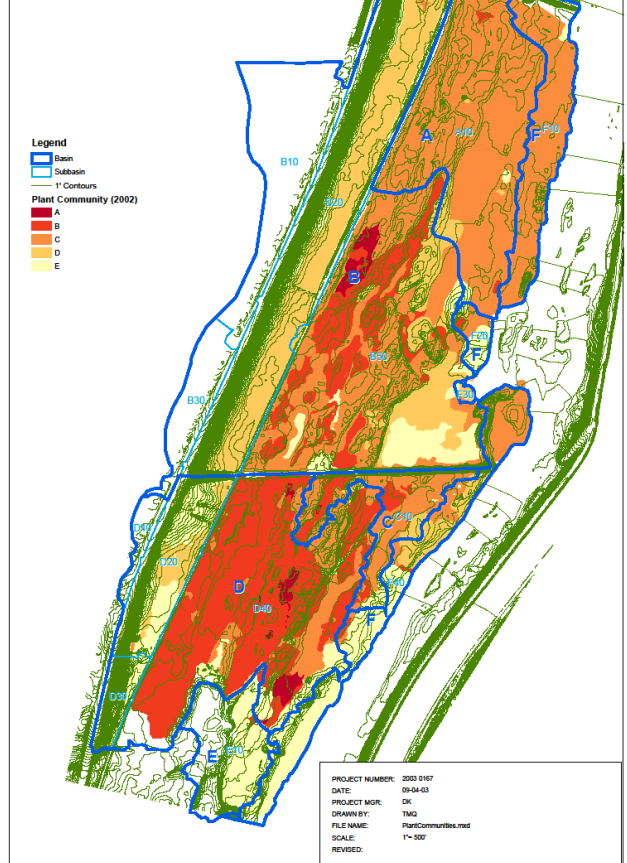


Lockport Prairie

a watershed 'canary'



Lockport Prairie Nature Preserve
Plant Community
Floristic Quality Map (2002)



One Team. Infinite Solutions.



Stantec

Funding / Project Selection

- USACE Chicago District Received \$7 million settlement from a wetland violation
- Openlands selected by the Chicago District to accept the funds and within 5 years agreed to identify and implement a minimum of 120 acres of wetland restoration within the lower Des Plaines River Valley and watershed.
- Section 206 (Aquatic Ecosystem Restoration) of the federal Water Resources Development Act (WRDA)
- Lockport Prairie Resource was proposed by the Forest Preserve District of Will County & was selected by Openlands as one of the recipients of the funding.



Why Lockport Prairie?

- 250 acre remnant of the presettlement vegetation of the lower Des Plaines River valley and represents one of the largest acreage of dolomite prairie remaining in Illinois
- A total of 559 plant taxa have been recorded from LPNP from various surveys and sightings, 436 (78%) of which are native
- A variety of fauna has been observed and studied. Species lists indicate 9 amphibians, 17 reptiles, 1 fish, 20 mammals, 123 birds, and 516 invertebrates

