



DuPage County MEGA Project: West Branch Forest Preserve Wetland Mitigation, Klein Road Fen Restoration and West Branch DuPage River Restoration

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V3 Companies

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In Cooperation With DuPage County and the
Forest Preserve District of DuPage County





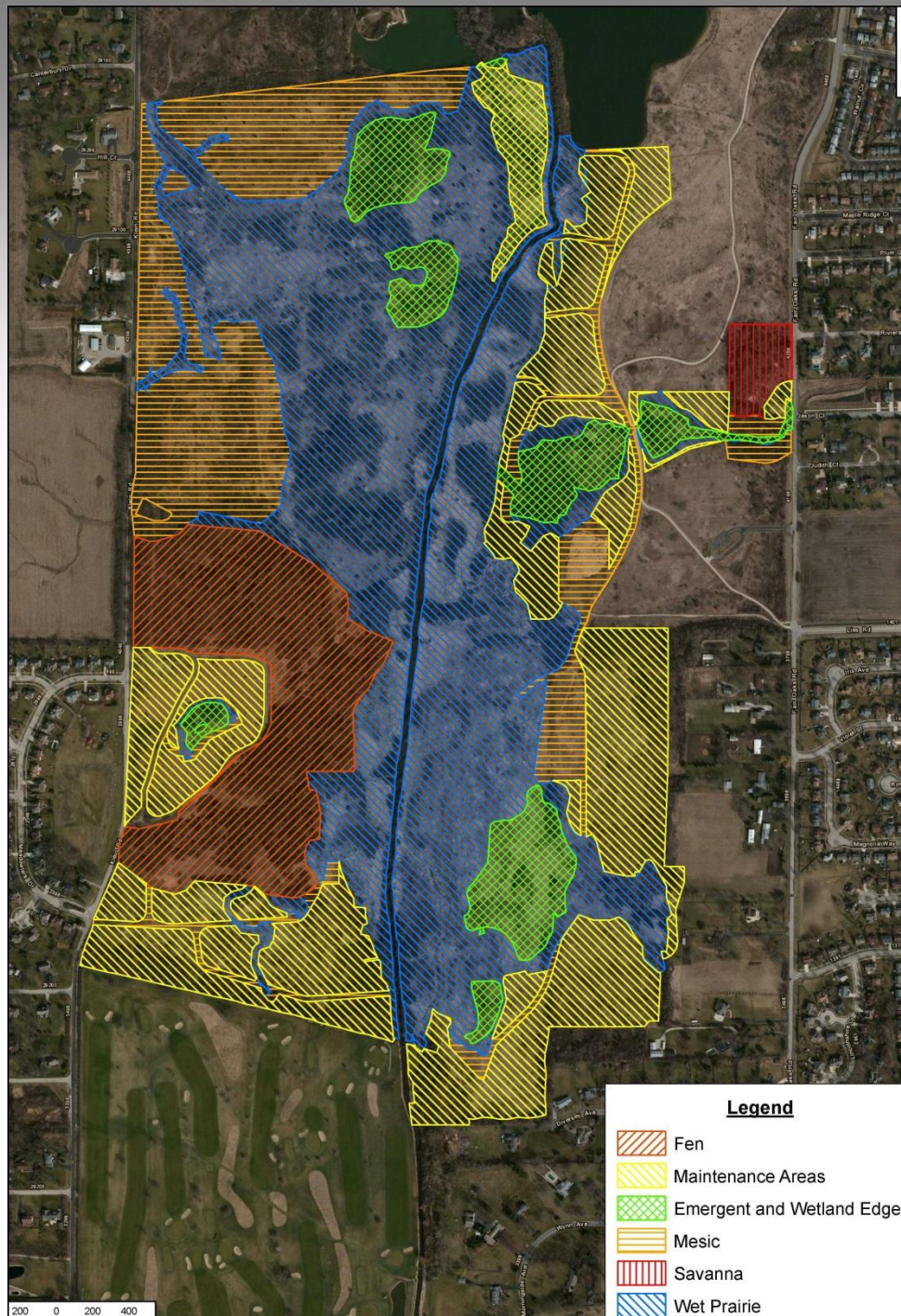
**Mitigation Area
350 Acres**

**River Restoration
1 Mile**



Project Goals

- O'Hare Modernization Wetland Mitigation (DuPage County Portion)
- Stormwater Management
- Aquatic and Terrestrial Habitat Enhancement
- Invasive Species Management
- River Restoration/Bank Stabilization
- Fen Restoration





Project Design Summary

- **Designed & Permitted by CBBEL**
- **350 Acre Site**
 - **West Branch DuPage River (1 mile)**
 - **48.2 Acres of Existing Wetlands**
 - **34 Acre Klein Road Fen**
- **Mechanized and Selective Clearing**
- **River Restoration**
 - **By-pass pumping of stream**
 - **3,500 linear feet of root wads**
 - **5,000 boulders**
- **150,000 native plant plugs**
- **135.5 acres wetland creation/rehabilitation**
- **46.0 acres wetland enhancement**
- **200 acres prairie seeding**
- **3 years ecological management & monitoring**



Bid Qualifications

- Successful completion of large scale (50 acres) restoration
- Projects met performance standards and agency sign-off
- Botanist/Ecologist, 5 years plant installation experience
- Sensitive natural area experience, 25,000 plants, river and wetland systems
- Prescribed burning, at least 50 contiguous acres
- Selective woody species removal, 50+ acres
- Successful monitoring and reporting
- Successful completion of 4 tile abandonment, installation and removal project (3 years)
- Previously constructed riffles, vanes, cross vanes in stream or river
- Handling 1,000 lbs. boulders using excavation equipment
- Similar stream restoration project, manned by-pass pumping



