



TAMMS

ISGS #71

WETLAND COMPENSATION SITE

FAS 1907

Sequence #1026

Union County, near Tamms, Illinois

Primary Project Manager: Geoffrey E. Pociask

Secondary Project Manager: not assigned

SITE HISTORY

- Summer 2001: The wetland compensation site was constructed.
- June 2003: ISGS was tasked by IDOT to monitor wetland hydrology. Post-construction water-level monitoring was initiated in November 2003.

WETLAND HYDROLOGY CALCULATION FOR 2006

We estimate that 1.2 ha (2.9 ac) out of the 6.3-ha (15.6-ac) site satisfied wetland hydrology criteria (Environmental Laboratory 1987) for greater than 5% of the growing season in 2006, whereas 0.6 ha (1.5 ac) 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 nearby Anna, Illinois, is March 31 and the season lasts 225 days; 5% of the growing season is 11 days and 12.5% of the growing season is 28 days.
- Total precipitation for the reporting period from September 2005 through August 2006 was 104% of normal. Drier than normal conditions prevailed in October and December 2005, and in February, and April through June 2006. April through June precipitation totaled only 75% of normal. Precipitation was at or above normal in October and November 2005 and in January and July 2006.
- Wells 3S and 7S satisfied the wetland hydrology criteria for greater than 5% of the growing season. Well 7S also satisfied wetland hydrology criteria for greater than 12.5% of the growing season.
- Surface-water data loggers RDS 1 and RDS 2 showed that ponding occurred in the vicinity of these loggers. Data from RDS 1 showed that the northernmost portion of the site below 102.8 m (337.3 ft) was inundated for greater than 5% of the growing season, and areas below 102.7 m (336.9 ft) were inundated for greater than 12.5% of the growing season. Data from RDS 2 at the south end of the site showed that an area below 102.4 m (336.0 ft) was inundated for greater than 5% of the growing season, and areas below 102.3 m (335.6 ft) were inundated for greater than 12.5% of the growing season.

