Holland Country Club – Golf Course to Wetlands

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NISWANDER ENVIRONMENTAL

OTTAWA COUNTY PARKS:
Focusing on large, natural resource-based parks

Rosy Mound Natural Area

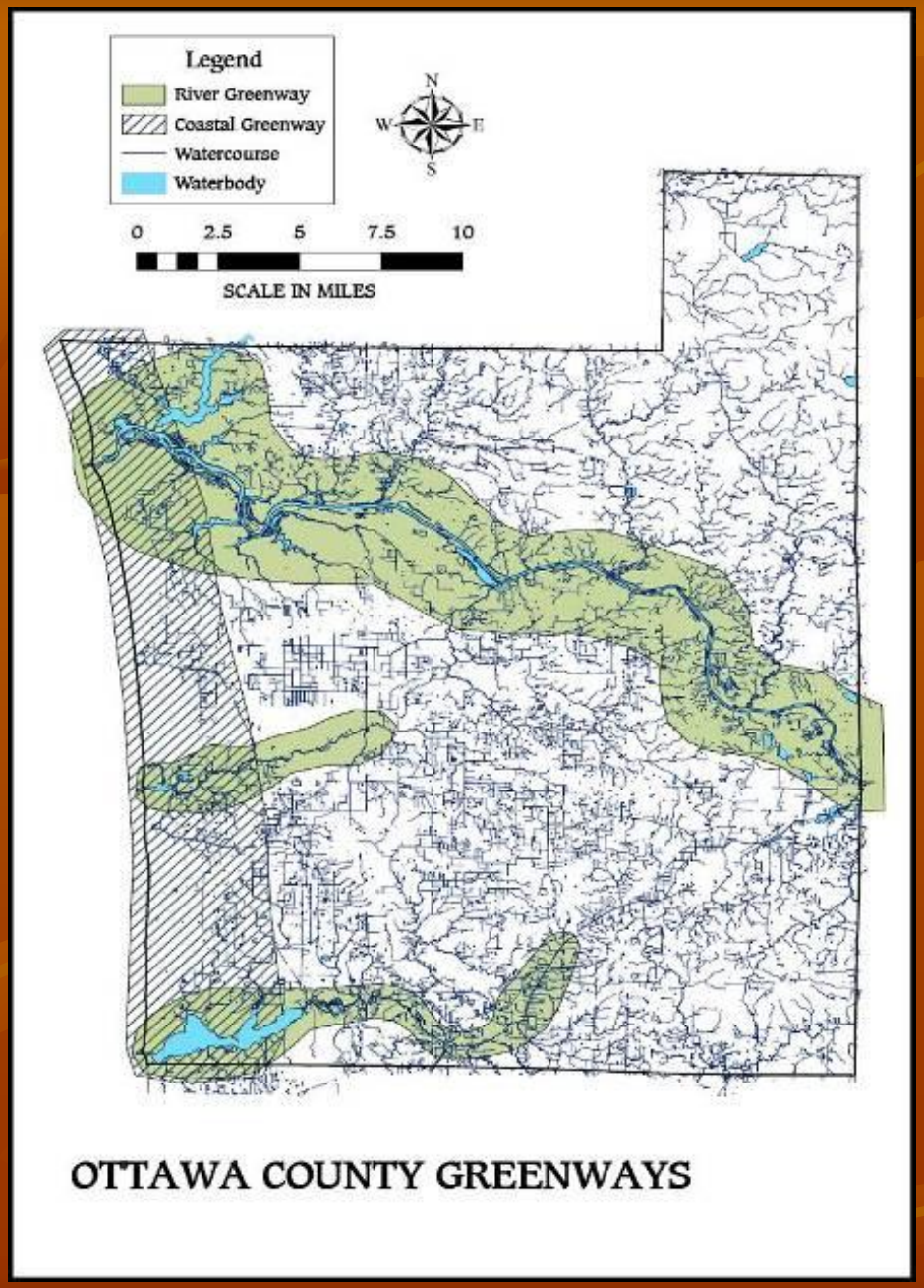
Crockery Creek
Natural Area

Growing Focus on Natural Community Restoration

GRAND HAVEN
TRIBUNE
FRIDAY, September 7, 2012
www.grandhaventribune.com
50¢ Weekday, $1.00 Saturday
Best U.S. beaches here
Holland second happiest
in nation

