

**SUGAR CAMP CREEK  
WETLAND AND STREAM MITIGATION BANK  
AND FAP 312 WETLAND MITIGATION SITE**

**ISGS #74**

IL 3

FAP 312

Sequence #9282

Franklin County, Northern Township, Illinois

**Primary Project Manager: Geoffrey E. Pociask**

**Secondary Project Manager: Melinda C. Campbell**

**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).
- June 2009: Wetland and stream mitigation banking instrument was approved by the Interagency Review Team.
- August 2010: IDOT received notification that mitigation was complete for the portion of the site designated for Illinois Route 3 (FAP 312) mitigation. Construction began on Phase 1 of the mitigation bank.

**WETLAND HYDROLOGY CALCULATION FOR 2010**

We estimate that 15.1 ha (37.3 ac) of the total site area of 50.9 ha (125.7 ac), including the FAP 312 wetland mitigation site, satisfied wetland hydrology criteria (Environmental Laboratory 1987) for greater than 5% of the growing season in 2010, whereas 1.0 ha (2.3 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 mitigation site, 6.5 ha (16.1 ac) satisfied wetland hydrology criteria for greater than 5% of the growing season, of which 0.5 ha (1.2 ac) also satisfied wetland hydrology criteria for greater than 12.5% of the growing season. Using the 2010 Midwest Region supplement (U.S. Army Corps of Engineers 2010) to the 1987 Manual, we estimate that 36.5 ha (90.3 ac) of the entire parcel and 8.3 ha (20.4 ac) of the FAP 312 wetland mitigation site 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 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. According to the 2010 Midwest Region supplement, we estimate that March 7 was the starting date of the 2010 growing season based on soil temperatures observed at the wetland mitigation site.
- Total precipitation at the Du Quoin, Illinois, weather station for the period from September 2009 through August 2010 was 122% of normal, and Spring 2010 (March

through May) precipitation was 107% of normal. However, precipitation data collected on site indicated that local conditions were drier than normal during March through May.

- In 2010, wells 2S, 8S, 9S, 11S, 13S, 14S, 15S, 17S, 18S, 19S, 23S, 26S, 29S, 30S, 31S, and 32S satisfied wetland hydrology criteria for greater than 5% of the growing season, and wells 9S and 19S satisfied wetland hydrology criteria for greater than 12.5% of the growing season. Furthermore, according to the 2010 Midwest Region supplement, all wells except 25S satisfied wetland hydrology for 14 or more consecutive days during the growing season.
- Data from gauges A and E data loggers in Sugar Camp Creek indicated that five floods inundated portions of the site during the 2010 growing season, and that the duration of inundation from each of these floods was less than 5% of the growing season.
- Surface-water data from the Gauge C data logger in the FAP 312 mitigation area showed that water-level elevation was at or above 123.29 m (404.49 ft) for greater than 5% of the growing season and was at or above 123.07 m (403.77 ft) for greater than 12.5% of the growing season. Furthermore, water-level elevation at Gauge C was at or above 123.29 m (404.49 ft) for 14 or more consecutive days during the growing season according to the 2010 Midwest Region supplement.