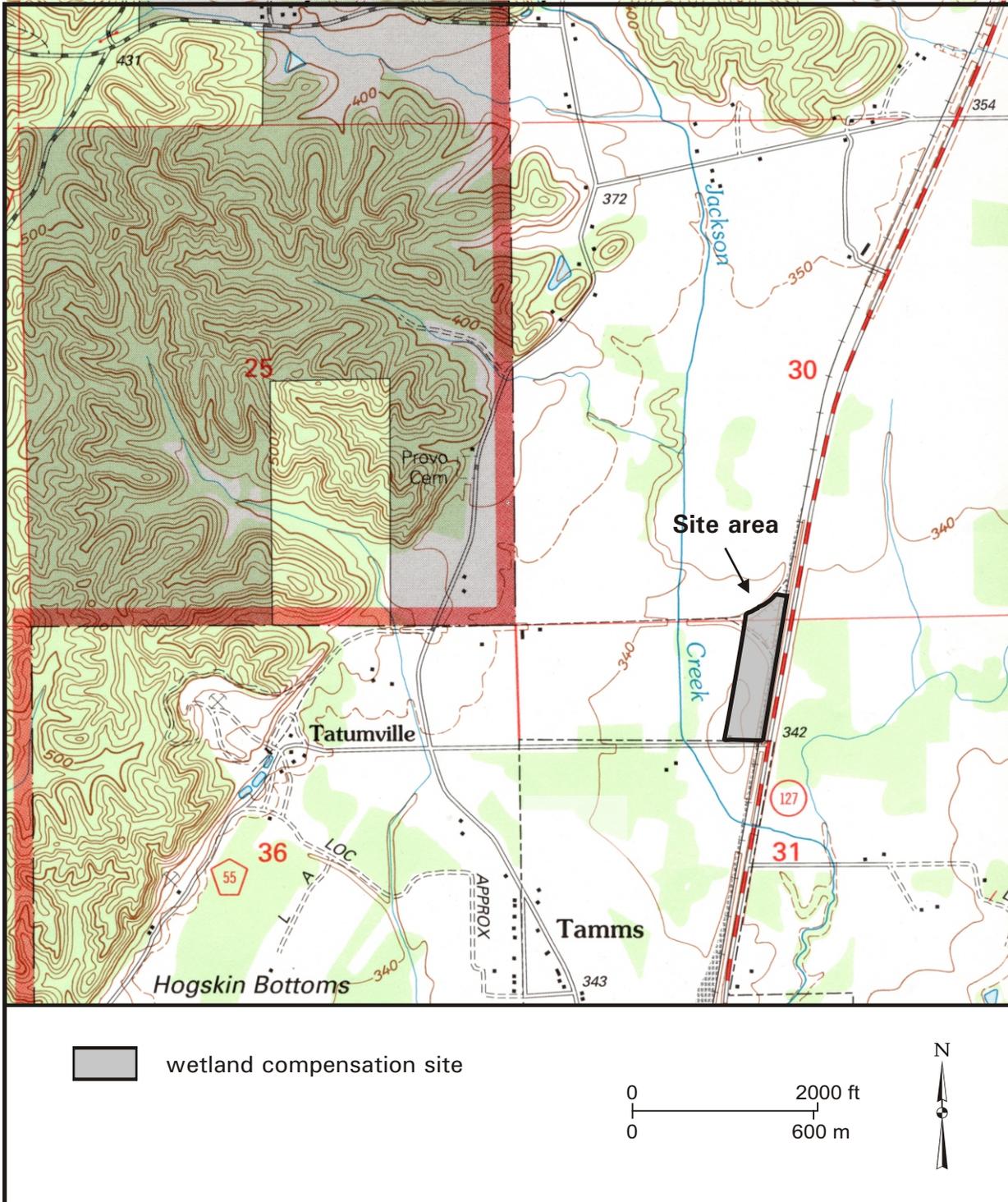
PLANNED FUTURE ACTIVITIES

- Water-level monitoring is expected to continue through 2008 or until no longer required by IDOT.

Tamms Wetland Compensation Site (FAS 1907)

General Study Area and Vicinity

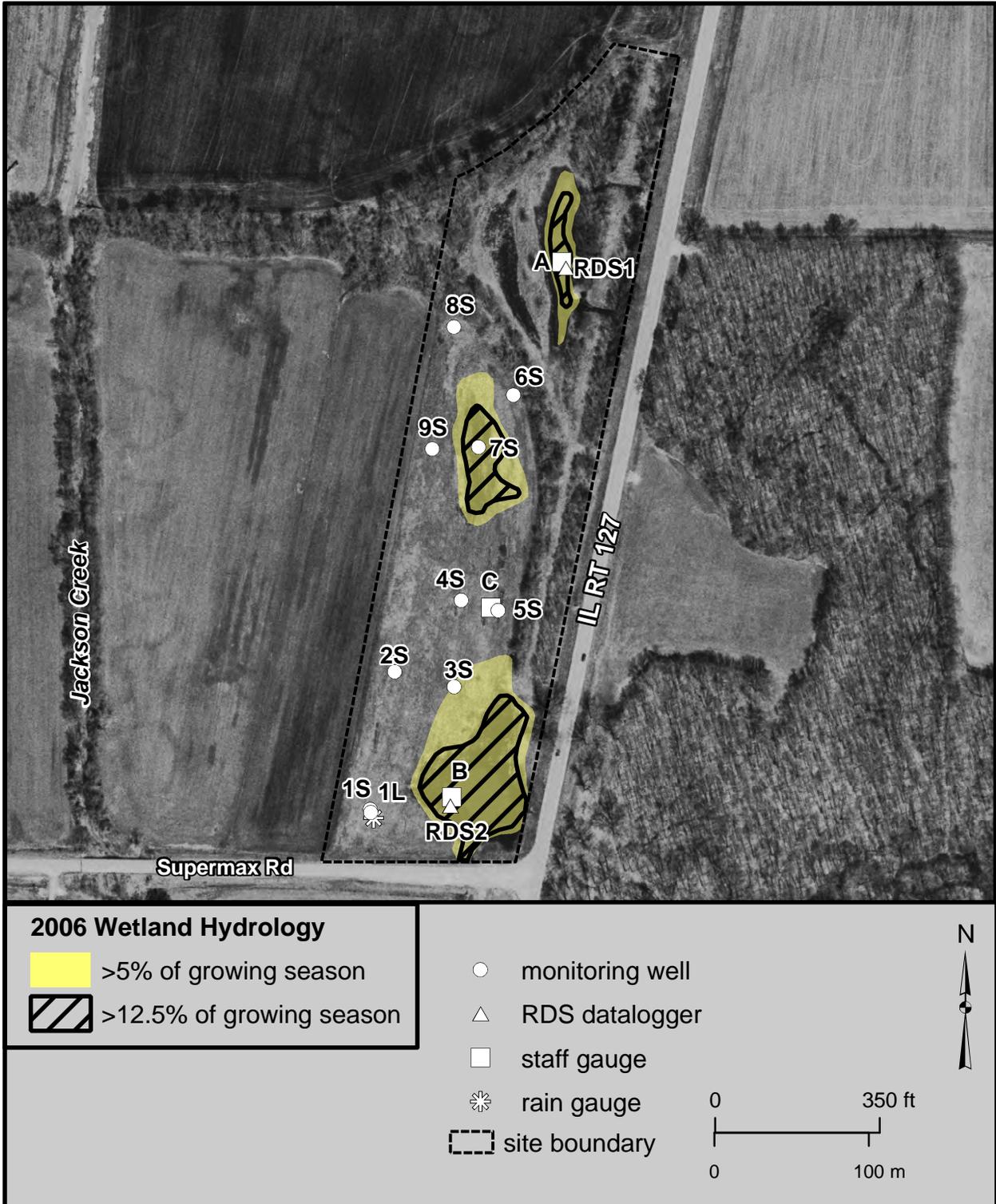
from the USGS Topographic Series, Mill Creek, IL 7.5-minute Quadrangle (USGS 1996).
contour interval is 20 feet



