

WETLAND BANK

FAP 14

Madison County, near Collinsville, Illinois

Primary Project Manager: Steven E. Benton**Secondary Project Manager: none**

SITE HISTORY

- March 2009: IDOT tasked the ISGS to restart monitoring of the site.
- April 2009: ISGS installed a monitoring network at the site and began data collection.

WETLAND HYDROLOGY CALCULATION FOR 2009

We estimate that the area of the site that satisfied wetland hydrology criteria (Environmental Laboratory 1987) in 2009 for greater than 5% of the growing season was 23.1 ha (57.0 ac) out of a total area of 23.1 ha (57.0 ac). The area of the site that satisfied wetland hydrology criteria for greater than 12.5% of the growing season was estimated to be 22.7 ha (56.0 ac). Using new guidance proposed by the U. S. Army Corps of Engineers (2008), we estimate that 23.1 ha (57.0 ac) satisfied wetland hydrology criteria for 14 or more consecutive days during 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 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. According to methods outlined in the Midwest Regional Supplement (U. S. Army Corps of Engineers 2008), we estimate that March 8 was the starting date of the 2009 growing season at this site based on soil temperatures measured at the nearby Fairmont City site.
- Total precipitation recorded at the Belleville, Illinois weather station during the monitoring period was 110% of normal. Precipitation was at or above normal in September and December 2008, and in February 2009, and from April through August 2009. Total precipitation in the spring (April through June) was 140% of normal.
- In 2009, all of the monitoring wells satisfied wetland hydrology criteria for more than 5% of the growing season. In addition, all of the wells except 6S satisfied wetland hydrology criteria for 14 or more consecutive days and for more than 12.5% of the growing season.
- Surface-water levels measured at EBSW1 reveal that inundation occurred at an elevation at or above 124.03 m (406.97 ft) for more than 5% of the growing season, at an elevation at or above 124.03 m (406.94 ft) for 14 or more consecutive days, and at an elevation at or above 124.02 m (406.91 ft) for more than 12.5% of the growing season.

ADDITIONAL INFORMATION

- Monitoring of the site will continue until no longer required by IDOT.

- In August 2009 it was discovered that a portion of Schneider Ditch along the southern boundary of the site had been re-excavated and a swath about 6.1 m (20.0 ft) wide on both sides of the ditch cleared of vegetation. This will likely have an effect on the hydrology of the site.

Eckmann/Bischoff Wetland Bank (FAP 14)

Estimated Areal Extent of 2009 Wetland Hydrology September 1, 2008 through August 31, 2009

