



**FAIRMONT CITY, NEW RIVER CROSSING
POTENTIAL WETLAND COMPENSATION SITE**

ISGS #53

FAP 999

Saint Clair County, near Fairmont City, Illinois

Primary Project Manager: Steven E. Benton

Secondary Project Manager: not assigned

SITE HISTORY

- August 1999: The ISGS conducted an initial site evaluation. The results were reported to IDOT by letter in November.
- June 2000: IDOT requested that the ISGS perform a Level II investigation.
- September 2000: ISGS began monitoring ground- and surface-water levels.
- March 2003: A Level II report was submitted to IDOT (ISGS Open-File Series 2003–04).

WETLAND HYDROLOGY CALCULATION FOR 2007

The area of the site that satisfied wetland hydrology criteria (Environmental Laboratory 1987) for more than 5% of the 2007 growing season was estimated to be 10.9 ha (27.0 ac) out of a total area of 32.4 ha (80.0 ac). The area that satisfied wetland hydrology criteria for more than 12.5% of the 2007 growing season was estimated to be 10.6 ha (26.2 ac). These estimates are based on the following factors:

- According to the MRCC, the median date that the growing season begins in nearby Belleville, Illinois, is April 6 and the season lasts 199 days; 5% of the growing season is 10 days and 12.5% of the growing season is 25 days.
- Total precipitation recorded at the Belleville, Illinois weather station during the monitoring period was 91% of normal. Precipitation was at or above normal in October and December 2006, and in January, February, and May 2007. Total precipitation in the spring was 99% of normal.
- In 2007, wetland hydrology occurred for more than 5% of the growing season at wells 3S, 4S, 5S, 9S, 13S, 15S, 17SR, 25S, and 26S. Wetland hydrology occurred for more than 12.5% of the growing season at wells 3S, 4S, 5S, 9S, 13S, 15S, 17SR, and 26S.
- Inundation occurred in two areas of the site. In the southwest pond (Global) and the drainage ditch along the base of the terrace (gauges AR, B, and BR) surface-water elevation was at or above 121.90 m for both 5% and 12.5% of the growing season. At gauges D and F, on the east side of the site, surface-water elevation was at or above 122.35 m (401.43 ft) for both 5% and 12.5% of the growing season.

