

**SUGAR CAMP CREEK
WETLAND COMPENSATION SITE**

ISGS #74

FAP 312

Sequence #9282

Franklin County, Northern Township, Illinois

Primary Project Manager: Geoffrey E. Pociask

Secondary Project Manager: not assigned

SITE HISTORY

- December 2004: ISGS submitted an initial site evaluation report to IDOT.
- Spring 2005: IDOT tasked ISGS to conduct a Level II hydrogeologic characterization of the site and to prepare a draft wetland banking instrument for the site. Water-level monitoring was initiated in March 2005.
- August 2006: ISGS submitted a draft wetland banking prospectus to IDOT.
- March 2007: ISGS submitted the Level II hydrogeologic characterization report to IDOT (ISGS Open-File Series 2007–02).
- May 2008: Wetland bank prospectus cleared public notice period.

WETLAND HYDROLOGY CALCULATION FOR 2008

We estimate that 26.6 ha (65.7 ac) of the total site area of 50.9 ha (125.7 ac), including the FAP 312 wetland compensation site, satisfied wetland hydrology criteria (Environmental Laboratory 1987) for greater than 5% of the growing season in 2008, whereas 8.5 ha (21.1 ac) satisfied wetland hydrology criteria for greater than 12.5% of the growing season. Within the 8.3-ha (20.5-ac) FAP 312 wetland compensation site, 8.2 ha (20.1 ac) satisfied wetland hydrology criteria for greater than 5% of the growing season, of which 5.4 ha (13.4 ac) also satisfied wetland hydrology criteria for greater than 12.5% of 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 Du Quoin, Illinois, is April 5 and the season lasts 207 days; 5% of the growing season is 10 days, and 12.5% of the growing season is 26 days.
- Precipitation was 111% of normal for the monitoring period. Drier than average conditions prevailed in September and November 2007 and in January, April, June, and August 2008. Precipitation was at or above normal in October and December 2007 and in February, March, May, and July 2008.
- In 2008, wells 1S, 2S, 3S, 4S, 5S, 7S, 8S, 9S, 11S, 13S, 14S, 15S, 16S, 17S, 18S, 19S, 20S, 23S, 26S, 28S, 29S, 30S, 31S, 32S, 33S, 34S, and 35S satisfied wetland hydrology criteria for greater than 5% of the growing season. Furthermore, wells 2S, 4S, 8S, 9S, 14S, 17S, 18S, 19S, 23S, 29S, 30S, 31S, 32S, and 35S satisfied wetland hydrology criteria for greater than 12.5% of the growing season.

