

**HANCOCK COUNTY NEAR CARTHAGE
WETLAND COMPENSATION SITE**

ISGS #42

FAP 315 & FAP 10

Sequence #235

Hancock County, near Carthage, Illinois

Primary Project Manager: Steven E. Benton

Secondary Project Manager: Kathleen E. Bryant

SITE HISTORY

- March 1997: IDOT tasked ISGS to monitor the site.
- August 2004: A Level II hydrogeologic characterization report was submitted to IDOT (ISGS Open-File Series 2004–13).
- July 2006: Wetland and highway construction began.
- July 2007: Tree planting was completed.

WETLAND HYDROLOGY CALCULATION FOR 2008

The area of the site that satisfied wetland hydrology criteria (Environmental Laboratory 1987) for more than 5% of the 2008 growing season was estimated to be 14.2 ha (35.2 ac) out of an area of 17.9 ha (44.3 ac). The area of the site that satisfied wetland hydrology criteria for more than 12.5% of the growing season was estimated to be 9.8 ha (24.3 ac). These estimates are based on the following factors:

- According to the MRCC, the median date that the growing season begins in nearby La Harpe, Illinois, is April 9 and the season lasts 196 days; 5% of the growing season is 10 days and 12.5% of the growing season is 25 days.
- Total precipitation recorded at Bentley, Illinois during the monitoring period was 103% of normal. Precipitation was at or above normal in October and December 2007, and in January, February, March, April, June, and July 2008.
- Monitoring wells 1U, 2U, 3U, 4U, 5U, 6U, 7S, 8U, 10S, 11S, 12SR, 13S, 14S, 15S, 16S, 17S, 18S, 22S, 23S, 24S, 25S, 26S, 27S, 28S, 29S, 31S, 32S, and 34S satisfied the criteria for jurisdictional wetland hydrology at 5% of the growing season. With the exception of 2U, 7S, 10S, 11S, 12SR, 18S, 22S, and 24S, these monitoring wells also satisfied the criteria for jurisdictional wetland hydrology at 12.5% of the growing season.
- Surface-water elevations measured at RDS 1 were greater than or equal to 165.65 m (543.49 ft) for more than 5% of the growing season, and greater than or equal to 165.62 m (543.40 ft) for more than 12.5% of the growing season. Surface-water elevations measured at RDS 2 were greater than or equal to 165.75 m (543.82 ft) for more than 5% of the growing season, and greater than or equal to 165.72 m (543.73 ft) for more than 12.5% of the growing season. Surface-water elevations measured at RDS 3 were greater than or equal to 165.32 m (542.41 ft) for more than 5% of the growing season, and greater than or equal to 165.30 m (542.35 ft) for more than 12.5% of the growing season.

ADDITIONAL INFORMATION

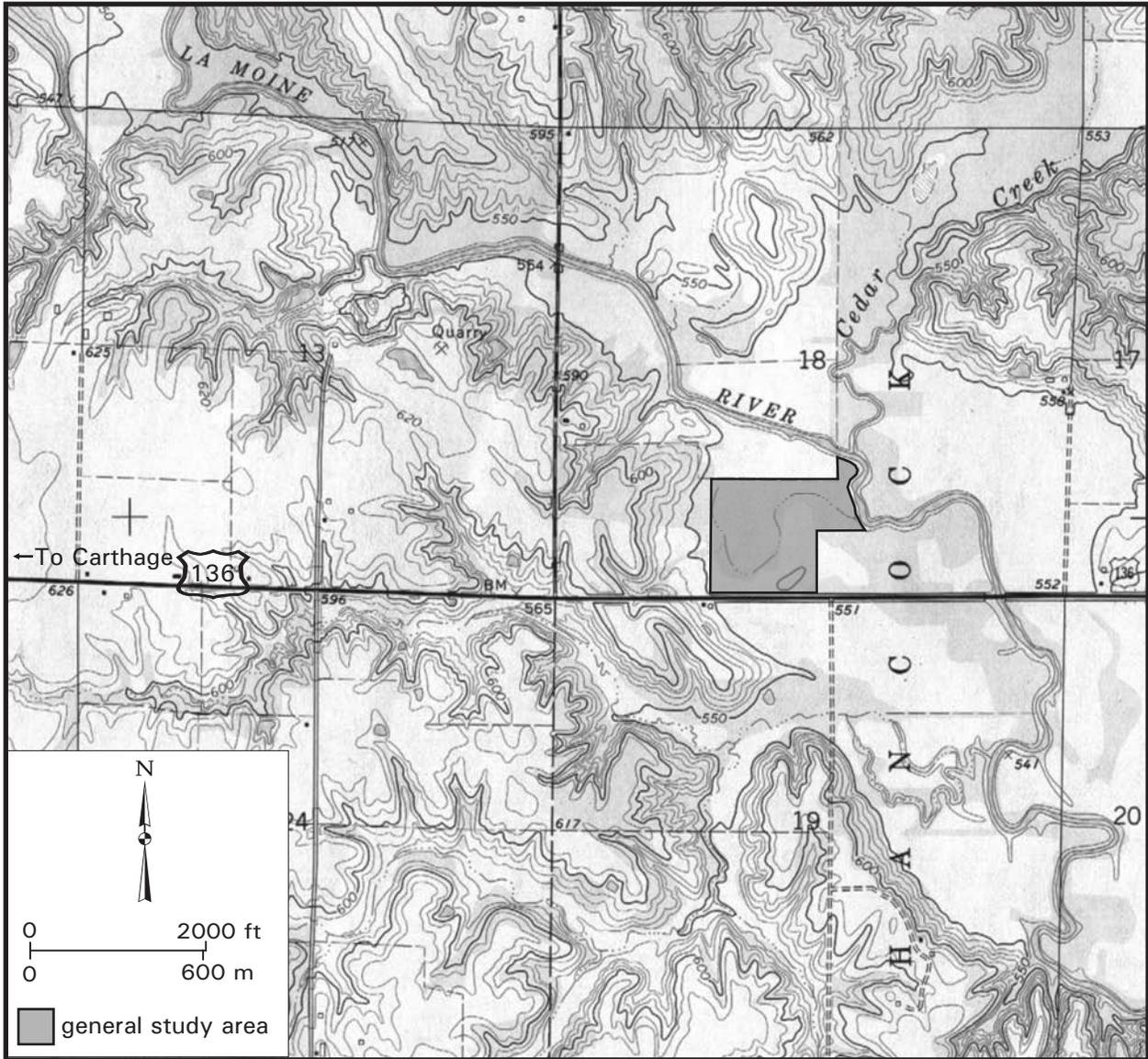
- The entire emergent wetland area satisfied the criteria for jurisdictional wetland hydrology at both 5% and 12.5% of the growing season. The entire upland buffer satisfied the criteria for jurisdictional wetland hydrology at 5% of the growing season and a portion satisfied the criteria at 12.5% of the growing season. Most of forested wetland areas 1 and 2 satisfied the criteria at 5% and/or 12.5% of the growing season, but the only portion of forested wetland area 3 that satisfied the criteria at either 5% or 12.5% of the growing season was southwest of the drainage ditch that discharges into the La Moine River.

PLANNED FUTURE ACTIVITIES

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

**Hancock County near Carthage
Wetland Compensation Site
(FAP 315 and FAP 10)
General Study Area and Vicinity**

from the USGS Topographic Series, Carthage East, IL 7.5-minute Quadrangle (USGS 1974)
contour interval is 10 feet

