



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

ISGS #53

FAP 999

St. 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 2005

The area of the site that satisfied wetland hydrology criteria (Environmental Laboratory 1987) for more than 5% of the 2005 growing season was estimated to be 9.9 ha (24.5 ac). The area that satisfied wetland hydrology criteria for more than 12.5% of the 2005 growing season was estimated to be 9.1 ha (22.6 ac). These estimates are based on the following factors:

- According to the Midwestern Climate Center, 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 2005 monitoring period was 36.29 inches, which was 93% of normal. Precipitation in October 2004, November 2004, January 2005, July 2005, and August 2005 was at or above normal, although precipitation was only 49% of normal from February 2005 to June 2005.
- In 2005, water levels in monitoring wells 3S, 4S, 8S, 12S, 13S, 14S, 15S, 16S, 17S, 23S, and 24S satisfied the wetland hydrology criteria for more than 5% of the growing season. These wells, with the exception of 16S, also satisfied the wetland hydrology criteria for more than 12.5% of the growing season.
- Surface-water data recorded by RDS 1, and staff gauges AR, BR, and D show that the portions of the site below an elevation of 122.1 m (400.6 ft) were inundated for more than 12.5% of the growing season, and areas below an elevation of about 122.2 m (400.9 ft) were inundated for more than 5% of the growing season.