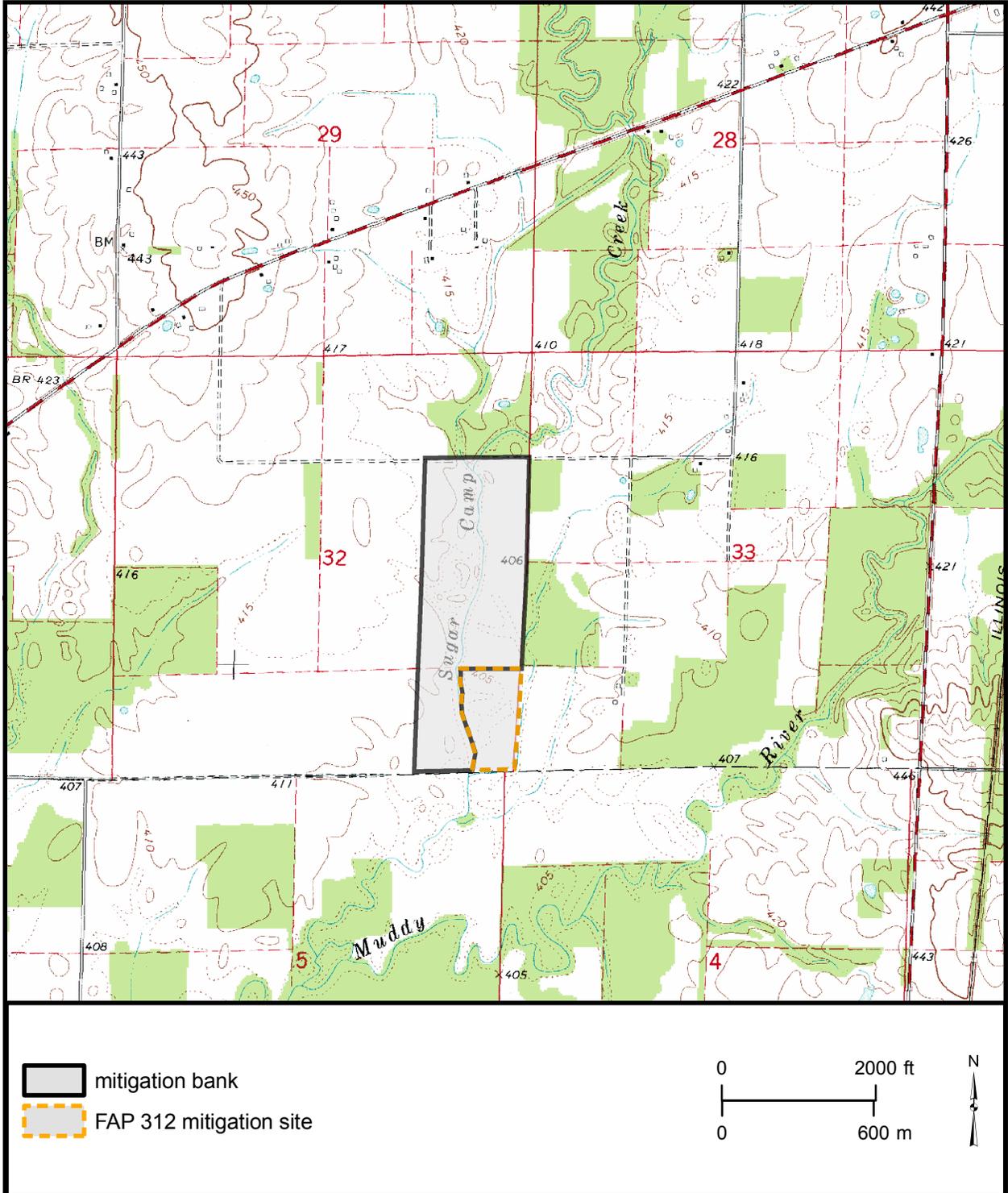
#### PLANNED FUTURE ACTIVITIES

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

# Sugar Camp Creek Wetland and Stream Mitigation Bank (FAP 312)

## General Study Area and Vicinity

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

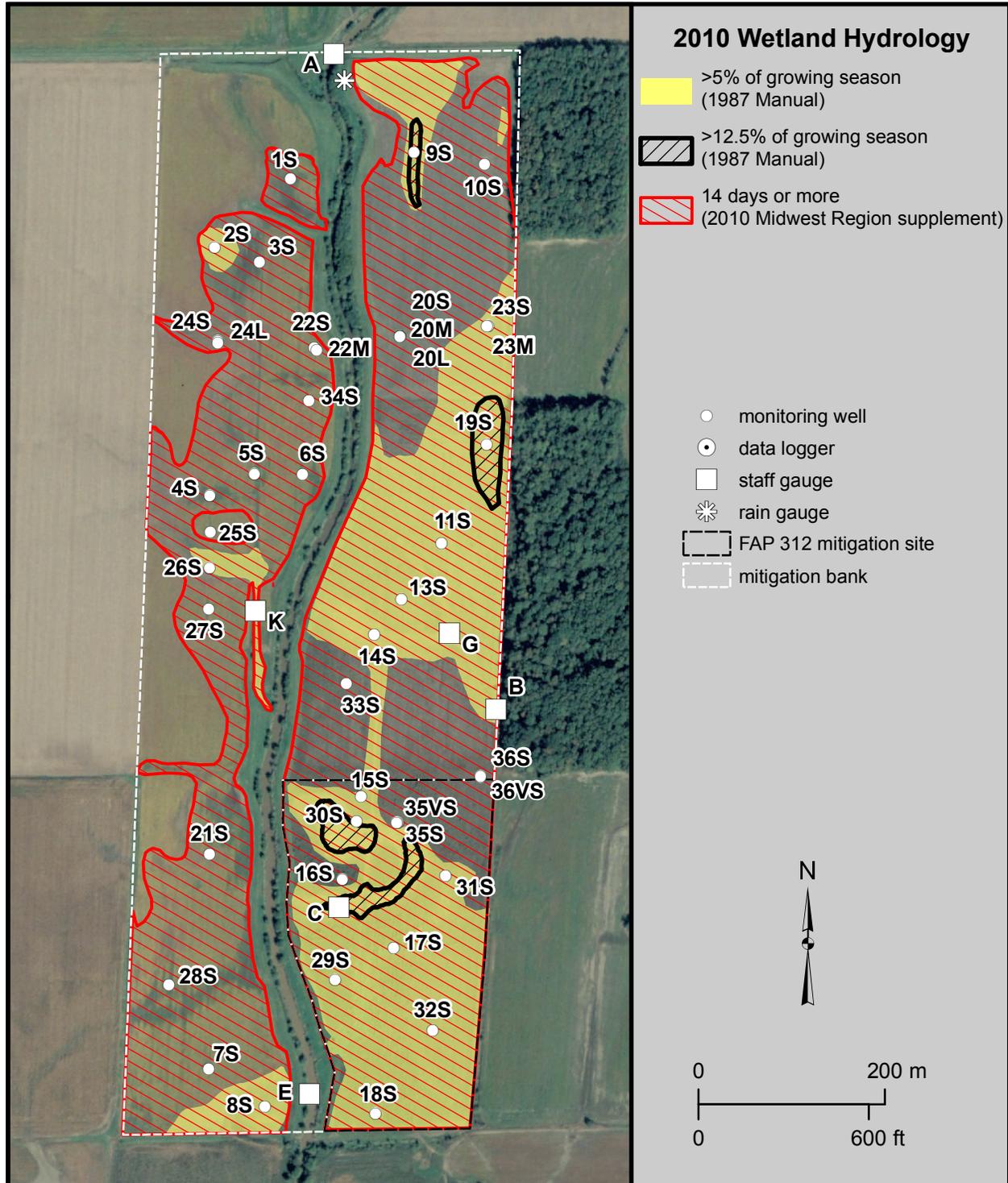


# Sugar Camp Creek Wetland and Stream Mitigation Bank (FAP 312)