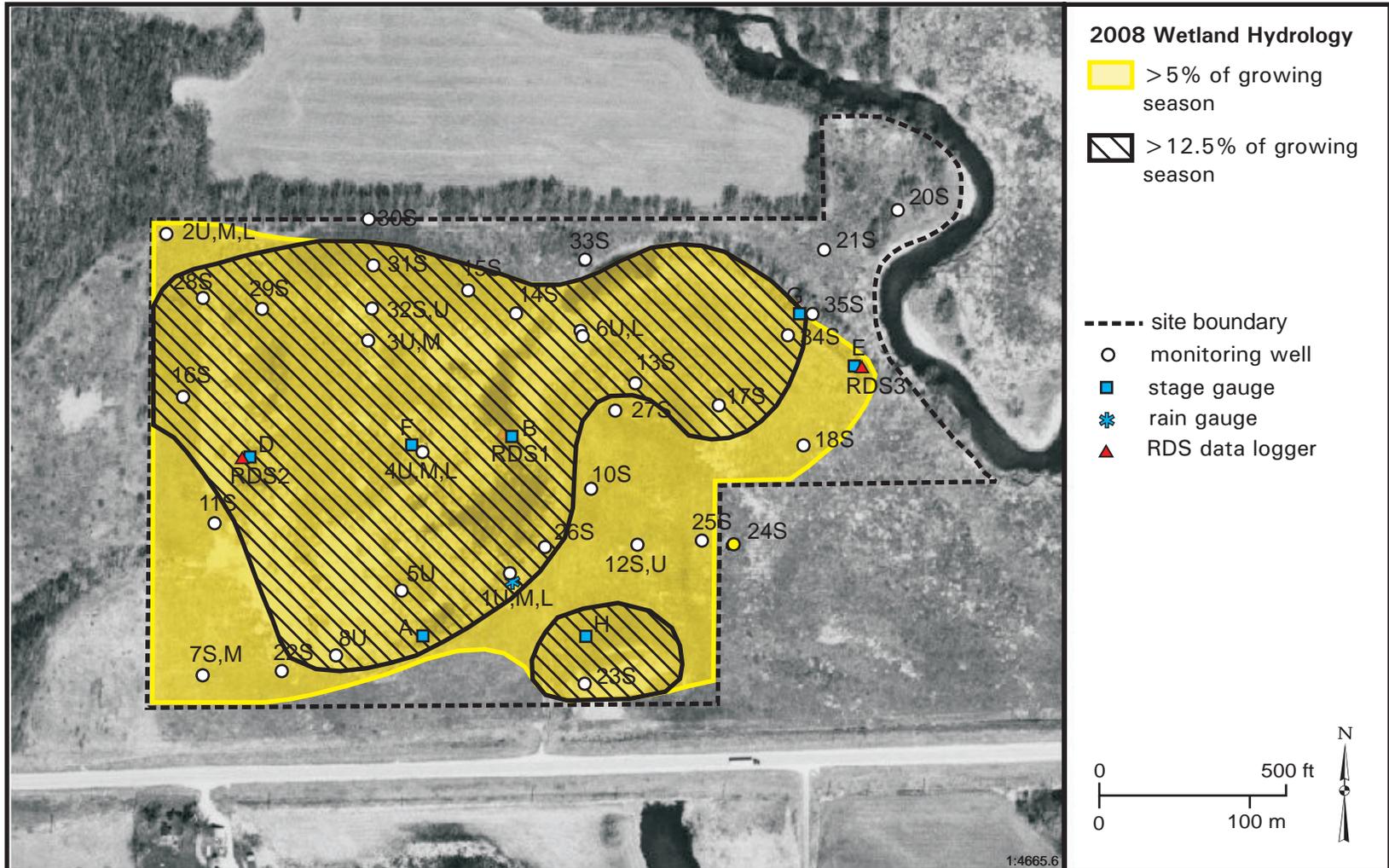


Hancock County near Carthage Wetland Compensation Site (FAP 315 and FAP 10)

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, Carthage East SE quarter quadrangle
produced from 2005 aerial photography (ISGS 2005)

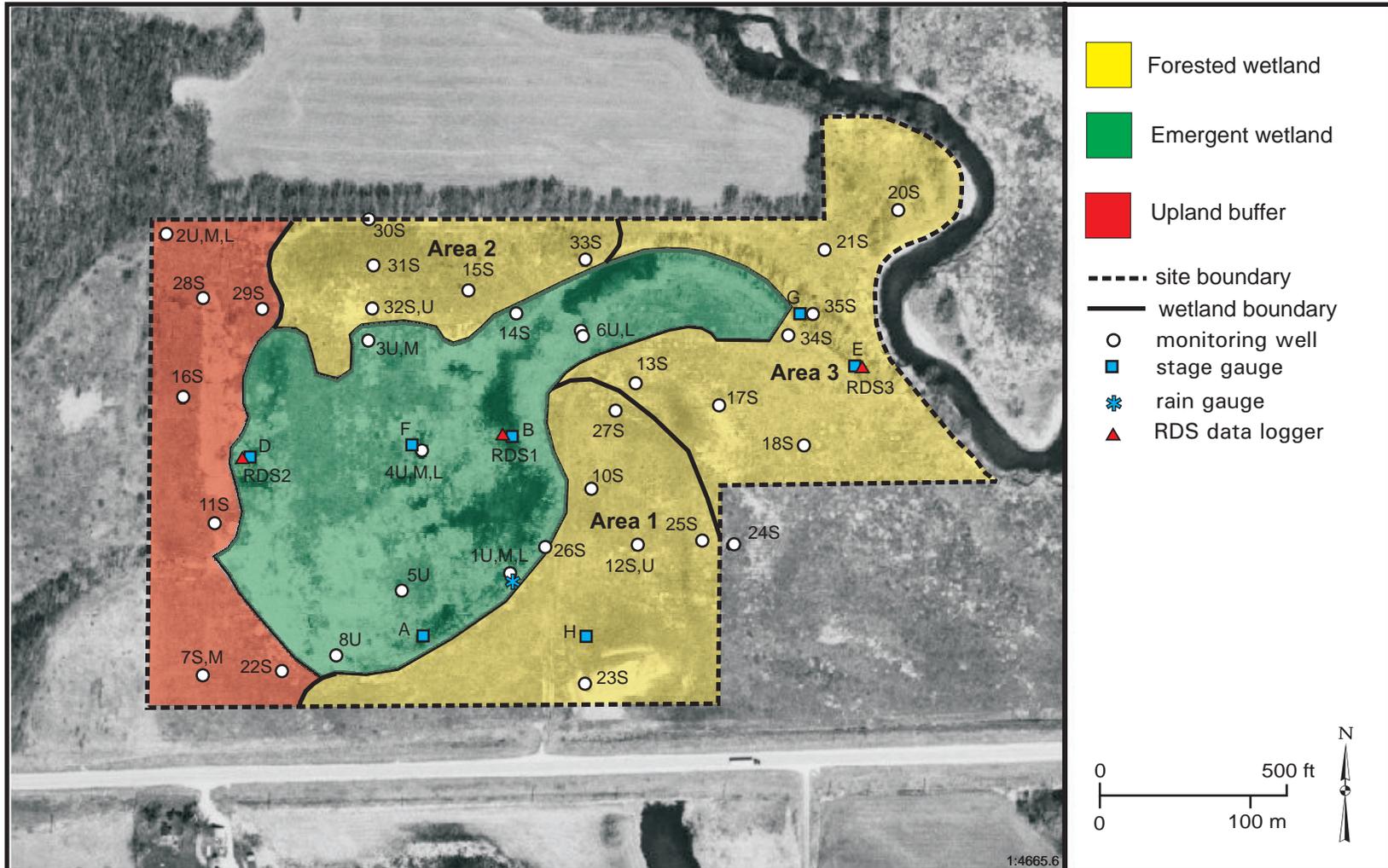


Hancock County near Carthage Wetland Compensation Site (FAP 315 and FAP 10)

