

MDEQ'S WETLAND BANKING PROGRAM



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WHAT IS WETLAND MITIGATION?

- Wetland mitigation is the replacement of unavoidably lost wetland resources with created or restored wetlands, in order to replace as fully as possible the functions and public benefits of the lost wetland

MITIGATION SEQUENCING

- Avoid
- Minimize
- Compensatory Mitigation

This sequencing is considered “mitigation” while replacement of wetlands is considered “compensatory mitigation” (As reflected in our new statute language and in the federal mitigation rule.)

WHEN IS MITIGATION REQUIRED?

- All projects impacting over 1/3 acre of wetland
- Projects under 1/3 acre of wetland if a reasonable opportunity for mitigation exists (wetland bank, on-site, other?)
- Mitigation is NOT required if the project meets a general permit (unless federally funded project) or if the basic purpose is to restore or create wetlands
- All transportation projects using federal funding for any phase

TRADITIONAL MITIGATION PRACTICES

- Focus on on-site
- Permit by Permit
- Extensive excavation
- Poor understanding of hydrology/vegetation relationships

NATIONAL RESEARCH COUNCIL FINDINGS (2001)

- “No net loss” is not being met
- Watershed approach would improve decision making
- Performance standards often unclear
- Technical support should be available
- Third-party compensation offers advantages (i.e. wetland banking)

SHIFT TO WETLAND BANKING

- 2008 Federal Mitigation Rule
- 2009 Amendments to Part 303, Wetlands Protection
- Preference for wetland banking over project specific mitigation and preservation

WHAT IS WETLAND BANKING?

- Establishment of new wetland areas in advance of anticipated losses
- Provides “credits” on a per acre basis which can be used by bank sponsors or sold
- Credits service watersheds/ecoregions
- Preferred method of mitigation under federal and state statutes

WHAT WETLAND BANKING IS NOT

- Existing wetlands (i.e. preservation sites)
 - Limitations for preservation under current rules
- Wetlands that are created for a project that have “extra” credits available
- Pre-Mitigation sites that are constructed in advance of impacts
- Any other wetland mitigation site that does not have a signed banking agreement with DEQ prior to establishment

REQUIREMENTS FOR WETLAND BANKS

- 10 acres minimum size requirement
- Coordination with DEQ including signed banking agreement prior to construction
- Conservation easement
- Long term management plan and appropriate long term funding mechanism
 - Non-wasting endowment
 - Stewardship Agreement with Conservancy

WHY WETLAND BANKING?

- National Research Council recommendation
- Preferred method under state and federal statutes
- Offers many benefits over project specific mitigation

BENEFITS OF WETLAND BANKING

■ State/Resource benefits

- Increase in state's wetland resources before impacts occur
- Larger better functioning wetlands
- Facilitates watershed planning approach

■ Applicant benefits

- Reduces permit processing times
- Ensures success and availability of mitigation