Tamms Wetland Compensation Site (FAS 1907)

Estimated Areal Extent of 2006 Wetland Hydrology

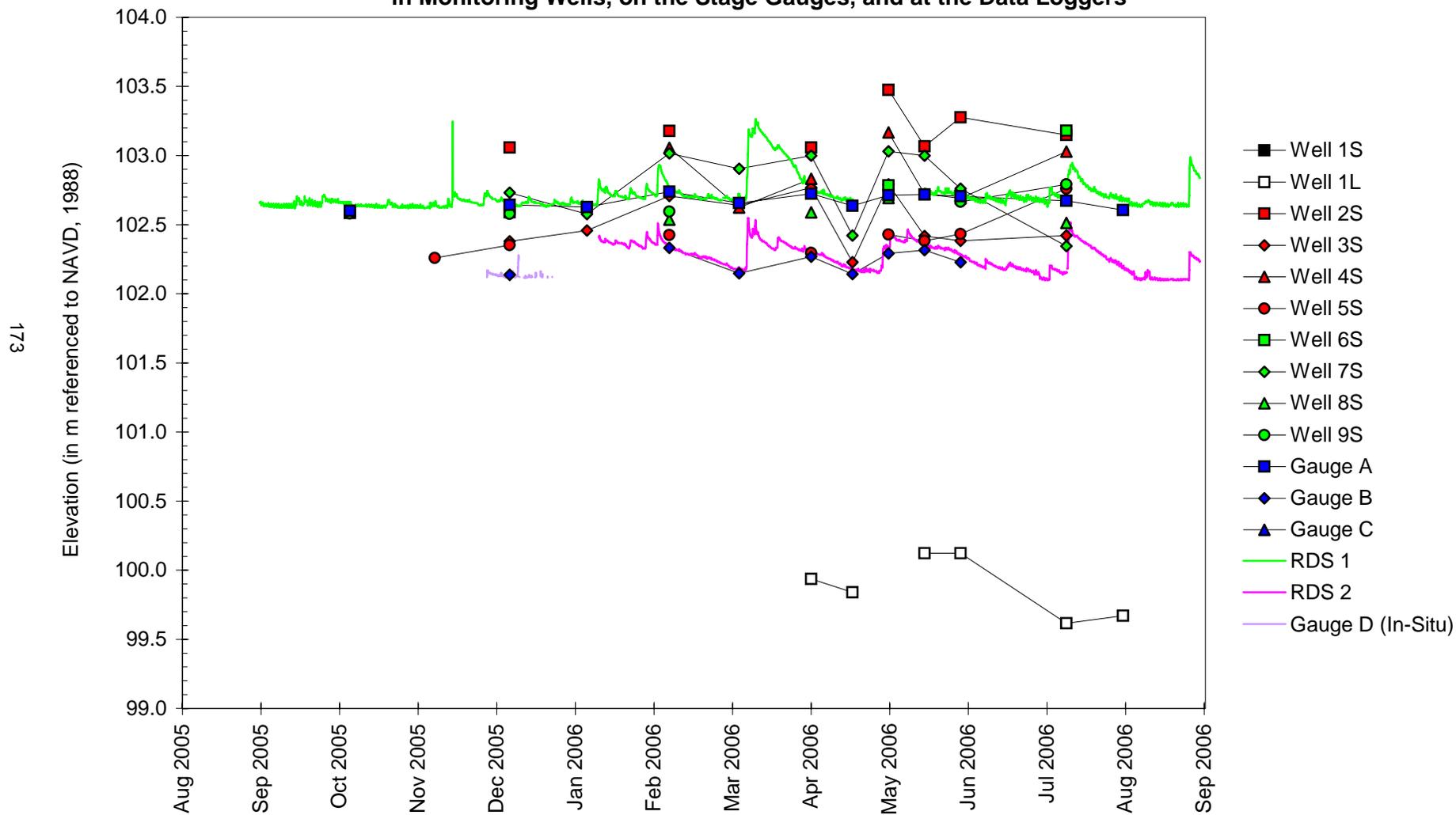
map based on USGS digital orthophotograph, Mill Creek SE quarter quadrangle
from 3/31/2005 aerial photography and ISGS topography (ISGS 2006).