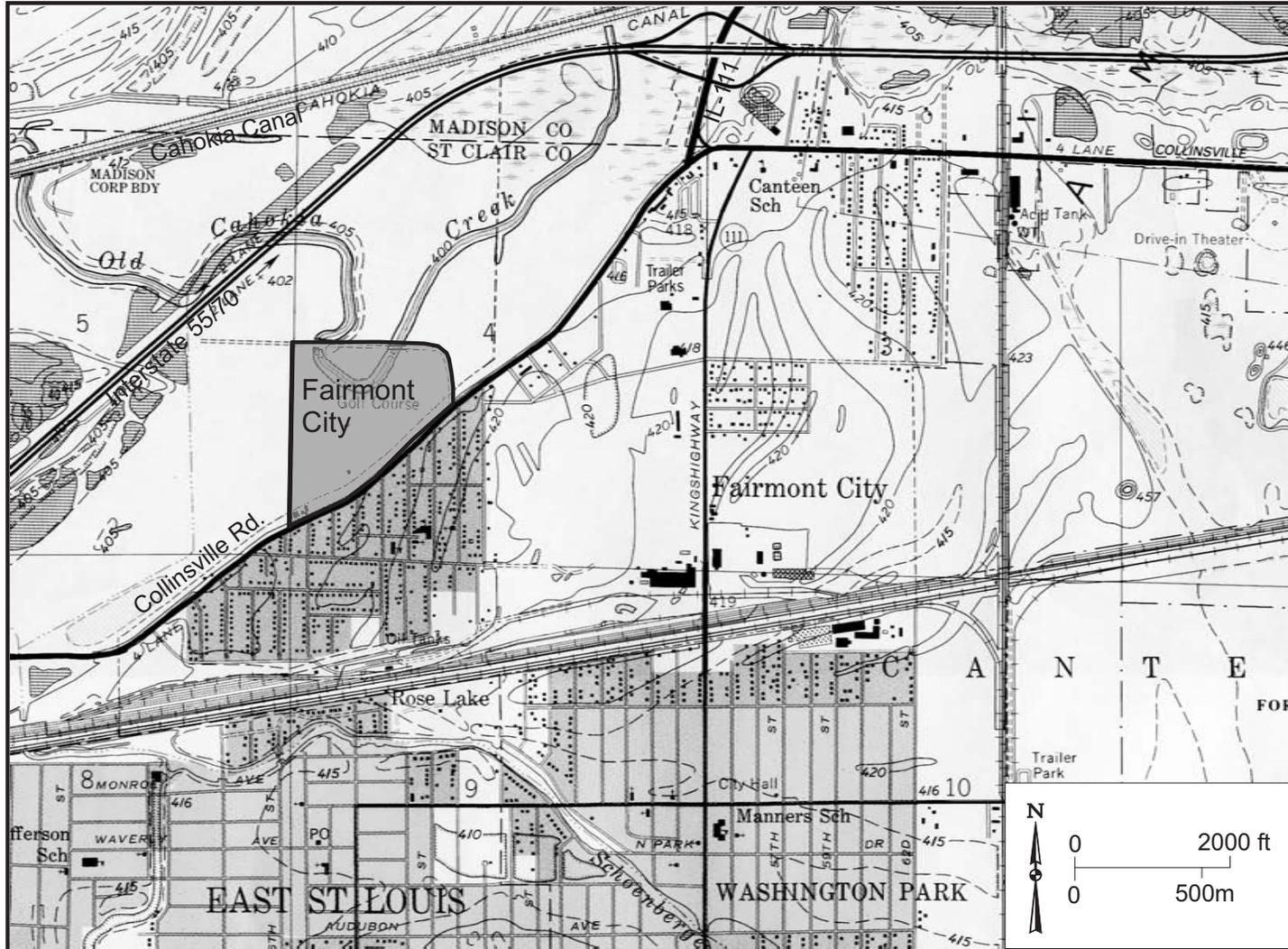
PLANNED FUTURE ACTIVITIES

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

Fairmont City, New River Crossing Potential Wetland Compensation Site (FAP 999)

General Study Area and Vicinity