Wetland and Nonwetland Site Areas

based on IDOT as-built plans

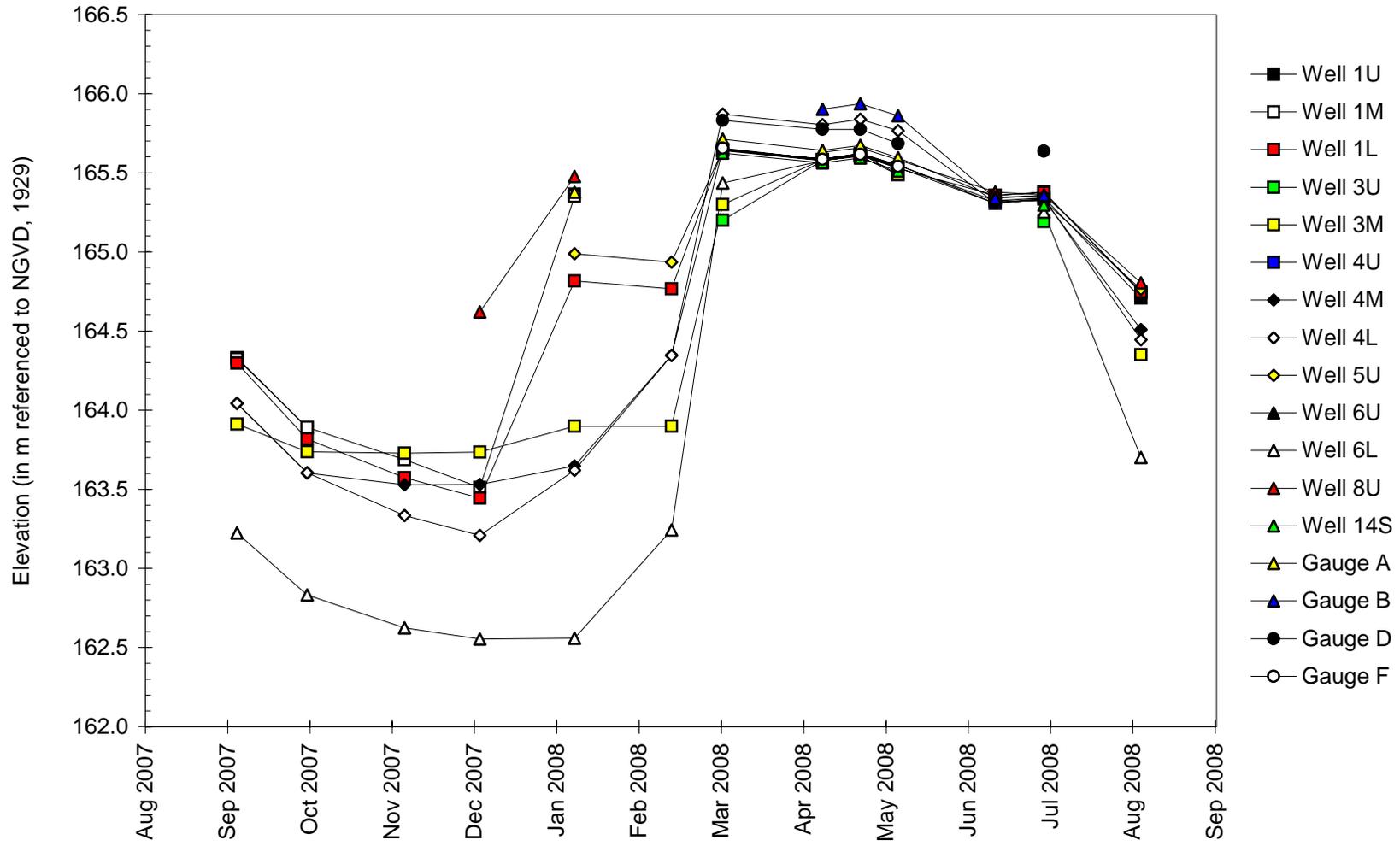
Map based on USGS digital orthophotograph, Carthage East SE quarter quadrangle
produced from 2005 aerial photography (ISGS 2005)



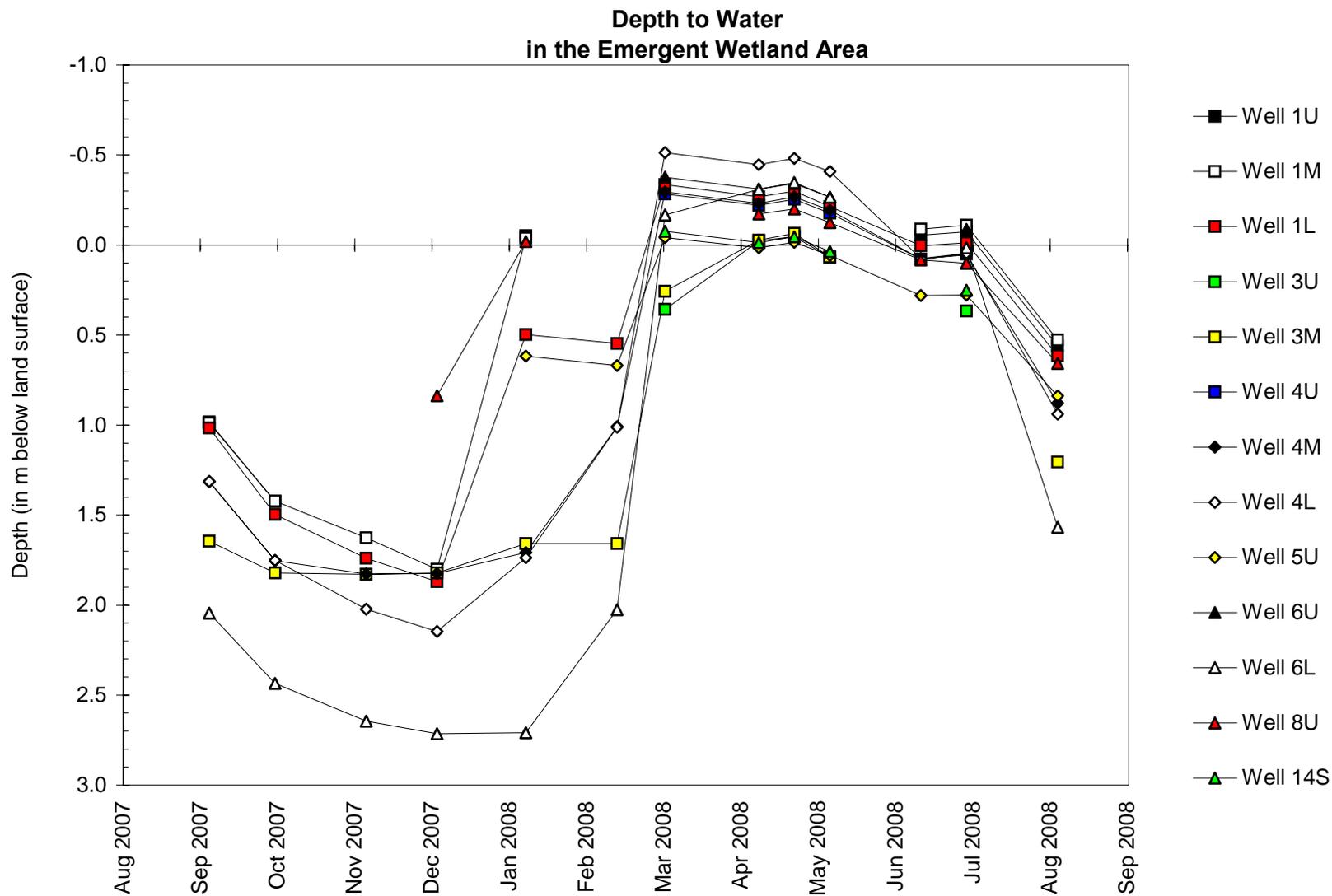
Hancock County near Carthage Wetland Compensation Site