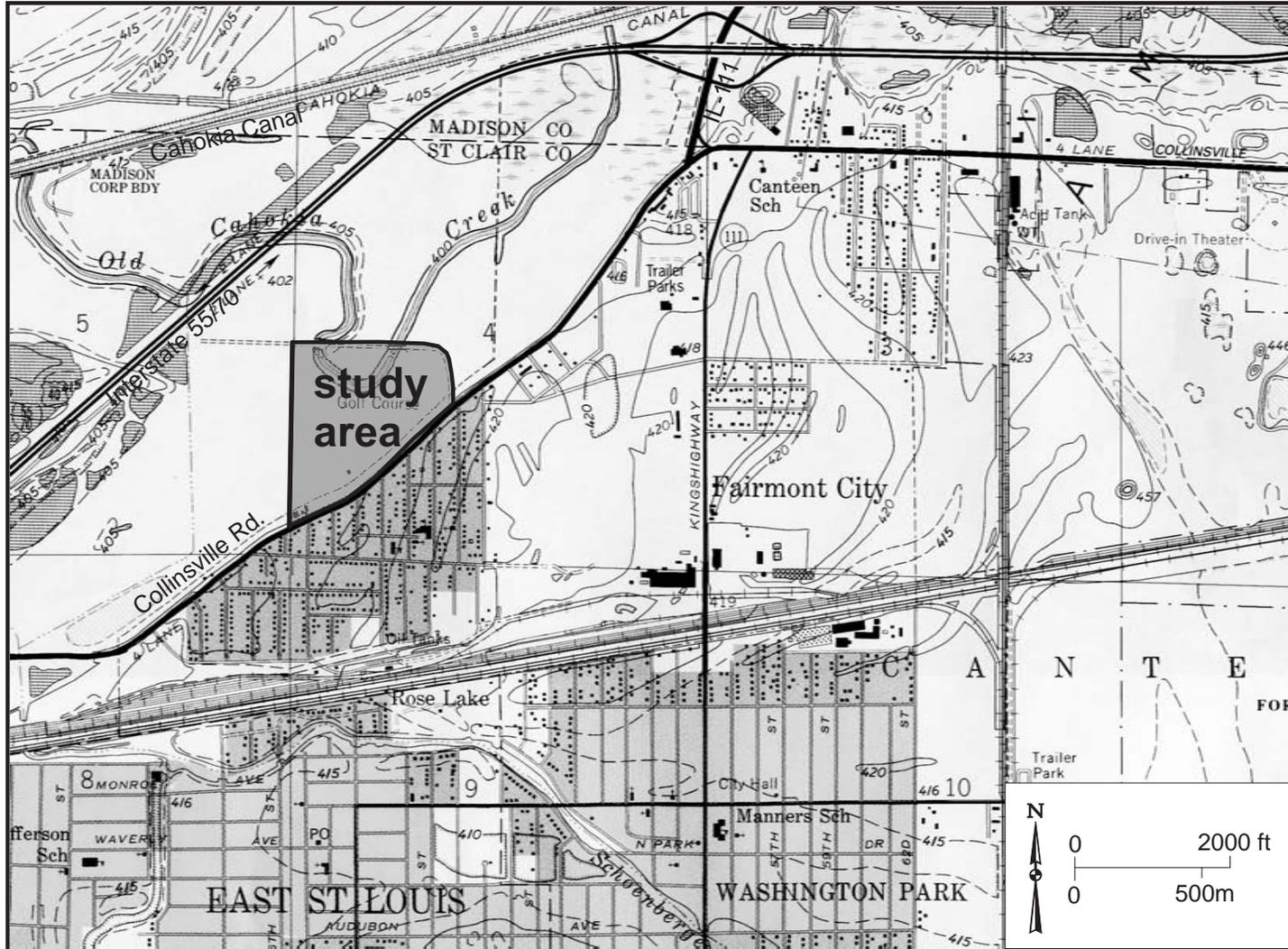
PLANNED FUTURE ACTIVITIES

- Monitoring will continue at this site until notified otherwise by IDOT.

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General Study Area and Vicinity

from the USGS Topographic Series, Monks Mound, IL 7.5-minute Quadrangle (USGS 1993)



