

“Restoring Wetland Habitat on Private Land in Ohio, through the U.S. Fish & Wildlife Service Partners for Fish & Wildlife Program”



Lori Stevenson
State Private Lands Coordinator
USFWS Partners for Fish and Wildlife Program



Who are We?

Partners for Fish & Wildlife

- Part of USFWS
- Organized under the National Wildlife Refuge System in the Midwest and under Ecological Services in many other parts of the country
- > 250 staff in all 50 states



Where are We?

U.S. Fish & Wildlife Service



- Region 3 = Midwest Region

- To find a PFW Program coordinator near you:

<http://www.fws.gov/partners/contactUs.html>

- Or, <http://www.fws.gov/midwest/partners>

- Or Google search "FWS Partners"

- In OH, contact either the OHPLO, Urbana PLO or Ottawa NWR.

- Email: ohioplo@fws.gov



Mission of the U.S. Fish and Wildlife Service



Working with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.



Mission of the Partners for Fish & Wildlife Program



To efficiently achieve voluntary habitat restoration on private lands, through financial and technical assistance, for the benefit of Federal Trust Species.



What do we do?

- Habitat Protection, Restoration, Management
- Most habitat types
- Variety of species
- Flexible and creative
- Share conservation goals with many other partners
- Our Private Lands Biologists can do all steps in the process





PFW Program Principles



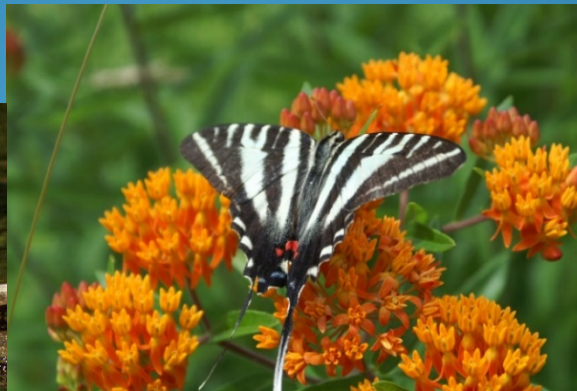
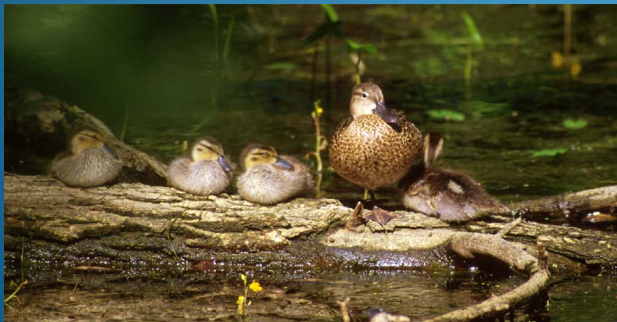
- Voluntary
- Private and tribal lands
- Promote stewardship with incentives
- State-of-the-art, Science Based Techniques
- Leveraging resources
- Collaboration of public and private entities
- Minimum 10yr PFW Agreement
- 50% cost share on projects but that is flexible





PFW Program - Working to:

- Restore Federal Trust Resources
 - Migratory birds
 - Anadromous fish
 - Species Federally-listed as threatened or endangered
 - Some marine mammals
- Restore wetland, riparian and in-stream habitats
- Restore native upland habitats
- Remove barriers for fish passage
- Leverage funds and resources





