

HARRISBURG, SITE 2
WETLAND COMPENSATION SITE

ISGS #78

FAP 857

Saline County, near Harrisburg, Illinois

Primary Project Manager: Geoffrey E. Pociask

Secondary Project Manager: Charles W. Knight

SITE HISTORY

- March 2008: ISGS was tasked by IDOT to monitor the site for performance standards as outlined in the wetland mitigation plan, and post-construction water-level monitoring was initiated.
- May 2008: Construction at the wetland compensation site was completed.

WETLAND HYDROLOGY CALCULATION FOR 2008

We estimate that 7.8 ha (19.4 ac) out of a total site area of approximately 14.2 ha (35.0 ac) satisfied wetland hydrology criteria (Environmental Laboratory 1987) for greater than 5% of the growing season in 2008, whereas 2.6 ha (6.5 ac) satisfied wetland hydrology 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 Harrisburg, Illinois, is April 1 and the season lasts 211 days; 5% of the growing season is 11 days and 12.5% of the growing season is 26 days.
- Total precipitation for the period from September 2007 through August 2008 was 136% of normal. Drier than normal conditions prevailed in September and November 2007 and in January, June, and August 2008. Precipitation amounts were at or above normal for October and December 2007, February through May 2008, and in July 2008. March through May 2008 was extremely wet with 185% of normal precipitation for this period.
- In 2008, wells 1VS, 2S, 2VS, 3S, 3VS, 4VS, 6VS, 7S, 8S, 9S, 10S, 11S, 12S, and 15S satisfied wetland hydrology criteria for greater than 5% of the growing season. Furthermore, wells 1VS, 2S, 2VS, 3S, 3VS, 4VS, 9S, 10S, and 11S satisfied wetland hydrology criteria for greater than 12.5% of the growing season.
- Data from gauge A showed that water-level elevation was at or above 114.0 m (374.0 ft) for greater than 5% of the growing season and for greater than 12.5% of the growing season. Furthermore, gauge B showed water levels at or above 112.5 m (369.1 ft) for greater than 5% and 112.4 m (368.8 ft) for greater than 12.5% of the growing season. Gauge C showed water levels above 111.8 m (366.8 ft) for greater than 5% of the growing season and for greater than 12.5% of the growing season.
- Wetland hydrology areas were refined through observations of standing water at the site. Many small areas of persistent ponding were delineated using a GPS during site visits during the early growing season and included in the wetland hydrology estimate.

