



**DECATUR, U.S. ROUTE 51
WETLAND COMPENSATION SITE**

ISGS #27

FAP 322

Macon County, near Elwin, Illinois

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SITE HISTORY

- May 1999: ISGS was tasked to conduct hydrologic monitoring.
- March and May 2000: ISGS installed a surface-water data logger (RDS 1) and a rain gauge, then later completed several shallow soil borings to investigate the presence and condition of a shallow confined aquifer across the site.
- June 2001: Construction of the wetland was completed.
- December 2001: ISGS installed eleven S wells (1S-8S and 10S-12S), two surface-water staff gauges (A and B), and one additional surface-water data logger (RDS 2) at the site.

WETLAND HYDROLOGY CALCULATION FOR 2004

We estimate that the total area of created wetland that satisfied wetland hydrology criteria for greater than 5% of the 2004 growing season was 5.9 ac (2.4 ha), whereas the area that satisfied wetland hydrology criteria for greater than 12.5% of the 2004 growing season was 4.9 ac (2.0 ha). These estimates are out of a total site area of approximately 11.6 ac (4.7 ha). These estimates are based on the following factors.

- According to the Midwestern Climate Center, the median date that the growing season begins in Decatur is April 9 and the season lasts 193 days; 5% of the growing season is 10 days and 12.5% of the growing season is 24 days.
- During the period from September 2003 through August 2004, total precipitation at the Decatur weather station was 103% of normal. Precipitation on-site or in the vicinity was below normal for the months of October and December 2003 and February, April, and July 2004. Precipitation amounts were above normal for the remaining months of the 2003-2004 period.
- In 2004, water levels in wells 4S, 6S, 7S, 8S, 10S, 11S, and 12S satisfied the wetland hydrology criteria of the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual for greater than 5% of the growing season. In addition, wells 6S, 8S, 10S, 11S, and 12S also satisfied the wetland hydrology criteria for greater than 12.5% of the growing season.
- Water-level records for the data loggers RDS1 and RDS2 indicated inundation for elevations below approximately 221.00 m (725.07 ft) and 221.02 m (725.13 ft), respectively, for a duration that satisfied the wetland hydrology criteria for greater than 5% of the growing season. Water-level records for the data loggers RDS1 and RDS2 indicated inundation for elevations below approximately 220.93 m (724.84 ft) and 220.95 m (724.90), respectively, for a duration that satisfied the wetland hydrology criteria for greater than 12.5% of the growing season.

- Limitations of the wetland hydrology determination are as follows:
 - The base photo represents site conditions before the wetland basin was excavated. As such, wet/dry indicators on the photo do not necessarily follow the current patterns that are present on the site.