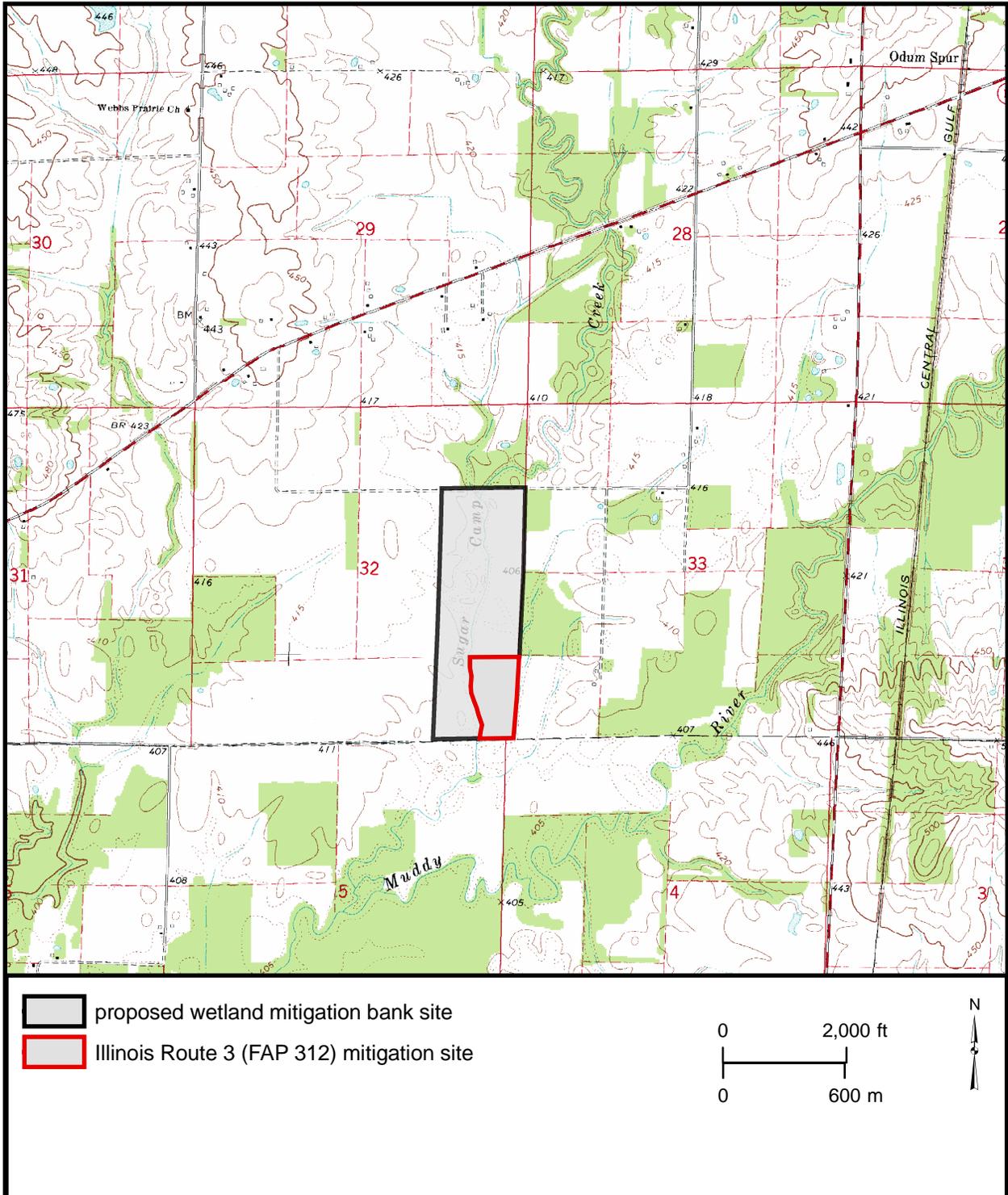
- Data from gauge A in Sugar Camp Creek indicated that four moderate floods inundated large portions of the site during the 2008 growing season. Data from this data logger indicated that the duration of inundation from each of these floods was less than 5% of the growing season.
- Data from RDS 2 in the FAP 312 mitigation area showed that water-level elevation was at or above 123.3 m (404.5 ft) for both greater than 5% of the growing season and at or above 123.2 m (404.2 ft) for greater than 12.5% of the growing season. Furthermore, RDS 3 showed water levels at or above 123.5 m (405.2 ft) for greater than 5% and greater than 12.5% of the growing season. Gauge H, west of Sugar Camp Creek, showed water-levels above 122.7 m (402.6 ft) for greater than 5% of the growing season but not enough data was acquired from this location to determine the 12.5% threshold.

PLANNED FUTURE ACTIVITIES

- Monitoring activities will continue until no longer required by IDOT.

Sugar Camp Creek Wetland Compensation Site (FAP 312 and Proposed Wetland Mitigation Bank) General Study Area and Vicinity