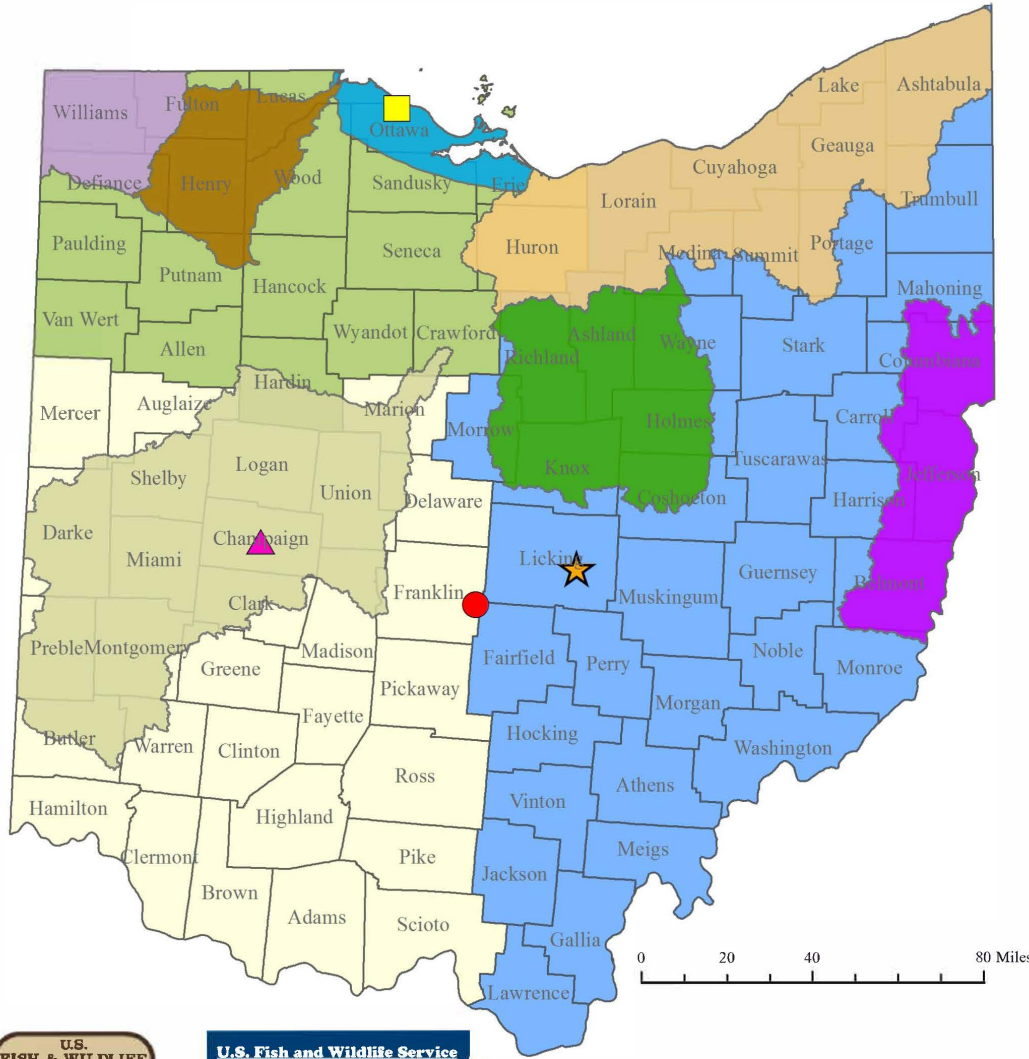
PFW Program Project Eligibility



- Many different habitat types and diversity across work areas.
- We will look at almost anything and offer our suggestions for your area.
- Higher consideration for conducting habitat work within a PFW Program Focus Area.



Ohio PFW Program - Work Areas & Focus Areas



Partners for Fish and Wildlife Program Private Lands Biologists/Work Areas

- ★ Lori Stevenson
State Private Lands Coordinator
Ohio Private Lands Office
Partners for Fish and Wildlife Program
740-670-5312; lori_stevenson@fws.gov
- Brent Sodergren
Ohio Private Lands Office
771 E. Main Street, Suite 102
Newark, Ohio 43055
740-670-5313; brent_sodergren@fws.gov
- Jeff Finn
Ottawa National Wildlife Refuge
1400 W. State Route 2
Oak Harbor, Ohio 43449
419-898-0014; jeff_finn@fws.gov
- Donnie Knight
Urbana Private Lands Office
Champaign County Community Center
1512 S. US Highway 68, Suite B101
Urbana, Ohio 43078
614-747-0256; donald_knight@fws.gov

- Ecological Services Field Office
- ★ Ohio Private Lands Office
- Ottawa National Wildlife Refuge
- ▲ Urbana Private Lands Office

Strategic Habitat Conservation Focus Areas

- Eastern Lake Erie Watershed Focus Area
- Glacial Wetlands and Grasslands Focus Area
- Lake Erie Marshes Focus Area
- Oak Openings Area Focus Area
- Upper Ohio River Watershed Focus Area
- Walhonding River Watershed Focus Area
- West Central Ohio Rivers Focus Area



Partners for Fish and Wildlife Program Mission:
To effectively achieve voluntary habitat restoration on private lands, through financial and technical assistance, for the benefit of Federal Trust Species.