T&E Biological Indicators

- Hines: Dr. Dan Soluk



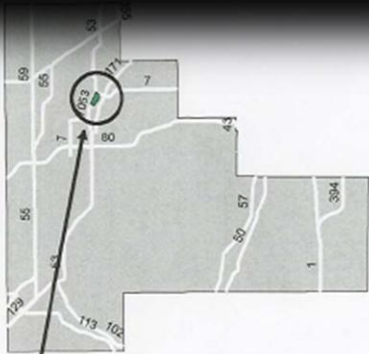
- Spotted Turtle: Mauger, FPDWC



- Vegetation: DeMauro, FPD restoration / inventories

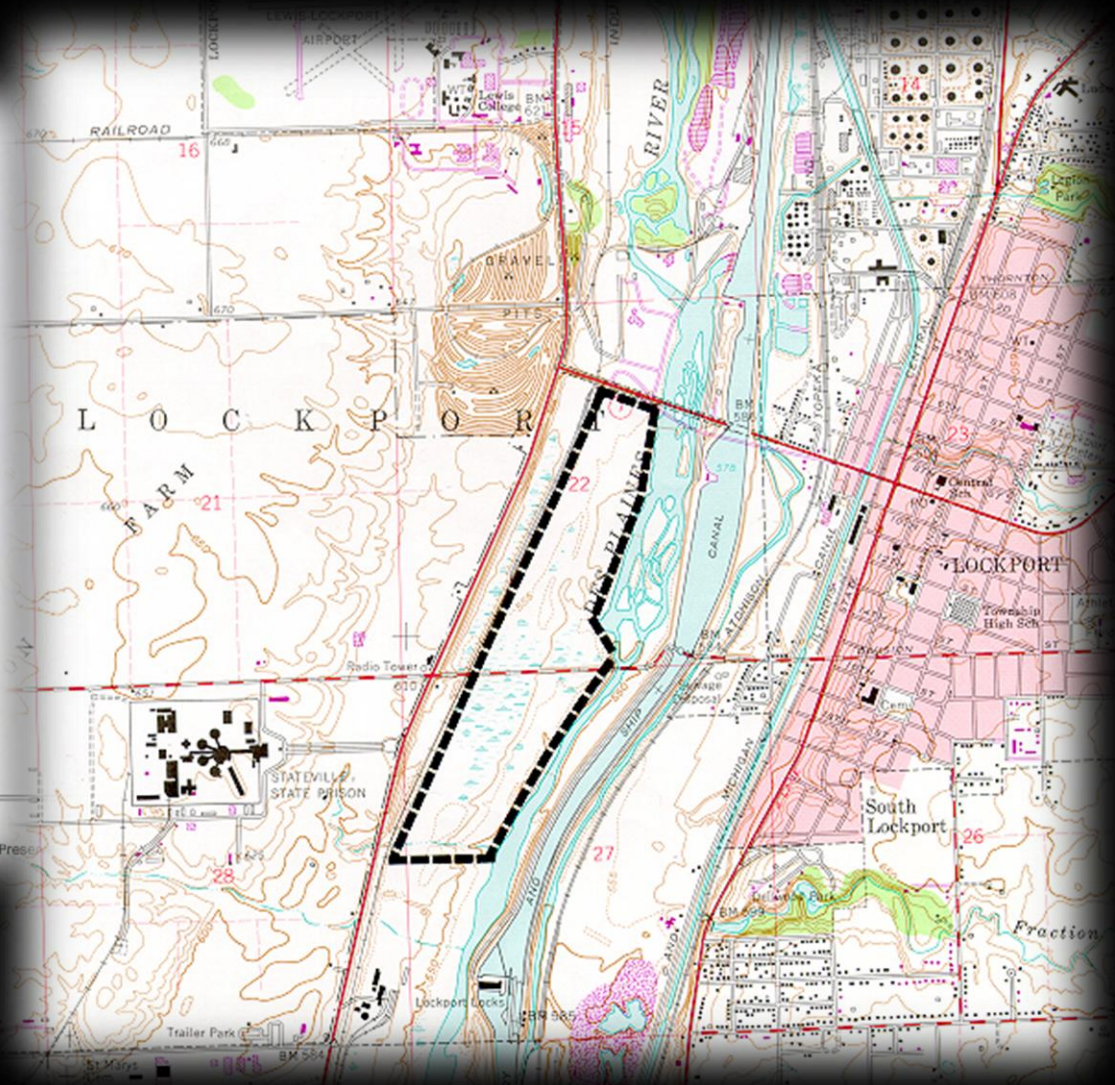


LOCATION



Legend

-  Lockport Prairie Nature Preserve
-  Will County
-  Major Cities



Stakeholders / Technical Advisory Team

- Openlands
- Forest Preserve District of Will County
- Chicago District U.S. Army Corps of Engineers
- USFWS
- Illinois Nature Preserves Commission
- Illinois Department of natural resources
- Metropolitan Water Reclamation District
- Local Municipalities
- Regional Land Owners / Operations
- Regional Scientists & Engineers