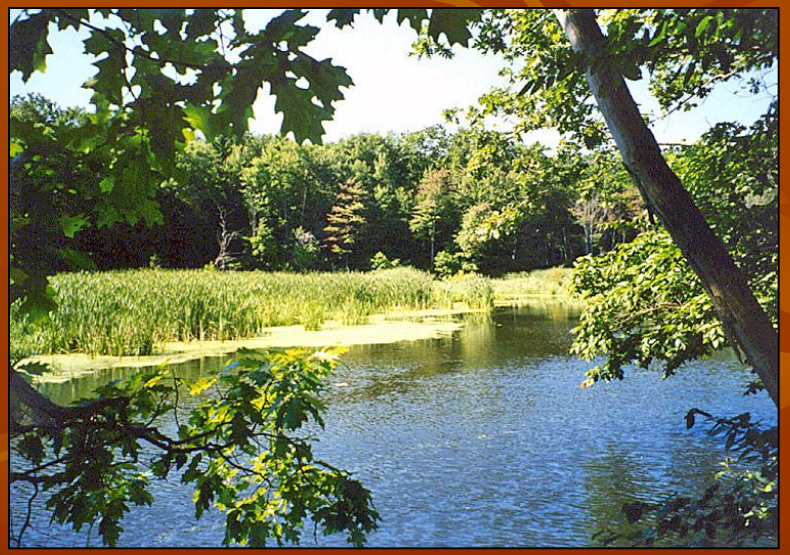
2009/07/04

2009/07/04



- LAKE MICHIGAN COASTAL GREENWAY
- GRAND RIVER GREENWAY
- PIGEON RIVER GREENWAY
- MACATAWA RIVER GREENWAY

Greenways improve water quality by creating a natural buffer zone that protects streams and rivers; by preventing soil erosion; and by filtering pollution caused by agricultural and road runoff.



Macatawa Watershed Project

- 1970s-1995: Degraded water quality, high nutrients, algal blooms: hyper-eutrophic lake
- 1996 : put on 303 d list for nonattainment
  - DEQ received EPA Grant
  - Main problem: Phosphorus
  - Develop Total Maximum Daily Load (TMDL)
- Goal Set – 70% Phosphorus Reduction
  - Annual load was 126,100 lbs – 138,500 lbs P
  - 90% coming from non point sources
  - Goal was set at capping P inputs at 55,000 lbs/yr

Watershed Plan Goals

Implement Best Practices

- Buffer/filter strips
- Education
- Planting native vegetation
- Improve stream crossings
- Wetland construction in suburban areas, agricultural areas and in relation to construction projects.

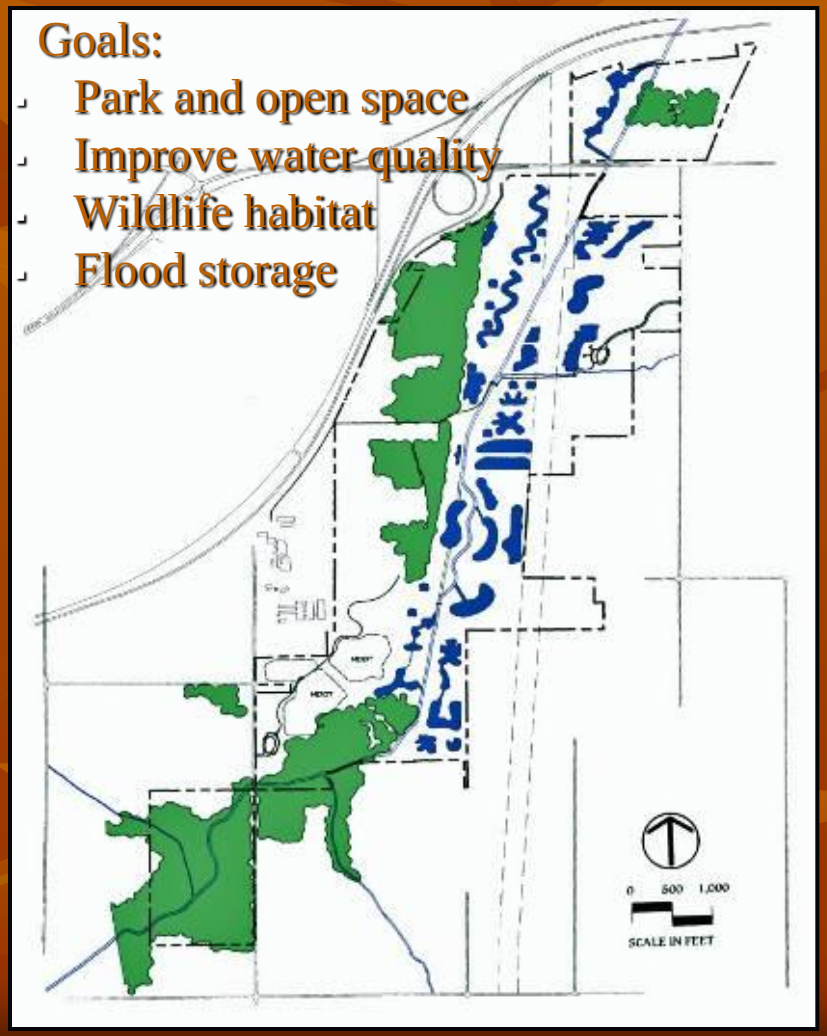
Challenges in Finding Macatawa Park Land

