

**FORMER WEBER PROPERTY  
WETLAND MITIGATION SITE**

**ISGS #79**

US 20

FAP 301

Sequence #10487

Stephenson County, near Freeport, Illinois

**Primary Project Manager: Eric T. Plankell**

**Secondary Project Manager: Jessica R. Ackerman**

**SITE HISTORY**

- September 2010: IDOT District 2 requested that ISGS prepare conceptual plans for wetland creation, and plans were provided by ISGS.
- November 2010: Wetland construction was completed, and ISGS was tasked by IDOT to monitor wetland hydrology.
- May 2011: ISGS installed a post-construction monitoring network.

**WETLAND HYDROLOGY CALCULATION FOR 2012**

The target compensation area for the Former Weber Property wetland mitigation site is 1.21 ha (3.00 ac). Using the 1987 Manual (Environmental Laboratory 1987), 0.74 ha (1.82 ac) of the total site area of 5.8 ha (14.3 ac) satisfied wetland hydrology criteria for greater than 5% of the 2012 growing season, while 0.26 ha (0.65 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, 0.39 ha (0.96 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 Freeport, Illinois, is April 13, and the season lasts 183 days (MRCC 2012). According to the 1987 Manual, 5% of the growing season is 9 days, and 12.5% of the growing season is 23 days. According to the 2010 Midwest Region Supplement, March 12 was the starting date of the 2012 growing season based on soil temperatures measured at the former Freeport Bypass West Wetland Mitigation Site 6W (ISGS site #72).
- Total precipitation for the monitoring period at the Freeport Wastewater Plant weather station was 74% of normal. During Spring 2012 (March through May), precipitation was 95% of normal.
- In 2012, water levels measured in monitoring wells 8S and 9S satisfied wetland hydrology criteria for greater than 5% and greater than 12.5% of the growing season, according to the 1987 Manual. According to the 2010 Midwest Region Supplement, wells 8S and 9S also satisfied wetland hydrology criteria for 14 or more consecutive days of the growing season.
- Surface-water levels measured at Gauges E and F indicated inundation at or below 230.03 m and 231.14 m (754.69 ft and 758.33 ft), respectively, for greater than 5% of

the growing season, according to the 1987 Manual. Surface-water levels measured at Gauge F indicated inundation at or below 231.10 m (758.20 ft) for greater than 12.5% of the growing season, while surface-water levels at Gauge E did not satisfy wetland hydrology criteria for greater than 12.5% of the growing season, according to the 1987 Manual. Additionally, surface-water levels measured at Gauge A did not satisfy any wetland hydrology criteria during the 2012 growing season per the 1987 Manual. Per the 2010 Midwest Region Supplement, surface-water levels measured at Gauges A and F indicated inundation at or below 230.07 m and 231.20 m (754.82 ft and 758.53 ft) for 14 or more consecutive days of the growing season, while Gauge E did not satisfy wetland hydrology criteria according to this method.

#### ADDITIONAL INFORMATION

- During the 2012 growing season, water levels on the Mississippi River at Thebes, Illinois, never reached an elevation sufficient to back up water in the East Cape Main Ditch (ECMD) which parallels the western border of the East Cape Girardeau wetland mitigation site.

