

**MILAN BELTWAY, AIRPORT ROAD  
WETLAND MITIGATION SITE**

**ISGS #17**

FAU 5822

Sequence #67

Rock Island County, near Milan, Illinois

**Primary Project Manager: Steven E. Benton**

**Secondary Project Manager: Kathleen E. Bryant**

**SITE HISTORY**

- August 1997: ISGS data collection was initiated with the installation of monitoring wells and staff gauges.
- August 2004: Construction of the Milan Bypass began. Wetland mitigation began with the excavation of the southern portion of the site. Tree planting began in Fall 2004 and was completed in Spring 2005.
- January 2005: A Level II hydrogeologic characterization report was submitted to IDOT (ISGS Open-File Series 2005–04).
- December 2005: The ISGS was tasked by IDOT to perform post-construction monitoring.

**WETLAND HYDROLOGY CALCULATION FOR 2010**

The area of the site that satisfied wetland hydrology criteria (Environmental Laboratory 1987) for more than 5% of the 2010 growing season was estimated to be 8.9 ha (22.0 ac) out of a total area of 8.9 ha (22.0 ac). The area that satisfied wetland hydrology criteria for more than 12.5% of the growing season was estimated to be 8.9 ha (22.0 ac). Using the 2010 Midwest Region supplement (U.S. Army Corps of Engineers 2010) to the 1987 Manual, we estimate that 8.9 ha (22.0 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 at the nearby Quad City International Airport weather station in Moline, Illinois, is April 13 and the season lasts 196 days; 5% of the growing season is 10 days and 12.5% of the growing season is 25 days. According to methods outlined in the 2010 Midwest Region supplement, we estimate that March 18 was the starting date of the 2010 growing season based on soil temperatures observed at the wetland mitigation site.
- Total precipitation during the monitoring period as recorded at the Quad City International Airport weather station in Moline, Illinois, was 121% of normal and precipitation in Spring 2010 (March through May) was 109% of normal.
- In 2010, all the monitoring wells satisfied wetland hydrology criteria for more than 5% of the growing season and for more than 12.5% of the growing season. All of the wells satisfied wetland hydrology criteria for 14 or more consecutive days during the growing season as per the 2010 Midwest Region supplement.
- There was an overall increase in surface-water elevation from March to July, likely due to continuing beaver activity.

- Surface-water elevations measured at SW1R were at or above 172.30 m (565.31 ft) from June 19 to July 2 (14 days), long enough to satisfy wetland hydrology criteria for 5% of the growing season. Surface-water elevation was at or above 172.28 m (565.25 ft) from June 18 to July 21 (34 days), long enough to satisfy wetland hydrology criteria for 12.5% of the growing season. Surface-water elevations measured at SW1R were at or above 172.30 m (565.31 ft) from June 19 to July 2 (14 days), long enough to satisfy wetland hydrology criteria for 14 or more consecutive days during the growing season as per the 2010 Midwest Region supplement.
- Gauges H and I, and logger SW1, were moved south in April because the increasing water depth made accessing them difficult. They are in the same water body as at their original locations, therefore, they were designated HR, IR, and SW1R. The data collected at the new locations show that water depth continued to increase after they were moved.
- On-site observations and surface-water data indicate that the surface water on the site is one continuous water body. The greatest extent of inundation (8.1 ha [20.0 ac]) occurred from June to August when surface-water elevation was at or above an elevation of 172.23 m (565.08 ft).

#### ADDITIONAL INFORMATION

- The ISGS has now completed 5 years of post-construction monitoring.

