

**HARRISBURG, SITE 2
WETLAND MITIGATION SITE**

ISGS #78

IL 14

FAP 857

Sequence #547

Saline County, near Harrisburg, Illinois

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Secondary Project Manager: Jessica L. B. Monson

SITE HISTORY

- October 2007: Construction began at the wetland mitigation site.
- 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 mitigation site was completed.

WETLAND HYDROLOGY CALCULATION FOR 2012

The target compensation area for the Harrisburg, Site 2 wetland mitigation site is 4.13 ha (10.20 ac). Using the 1987 Manual (Environmental Laboratory 1987), 2.63 ha (6.49 ac) out of a total site area of approximately 14.2 ha (35.0 ac) satisfied wetland hydrology criteria for greater than 5% of the growing season, whereas 1.02 ha (2.51 ac) satisfied wetland hydrology criteria for greater than 12.5% of the growing season. Using the 2010 Midwest Region Supplement (USACE 2010) to the 1987 Manual, 7.24 ha (17.88 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 Harrisburg, Illinois, is April 1 and the season lasts 211 days (MRCC 2012). According to the 1987 Manual, 5% of the growing season is 11 days and 12.5% of the growing season is 26 days. According to the 2010 Midwest Region Supplement, February 16 was the start date of the 2012 growing season based on soil temperatures measured at the site and data from the Illinois Climate Network station at Dixon Springs, Illinois (WARM 2012).
- Total precipitation at the Du Quoin, Illinois, weather station for the period from September 2011 through August 2012 was 87% of normal, and Spring 2012 (March through May) precipitation was 55% of normal.
- In 2012, wells 9S, 10S, 12S, 13S, 14S, 15S, 21S, 22VS, and 26VS satisfied wetland hydrology criteria for greater than 5% and wells 9S, 10S, 12S, and 22VS satisfied wetland hydrology criteria for greater than 12.5% of the growing season, according to the 1987 Manual. Furthermore, all wells except 5S, 6S, 6VS, 7S, 8S, 17VS, 19VS, and 20VS satisfied wetland hydrology criteria for 14 or more consecutive days during the growing season according to the 2010 Midwest Region Supplement.

- Gauges B, E, G, and H showed water levels at or above 112.45 m (368.93 ft), 114.67 m (376.41 ft), 111.85 m (366.96 ft), and 113.06 m (370.73 ft) respectively, for greater than 5% of the growing season, whereas surface water at Gauge A did not persist long enough to satisfy wetland hydrology criteria for greater than 5%, according to the 1987 Manual. Gauge G showed surface water levels at or above 111.73 m (366.56 ft) greater than 12.5% of the growing season, whereas surface water at Gauges A, B, E, and H did not persist long enough to satisfy wetland hydrology criteria for greater than 12.5% of the growing season, according to the 1987 Manual. Gauges B, E, G, and H showed water levels at or above 112.50 m (369.09 ft), 114.74 m (376.44 ft), 111.89 m (367.09 ft), and 113.08 m (371.0 ft), respectively, for 14 or more consecutive days during the growing season, whereas water levels at Gauge A did not persist long enough to satisfy wetland hydrology criteria for 14 or more days during the growing season, according to the 2010 Midwest Region Supplement.