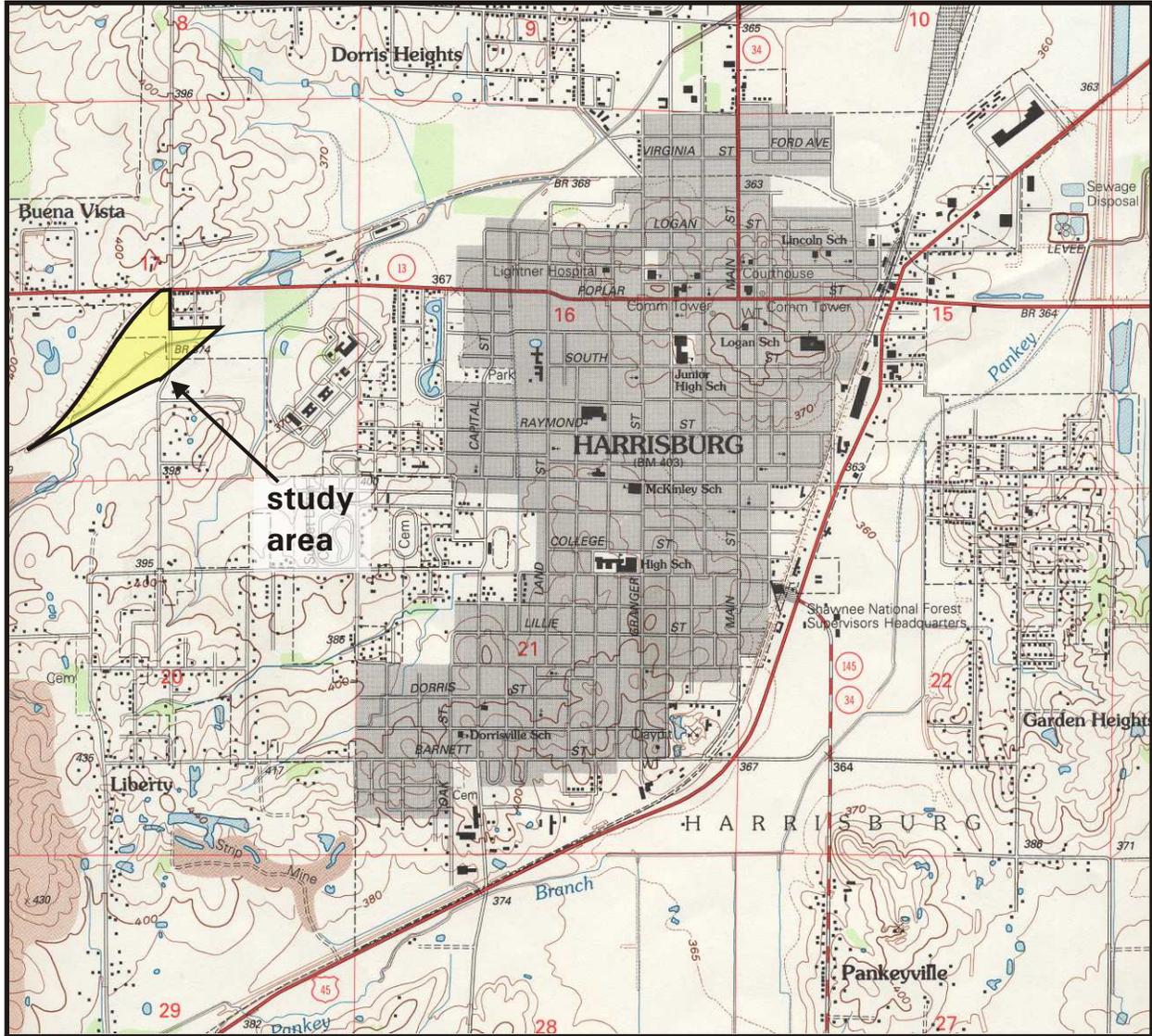
PLANNED FUTURE ACTIVITIES

- Additional wells will be installed in Fall 2008.
- Water-level monitoring is expected to continue through 2012 or until no longer required by IDOT.

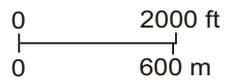
Harrisburg, Site 2 Wetland Compensation Site (FAP 857)

General Study Area and Vicinity

from the USGS Topographic Series, Harrisburg, IL 7.5-minute Quadrangle (USGS 1996)
contour interval is 5 feet