September 1, 2007 to September 1, 2008

Water-Level Elevations in the Emergent Wetland Area



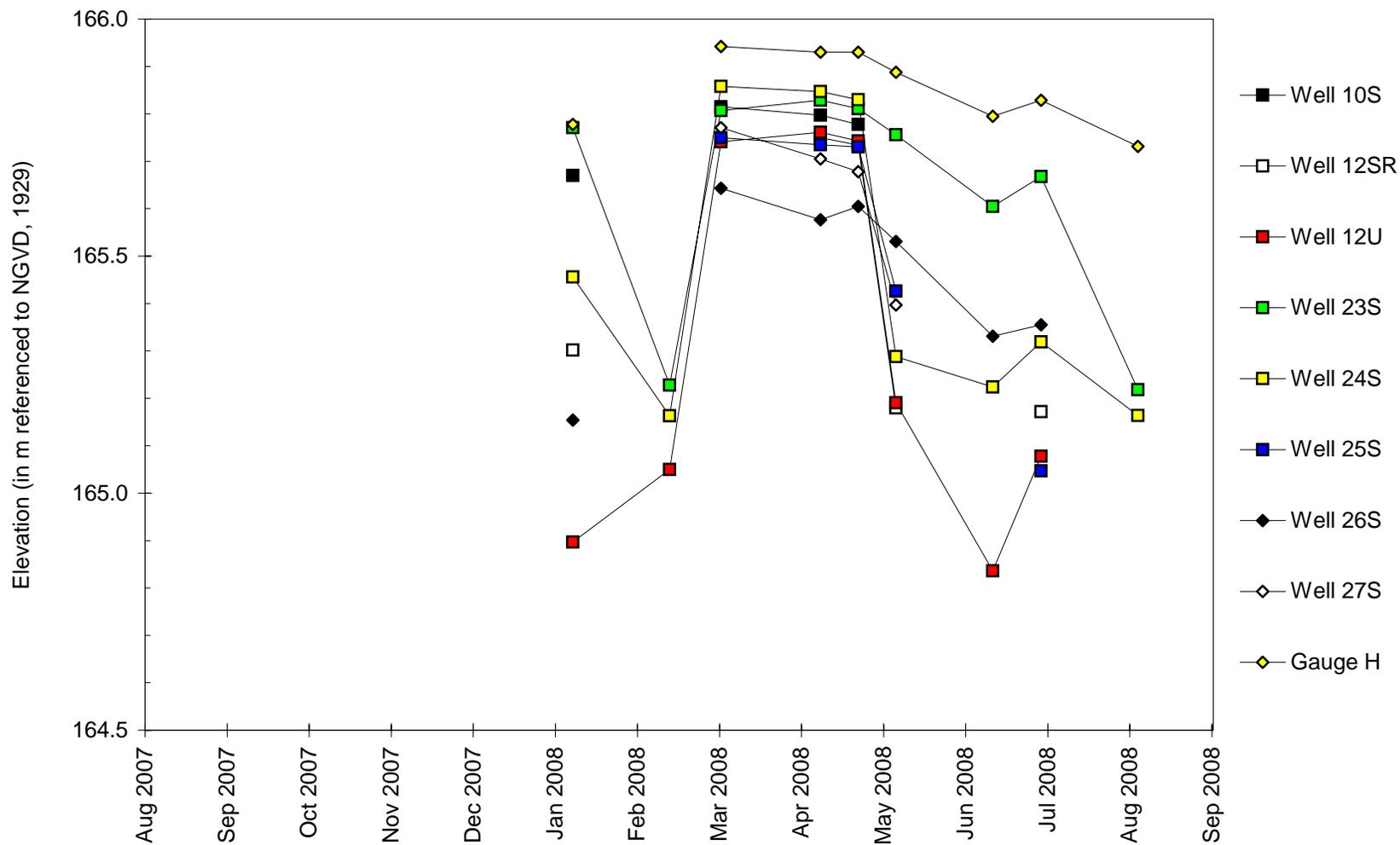
Hancock County near Carthage Wetland Compensation Site September 1, 2007 to September 1, 2008



