MORRIS, ILLINOIS RIVER **ISGS #49**
WETLAND BANK SITE
Sequence #1306
Grundy County, near Morris, Illinois
Primary Project Manager: Keith W. Carr
Secondary Project Manager: Geoffrey E. Pociask

SITE HISTORY

- March 1999: ISGS was tasked by IDOT to perform a Level II hydrogeologic assessment of the potential banking site.

- March 2007: A Level II hydrogeologic characterization report was submitted to IDOT (ISGS Open-File Series 2007–03).

WETLAND HYDROLOGY CALCULATION FOR 2009

We estimate that the total area of the site that satisfied wetland hydrology criteria (Environmental Laboratory 1987) for greater than 5% of the growing season in 2009 was 14.97 ha (36.98 ac) out of a total site area of 342 ha (844 ac). Further, 12.9 ha (32 ac) also satisfied wetland hydrology criteria for greater than 12.5% of the growing season. Using new guidance proposed by the U.S. Army Corps of Engineers (2008), we estimate that 14.97 ha (36.98 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 Morris, Illinois is April 13 and the season lasts 187 days; 5% of the growing season is 9 days and 12.5% of the growing season is 23 days. According to methods outlined in the Midwest Regional Supplement (U.S. Army Corps of Engineers 2008), we estimate that March 10 was the starting date of the 2009 growing season based on vegetation growth and development observed at the wetland compensation site.

- Total precipitation for the monitoring period was 148% of normal. During the three-month period from February through April 2009, precipitation was 159% of normal, resulting in atypically wet conditions entering the growing season. Also, precipitation remained at or above normal for the February through August period of 2009.

- In 2009, of the 44 active soil-zone wells on site, 17 satisfied wetland hydrology criteria for greater than 5% of the growing season and for 14 or more consecutive days during the growing season, including 11SR, 12S, 16S, 18SR, 21SR, 35SR2, 40S, 42S, 43S, 43VS, 44S, 44VS, 46SR2, 48SR2, 51SR, 56SR, and 57S. Further, these wells also satisfied wetland hydrology criteria for greater than 12.5% of the growing season, with the exception of 18SR and 46SR2.

- Staff gauges or data loggers in closed depressions at SW5, SW7, SW8, SW9, SW10, and SW11 indicated inundation for a period greater than 5% of the growing season, for a period of 14 or more consecutive days of the growing season, and for a period greater than 12.5% of the growing season. The water level elevations that met the criteria for all three time thresholds are as follows; SW5 (149.96 m [492.0 ft]), SW7 (150.57 m [494.0 ft]), SW8 (150.57 m [494.0 ft]), SW9 (150.73 m [494.5 ft]), SW10 (149.66 m [491.0 ft]), and SW11 (149.05 m [489.0 ft])

- As in previous years, perennial water bodies such as the creek channels were not included in areas having met wetland hydrology criteria.

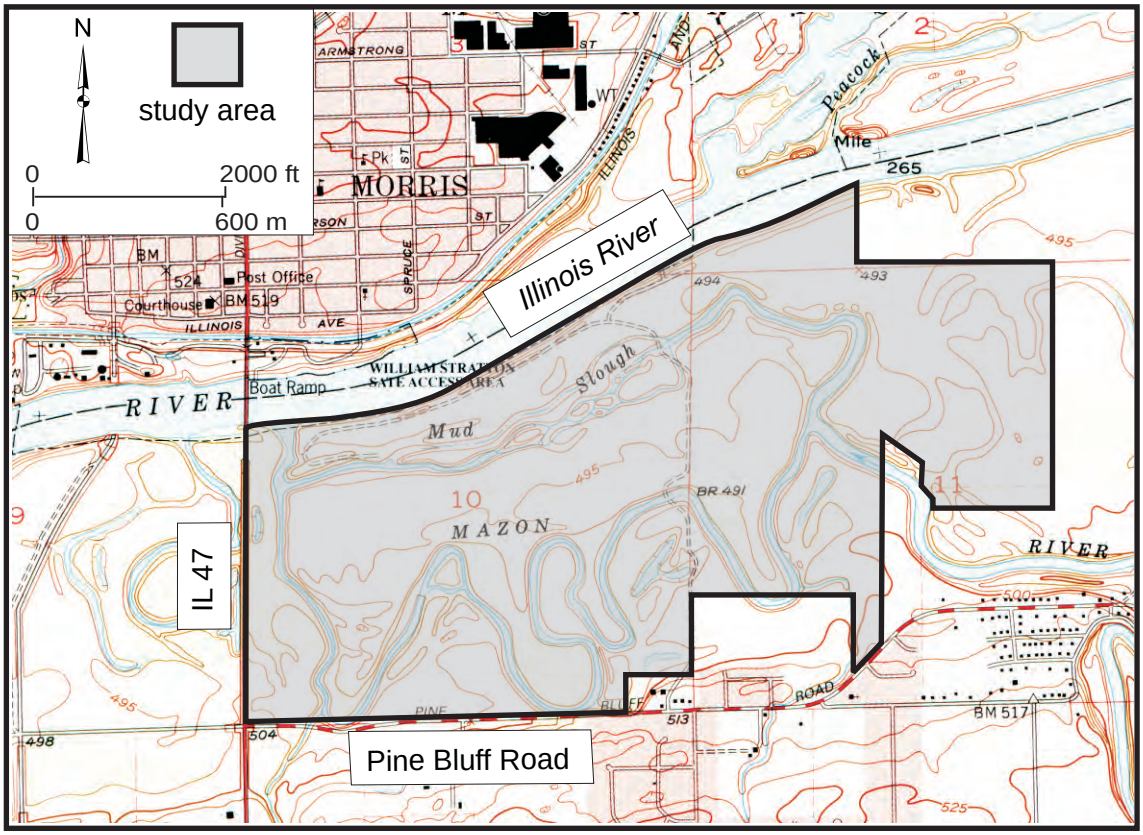
PLANNED FUTURE ACTIVITIES

- 2009 is to be the last year for widespread monitoring of shallow groundwater at the site. Monitoring of surface water via staff gauges and two dataloggers will continue in 2010 until no longer required by IDOT.

Morris, Illinois River Wetland Bank Site

General Study Area and Vicinity

from the USGS Topographic Series, Morris, IL 7.5-minute Quadrangle (USGS 1993)
contour interval is 5 feet