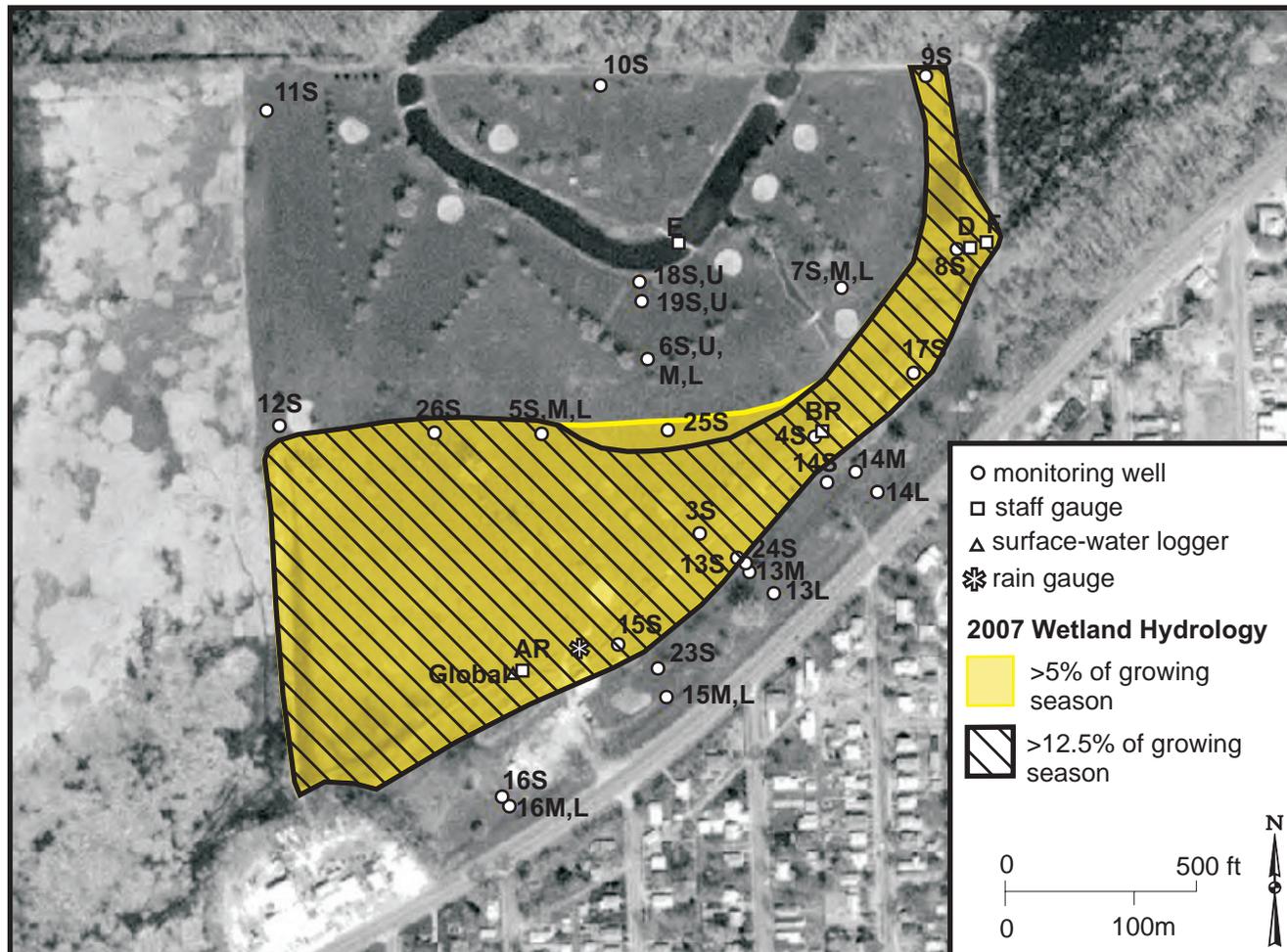
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Estimated Areal Extent of 2007 Wetland Hydrology

based on data collected between September 1, 2006 and September 1, 2007

Map based on USGS digital orthophotograph, Monks Mound SW quarter quadrangle
produced from 04/08/1999 aerial photography (ISGS 2001)

