

**SUGAR CAMP CREEK  
WETLAND AND STREAM MITIGATION BANK**

**ISGS #74**

Sequence #9282

Franklin County, Northern Township, Illinois

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

**Secondary Project Manager: Jessica L. Monson**

**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 2011**

Using the 1987 Manual (Environmental Laboratory 1987), 27.3 ha (67.4 ac) of the total bank area of 42.6 ha (105.2 ac) satisfied wetland hydrology criteria for greater than 5% of the growing season in 2011, whereas 25.3 ha (62.4 ac) satisfied wetland hydrology criteria for greater than 12.5% of the growing season. Within Phase 1 of the wetland mitigation bank, 13.9 ha (34.3 ac) satisfied wetland hydrology criteria for greater than 5% of the growing season, of which 13.4 ha (33.0 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, 27.8 ha (68.6 ac) of the entire wetland bank and 14.3 ha (35.5 ac) of Phase 1 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 Du Quoin, Illinois, is April 5 and the season lasts 207 days (MRCC 2011). According to the 1987 Manual, 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, February 16 was the starting date of the 2011 growing season based on soil temperatures measured at the wetland bank.
- Total precipitation at the Du Quoin, Illinois, weather station for the period from September 2010 through August 2011 was 137% of normal, and Spring 2011 (March through May) precipitation was 218% of normal.

- In 2011, all wells except well 37S satisfied wetland hydrology criteria for greater than 5% of the growing season, and all wells except 25S, 37S, and 40S satisfied wetland hydrology criteria for greater than 12.5% of the growing season, according to the 1987 Manual. Furthermore, according to the 2010 Midwest Region Supplement, all wells satisfied wetland hydrology criteria for 14 or more consecutive days during the growing season.
- Data from gauges A and E in Sugar Camp Creek indicated that 19 floods (above 123.00 m [403.54 ft]) inundated portions of the site during the 2011 growing season, and that the duration of inundation outside of the creek from each of these floods was not sufficient to satisfy any wetland hydrology criteria.
- Surface-water readings at Gauge G showed that water-level elevation was at or above 123.78 m (406.10 ft) for greater than 5% of the growing season and was at or above 123.76 m (406.03 ft) for greater than 12.5% of the growing season, according to the 1987 Manual. Furthermore, water-level elevation at Gauge G was at or above 123.77 m (406.06 ft) for 14 or more consecutive days during the growing season, according to the 2010 Midwest Region Supplement. Surface-water readings at Gauge K showed that water-level elevation was at or above 123.10 m (403.87 ft) for greater than 5% of the growing season and at or above 122.78 m (402.83 ft) for greater than 12.5% of the growing season, according to the 1987 Manual. Furthermore, water-level elevation at Gauge K was at or above 123.10 m (403.87 ft) for 14 or more consecutive days during the growing season, according to the 2010 Midwest Region Supplement. Surface-water readings at Gauge L showed that water-level elevation was at or above 123.98 m (406.75 ft) for greater than 5% of the growing season and was at or above 123.76 m (406.58 ft) for greater than 12.5% of the growing season, according to the 1987 Manual. Furthermore, water-level elevation at Gauge L was at or above 123.96 m (406.69 ft) for 14 or more consecutive days during the growing season, according to the 2010 Midwest Region Supplement.