## Estimated Areal Extent of 2010 Wetland Hydrology

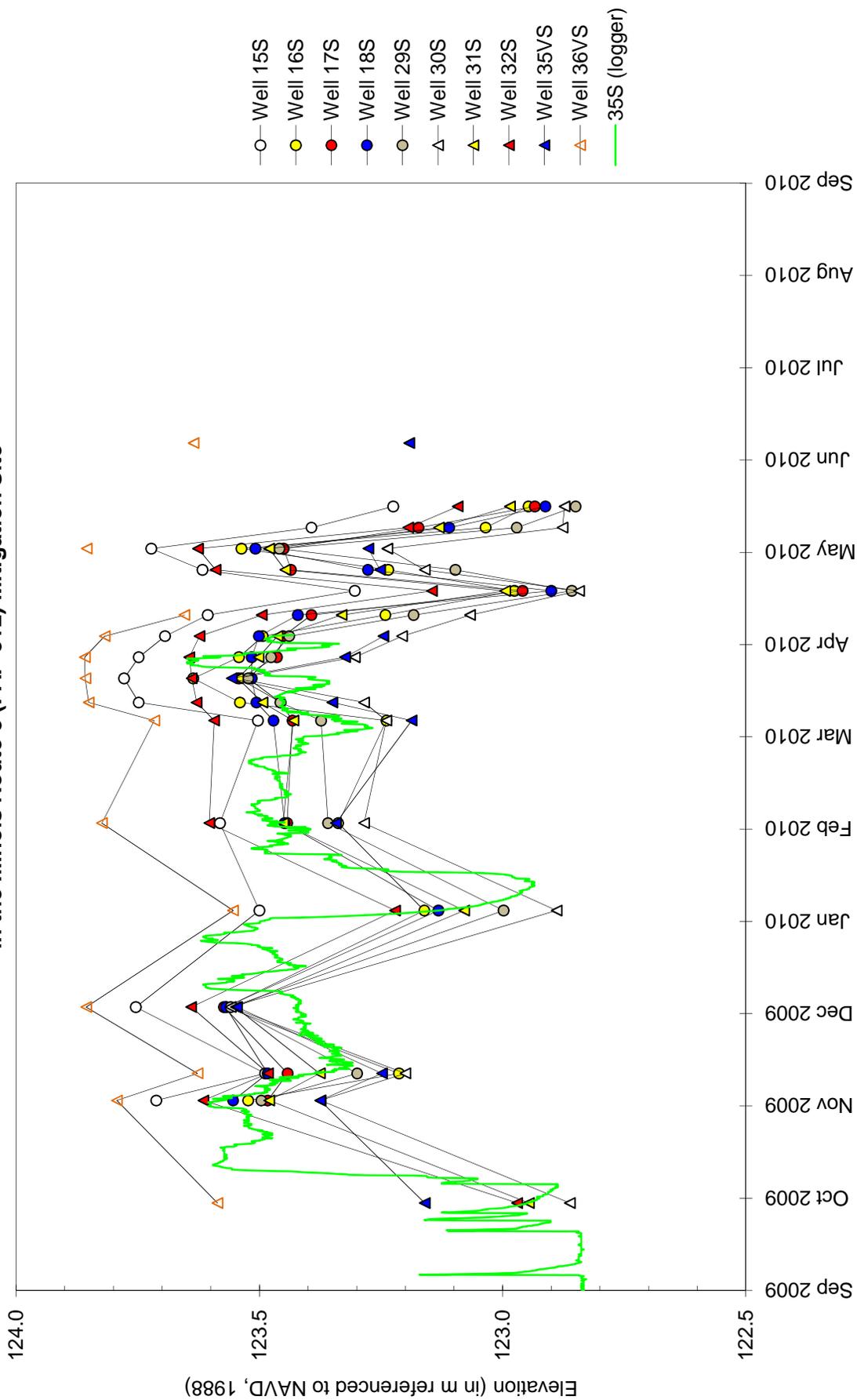
September 1, 2009 through August 31, 2010

Map based on USGS digital orthophotograph, Ewing SE quarter quadrangle,  
aerial photography from June 2009 (NAIP 2009)



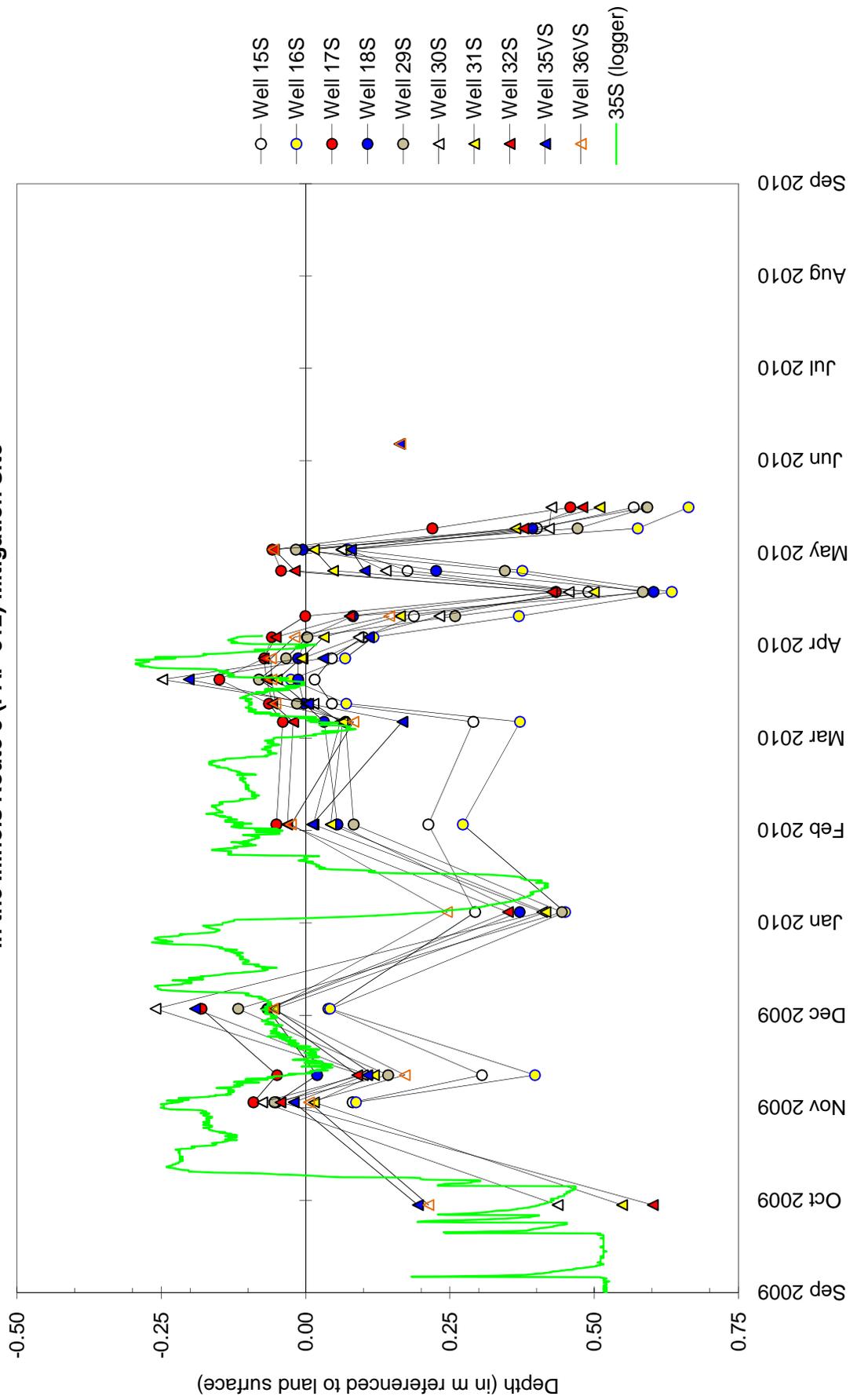
# Sugar Camp Creek Wetland and Stream Mitigation Bank September 1, 2009 through August 31, 2010

