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.
- November 2003: Post-construction water-level monitoring was initiated.

WETLAND HYDROLOGY CALCULATION FOR 2008

We estimate that 2.5 ha (6.3 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 2008, whereas 1.1 ha (2.6 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 MRCC, 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 2007 through August 2008 was 140% of normal. Drier than normal conditions prevailed in September and November 2007 and in January, June and August 2008. Precipitation was at or above normal in October and December 2007, during February through May and in July 2008. The period March through May 2008 was extremely wet with 206% of normal precipitation.
- In 2008, wells 1S, 3S, 4S, 5S, 7S, 8S, and 10S satisfied the wetland hydrology criteria for greater than 5% of the growing season. Wells 7S and 10S also satisfied wetland hydrology criteria for greater than 12.5% of the growing season.
- Data from RDS 2 showed that areas at the south end of the site below 102.4 m (336.0 ft) were 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. Data were not available to estimate wetland hydrology from RDS 1, because the data logger malfunctioned during the early growing season. Instead, water-level values from Gauge A were used to estimate wetland hydrology for this location. Gauge A showed that areas below 103.1 m (338.3 ft) were inundated for greater than 5% of the growing season, and areas below 103.0 m (337.9 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.

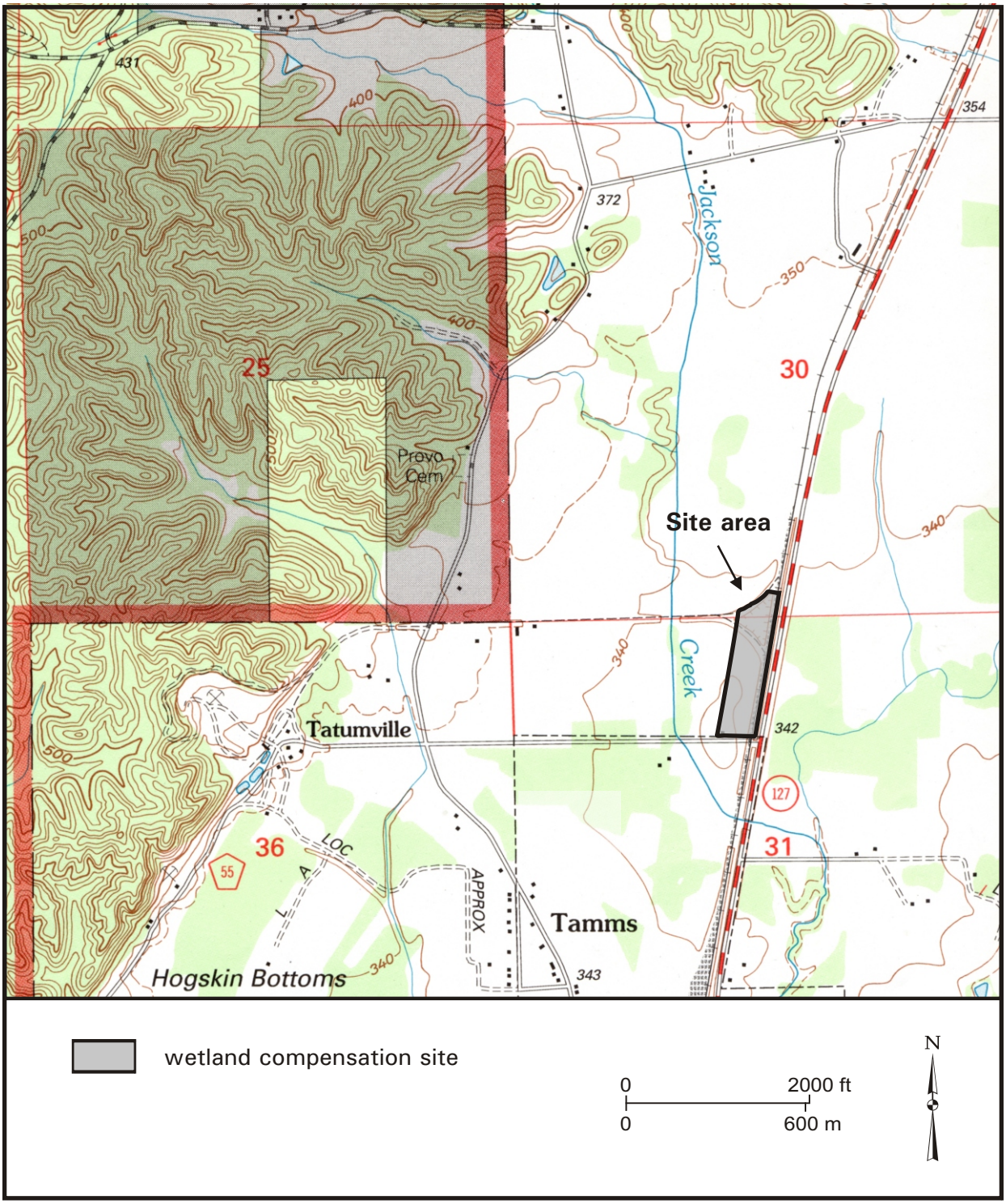
Tamms Wetland Compensation Site

(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

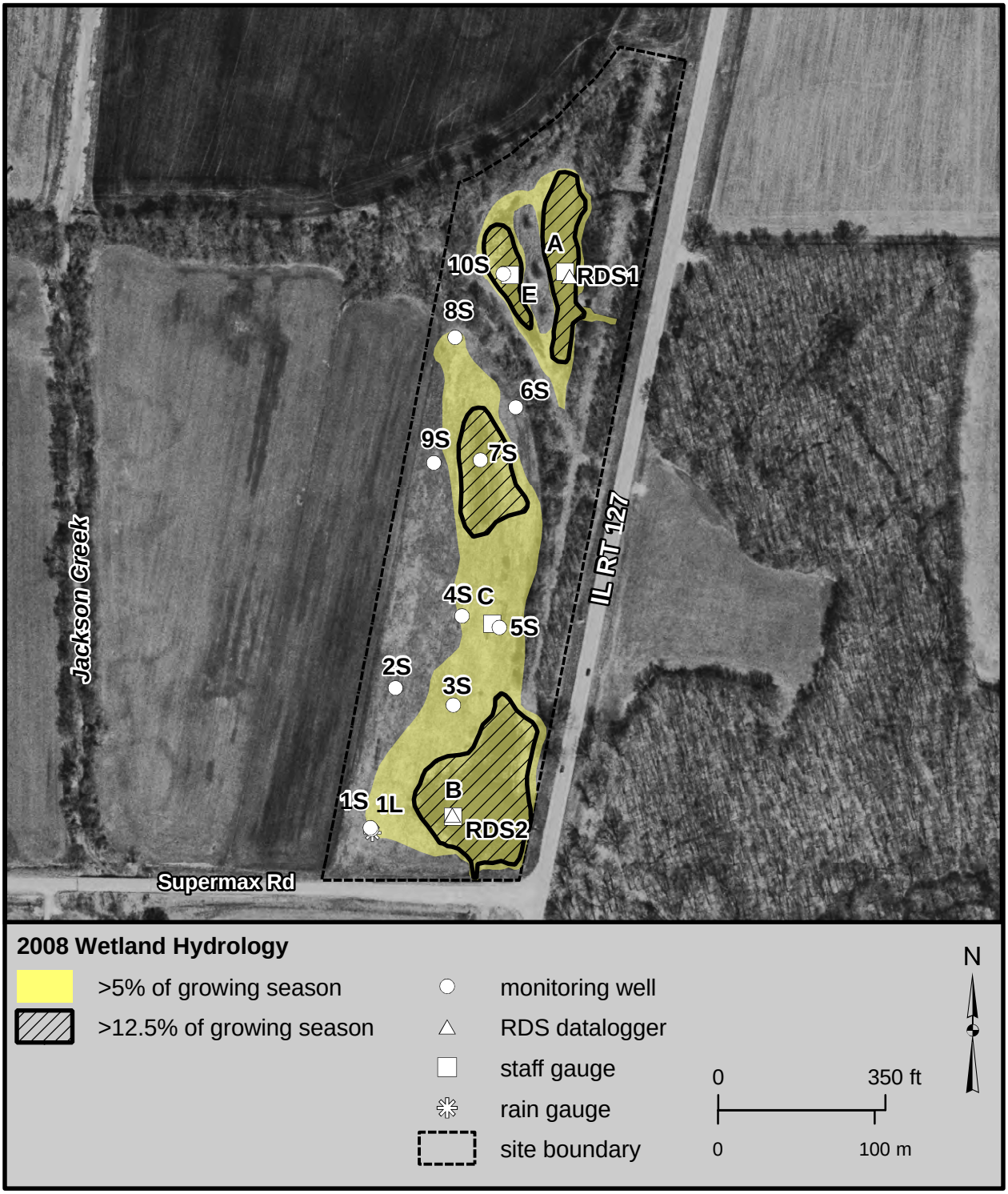


Tamms Wetland Compensation Site
(FAS 1907)