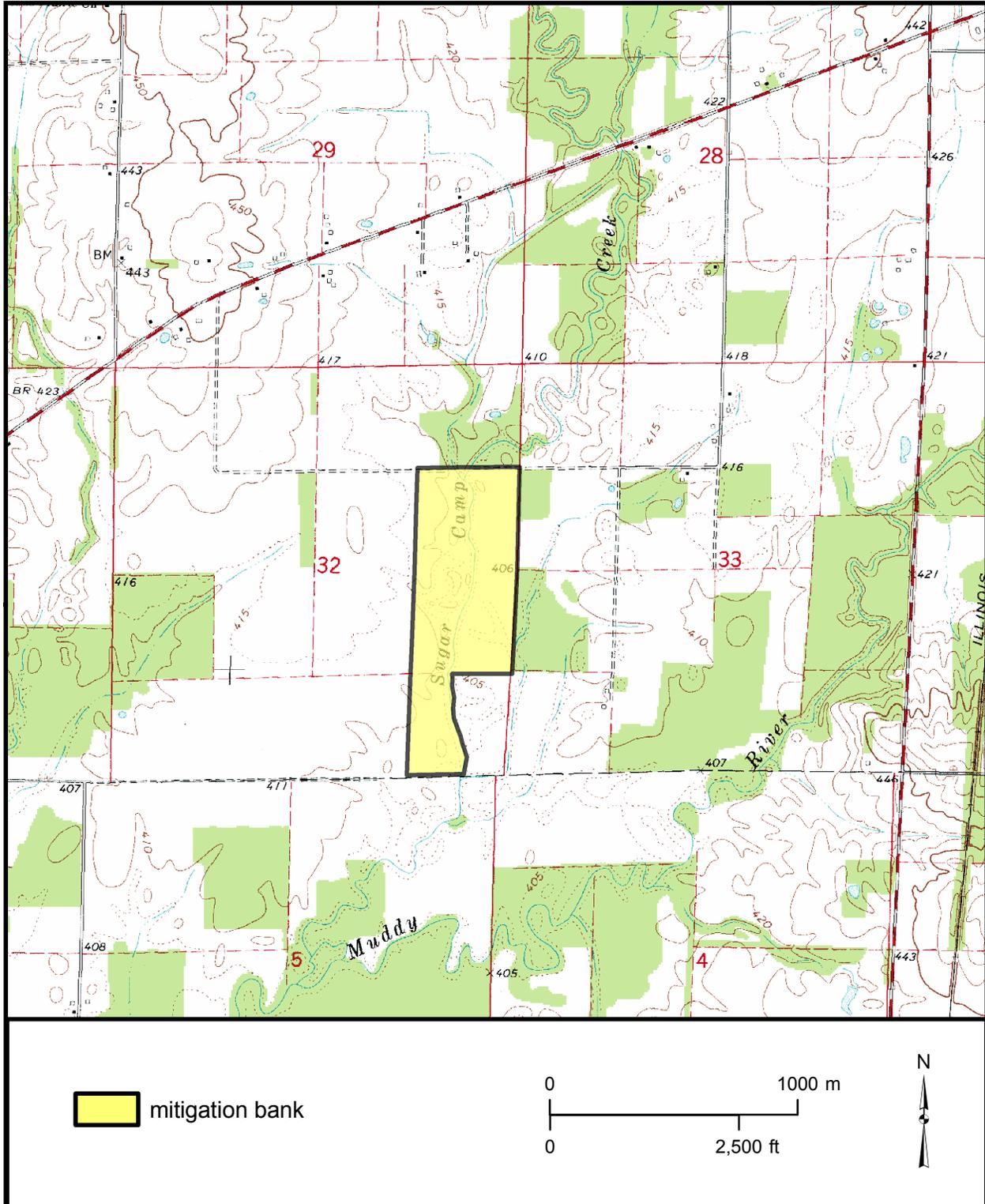
#### PLANNED FUTURE ACTIVITIES

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

# Sugar Camp Creek Wetland and Stream Mitigation Bank

## General Study Area and Vicinity

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

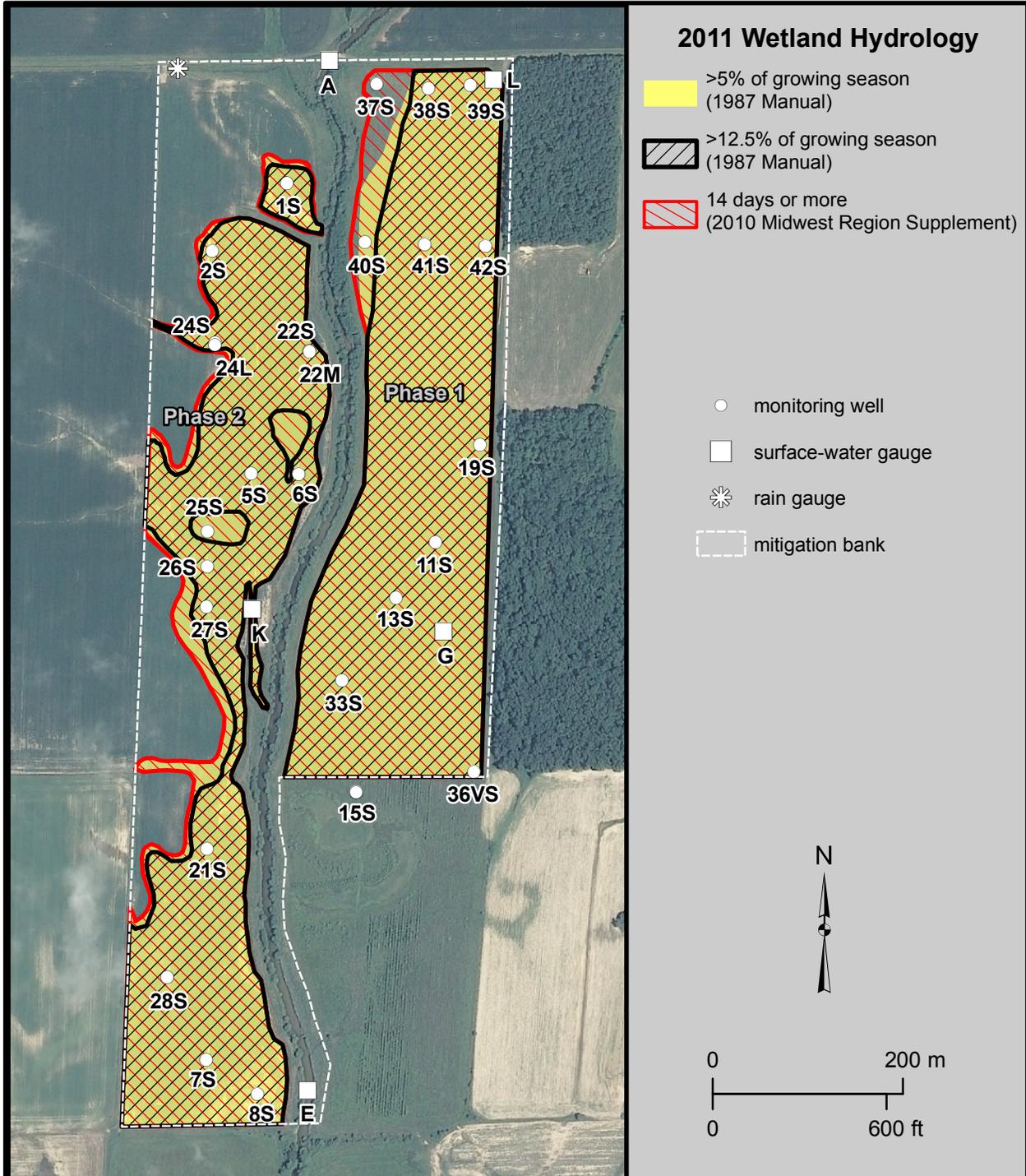


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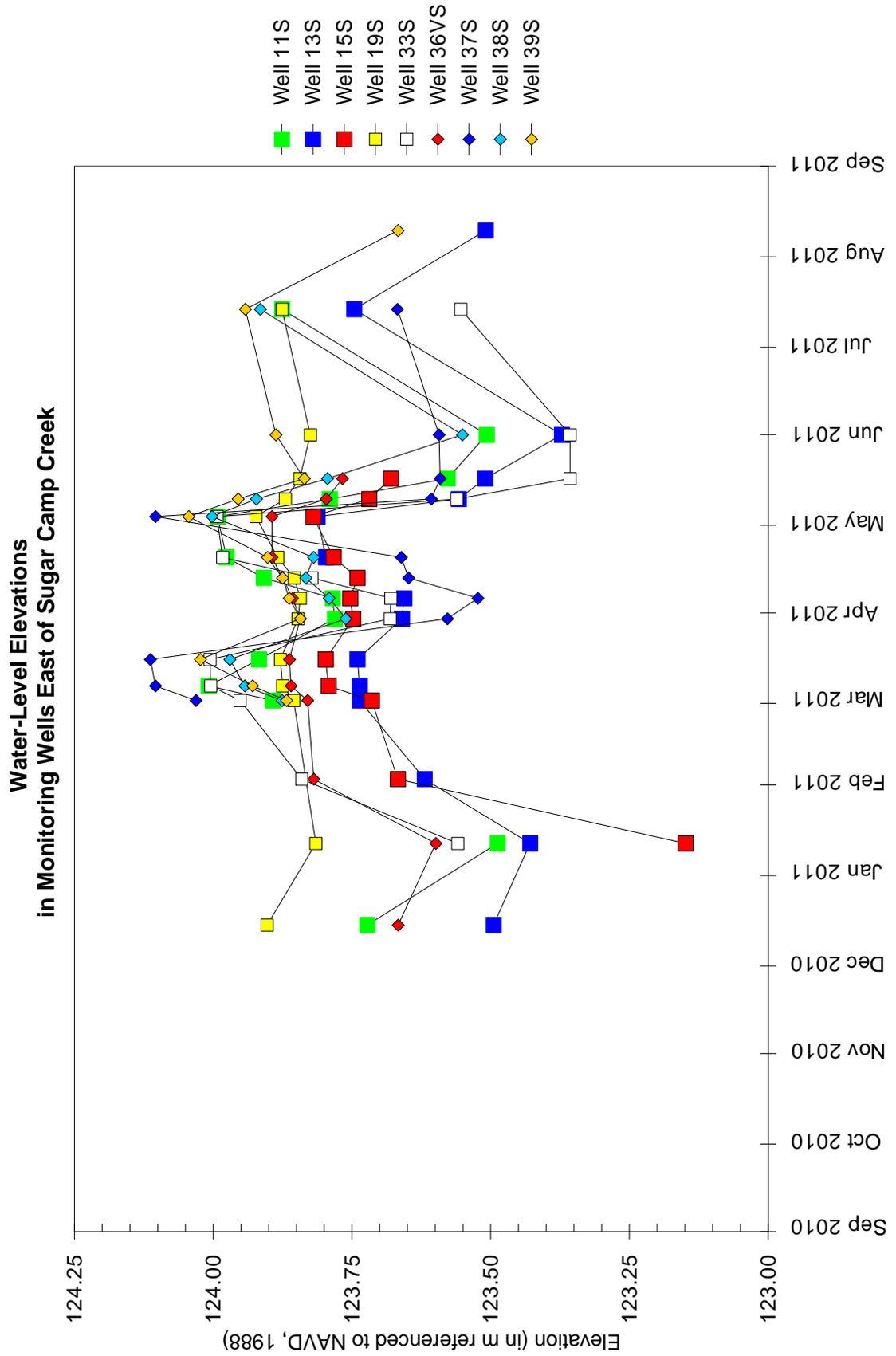
## Estimated Areal Extent of 2011 Wetland Hydrology