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

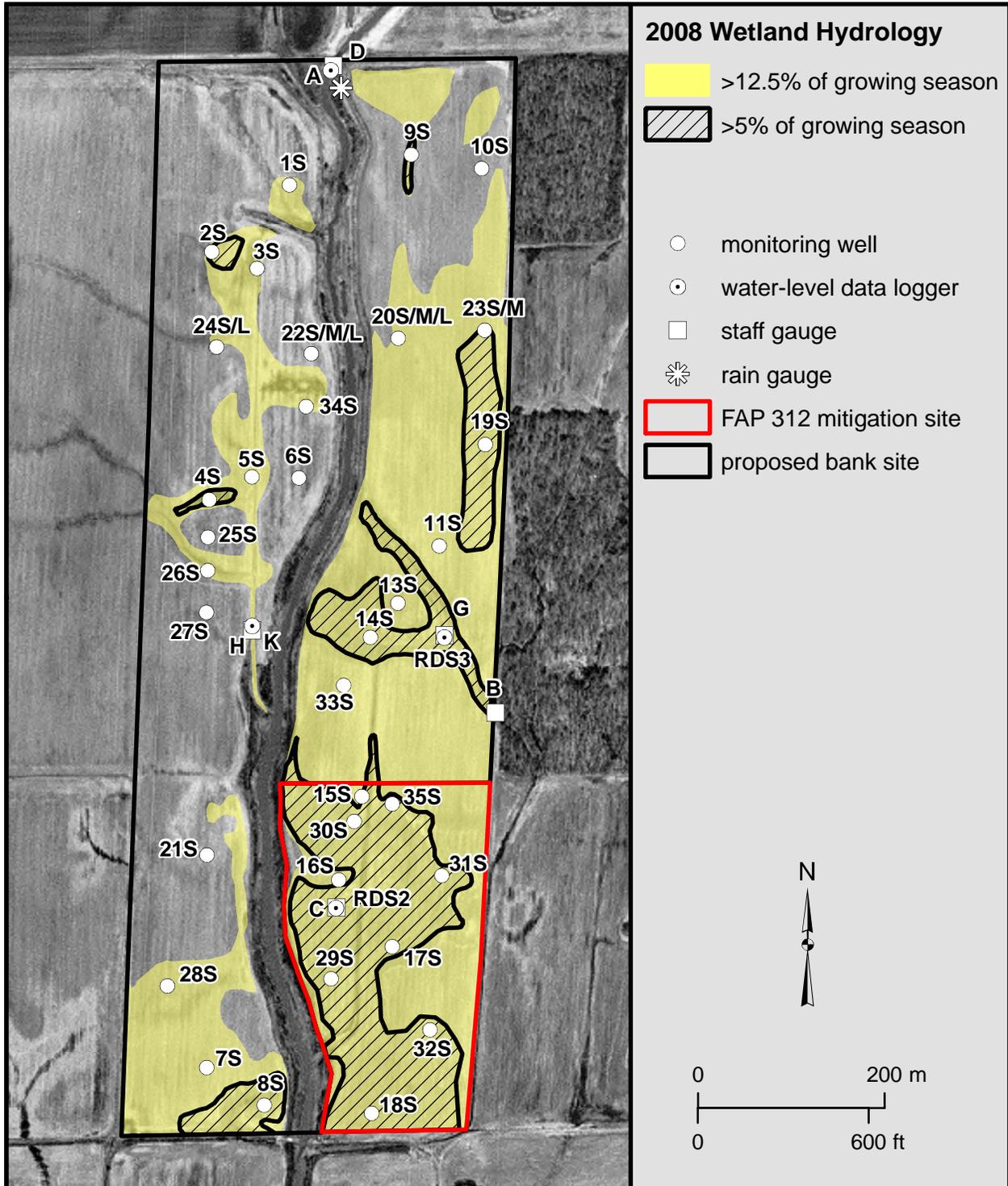


Sugar Camp Creek Wetland Compensation Site (FAP 312 and Proposed Wetland Mitigation Bank)

Estimated Areal Extent of 2008 Wetland Hydrology

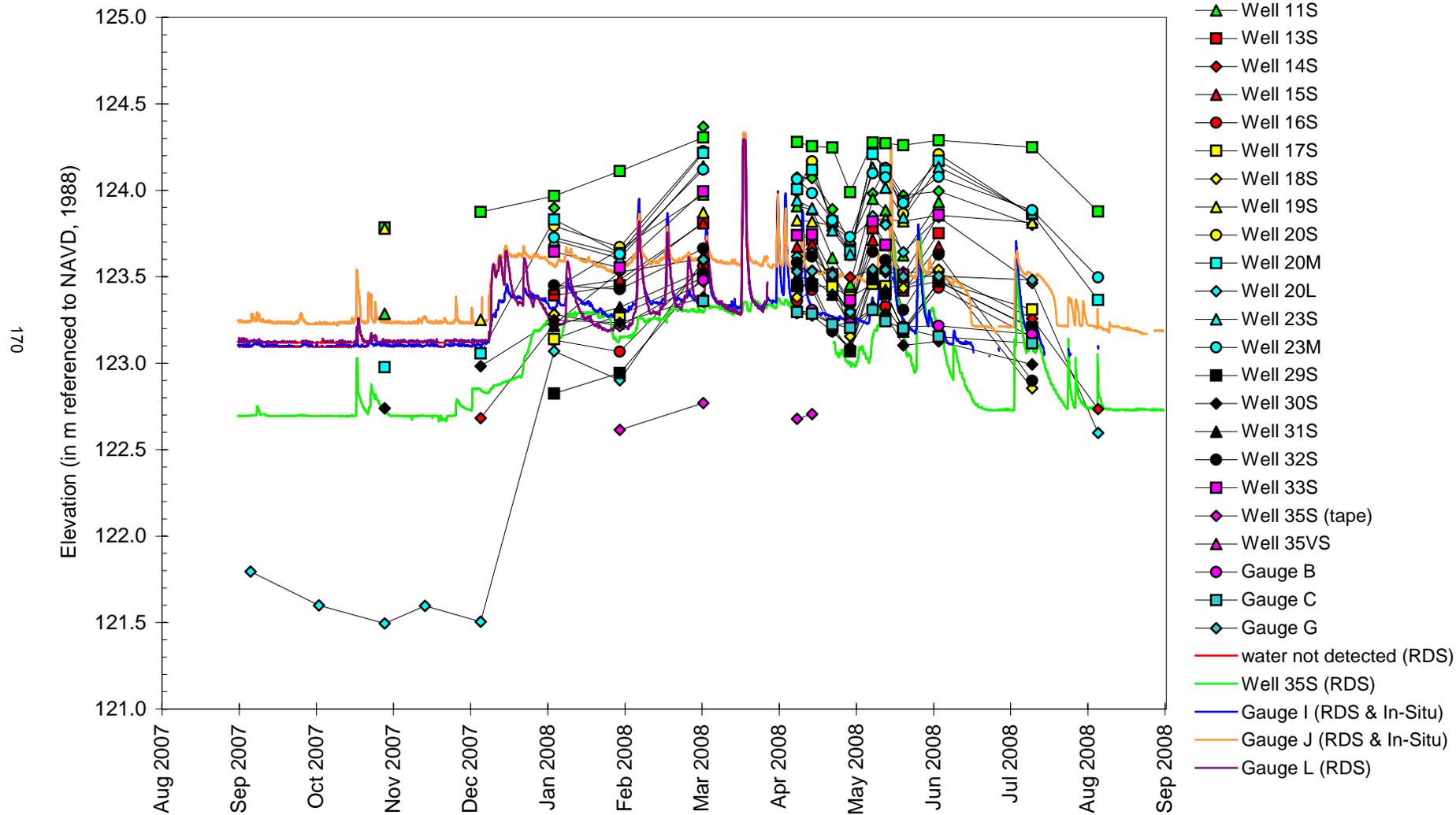
based on data collected between September 1, 2007 and September 1, 2008