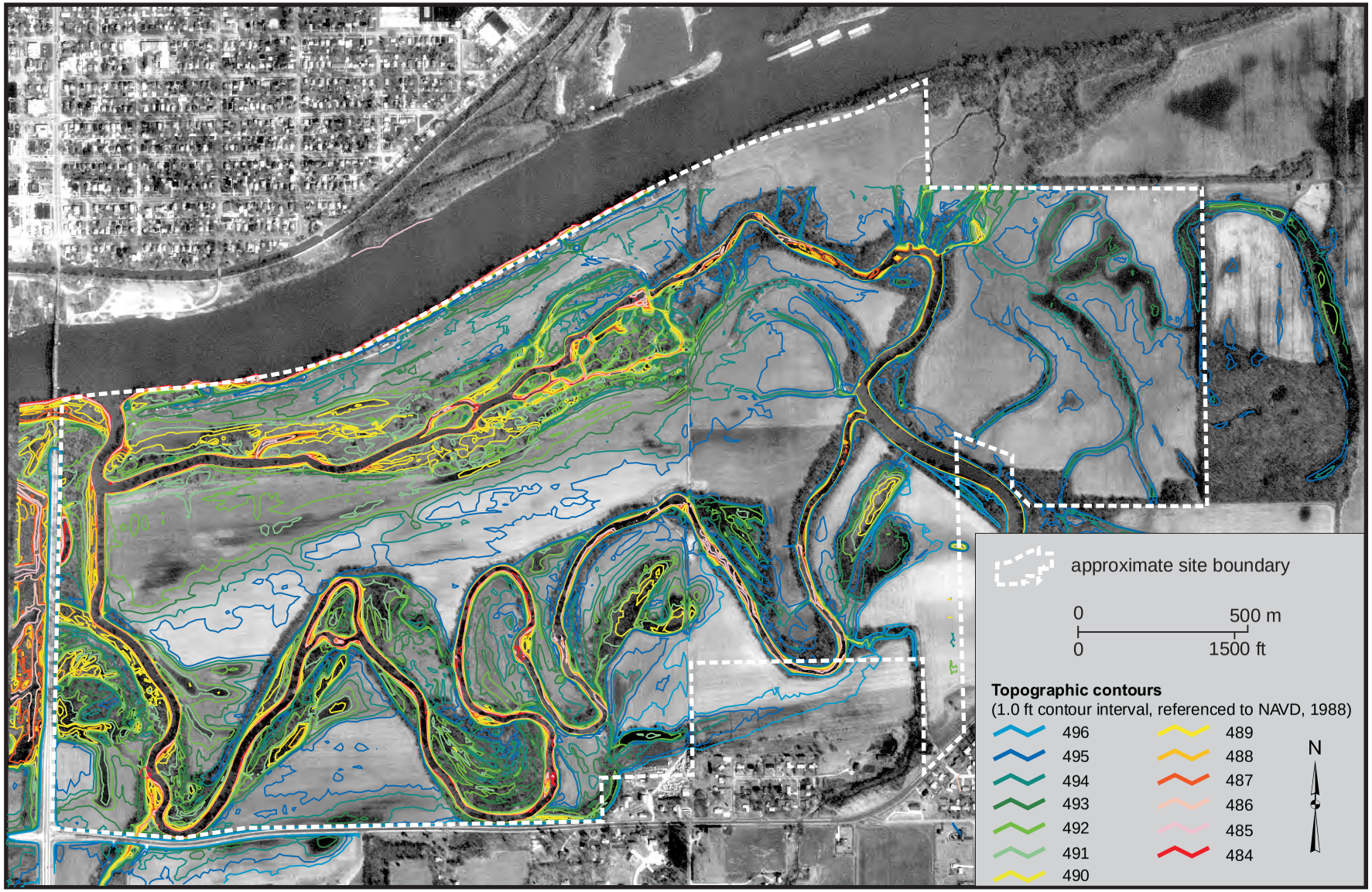


Morris, Illinois River Wetland Bank Site

Site Topographic Map (IDOT/INHS)

contours prepared by Illinois Natural History Survey in May 2000, using IDOT survey data

Map based on USGS digital orthophotograph, Morris NE quarter quadrangle
from 4/5/1998 aerial photography (ISGS 2001)