September 1, 2010 through August 31, 2011

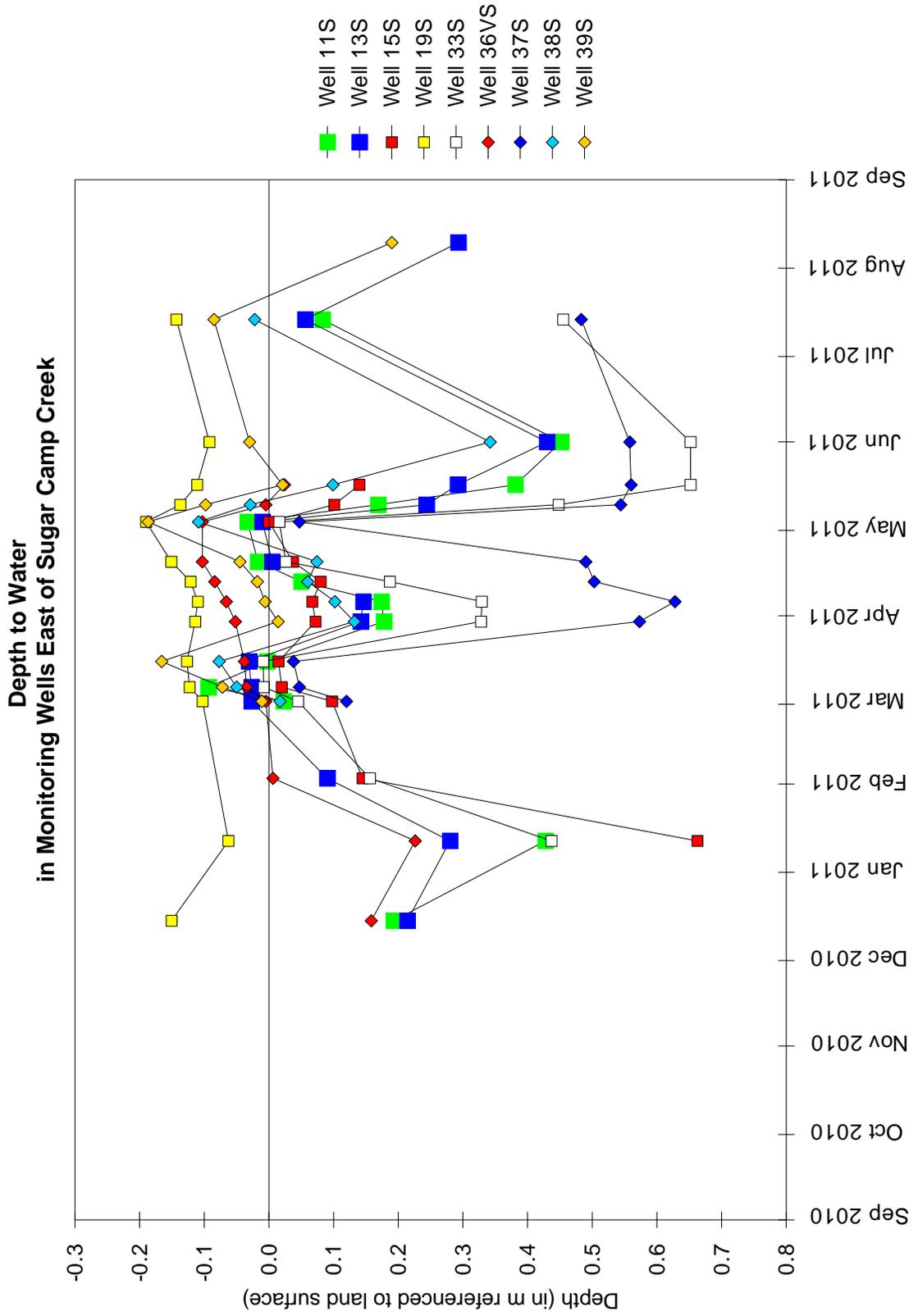
Map based on National Agricultural Imagery Program (NAIP) digital orthophotograph,  
Ewing SE quarter quadrangle, taken June 25, 2010 (USDA-FSA 2010)



