory language and reflect the maximum amount that can be appropriated. Actual monies appropriated to carry out activities under a statute vary depending on budget constraints and are often less than the authorized amount.

Match required

Match amount (%):

In-kind Match:

In-kind property

In-kind services

Deadlines:

Application process:

Assistance type:

Selection process:

Program notes:

[Save](#) [Add a Program](#) [Exit](#)



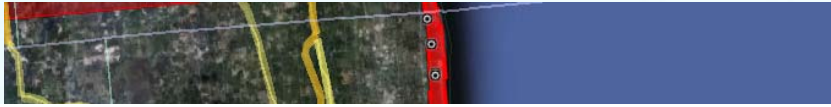
Database Query Functions

By agency, project title, project ID or via other keywords

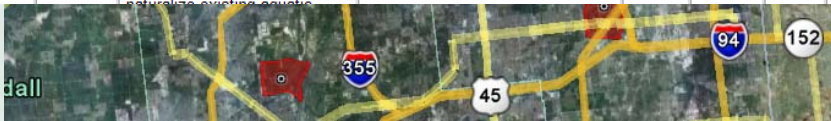
By geographic characteristics:

- Within state, county, township, congressional district
- Within particular watersheds or along particular river/streams
- Complementary/competing projects for same areas
- Affecting particular habitat types or species assemblages
- Ranking by differing agencies (e.g., USACE Habitat Initiative)

Map Queries



glhi_entered_p							
Project ID	Project Title	Project Abstract	POC Email	POC First Name	POC Last Name	POC Title	POC
194	Indian Ridge Marsh	<p>Located on southeast side of Chicago, the Indian Ridge Marsh project site covers about 145 acres between Lake Calumet to the west and the Calumet River to the east. The site is bounded by 116th street on the north, Torrence Avenue on the east, the Calumet River on the south and the Norfolk and Western railroad on the west.</p> <p>Specifically, the Indian Ridge Marsh site was used for the disposal of slag from steel-making operations and dredged materials from the Calumet Harbor and River during the 1970's. Large portions of the marsh were filled with dredge material from disposal activities of the U. S. Army Corps of Engineers. Since then, lower quality wetlands have been reestablished throughout the site. The poor hydrology of the disturbed area has isolated the wetlands and ponds, allowing the wetlands to become overgrown with non-native species and reducing the diversity of native aquatic life. The project will preserve the existing black crown night heron rookery; enhance and restore existing aquatic</p>	Frank.M.Veraldi@usace.army.mil	Frank	Veraldi		312-



Follow-On Activities

- Continue to improve ease of use
- Add linear feature capability
- Improve acreage estimation
- Enhance external compatibility with national databases
- Seek continued support from states, tribes and NGOs to enter new projects and update entries
- Promote federal agencies to enter projects and utilize database in resource allocation decisions
- Implement a long-term sustainability plan

An aerial photograph of a river delta, showing a large body of water branching into several smaller channels that flow through a green, vegetated landscape. The text "Questions / Comments???" is overlaid in the center of the image.

Questions / Comments???

Project Entry – Costs



Projects

[My Projects](#)

[Enter New Project](#)

Full Project Database

[Query the Database](#)

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[Basic Information](#) [Partners](#) [Geography](#) [Benefits](#) **[Costs](#)** [Other](#) [Funding Match](#)

[save](#) | [reset](#) | [help](#)

Costs

Estimated Total Costs

Total estimated cost of project (in USD)

\$

Anticipated Phase Costs

Total anticipated cost of phase (in USD)

\$

Funding Breakdown

Please identify possible sources of matching funds.