Surface Water Basin Delineation

Lockport Prairie Nature Preserve

Forest Preserve District of Will County

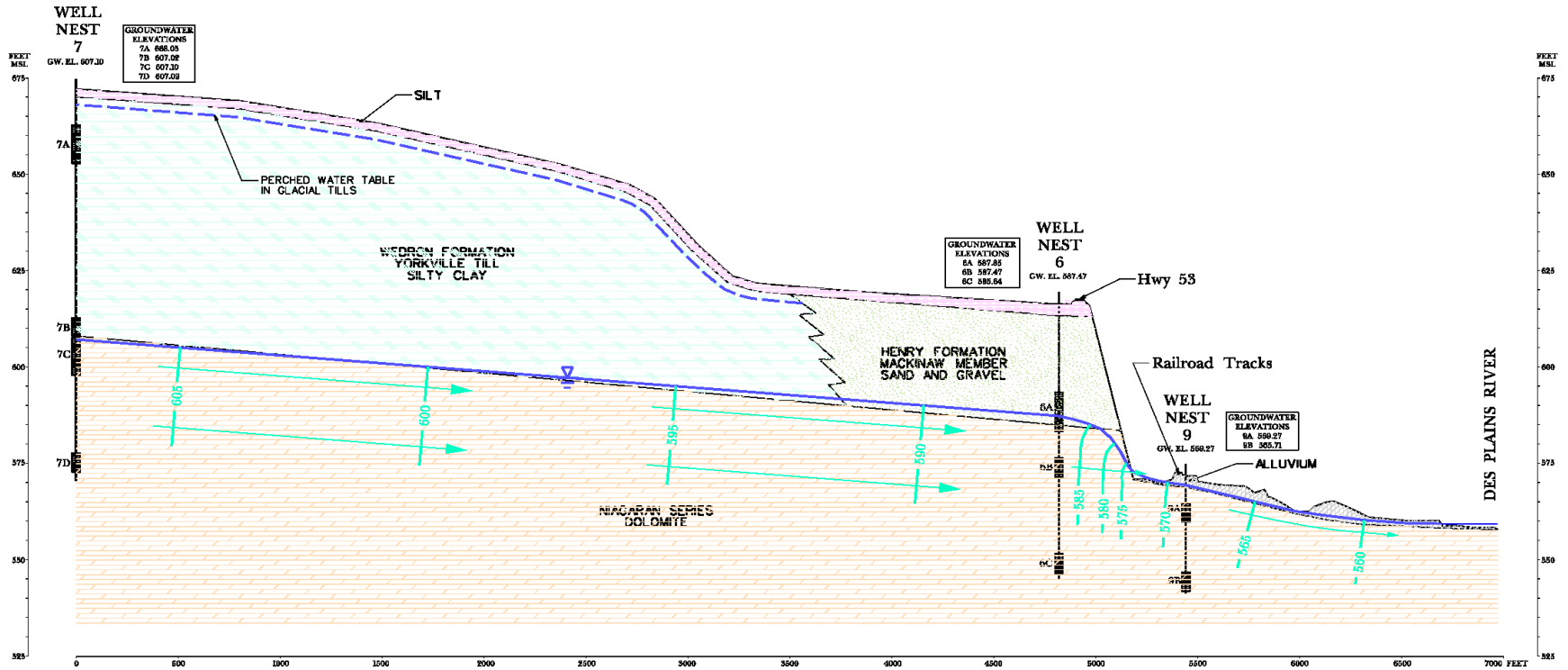
Watershed / Basin Boundaries
and
Rivulet Locations

-  Lockport Prairie Watershed
-  Basin Boundaries
-  Sub-basin Boundaries
-  Culvert
-  French Drain
-  Rivulet
-  INHS Monitoring Locations



A
NORTHWEST

A'
SOUTHEAST



LEGEND:



WELL SCREEN INTERVAL

GW. EL. 587.47

GROUNDWATER ELEVATION ON 12/19/01

SCALE: horiz.: 1"=500'
vert.: 1"=25'
vert. ex.: 20x

GROUNDWATER CROSS-SECTION A-A'

LOCKPORT PRAIRIE NATURE PRESERVE
ECOLOGICAL ASSESSMENT
LOCKPORT, WILL COUNTY, IL

PROJECT NUMBER: 2003 0167
DATE: 08-12-03
PROJECT MGR: DK
DRAWN BY: JZ
FILE NAME: xswatAA167.dgn
SCALE: as shown
REVISED:

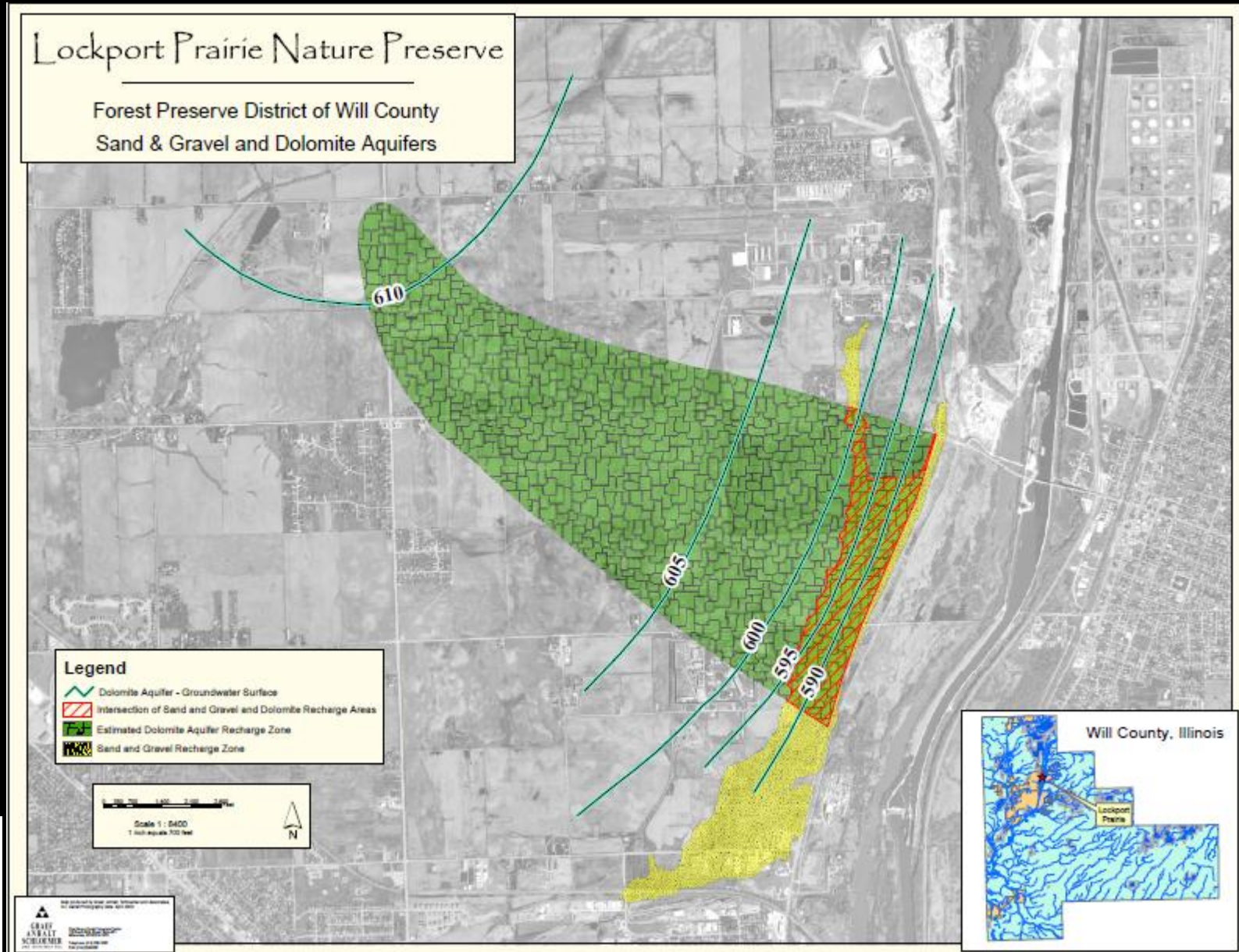


FIGURE 10

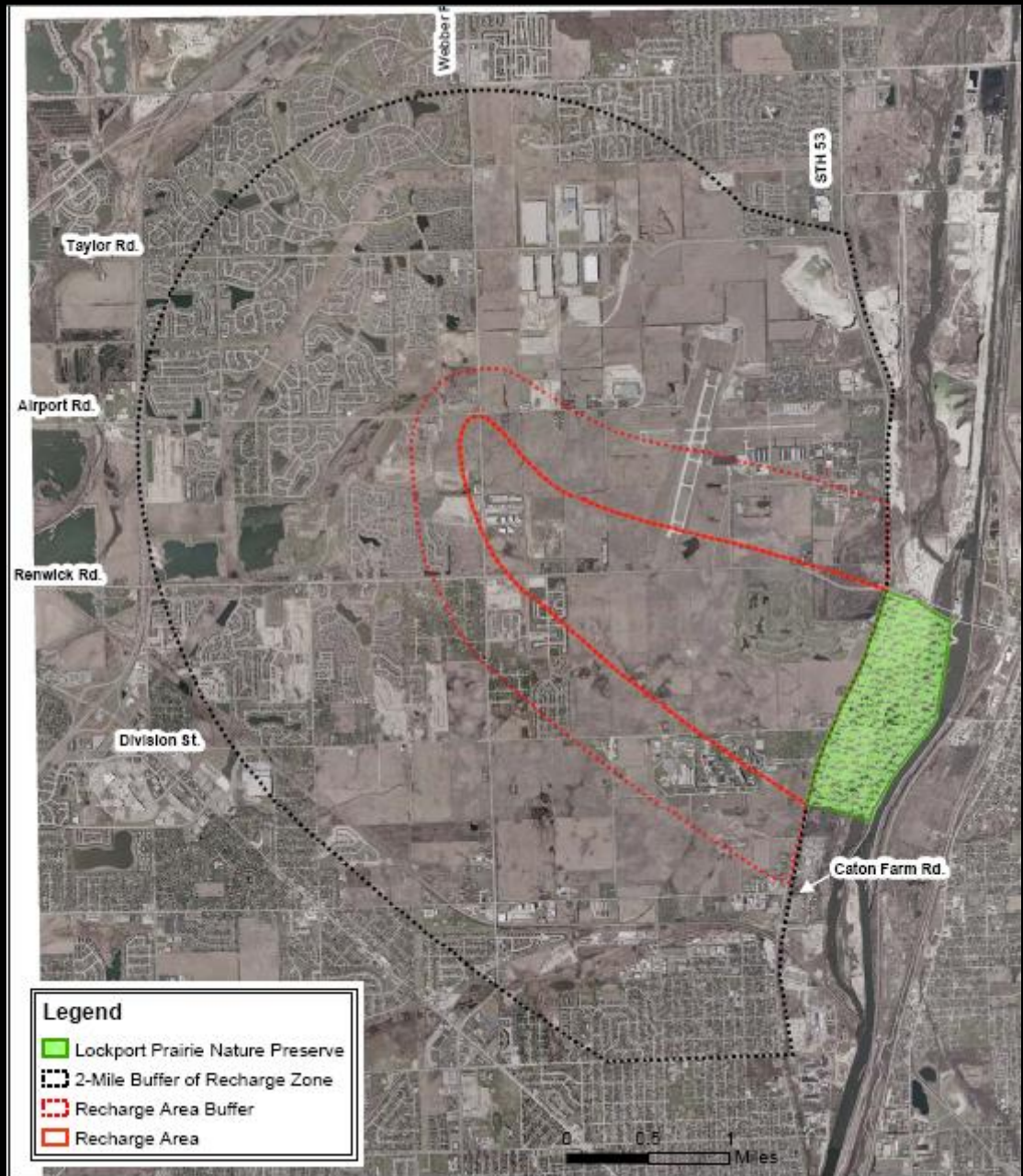


openlands
conserving nature for life