# Sugar Camp Creek Wetland and Stream Mitigation Bank September 1, 2010 through August 31, 2011

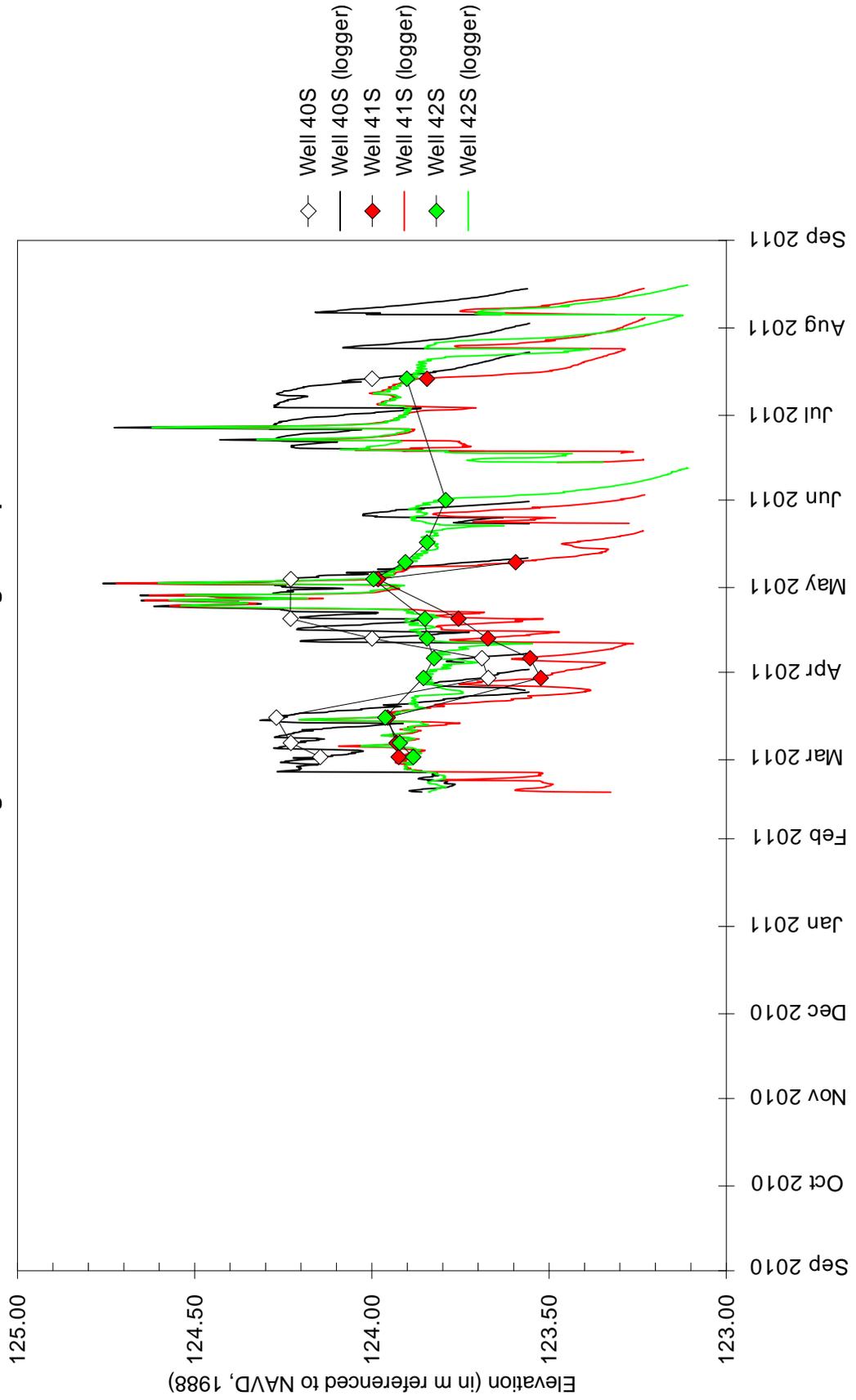


# Sugar Camp Creek Wetland and Stream Mitigation Bank September 1, 2010 through August 31, 2011

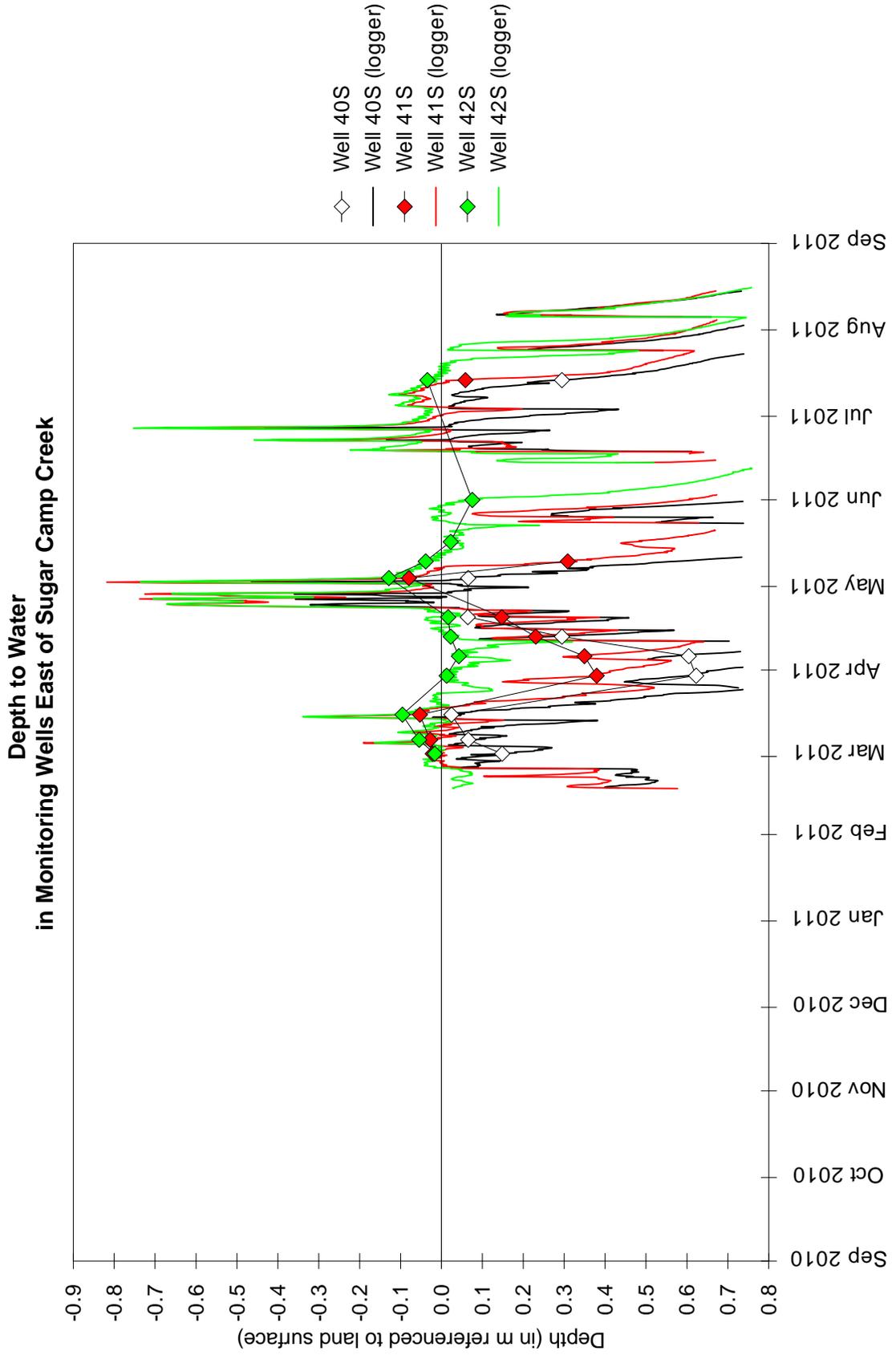