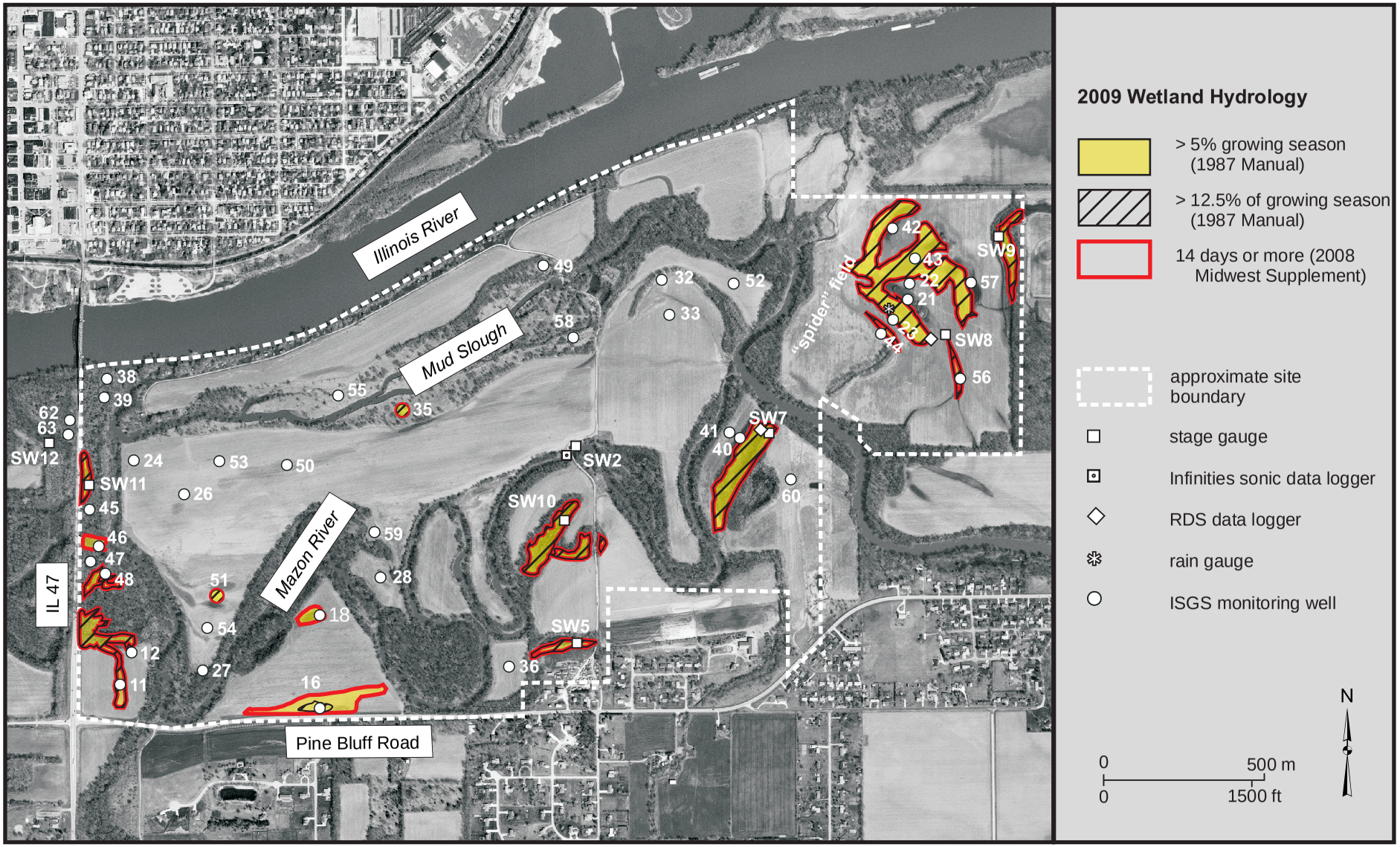


Morris, Illinois River Wetland Bank Site

Estimated Areal Extent of 2009 Wetland Hydrology

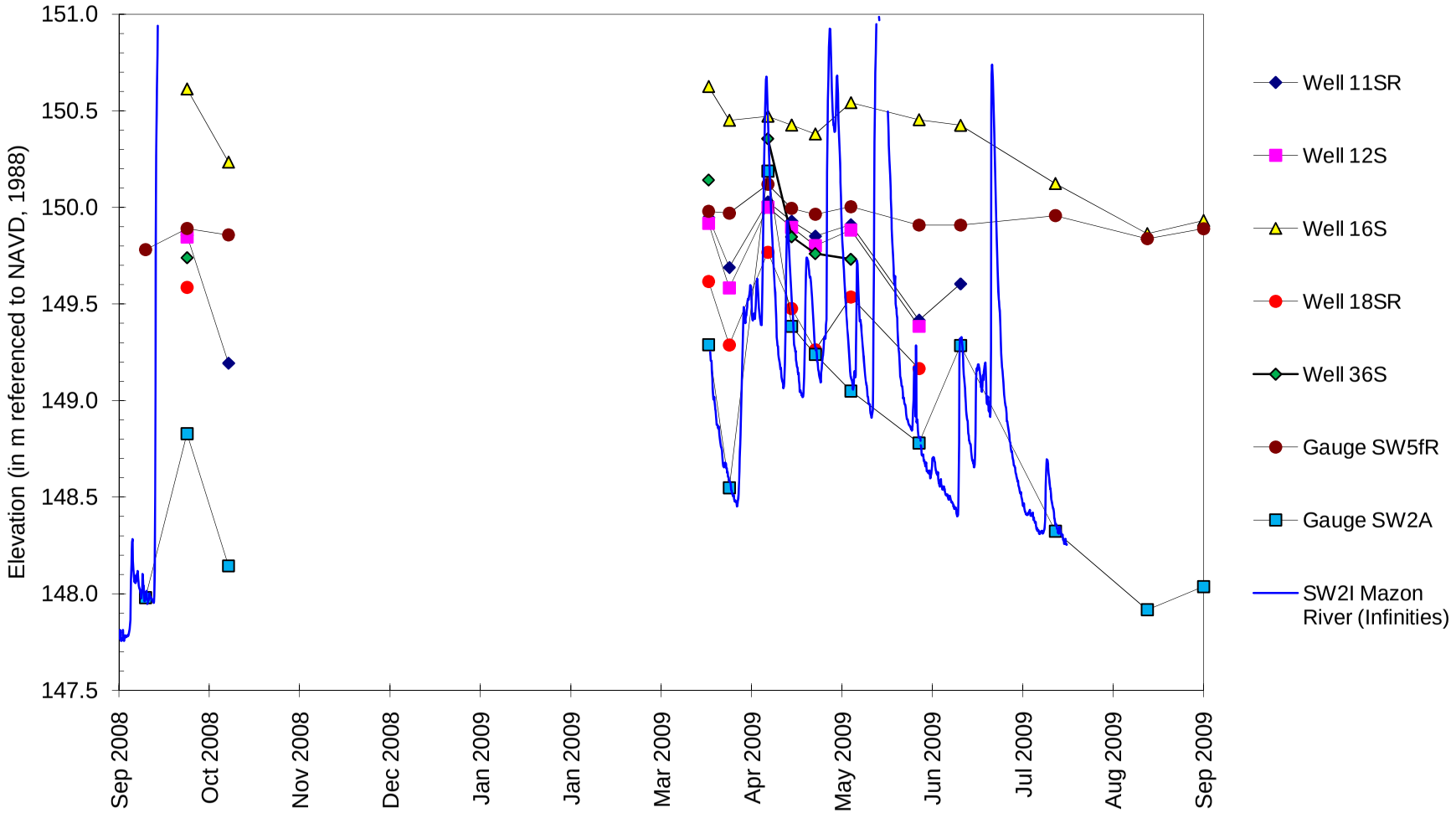
September 1, 2008 through August 31, 2009

Map based on USGS digital orthophotograph, Morris NE quarter quadrangle
from 4/5/1998 aerial photography (ISGS 2001)

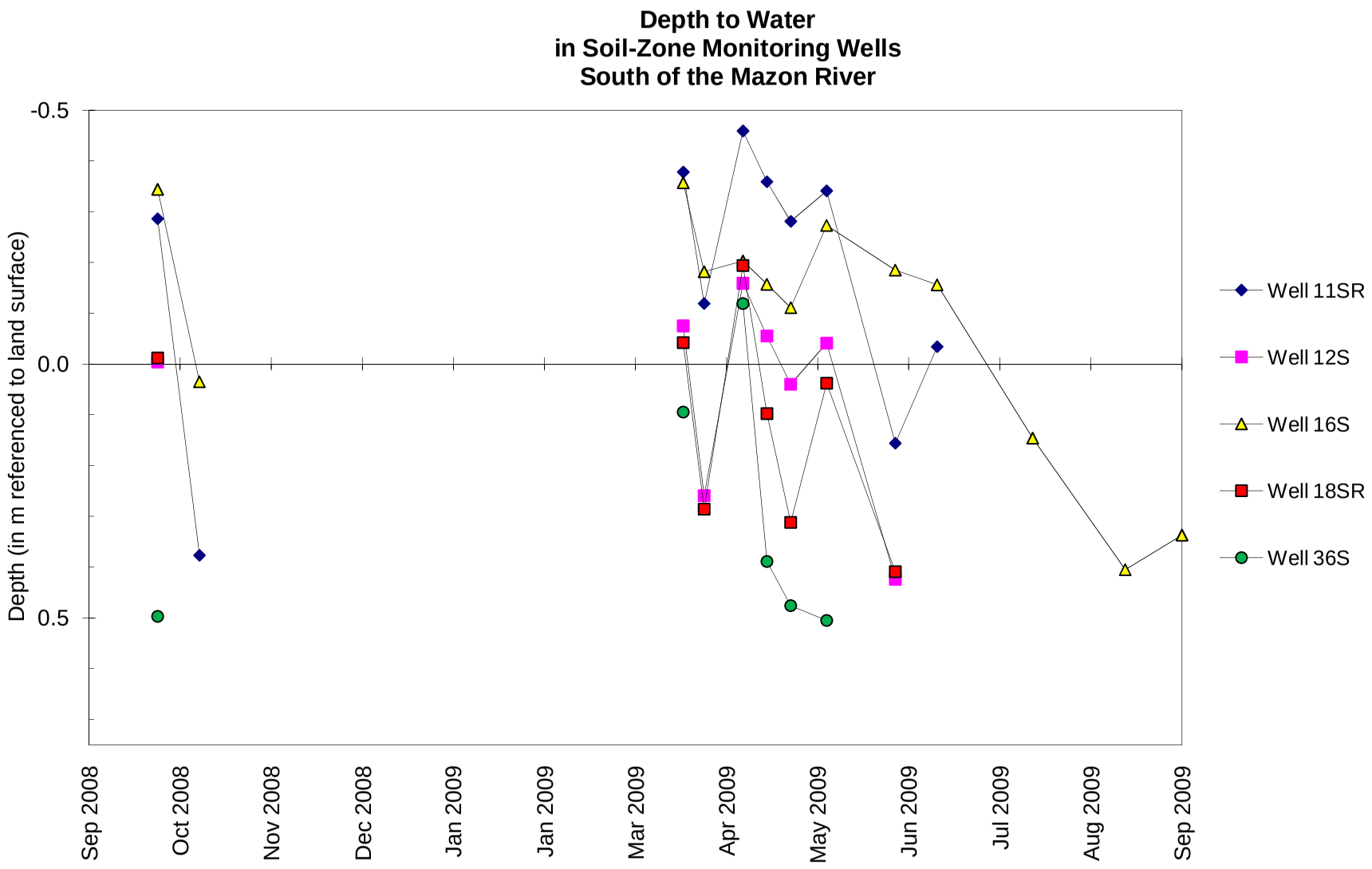


Morris, Illinois River Wetland Bank Site
September 1, 2008 through August 31, 2009