Water-Level Elevations in Monitoring Wells  
in the Illinois Route 3 (FAP 312) Mitigation Site



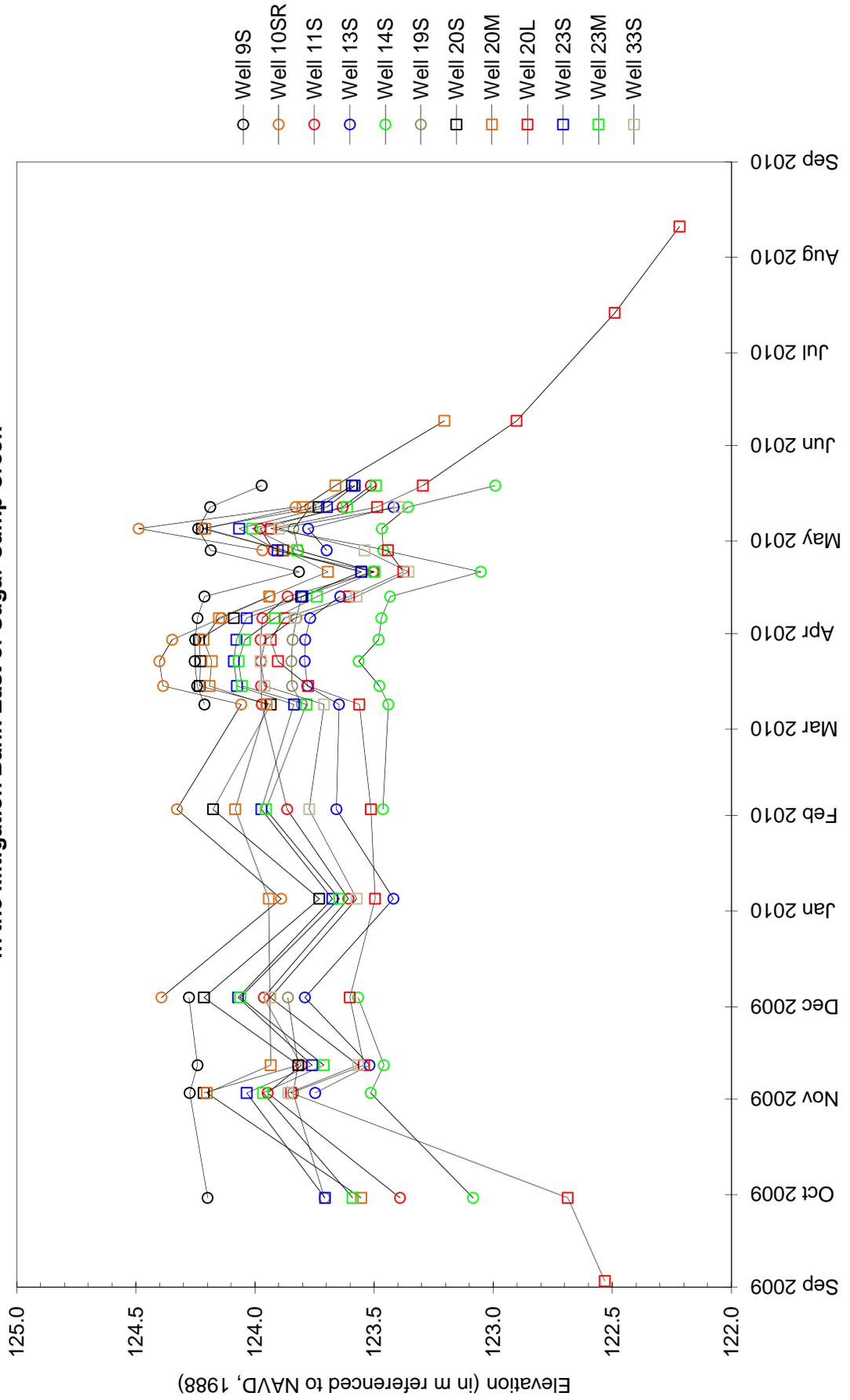
# Sugar Camp Creek Wetland and Stream Mitigation Bank September 1, 2009 through August 31, 2010

Depth to Water in Monitoring Wells  
in the Illinois Route 3 (FAP 312) Mitigation Site