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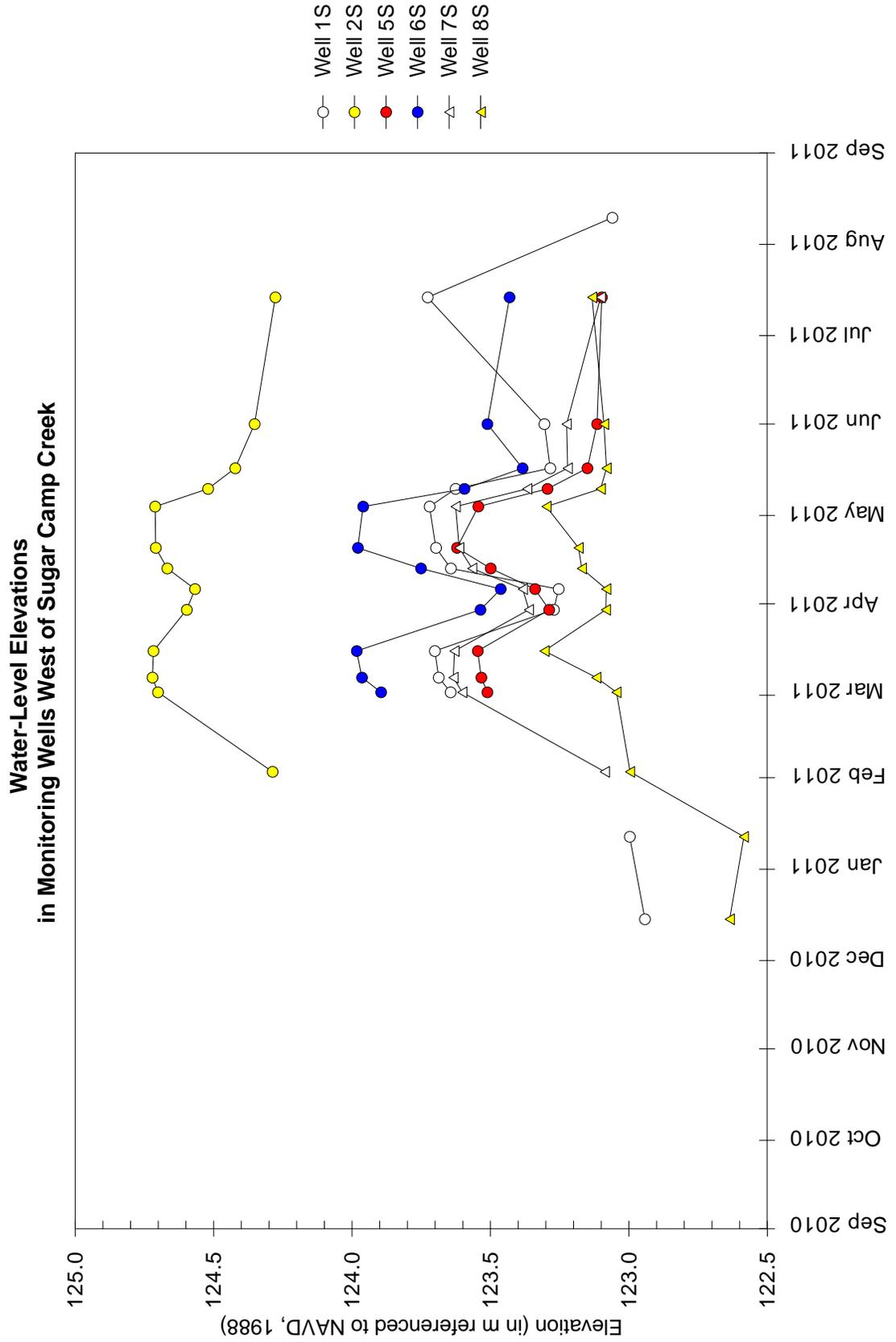
## Water-Level Elevations in Monitoring Wells East of Sugar Camp Creek



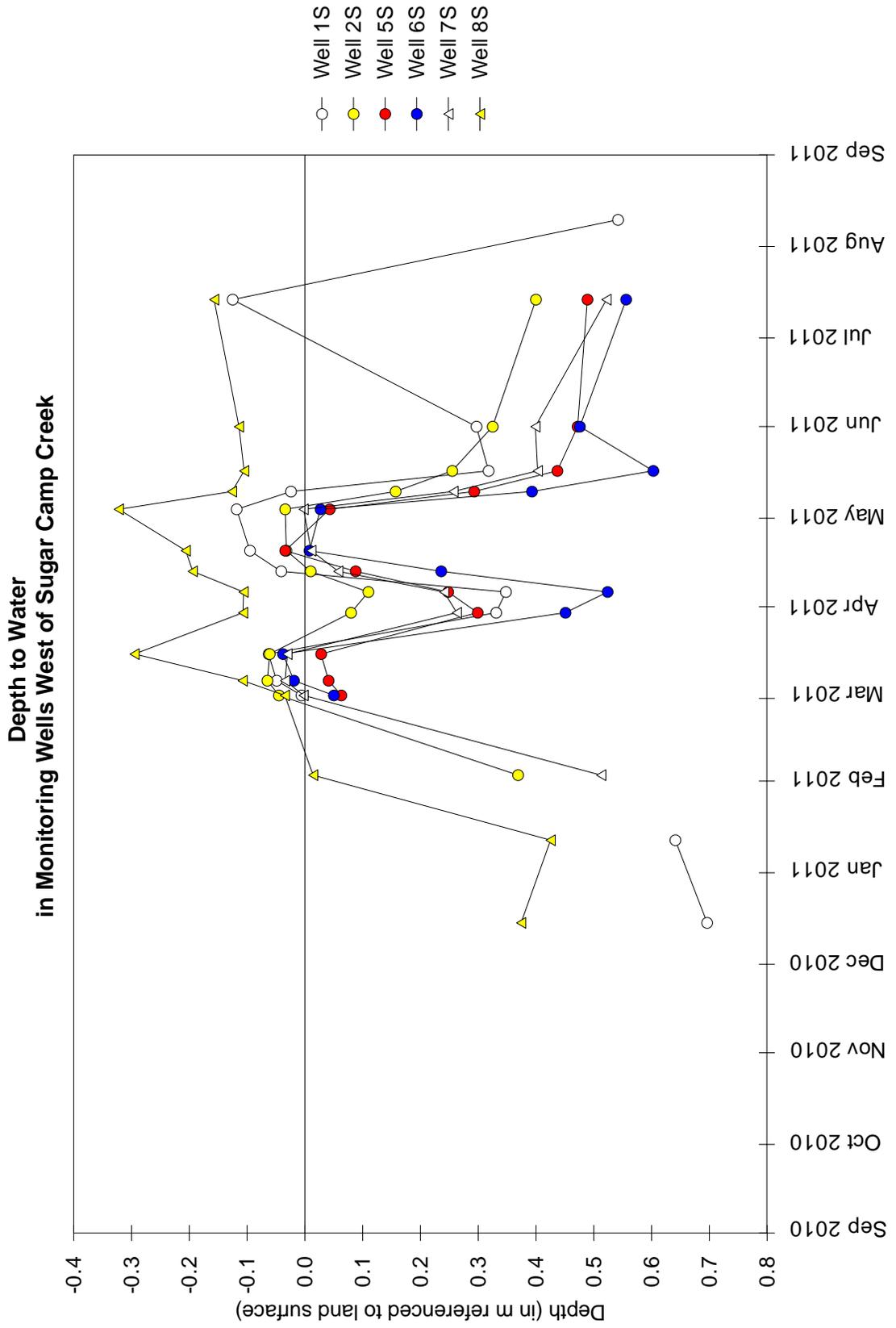
# Sugar Camp Creek Wetland and Stream Mitigation Bank September 1, 2010 through August 31, 2011