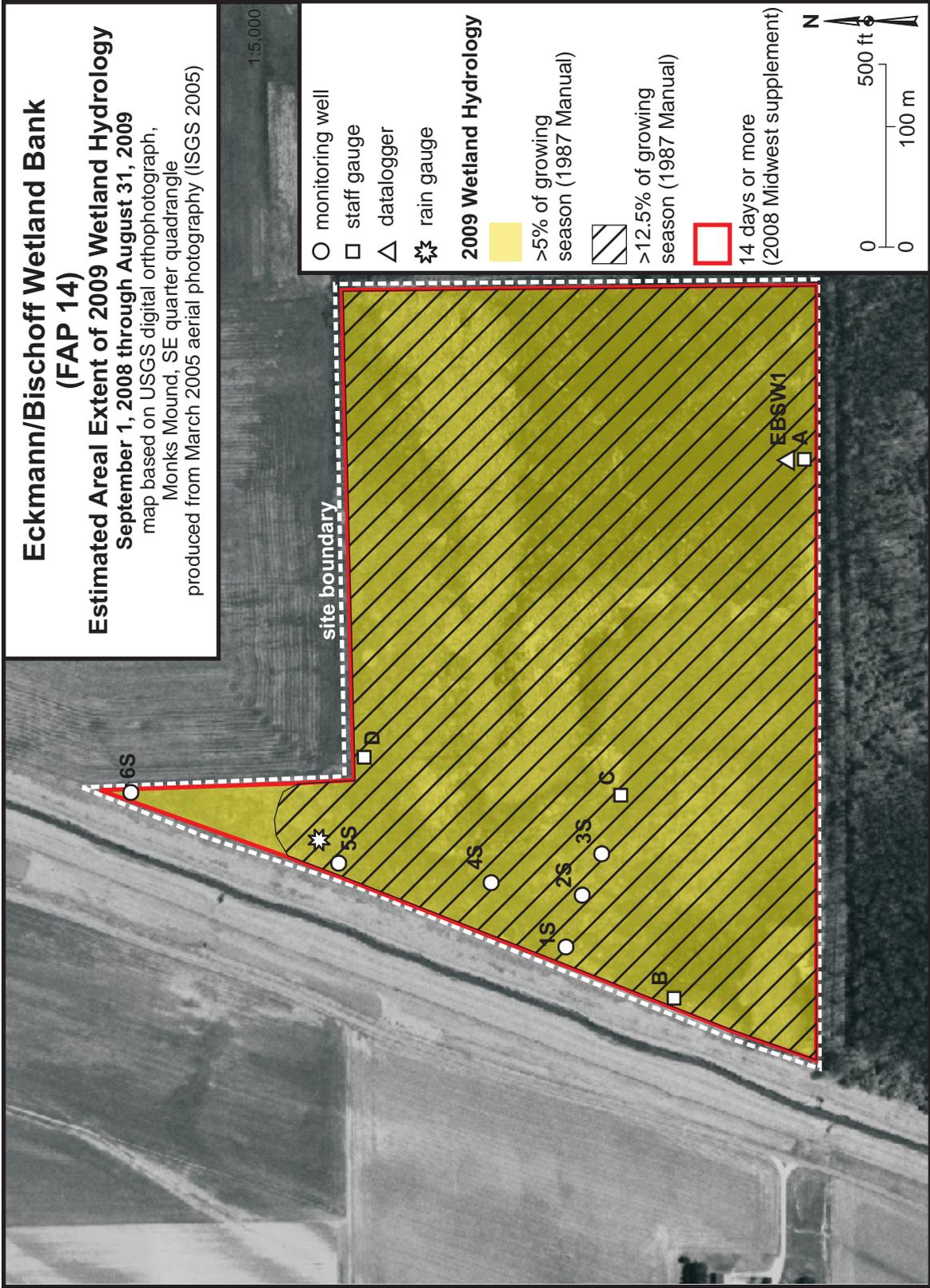
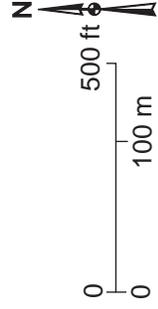
map based on USGS digital orthophotograph,
Monks Mound, SE quarter quadrangle
produced from March 2005 aerial photography (ISGS 2005)

