



2016 Areas of Concern Conference

“Maintenance and Monitoring of GLRI Habitat Projects”



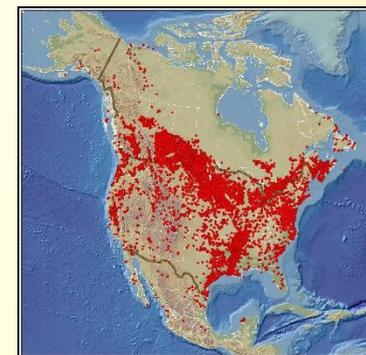
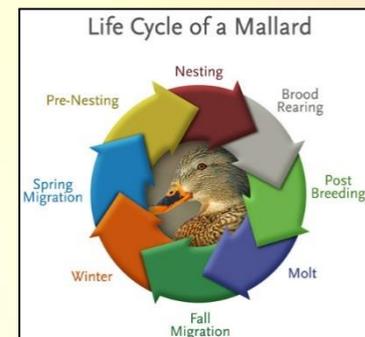
*Jason Hill
Manager of Conservation Programs –MI/WI
Great Lakes/Atlantic Region*

Leader in Wetlands Conservation
DUCKS UNLIMITED



Who is Ducks Unlimited?

- World's largest non-profit wetland conservation organization
- Mission: conserve waterfowl by conserving their habitats
- Grassroots organization with paid conservation staff
- NHQ in Memphis; 4 regional offices; Gov't Affairs in D.C.
- Conserved over 13.4 million acres; Established 1937
- Partners, partners, partners!
- Not a hunting or advocacy group – Wetlands Conservation!



Leader in Wetlands Conservation
DUCKS UNLIMITED





Great Lakes/Atlantic Regional Office

- Biologists, professional engineers, surveyors, construction managers, GIS, lands specialist, policy experts, fundraisers, contract compliance, communication, planning...**a full service shop!**
- Annually conserve >20,000 acres of wetlands and related habitats
- Develop partnerships, write/administer complex grants, **engineering**



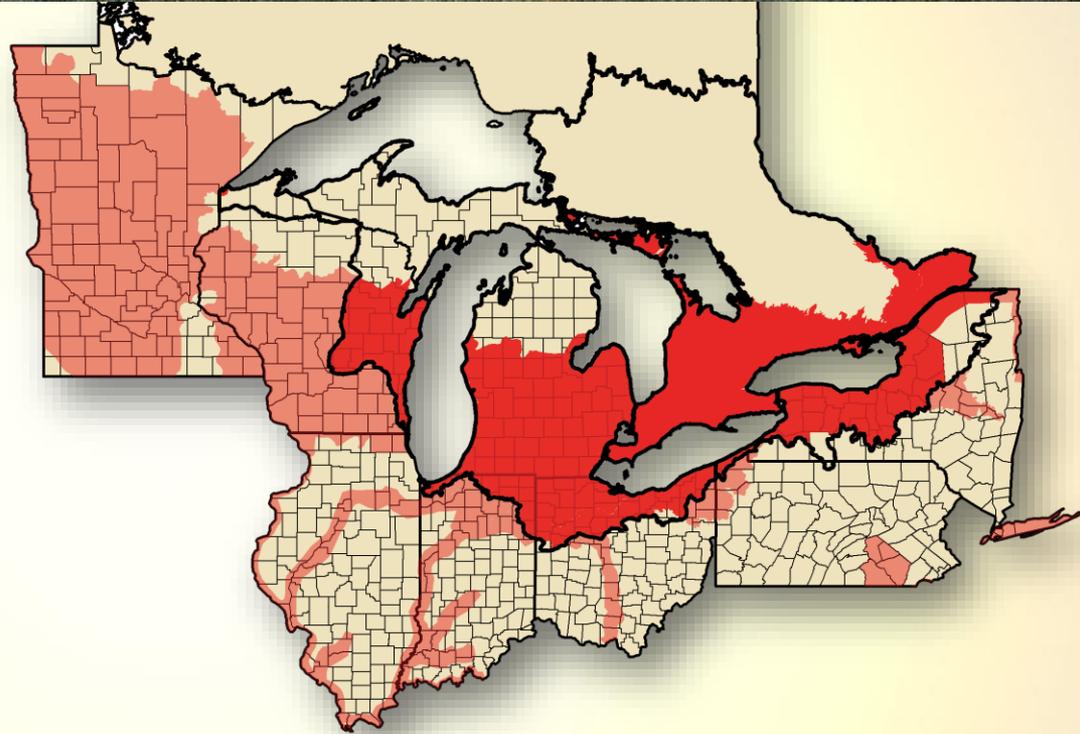
Leader in Wetlands Conservation
DUCKS UNLIMITED