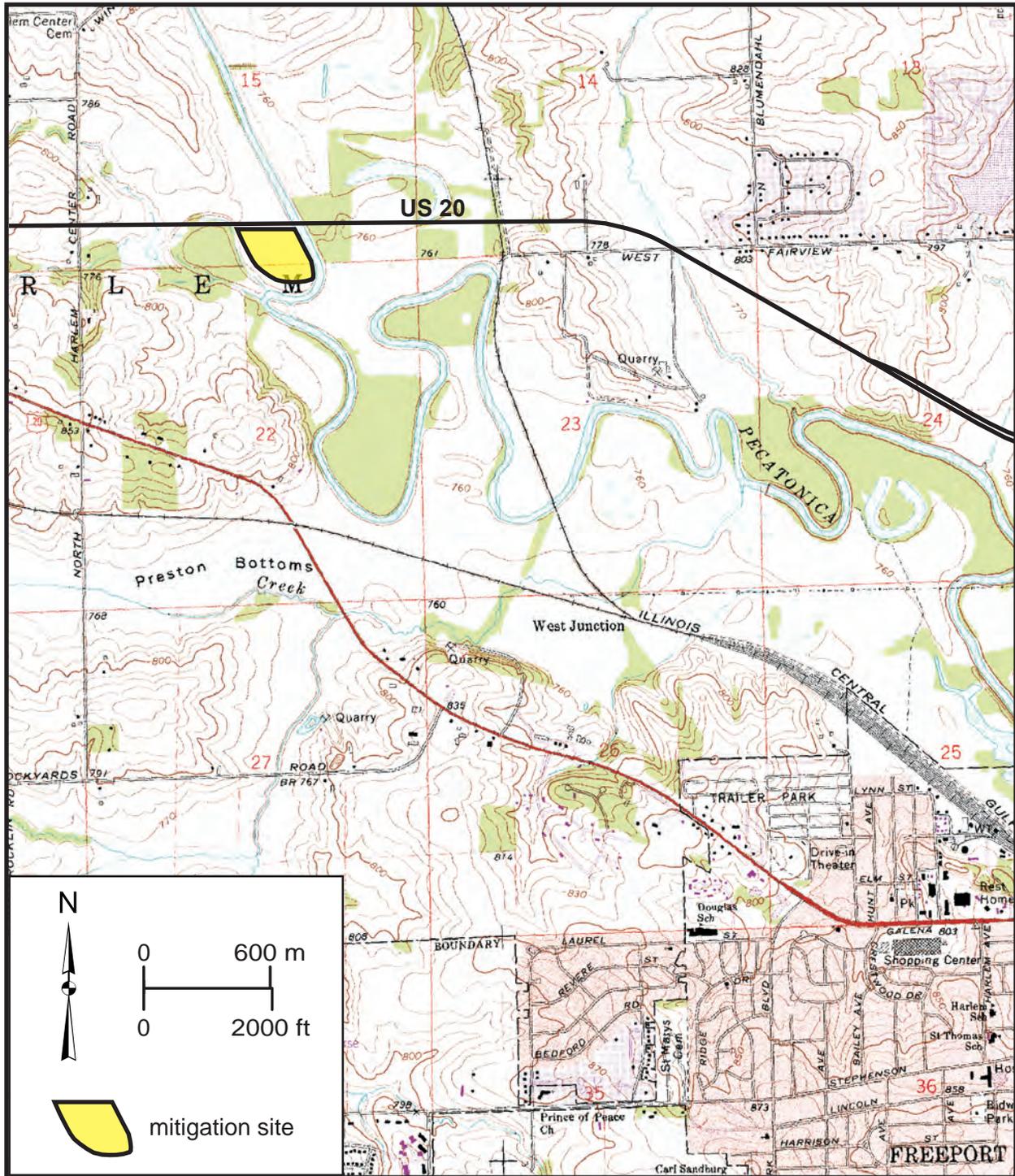
#### PLANNED FUTURE ACTIVITIES

- Monitoring will continue until no longer required by IDOT.