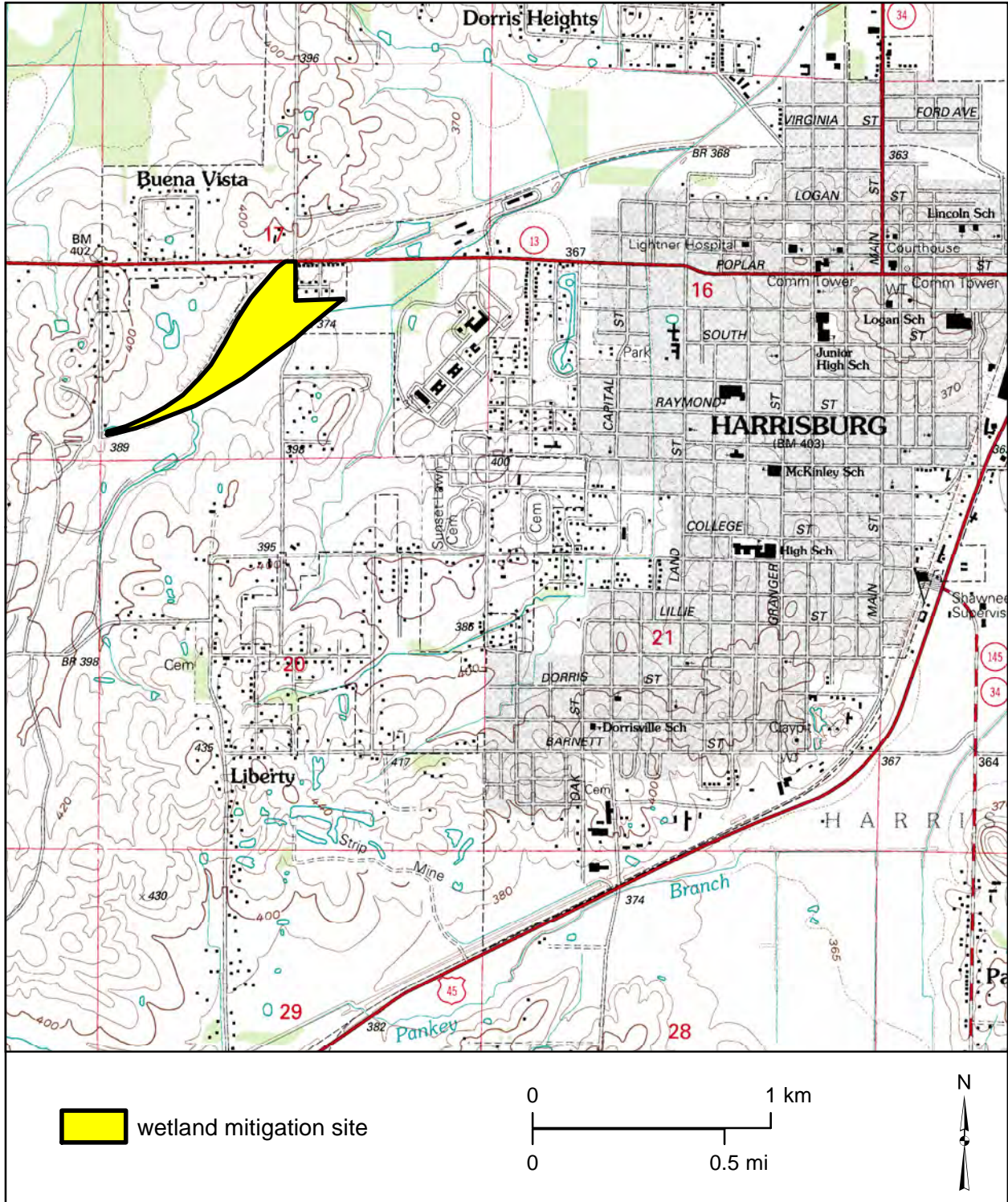
PLANNED FUTURE ACTIVITIES

- Water-level monitoring is expected to continue through 2013 or until no longer required by IDOT.

Harrisburg, Site 2 Wetland Mitigation Site (IL 14, 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