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



Fairmont City Potential Wetland Compensation Site (FAP 999)

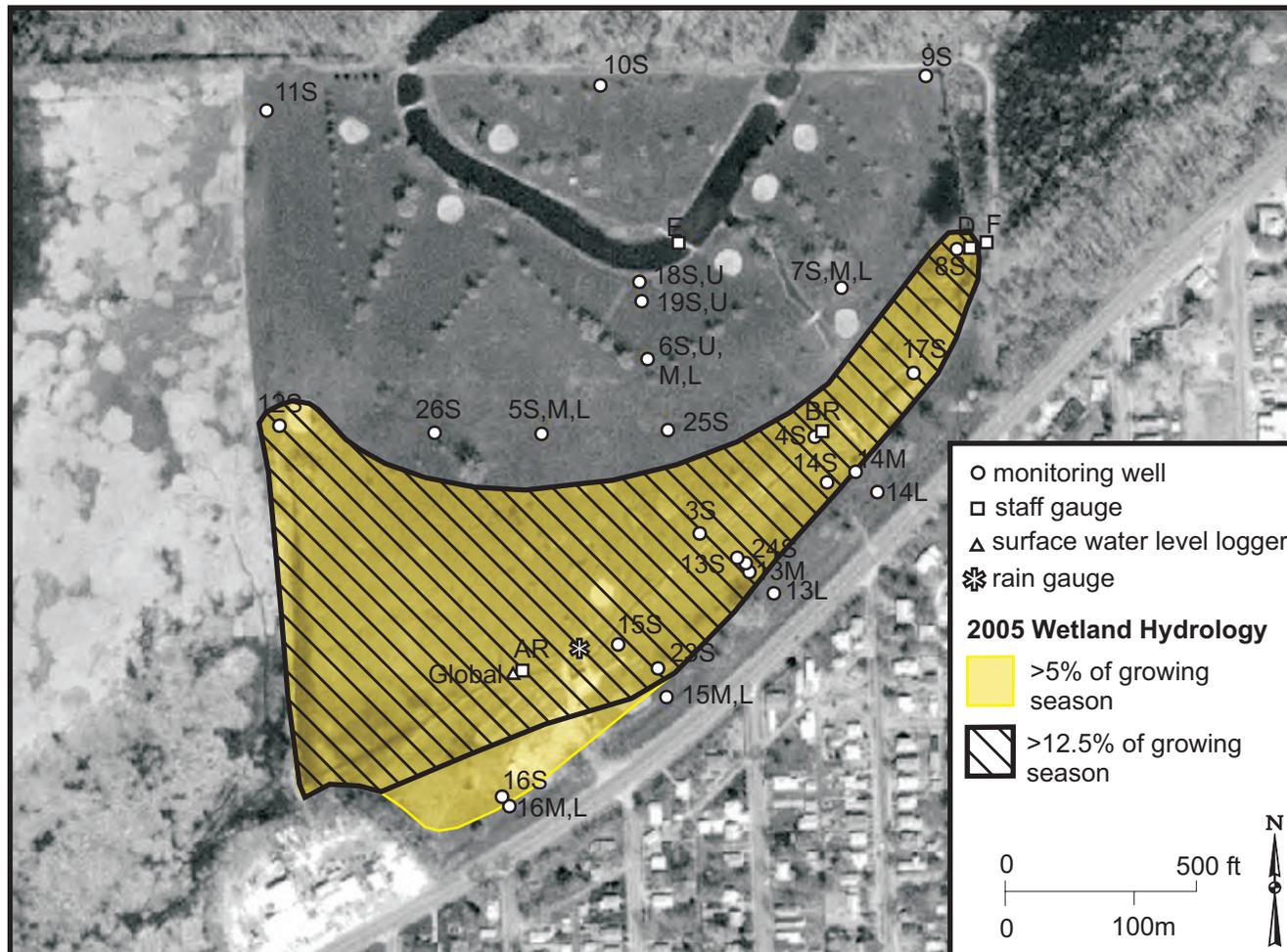
Estimated Areal Extent of 2005 Wetland Hydrology

