

**ECKMANN/BISCHOFF**  
**WETLAND MITIGATION SITE**

**ISGS #43**

FAP 14

Sequence #27

Madison County, near Collinsville, Illinois

**Primary Project Manager: Steven E. Benton**

**Secondary Project Manager: Jessica Monson**

**SITE HISTORY**

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

**WETLAND HYDROLOGY CALCULATION FOR 2011**

We estimate that the area of the site that satisfied wetland hydrology criteria (Environmental Laboratory 1987) in 2011 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), and the area of the site that satisfied wetland hydrology criteria for greater than 12.5% of the growing season was estimated to be 11.3 ha (27.9 ac). Using the 2010 Midwest Region Supplement (U.S. Army Corps of Engineers 2010) to the 1987 Manual, 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:

- The median date that the growing season begins in nearby Belleville, Illinois, is April 6 and the season lasts 199 days (MRCC 2011); 5% of the growing season is 10 days and 12.5% of the growing season is 25 days, according to the 1987 Manual. According to methods outlined in the 2010 Midwest Region Supplement, we estimate that March 2 was the starting date of the 2011 growing season at this site based on plant growth and development.
- Total precipitation recorded at the Belleville, Illinois, weather station during the monitoring period was 114% of normal, and precipitation in Spring 2011 (March through May) was 144% of normal.
- In 2011, water levels measured in all soil-zone monitoring wells satisfied wetland hydrology criteria for greater than 5% of the growing season, and water levels measured in none of the soil-zone monitoring wells satisfied wetland hydrology criteria for greater than 12.5% of the growing season, according to the 1987 Manual. Water levels measured in all soil-zone monitoring wells satisfied wetland hydrology criteria for 14 or more consecutive days during the growing season as per the 2010 Midwest Region Supplement.
- Surface-water elevations measured at the SW1 data logger reveal that areas of the site at and below an elevation of 124.25 m (407.66 ft) were inundated for greater than 5% of the growing season, and that areas at and below an elevation of 124.10 m (407.17 ft) were inundated for greater than 12.5% of the growing season, according to the 1987 Manual. In addition, areas of the site at and below an elevation of 124.20 m (407.50 ft) were inundated for 14 or more consecutive days during the growing season as per the 2010 Midwest Region Supplement.

#### ADDITIONAL INFORMATION

- It was observed that the beaver dam in Schneider Ditch has not been rebuilt, and no other beaver activity was observed at the site during the monitoring period.
- The removal of the beaver from the site, and the breaching of their dams in Schneider Ditch, mean that surface-water levels on the site are controlled by the invert elevation of the culvert in the Cahokia Canal levee, which is at an elevation of about 123.69 m (405.83 ft). Despite this, wetland hydrology criteria were satisfied site wide at 5% (Environmental Laboratory 1987) and 14 days (U.S. Army Corps of Engineers 2010).

