



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

ISGS #27

FAP 322

Macon County, near Elwin, Illinois

Primary Project Manager: Eric T. Plankell

Secondary Project Manager: Geoffrey E. Pociask

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 additional monitoring instruments at the site.

WETLAND HYDROLOGY CALCULATION FOR 2006

The estimated total area that satisfied wetland hydrology criteria (Environmental Laboratory 1987) for greater than 5% of the 2006 growing season is 2.3 ha (5.7 ac) out of a total site area of approximately 4.7 ha (11.6 ac). The same acreage also satisfied wetland hydrology criteria for greater than 12.5% of the growing season. These estimates are based on the following factors:

- According to the Midwestern Climate Center, the median date that the growing season begins in Decatur, Illinois, 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 2005 through August 2006, total precipitation at the Decatur weather station was 101% of normal. Precipitation recorded at the weather station was above normal for the months of September, October, and November 2005, and also for March and April 2006. Precipitation amounts were near or below normal for the remaining months of the 2005–2006 period.
- In 2006, water levels in wells 6S, 7S, 8S, 10S, 11SR, and 12S satisfied wetland hydrology criteria for greater than 12.5% of the growing season. No additional wells satisfied wetland hydrology criteria for greater than 5% of the growing season.
- Water-level records for data loggers RDS 1 and RDS 2 indicated inundation at elevations below approximately 221.01 m (725.10 ft) and 221.00 m (725.07 ft), respectively, for greater than 5% of the growing season. Water-level records for data loggers RDS 1 and RDS 2 indicated inundation at elevations below approximately 220.98 m (725.00 ft) and 220.97 m (724.97 ft), respectively, for greater than 12.5% of the growing season.

- This site has been monitored for 5 growing seasons. We calculate that a total of 2.6 ha (6.4 ac) satisfied wetland hydrology criteria for greater than 5% of the growing season for the entire 5-year period, and 2.2 ha (5.5 ac) satisfied wetland hydrology criteria for greater than 12.5% of the growing season for the entire 5-year period. Water levels in wells 4S, 6S, 7S, 8S, 10S, 11SR, and 12S satisfied wetland hydrology criteria for greater than 5% of the growing season for the entire 5-year period, and water levels in wells 6S, 8S, 10S, 11SR, and 12S satisfied wetland hydrology criteria for greater than 12.5% of the growing season for the entire 5-year period.