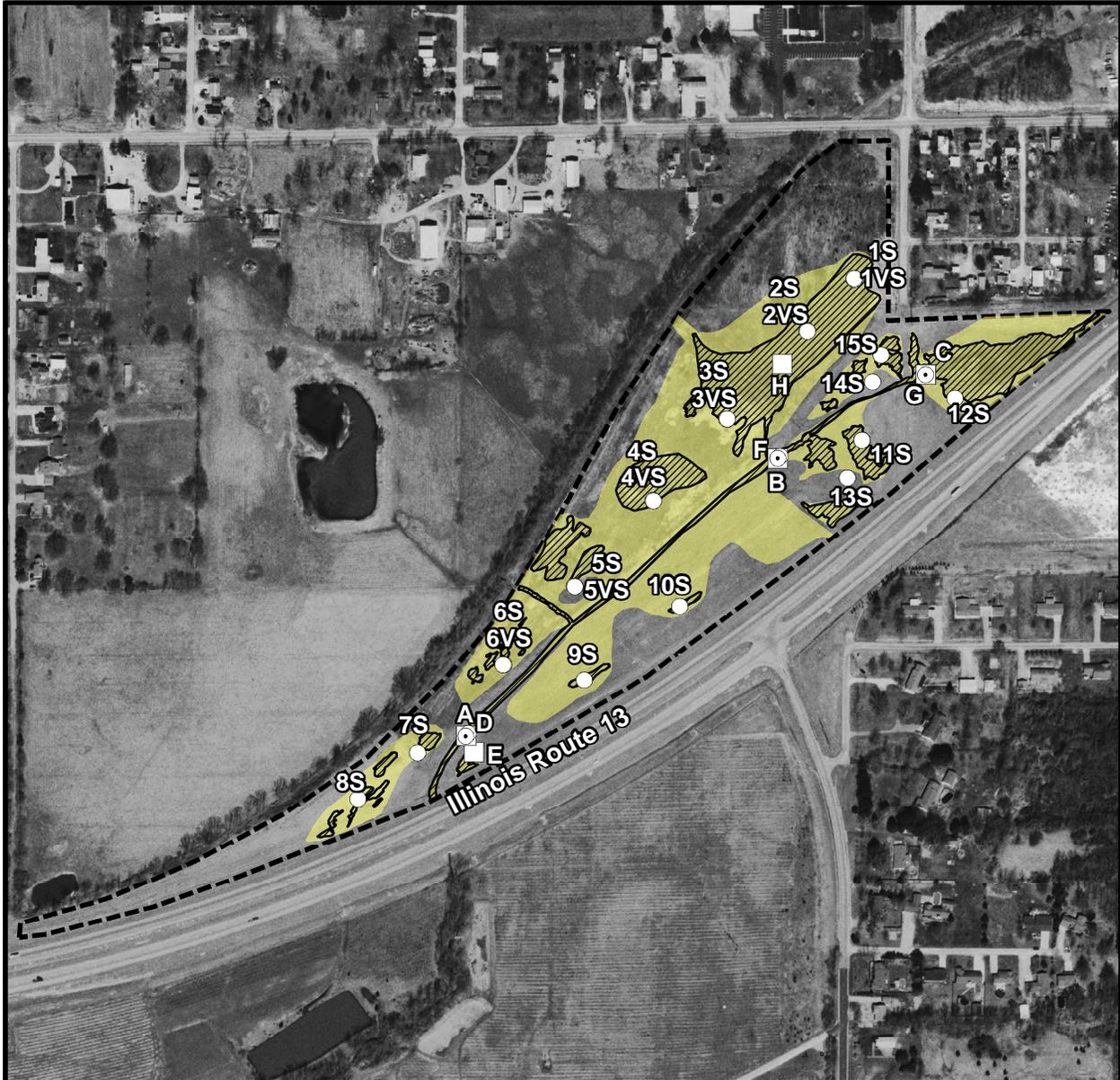
 wetland compensation site



Harrisburg, Site 2 Wetland Compensation Site (FAP 857)

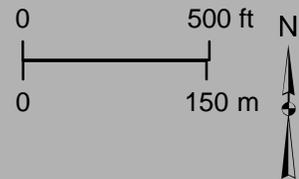
Estimated Areal Extent of 2008 Wetland Hydrology
based on data collected between September 1, 2007 and September 1, 2008

map based on USGS digital orthophotograph Harrisburg NW quarter quadrangle
from 3/17/2005 aerial photography and ISGS topography (ISGS 2006)



2008 Wetland Hydrology

- surface-water data logger
- monitoring well
- staff gauge
- ▨ >12.5% of growing season
- >5% of growing season
- ⋯ approximate site boundary