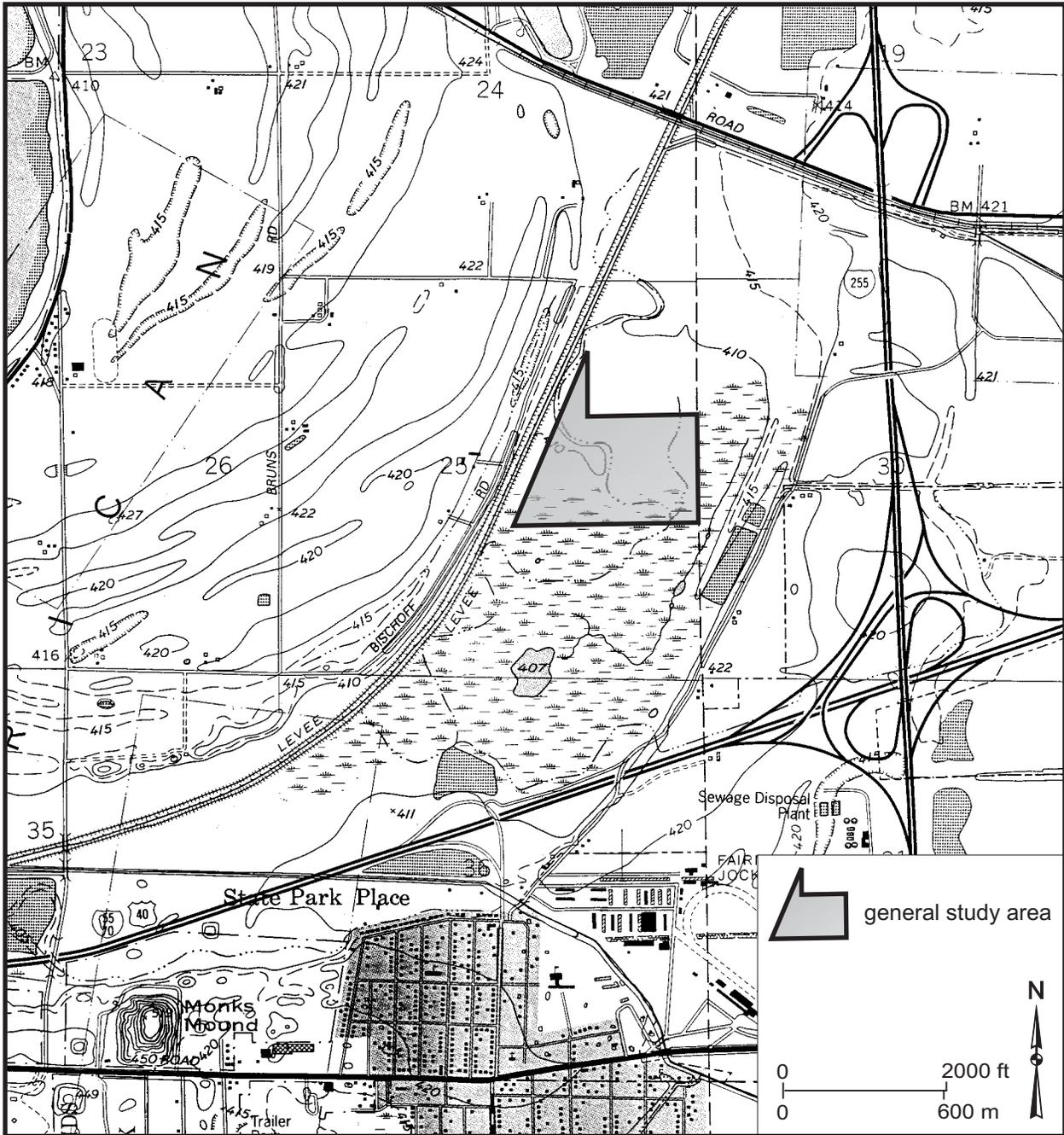
#### PLANNED FUTURE ACTIVITIES

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

**Eckmann/Bischoff  
Wetland Mitigation Site  
(FAP 14)**

**Study Area and Vicinity**

from the USGS Topographic Series, Monks Mound IL, 7.5-minute Quadrangle  
(USGS 1954, photorevised 1993)  
contour interval is 10 feet



# Eckmann/Bischoff Wetland Mitigation Site (FAP 14)

## Estimated Areal Extent of 2011 Wetland Hydrology

September 1, 2010 through August 31, 2011

map based on USGS digital orthophotograph,

Monks Mound, SE quarter quadrangle

produced from March 2005 aerial photography (ISGS 2005)

1:4,950

### 2011 Wetland Hydrology

 >5% of growing season (1987 Manual)

 >12.5% of growing season (1987 Manual)