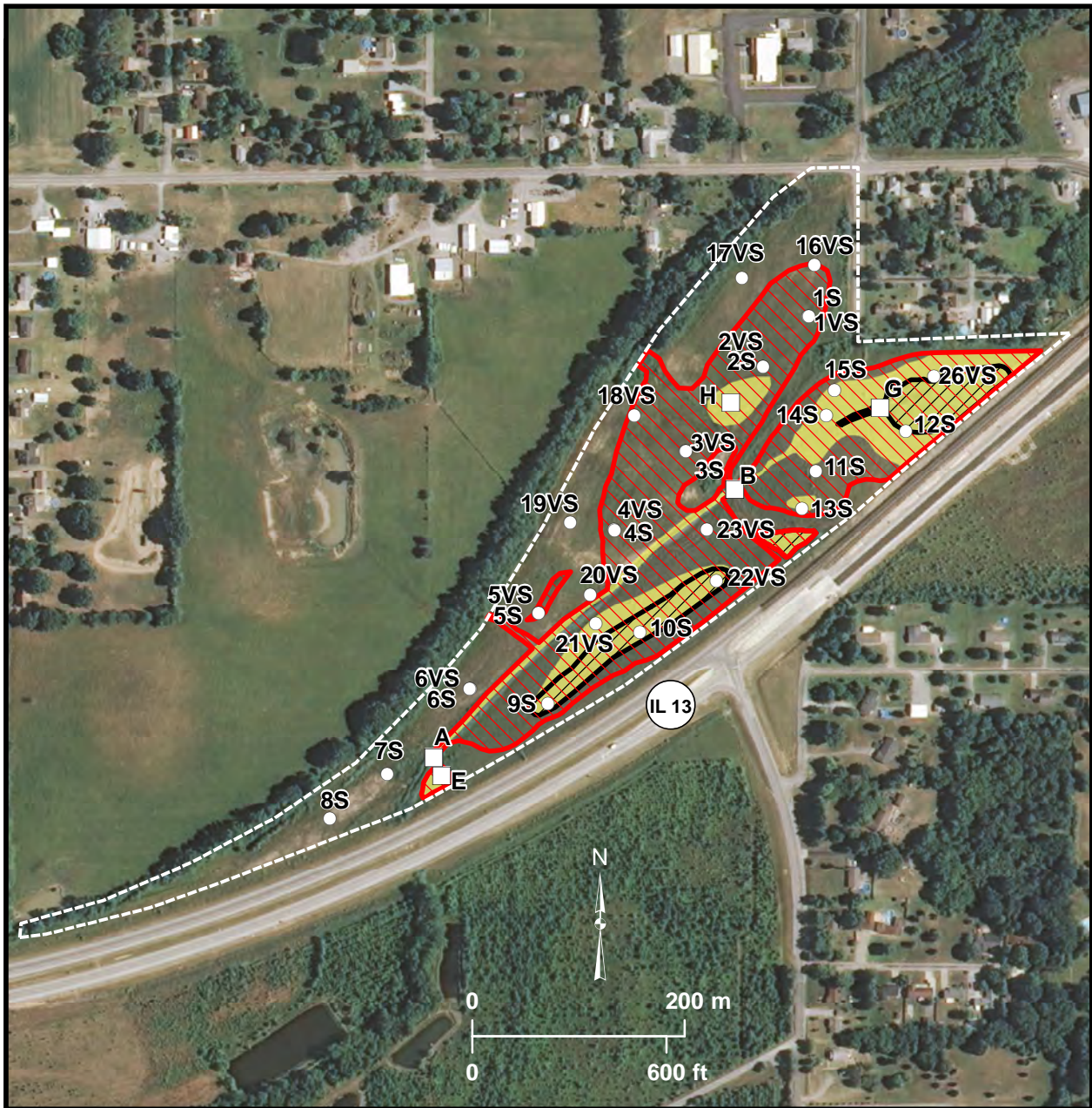


Harrisburg, Site 2 Wetland Mitigation Site (IL 14, FAP 857)







Estimated Areal Extent of 2012 Wetland Hydrology

September 1, 2011 though August 31, 2012

Map based on 2012 Farm Service Agency digital orthophotography, Saline County, Illinois (USDA-FSA 2012)