Wetland Restoration



- Wetlands are important for flood control, filtering run-off, and provide diverse habitat for waterfowl, shorebirds, amphibians and other wildlife.
- Restoration activities:
 - Ideally restore to native condition
 - Enhancement or creation where native restoration is not possible
 - Dikes or berms, water control structures, sediment removal, ditch plugs, tile removal, sheet pile structures, etc.



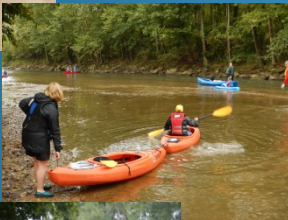


Ohio PFW Program

West Central Ohio Rivers Focus Area



**Healthy habitats = healthy communities.
Engaging non-traditional partners within
the Great Miami River Watershed.
Low head dam removal projects within
Cities of Troy, Piqua and Sydney;
Feasibility studies completed;
Implementation of wetland, in-stream &
riparian habitat; Off-channel Wetland
habitat restoration in ag floodplains/fields.**



**Focal Species:
Red-Headed
Woodpecker, ,
Freshwater Mussel
Species, Smallmouth
Bass, Indiana Bat and
Henslow's Sparrow**





Duke Expansion

Off-Channel Wetland Project

Excavating a 14 acre basin in the floodplain (prior ag field) of the Great Miami River



Miami County
Park District
Duke Expansion
Property

- After basin is revegetated, connections will be made to the Great Miami River and Spring Creek.
- Connections will be installed to off load flood waters at Q critical
- Q critical is the stream velocity during high water events where stream bed substrates begin to mobilize and excessive bank erosion occurs



Duke Expansion Off-Channel Wetland Project

Over 135,000 cubic yards of topsoil is being hauled out of floodplain





Duke Expansion Off-Channel Wetland Project



Removal of 6 feet of topsoil



Most of the material will be loaded into private trucks and utilized on various local projects (Excavation, nurseries, landscape)



Duke Expansion Off-Channel Wetland Project



**Deeper cuts within basin will
provide overwintering fish habitat**



Duke Expansion Off-Channel Wetland Project



Installing large woody debris and root balls
for fish and wildlife habitat



Duke Expansion Off-Channel Wetland Project



Sediment and Nutrient uptake

- The excavated basin will allow sediment and nutrient rich flood waters to off load into the off channel wetland
- As more basins are created in a watershed, this uptake can become significant in reversing landscape level water quality issues (Mississippi River/Gulf Hypoxia)





Duke Expansion Off-Channel Wetland Project



Reducing stream velocity

- By off loading flood waters at the Q critical, stream beds stabilize
- Food chains will not have to rebuild after storm events.
- Fish, freshwater mussels and other wildlife will benefit in the stream as well as in the off channel wetland