612 Acre Upper Macatawa Natural Area

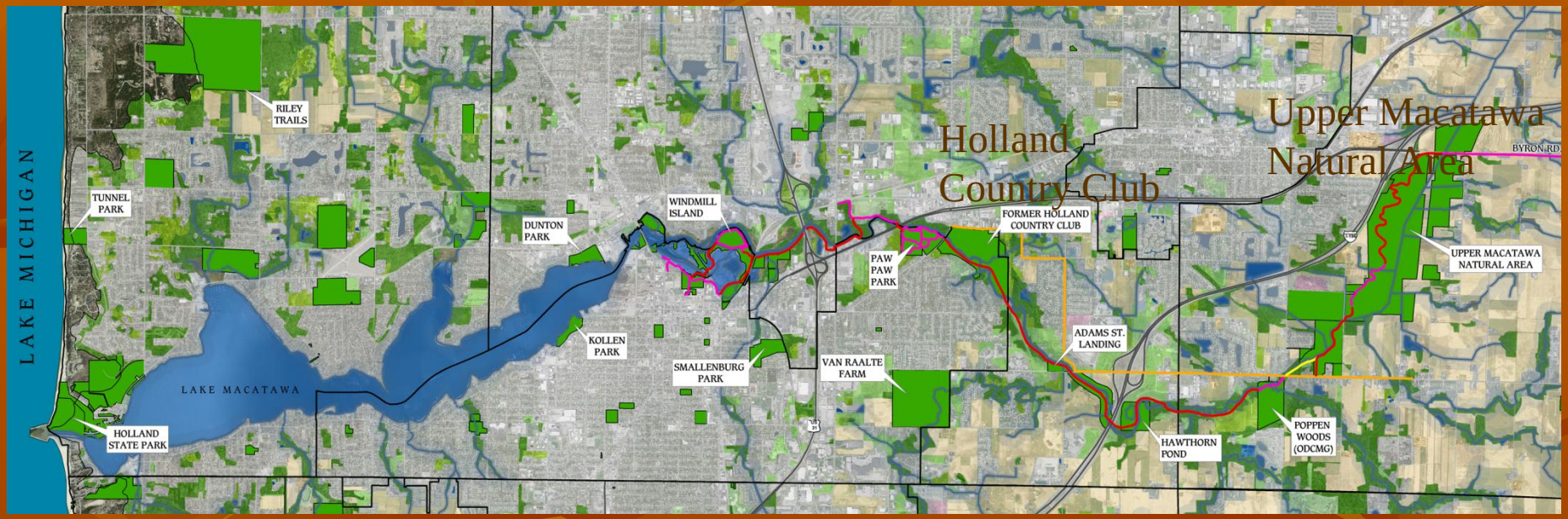
JF New provided consulting assistance with 150+ acre wetland restoration with a series of treatment wetlands, 1,600 feet of river relocated and re-meandered , ditches re-routed.

Diverse partners:

- ODC Macatawa Greenway
- Macatawa Watershed Project
- USDA /NRCS
- Ducks Unlimited
- Land Conservancy of West Michigan
- Michigan DEQ
- Michigan Department of Transportation
- Ottawa Conservation District