Map based on USGS digital orthophotograph, Ewing SE quarter quadrangle,
aerial photography from April 1998 (ISGS 2000)



Sugar Camp Creek Wetland Compensation Site September 1, 2007 to September 1, 2008

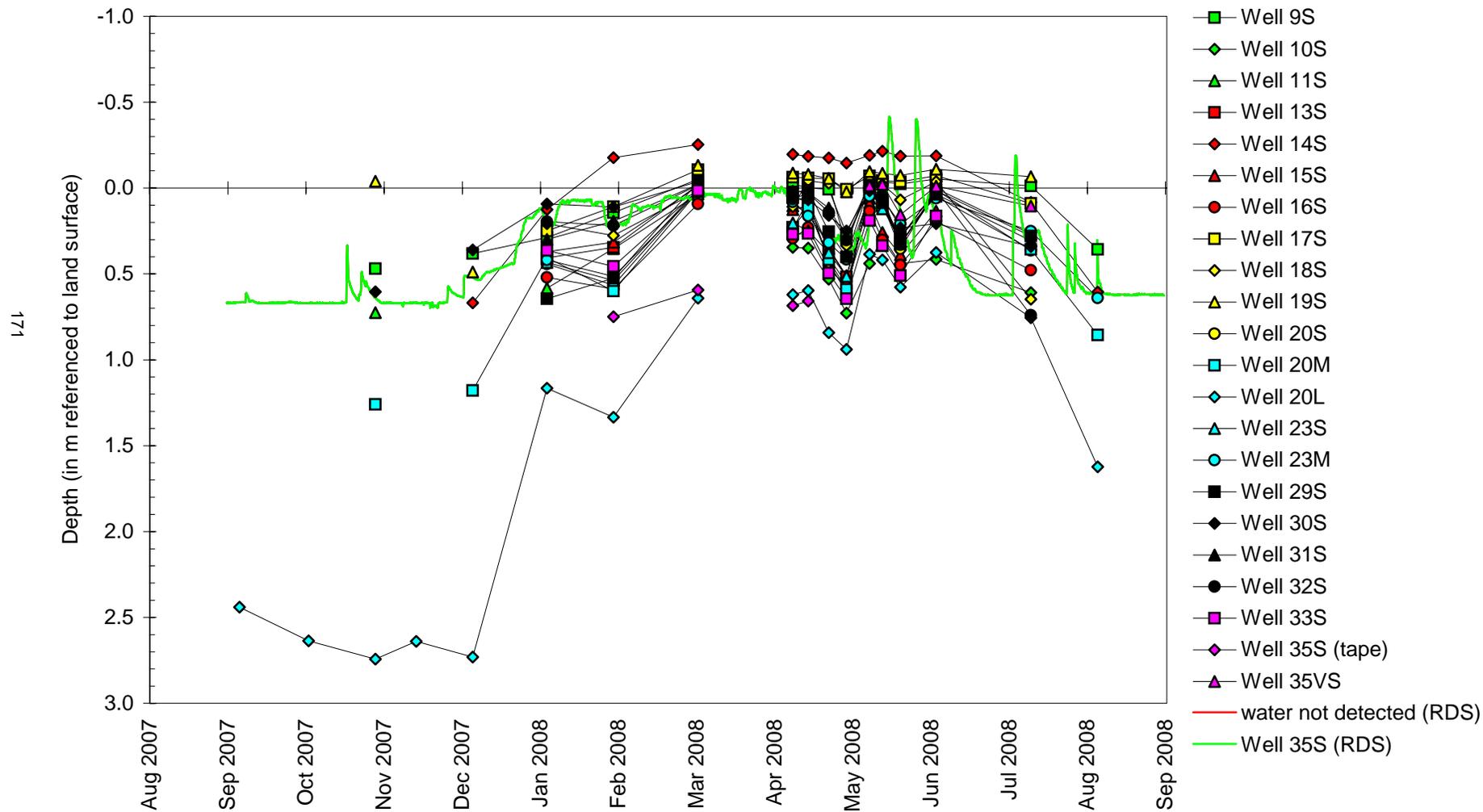
Water-Level Elevations at Monitoring Instruments Located on the East Side of Sugar Camp Creek