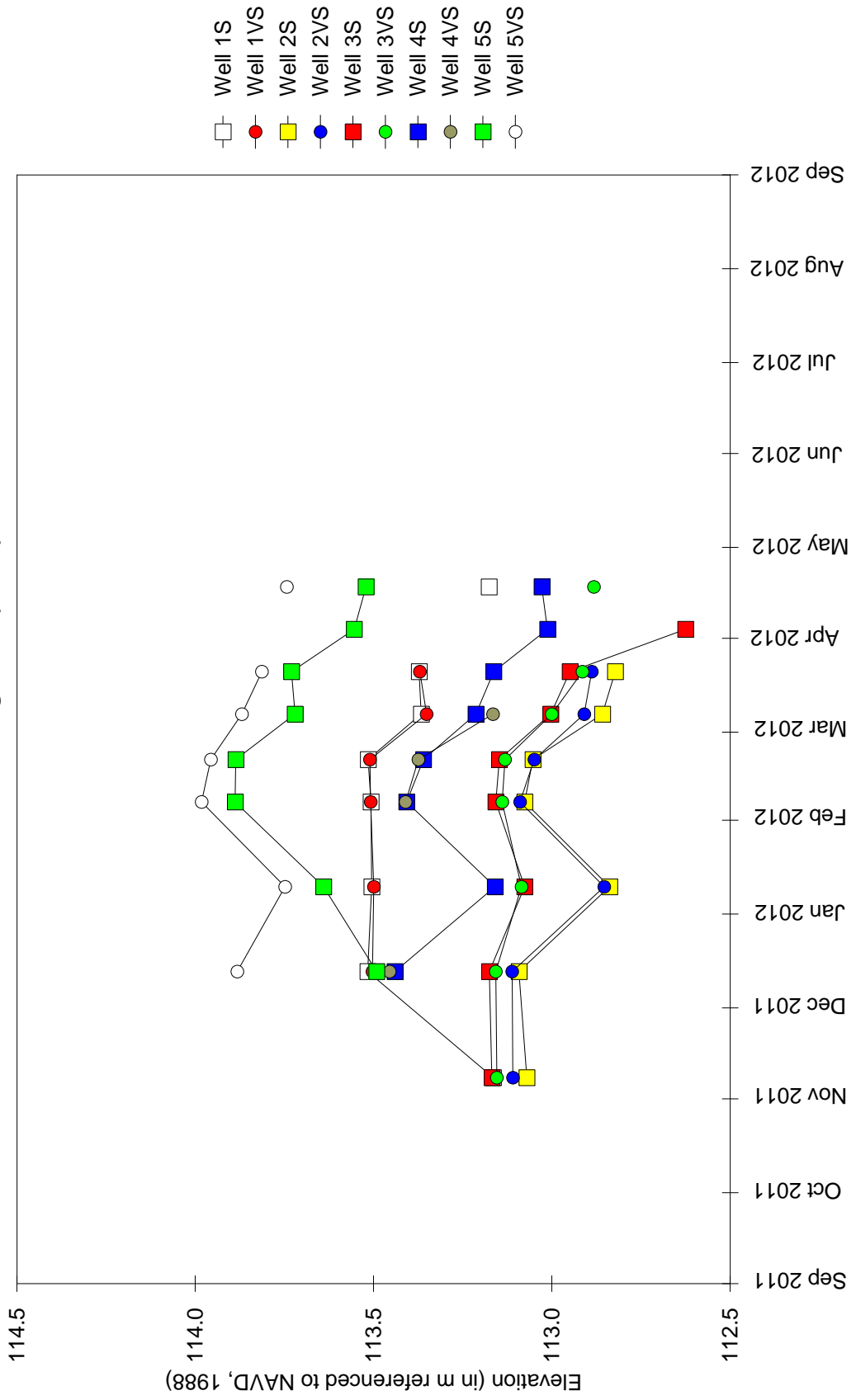


2012 Wetland Hydrology

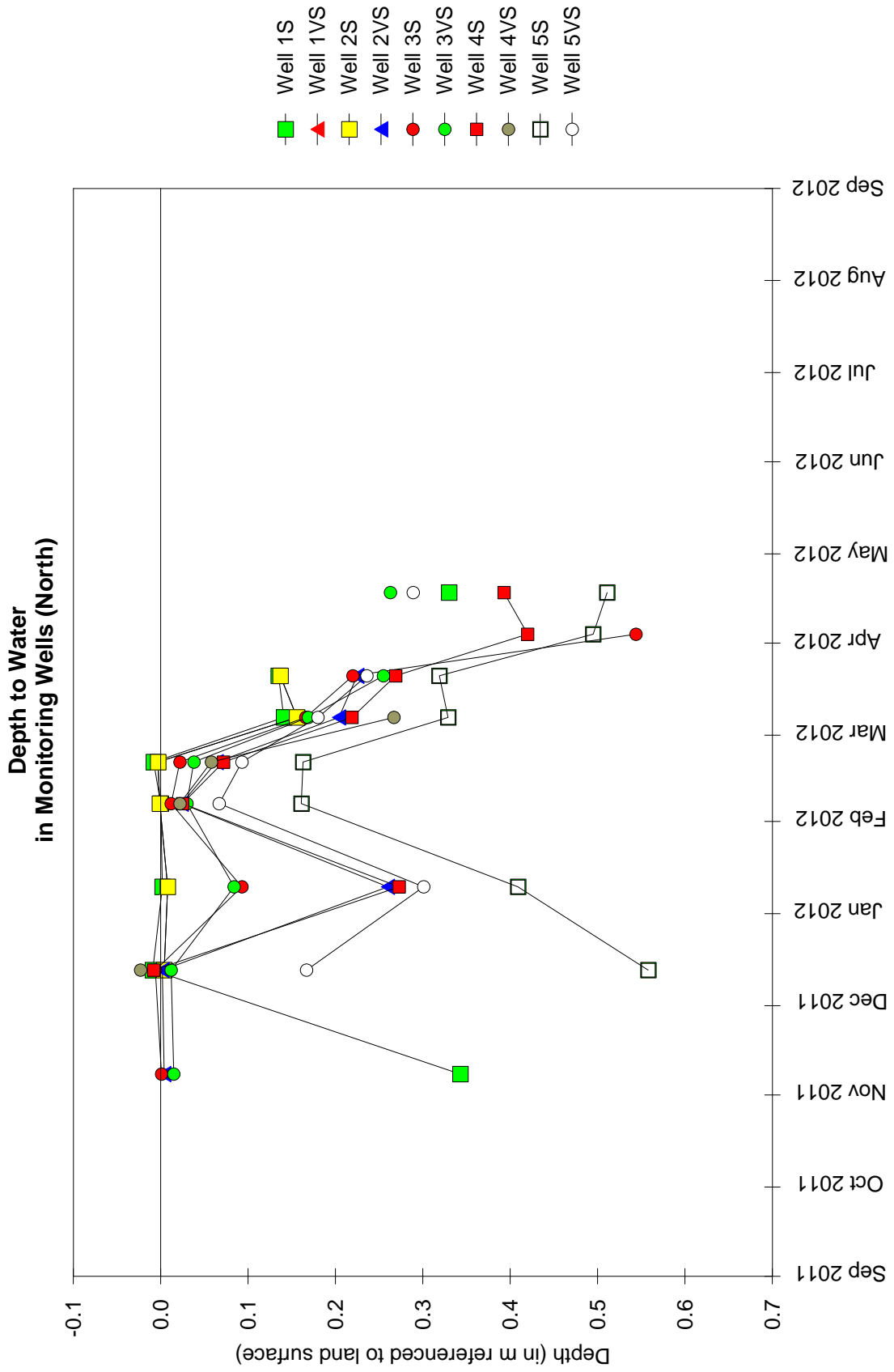
- | | | | |
|---|--|---|---------------------|
|  | >5% of growing season (1987 Manual) |  | monitoring well |
|  | >12.5% of growing season (1987 Manual) |  | surface-water gauge |
|  | 14 days or more (2010 Midwest Region Supplement) |  | site boundary |

Harrisburg, Site 2 Wetland Mitigation Site September 1, 2011 through August 31, 2012

Water-Level Elevations
in Monitoring Wells (North)