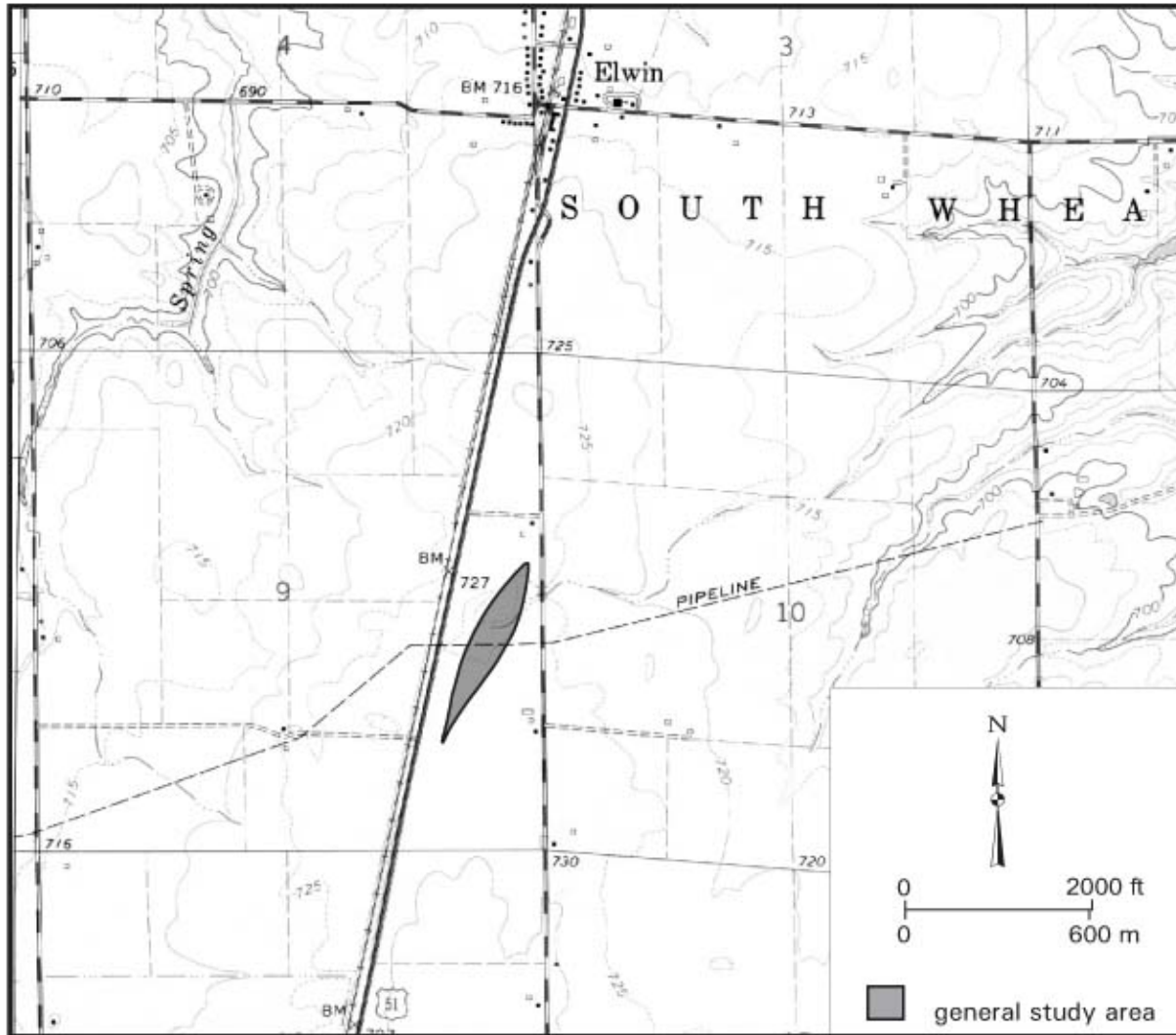
PLANNED FUTURE ACTIVITIES

- The current monitoring scheme will continue until July 2006, or until no longer required by IDOT.

Decatur, U.S. Route 51 Wetland Compensation Site (FAP 322)

General Study Area and Vicinity

from the USGS Topographic Series, Decatur, IL 7.5-minute Quadrangle (USGS 1967; photorevised 1975)
contour interval is 10 feet



Decatur, U.S. Route 51 Wetland Compensation Site (FAP 322)

Estimated Areal Extent of 2004 Wetland Hydrology

Based on data collected between September 1, 2003 and September 1, 2004

map based on USGS digital orthophotograph Decatur, SW quarter quadrangle
produced from 4/14/98 aerial photography (ISGS 2002)