Sugar Camp Creek Wetland Compensation Site

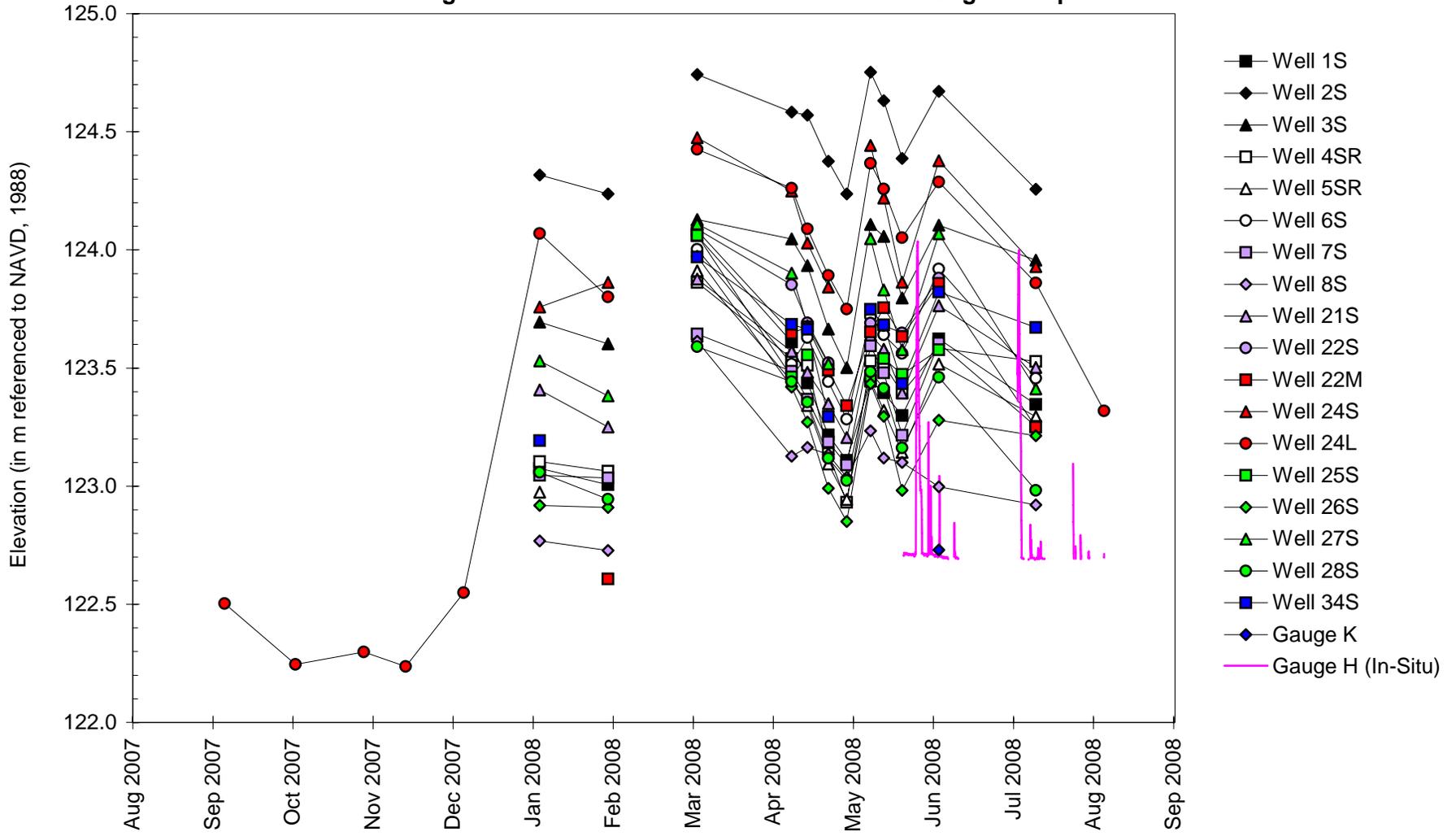
September 1, 2007 to September 1, 2008

Depth to Water at Monitoring Instruments Located on the West Side of Sugar Camp Creek



