North Aurora Towne Center
Wetland Mitigation Project

Fox River Ecosystem Partnership
General Membership Meeting
Wednesday, May 21, 2008

Hey and Associates, Inc.
Developer: Rubloff Development
Wetlands & Stormwater/Floodplain Engineering: Hey and Associates
Site Civil Engineering: Craig R. Knoche & Associates

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North Aurora Towne Center 330-acre site
North Aurora Towne Center existing wetlands

- Reed Canary Grass Wetlands
- Farmed Wetlands
- Auto Mall Pond
North Aurora Towne Center existing wetlands:
Farmed Wetlands (28.5 acres)
North Aurora Towne Center existing wetlands:

Auto Mall Pond (16 acres)
North Aurora Towne Center existing wetlands:
reed canary grass dominated wetlands (67.5 acres)
Proposed development:
Regional Commercial Center

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Storm Water Management

1996 flooding at I-88 and Orchard Road (left) and on the west side of Aurora (right). Photos from Kane County website.

- 2.75 square mile watershed area at downstream end (SW corner) of project site
- Pre-project: volume = 225 acre-feet, $Q_{100} = 400$ cfs
- With-project: volume = 450 acre-feet, $Q_{100} = 180$ cfs
- Project met detention requirements & exceeded floodplain requirements

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Wetland impacts and mitigation

- Wetland creation
- Wetland impacts
- Wetland enhancements

- Wetland seeding/planting = 97 acres
- BMP seeding/planting = 7 acres
- Prairie buffer = 39 acres

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Wetland mitigation – BMP Treatment Train

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Wetland mitigation – BMP Treatment Train

BMP #1

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Wetland mitigation – BMP Treatment Train

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BMP #5
Wetland mitigation – BMP Treatment Train

ADS Water Quality Units (oil & grit separator)

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Wetland mitigation – BMP Treatment Train

Infiltration trench
Wetland mitigation – BMP Treatment Train

Level spreader

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Wetland mitigation – Wetland Creation/Enhancement

Micro-topography creates “patchiness”

- Uplands, side-slopes & islands (mesic prairie)
- Flat areas at normal water level (wet prairie)
- 0 – 6” depth (shallow emergent)
- 6 – 30” depth (deep emergent)
Wetland mitigation – Wetland Creation/Enhancement
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Wetland mitigation – Habitat Structure

• Snags – dead trees, logs, etc.
• Sinuosity
• Islands
Wetland mitigation – Off-site Wetland Enhancements

Wetland habitat scrapes on Village-owned property east of Randall Road
Wetland mitigation – water, water, everywhere…

Diversion channel used during construction
Wetland mitigation – water, water, everywhere…

Water level control structure for post-construction wetland management
Monitoring, management, and long-term ownership

- 15 year monitoring and management requirement (7 performance criteria must be met by Year 15)
- 2007 = Year 1
Monitoring, management, and long-term ownership

- 3 out of 7 performance criteria met in Year 1
- Year 1 FQI = 35.4
Monitoring, management, and long-term ownership

Discussions have taken place with the Kane County Forest Preserve District about long-term ownership.

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Guided site visit
immediately following FREP meeting.