122 Acre Holland Country Club Property Becomes Available



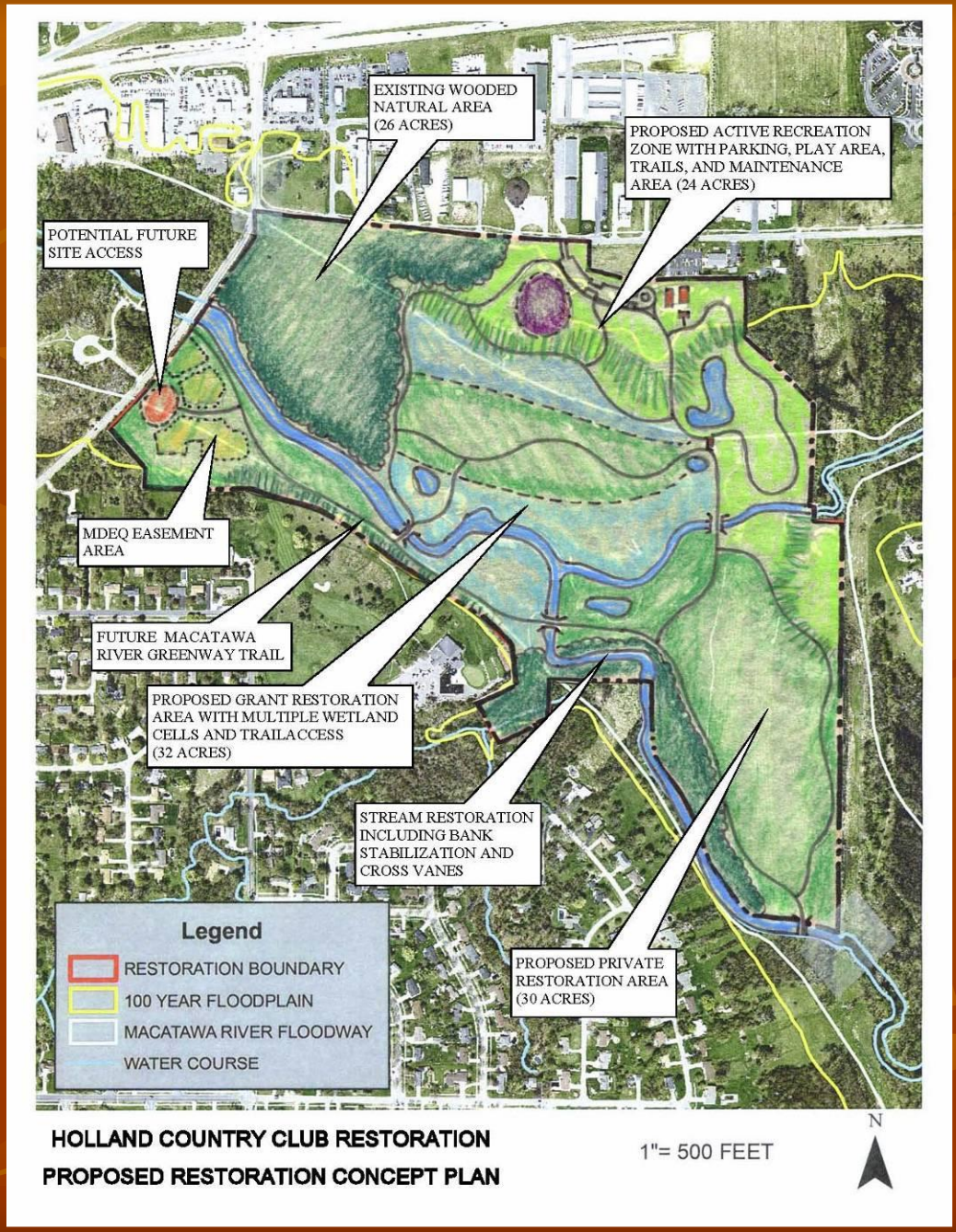
$450,000 purchase from Macatawa Bank

$70,000 donations spearheaded by the Outdoor Discovery Center Macatawa Greenway Partnership

Site Acquired in 2010

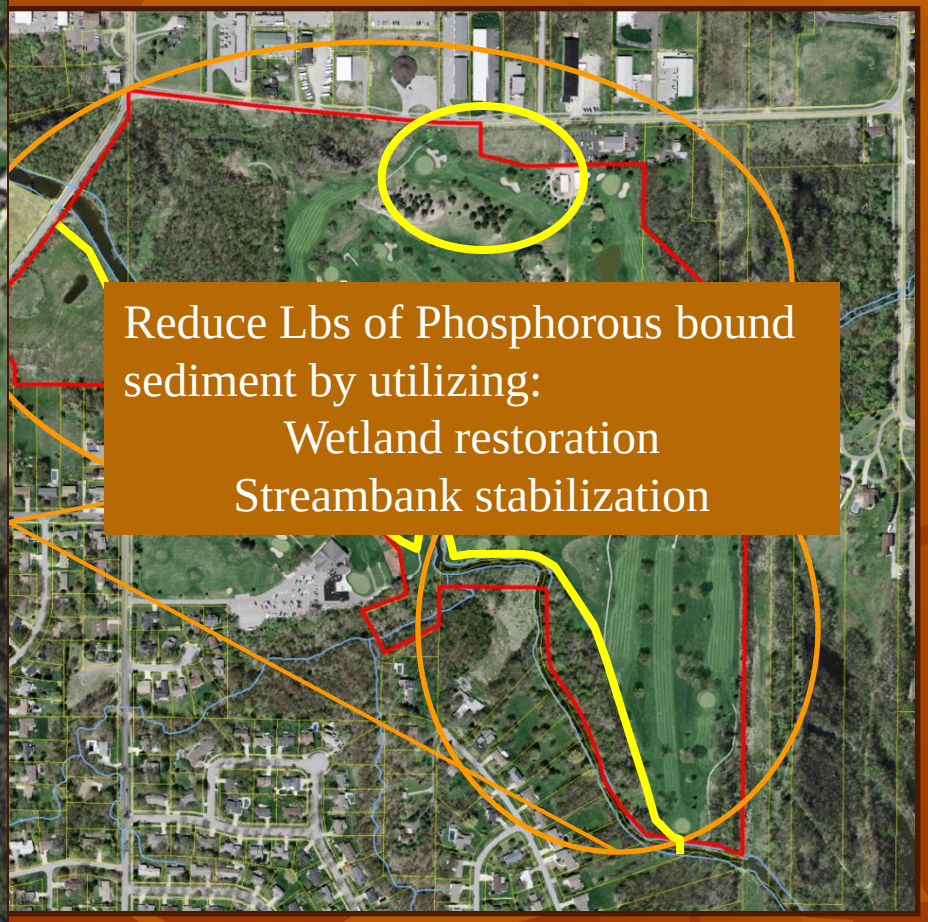
Holland Country Club Restoration Planning

- Niswander Environmental searching for mitigation site and public private partnership.
- EPA announces first round of Great Lakes Restoration Initiative grants.
- Project partners brainstorm initial concept with Niswander Environmental and grant submitted.
- Request Foods – 22 acre wetland mitigation project approved.
- EPA Grant – 32 acre wetland restoration approved
- Multi-purpose project with wetland/water quality focus.



