UNIQUE COMPONENTS
OF THE
WEST BRANCH WETLAND
RESTORATION AREA
DUPAGE COUNTY, ILLINOIS
Background

- City of Chicago implemented the O’Hare Airport Modernization Program
  - The Airport contained 155 acres of wetland and waters in Cook and DuPage Counties Illinois
  - All onsite wetlands and waters to be impacted
  - 440 acres of wetland mitigation overall
AIRPORT WIDE IMPACT

Jurisdictional Wetlands

Isolated Wetlands

County Line
- +/- 67 acres of the 155 acres total are in DuPage County
- DuPage County requires in county mitigation at 1.5:1 replacement ratio = 90 acres of mitigation.
- O’Hare paid DuPage County to complete mitigation on their behalf
Background

- Intergovernmental Agreement between DuPage County Forest Preserve District (FPD) and DuPage County to allow mitigation on FPD properties
18 FPD SITES Evaluated

- Oliver Hoffman (Creation)
- DuPage County Airport
- New Acquisition (Creation)
- Big Woods (Creation)
- Springbrook (Enhancement)
- Hawk Hollow (Creation)
- West Branch (Enhancement)
- East Branch (Enhancement)
- Danada (Enhancement)
- Greene Valley (Enhancement)
- O'Hare Airport

Watersheds:
- Des Plaines
- Fox
West Branch Forest Preserve

West Branch Forest Preserve was selected due to likelihood of success.
Forest Preserve District Vision

- The District took a holistic view.
- The O’Hare wetland creation would intrude into the southern portion of the preserve,
- Complete that intrusion once;
- Restore to native habitat the entire southern portion of the preserve.
  - +/- 350 acres of the preserve would be restored
  - +/- 120 acres of wetland created
  - 90 acres of wetland mitigation credit generated to mitigate for the O’Hare airport wetland impacts
DuPage County Responsibilities

- DuPage County would be responsible for areas designated for:
  - wetland creation and restoration,
  - wetland buffer and
  - a portion of the river restoration, along with
  - tree and brush removal within those specific areas
Forest Preserve District Responsibilities

- Responsible for:
  - restoration of remnant fen, river and upland prairie
  - tree and brush removal in the non-wetland and buffer areas
Existing Conditions

- The site was originally farmed and was purchased to provide flood control and open space.
- The existing onsite wetlands are dominated by reed canary grass (Phalaris arundinacea).
- Uplands are dominated by old field Brome and goldenrod (Solidago).
- Remnant fen and woodlands are dominated by buckthorn (Rhamnus cathartica).
Existing Condition

- The River:
  - Is channelized
  - Is deeply incised from past excavation
  - Acts as a sump to surrounding flood plain by artificially lowering the water table
  - Allows field tiles to free flow into the river draining entire site
Component 1: River Restoration

- Raise 6,000’ of Stream Bed +/-2.5’
- Drown Field Tiles
- Add Structure
  - Can’t meander horizontally
  - Meandered vertically
  - Riffles and Pools
  - Root wads
- Improved Habitat
Pools and Riffles

100-year storm events flood heights will be unchanged by modification of stream bed elevation.
The Pools and Riffles raise the base flow elevation across the site approximately 2.5’.

Which raises the water table throughout the flood plain and allows the river to re-access the flood plain on a more frequent rainfall event basis.
Component 1a: Re-access Remanant Meanders
Component 2: Field Tile Removal
Component 3: Infiltration Pipes

Remnant Fen
Component 4: Closing Depressions

Raising saddle points between depressional areas
Component 5: Infiltration Ponds
Infiltration Ponds
Infiltration Ponds

Clay

Underlying Sand and Gravel
Infiltration Ponds

Clay

Underlying Sand and Gravel
Infiltration Ponds
Excess water passes through a pipe downhill to prevent erosion
Deep Rut from offsite flow - 15’ deep.
Backup Plan
Backup Plan
Backup Plan
Thank you to:
DuPage County
DuPage County Forest Preserve District, and EWRI

Questions?

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