GREAT LAKES INITIATIVE

CONSERVATION FOCUS:

Maximize benefits for migrating and breeding waterfowl by restoring, enhancing and protecting wetland and grassland complexes that include coastal and riparian marshes and small interior wetlands on public and private lands



Leader in Wetlands Conservation
DUCKS UNLIMITED





Great Lakes Restoration Initiative



Leader in Wetlands Conservation
DUCKS UNLIMITED

- 58 projects; over 75 unique partners; over 16,000 acres conserved or ongoing; over \$27M GLRI dollars invested!



Maintenance is Critical to Success

\$2.2B GLRI investment on 2,900 projects totaling
over 150,000 acres!

Great Lakes
RESTORATION



"We're committed to creating a new standard of care that will leave the Great Lakes better for the next generation."

How do we better develop and implement maintenance actions on these project? For the long-term...

Leader in Wetlands Conservation
DUCKS UNLIMITED



Maintenance Considerations

Immediate considerations with long-term adaptive approach:

- Past project experience and lessons learned (1980's)
- Pre-planning and ownership considerations
 - ✓ staff and equipment capacity for management
 - ✓ Support for project
 - ✓ Site location and accessibility
 - ✓ Existing master plan or site management plan
- Agreements - 30 year DU with landowners to maintain infrastructure and manage habitat (10 years – private lands)
- Grant flow-down requirements to partners

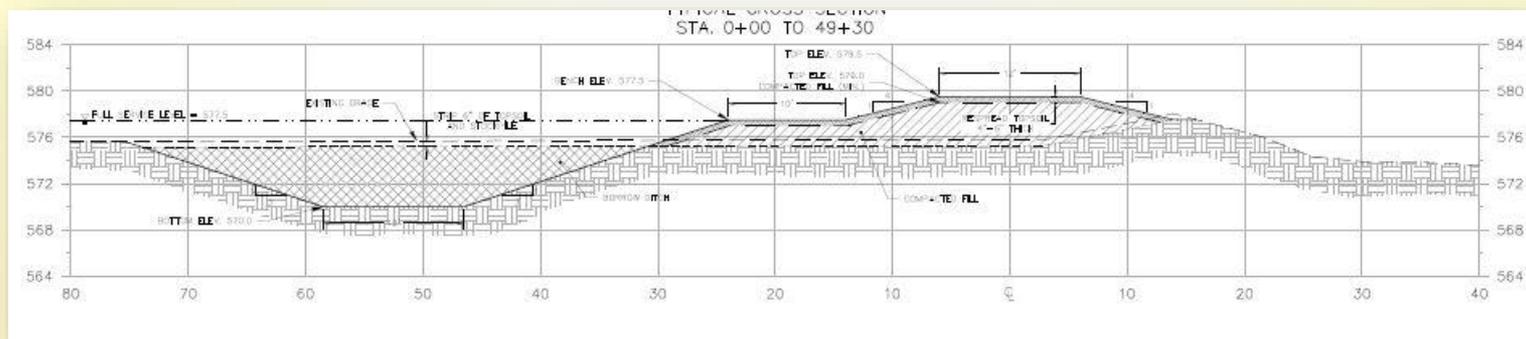




Project Design Implications

DU design features that aim to reduce maintenance and improve management:

- Full round water level control structures and beaver deceivers
- Aluminum stoplogs; flap logs, and power lift options on gates
- Berms - rat bench; cyclone fence; large top width and gradual slopes