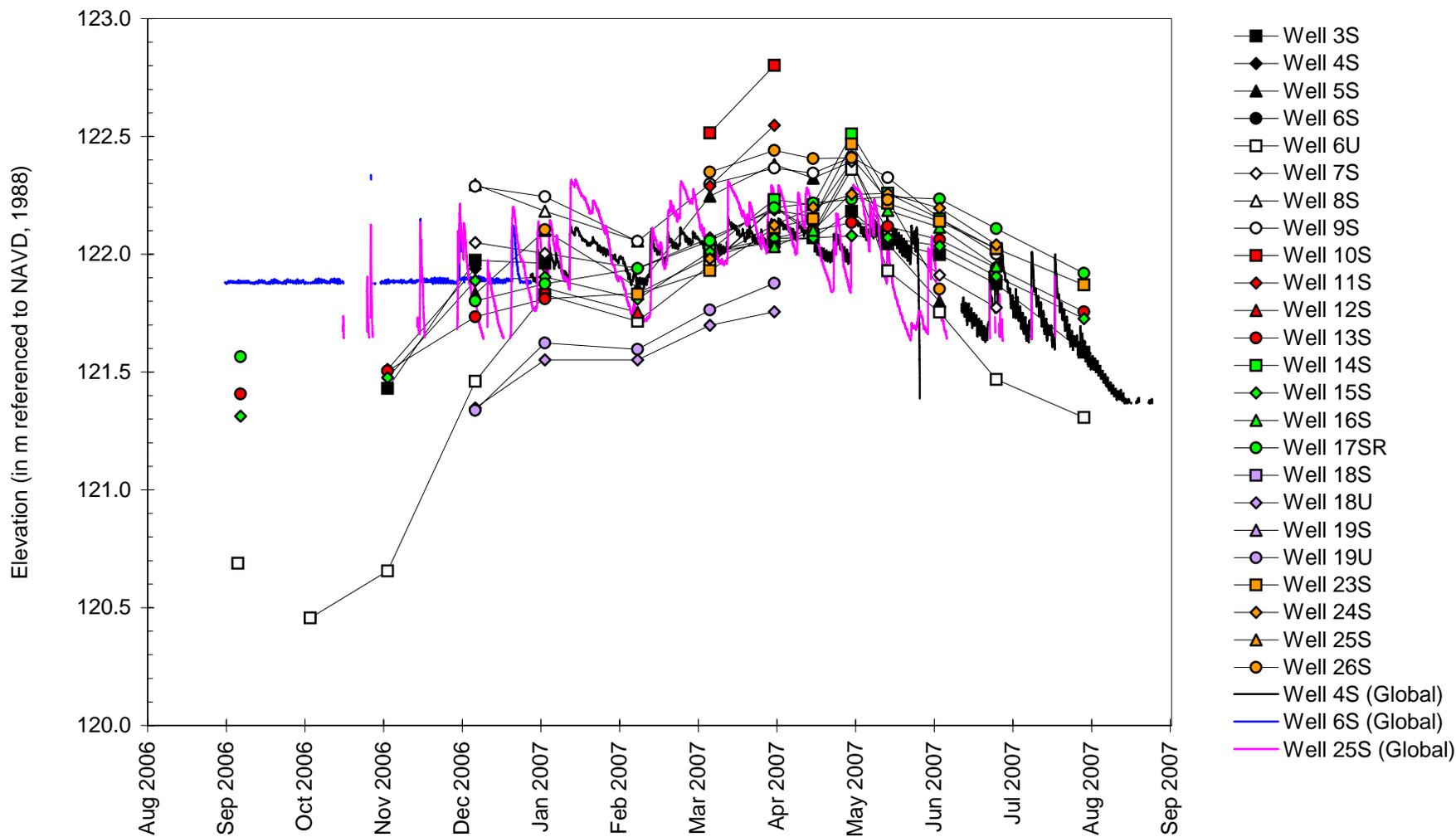
monitoring well, staff gauge and data logger locations from GPS survey