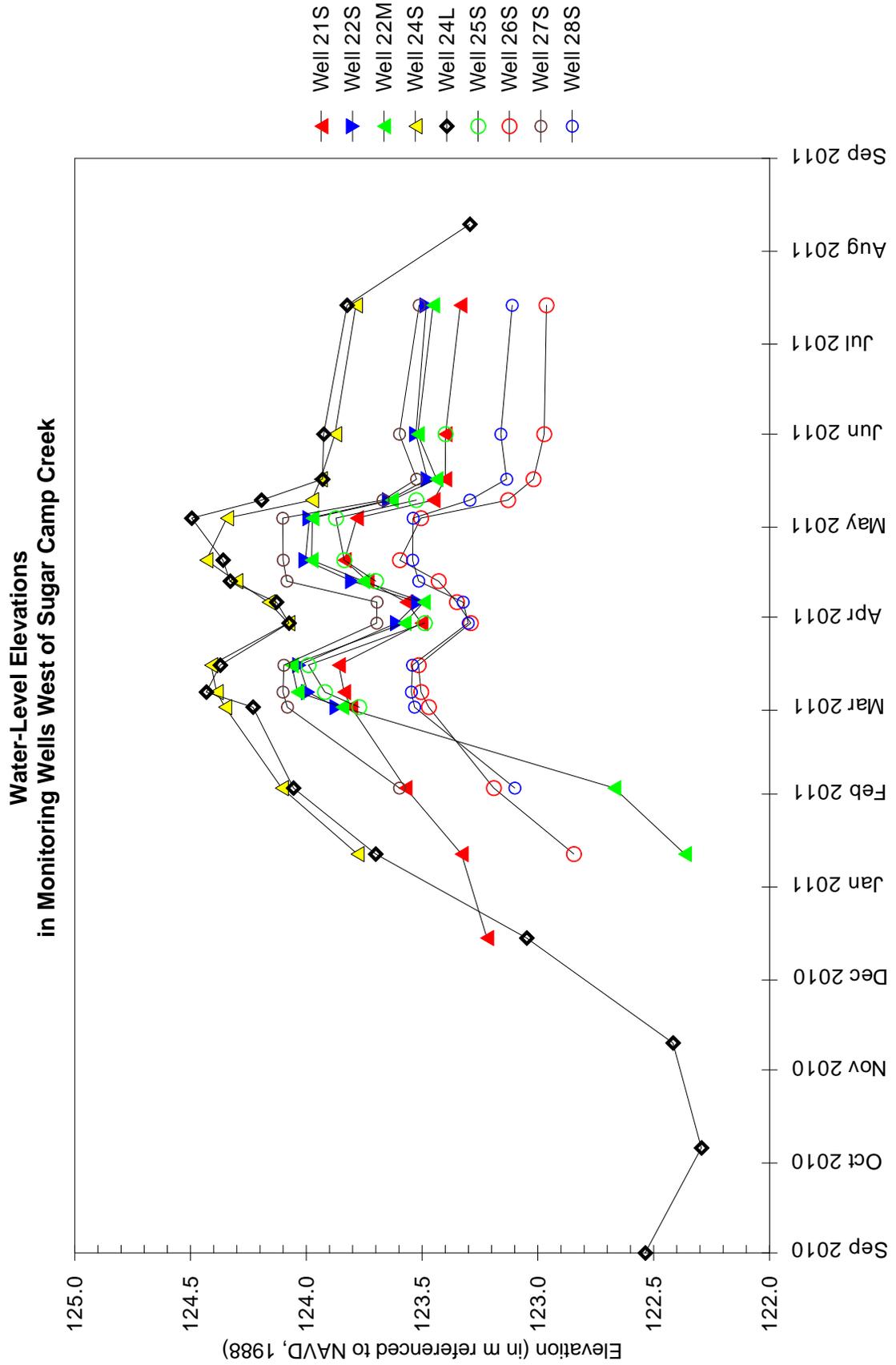
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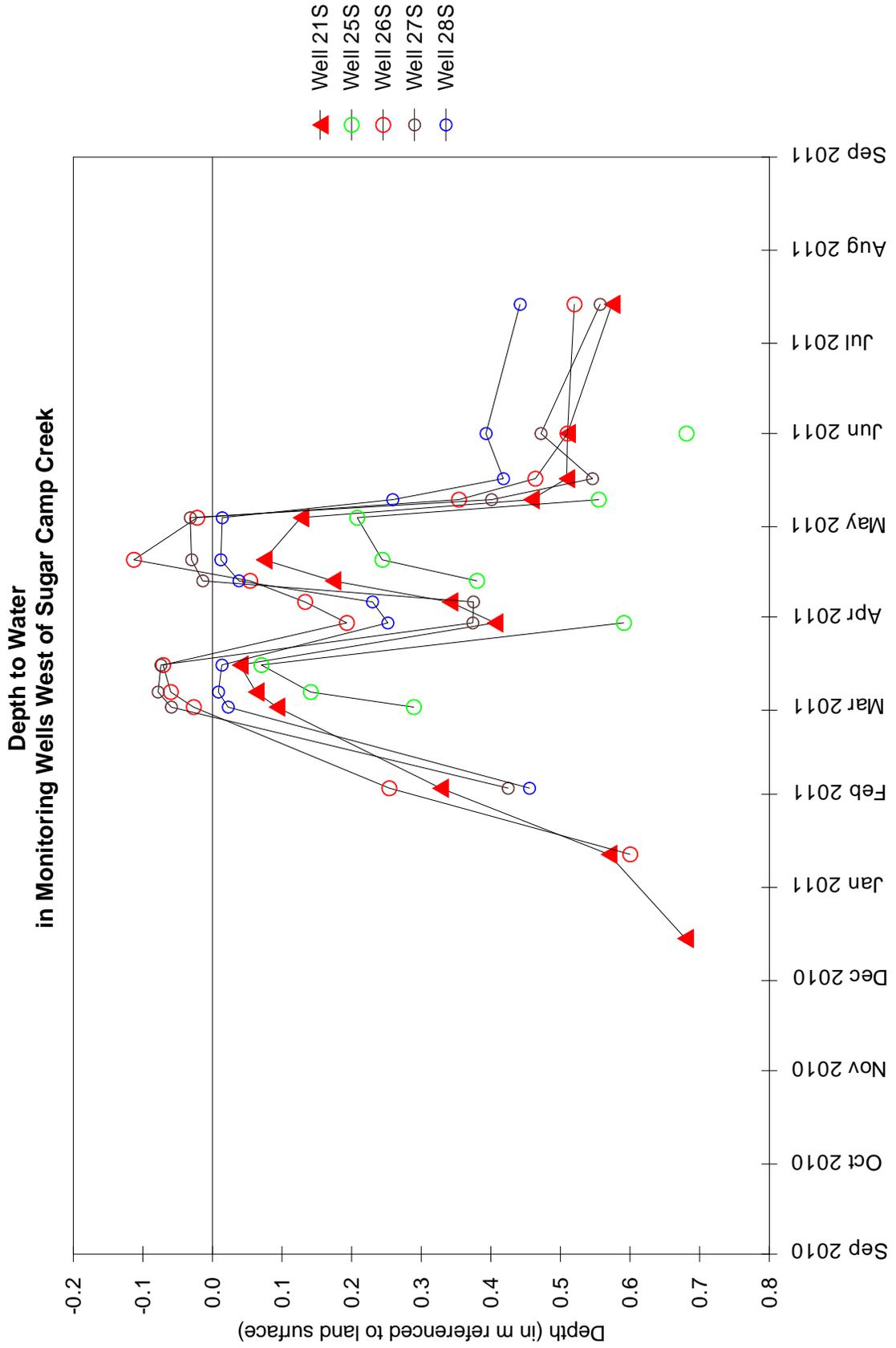
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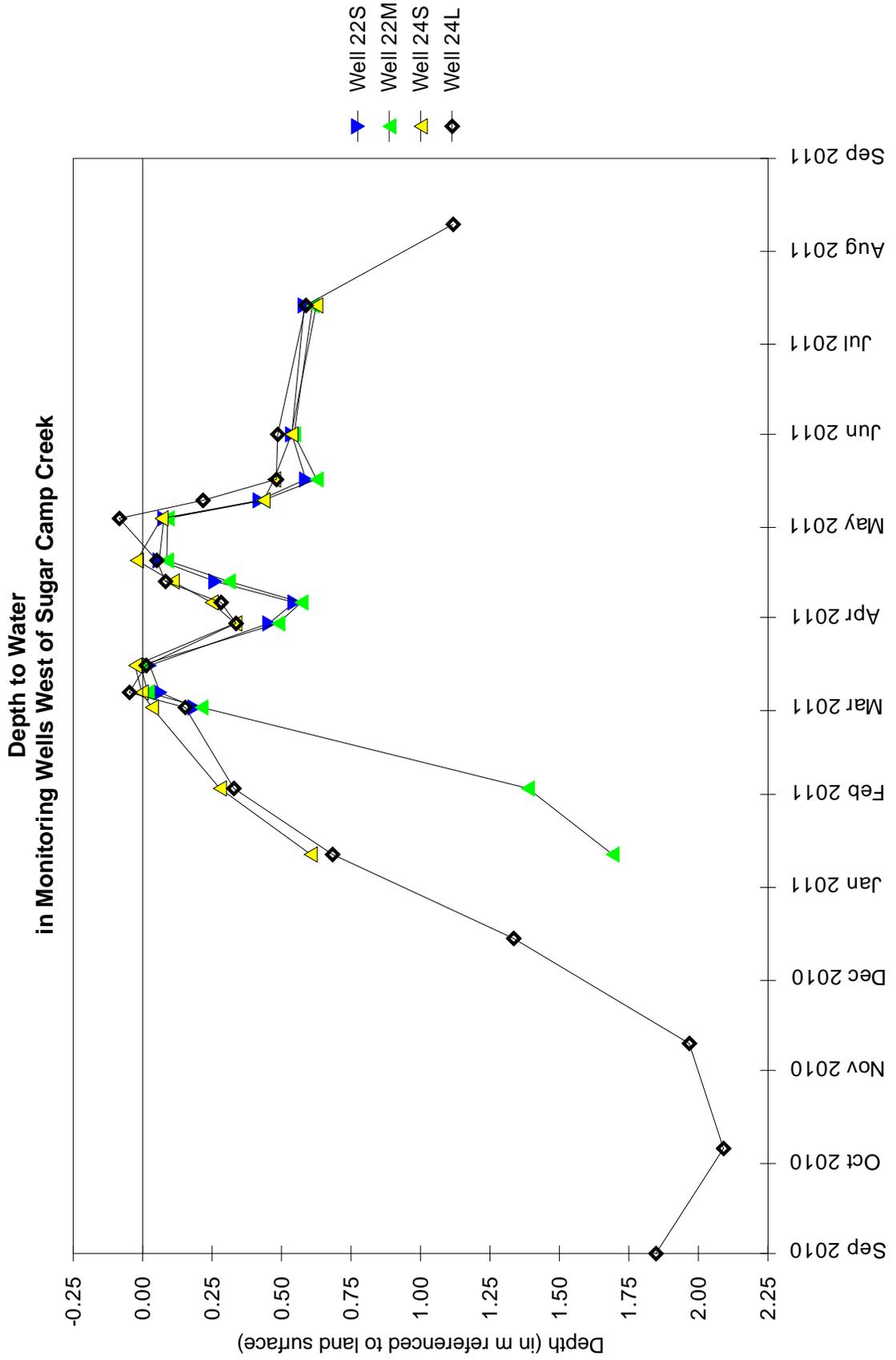
# Sugar Camp Creek Wetland and Stream Mitigation Bank September 1, 2010 through August 31, 2011