Existing Conditions

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Selective Clearing



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Clearing/Root Wads

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River Restoration Means & Methods

■ Diversion Channel v. Bypass Pumping (Design)

- Channel volume v. bypass pumping volume
 - Bypass pumping bid requirement = 100 cfs
 - Channel capacity = 265-330 cfs
 - Reduce potential down time during flooding (5 days per event)
 - 6 events with flow over 100 cfs during construction
 - Max flow during construction 290 cfs
- Reduced temporary wetland impacts

■ Permitting Issues

- Complied with permit conditions
- “Prior to in-stream work, submit construction plans/narrative to KDSWCD that disclose contractor’s preferred method of cofferdam and dewatering”
- Design v. construction means and methods
- “Project” modifications (wetland impacts) not proposed



Existing Channel

**Pre-Construction
River Conditions
(after tree cutting)**





Diversion Channel

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Diversion Channel

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Diversion Channel

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River Diverted

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River Restoration

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River Restoration

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Riffles & Rock Vanes

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Streambank Stabilization

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Root Wad Installation

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North Diversion Channel

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Diversion Channel

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Central Diversion Channel

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South Diversion Channel

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Floodplain Swale

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Project Summary (2013-2015)

- NTP, July 2013
- Clearing completed
- River restoration-3 phases
 - November 2013 completion
- Pre-seeding weed control
- Pre-seeding prescribed burning
- 296 acres of native seed installed, spring 2014
- 121,158 native plant plugs installed, spring 2014/15
- Intensive chemical and mechanical weed control during 2014, 2015 (~3,500 hrs. in 2014, ~4,200 hrs. in 2015)



Fall 2013 Pre-seeding Burn

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Fen Restoration

- Two infiltration basins were created to collect water entering site
- Water leaves basins through perforated pipe to rehydrate the fen
- Approximately 30 acres of mechanical clearing conducted during February 2015
- Hand clearing in about 2 acres with the softest soil to minimize impacts



Fen Infiltration Basin Overflow

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2015 Fen Clearing

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Native Plug Installation

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Emergent Wetland

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Floodplain Swale

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Streambank Vegetation

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Streambank Vegetation

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Summer 2014 Conditions

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Project Summary (2016 – 2017)

- 815 – 1.25” trees and 487 – 5 gallon shrubs installed in 2016
- 85 acres of supplemental seeding (2015-17)
- Continued weed control (~4,800 hours in 2016, ~3,900 hours in 2017)
- Annual prescribed burn over the entire project area
- 12 of 16 mitigation standards met.
- 7.4% non-native coverage in wet prairie (needs to be 5%)
- Site FQI in 2017 = 70.3
- NMC = 4.3
- 277 native species inventoried (365 total species)



2017 Conditions

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Management and Monitoring

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2017 As-Built Wetland Delineation

- August & September
- 151.7 Acres, Wetland
- 27.7 Acres, Marginal Wetland
 - Rated as 20-70% chance of meeting vegetation criterion with ongoing vegetation management
- 23.84 Acres rated at 70% (Fen)

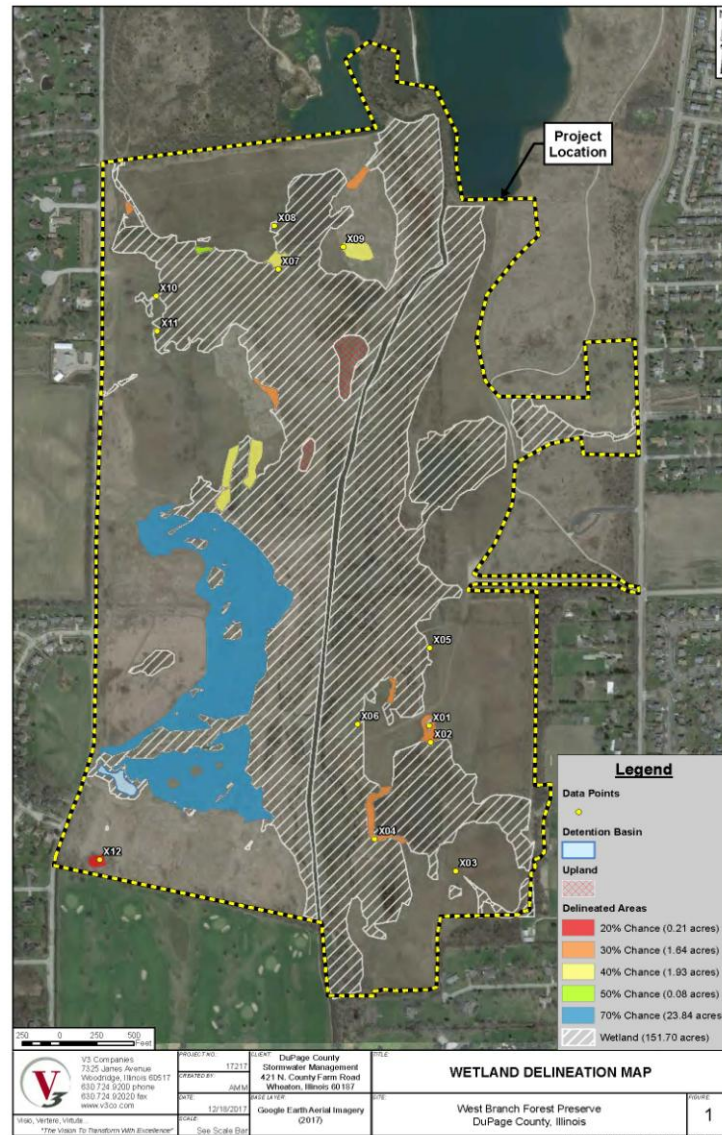


2017 As-Built Wetland Delineation

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Wildlife

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THANK YOU