Water-Level Elevations
in Soil-Zone Monitoring Wells, Data Loggers, and Stage Gauges
South of the Mazon River



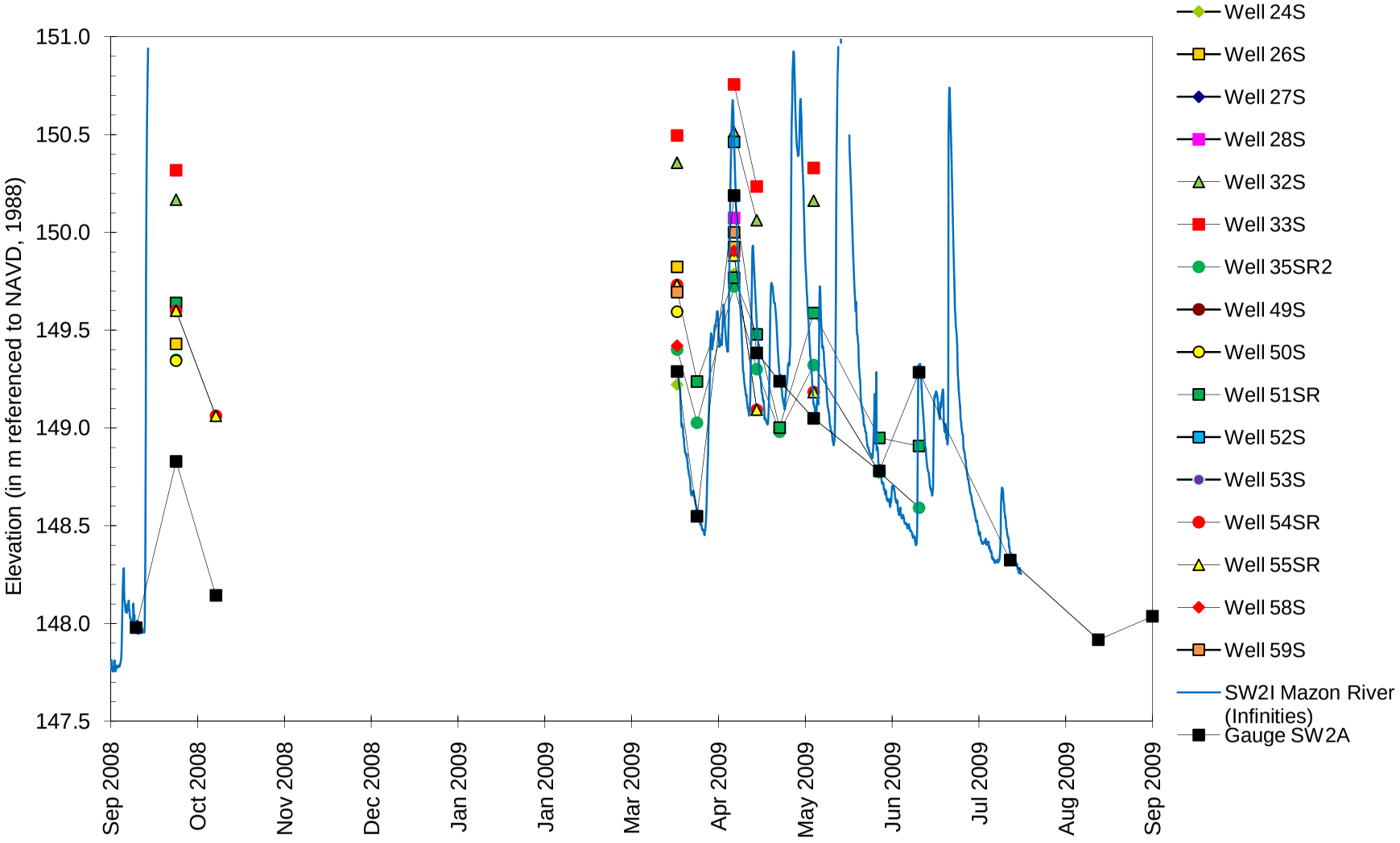
Morris, Illinois River Wetland Bank Site
September 1, 2008 through August 31, 2009



Morris, Illinois River Wetland Bank Site

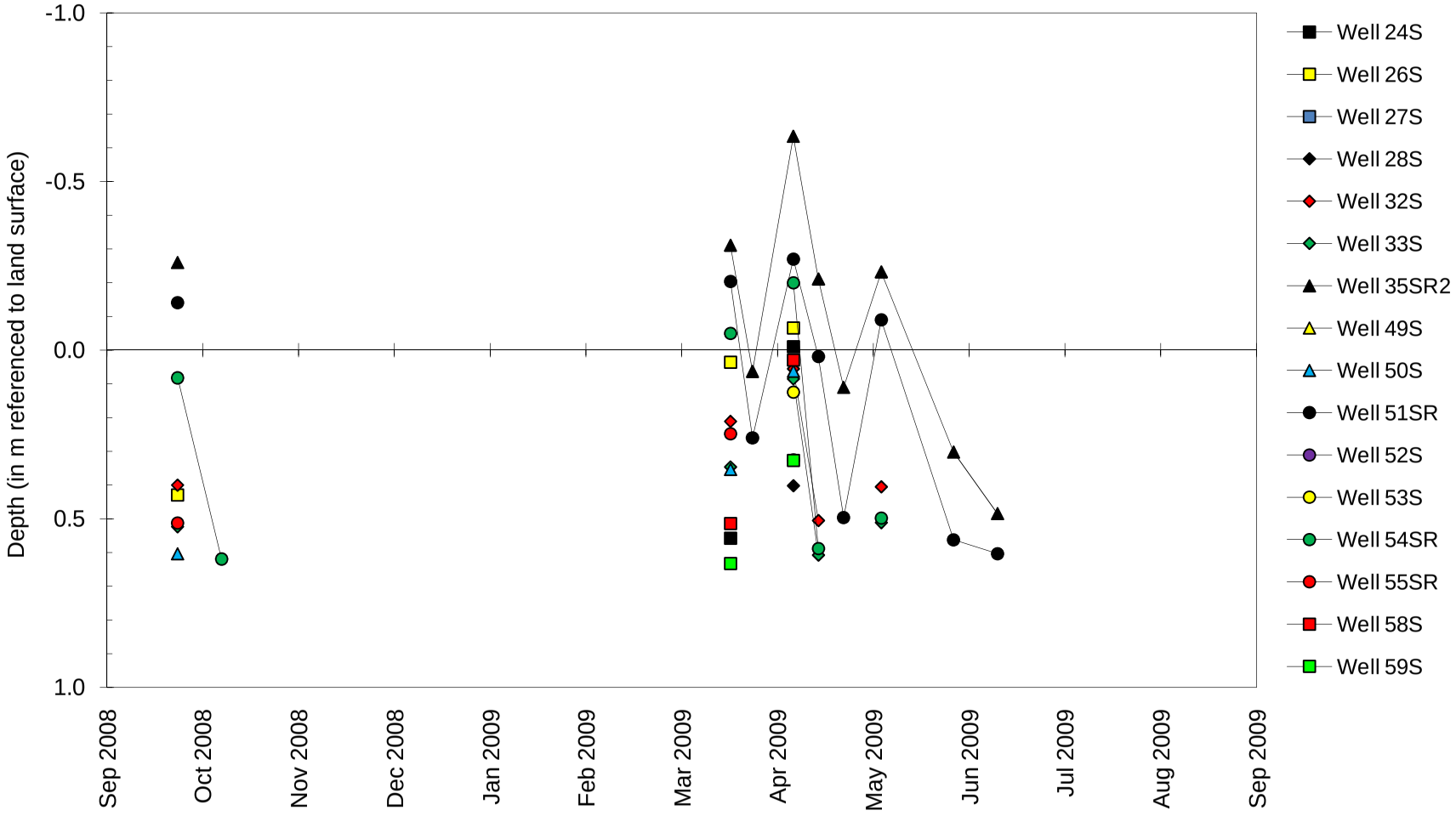
September 1, 2008 through August 31, 2009