# Sugar Camp Creek Wetland and Stream Mitigation Bank September 1, 2009 through August 31, 2010

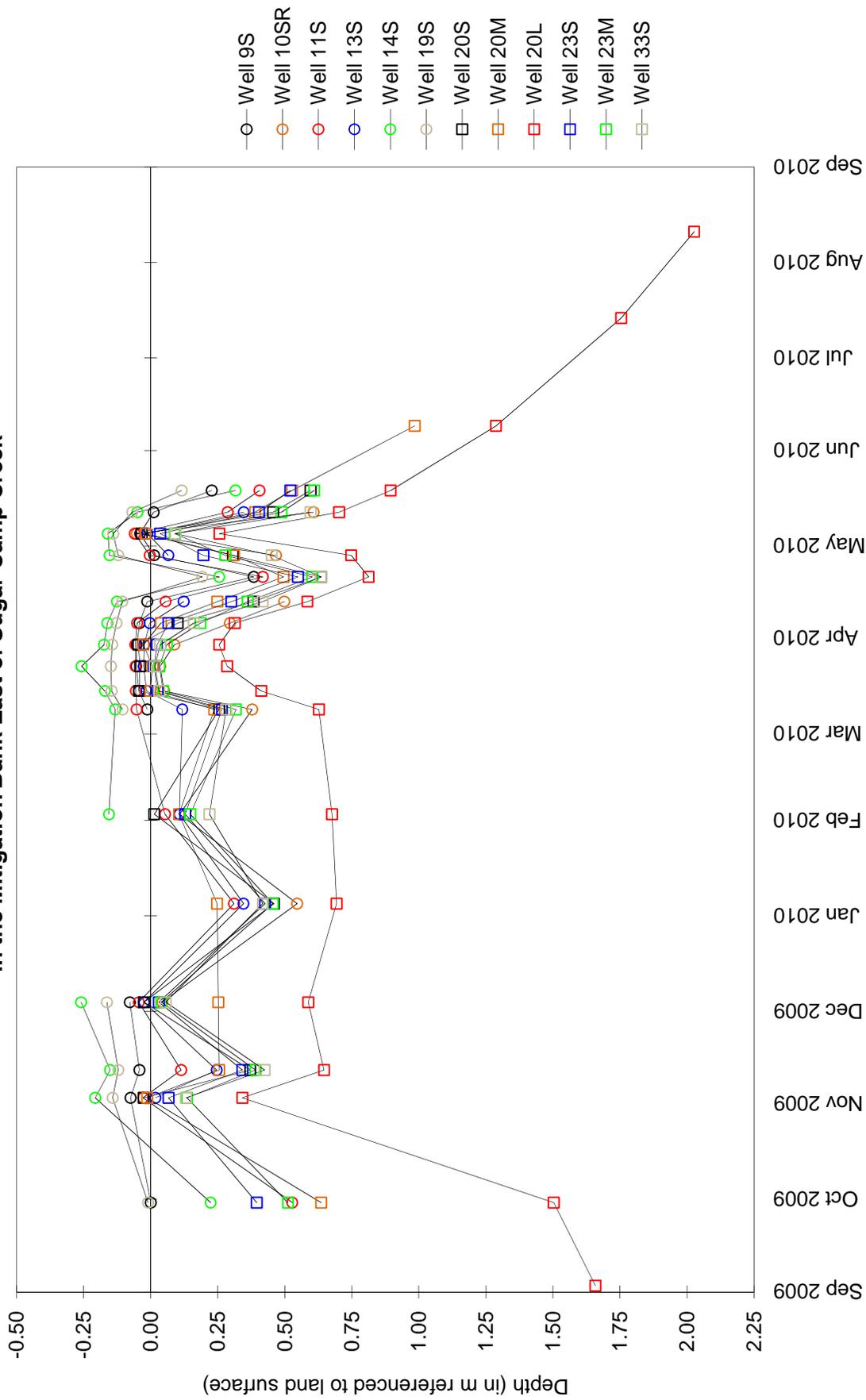
Water-Level Elevations in Monitoring Wells  
in the Mitigation Bank East of Sugar Camp Creek



# Sugar Camp Creek Wetland and Stream Mitigation Bank

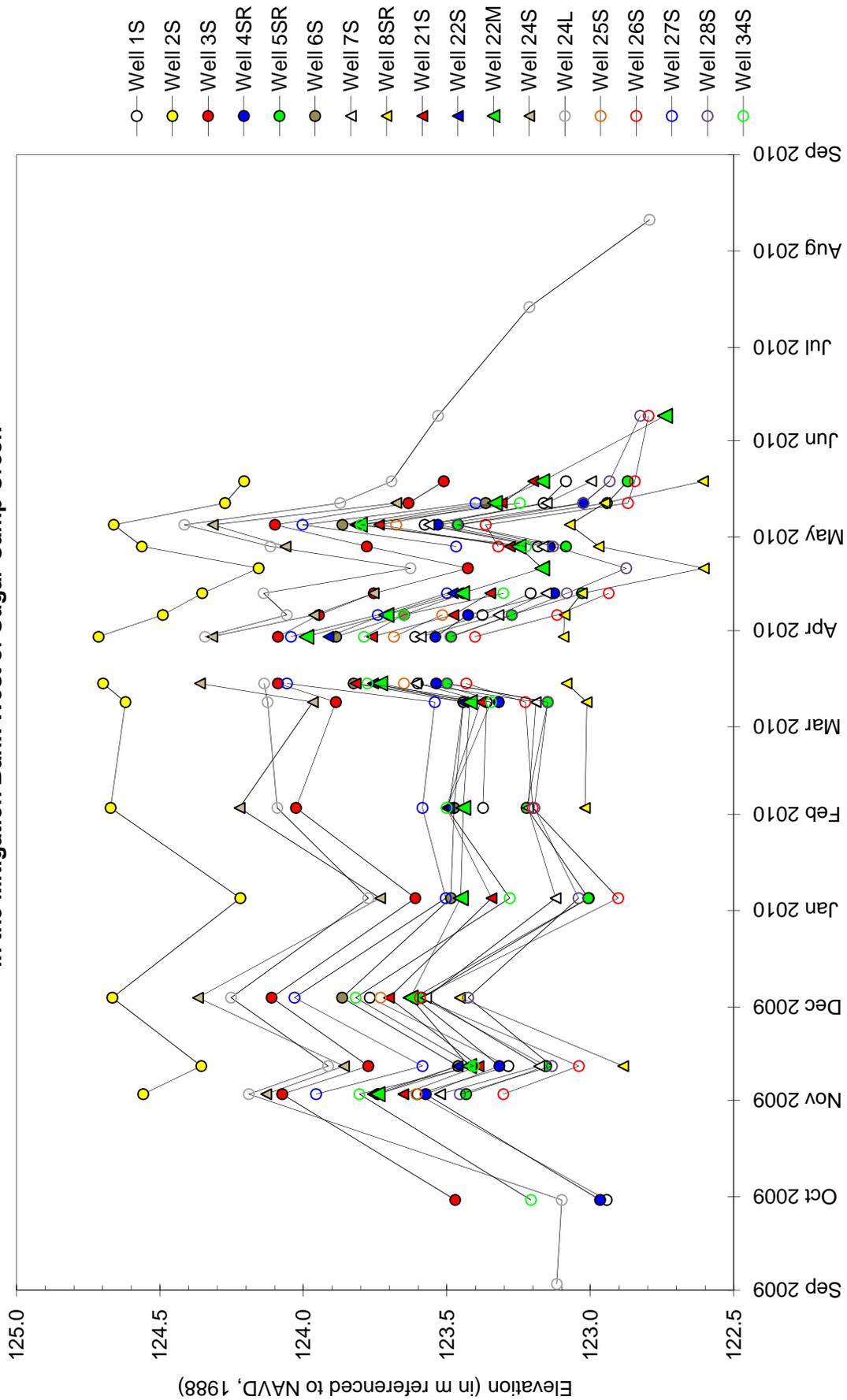
## September 1, 2009 through August 31, 2010