WETLAND BANK SERVICE AREA WATERSHEDS



WETLAND BANK SERVICE AREA ECOREGIONS

Figure 6. Regional Landscape Ecosystems of Michigan's Upper Peninsula

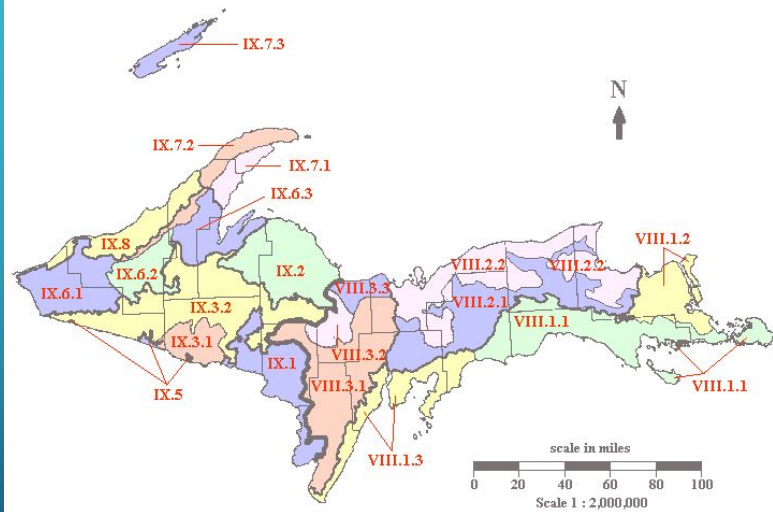
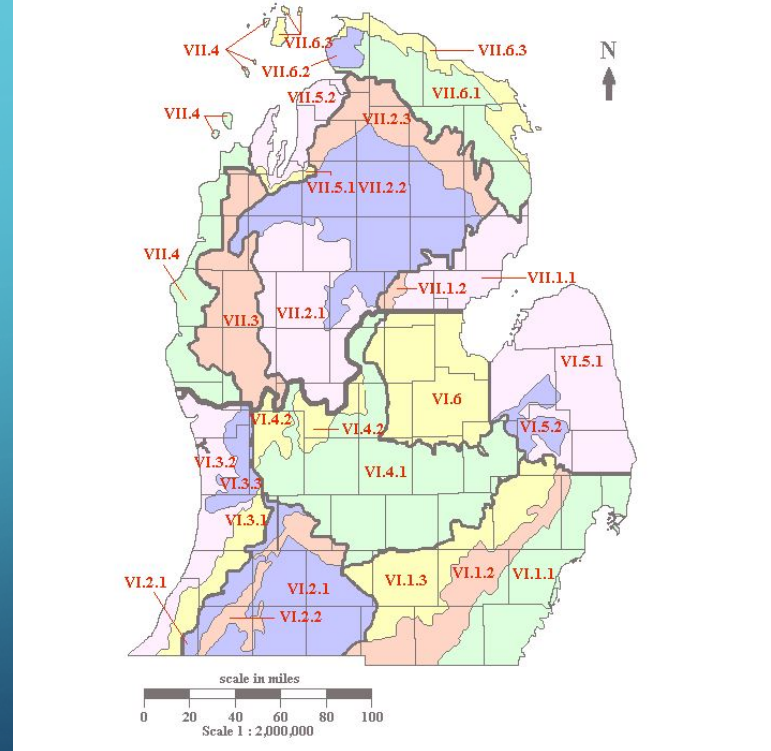
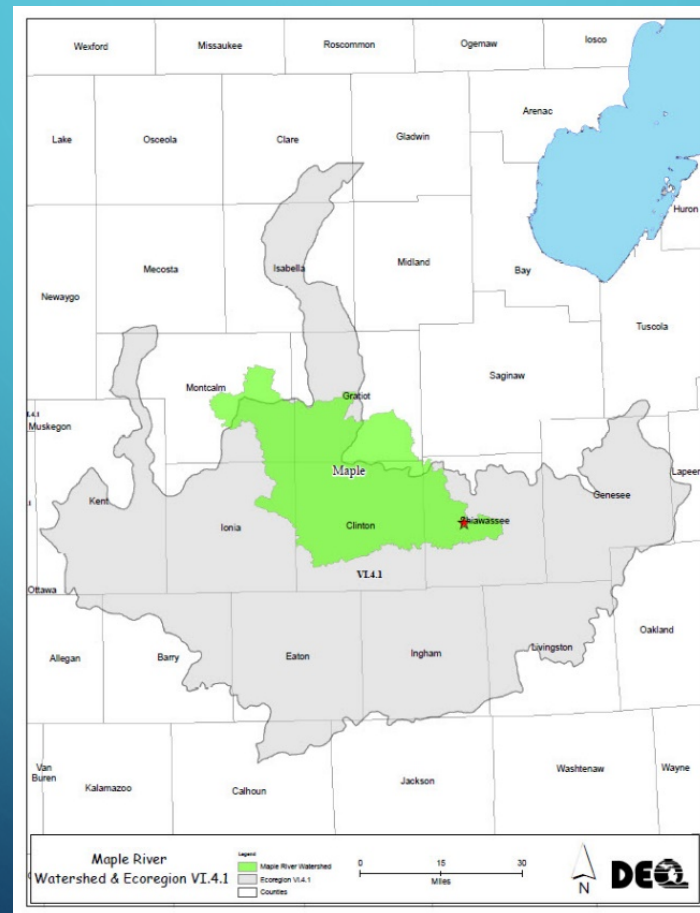


Figure 5. Regional Landscape Ecosystems of Michigan's Lower Peninsula



EXAMPLE BANK SITE SERVICE AREA



MDEQ WETLANDS MAP VIEWER

DEQ Wetlands Map Viewer
Department of Environmental Quality



Map View [Search Tools](#) [Share](#)
Map Legend [Base Maps](#) [About](#)