Federal		Non-Federal	
Design and Implementation Costs			
Cash	\$ <input type="text"/>	Cash	\$ <input type="text"/>
In-kind	\$ <input type="text"/>	In-kind	\$ <input type="text"/>
Lands, easements, etc	\$ <input type="text"/>	Lands, easements, etc	\$ <input type="text"/>
Monitoring Costs			
Cash	\$ <input type="text"/>	Cash	\$ <input type="text"/>
In-kind	\$ <input type="text"/>	In-kind	\$ <input type="text"/>
Operations and Maintenance			
Cash	\$ <input type="text"/>	Cash	\$ <input type="text"/>



Other input fields:

Estimated Phase Cost

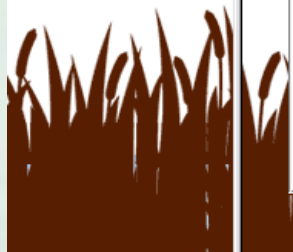
Real-Estate Requirements

Real-Estate Availability

Property Easements

Legal Authorities

Cost Sharing Agreements in Place



Project Entry - Other



Projects

[My Projects](#)

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[Basic Information](#) [Geography](#) [Benefits](#) [Funding](#) **Other**

[save](#) | [reset](#) | [help](#)

Monitoring Requirements

Does this project include monitoring to gauge the success of restoration/protection efforts?

Yes

No

Monitoring Categories

Categories requiring monitoring. Ctrl+Click for multiple.

Amphibians
Birds
Fish
Invasive Species - Vegetation
Invasive Species - Fauna
Invertebrates
Mammals
Physical Characteristics
Phytoplankton and Zooplankton
Reptiles
Soil and Substrate Characteristics
Vegetation
Water Chemistry
Other

Source: [NERI](#)

Monitoring Notes

Please provide detailed notes relating to the project monitoring activities.

Example

Additional Project Information

Please provide narrative on any information not explicitly addressed that is noteworthy (e.g. public interest, recreational and public use potential, tribal concerns, effects on public health). Additional project information limited to 4000 characters.

Other input fields:

Project Area Photos

Funding / Assistance Match-up

Screening procedure based upon three-tiered logic structure:

1. Insure eligibility requirements are met

Eligible organization, geography, anticipated phase costs,
property contributions

2. Insure consistency between databases

Project phase is consistent

Project type is consistent

3. Keyword matches

Anticipated Outcomes

Restoration Techniques








Simple Queries

GLHI Database Query

You may query the Great Lakes Habitat Initiative Database by utilizing the below drop down menus and text. The corresponding SQL code for each query is below results.

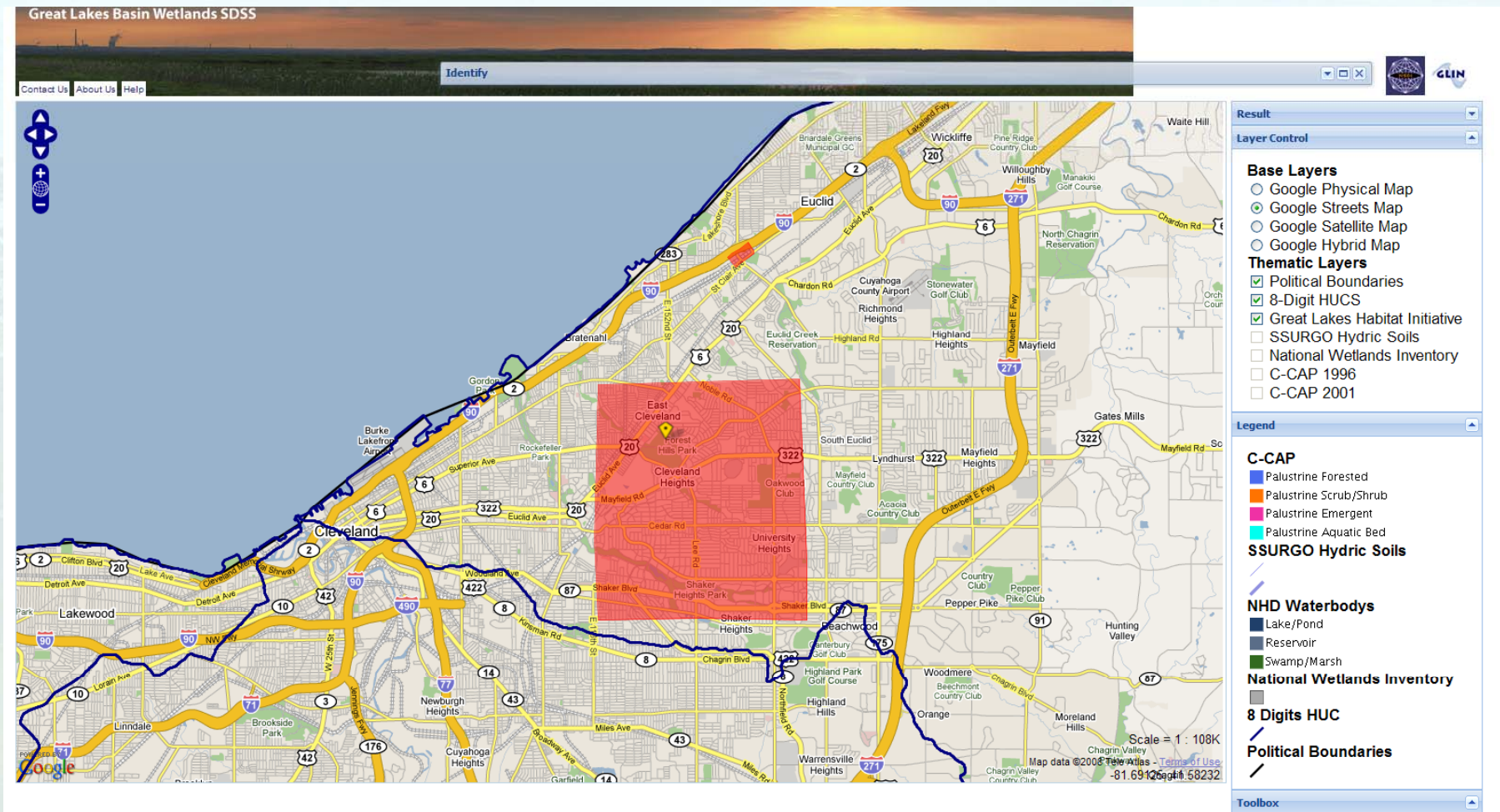
*Results are viewable to registered GLHI users only.