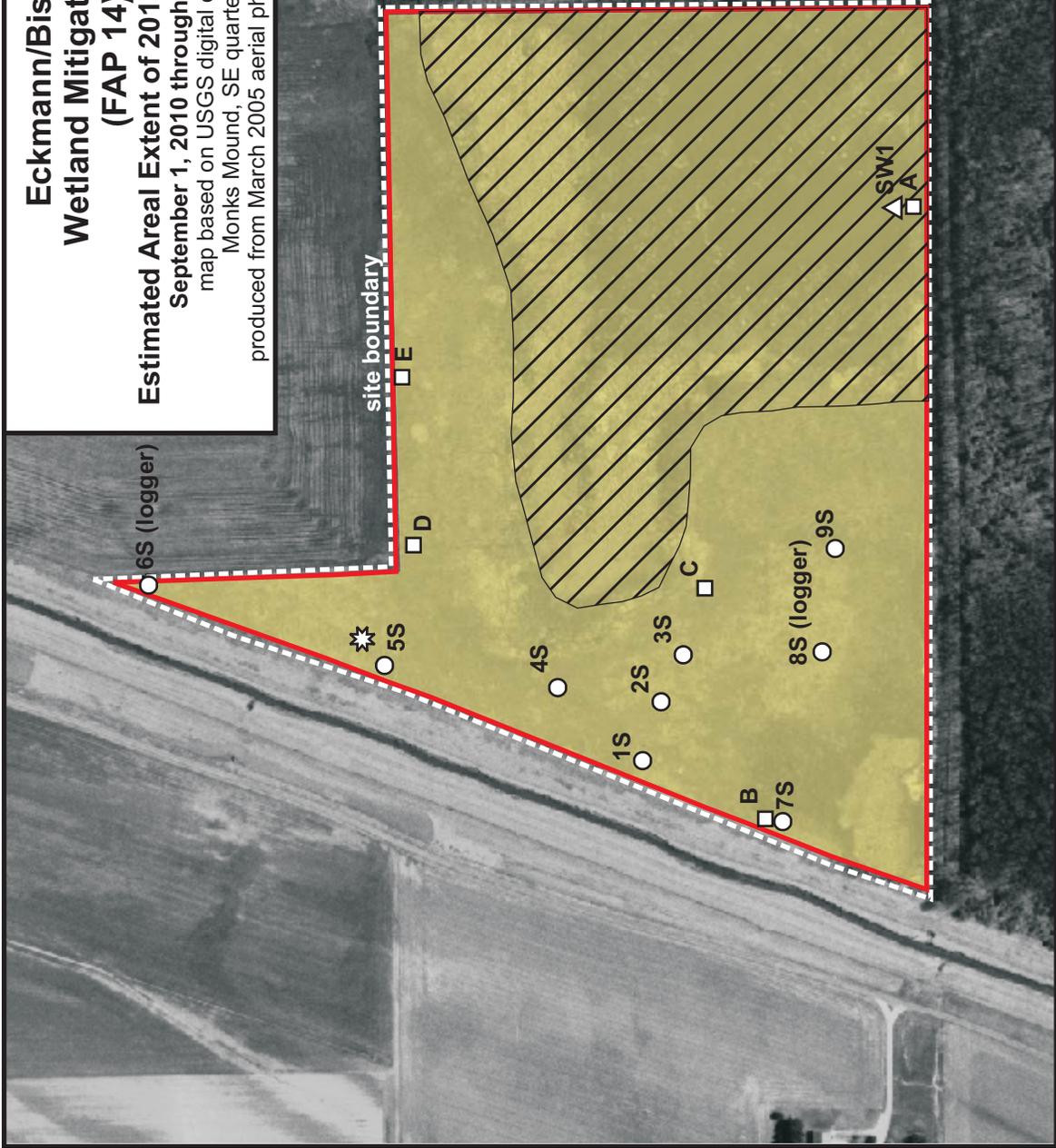
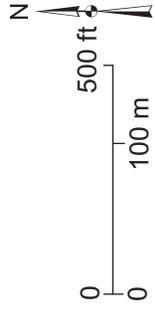
 14 days or more (2010 Midwest Region Supplement)