PFW Program Wetland Habitat Restoration in NW Ohio



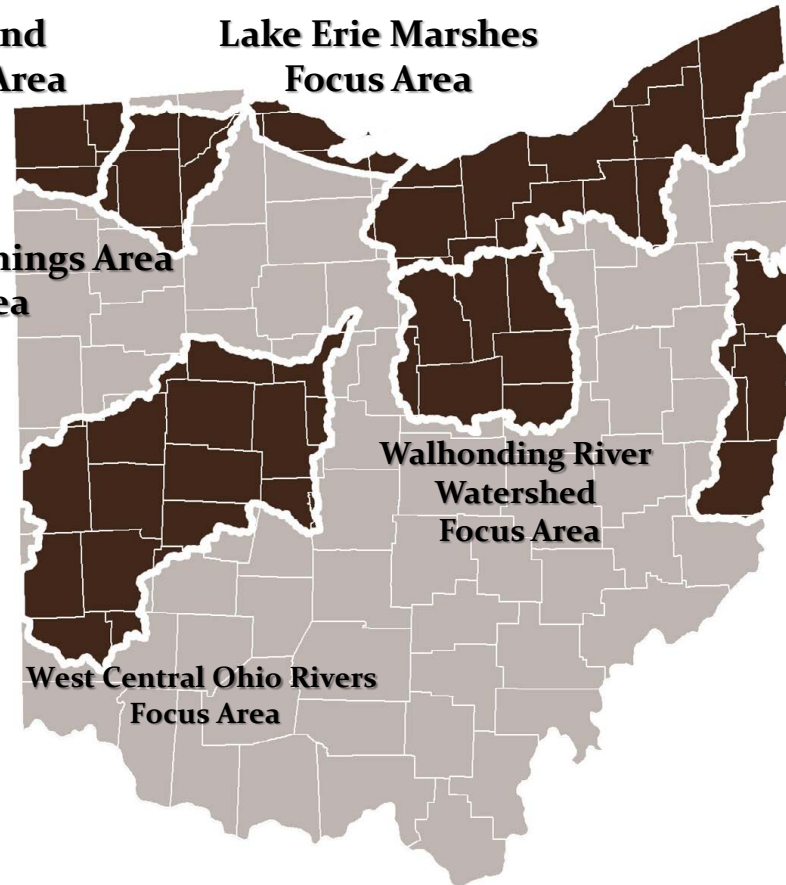
**Glacial Wetlands and
Grasslands Focus Area**

**Lake Erie Marshes
Focus Area**

**Eastern Lake Erie Watershed
Focus Area**

**Oak Openings Area
Focus Area**

**Upper Ohio River Watershed
Focus Area**

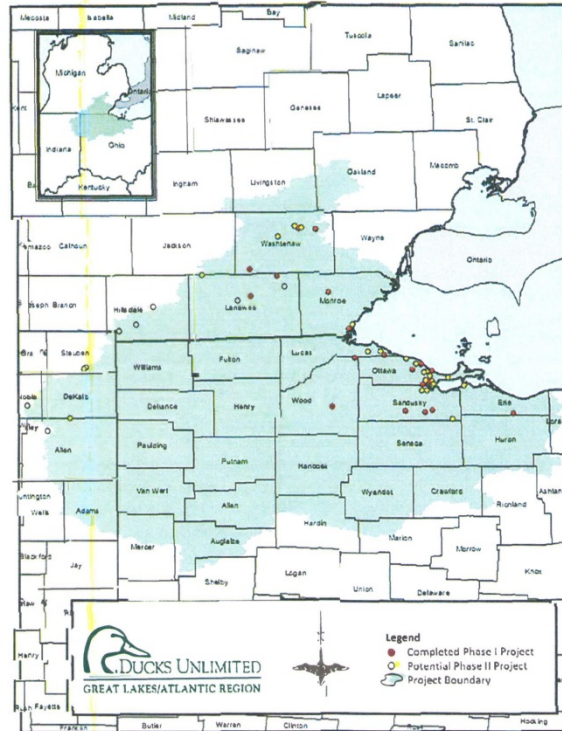


**Wallhonding River
Watershed
Focus Area**

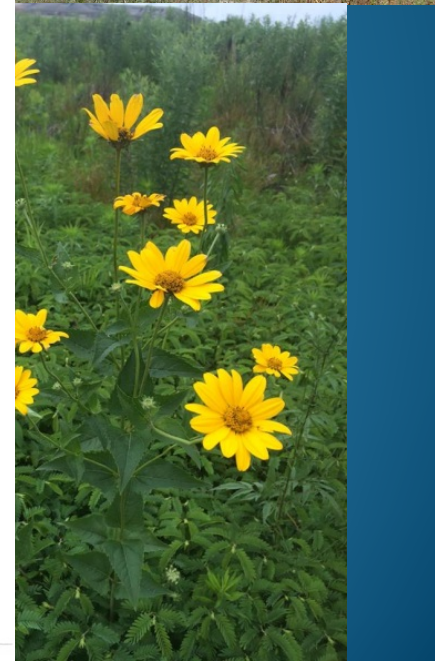
**West Central Ohio Rivers
Focus Area**

Great Lakes Fish & Wildlife Restoration Act (GLFWRA) Partnership

Figure-1. Western Lake Erie Basin watershed showing the location of projects completed under Phase I and the location of potential Phase II projects.