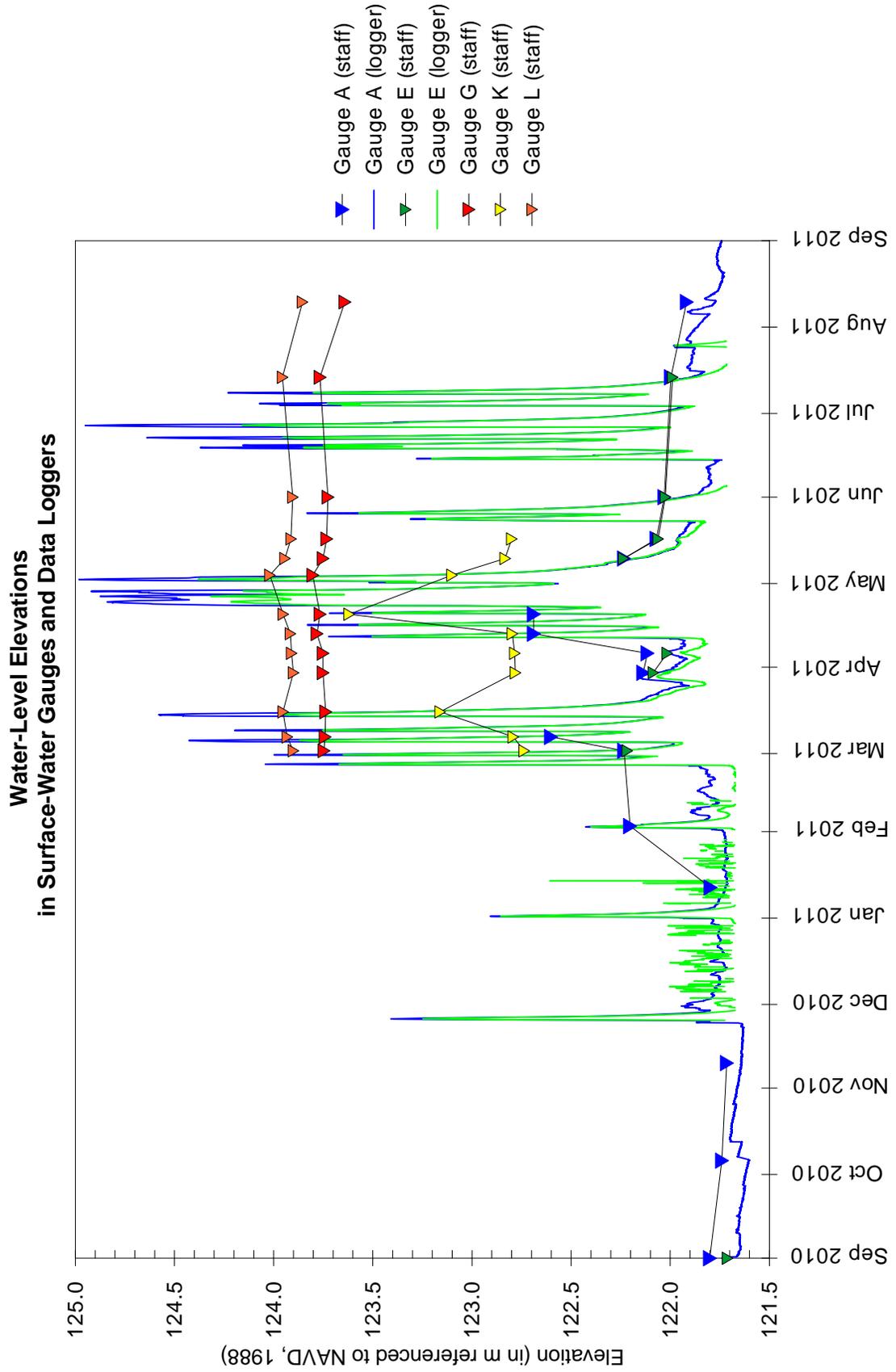
# Sugar Camp Creek Wetland and Stream Mitigation Bank September 1, 2010 through August 31, 2011