# Former Weber Property Wetland Mitigation Site (US 20, FAP 301)

## General Study Area and Vicinity

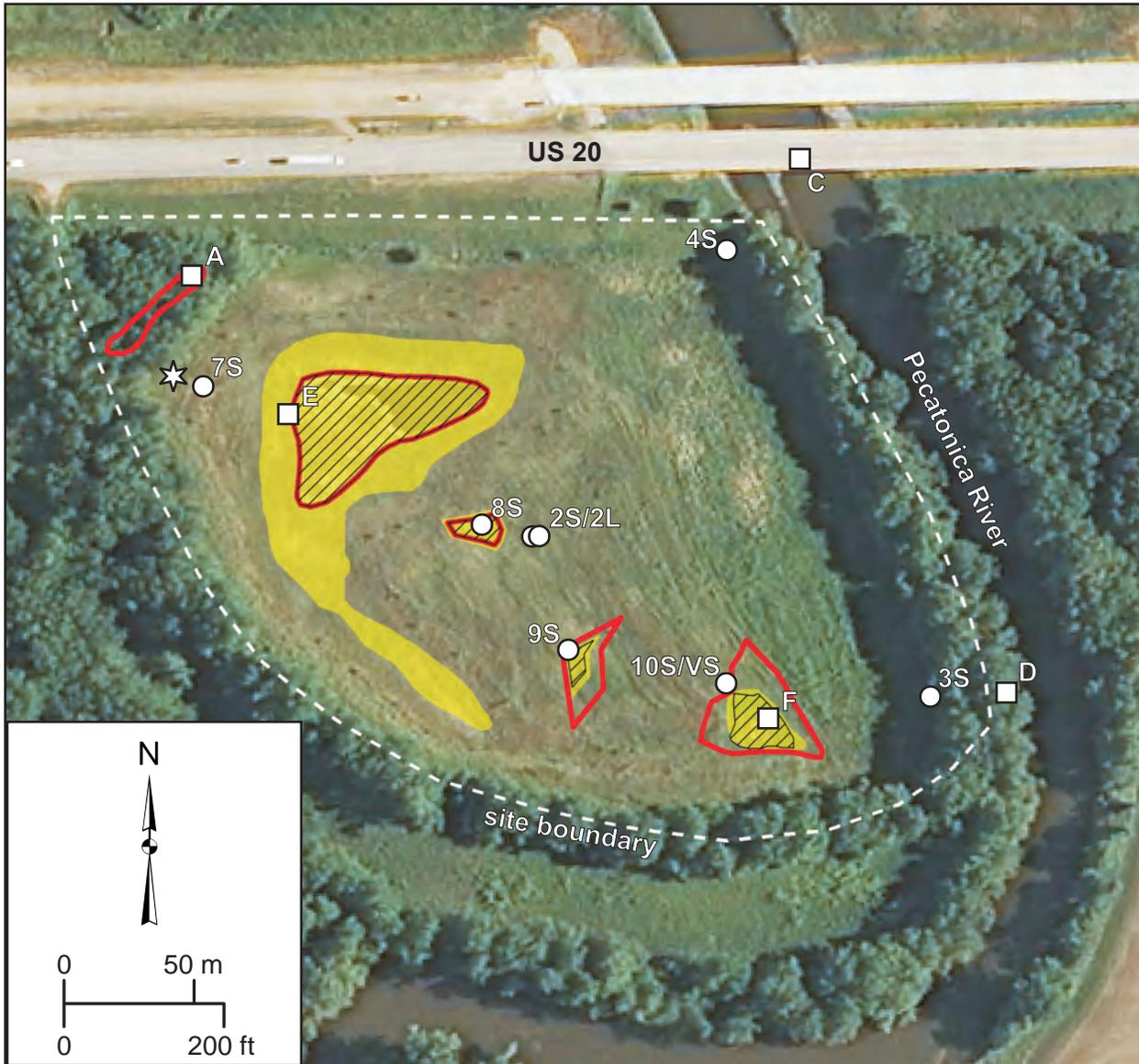
Map based on the USGS Topographic Series, Freeport West, IL, 7.5-minute Quadrangle  
(USGS 1971, photorevised 1978). Contour interval is 10 feet.