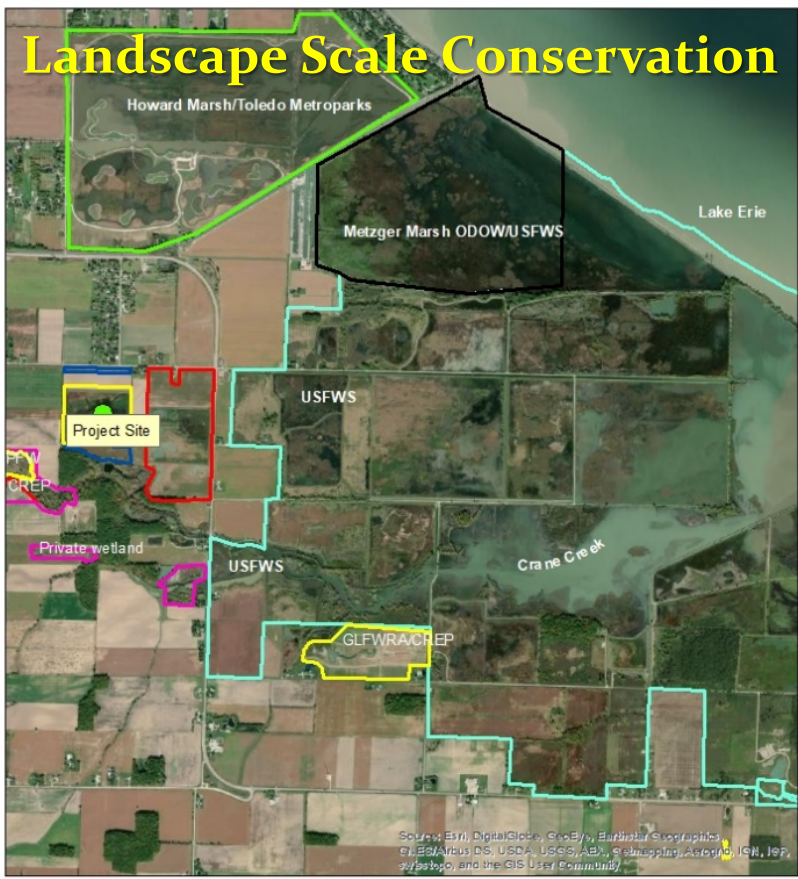


Great Lakes Fish & Wildlife Restoration Act (GLFWRA): Restoring Fish & Wildlife Habitat and Improving Water Quality in the Western Lake Erie Basin: Phase I - \$560,397 (OH & MI); objective - 285 wetland acres & 125 NWSG acres; completed 17 wetland projects (422.3 acres), 3 upland projects (137 acres); Phase II - \$490,000 (IN, OH & MI); objective - 250 acres wetland & 250 acres NWSG; still working on this Phase; will start Phase III next field season.



Carstensen/Herman Wetland Restorations

Carstensen/Herman Wetland Landscape



- Legend**
- PFW
 - PUBLIC
 - ODOU_property
 - WHIP
 - CREP
 - CRP
 - USFWS_Property