Tamms Wetland Compensation Site

September 1, 2005 to September 1, 2006

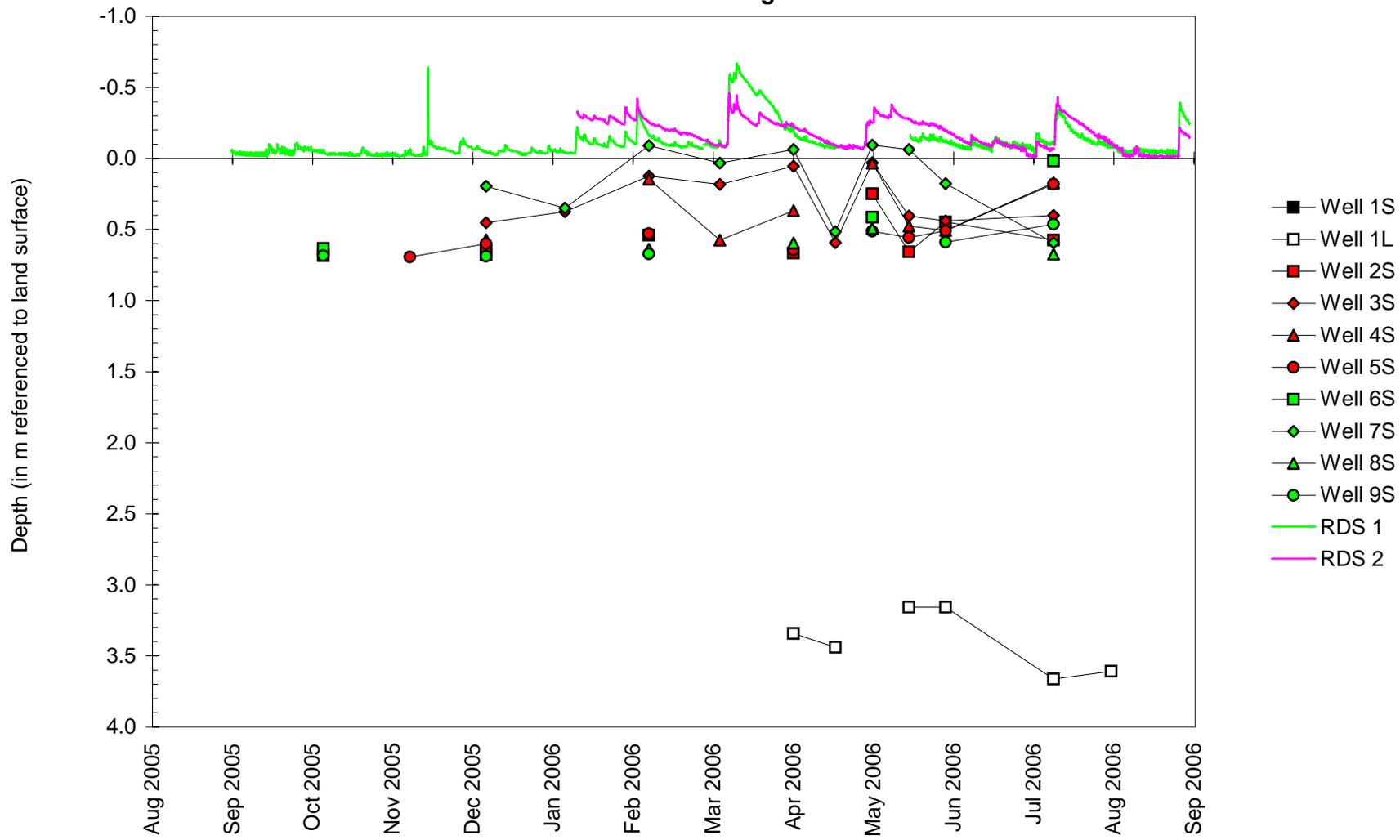
Water-Level Elevations in Monitoring Wells, on the Stage Gauges, and at the Data Loggers