based on data collected between September 1, 2004 and September 1, 2005

Map based on USGS digital orthophotograph, Monks Mound SW, quarter quadrangle

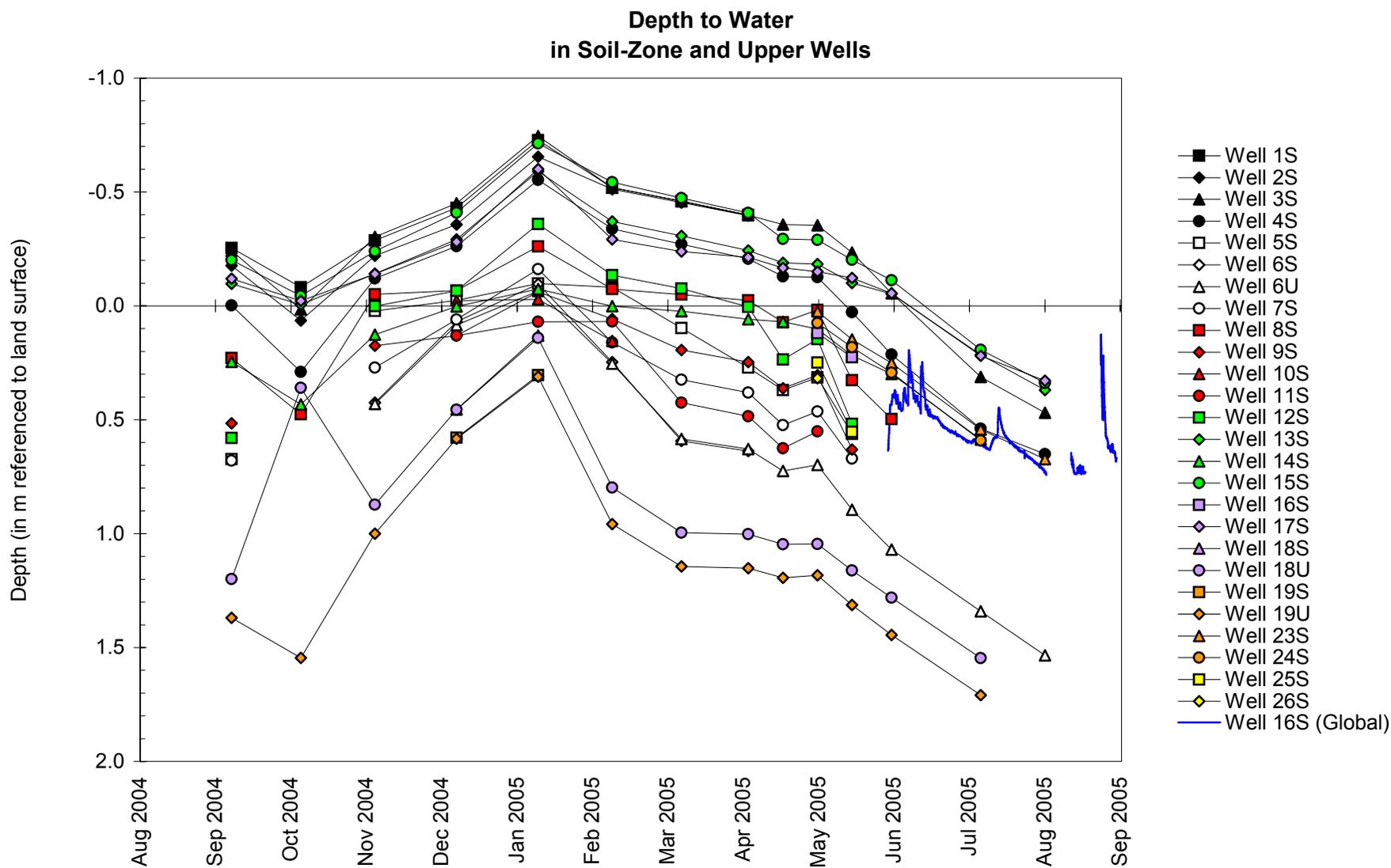
produced from 04/08/1999 aerial photography (ISGS 2001)