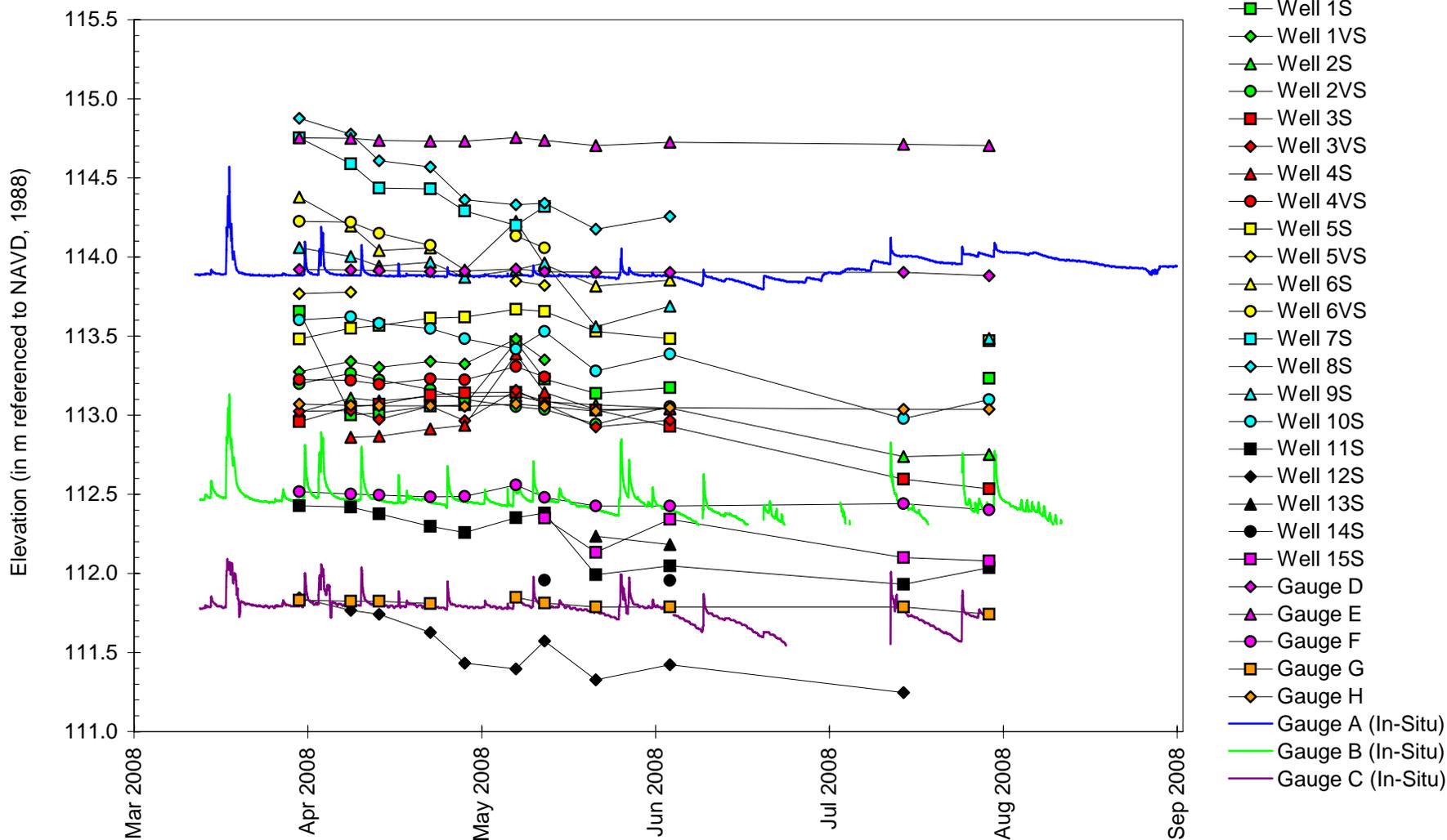


Harrisburg, Site 2 Wetland Compensation Site

March 12, 2007 to September 1, 2008

Water-Level Elevations