Map Legend

Change what items you see on the map by using the checkboxes

- Wetland Data**
 - Wetland (Hydric) Soils
 - National Wetlands Inventory 2005
- Potential Wetland Restoration**
 - Highest Potential - Hydric and Presettlement Wetland Overlay
 - High Potential - Hydric Soils Only
 - Moderate Potential - Presettlement Wetlands Only
- Part 303 Final Wetlands Inventory**
 - Wetlands as identified on NWI and MIRIS maps
 - Soil areas which include wetland soils
 - Wetlands as identified on NWI and MIRIS maps and soil areas which include wetland soils
- Stream Data**
- Coastal Data**



MDEQ WETLANDS MAP VIEWER

DEQ Wetlands Map Viewer
Department of Environmental Quality



- ▶ Stream Data
- ▶ Coastal Data
- ▼ Other Data
 - Conservation and Recreation Lands
 - County
 - Federal
 - Local
 - NGO
 - Native
 - American Lands
 - Private
 - State
 - Unknown
 - Undetermined
 - Mitigation Watersheds
 - DEQ ECOREGIONS
 - DEQ Conservation Easement
 - Lake Contours
 - Town Range
 - Public Land Survey System - Sections Extended



MDEQ WETLANDS MAP VIEWER



Measure Select

Details

Area Info

Place:	Mt Pleasant	Highlight
County:	Isabella	Highlight
TRS:	14N04W27	Highlight

Identify Coordinates

Long:	-84.77173
Lat:	43.58020

HUC Data

3 Result(s) Found

Map Information

Mitigation Watersheds:	32E
DEQ Eco-Region:	VI.4.1

Part 303 Wetland Data

No Wetland layers are present at the map point.