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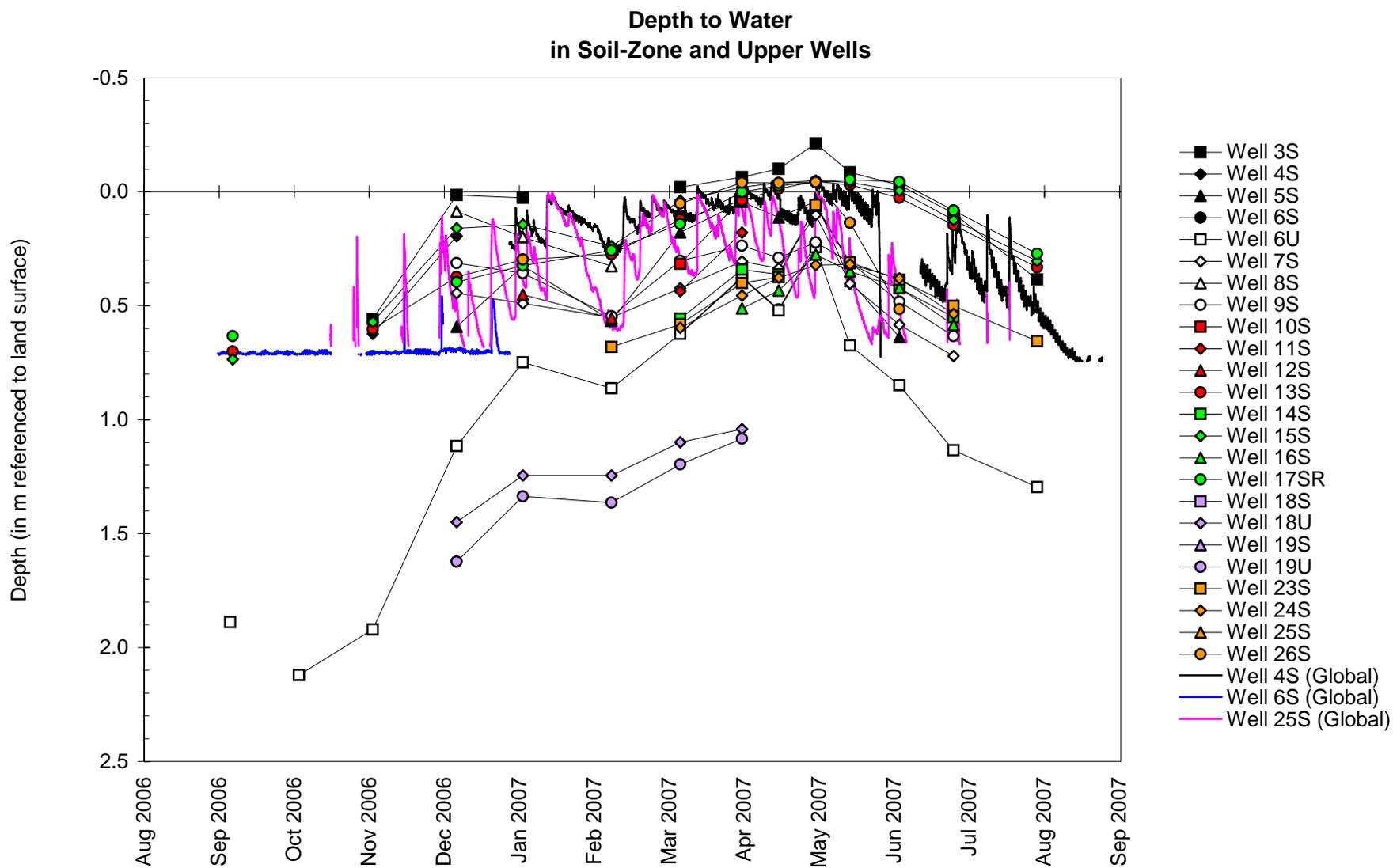
September 1, 2006 to September 1, 2007