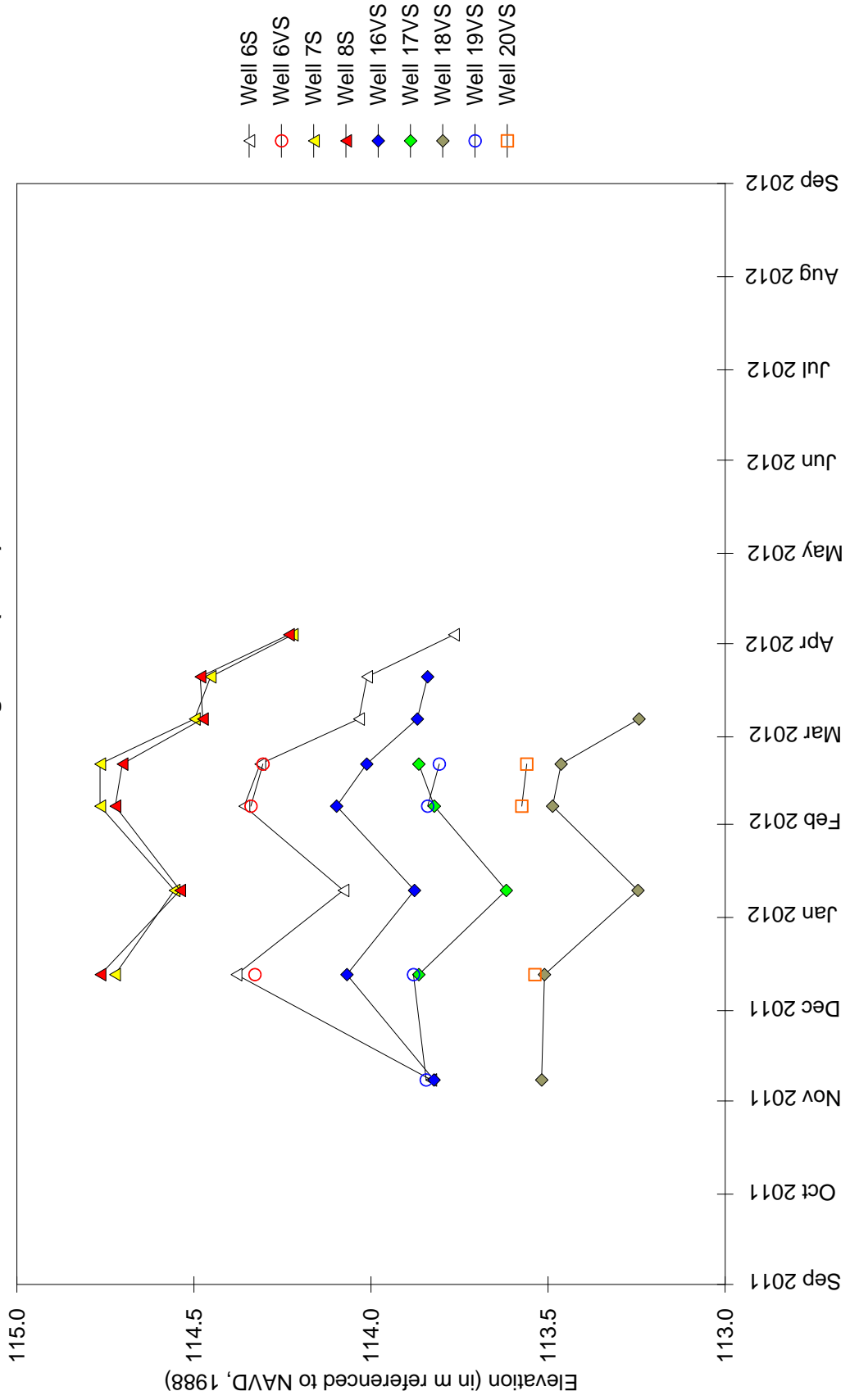


Harrisburg, Site 2 Wetland Mitigation Site
September 1, 2011 through August 31, 2012

