

**TAMMS
WETLAND MITIGATION SITE**

ISGS #71

IL 127

FAS 1907

Sequence #1026

Union County, near Tamms, Illinois

Primary Project Manager: Geoffrey E. Pociask

Secondary Project Manager: Melinda C. Campbell

SITE HISTORY

- Summer 2001: The wetland mitigation site was constructed.
- June 2003: ISGS was tasked by IDOT to monitor wetland hydrology.
- November 2003: Post-construction water-level monitoring was initiated.

WETLAND HYDROLOGY CALCULATION FOR 2010

We estimate that 2.2 ha (5.3 ac) out of the 6.3-ha (15.6-ac) site satisfied wetland hydrology criteria (Environmental Laboratory 1987) for greater than 5% of the growing season in 2010, whereas 0.9 ha (2.1 ac) satisfied wetland hydrology criteria for greater than 12.5% of the growing season. According to the 2010 Midwest Region supplement (U.S. Army Corps of Engineers 2010) to the 1987 Manual, we estimate that 2.2 ha (5.3 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 Anna, Illinois, is March 31 and the season lasts 225 days; 5% of the growing season is 11 days and 12.5% of the growing season is 28 days. According to the 2010 Midwest Region supplement, we estimate that March 7 was the starting date of the 2010 growing season based on soil temperatures observed at the wetland mitigation site.
- Total precipitation at the Cape Girardeau, Missouri, weather station for the period from September 2009 through August 2010 was 97% of normal, and Spring 2010 (March through May) precipitation was 110% of normal.
- In 2010, wells 3S, 6S, 7S, 9S, and 10S satisfied wetland hydrology criteria for greater than 5% of the growing season and wells 7S and 10S also satisfied wetland hydrology criteria for greater than 12.5% of the growing season. Furthermore, wells 3S, 6S, 7S, 9S, and 10S also satisfied wetland hydrology criteria for 14 or more consecutive days during the growing season according to the 2010 Midwest Region supplement.
- Surface-water data from the Gauge A data logger showed that areas at the north end of the site below 103.13 m (338.34 ft) were inundated for greater than 5% of the growing season, areas below 102.79 m (337.23 ft) were inundated for greater than 12.5% of the growing season, and areas below 103.13 m (338.34 ft) were inundated for 14 or more consecutive days during the growing season according to the 2010 Midwest Region supplement. Surface-water data from the Gauge B data logger showed that areas at the south end of the site below 102.32 m (335.69 ft) were inundated for greater than 5% of the growing season, areas below 102.24 m (335.43 ft) were inundated for greater than

12.5% of the growing season, and areas below 102.32 m (335.69 ft) were also inundated for 14 or more consecutive days during the growing season according to the 2010 Midwest Region supplement.