Depth to Water in Monitoring Wells  
in the Mitigation Bank East of Sugar Camp Creek



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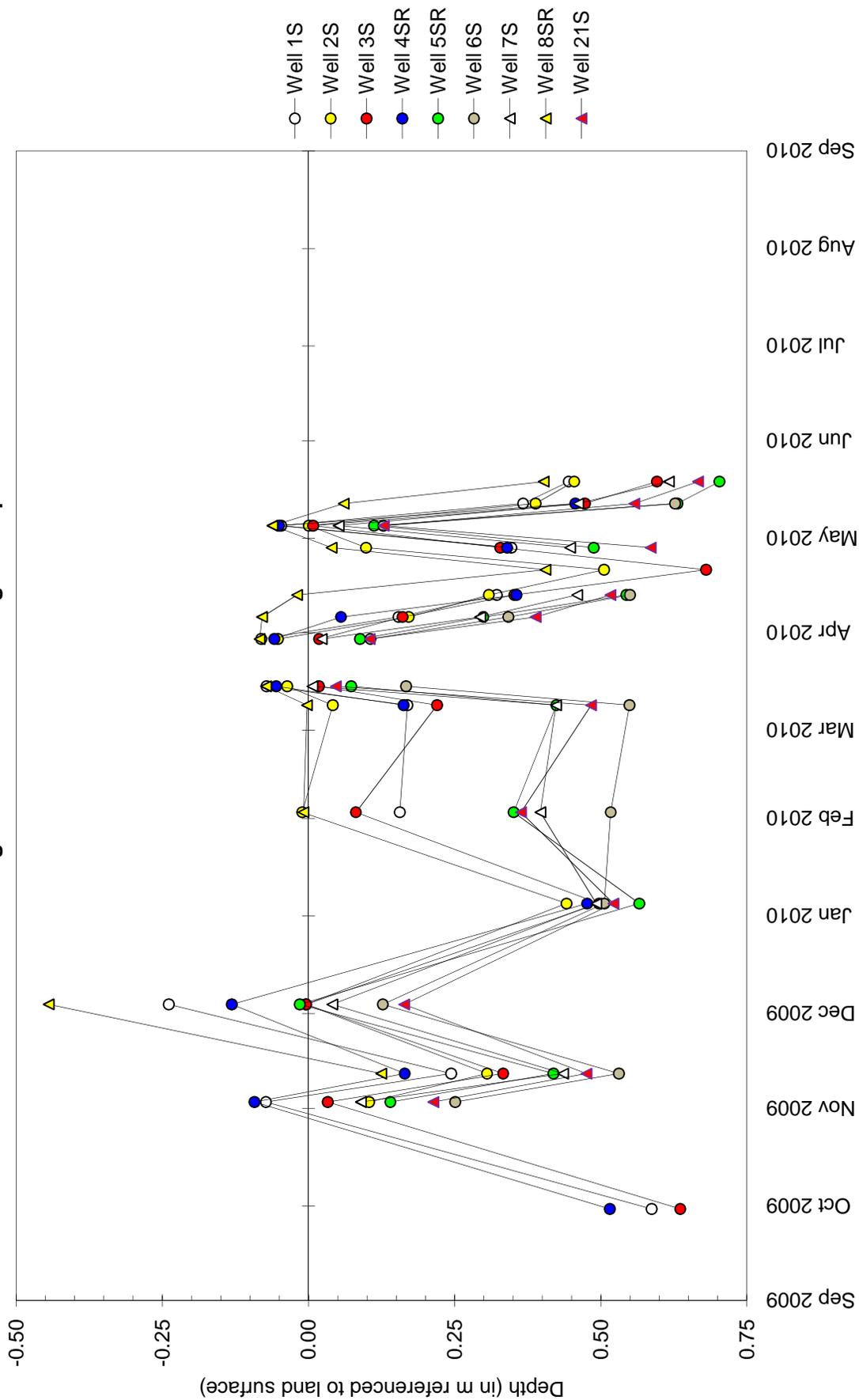
Water-Level Elevations in Monitoring Wells  
in the Mitigation Bank West of Sugar Camp Creek