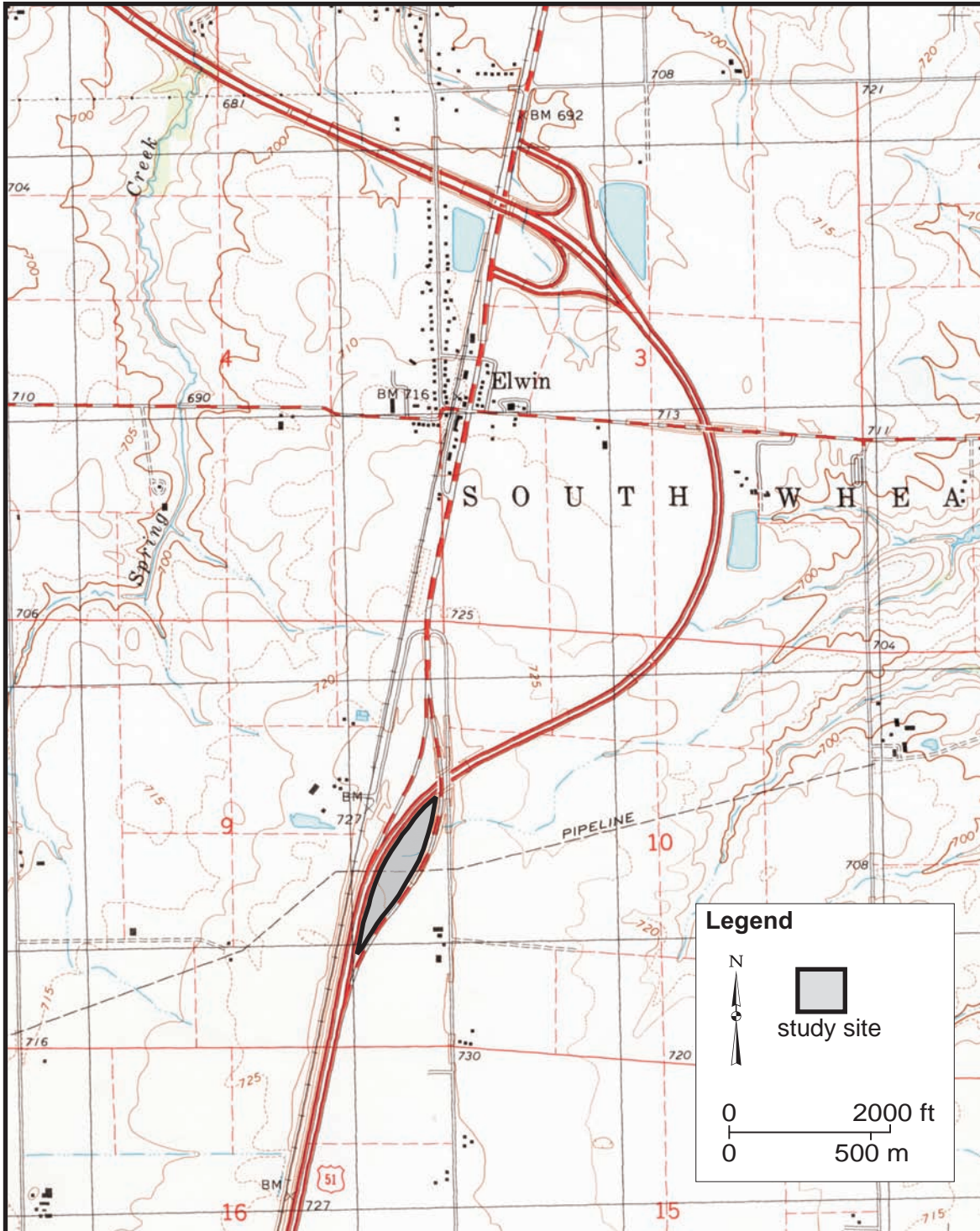
PLANNED FUTURE ACTIVITIES

- The current monitoring scheme will continue 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 1998)
contour interval is 10 feet, supplementary contour interval is 5 feet