Estimated Areal Extent of 2008 Wetland Hydrology

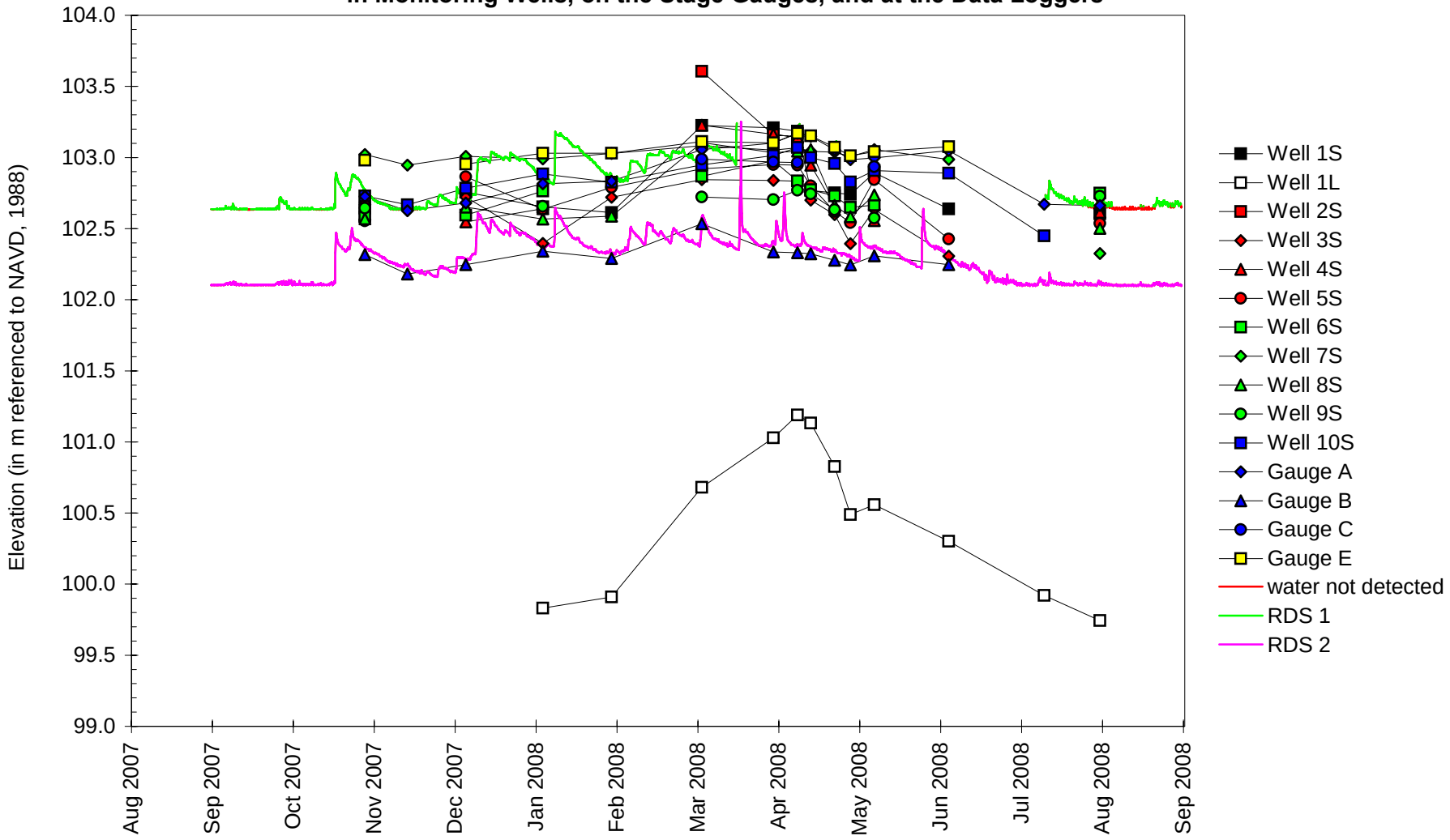
based on data collected between September 1, 2007 and September 1, 2008