# Sugar Camp Creek Wetland and Stream Mitigation Bank

## September 1, 2009 through August 31, 2010

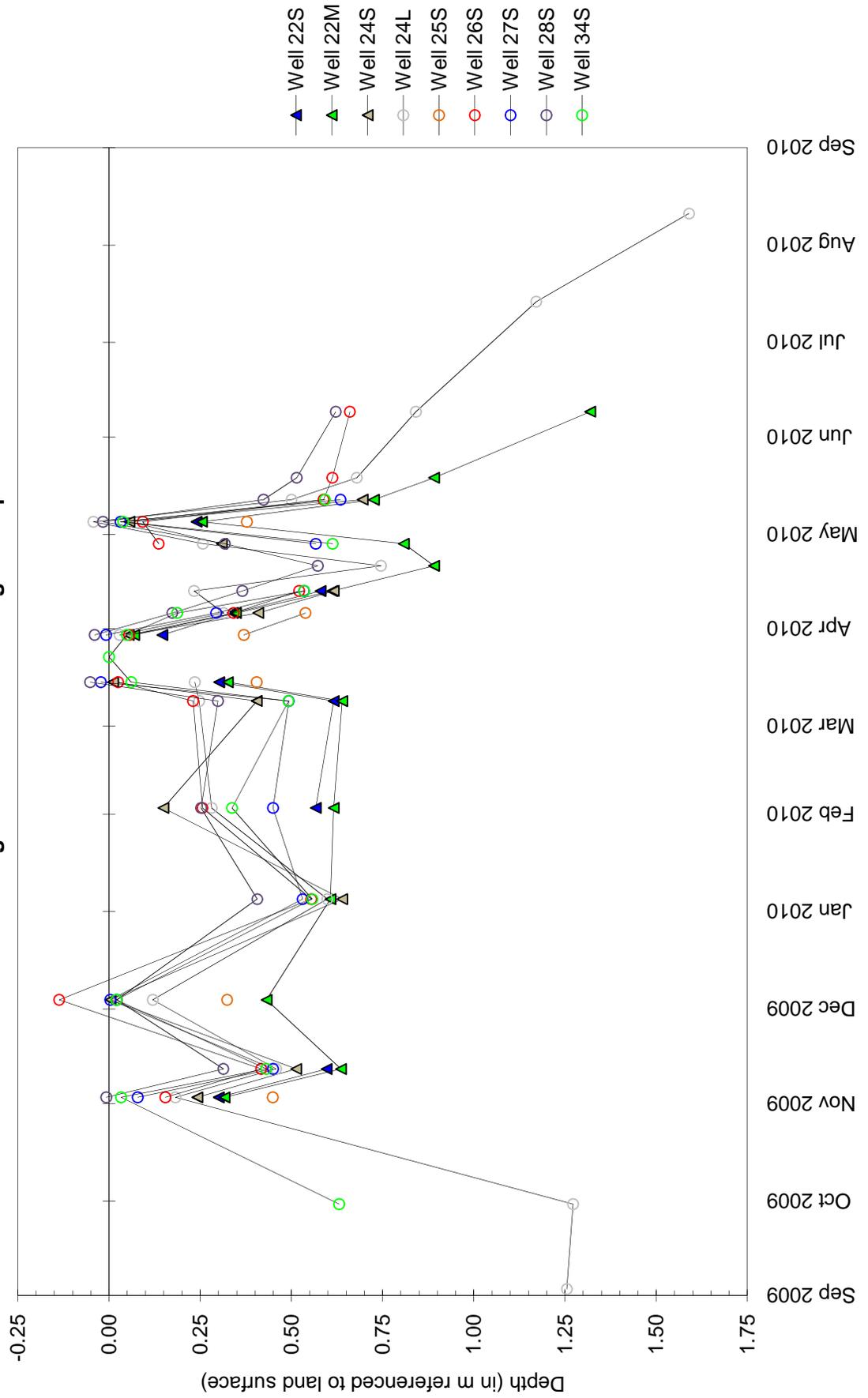
Depth to Water in Monitoring Wells  
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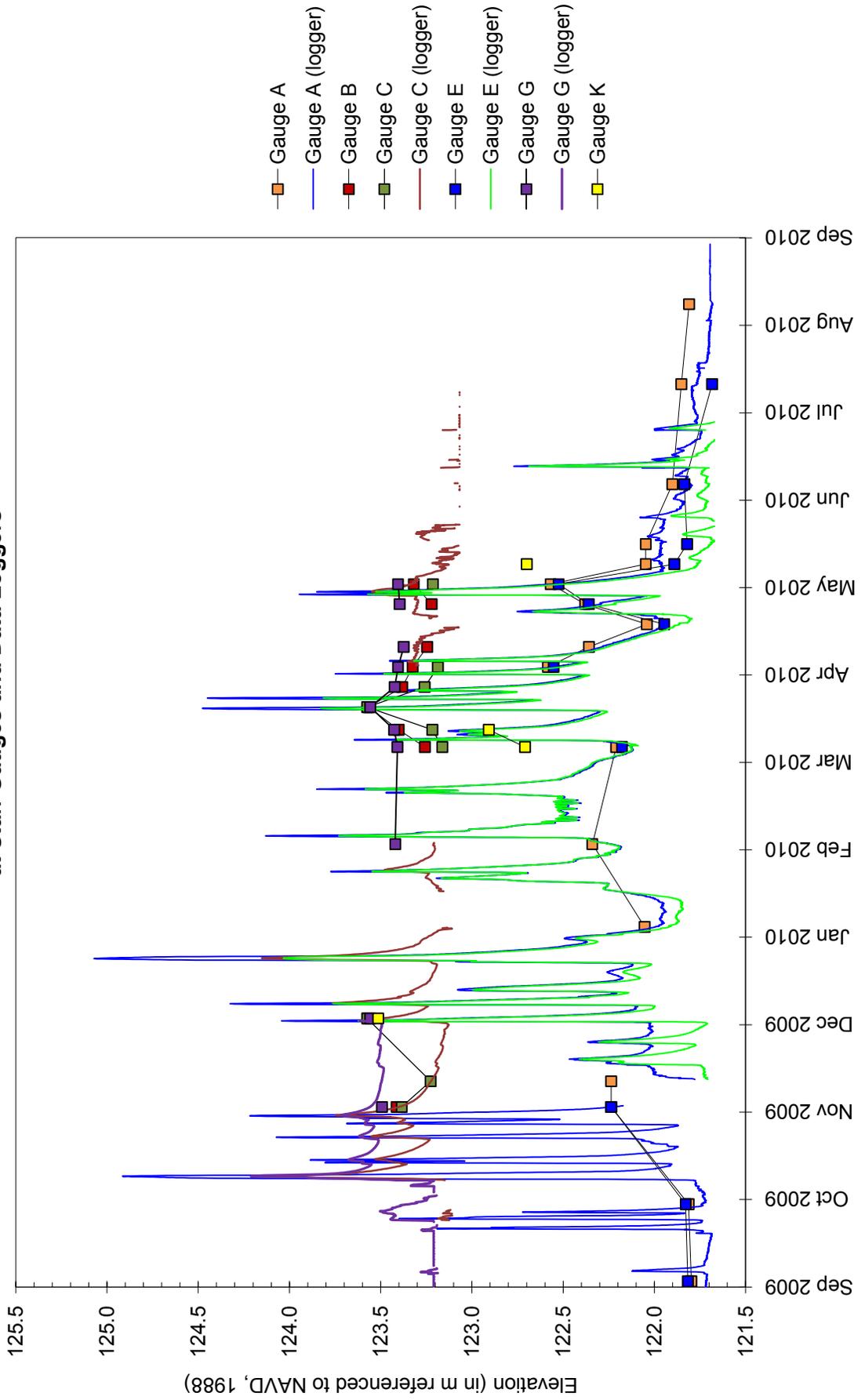
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Depth to Water in Monitoring Wells  
in the Mitigation Bank West of Sugar Camp Creek