Holland Country Club Site Challenges & Design

Golf Course to Wetlands Takes Shape



Reduce Lbs of Phosphorous bound sediment by utilizing:

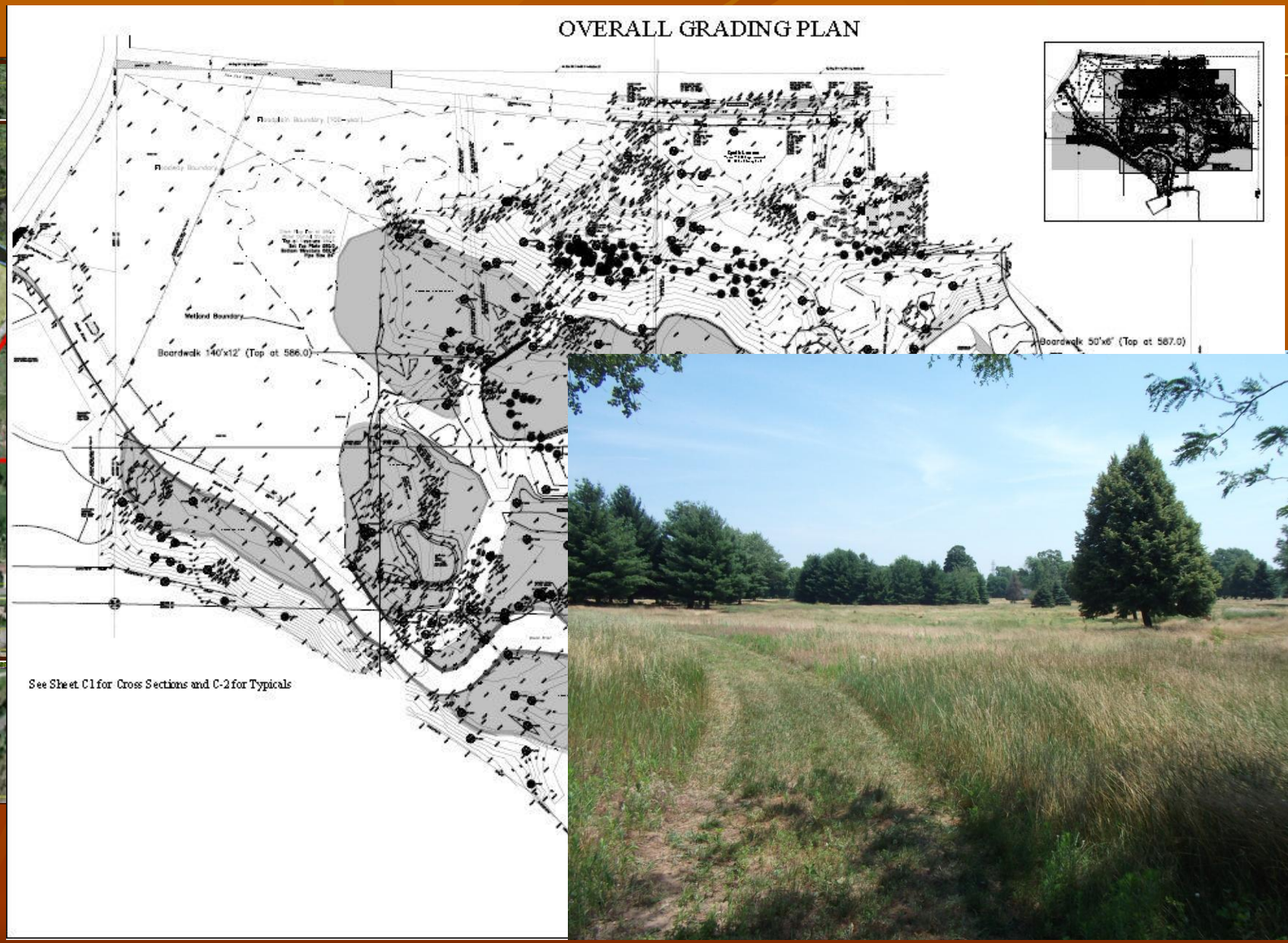
Wetland restoration

Streambank stabilization