Leader in Wetlands Conservation
DUCKS UNLIMITED



Project Design Implications

- Materials that increase life-span and reduce costs
- Tools (water level control) to improve invasive species control
- Installing pump houses and gates to protect infrastructure
- lights on pumps, automation, underground electric
- Climate resiliency – predicted G.L. water level fluctuations
- DU provides landowners with an owners manual



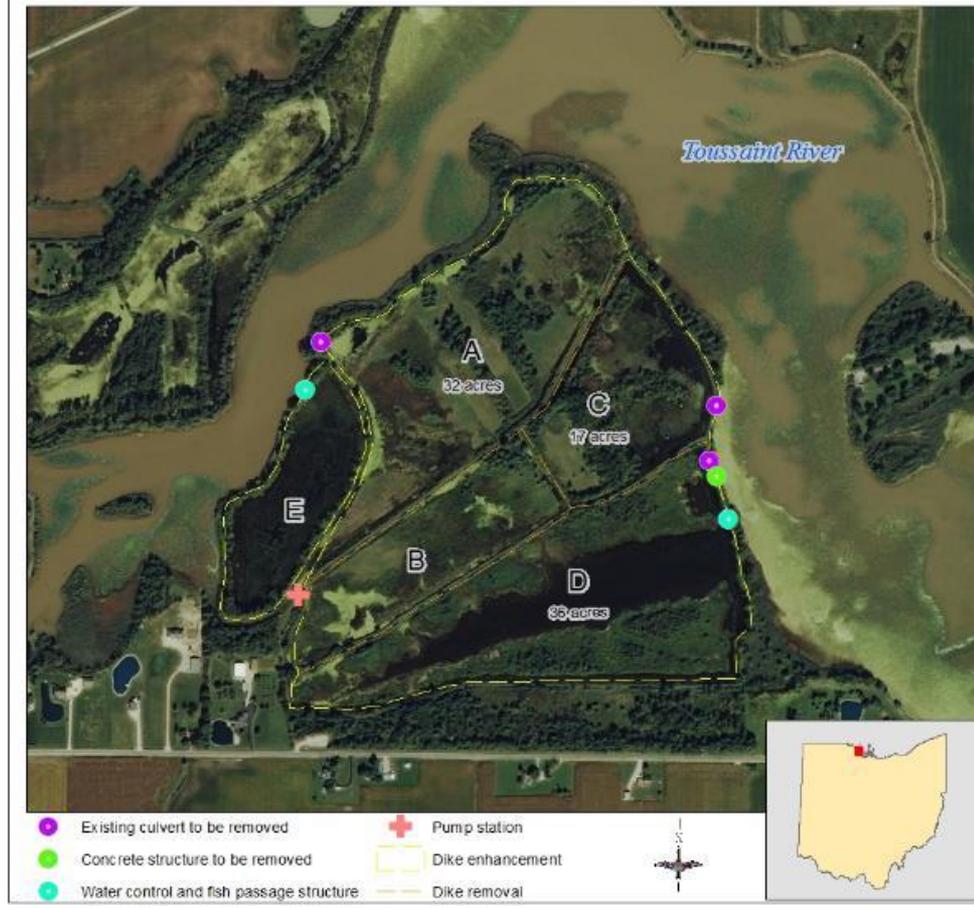


Toussaint Wildlife Area

- Install water control & fish passage structure to restore connection between Unit D and river (125 ac.)
- Remove 3 existing but failed culverts & gates and a concrete headwall
- Renovate 800' of exterior dike
- Remove sections of Unit C/D & Unit A/C interior dikes to restore hydrological connectivity and fish access



Figure - 2. Toussaint Wildlife Area Engineering Design.





Monitoring Challenges

- Often required to receive GLRI funding – GOOD!
- What to include and how robust a plan?
- Short project timelines (pre, during and post project)
- Costly - contracting expense to lean project budgets
- Consistency - Anchor Bay/St. Clair Flats Phrag Control
- Great Lakes Coastal Wetland Monitoring Consortium





GLRI Restoration Success



Leader in Wetlands Conservation
DUCKS UNLIMITED



The End