Groundwater Contribution



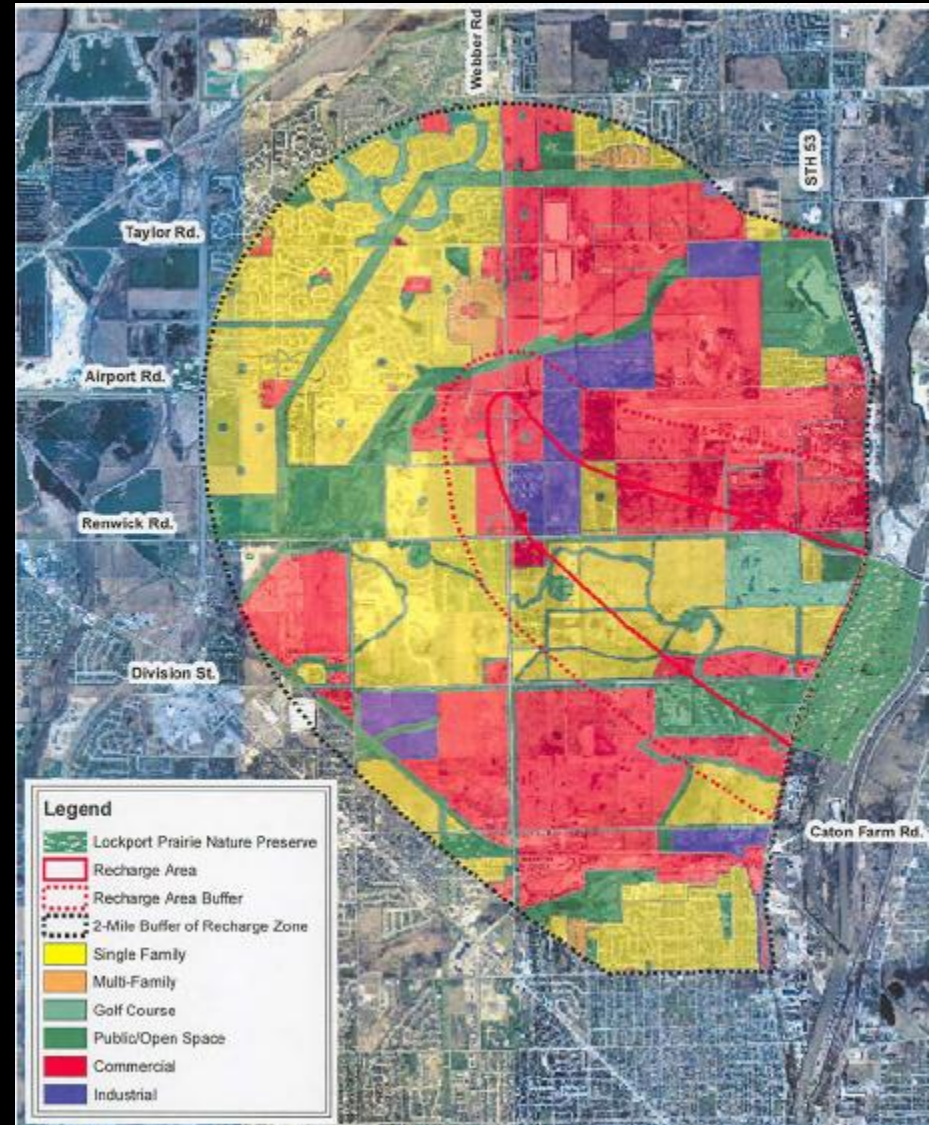
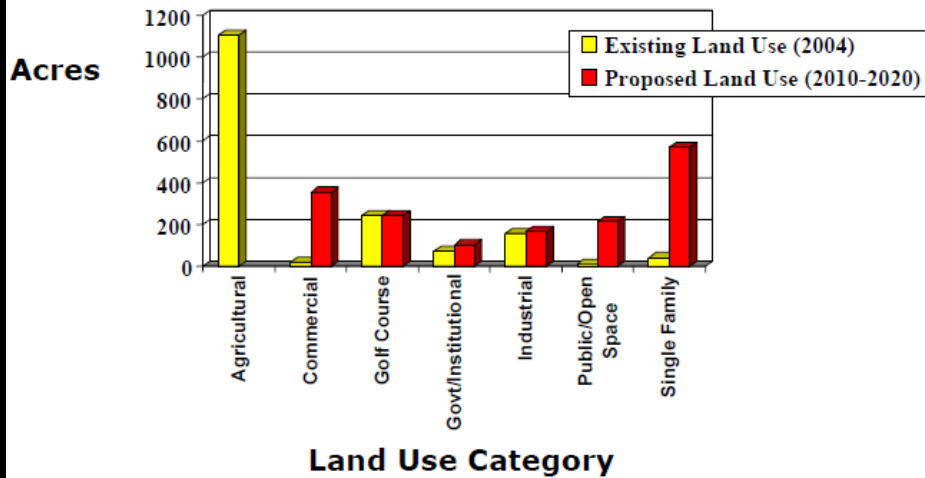
Groundwater Recharge Delineation



Existing & Proposed Land Use Analysis

Recharge Area

Existing & Proposed Land Use
(1,645 Total Acres)