Water-Level Elevations
in Soil-Zone Monitoring Wells, Data Loggers, and Stage Gauges
North of the Mazon River



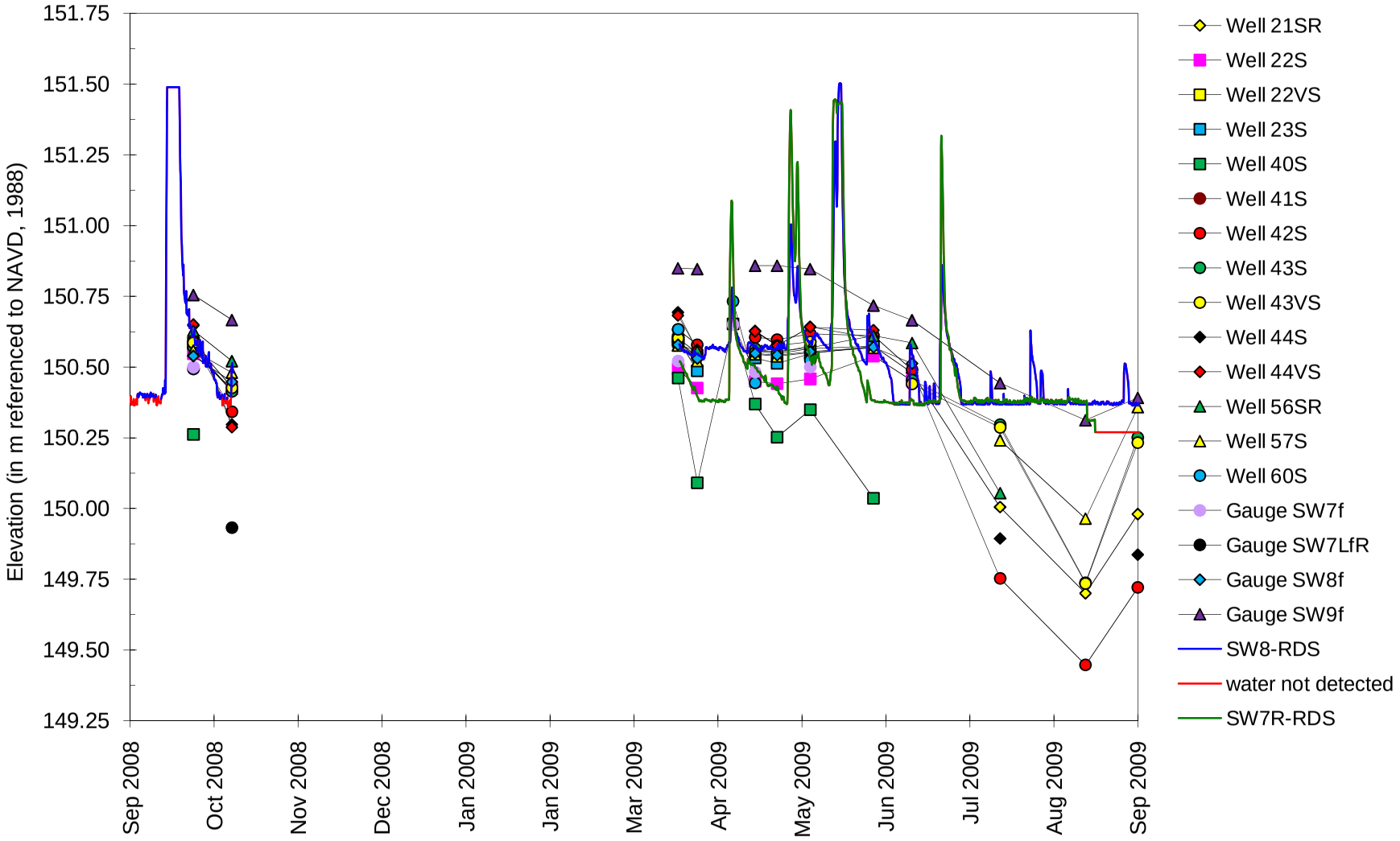
Morris, Illinois River Wetland Bank Site
September 1, 2008 through August 31, 2009

Depth to Water
in Soil-Zone Monitoring Wells
North of the Mazon River



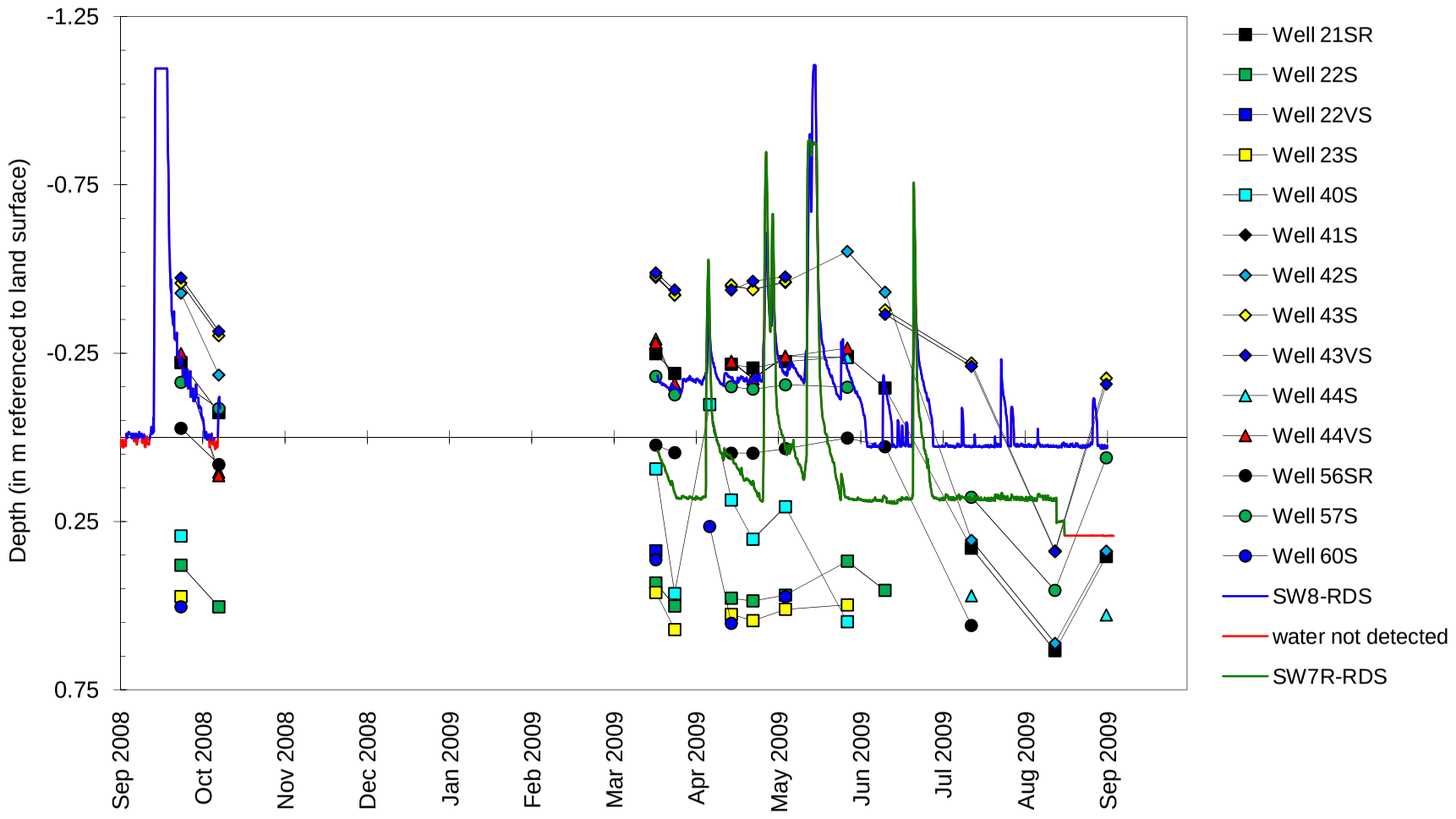
Morris, Illinois River Wetland Bank Site
September 1, 2008 through August 31, 2009