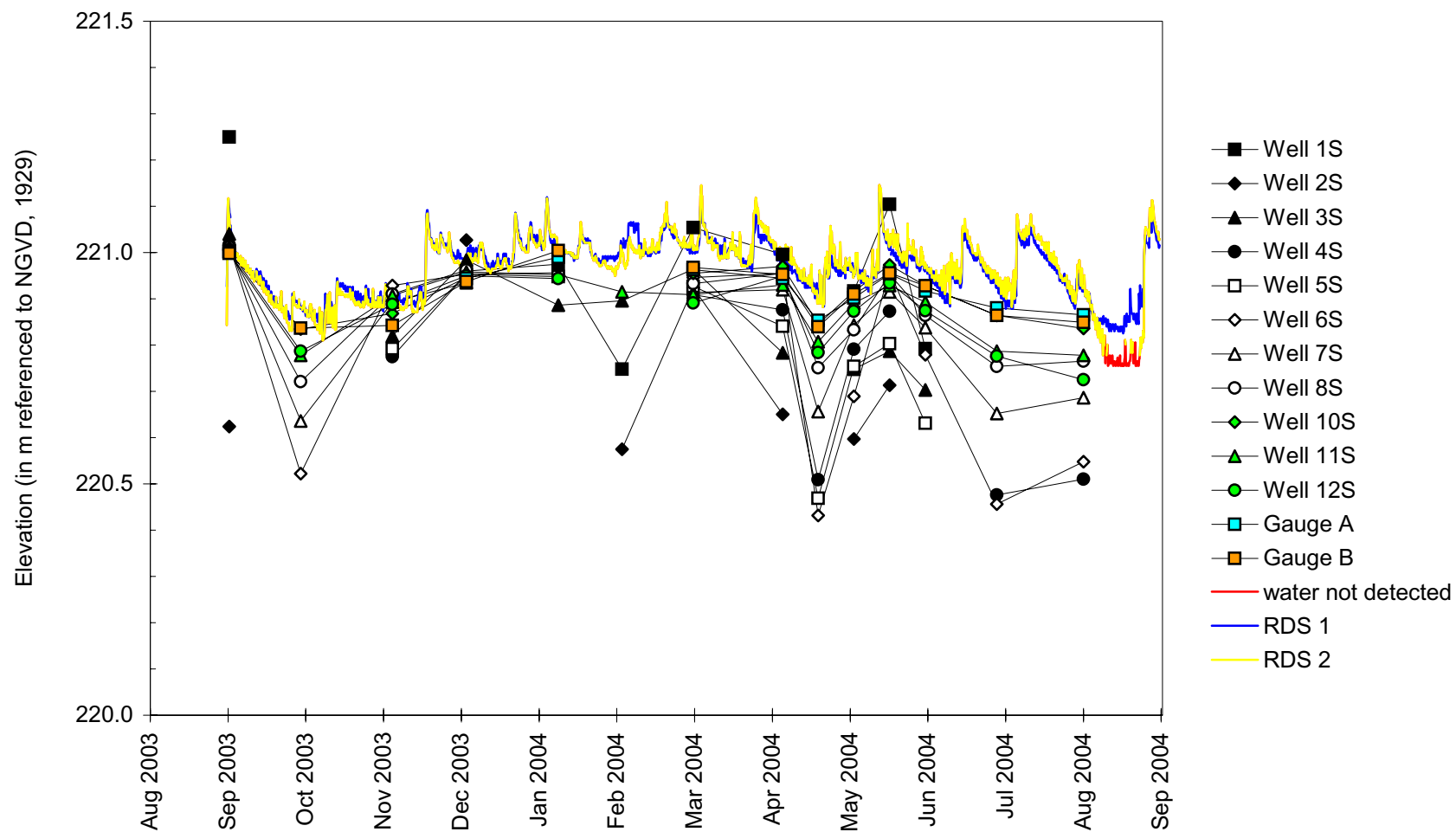


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|---|-------------------------------|-------------------|
| 2004 Wetland Hydrology | | ○ monitoring well |
|  | > 12.5% of the growing season | □ stage gauge |
|  | > 5% of the growing season | △ RDS data logger |
| | | * rain gauge |