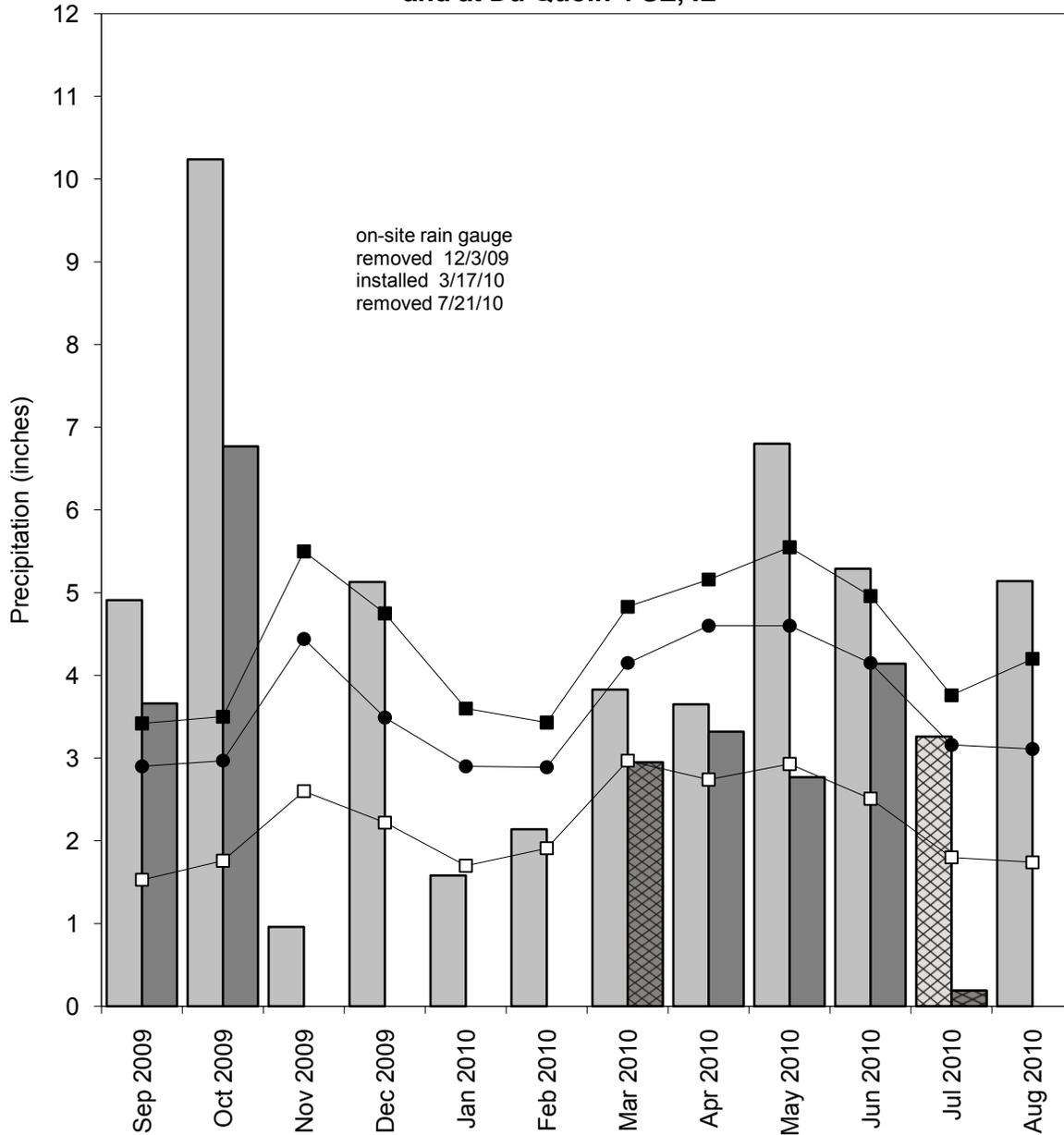
# Sugar Camp Creek Wetland and Stream Mitigation Bank September 1, 2009 through August 31, 2010

Water-Level Elevations  
at Staff Gauges and Data Loggers



# Sugar Camp Creek Wetland and Stream Mitigation Bank September 2009 through August 2010

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



- monthly precipitation recorded at Du Quoin, IL (MRCC)
- monthly precipitation recorded on site by ISGS
- ▨ data incomplete
- 1971-2000 monthly 30% above average threshold at Benton, IL (NWCC)
- 1971-2000 monthly average precipitation at Benton, IL (NWCC)
- 1971-2000 monthly 30% below average threshold at Benton, IL (NWCC)

Graph last updated September 29, 2010