Water-Level Elevations in Soil-Zone and Upper Wells



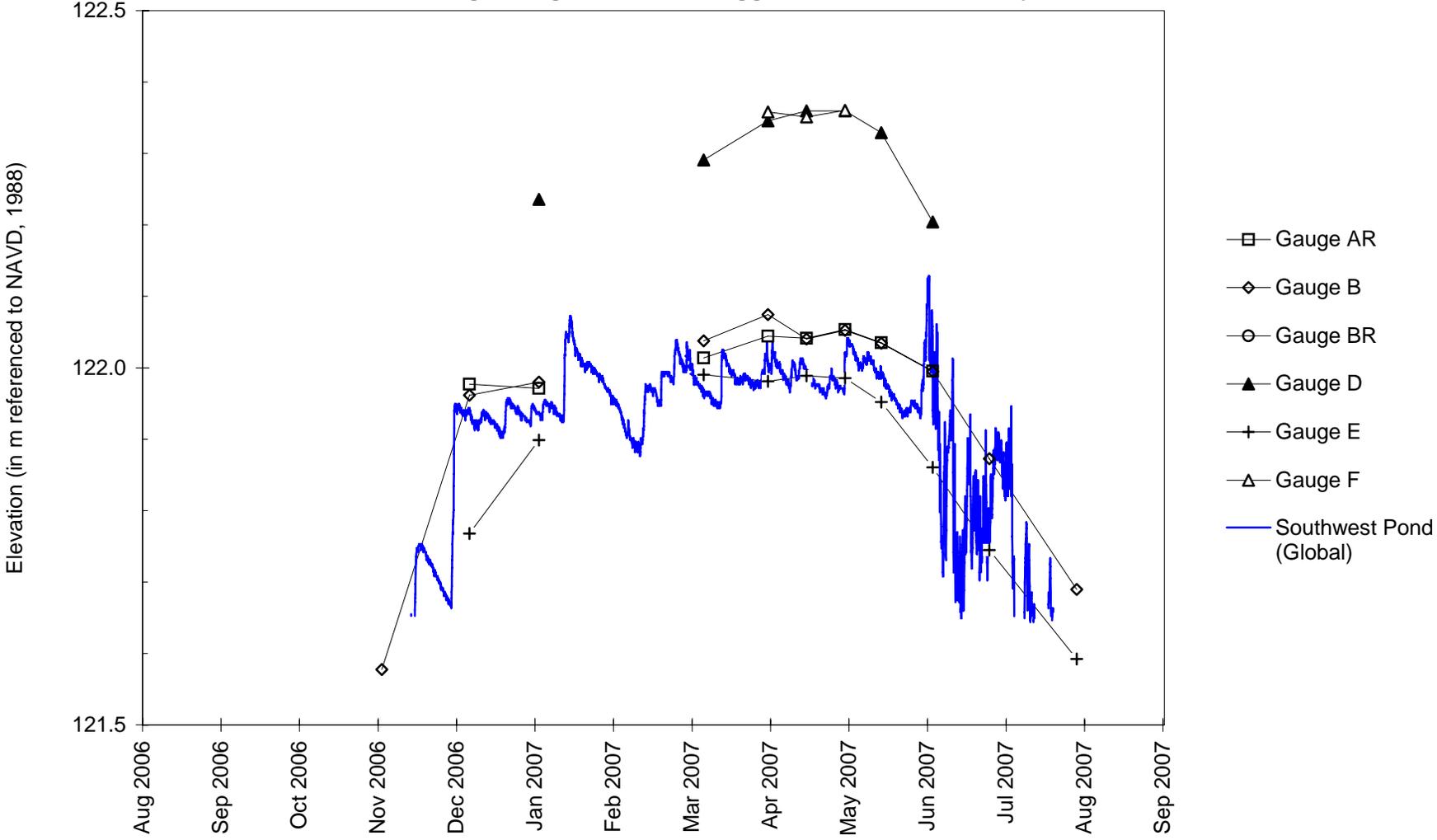
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September 1, 2006 to September 1, 2007



Fairmont City, New River Crossing Potential Wetland Compensation Site
September 1, 2006 to September 1, 2007