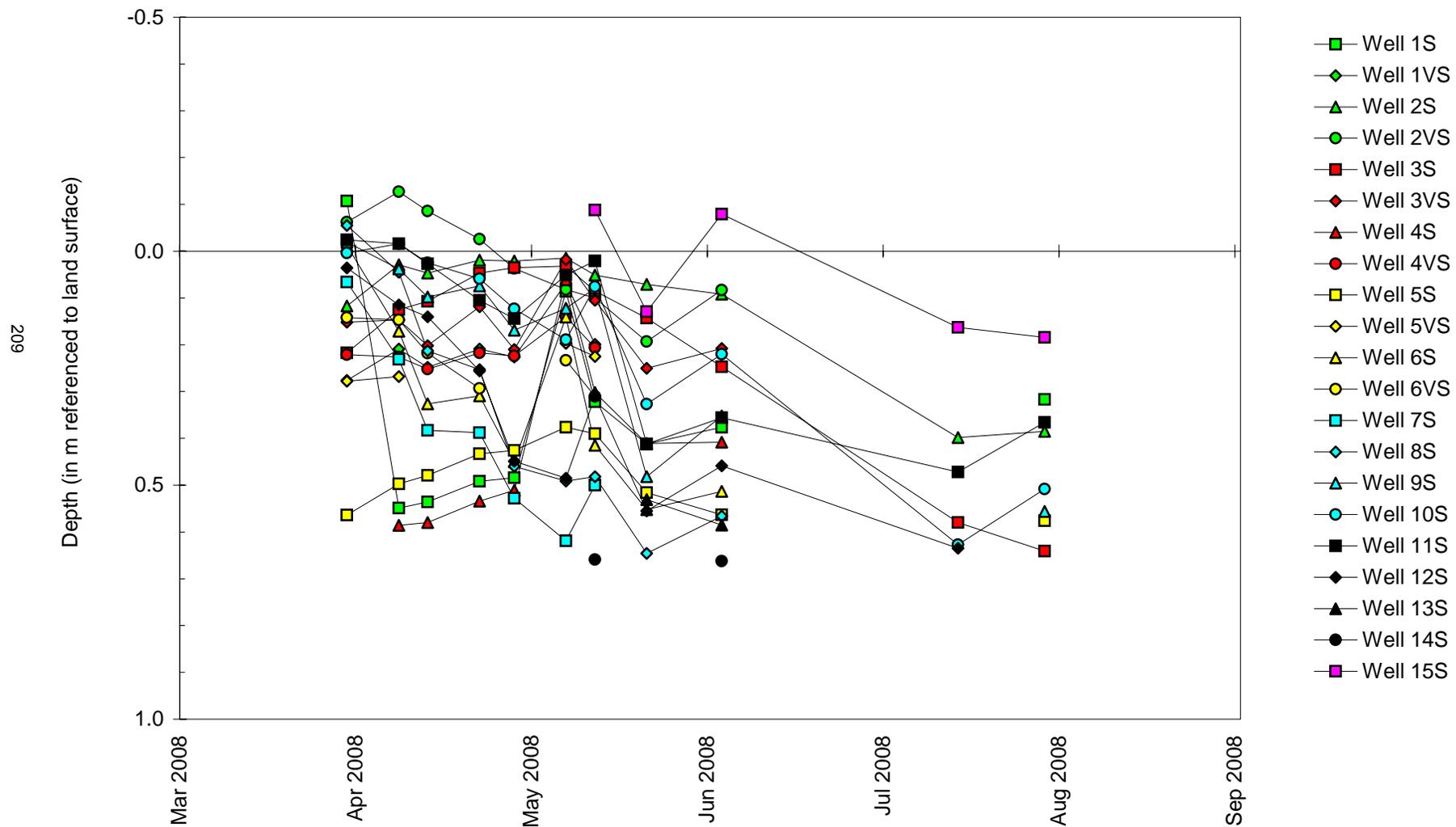
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Harrisburg, Site 2 Wetland Compensation Site