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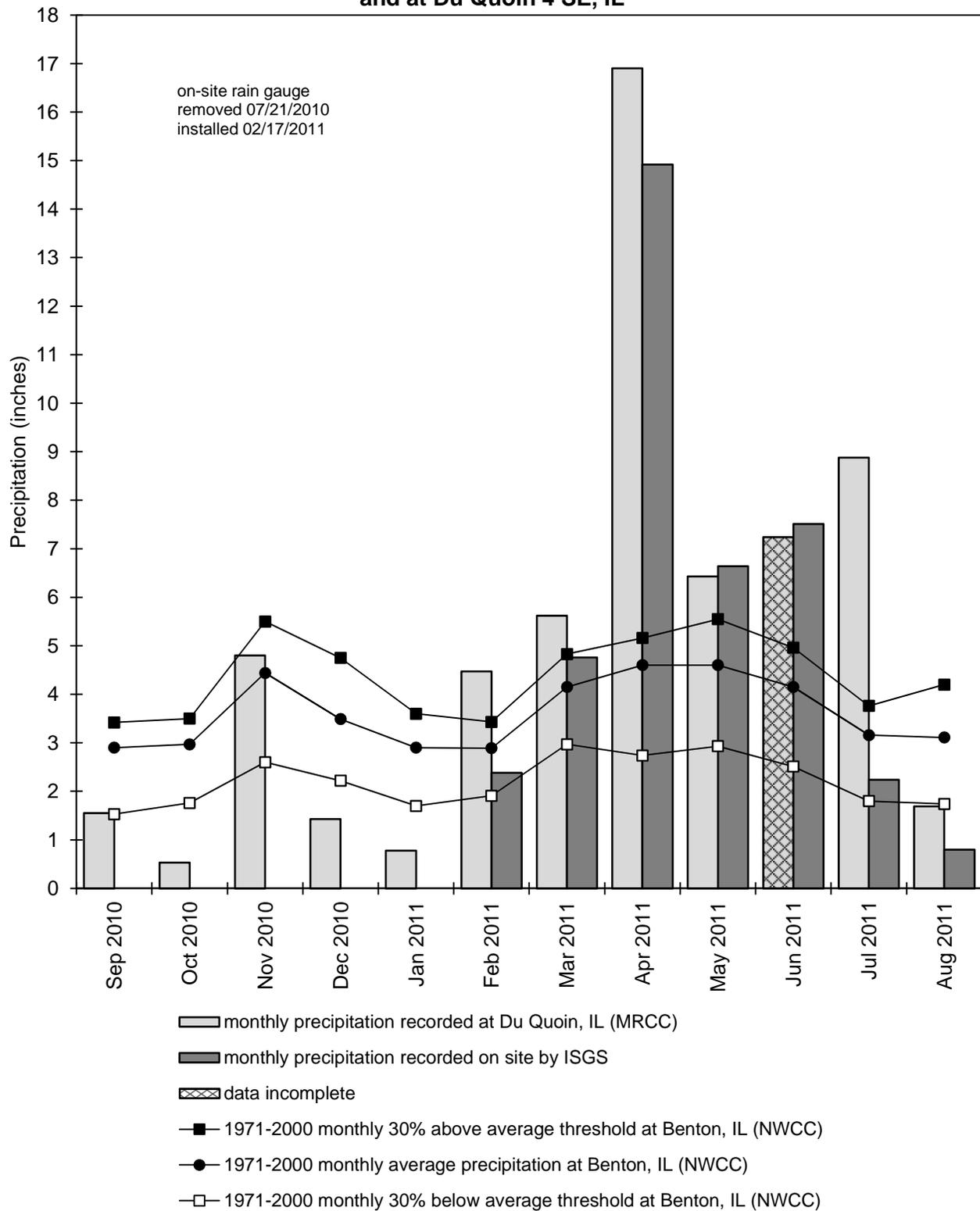


# Sugar Camp Creek Wetland and Stream Mitigation Bank September 1, 2010 through August 31, 2011



# Sugar Camp Creek Wetland and Stream Mitigation Bank September 2010 through August 2011

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



Graph last updated 10/31/2011