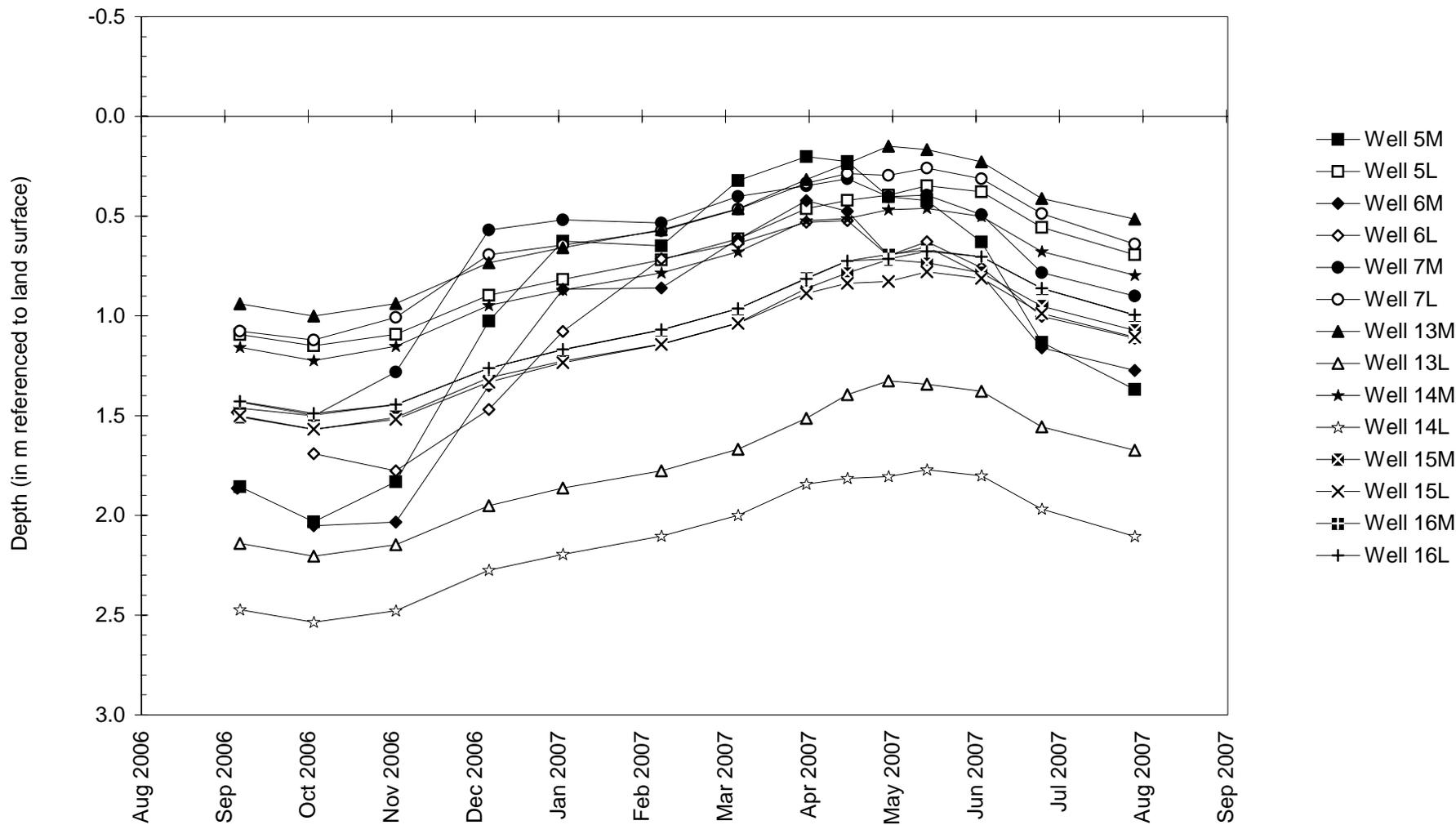
Water-Level Elevations
on Stage Gauges and Data Loggers in the Fairmont City 1 Site