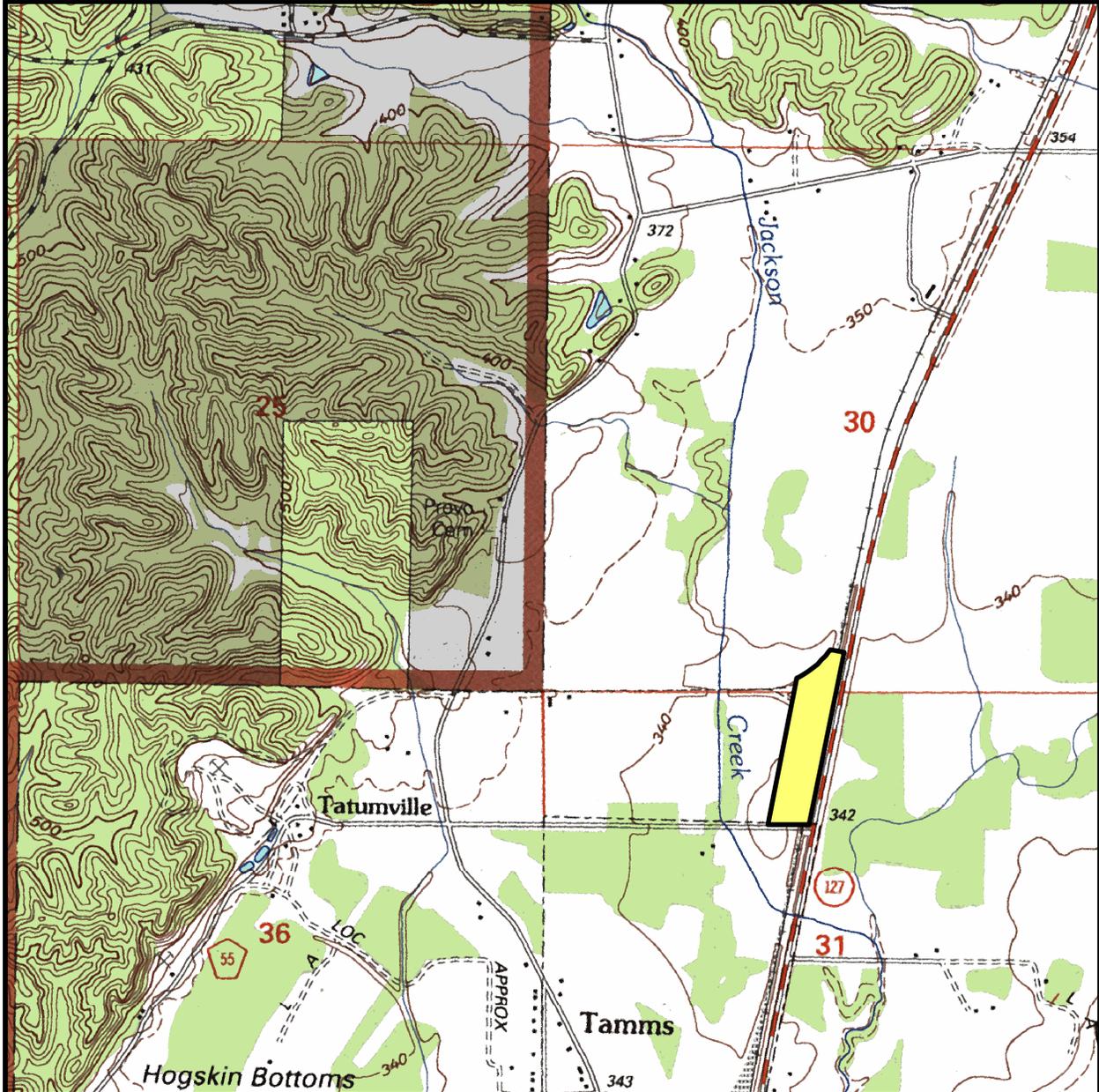
PLANNED FUTURE ACTIVITIES

- Water-level monitoring will continue until no longer required by IDOT.

Tamms Wetland Mitigation Site (FAS 1907)

General Study Area and Vicinity

from the Topographic Series, Mill Creek, IL, 7.5-minute Quadrangle (USGS 1996)
contour interval is 20 feet



 wetland mitigation site



Tamms Wetland Mitigation Site (FAS 1907)

Estimated Areal Extent of 2010 Wetland Hydrology September 1, 2009 through August 31, 2010

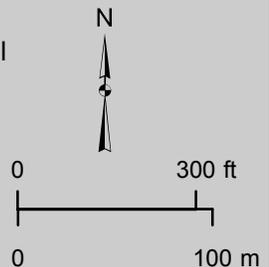
map based on USGS digital orthophotograph Mill Creek SE quarter quadrangle
produced from 3/31/2005 aerial photography (ISGS 2006).