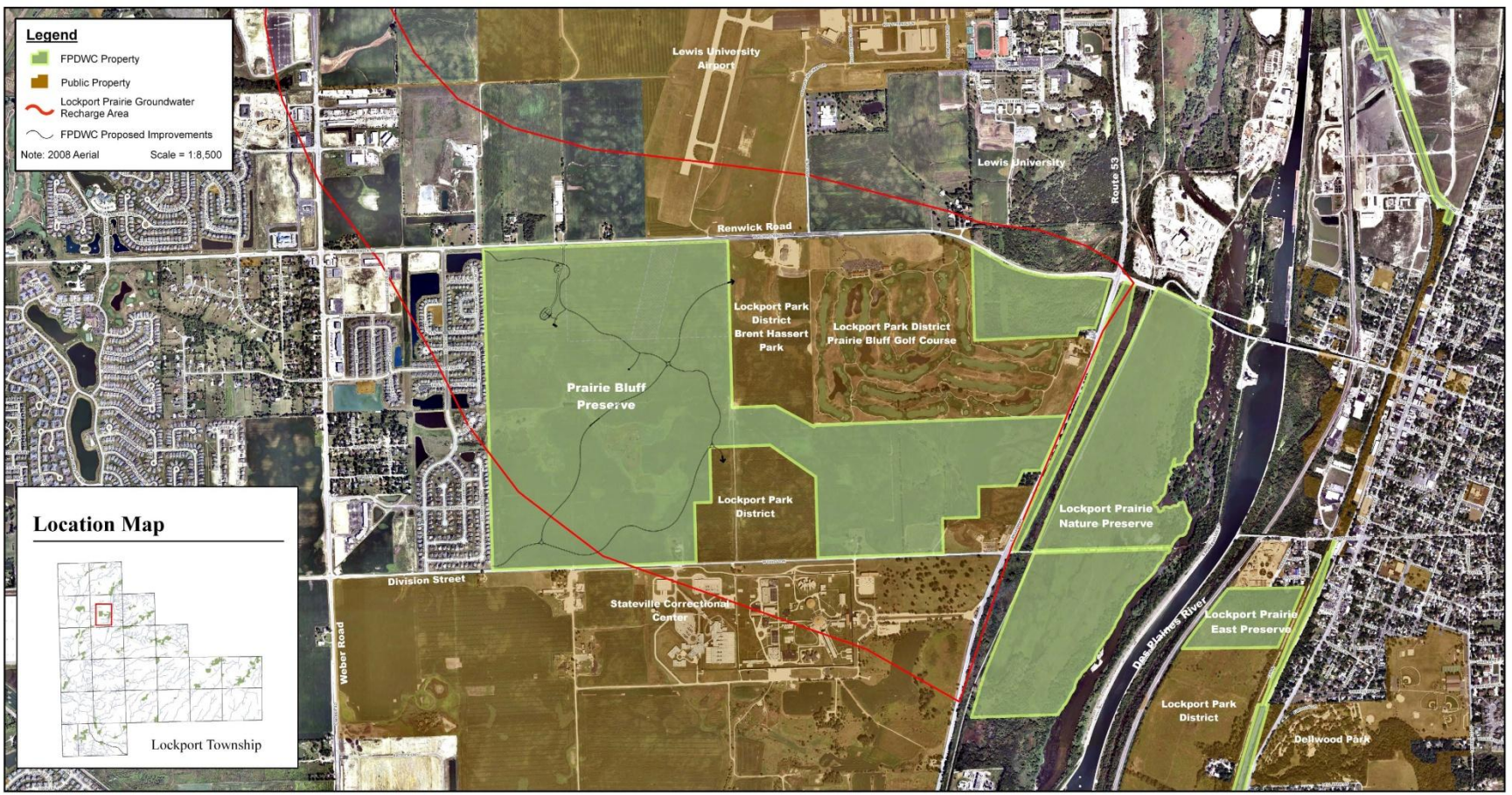
Gap Analysis / Activity Prioritization

- Water Sources:

- Direct Precipitation
- Surface water: Offsite Contribution
- Surface Water: Interaction with Des Plaines River
- Groundwater

✓ **Groundwater is the critical element for resource sustainment**

FOCUSED & COOPERATIVE IMPLEMENTATION STRATEGIES



Context Map

Prairie Bluff Preserve

Forest Preserve District of Will County



Land Preservation



- 711 acres transferred from Department of Corrections to Department of Natural Resources and State Police. Named the site Prairie Bluff Preserve
- Entered four party 50 year lease (20 year with 30 year renewal) on Prairie Bluff Preserve. Parties: IDNR, ISP, Lockport Township Park District and Forest Preserve District. Acreages: FPD 628, LTPD 75.5, State Police 7.5
- Acquired 55 acres at the corner of Renwick and Route 53
- Negotiated purchase of Lockport Prairie Nature Preserve from the Metropolitan Water Reclamation District. 320 Acres. Closing planned in 1st Quarter