 monitoring well

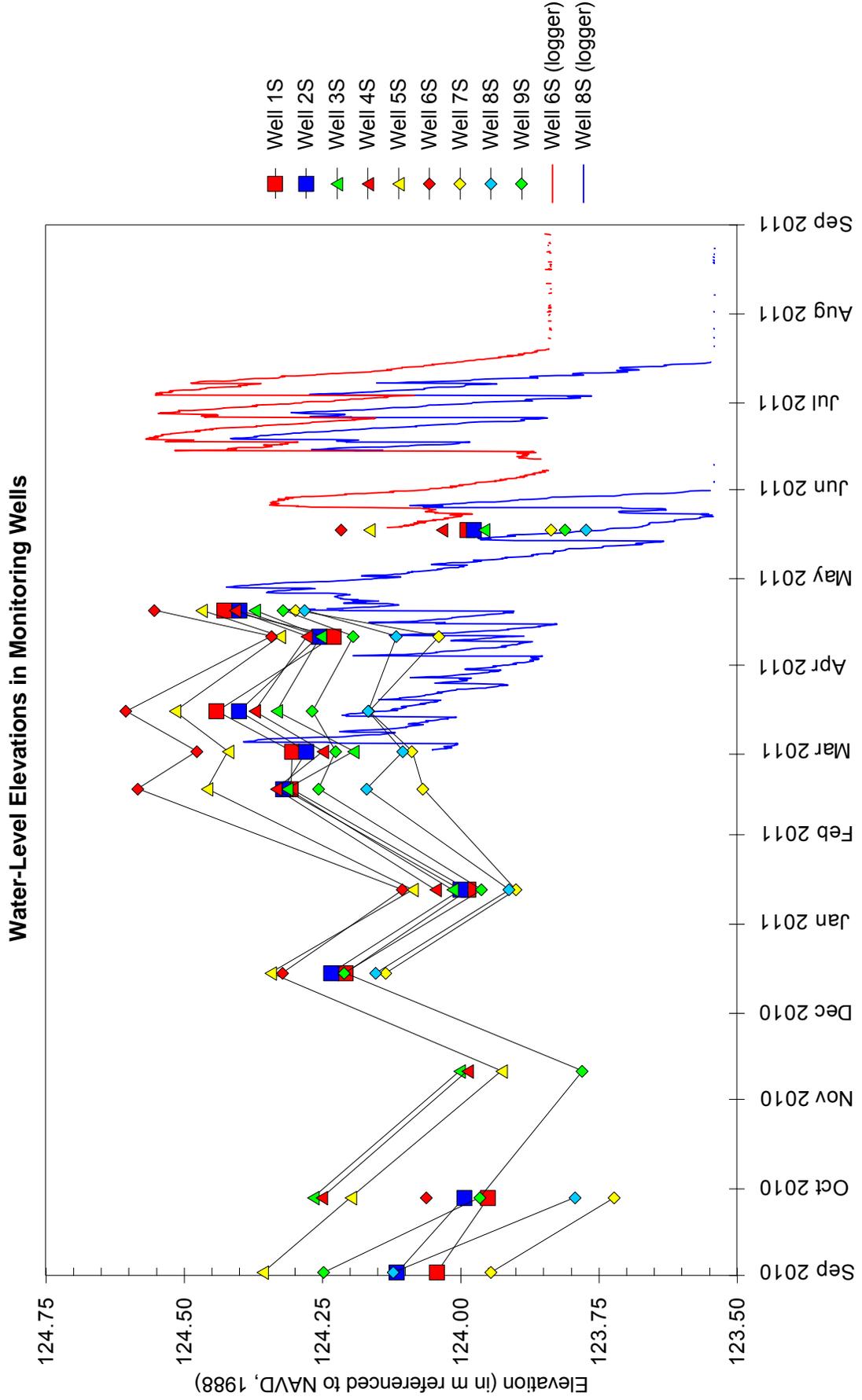
 staff gauge

 data logger

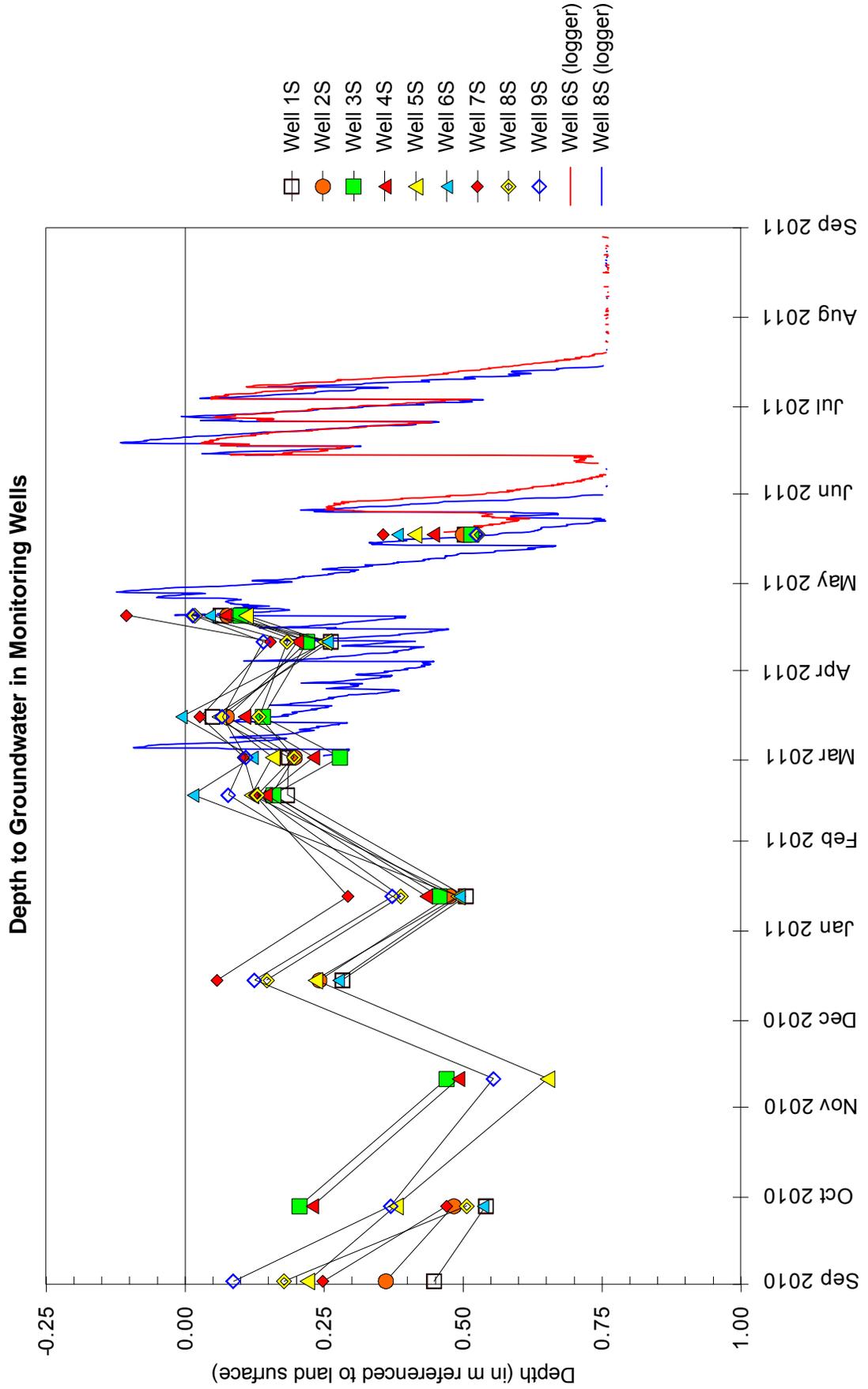
 rain gauge



# Eckmann/Bischoff Wetland Mitigation Site September 