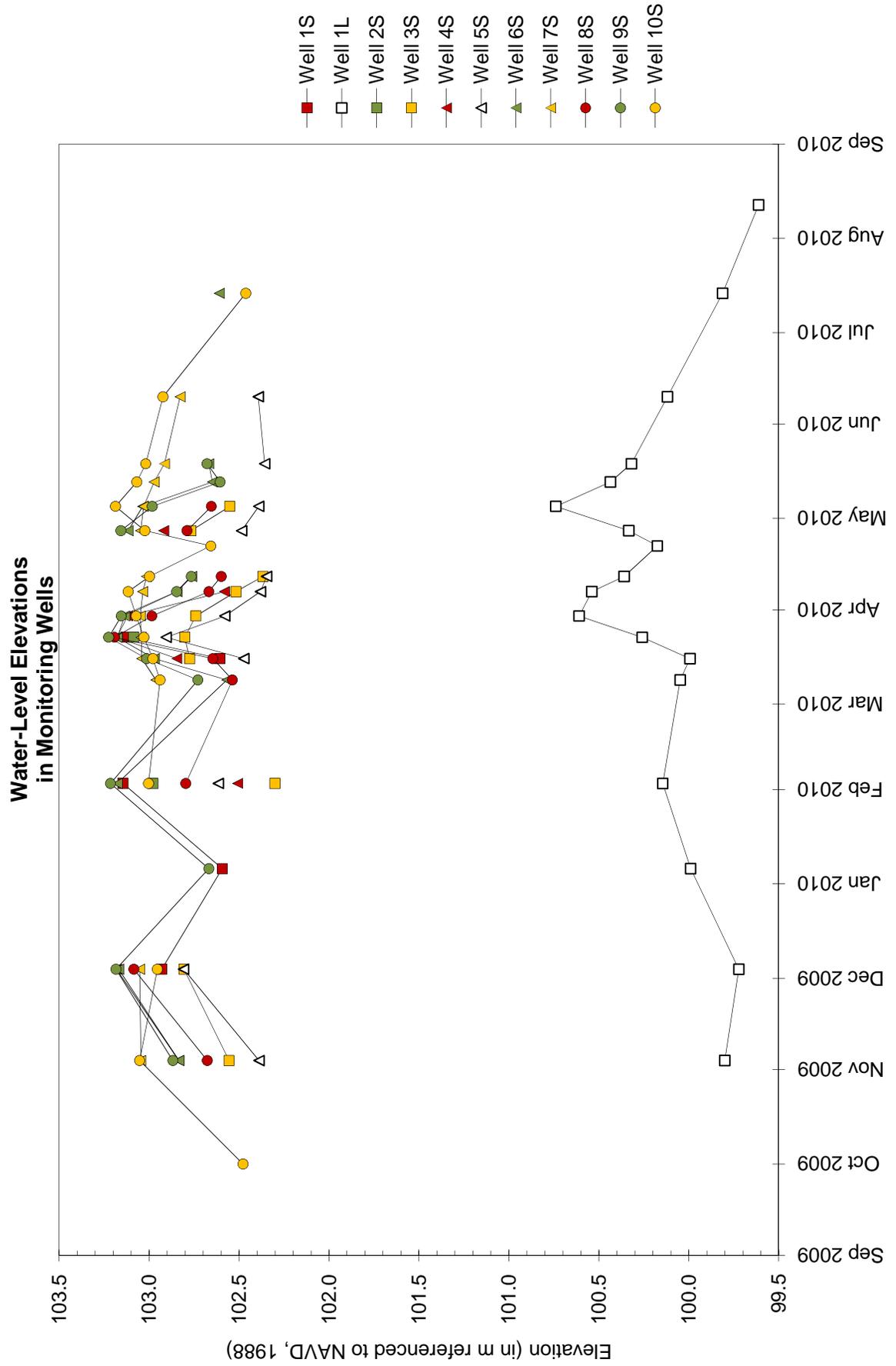
2010 Wetland Hydrology

- >5% of growing season (1987 Manual)
- >12.5% of growing season (1987 Manual)
- 14 days or more (2010 Midwest Region supplement)