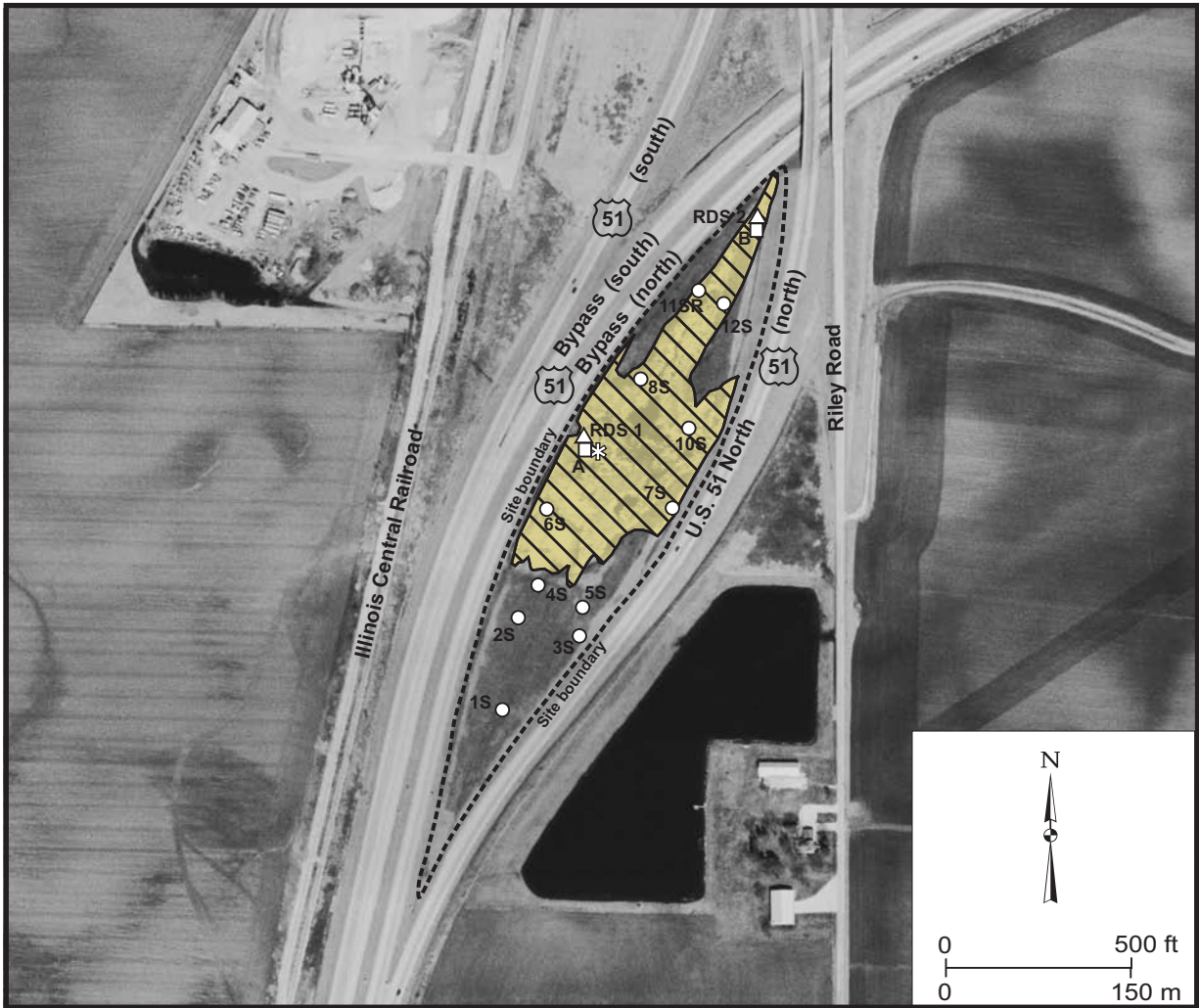




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Estimated Areal Extent of 2006 Wetland Hydrology

Based on data collected between September 1, 2005 and September 1, 2006

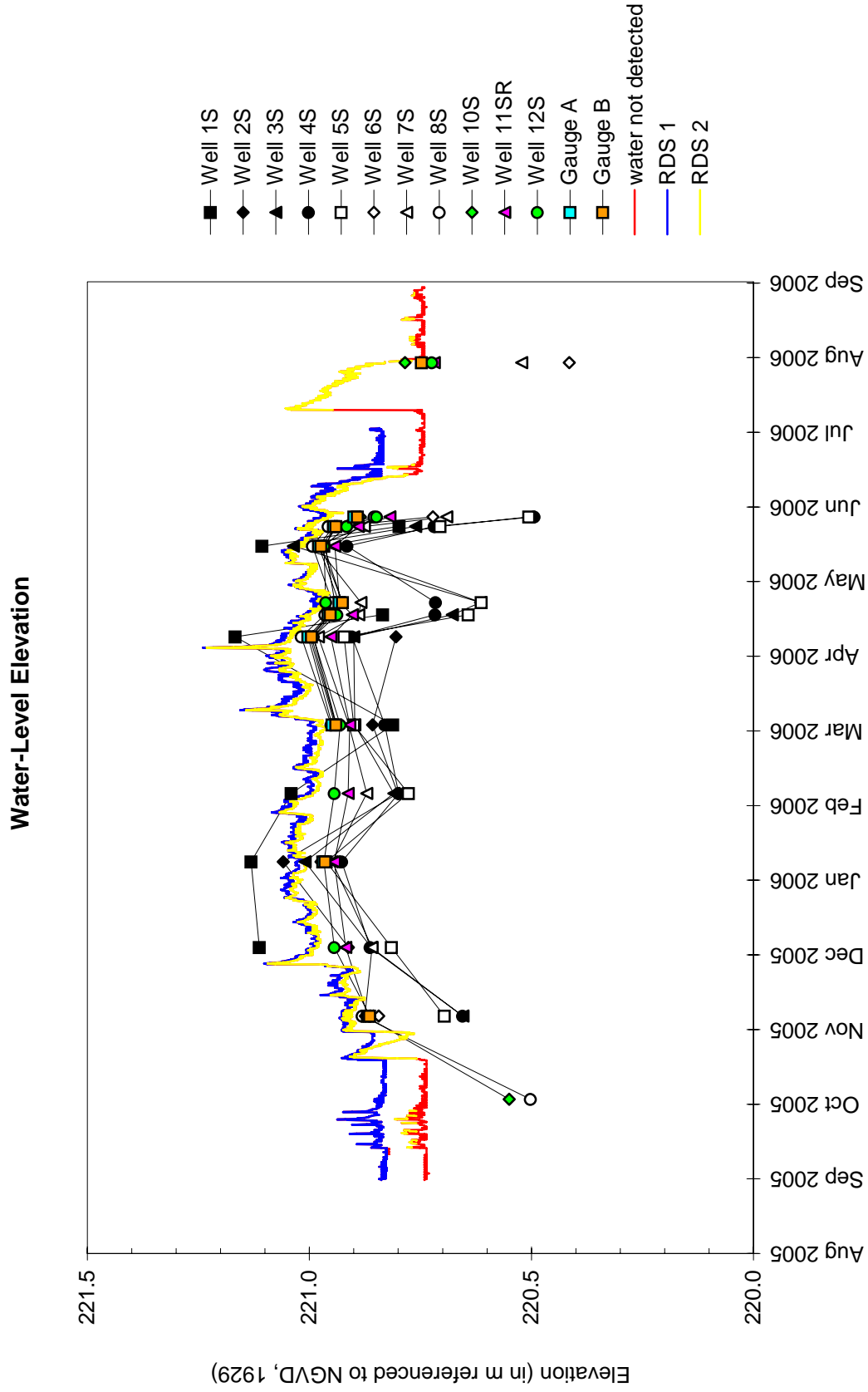
Map based on USGS digital orthophotograph, Decatur SW quarter quadrangle
produced from 4/14/98 aerial photography (ISGS 2000)