1, 2010 through August 31, 2011

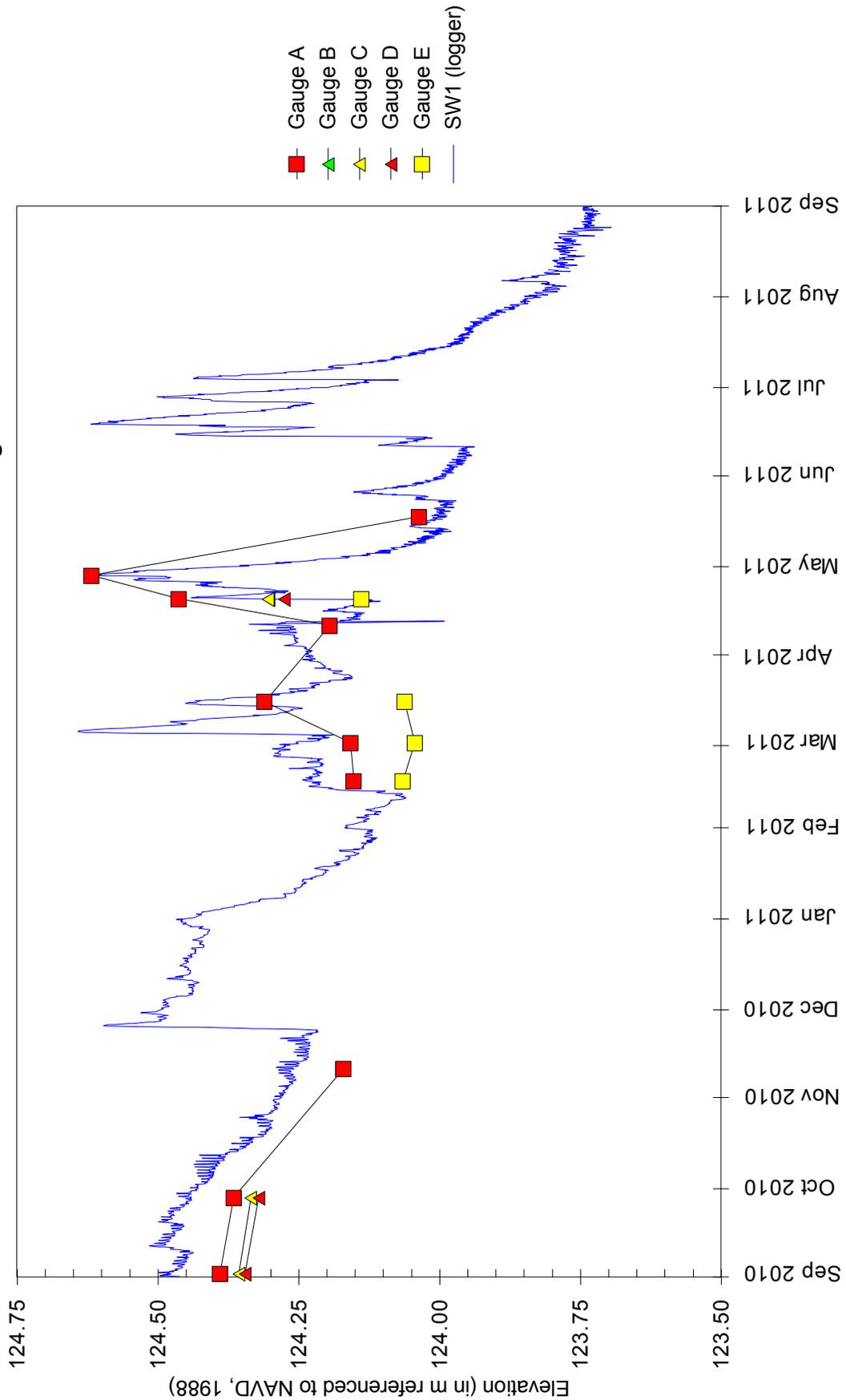


**Eckmann/Bischoff Wetland Mitigation Site**  
**September 1, 2010 through August 31, 2011**



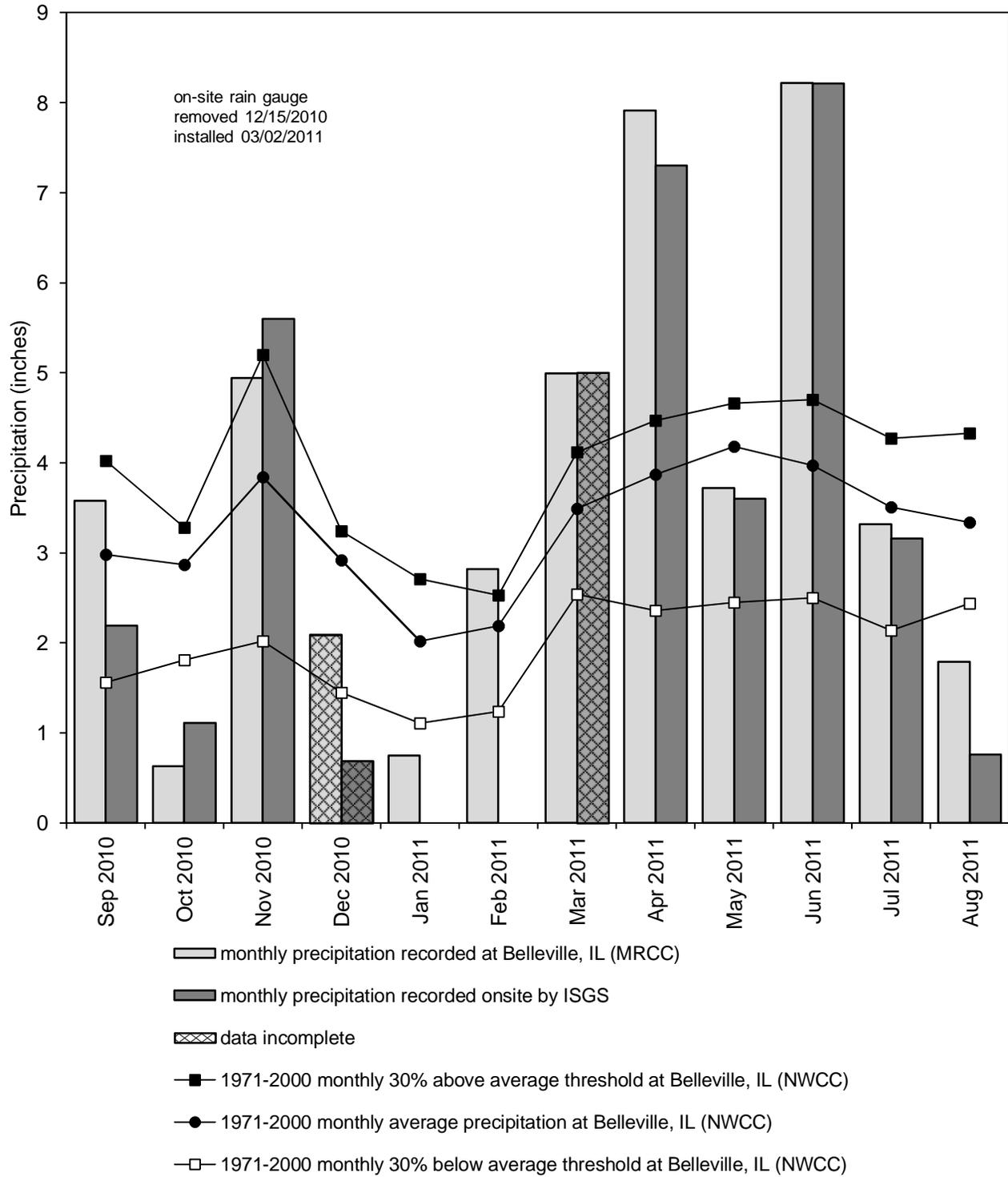
# Eckmann/Bischoff Wetland Mitigation Site September 1, 2010 through August 31, 2011

## Surface-Water Elevations at Surface-Water Gauges



# Eckmann/Bischoff Wetland Mitigation Site September 2010 through August 2011

**Total Monthly Precipitation Recorded on Site and at the  
Southern Illinois University Research Center, Belleville, IL**



Graph last updated 10/31/2011