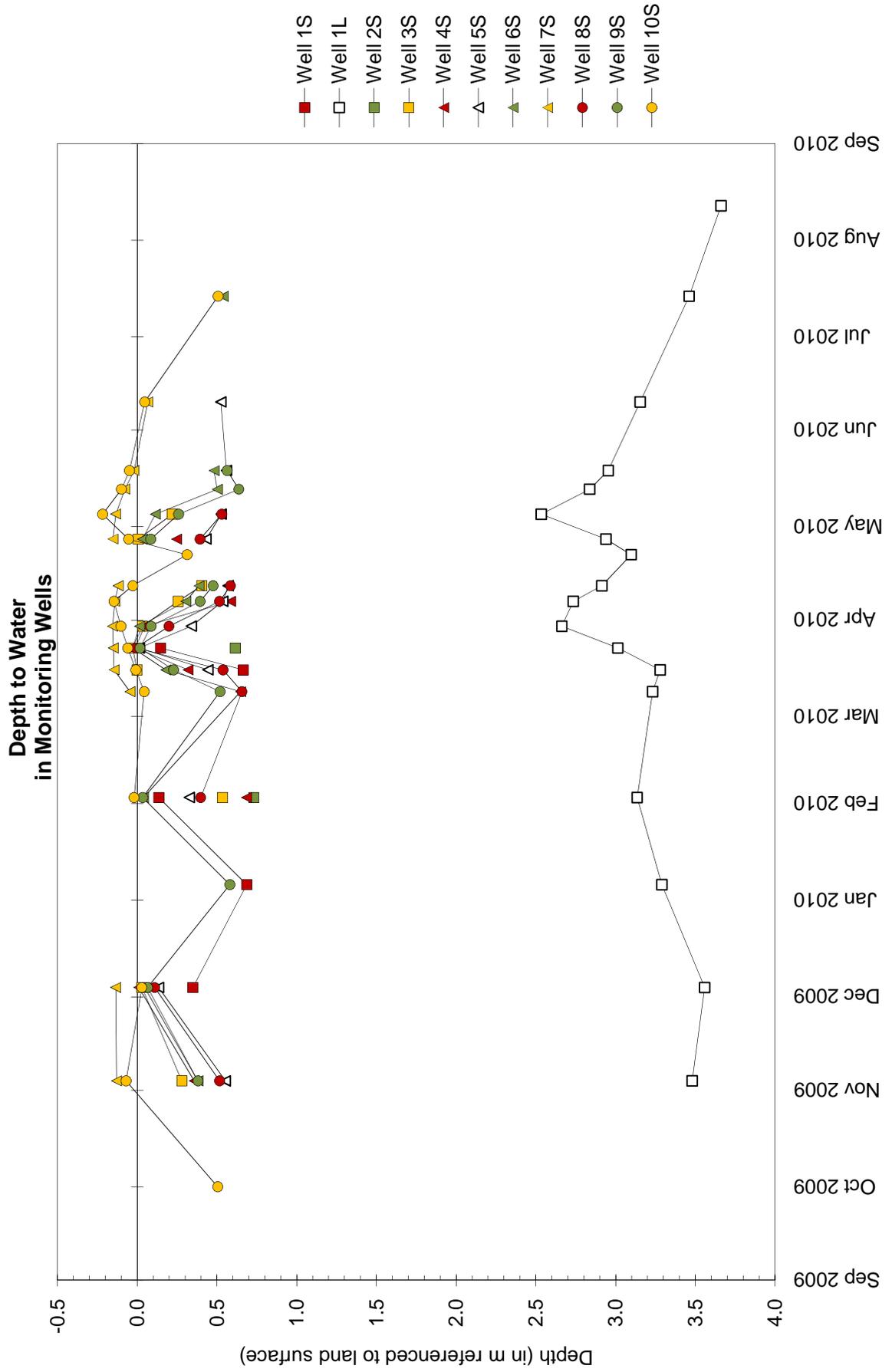
- monitoring well
- data logger
- staff gauge
- rain gauge
- site boundary