Decatur, U.S. Route 51 Wetland Compensation Site

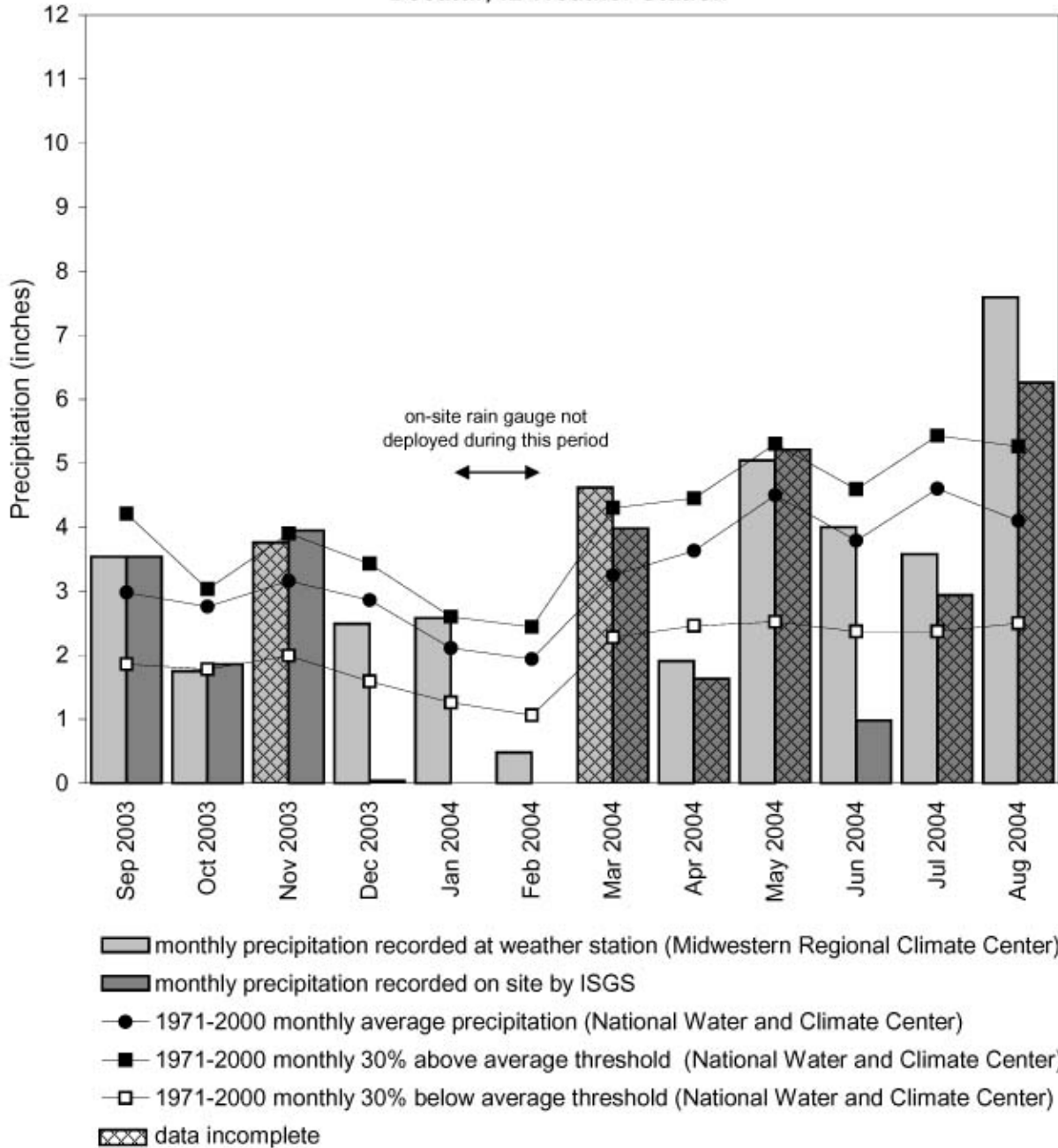
September 1, 2003 to September 1, 2004

Water-Level Elevation



Decatur Wetland Compensation Site September 2003 through August 2004

**Total Monthly Precipitation Recorded On Site and at the
Decatur, IL Weather Station**



Graph last updated September 30, 2004