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



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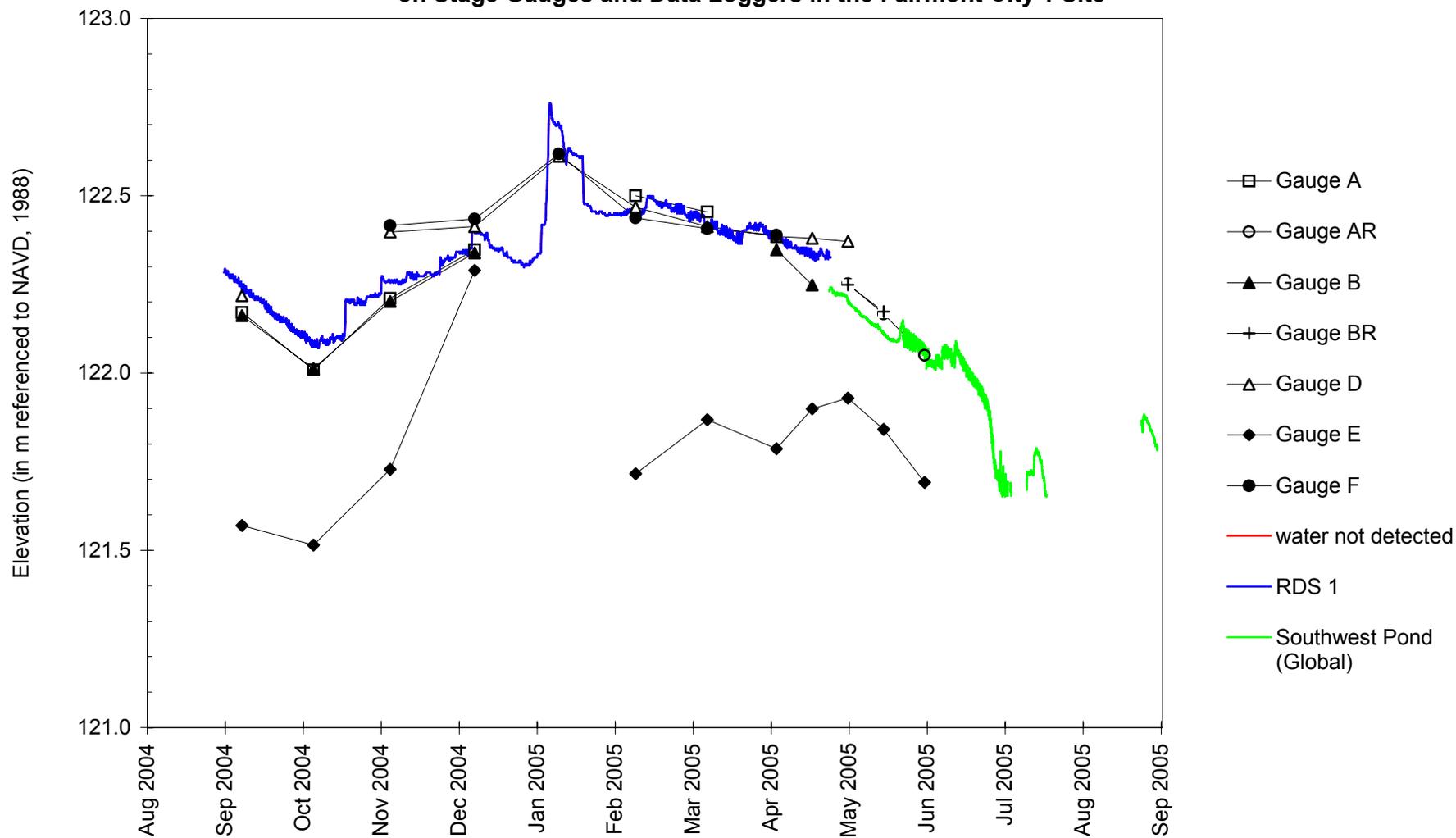
September 1, 2004 to September 1, 2005