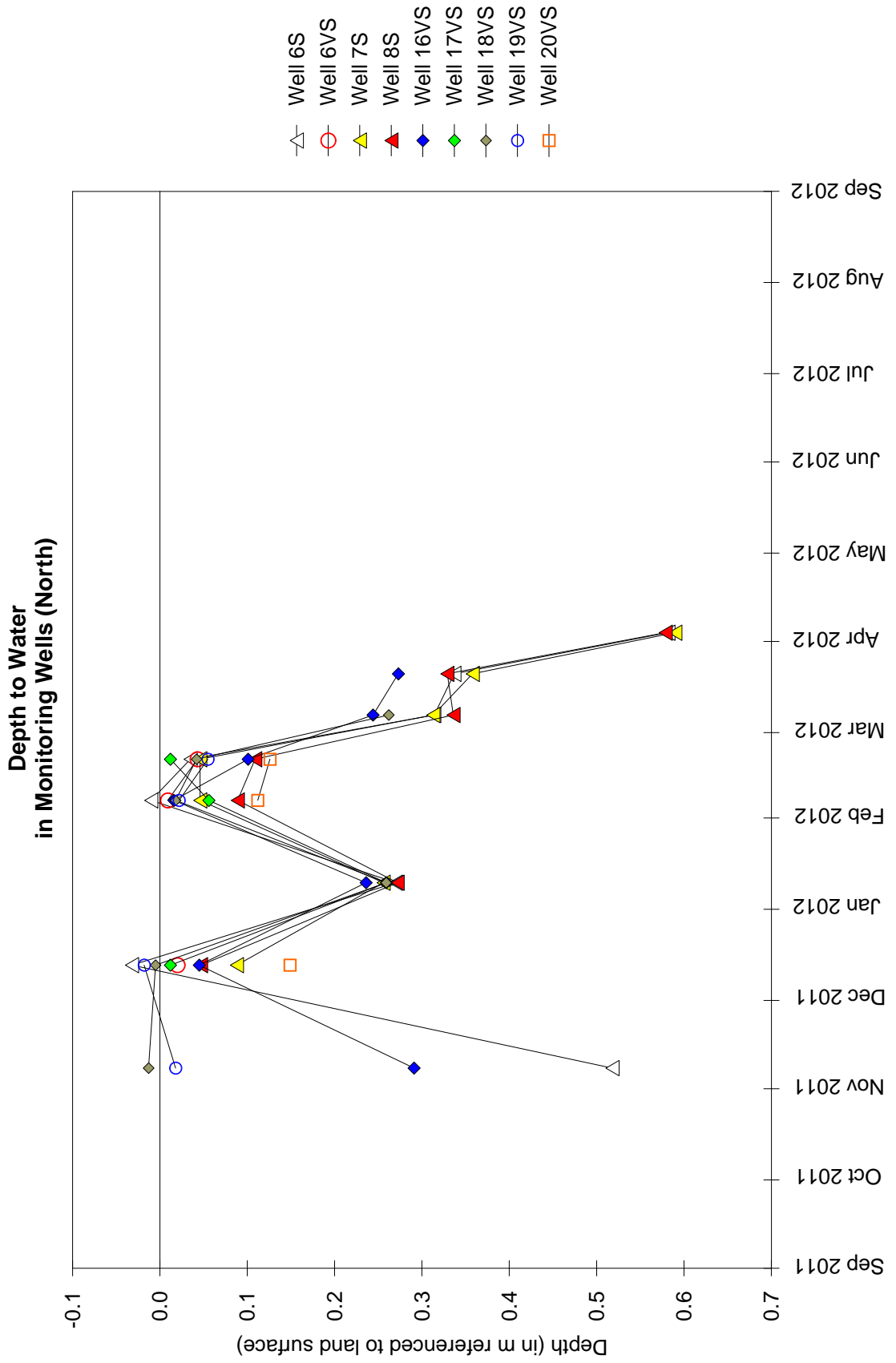


Harrisburg, Site 2 Wetland Mitigation Site September 1, 2011 through August 31, 2012

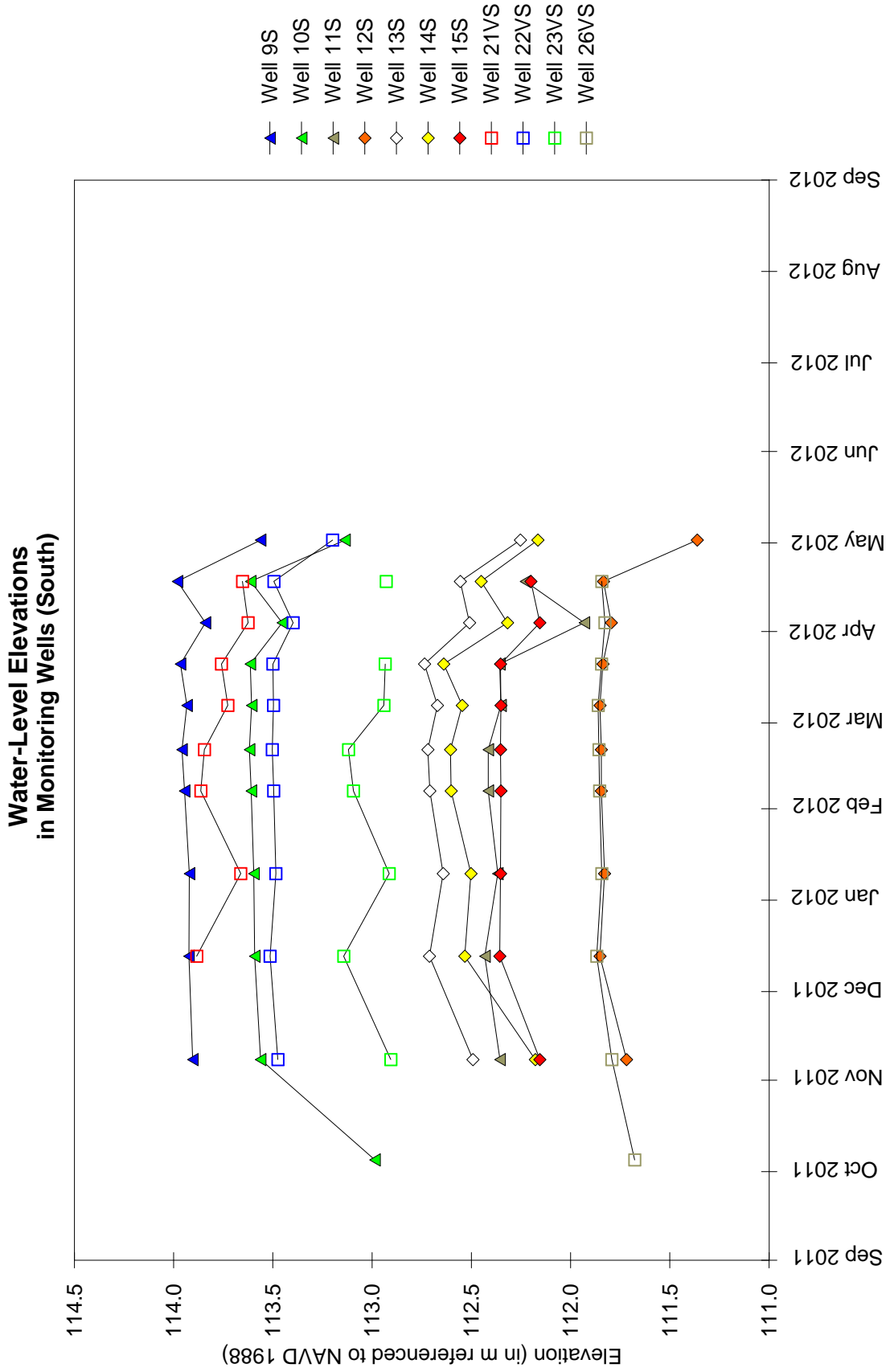
Water-Level Elevations
in Monitoring Wells (North)