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

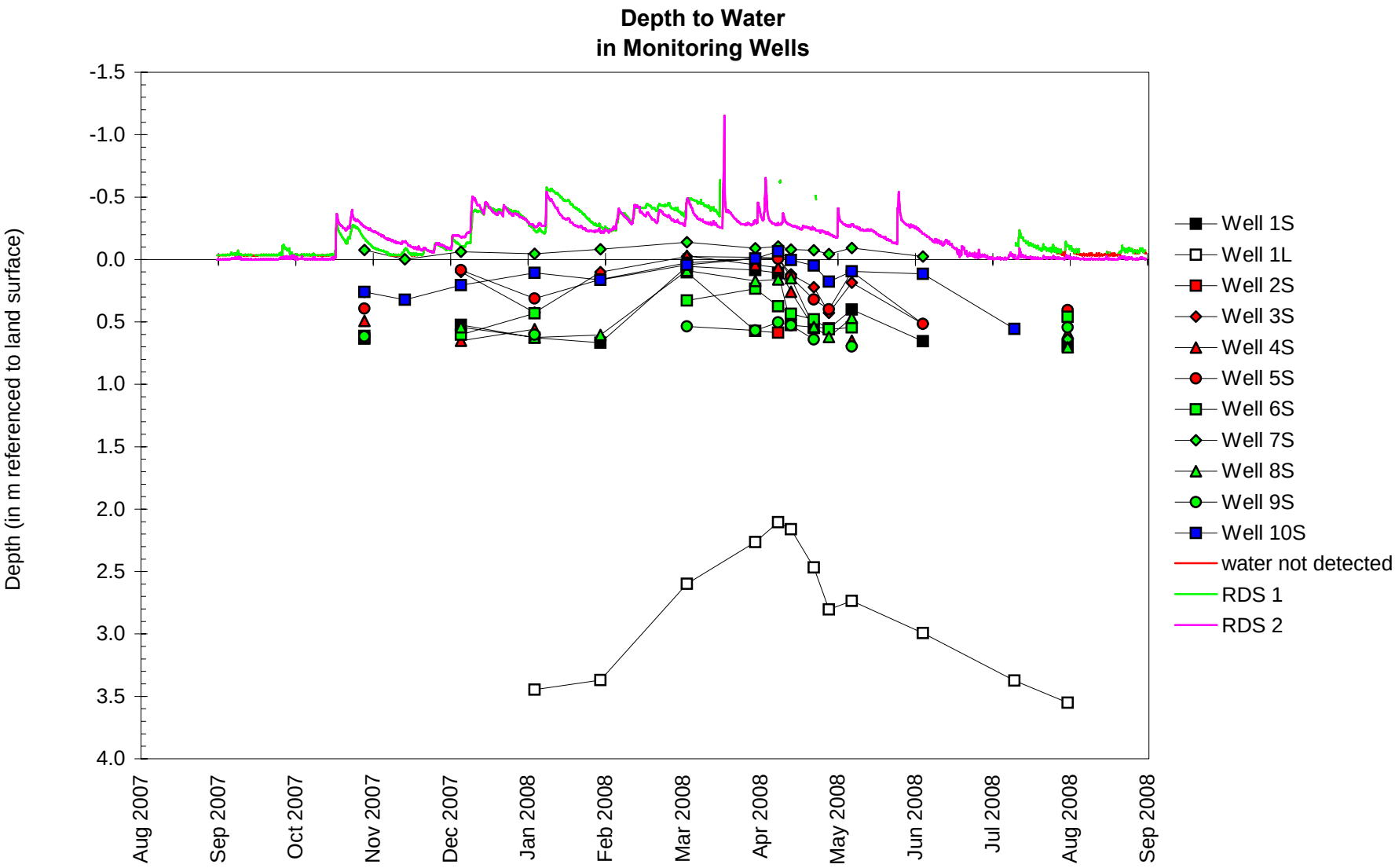


Tamms Wetland Compensation Site
September 1, 2007 to September 1, 2008

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



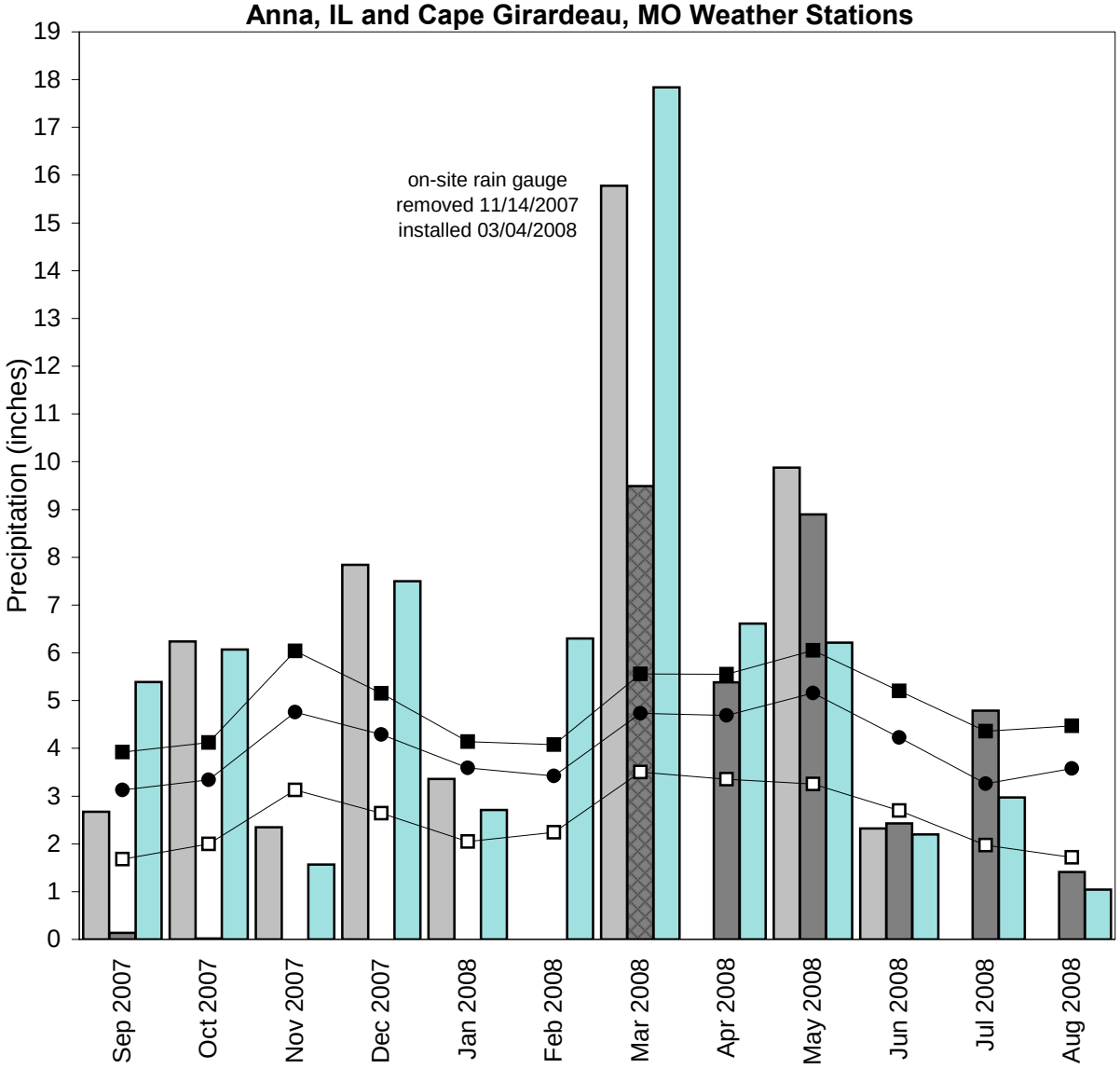
Tamms Wetland Compensation Site
September 1, 2007 to September 1, 2008



Tamms Wetland Compensation Site

September 2007 through August 2008

Total Monthly Precipitation Recorded On Site and at the Anna, IL and Cape Girardeau, MO Weather Stations



monthly precipitation recorded at Anna (MRCC)
monthly precipitation recorded on site by ISGS
monthly precipitation recorded at Cape Girardeau (MRCC)
1971-2000 monthly 30% above average threshold at Anna (NWCC)
1971-2000 monthly average precipitation at Anna (NWCC)
1971-2000 monthly 30% below average threshold at Anna (NWCC)
data incomplete

Graph last updated October 7, 2008