Sugar Camp Creek Wetland Compensation Site September 1, 2007 to September 1, 2008

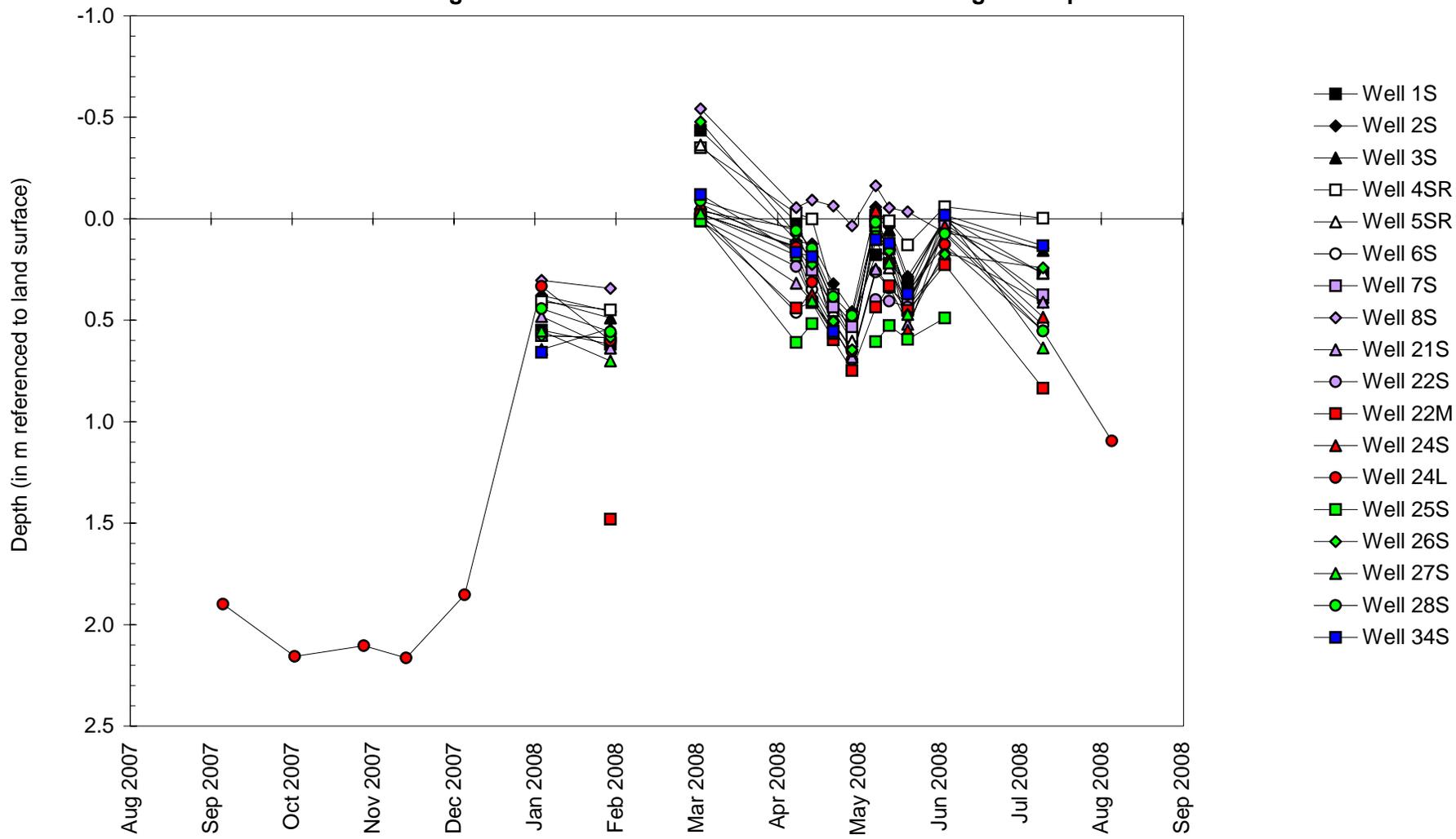
Water-Level Elevations at Monitoring Instruments Located on the West Side of Sugar Camp Creek