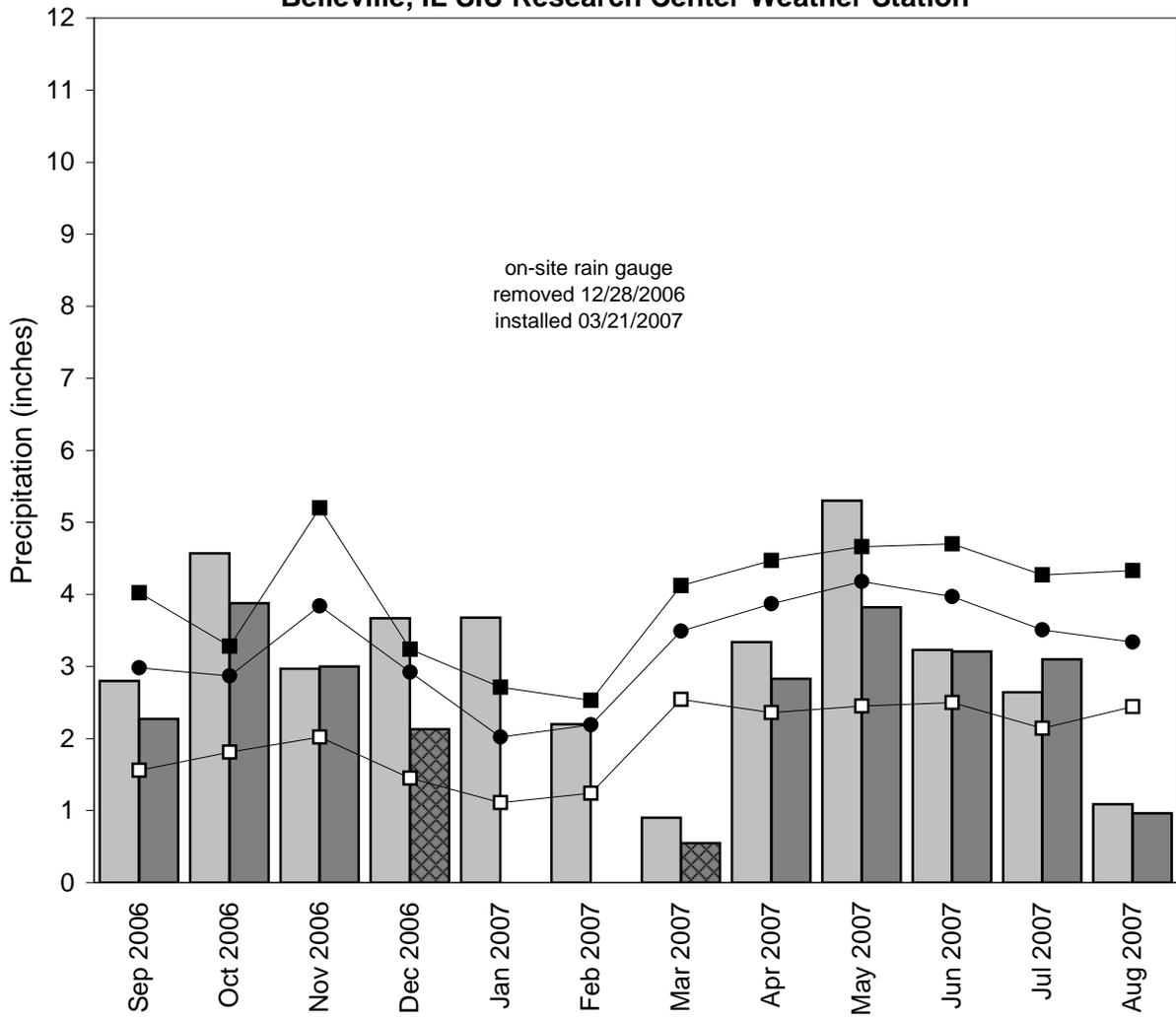
Fairmont City, New River Crossing Potential Wetland Compensation Site

September 1, 2006 to September 1, 2007

Depth to Water in Middle and Lower Wells



**Fairmont City, New River Crossing
Potential Wetland Compensation Site
September 2006 through August 2007
Total Monthly Precipitation Recorded On Site and at the
Belleville, IL SIU Research Center 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)
- 1971-2000 monthly average precipitation (National Water and Climate Center)
- 1971-2000 monthly 30% below average threshold (National Water and Climate Center)
- ▨ data incomplete