1:5,000

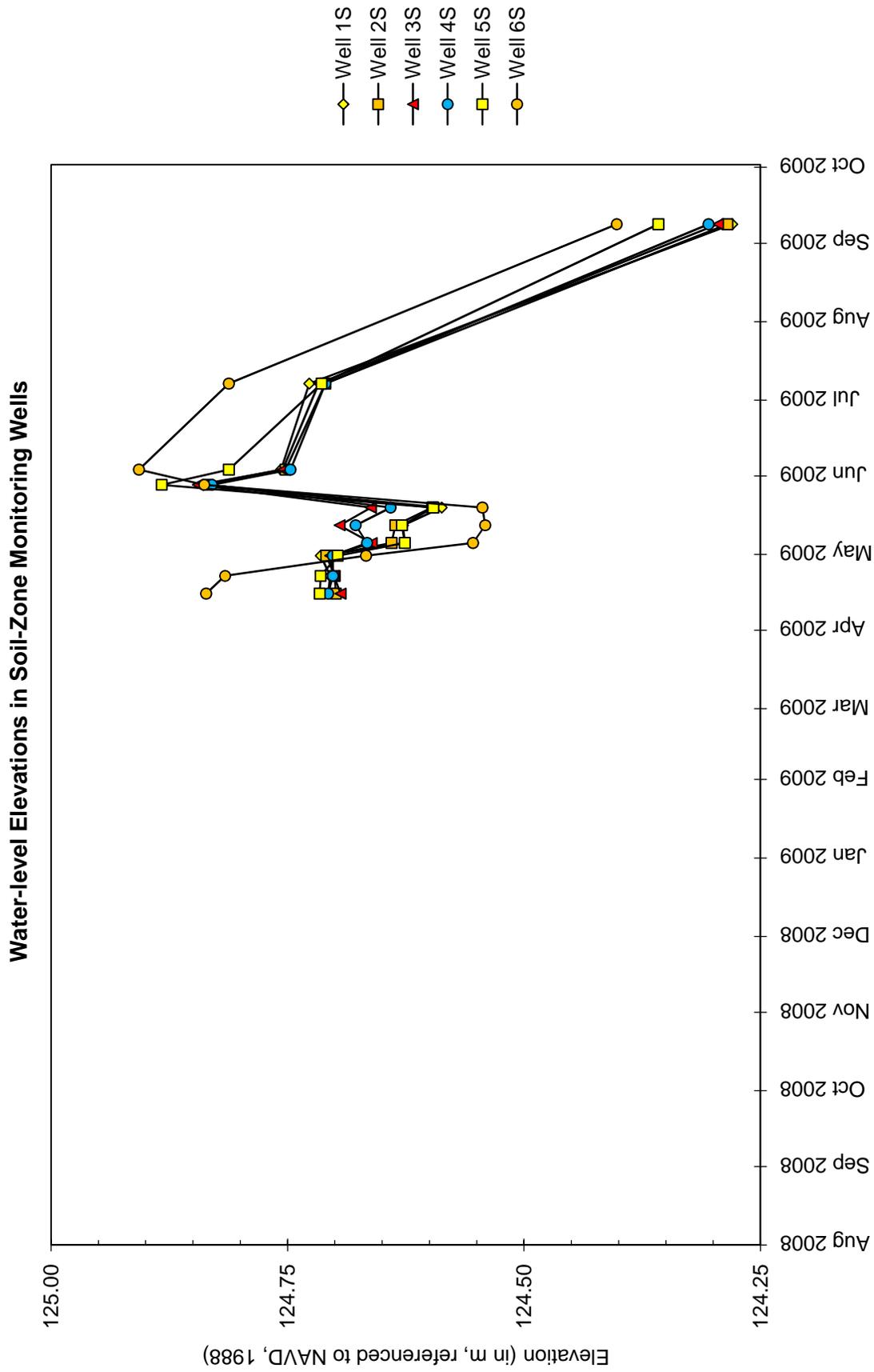
- monitoring well
- staff gauge
- △ datalogger
- ✱ rain gauge