Sugar Camp Creek Wetland Compensation Site

September 1, 2007 to September 1, 2008

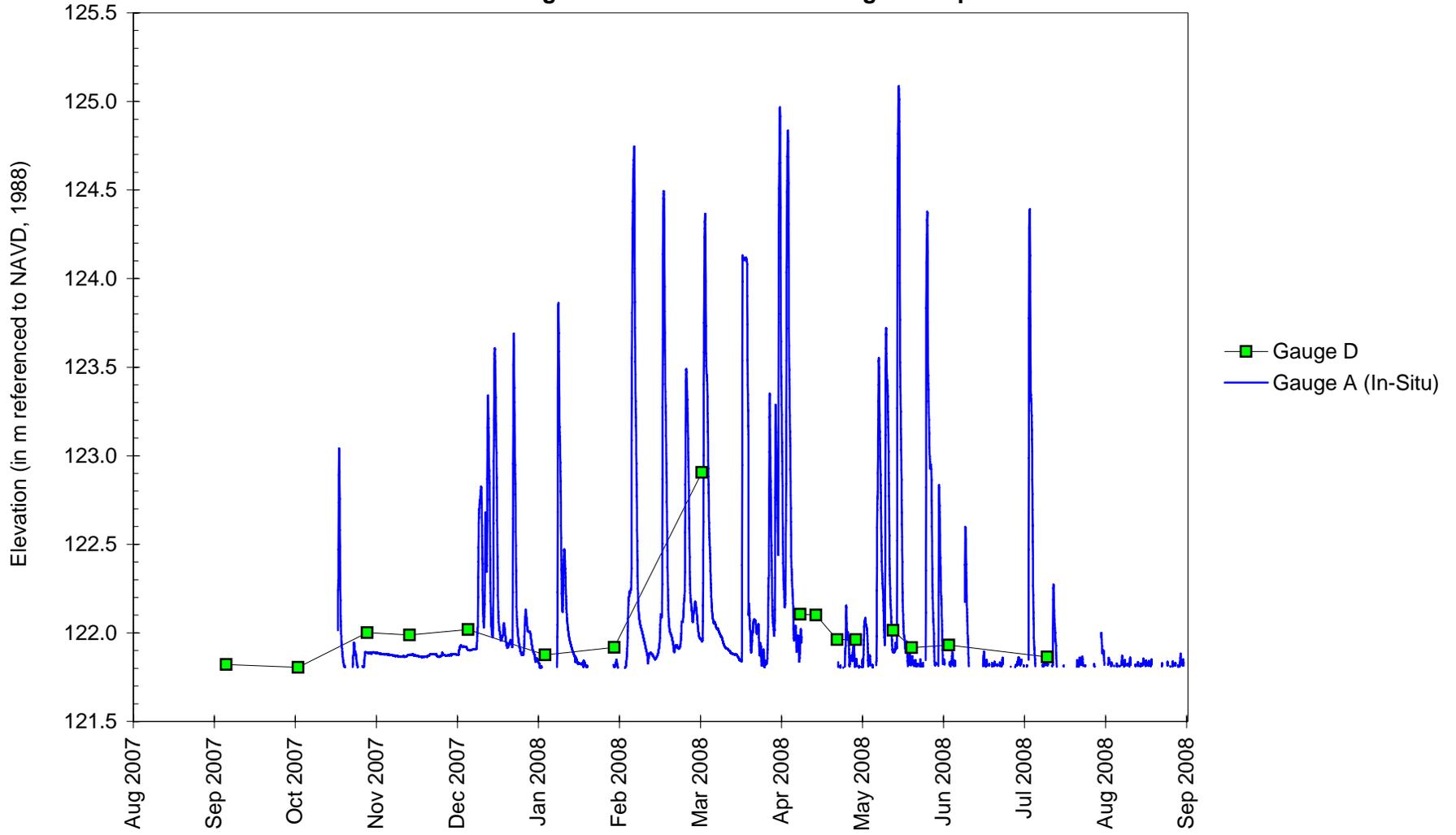
Depth to Water at Monitoring Instruments Located on the West Side of Sugar Camp Creek