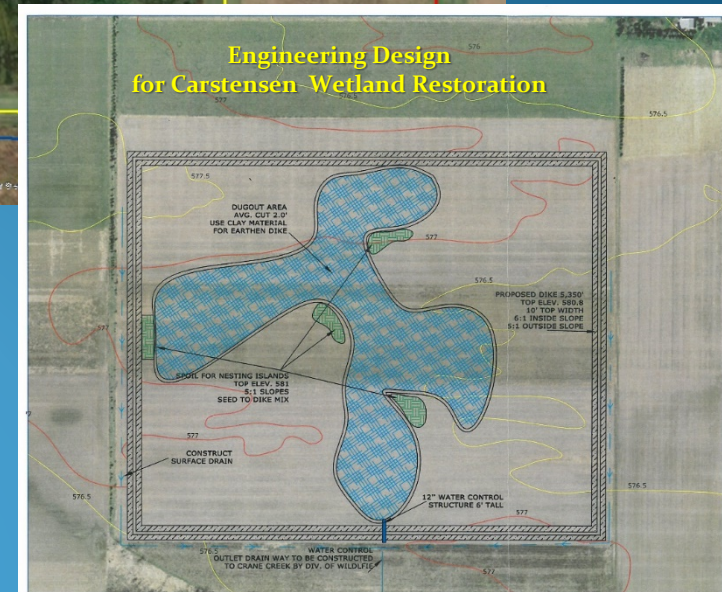
ODNR Director Mertz, ODNR DOW Chief Wecker, ODNR Private Lands Biologist Witt, Private Landowner Mr. Carstensen; on-site 10/16/2020

