

Integrated Watershed Management in TID



Background

- ▶ TID Strategic Plan
 - ▶ Goal 1: To Provide the Best Possible Water Quality
 - ▶ Objective 1.1: To understand our WQ through a WQ Monitoring Program
 - ▶ Through Agriculture and Forestry
 - ▶ Objective 1.2: Surface water mitigation program
 - ▶ Improve land management & stormwater control
 - ▶ Conveyance agreements (urban municipal, large)
 - ▶ Retention ponds, controlled drain inlets
 - ▶ Integrated water treatment systems (eg. constructed wetlands)
 - ▶ Objective 1.3: Screen systems at pipeline inlets, etc.
 - ▶ Mechanical screeners
 - ▶ Gabion walls

Water Quality in TID

- ▶ Consistently Good to Excellent
 - ▶ TID wants to maintain or improve this
- ▶ Some weed and algae issues affecting TID and on-farm operations
- ▶ Some need for WQ results for CanadaGAP® reporting
- ▶ Varies season to season
- ▶ Varies with precipitation, runoff rate/volume

Mitigation Planning

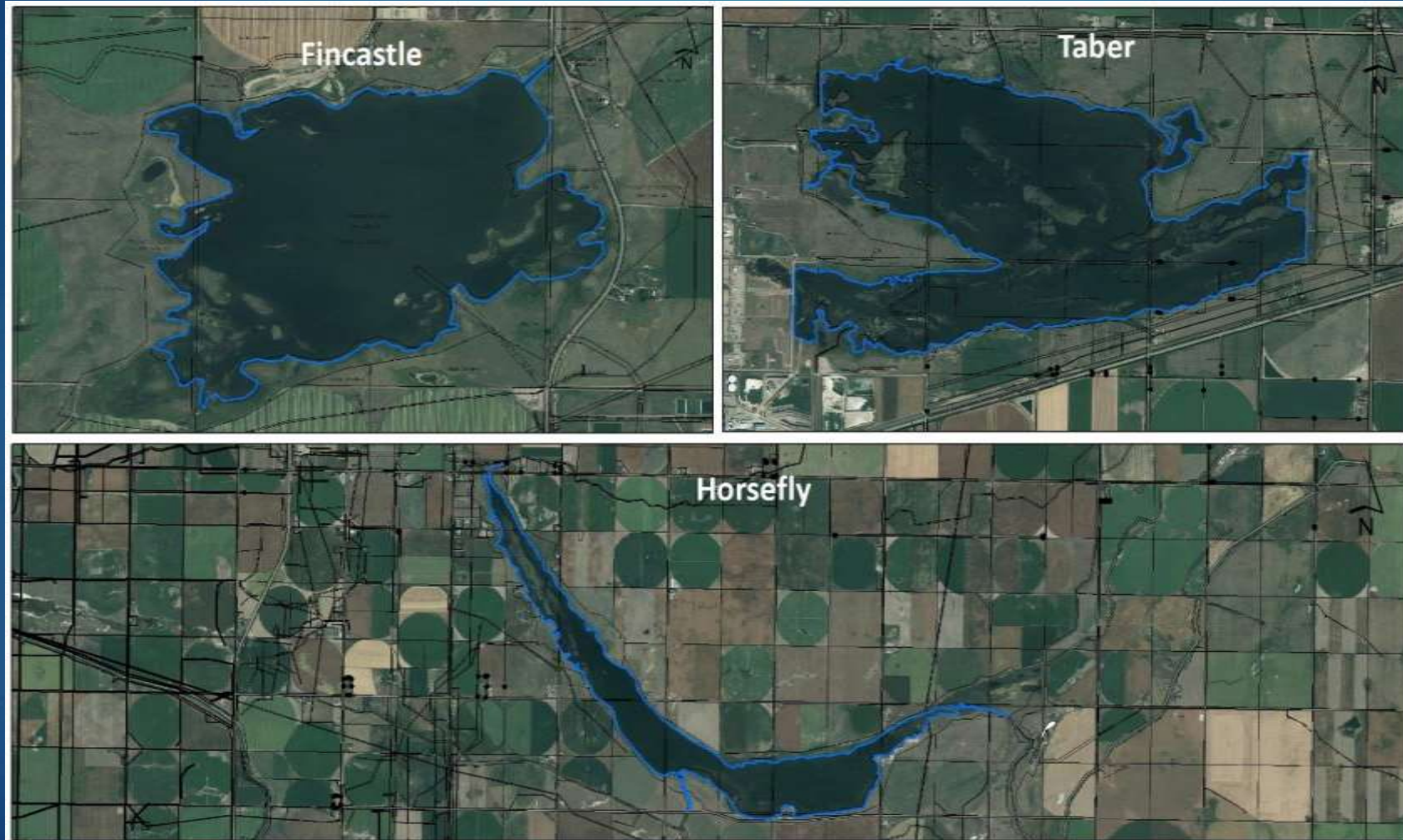
- ▶ Reduce rate and volume of runoff
 - ▶ Improve upland retention and absorption
- ▶ Reduce transport of sediments
 - ▶ Improve upland retention and settlement
 - ▶ Reduce velocities approaching drain inlets
 - ▶ Maximize filtering through soils, vegetation
- ▶ Maximize uptake and biodegradation of WQ parameters
 - ▶ Riparian development
 - ▶ Enhancement of former canals to bio-swales / linear constructed wetlands
 - ▶ Naturalized storm ponds, constructed wetlands as part of irrig. system

Joint Program WRRP / AWE Agricultural Watershed Enhancement

“Growing Forward 2 – Agricultural Watershed Enhancement aims to increase the uptake of wetland restoration and riparian health beneficial management practices (BMPs) by producers within agricultural sectors” (AEP, WRRP)



Fencing and other Grazing Pressure Relief



Fencing and other Grazing Pressure Relief



Open Canal Drain Improvements eg. TID Lateral 3 East Horsefly



Drain Inlet Bio-Swale



Grassed Swale
Drainage in TID

Fincastle Inlet Constructed Wetland

- 6 ha wetland