Agriculture

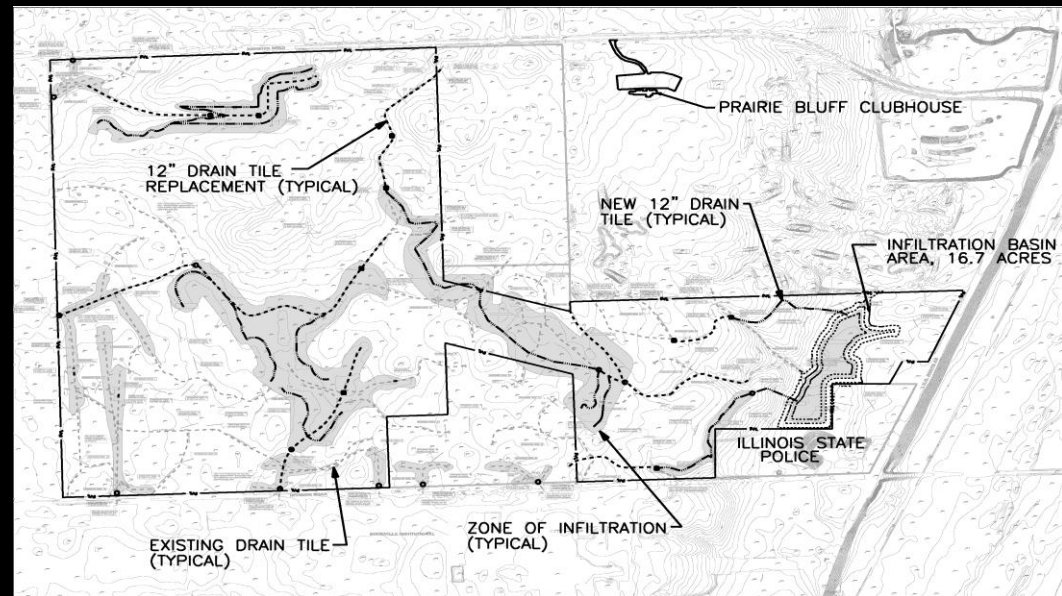
- Entered a five year license for \$225/acre/year. Services in lieu of cash.
- To date, \$356,000 in services has been completed under the farm license. Services include soil testing, tree removal, invasive species control, house removal, debris removal, drain tile repair, native seed installation and general maintenance over the entire property.

Restoration/Management

- Department of Commerce and Economic Opportunity (DCEO) grant for \$250,000 to enhance hydrology and restore prairie on the east end of Prairie Bluff Preserve in an area that is critical to recharging ground water that discharges as seeps at Lockport Prairie Nature Preserve. Work is expected to begin in March 2011.
- Under farm license agreement, approximately 1700 feet of drain tile has been repaired, 18.50 acres of invasive trees and shrubs have been removed, 2000 linear feet of barbed wire fence has been removed, 10.25 acres has been seeded with native vegetation and all areas planted with native seed are being maintained by the farmer to ensure proper establishment.
- Ongoing management at LPNP
- ACOE Section 206 project in the works
- FPD Funding for Prairie Bluff Preserve \$1,750,000

Stormwater Control:

- Repair of tile system. Restoring control of water infiltration.
- Coordination with Lockport Township Park Department on Golf Course and Brent Hassert Park stormwater management planning



Planned Development:



- The proposed improvement includes a trailhead and access area off Renwick Road and a 2-3 mile loop trail.
- The 10' wide, multi-purpose asphalt bike trail will connect to the Arbor Glen and the Fields of Longmeadow subdivisions in addition to the LTPD facilities.
- Permeable asphalt and concrete, and other similar materials are incorporated into the design of the access area as are bio-swales and infiltration galleries in order to increase water infiltration and ground water recharge. Restoration and Development are tied together.
- Breaking ground in 2011 - \$1,200,000 FPD \$200,000 DCEO



Points of Contact

- **Openlands:**



- *Joseph Roth: jroth@openlands.org*

- **Forest Preserve District of Will County:**

- *Ralph Schultz :rschultz@fpdwc.org*



- **Stantec:**

- *Dom.Kempson@stantec.com*