Hancock County near Carthage Wetland Compensation Site

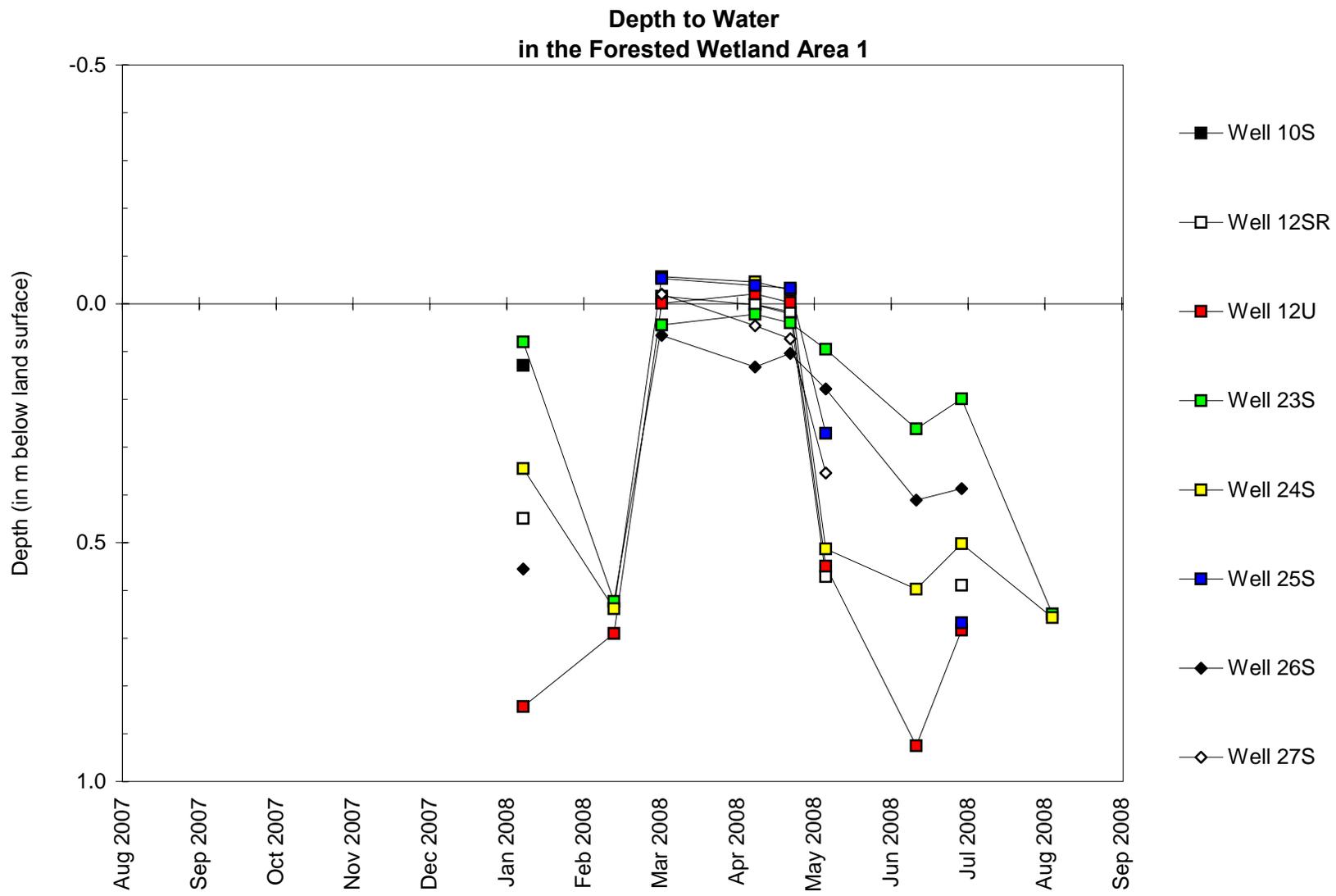
September 1, 2007 to September 1, 2008

Water-Level Elevations in the Forested Wetland Area 1



Hancock County near Carthage Wetland Compensation Site

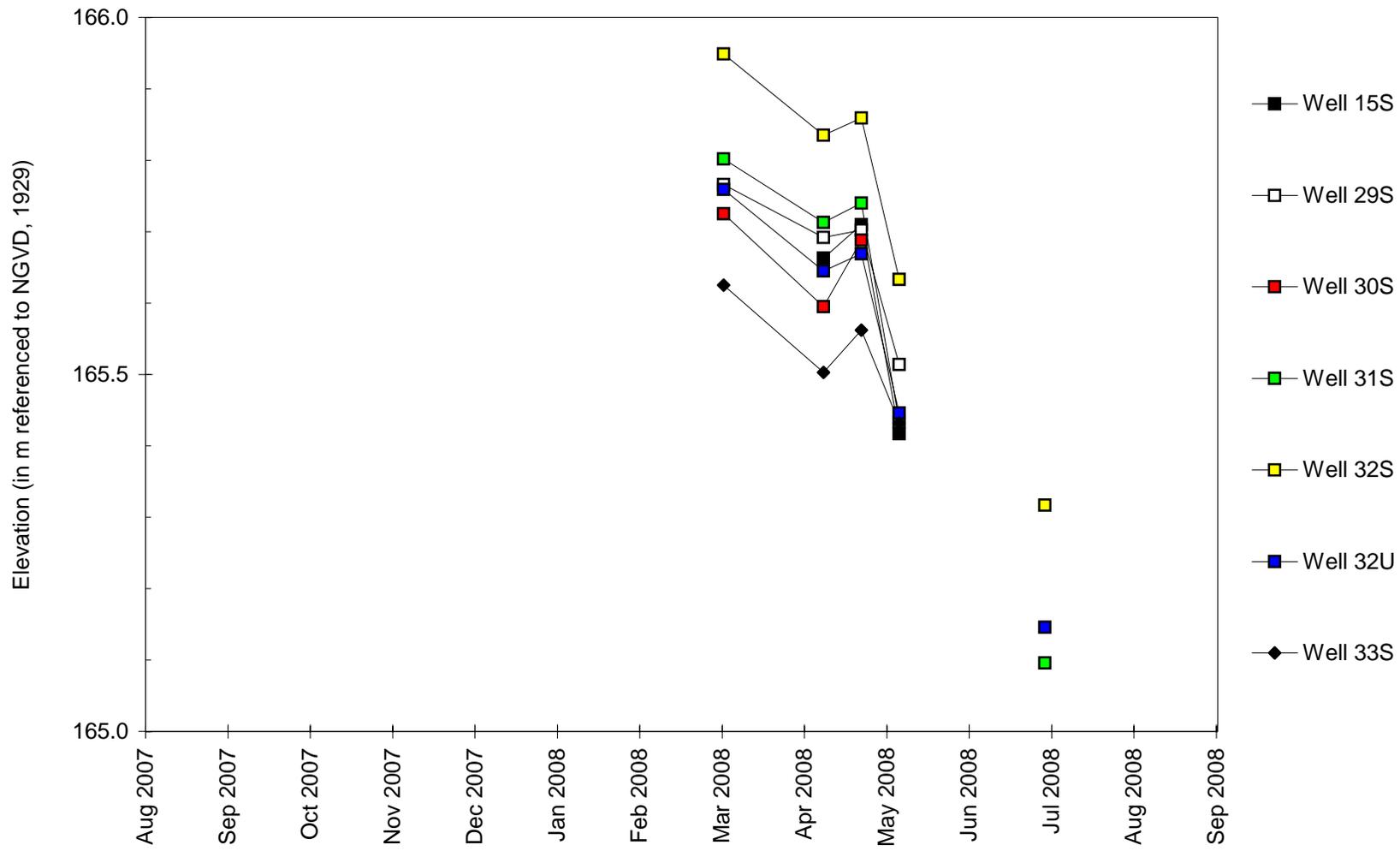
September 1, 2007 to September 1, 2008



Hancock County near Carthage Wetland Compensation Site

September 1, 2007 to September 1, 2008

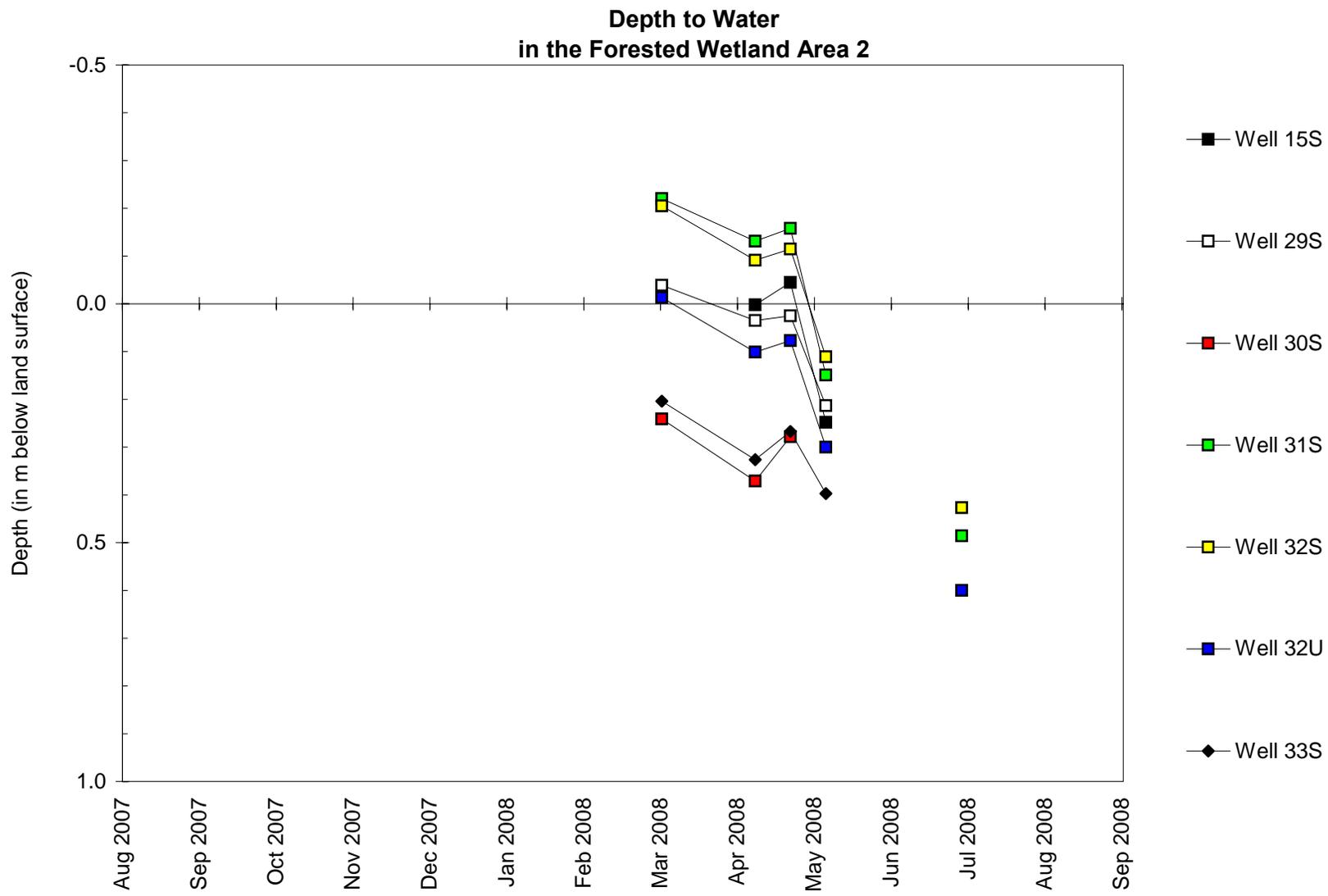
Water-Level Elevations in the Forested Wetland Area 2



Hancock County near Carthage Wetland Compensation Site

September 1, 2007 to September 1, 2008

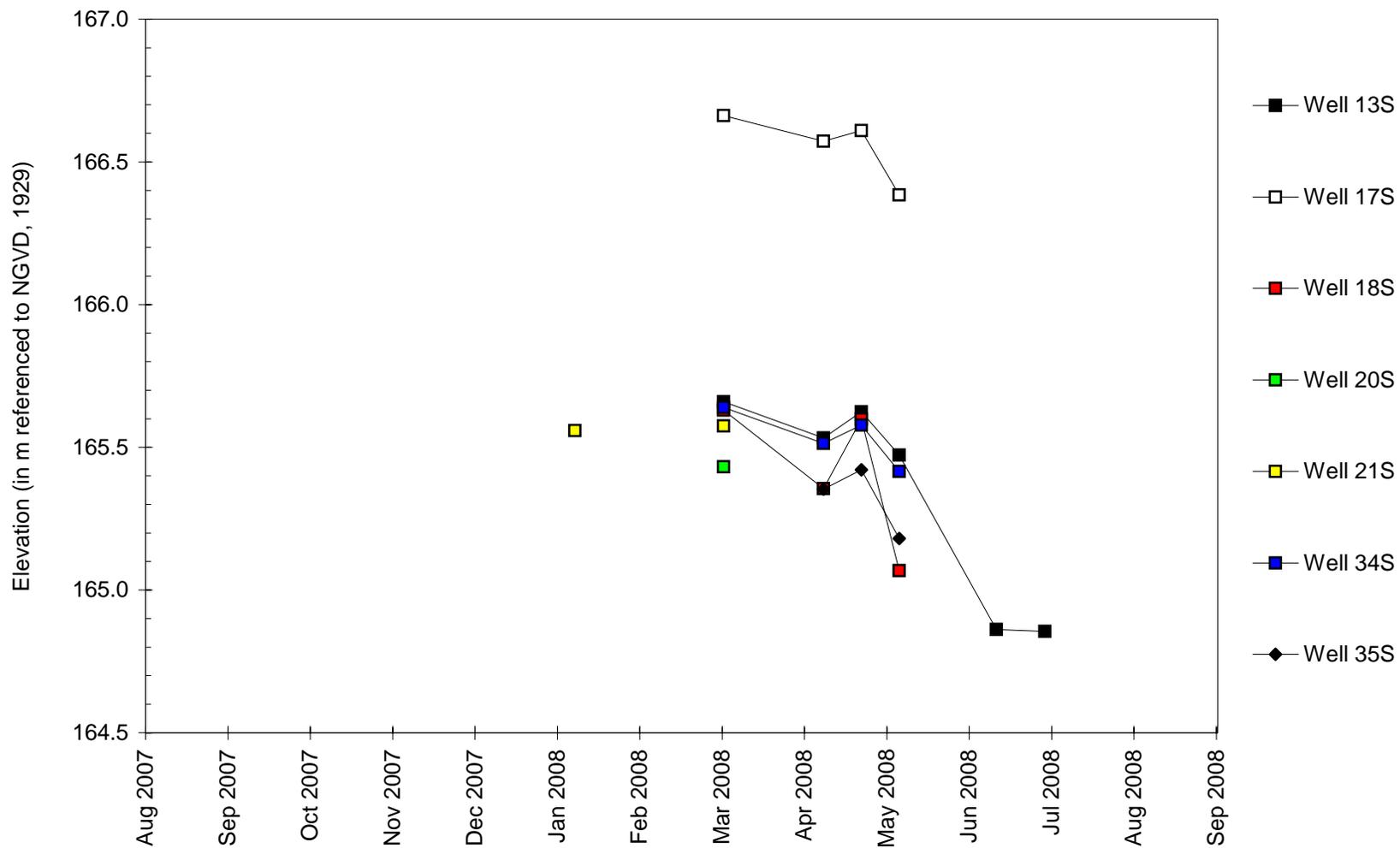
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Hancock County near Carthage Wetland Compensation Site