Water-Level Elevations
in Soil-Zone Monitoring Wells, Data Loggers, and Stage Gauges
in the East Field and near the Natural Slough



Morris, Illinois River Wetland Bank Site
September 1, 2008 through August 31, 2009

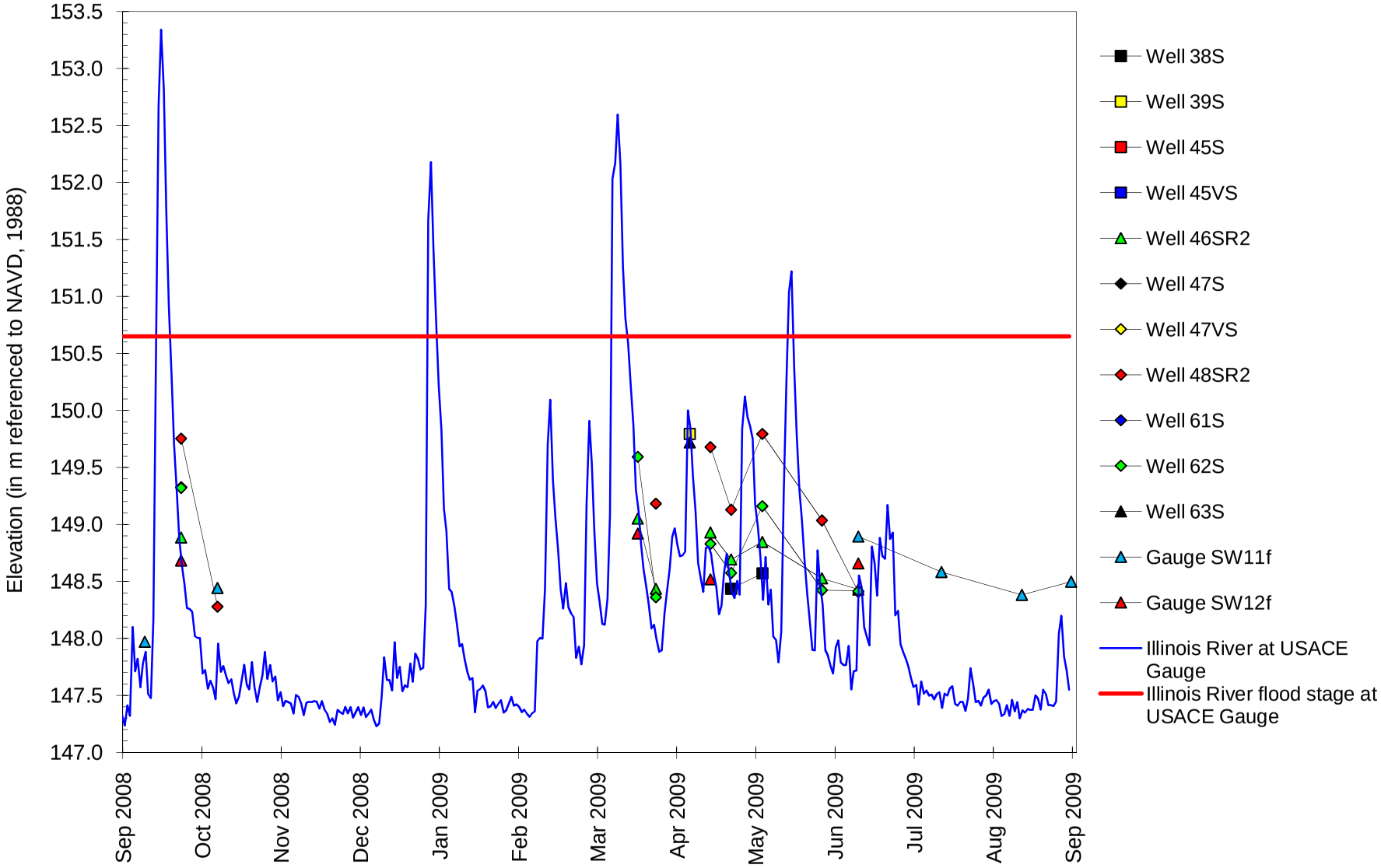
Depth to Water
in Soil-Zone Monitoring Wells and Data Loggers
in the East Field and near the Natural Slough