Fairmont City, New River Crossing Potential Wetland Compensation Site

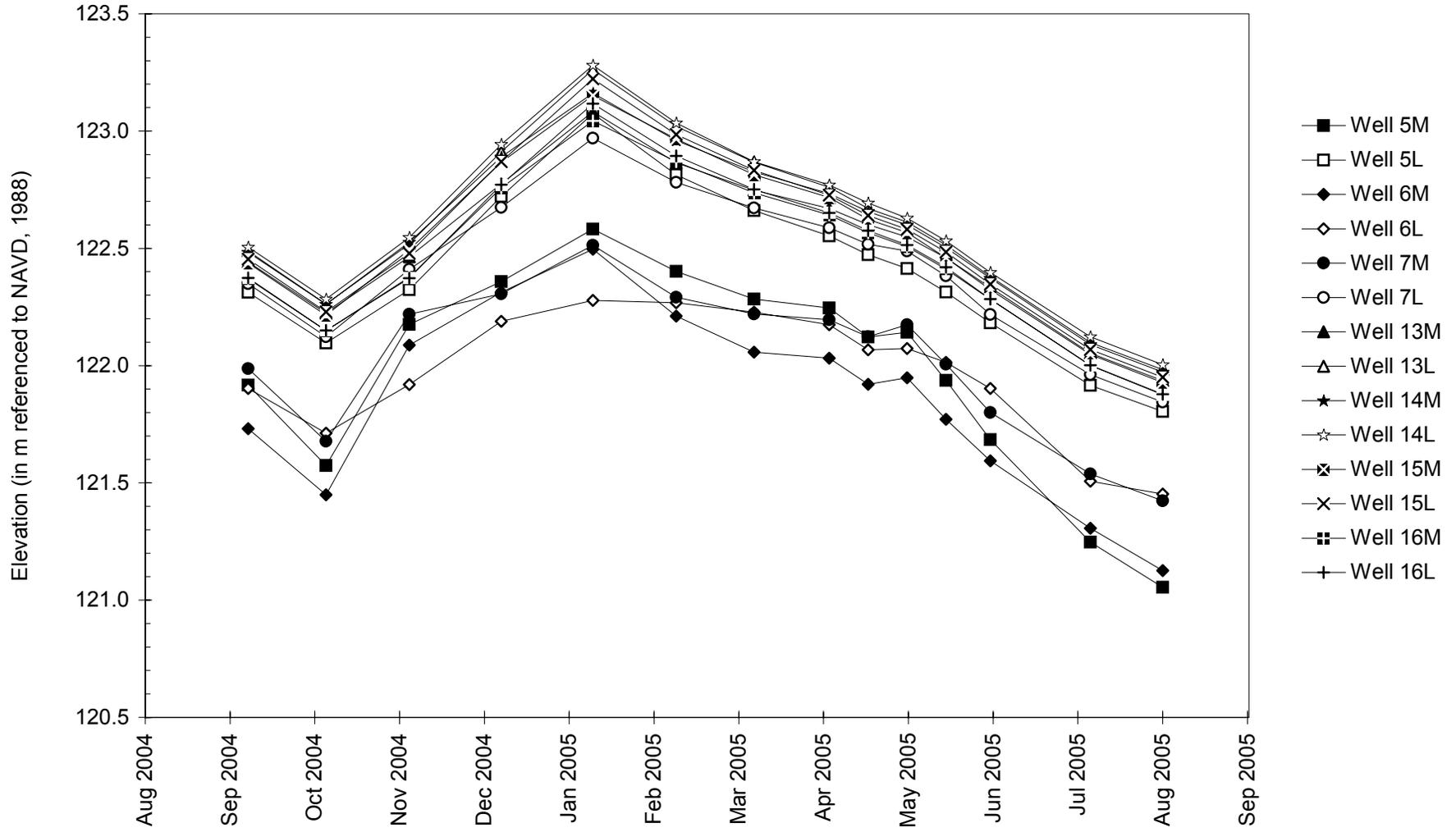
September 1, 2004 to September 1, 2005

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, 2004 to September 1, 2005

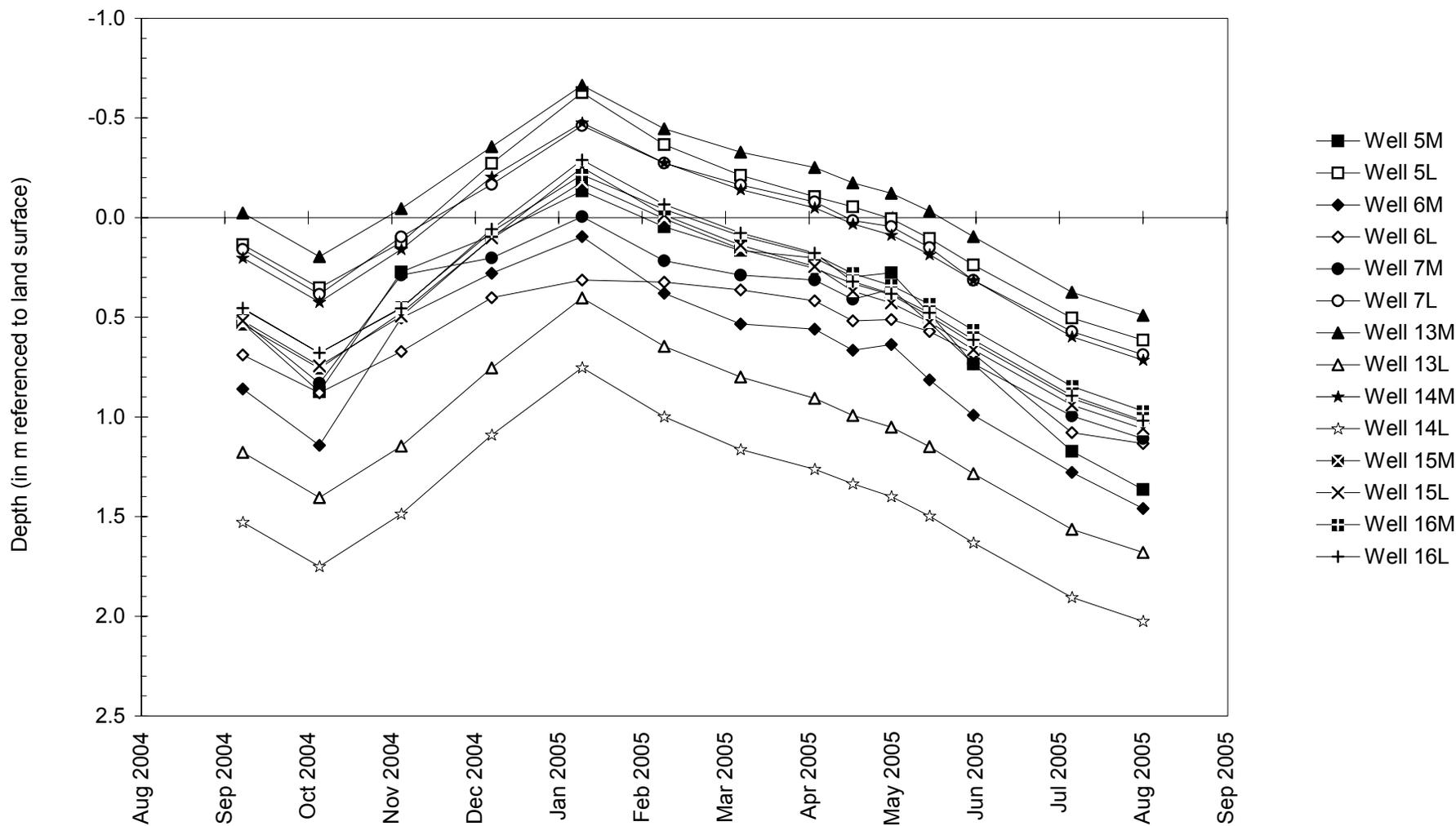
Water-Level Elevations
in Middle and Lower Wells