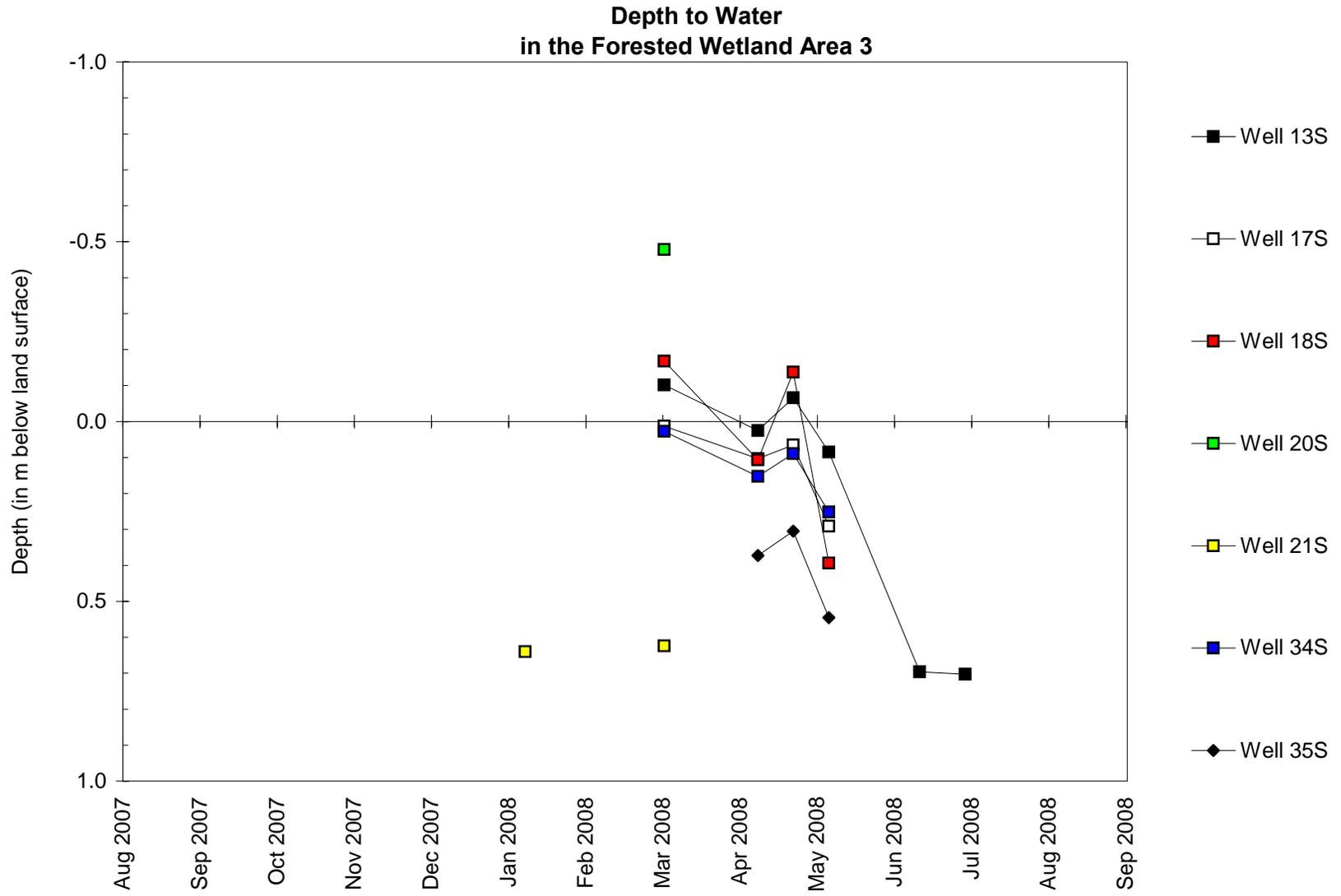
September 1, 2007 to September 1, 2008

Water-Level Elevations in the Forested Wetland Area 3



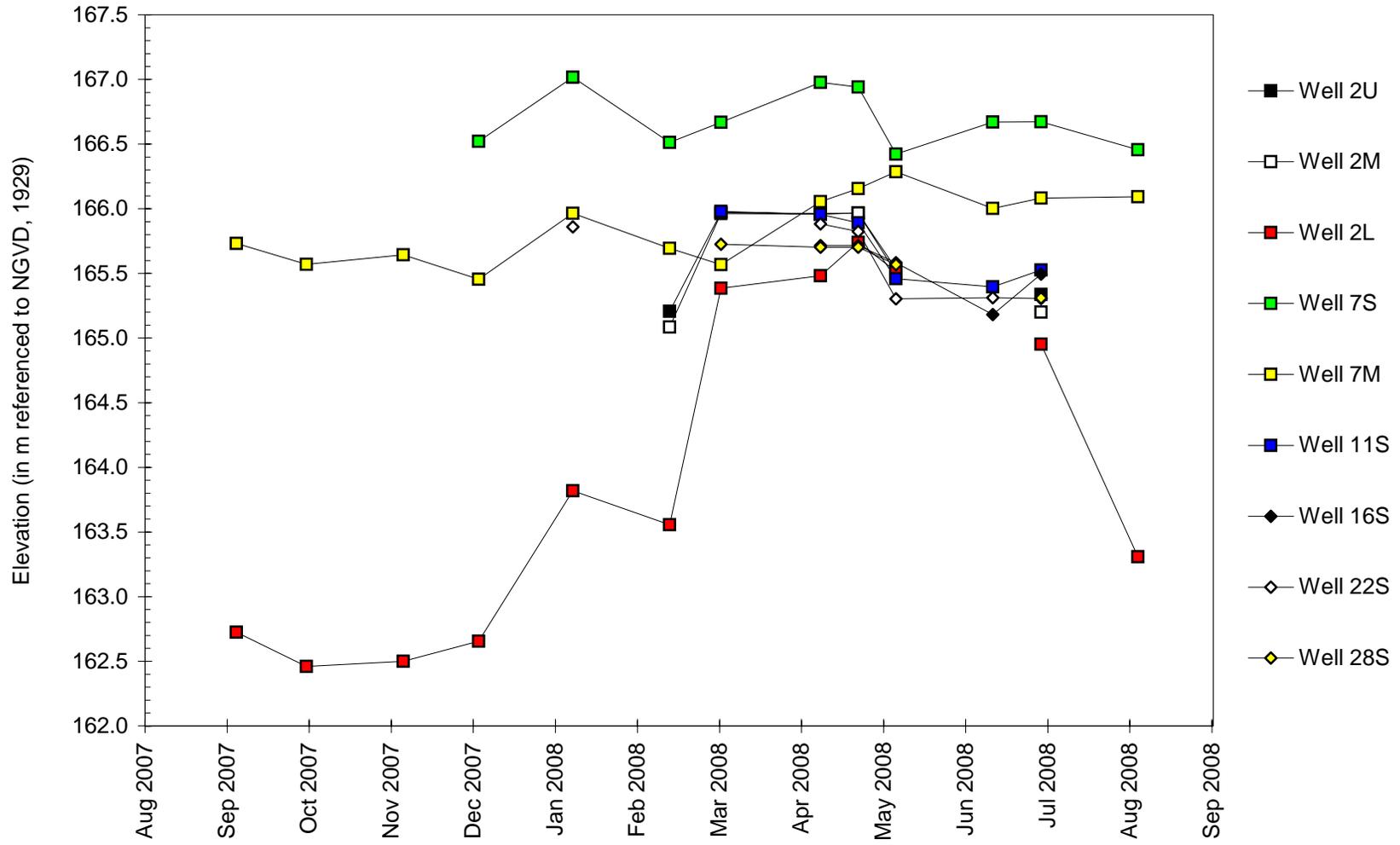
Hancock County near Carthage Wetland Compensation Site