# Former Weber Property Wetland Mitigation Site (US 20, FAP 301)

## Estimated Areal Extent of 2012 Wetland Hydrology September 1, 2011 through August 31, 2012

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

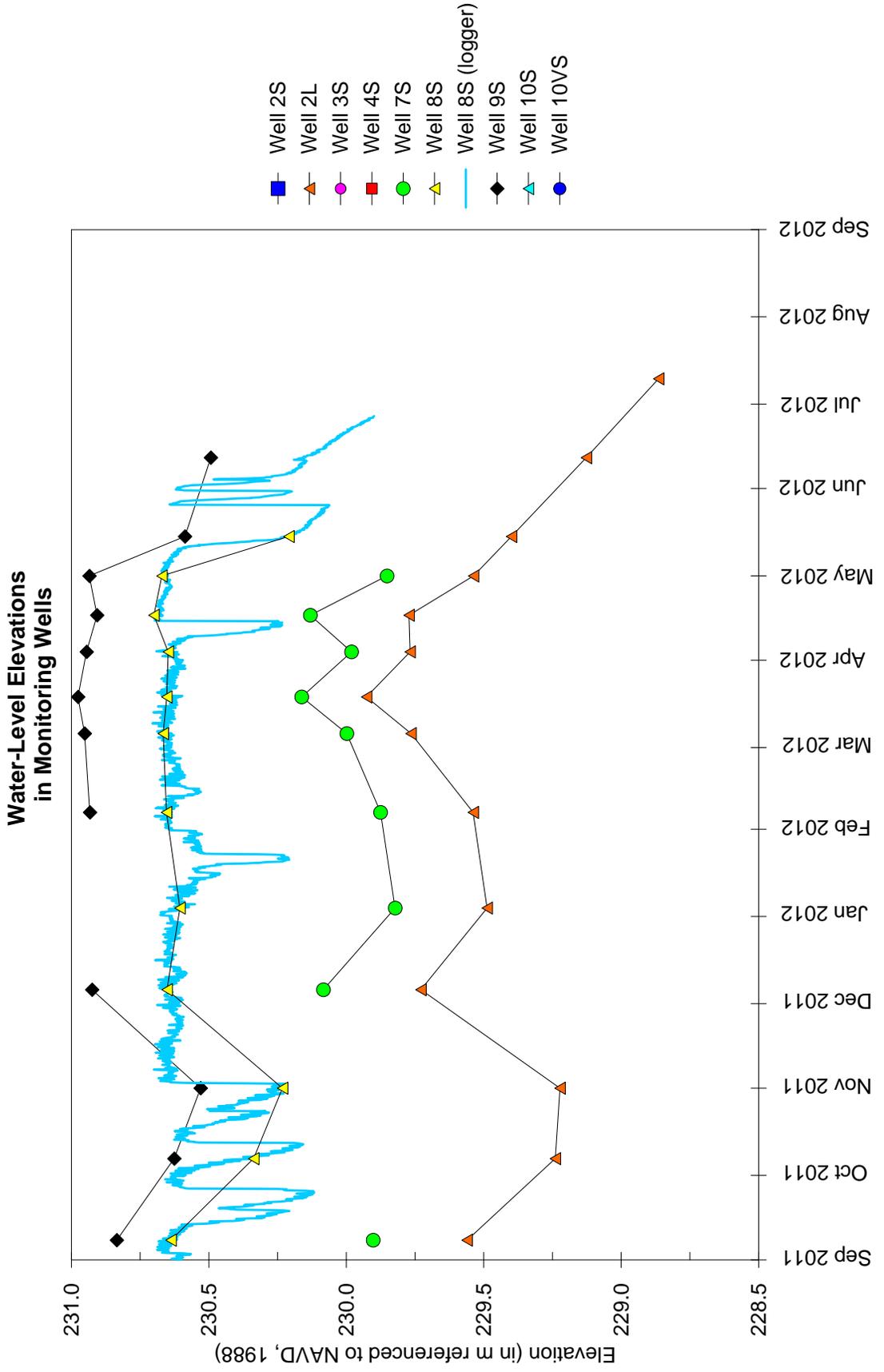


### 2012 Wetland Hydrology

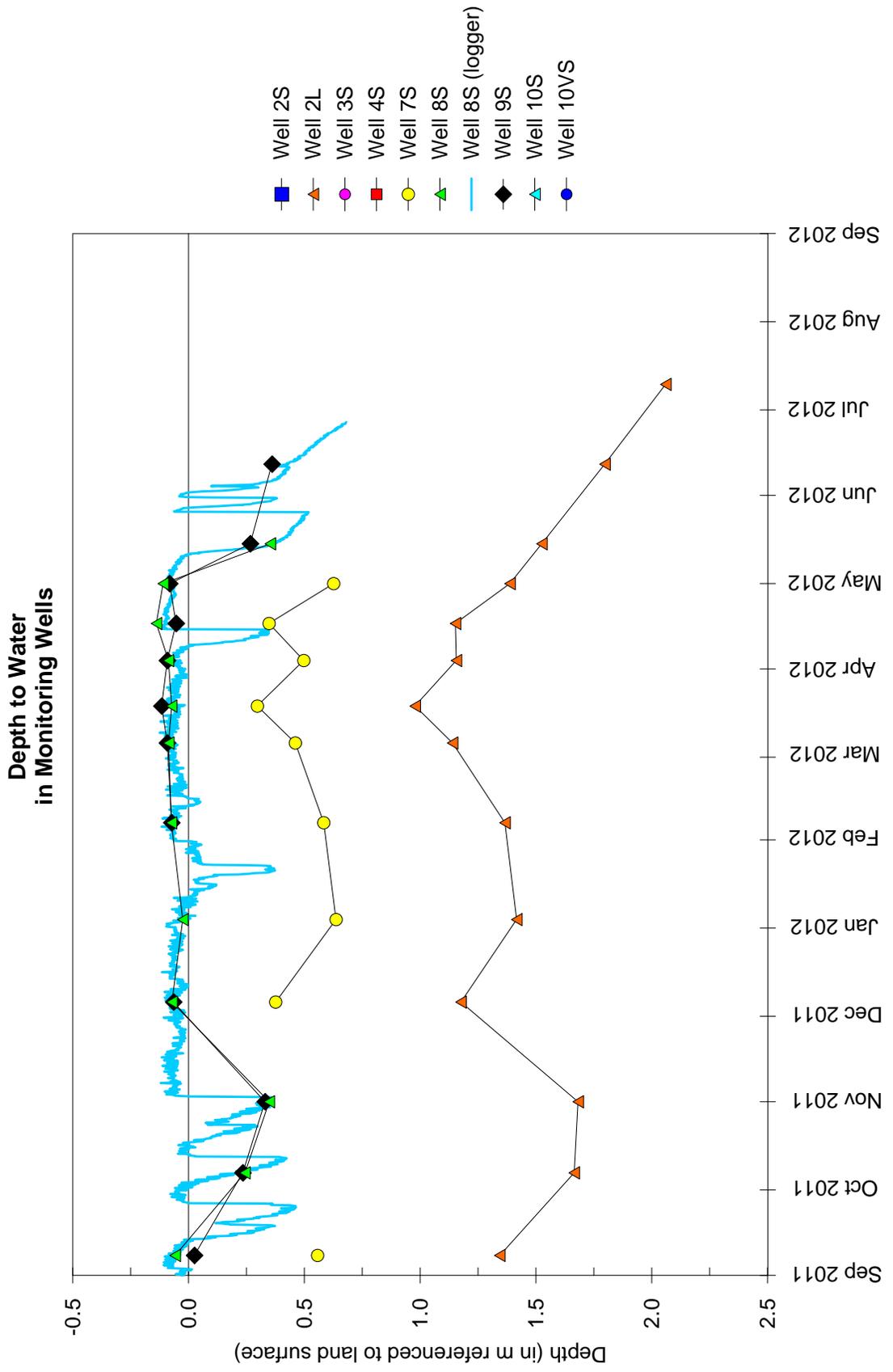
- |                       |  |
|-----------------------|--|
| ○ monitoring well     | ■ > 5% of the growing season (1987 Manual)         |
| □ surface-water gauge | ▨ > 12.5% of the growing season (1987 Manual)      |
| ☆ rain gauge          | ▭ 14 days or more (2010 Midwest Region Supplement) |