Clear

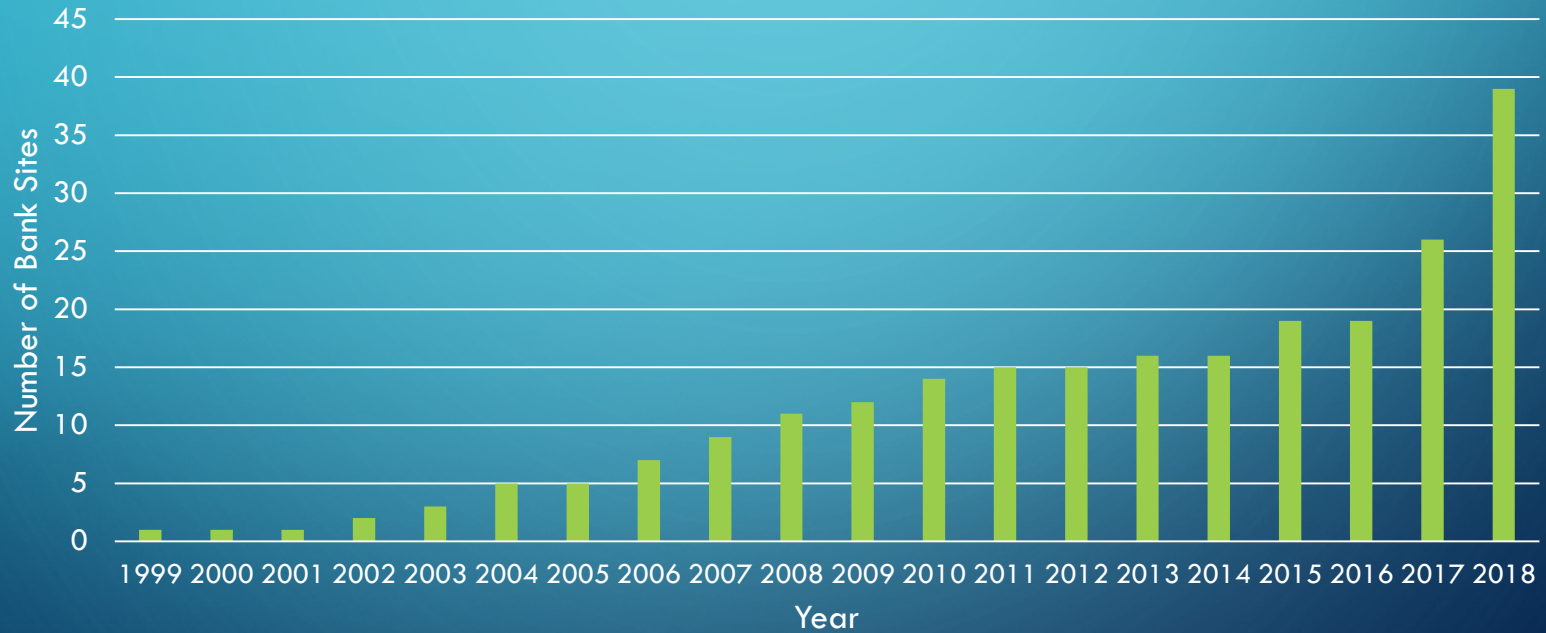


CURRENT STATUS OF WETLAND BANKING IN MICHIGAN

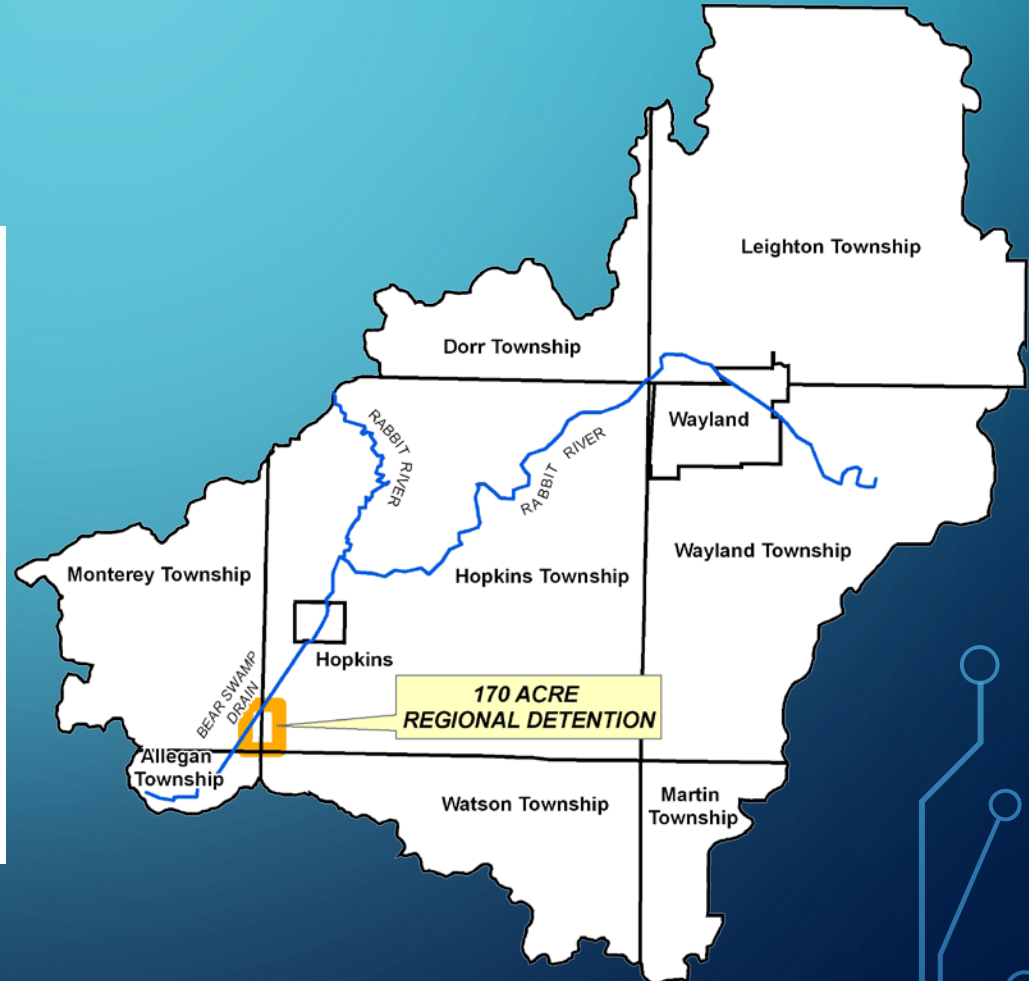
- 30 bank sites on MDEQ Registry
- Increase in demand for wetland banking
 - New legislation
 - Shift in internal culture
 - Shift in consultant community
- In 2019, 20 additional sites (10 commercial banks, 4 municipal banks, 5 MDOT banks)
- DEQ Banking Grant and Loan Program