Tamms Wetland Compensation Site

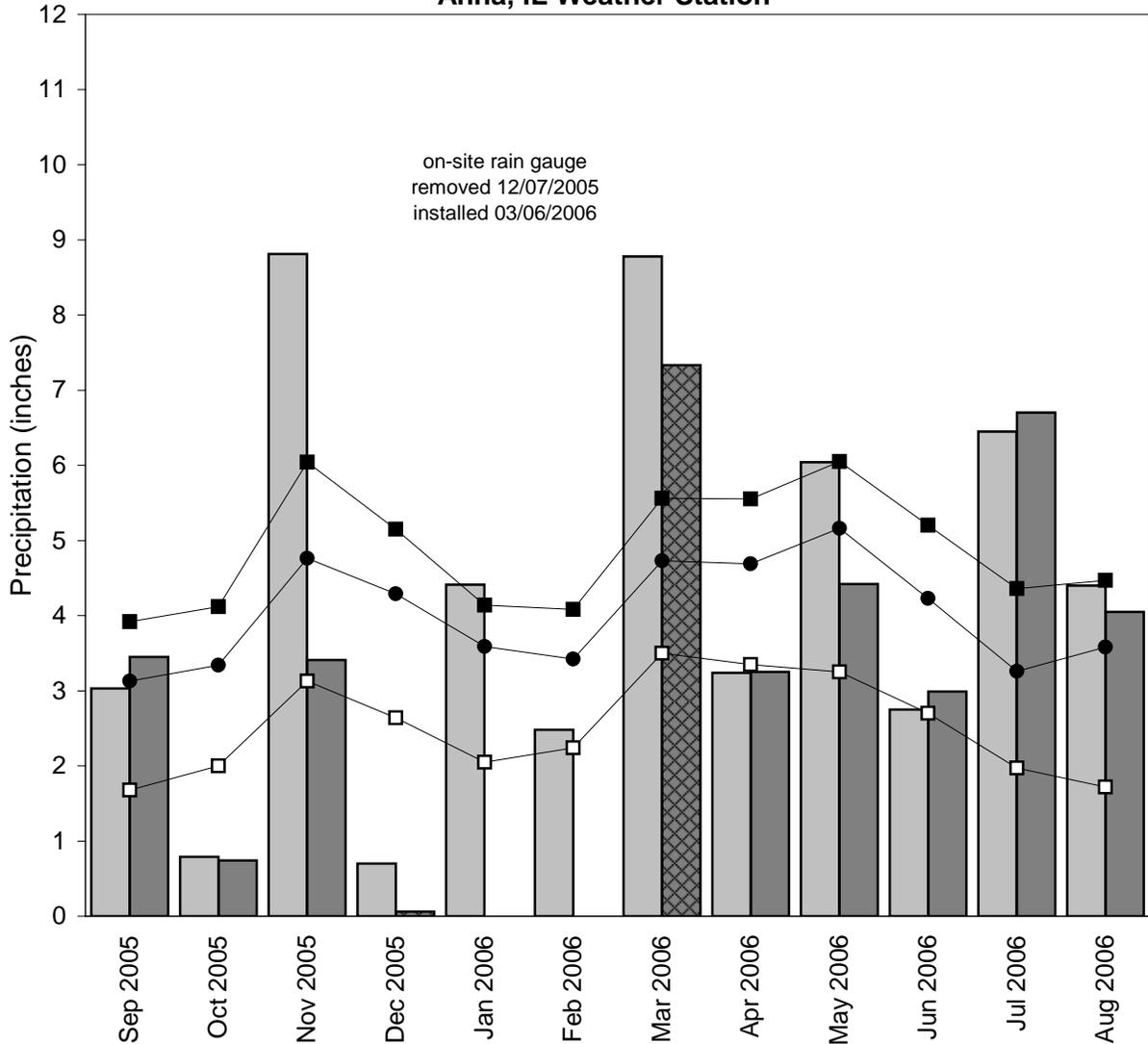
September 1, 2005 to September 1, 2006

Depth to Water in Monitoring Wells



Tamms Wetland Compensation Site September 2005 through August 2006

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



- monthly precipitation recorded at weather station (Midwestern Regional Climate Center)
- monthly precipitation recorded on site by ISGS
- 1971-2000 monthly 30% above average threshold (National Water and Climate Center)
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- 1971-2000 monthly 30% below average threshold (National Water and Climate Center)
- ▨ data incomplete

Graph last updated October 13, 2006