Sugar Camp Creek Wetland Compensation Site

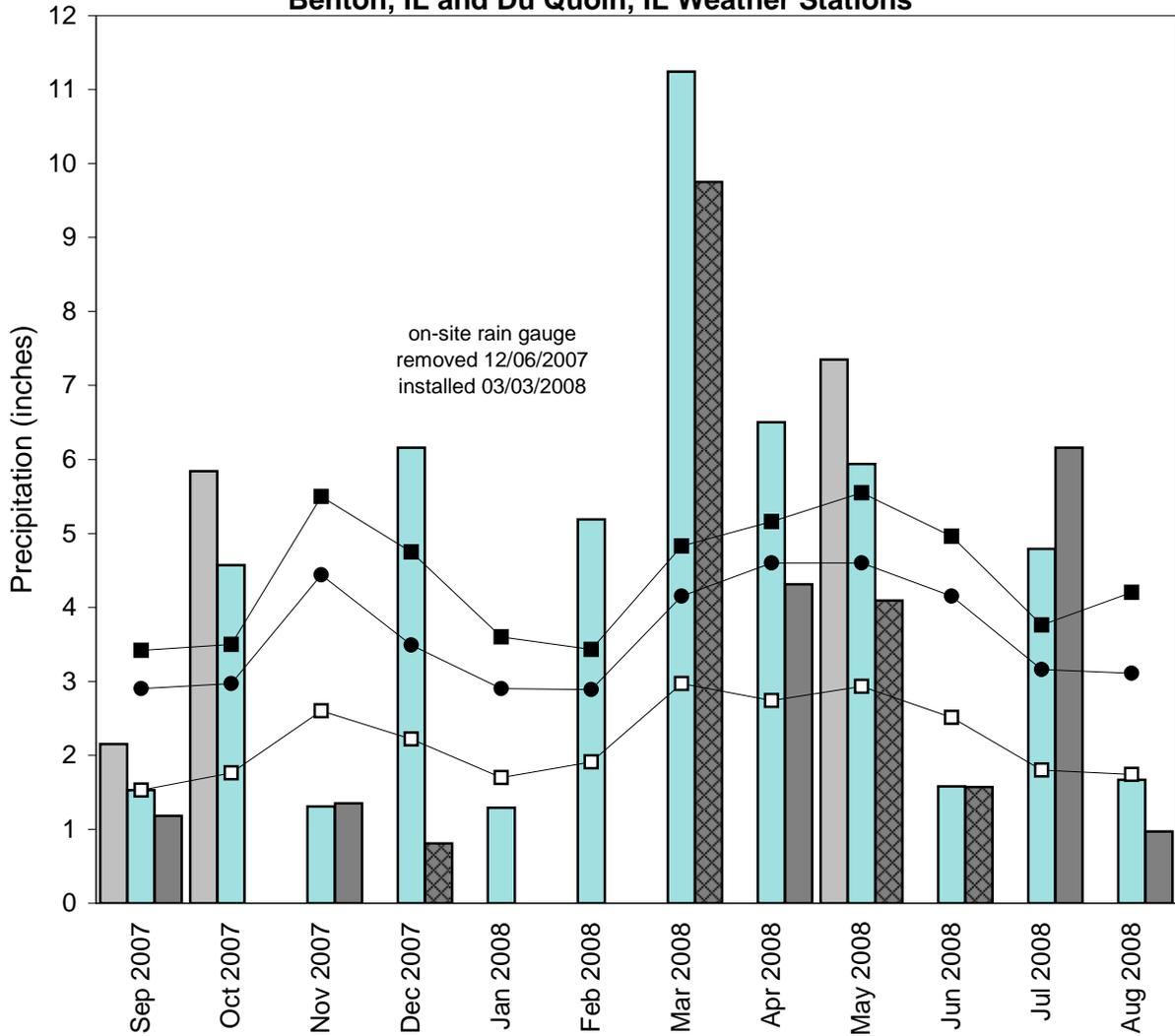
September 1, 2007 to September 20, 2008

Water-Level Elevations at Monitoring Instruments Located in Sugar Camp Creek



Sugar Camp Creek Potential Wetland Compensation Site September 2007 through August 2008

**Total Monthly Precipitation Recorded On Site and at the
Benton, IL and Du Quoin, IL Weather Stations**



- monthly precipitation recorded at Benton (Midwestern Regional Climate Center)
- monthly precipitation recorded at Du Quoin (Midwestern Regional Climate Center)
- monthly precipitation recorded on site by ISGS
- 1971-2000 monthly 30% above average threshold (National Water and Climate Center)
- 1971-2000 monthly average precipitation (National Water and Climate Center)
- 1971-2000 monthly 30% below average threshold (National Water and Climate Center)
- data incomplete

Graph last updated October 7, 2008