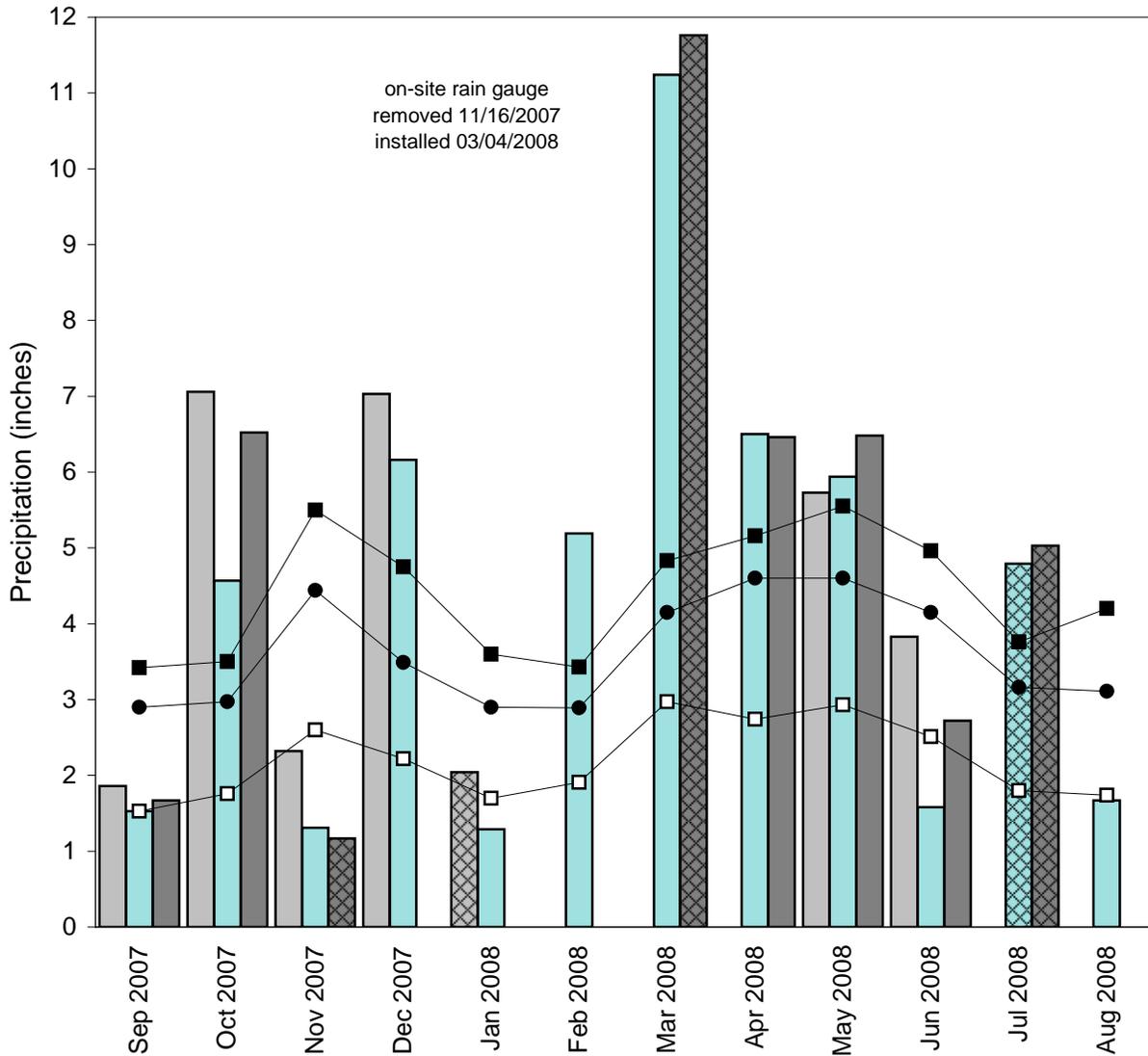
March 12, 2008 to September 1, 2008

Depth to Water



Harrisburg, Site 2 Wetland Compensation Site September 2007 through August 2008

Total Monthly Precipitation Recorded On Site and at the Harrisburg, IL and Du Quoin, IL Weather Stations



- monthly precipitation recorded at Harrisburg (MRCC)
- monthly precipitation recorded at Du Quoin (MRCC)
- monthly precipitation recorded on site by ISGS
- 1961-1990 monthly 30% above average threshold at Harrisburg (NWCC)
- 1961-1990 monthly average precipitation at Harrisburg (NWCC)
- 1961-1990 monthly 30% below average threshold at Harrisburg (NWCC)
- data incomplete

Graph last updated October 7, 2008