2009 Wetland Hydrology

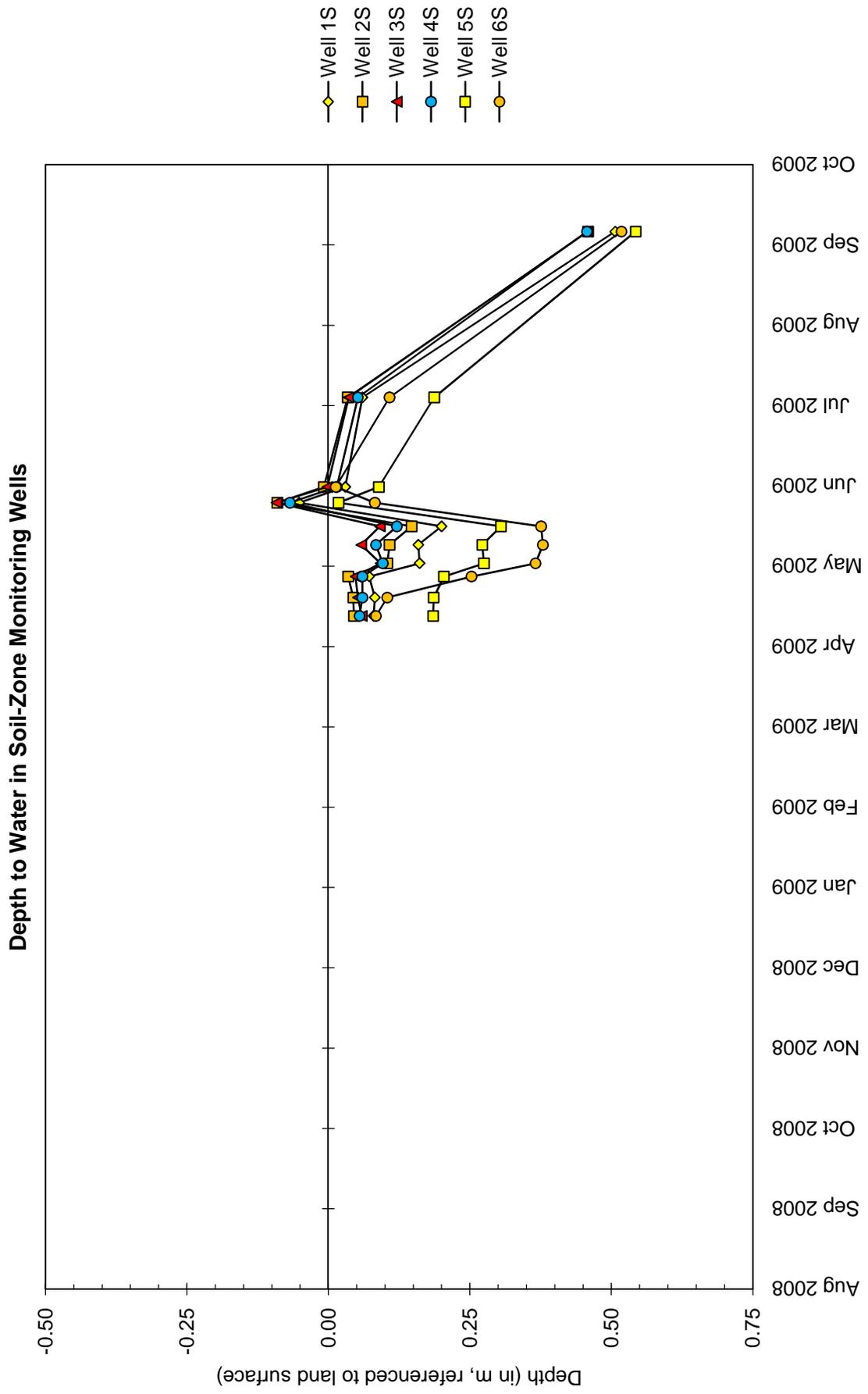
- >5% of growing season (1987 Manual)
- ▨ >12.5% of growing season (1987 Manual)
- 14 days or more (2008 Midwest supplement)