Morris, Illinois River Wetland Bank Site

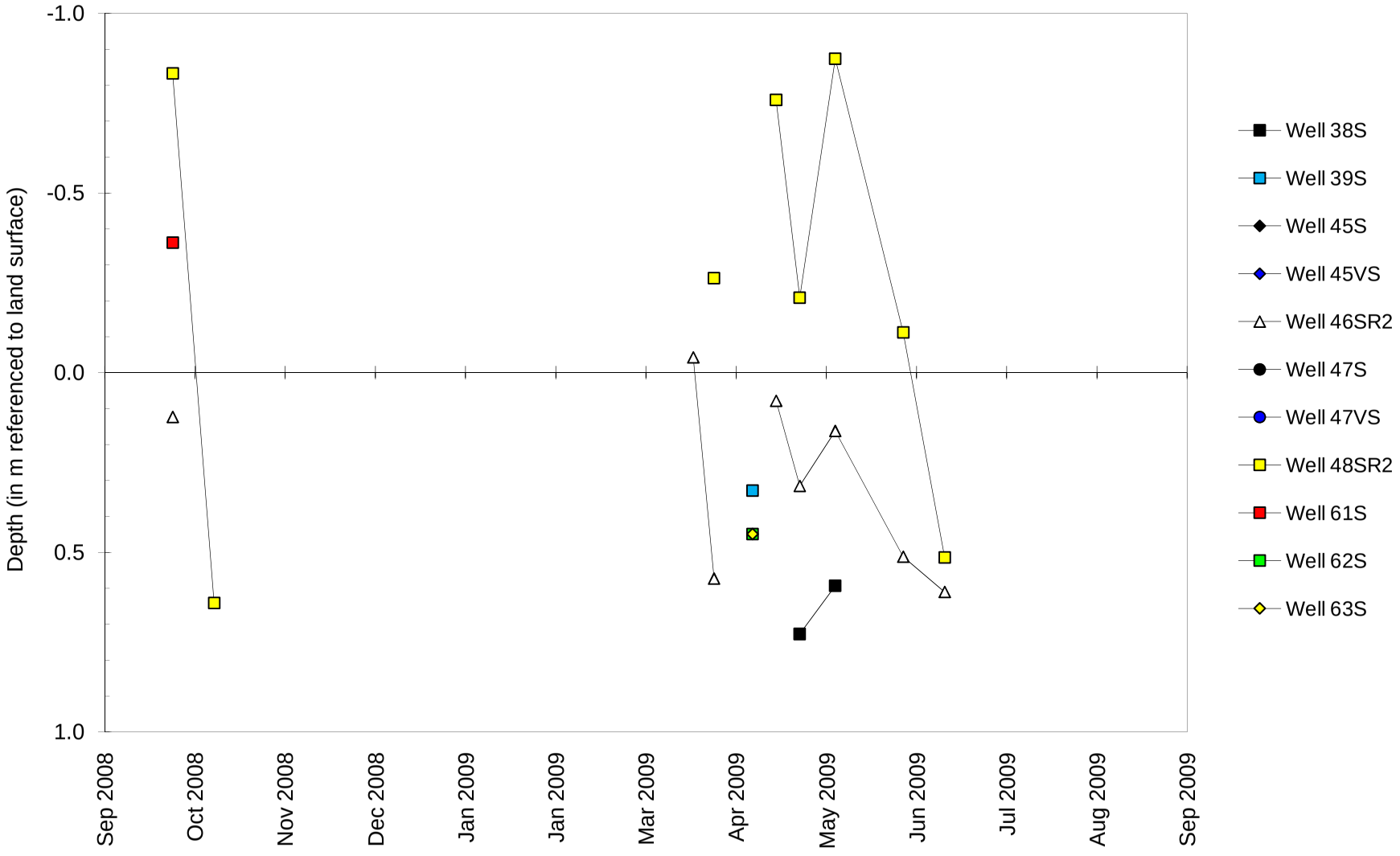
September 1, 2008 through August 31, 2009

Water-Level Elevations in Monitoring Wells, Data Loggers, and Stage Gauges near the Illinois River Floodplain Forest



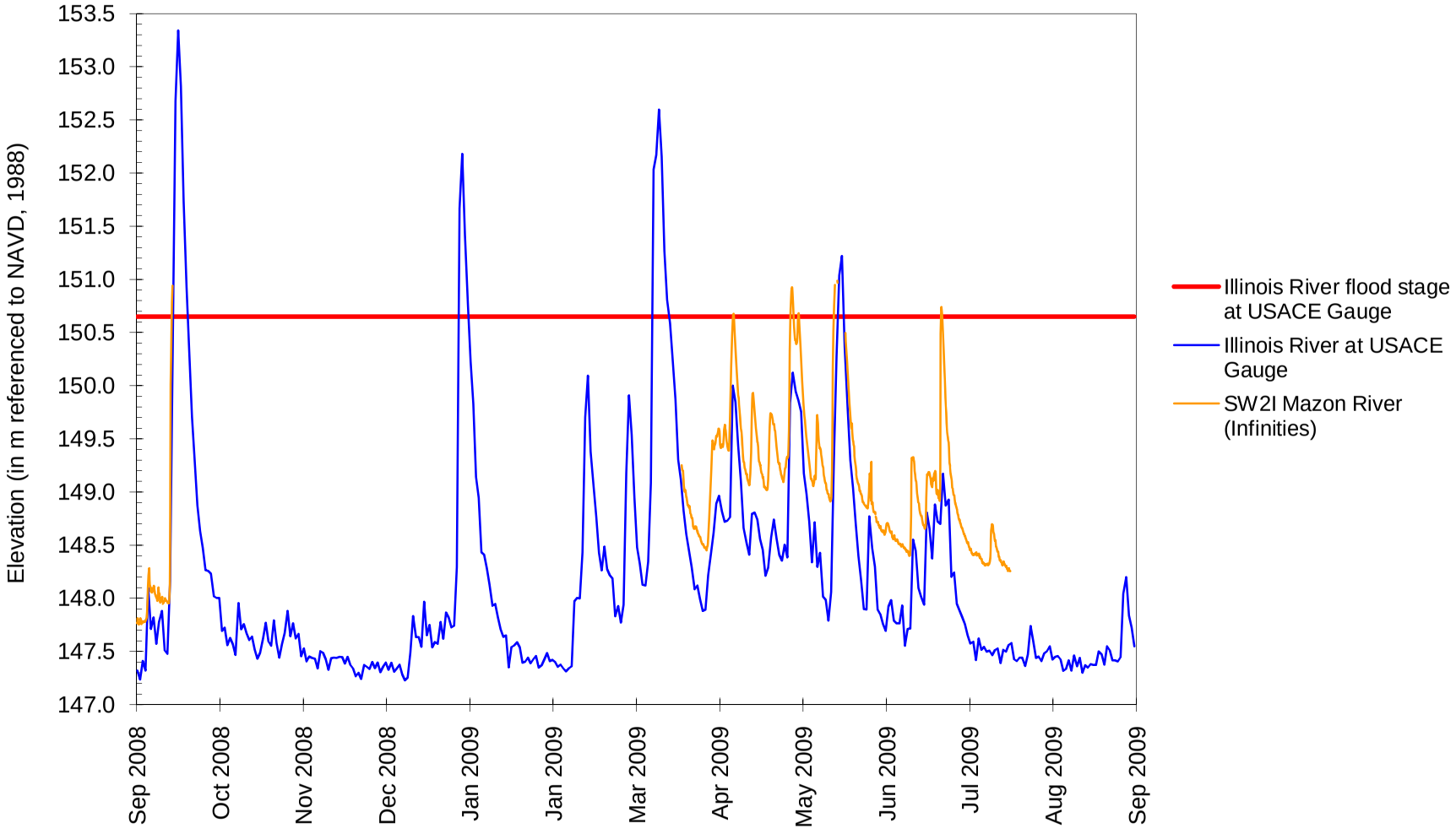
Morris, Illinois River Wetland Bank Site
September 1, 2008 through August 31, 2009