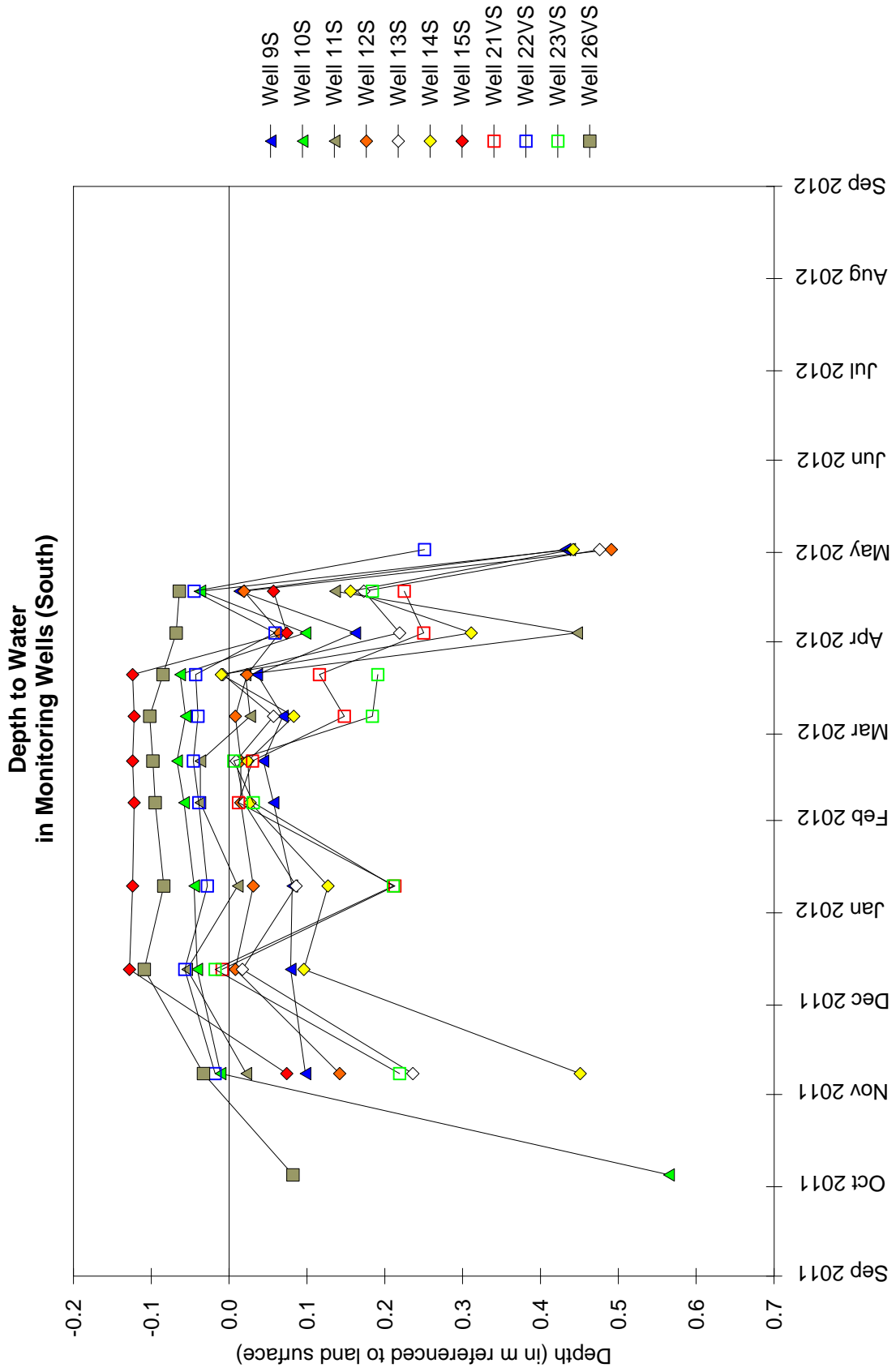
Harrisburg, Site 2 Wetland Mitigation Site September 1, 2011 through August 31, 2012