[-] Basic Search

Basic Search
Search: 
Project Type: 
Project Area Within State: 
Project Area Within Congressional District: 
Achievement toward restoration goals: 
Project Duration (in months, if full funding were available): 
Acres: 
Project Area Within Conservation Blueprint Area: Any Yes No
Project Area Contains Sensitive Habitat/Species: Any Yes No

[+] Advanced Search

Wetlands Viewer Queries



Showcases prevailing land cover, hydric soils and mapped wetlands for prospective restoration projects

Database Downloads

Interim GLHI Database Access

- * Interim access to projects entered in the Great Lakes Habitat Initiative (GLHI) database is available in Google Earth (KML), Shapefile, GIF, MDB, and PDF formats.
- * Access to the (latest) underlying GLHI database structure is available in HTML, GIF, and SQL formats.
- * Only a subset of fields collected are being disseminated at present.
- * Only projects with no access constraints (wide public distribution) are currently available.
- * Spatial datasets are updated immediately upon project entry.
- * All files are timestamped with date and time of last update.

GLHI-Entered Projects

[MDB \(Microsoft Access\)](#) 2007-05-15 17:03:00

http://gis.glin.net/dropboxglnhi_access.php

Projects as Points

[KML \(Google Earth\)](#) 2007-05-29 10:20:43

[Shapefile \(ArcGIS/ArcView\)](#) 2007-05-29 10:20:43

[GIF \(with state boundaries\)](#) 2007-05-29 10:20:43

[PDF \(with state boundaries\)](#) 2007-05-29 10:20:43

[SVG \(with state boundaries\)](#) 2007-05-29 10:20:43

Projects as Polygons

[KML \(Google Earth\)](#) 2007-05-29 10:20:43

[Shapefile \(ArcGIS/ArcView\)](#) 2007-05-29 10:20:43

[GIF \(with state boundaries\)](#) 2007-05-29 10:20:43

[PDF \(with state boundaries\)](#) 2007-05-29 10:20:43

[SVG \(with state boundaries\)](#) 2007-05-29 10:20:43

Conclusions

- Good “bang for the buck” so far
- Web tools have expanded functionalities
- Linkage underway between funding /assistance sources and project repository
- Harvest and integrate GIS data themes
- Transitioning to repository concept