# Former Weber Property Wetland Mitigation Site

## September 1, 2011 through August 31, 2012

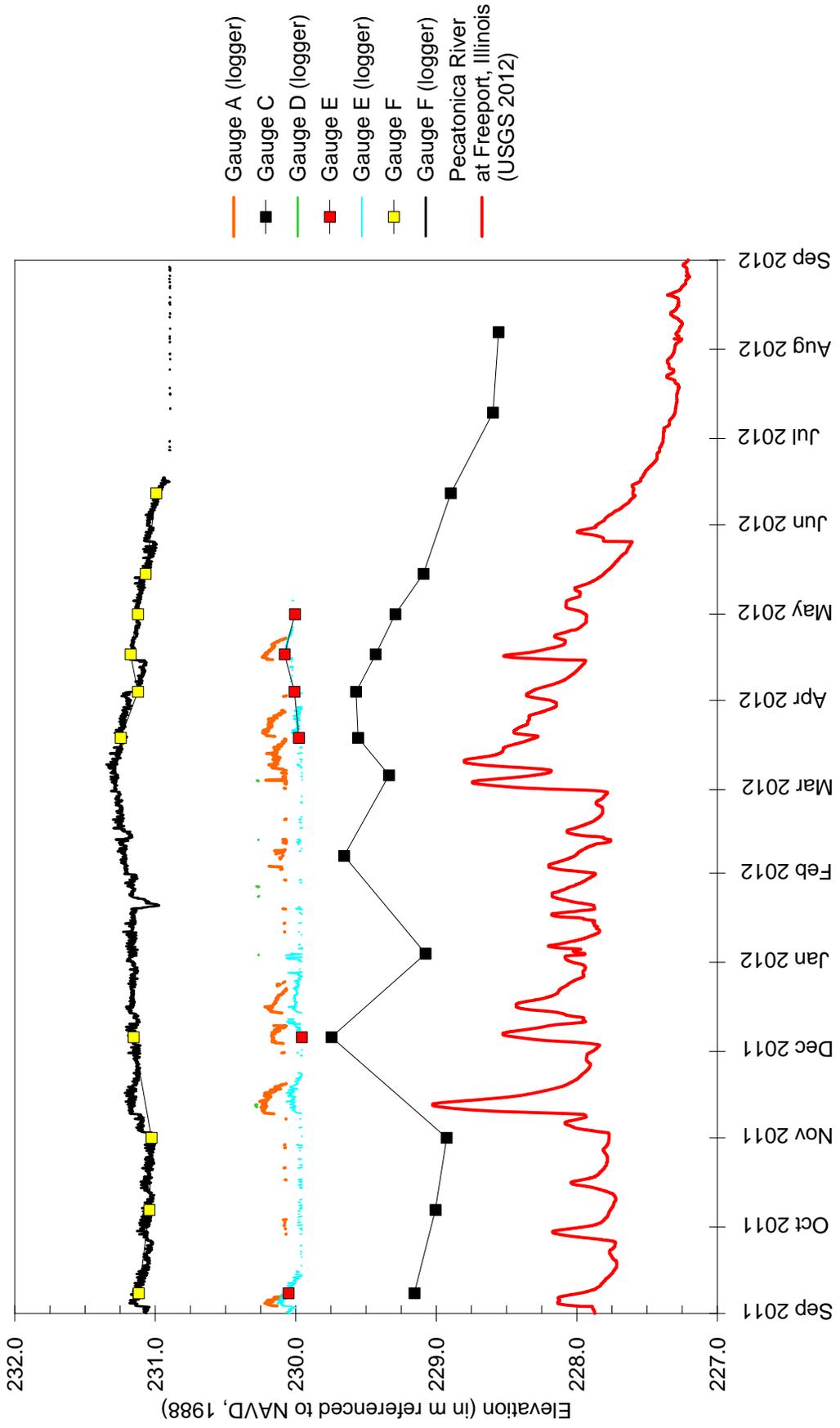


# Former Weber Property Wetland Mitigation Site September 1, 2011 through August 31, 2012



# Former Weber Property Wetland Mitigation Site September 1, 2011 through August 31, 2012

Water-Level Elevations  
at Surface-Water Gauges



## Former Weber Property Wetland Mitigation Site September 2011 through August 2012

### Total Monthly Precipitation Recorded on Site and at the Freeport Wastewater Plant, IL