September 1, 2007 to September 1, 2008



Hancock County near Carthage Wetland Compensation Site September 1, 2007 to September 1, 2008

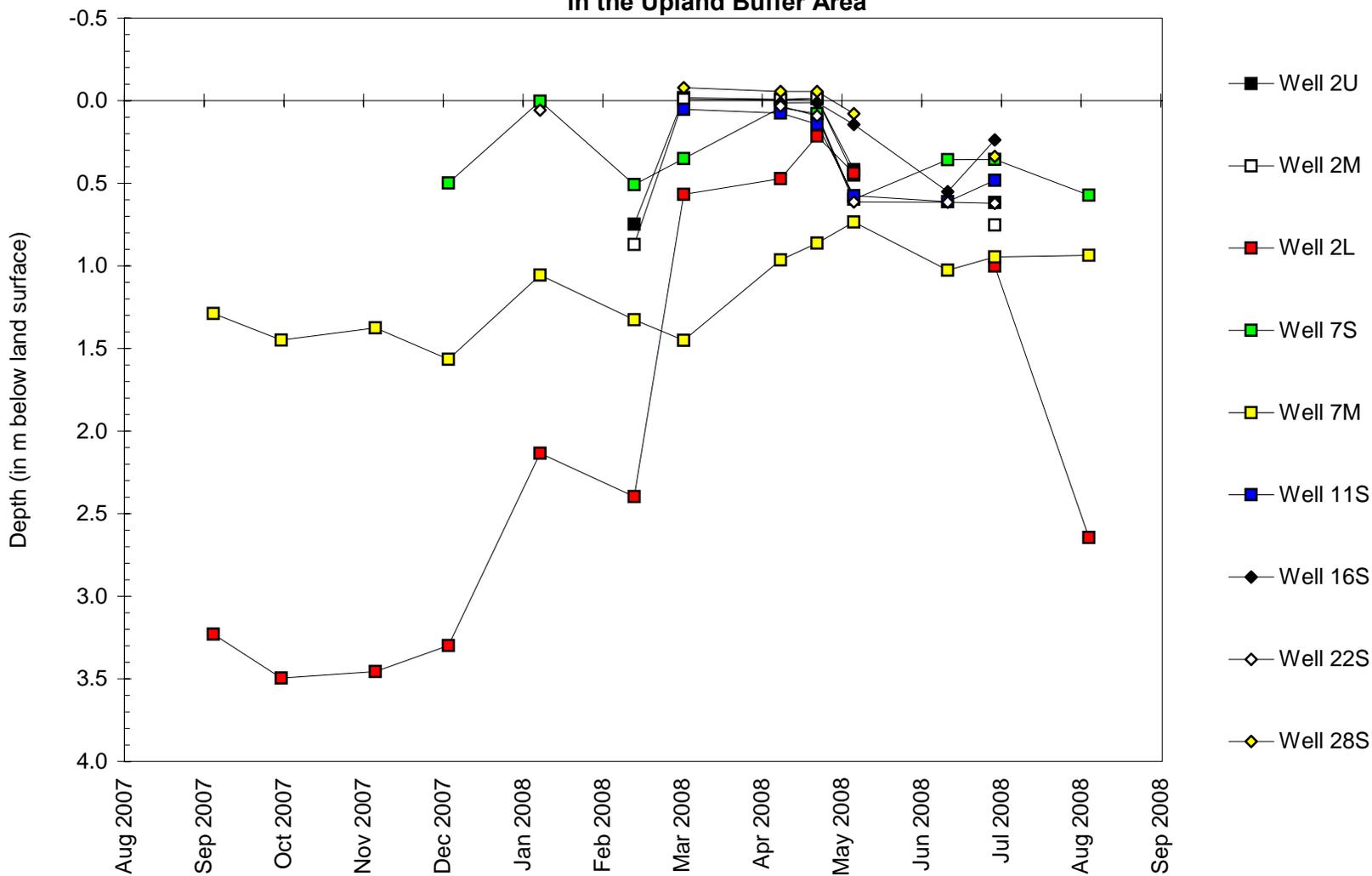
Water-Level Elevations in the Upland Buffer Area



Hancock County near Carthage Wetland Compensation Site

September 1, 2007 to September 1, 2008

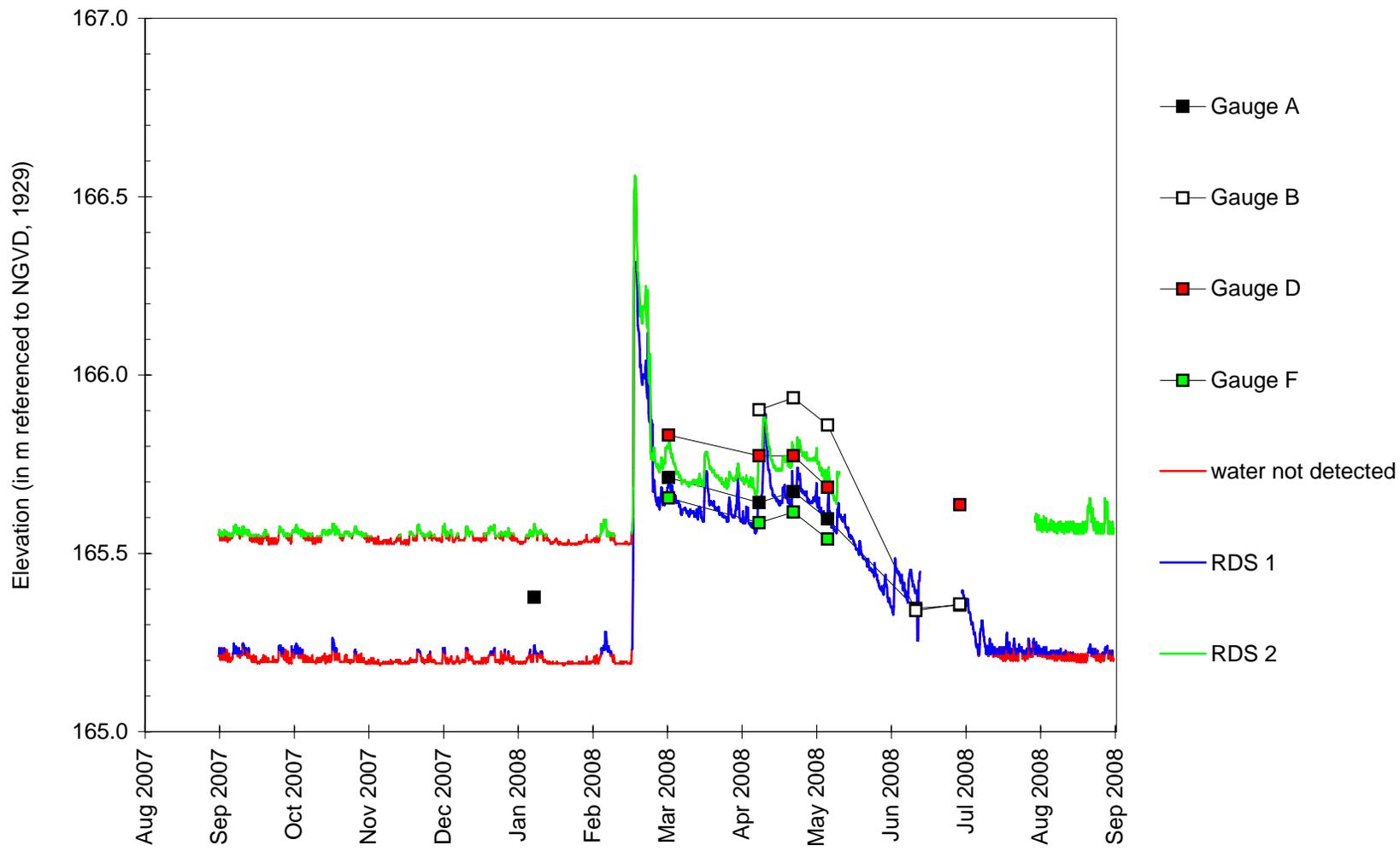
Depth to Water in the Upland Buffer Area