Harrisburg, Site 2 Wetland Mitigation Site September 1, 2011 through August 31, 2012

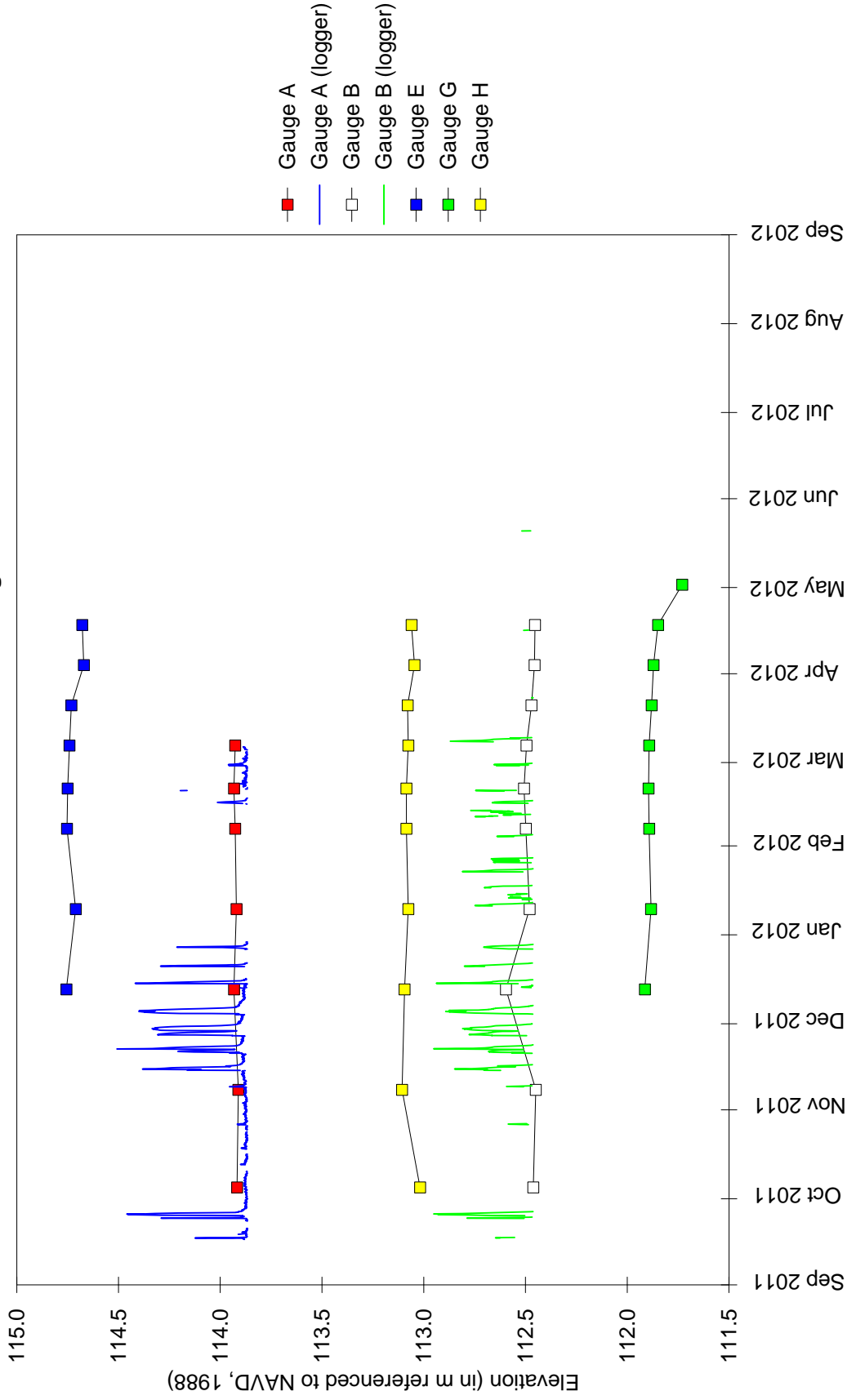


Harrisburg, Site 2 Wetland Mitigation Site September 1, 2011 through August 31, 2012



Harrisburg, Site 2 Wetland Mitigation Site September 1, 2011 through August 31, 2012

Water-Level Elevations
at Surface-Water Gauges



Harrisburg, Site 2 Wetland Mitigation Site September 2011 through August 2012

Total Monthly Precipitation Recorded on Site and at Du Quoin 4 SE, IL