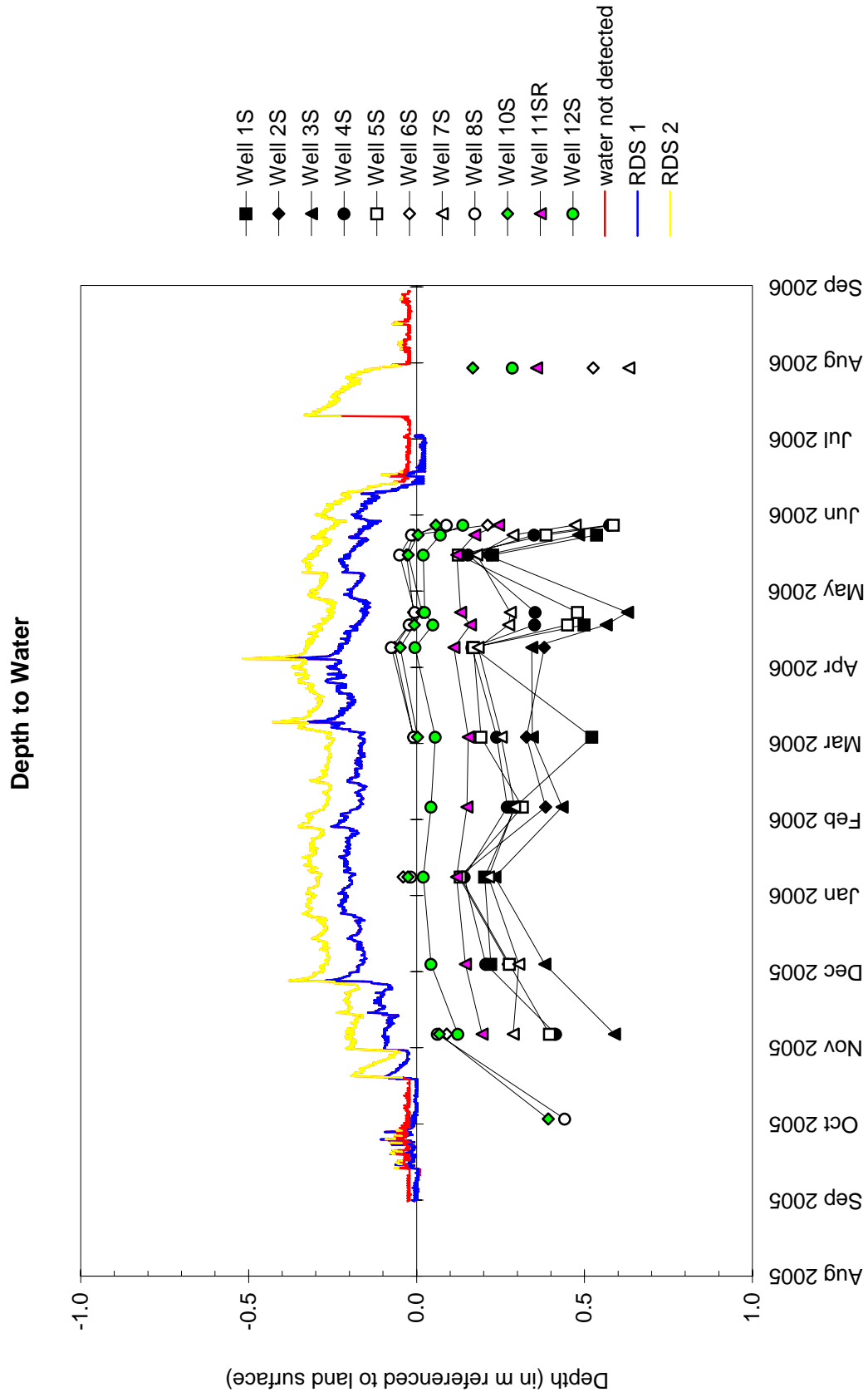
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|---|-------------------------------|-------------------|
| 2006 Wetland Hydrology | | ○ monitoring well |
|  | > 12.5% of the growing season | □ staff gauge |
|  | > 5% of the growing season | △ RDS data logger |
| | | * rain gauge |