Carstensen Wetland Restoration

Aerial View of Carstensen Wetland Restoration

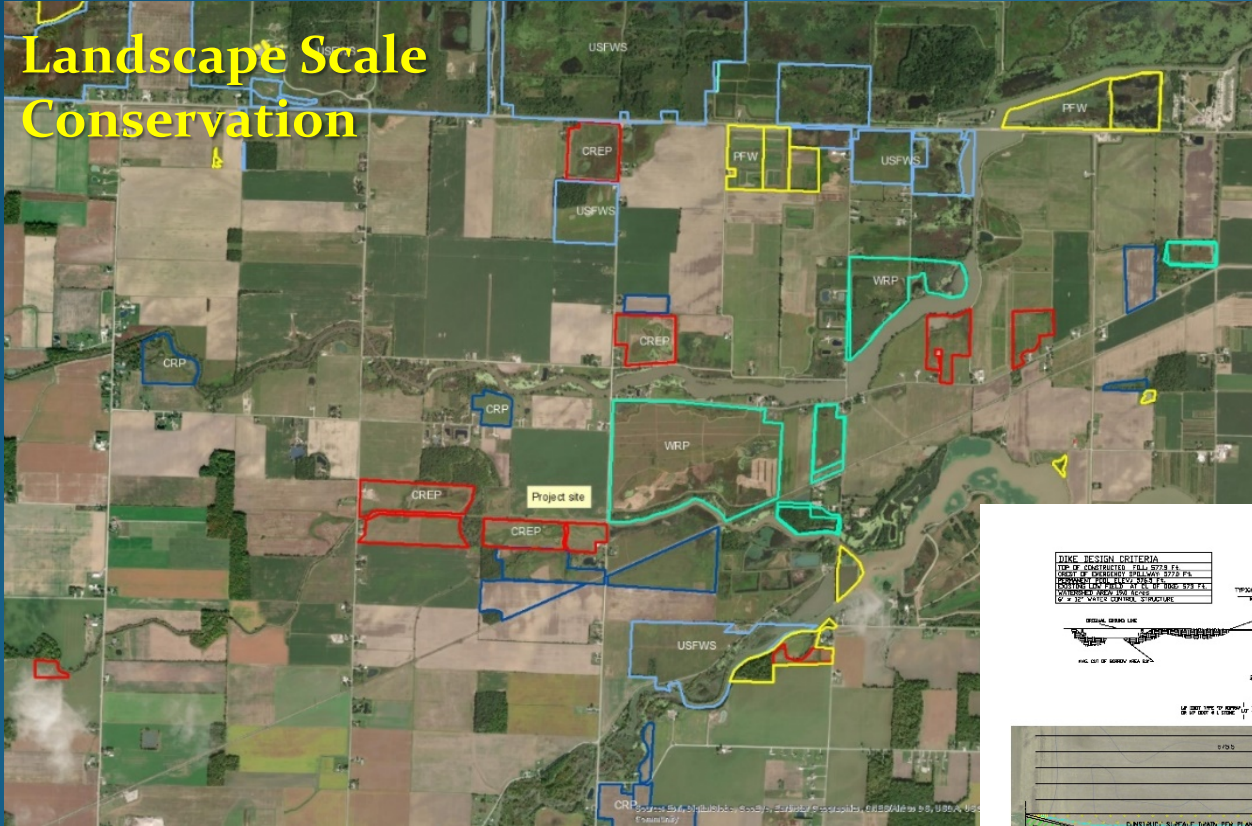


- The Carstensen wetland restoration transformed 50 acres of cropland into emergent wetland habitat.
- It pumps water from the Crane Creek Watershed into the wetland, where it is filtered before being released back into the watershed. The project cost \$216,000.00
- The Herman wetland restoration transformed 105 acres of cropland into emergent wetland/grassland.



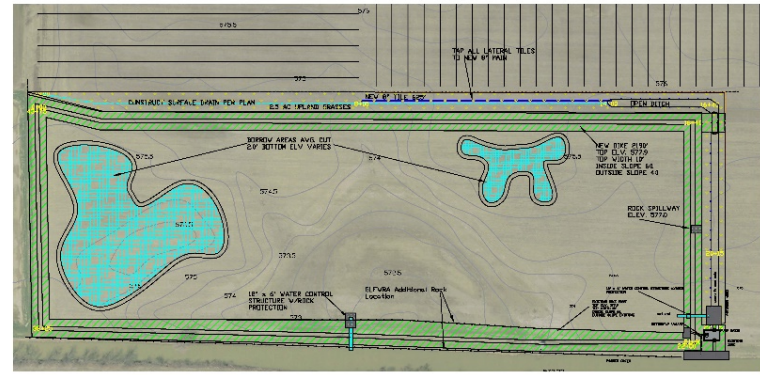
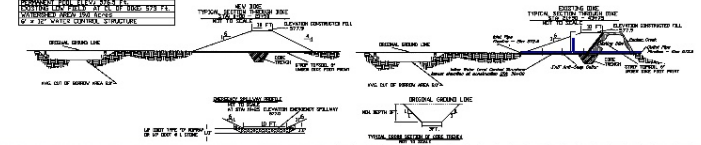
Gatorland Wetland Restoration & Drainage Management

Landscape Scale Conservation



Wetland Engineering Design For Gatorland Wetland Restoration & Drainage Management Project

DUNE DESIGN CRITERIA	
TYPE OF CONSTRUCTION	TYPE III
DESIGN WIND SPEED	150 MPH
DESIGN WAVE HEIGHT	10 FT
DESIGN WAVE PERIOD	10 SEC
DESIGN WAVE DIRECTION	FROM SEASIDE
DESIGN WAVE VELOCITY	10 FT/SEC





Gatorland Wetland Restoration & Drainage Management



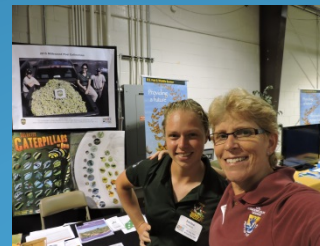
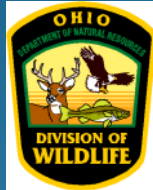
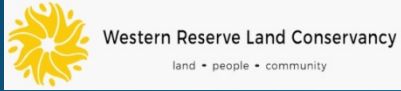
Aerial View of Gatorland Wetland Restoration & Drainage Management

65 acres of cropland that will be filtered through the wetland prior to entering the watershed, eventually ending up in Lake Erie

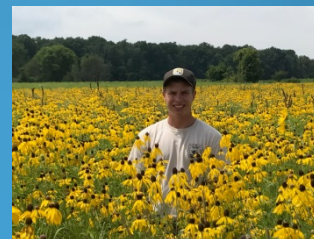
23 acre Wetland Restoration

- 23 acres restored from cropland to emergent wetland.
- 65 acres of cropland drainage is routed to the new pump house where it is pumped into the wetland area to be filtered before it eventually leaves the watershed with a reduced amount of nutrients and sediment.
- Normally cropland drainage would be directly routed to the creek without any filtering.
- \$151,000 restoration project.

Partnerships Private Landowners



Protect their lives. Preserve ours.





Thank you!



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Program

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