Hancock County near Carthage Wetland Compensation Site

September 1, 2007 to September 1, 2008

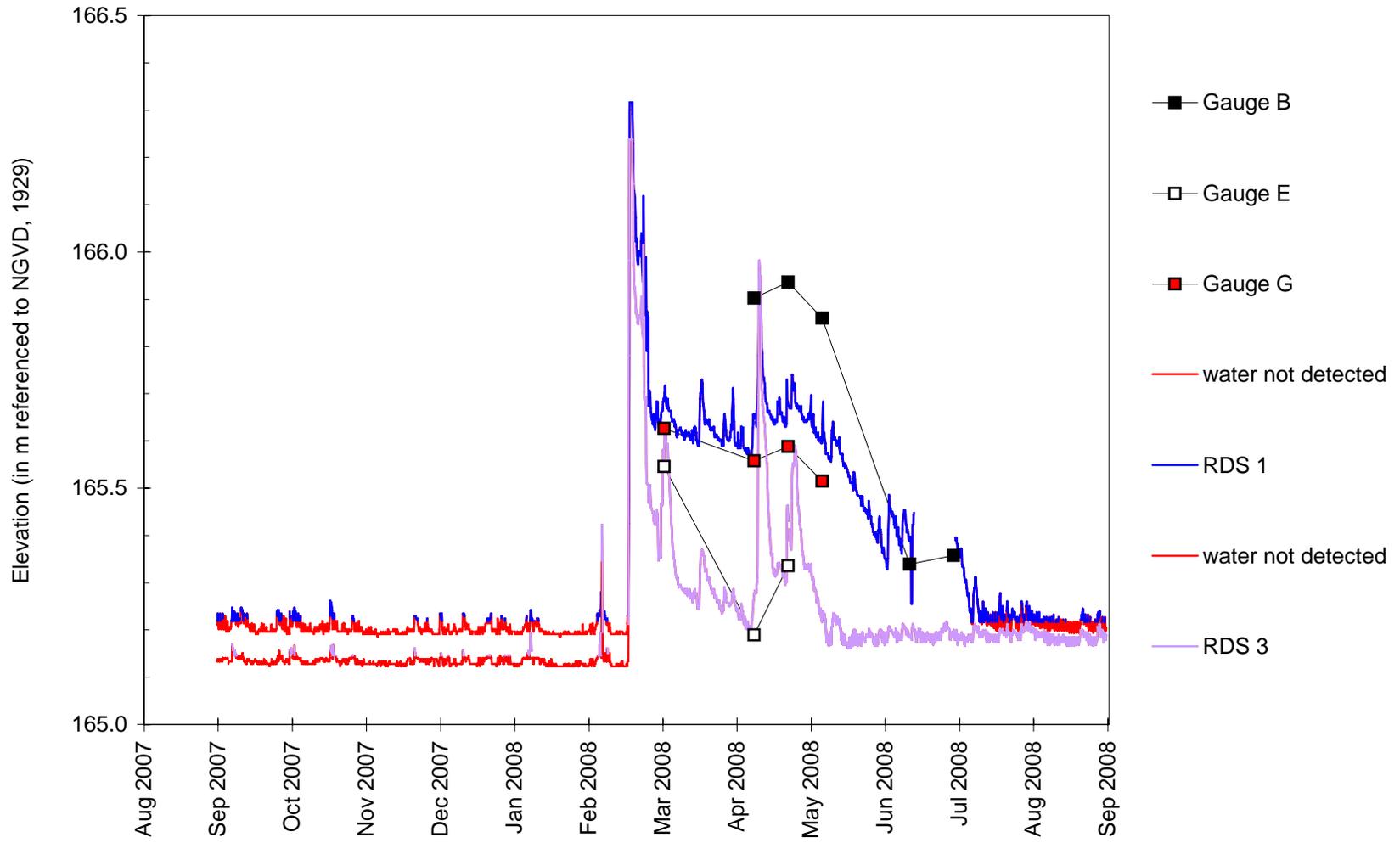
Water-Level Elevations On Stage Gauges in the Emergent Wetland Area



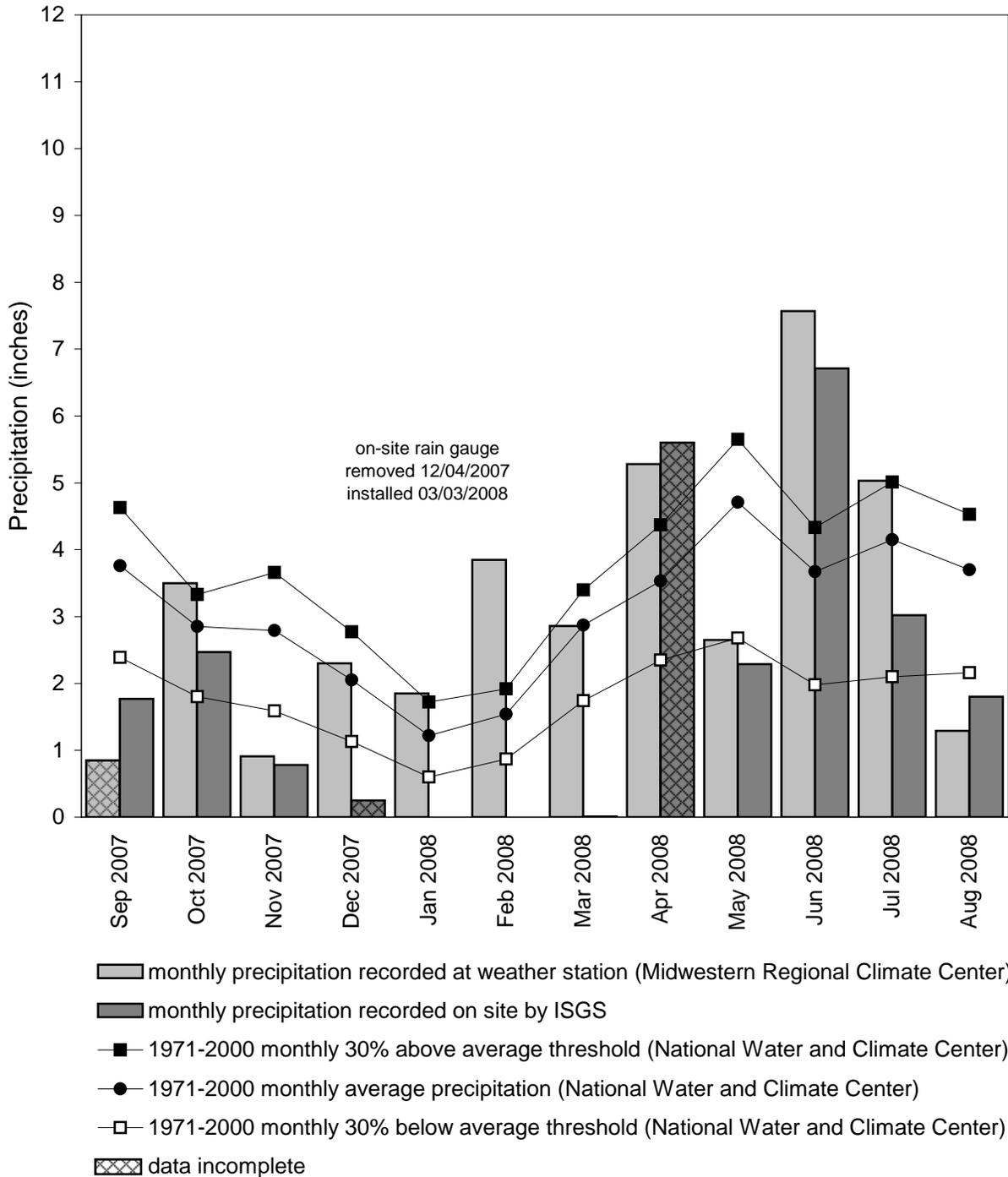
Hancock County near Carthage Wetland Compensation Site

September 1, 2007 to September 1, 2008

Water-Level Elevations On Stage Gauges in the Drainage Ditch



**Hancock County near Carthage
Wetland Compensation Site
September 2007 through August 2008
Total Monthly Precipitation Recorded On Site
and at the Bentley, IL Weather Station**



Graph last updated October 7, 2008