Tammams Wetland Mitigation Site September 1, 2009 through August 31, 2010

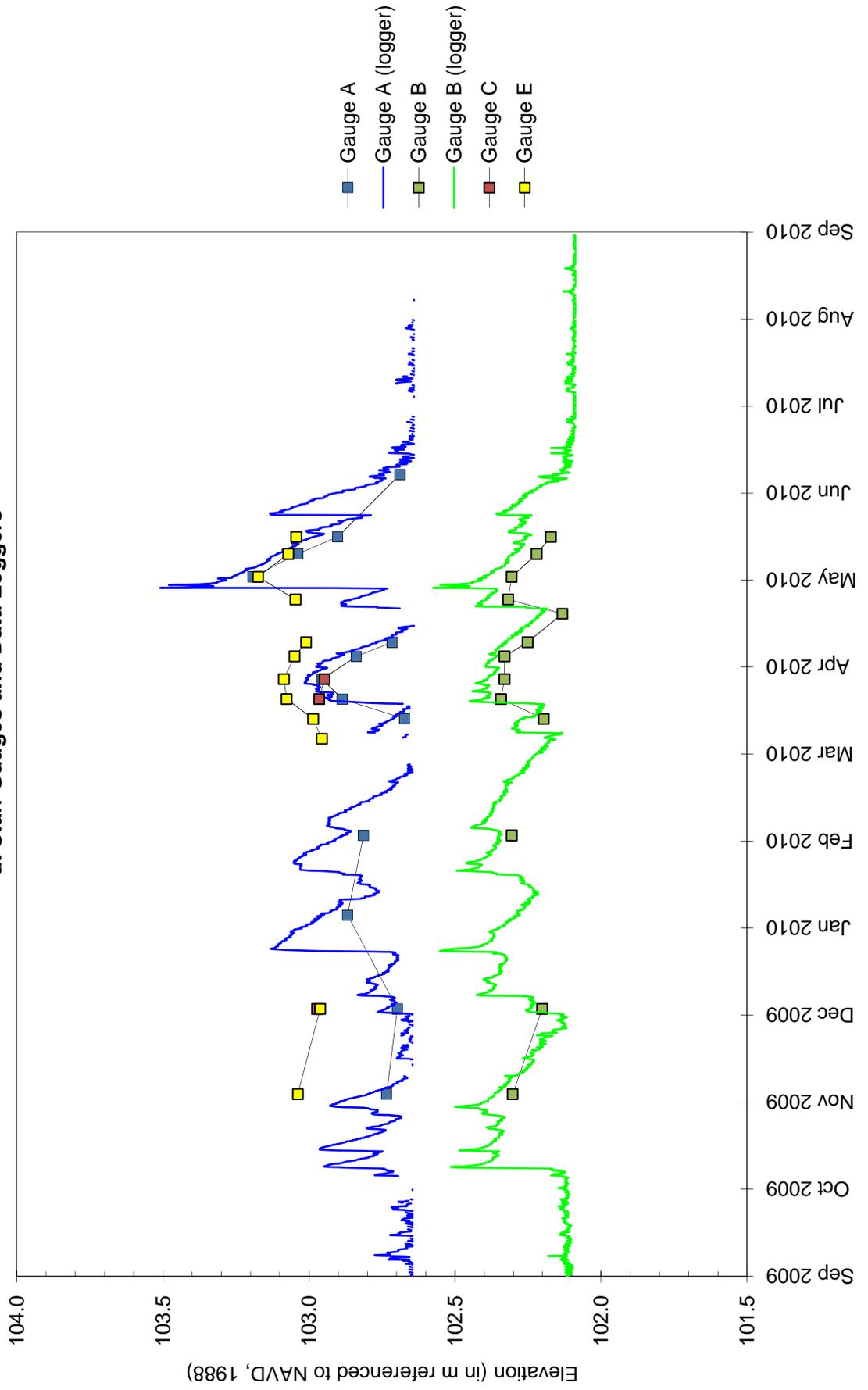


Tammms Wetland Mitigation Site September 1, 2009 through August 31, 2010



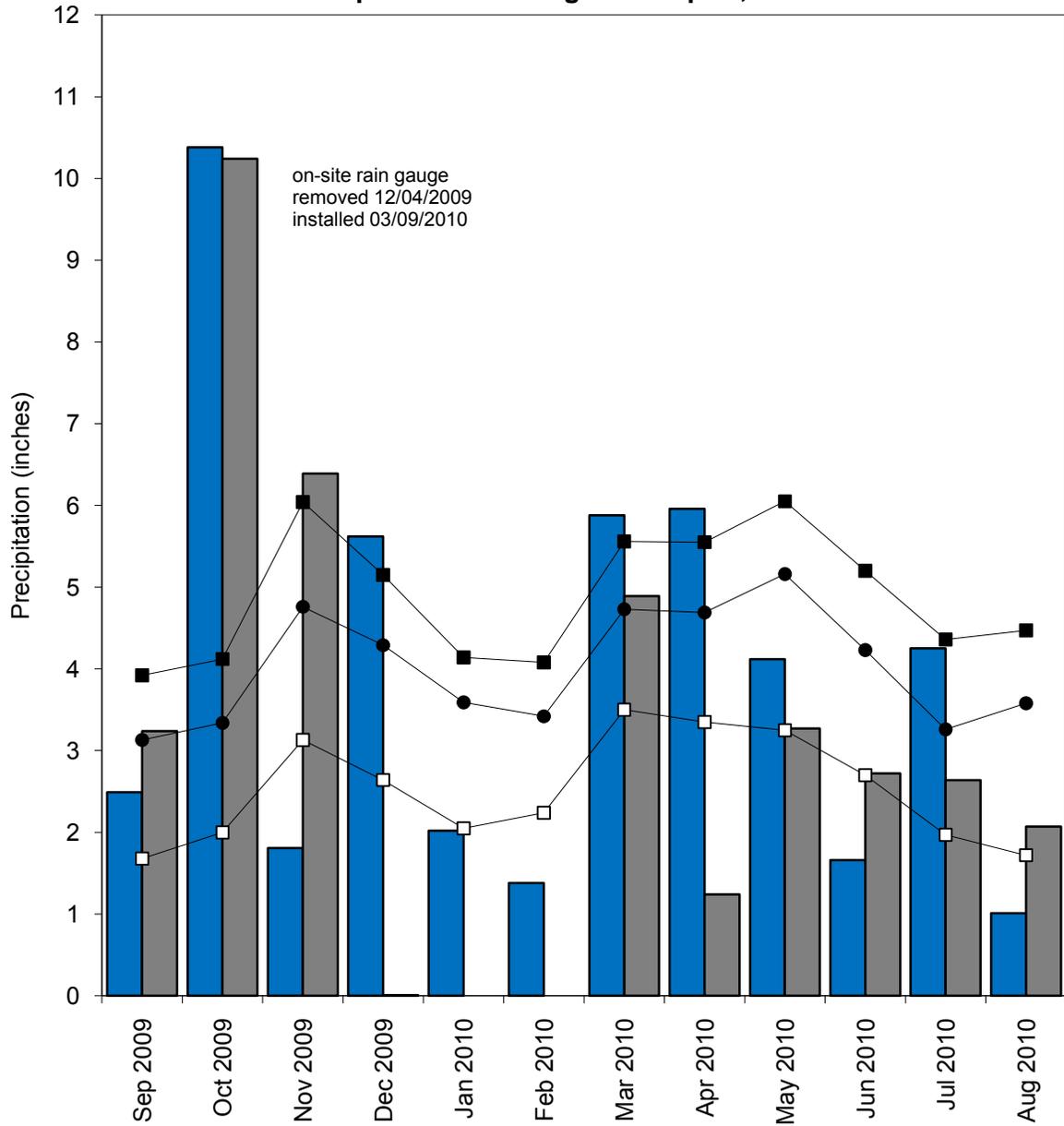
Tamms Wetland Mitigation Site September 1, 2009 through August 31, 2010

Water-Level Elevations at Staff Gauges and Data Loggers



Tamms Wetland Mitigation Site September 2009 through August 2010

Total Monthly Precipitation Recorded on Site and at the Cape Girardeau Regional Airport, MO



- monthly precipitation recorded at Cape Girardeau, MO (MRCC)
- monthly precipitation recorded on site by ISGS
- 1971-2000 monthly 30% above average threshold at Anna 1 E, IL (NWCC)
- 1971-2000 monthly average precipitation at Anna 1 E, IL (NWCC)
- 1971-2000 monthly 30% below average threshold at Anna 1 E, IL (NWCC)

Graph last updated September 29, 2010