WETLAND BANKING TRENDS

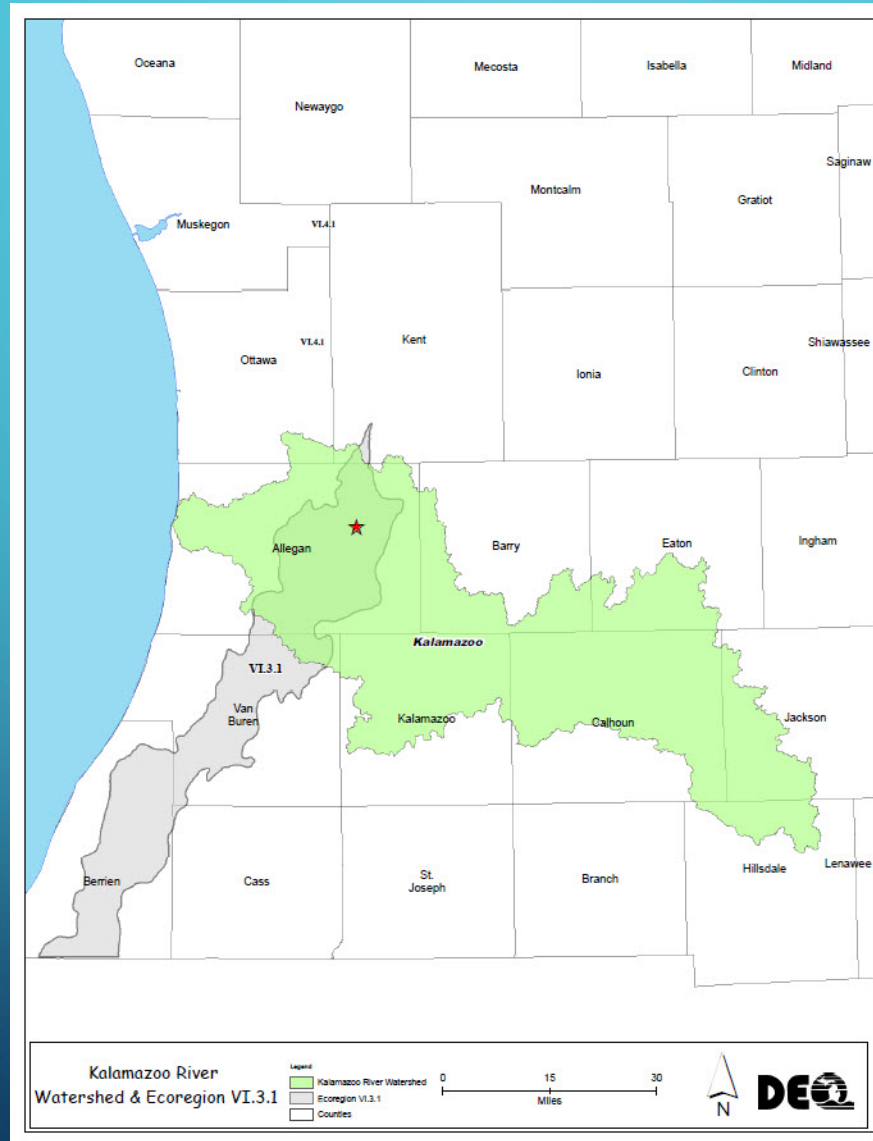
Wetland Bank Sites in Michigan by Year



BEAR SWAMP DRAIN WETLAND BANK



SERVICE AREA FOR BEAR SWAMP



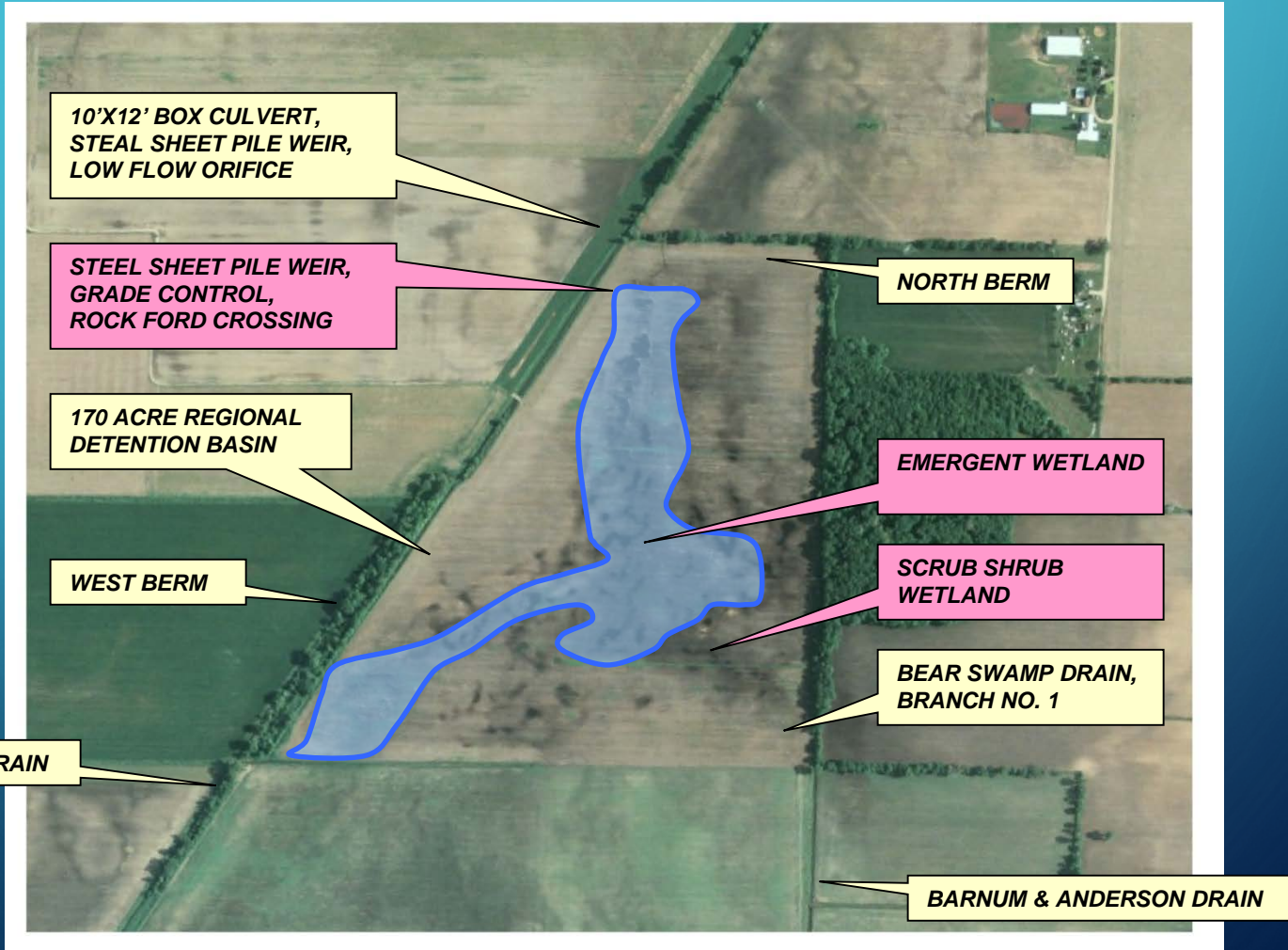
GOALS OF BEAR SWAMP PROJECT

- Provide flood detention during periods of high flow in Bear Swamp Drain to alleviate flooding in the Village of Hopkins
- Improve water quality
- Provide wildlife habitat for resident and migratory birds, aquatic habitat for amphibians, reptiles, fish and aquatic invertebrates
- Provide future funding for other flood storage projects in the watershed through the sale of bank credits

PROJECT SPECIFICS

- 100+ acre parcel for flood storage
- 53.6 acres of wetland bank proposed
- Site consists of muck soils
- Tile drained with history of farming
- Signed banking agreement in 2007
- Construction in 2007
- Monitoring 2008 to 2012

CONCEPTUAL DESIGN



PRE-CONSTRUCTION



CONSTRUCTION—FALL 2007

- 64 acres native wetland seed (includes berm)
- 36 acres live staking
- 450 woody habitat structures
- 12 sand mounds



POST CONSTRUCTION—FALL 2008



AERIAL COMPARISON



CURRENT CONDITIONS



FINAL RESULTS

- 5 years of monitoring
- Full credit approval/release
 - 42.8 acres emergent
 - 3.1 acres scrub-shrub
- Site is listed on MDEQ bank registry
- Recent credit sale
- Currently undergoing Long Term Management/Maintenance

QUESTIONS?

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