- Phase II: Wetland, Stream, and Prairie Restoration

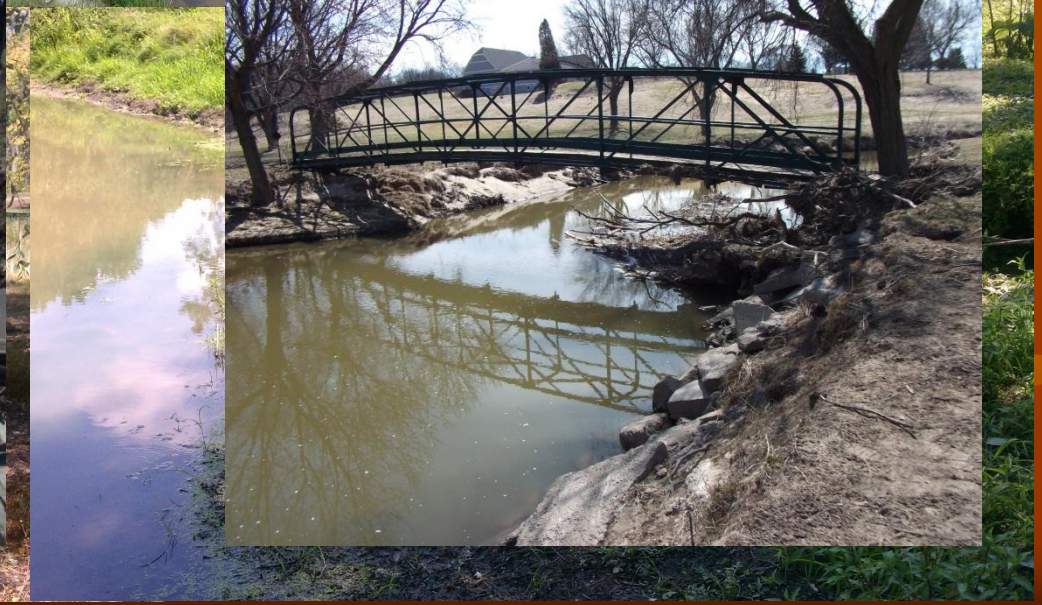
Site Challenges & Design

oos/



Site Challenges & Design

- nfluence of Noordeloos/
  acatawa & Flooding
- storical Location
- rge Trees
- ail systems