Eckmann/Bischoff Wetland Bank
September 1, 2008 through August 31, 2009

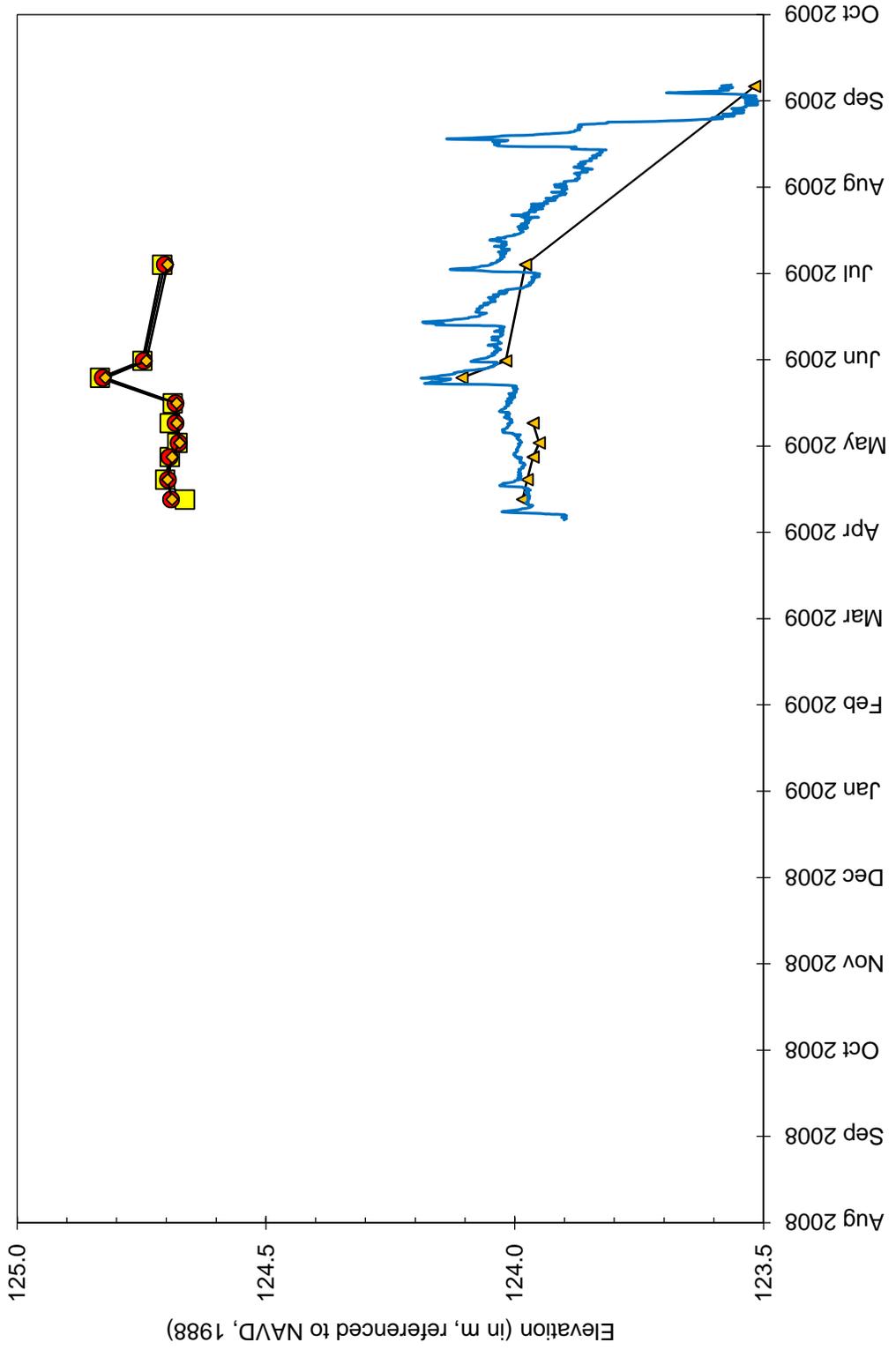


Eckmann/Bischoff Wetland Bank
September 1, 2008 through August 31, 2009



Eckmann/Bischoff Wetland Bank
September 1, 2008 through August 31, 2009

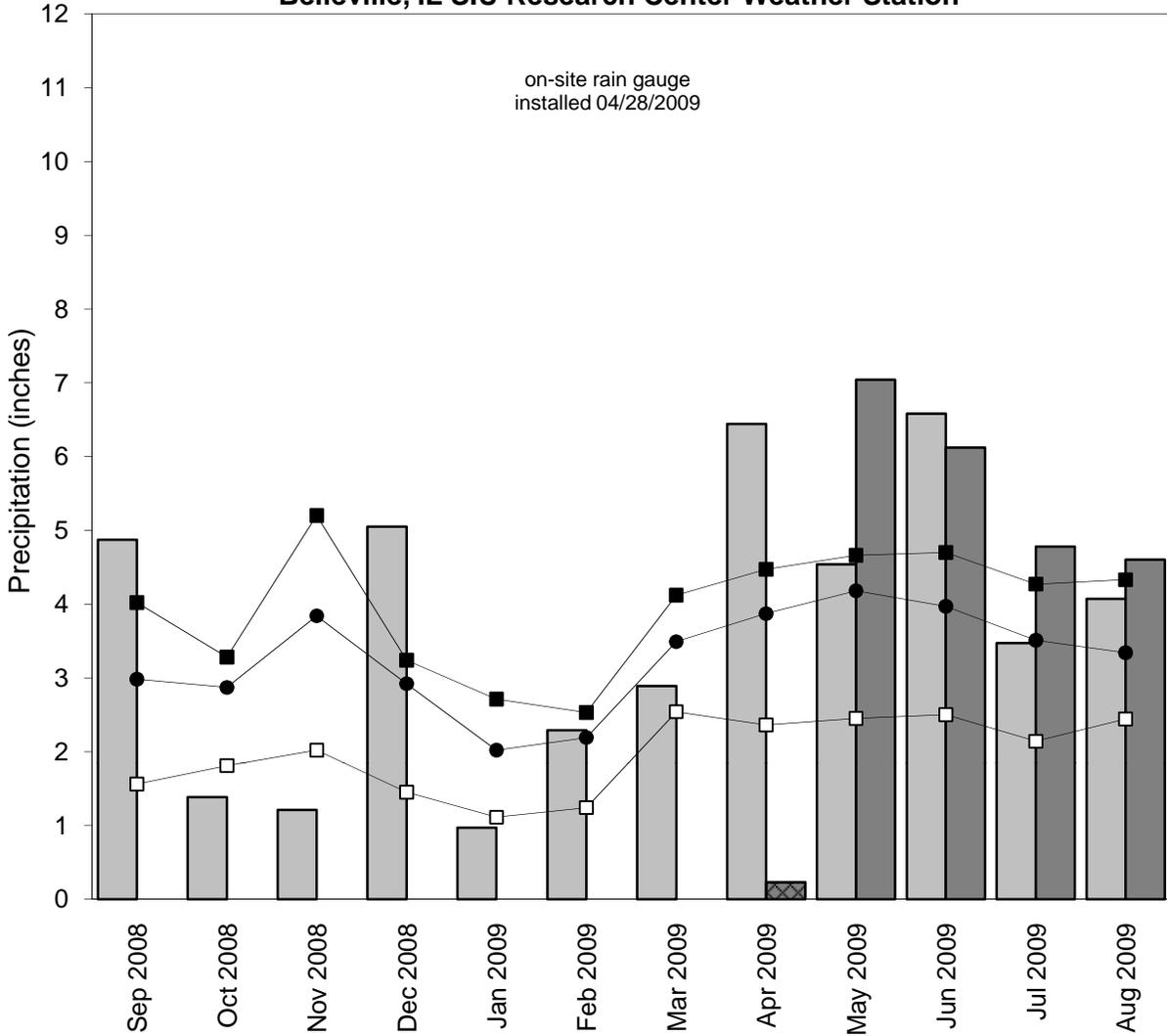
Water-Level Elevations on Stage Gauges and Data Loggers



- ▲ Gauge A
- Gauge B
- Gauge C
- ◆ Gauge D
- EBSW 1

Eckmann/Bischoff Wetland Bank September 2008 through August 2009

**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
- data incomplete
- 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)

Graph last updated October 1, 2009