Fairmont City, New River Crossing Potential Wetland Compensation Site

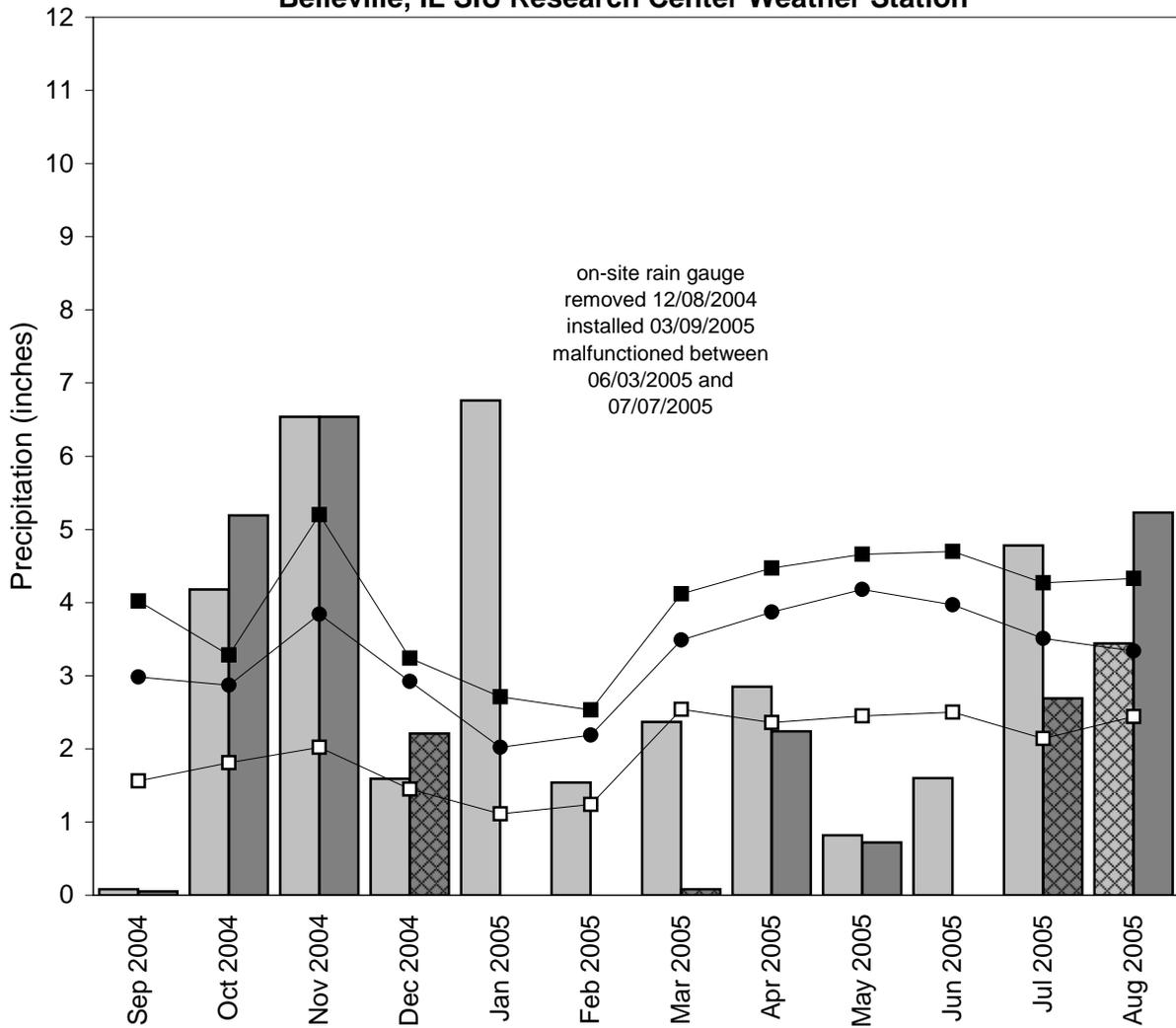
September 1, 2004 to September 1, 2005

Depth to Water in Middle and Lower Wells



Fairmont City, New River Crossing Potential Wetland Compensation Site September 2004 through August 2005

**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 average precipitation (National Water and Climate Center)
- 1971-2000 monthly 30% above average threshold (National Water and Climate Center)
- 1971-2000 monthly 30% below average threshold (National Water and Climate Center)
- data incomplete