- rk amenities
- unty Drain & Unknown
  ain Systems



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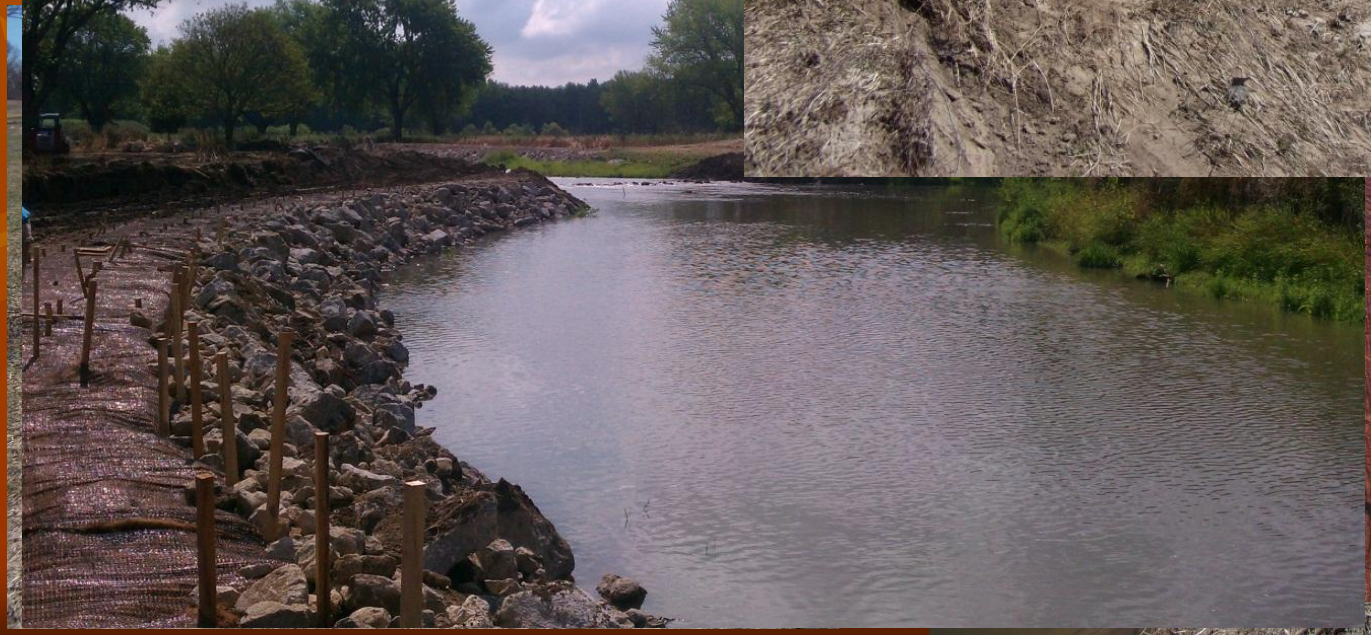
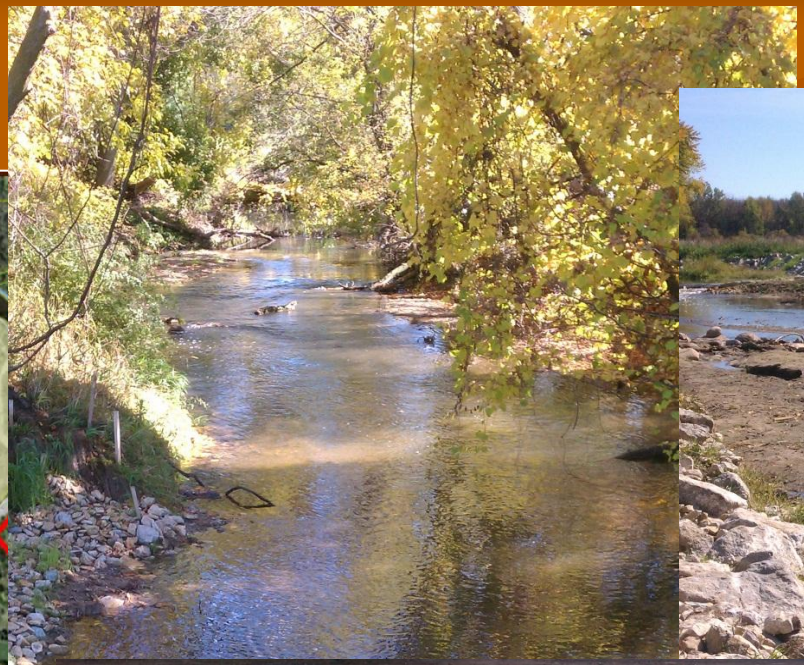
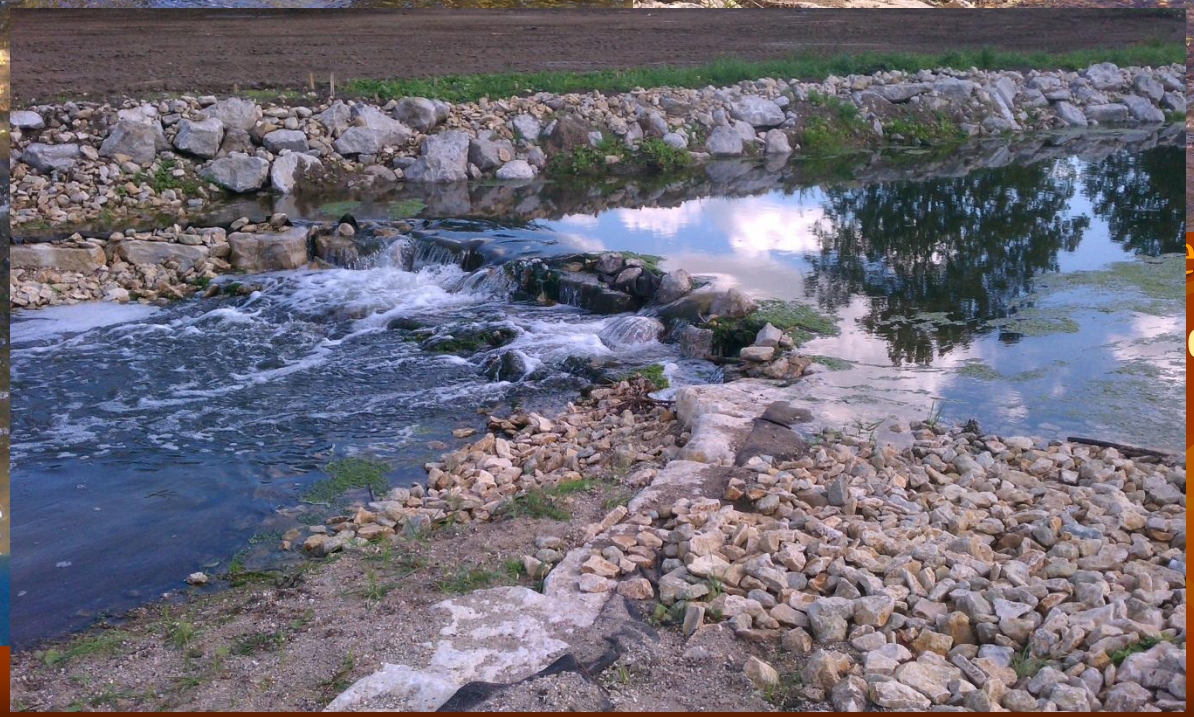