Decatur, U.S. Route 51 Wetland Compensation Site

September 1, 2005 to September 1, 2006

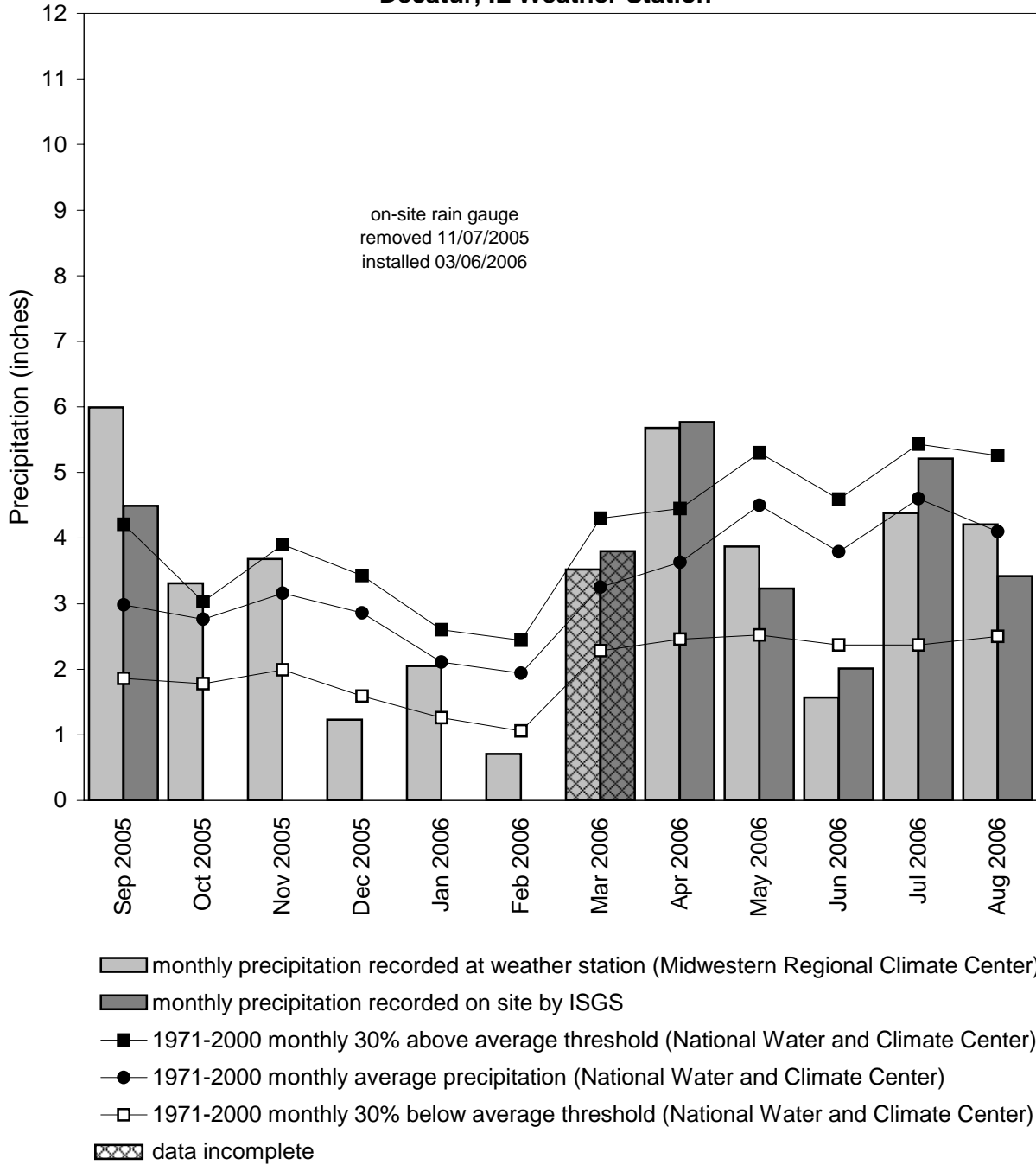


Decatur, U.S. Route 51 Wetland Compensation Site September 1, 2005 to September 1, 2006



Decatur Wetland Compensation Site September 2005 through August 2006

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



Graph last updated October 13, 2006