Depth to Water
in Monitoring Wells
near the Illinois River Floodplain Forest



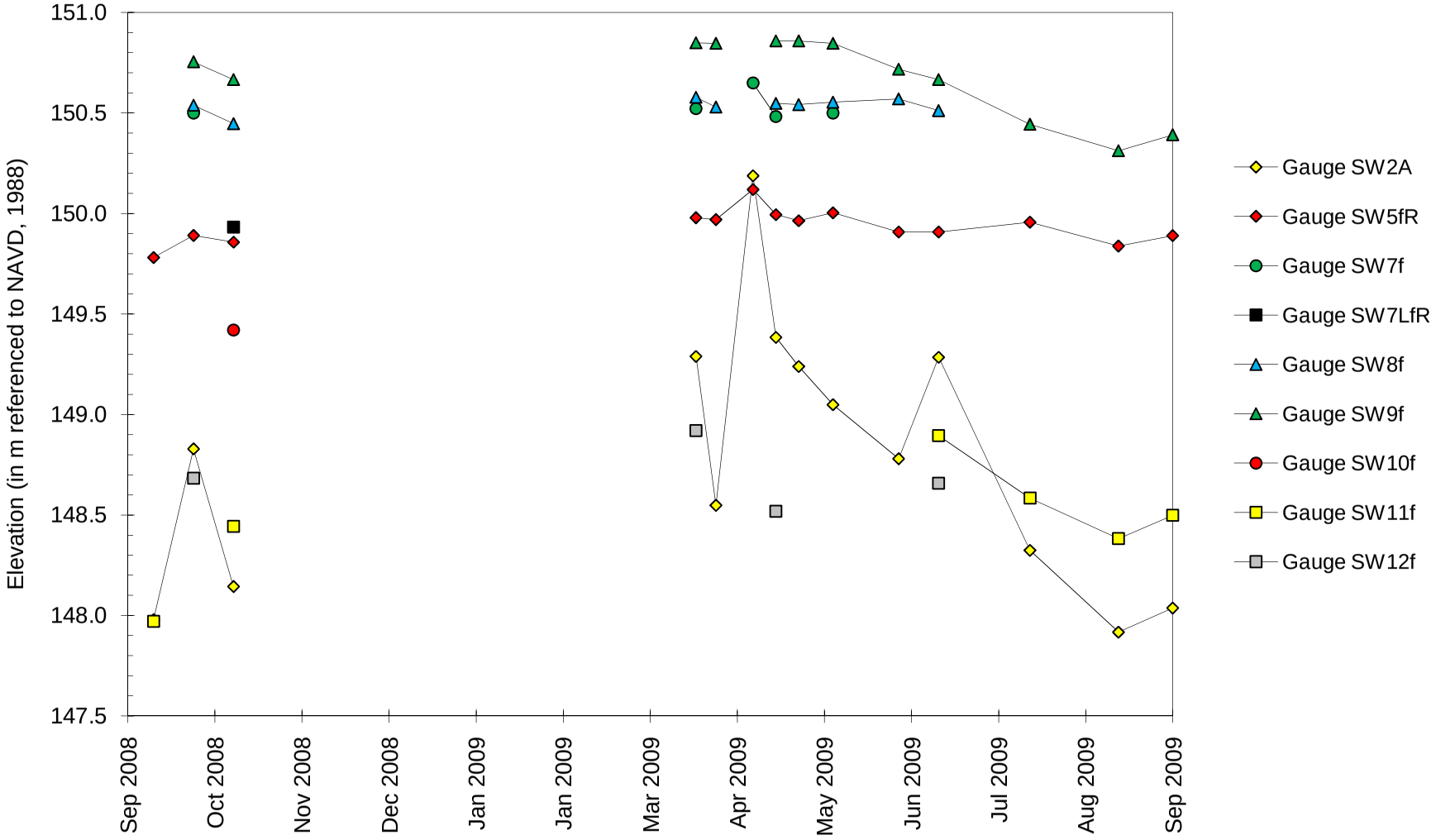
Morris, Illinois River Wetland Bank Site
September 1, 2008 through August 31, 2009

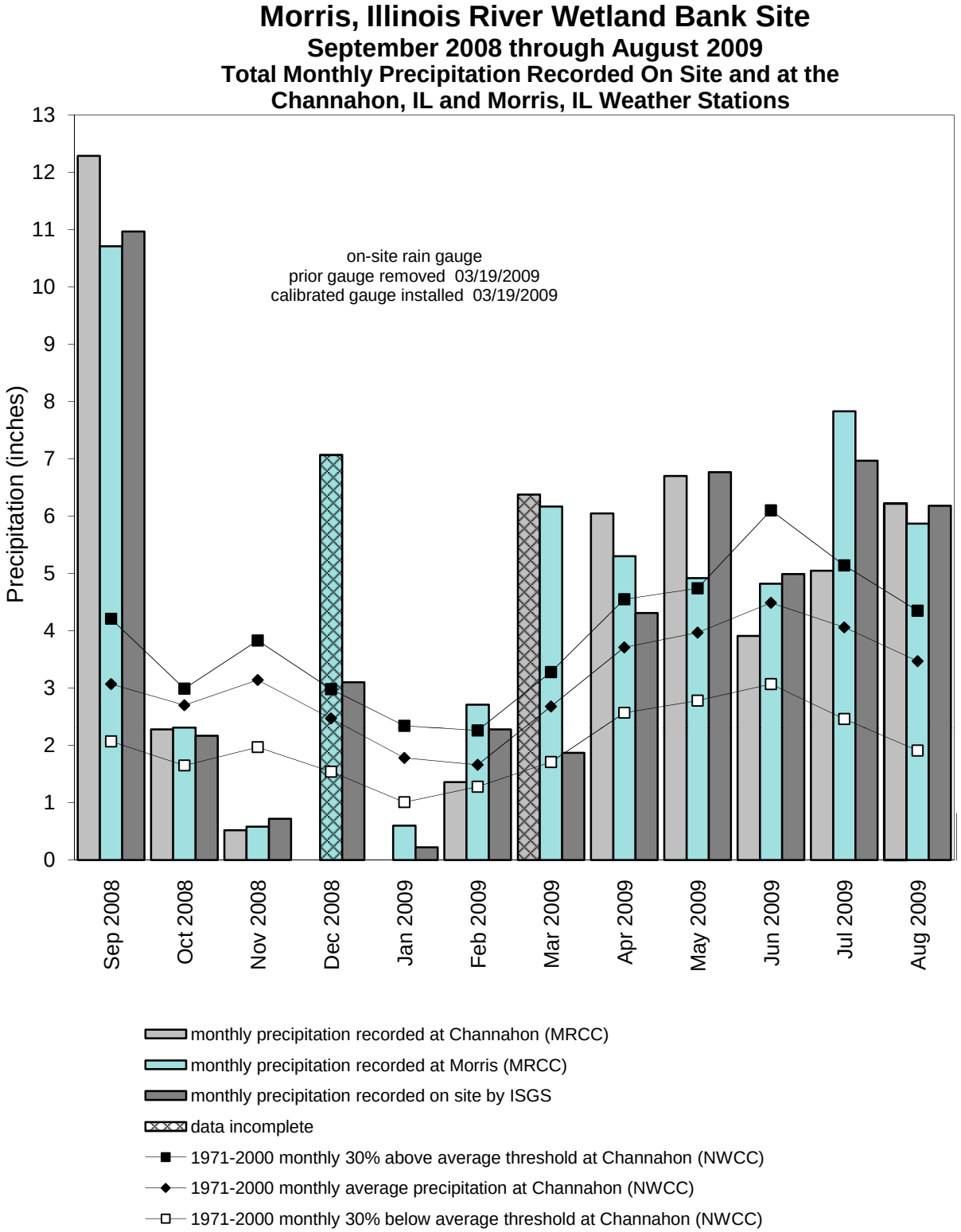
Water-Level Elevations in Selected Data Loggers



Morris, Illinois River Wetland Bank Site
September 1, 2008 through August 31, 2009

Water-Level Elevations on Stage Gauges





Graph last updated October 15, 2009