Site Challenges & Design





oos/

n

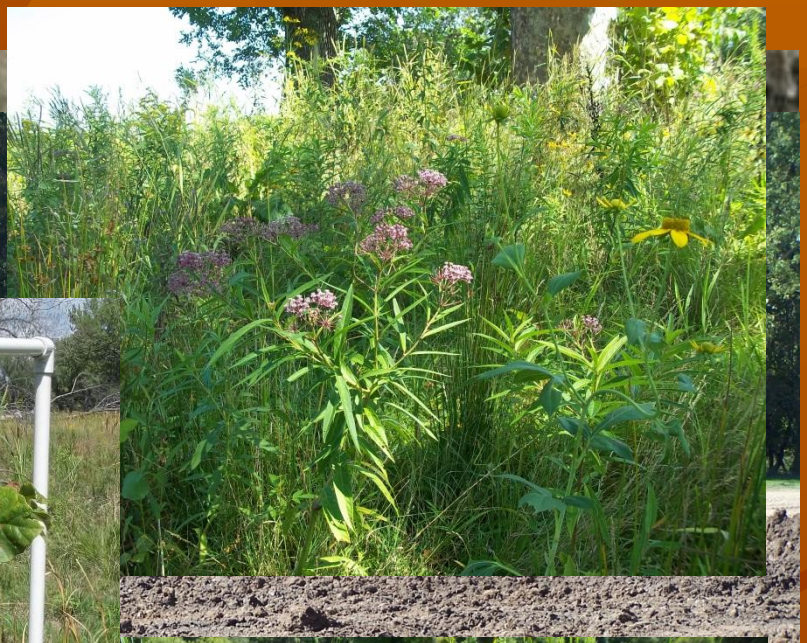
eambank Stabilization

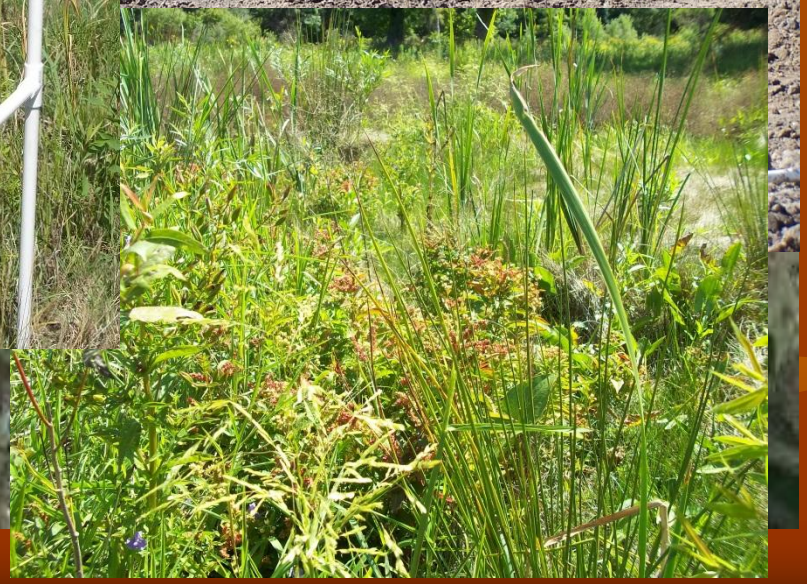
er Grade Changes

Phase I - Mitigation

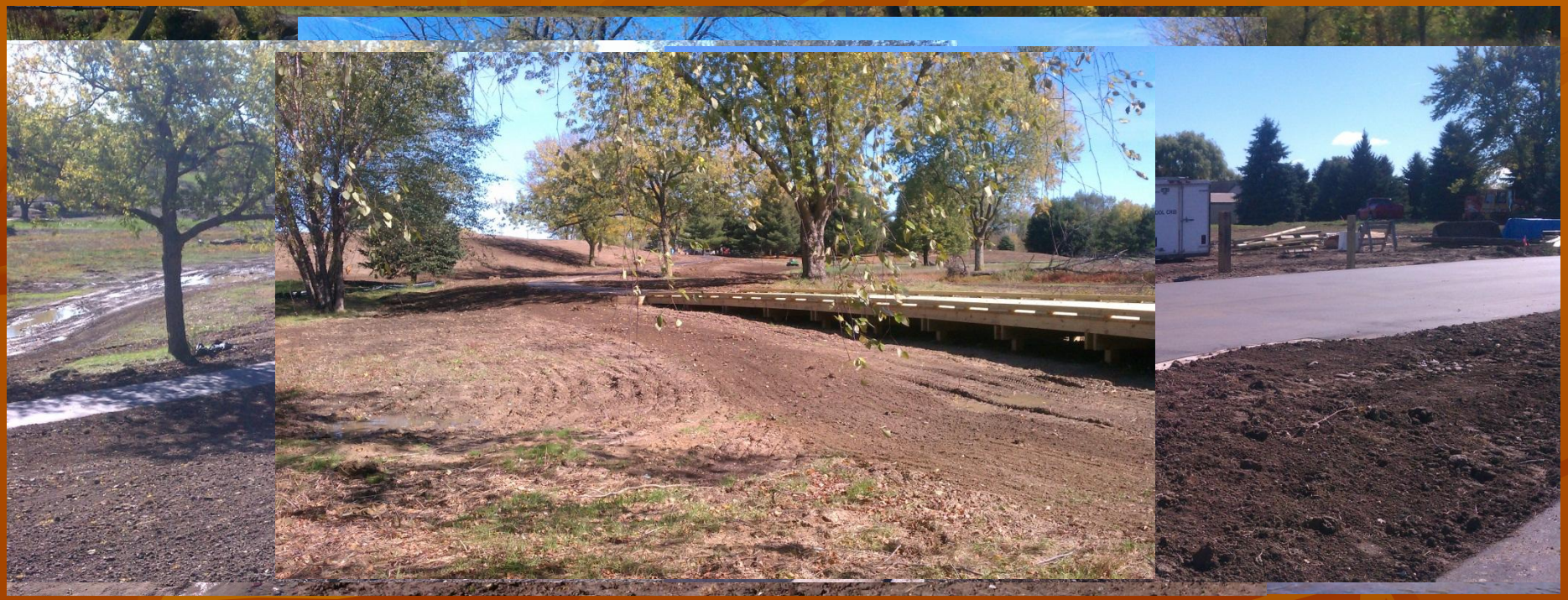
Project Summary

- Designed & Constructed in 2010 by Niswander Environmental
- 70,000 cyd additional floodplain storage
- Removal of drain tiles and pump cistern
- Base for park & trails
- 22 acres wetland seed,
  6 acres prairie seed
- 8,400 trees installed





Phase II - Restoration



Project Summary

- Designed in 2011 by Niswander Environmental
- Contractor selected July 2011 TopGrade Site Mgt.
- Northern tier completed 2011, Rest 2012
- 60,000 cyd addtl floodplain storage
- Removal of drain tiles and pump cistern
- Trails & parking lot paved, boardwalks installed
- 32 acres wetland seed, 9 acres prairie seed
- 5,000 feet of streambank stabilized

Macatawa River Greenspace Golf Course to Wetlands

- Future
  - EPA Reporting and Close-out
    - STEPL Model
  - Park Opening
  - Greenway Trail Extension – Other Projects
  - Outdoor Discovery Center Stream Monitoring

Questions

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