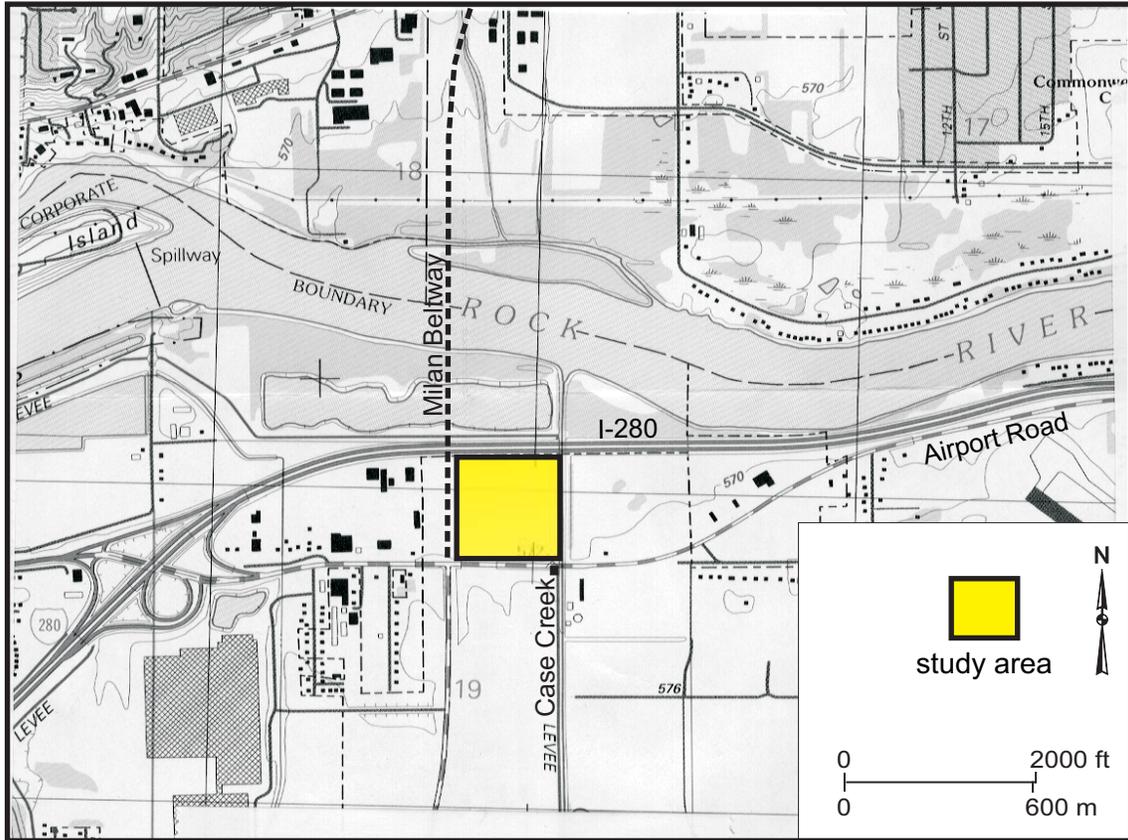
#### PLANNED FUTURE ACTIVITIES

- Monitoring of the site will continue until notified otherwise by IDOT.

# Milan Beltway, Airport Road Wetland Mitigation Site (FAU 5822)

## General Study Area and Vicinity

from the USGS Topographic Series, Milan, IL-IA, 7.5-minute Quadrangle (USGS 1992)  
contour interval is 10 feet

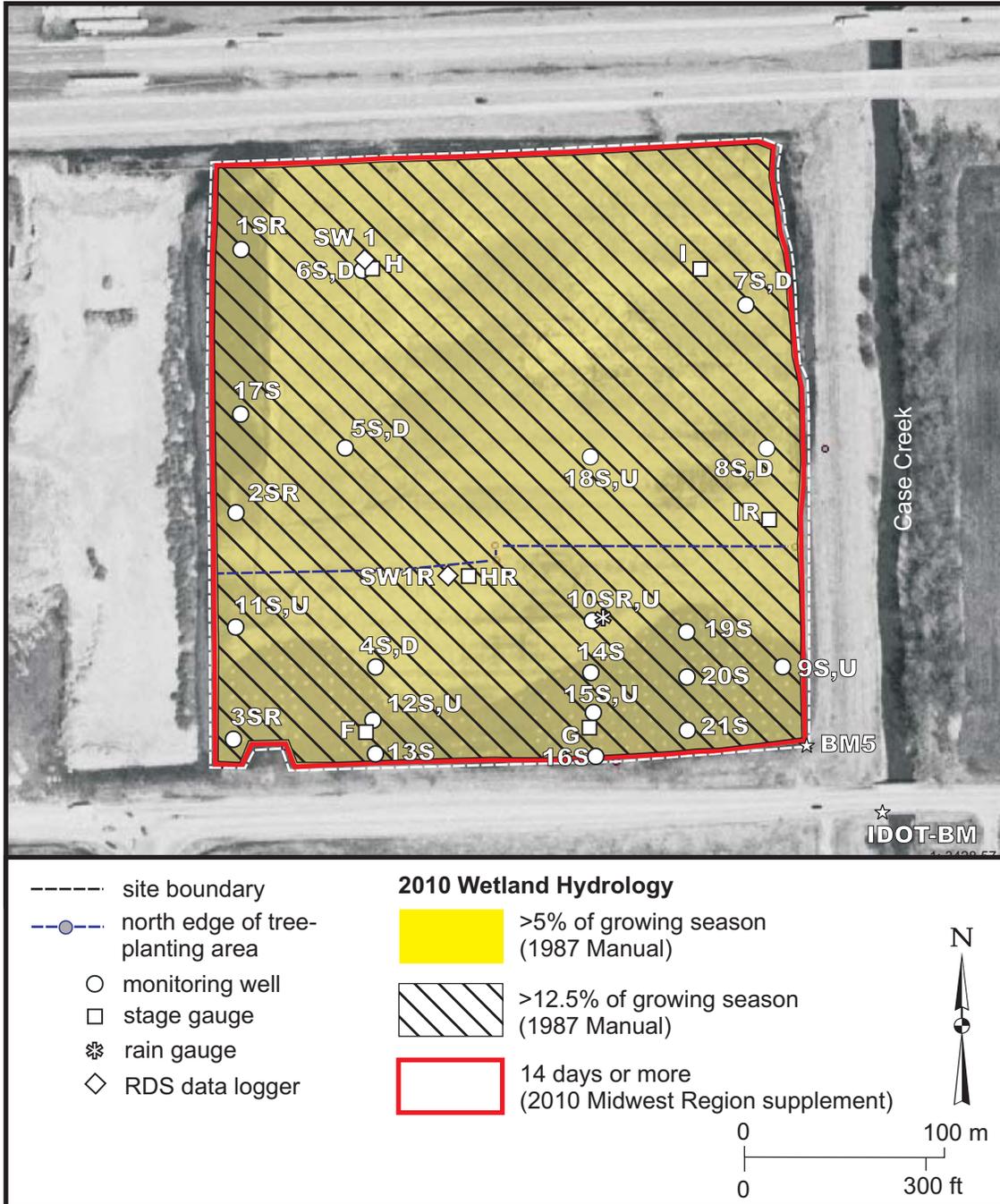


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## Estimated Areal Extent of 2010 Wetland Hydrology

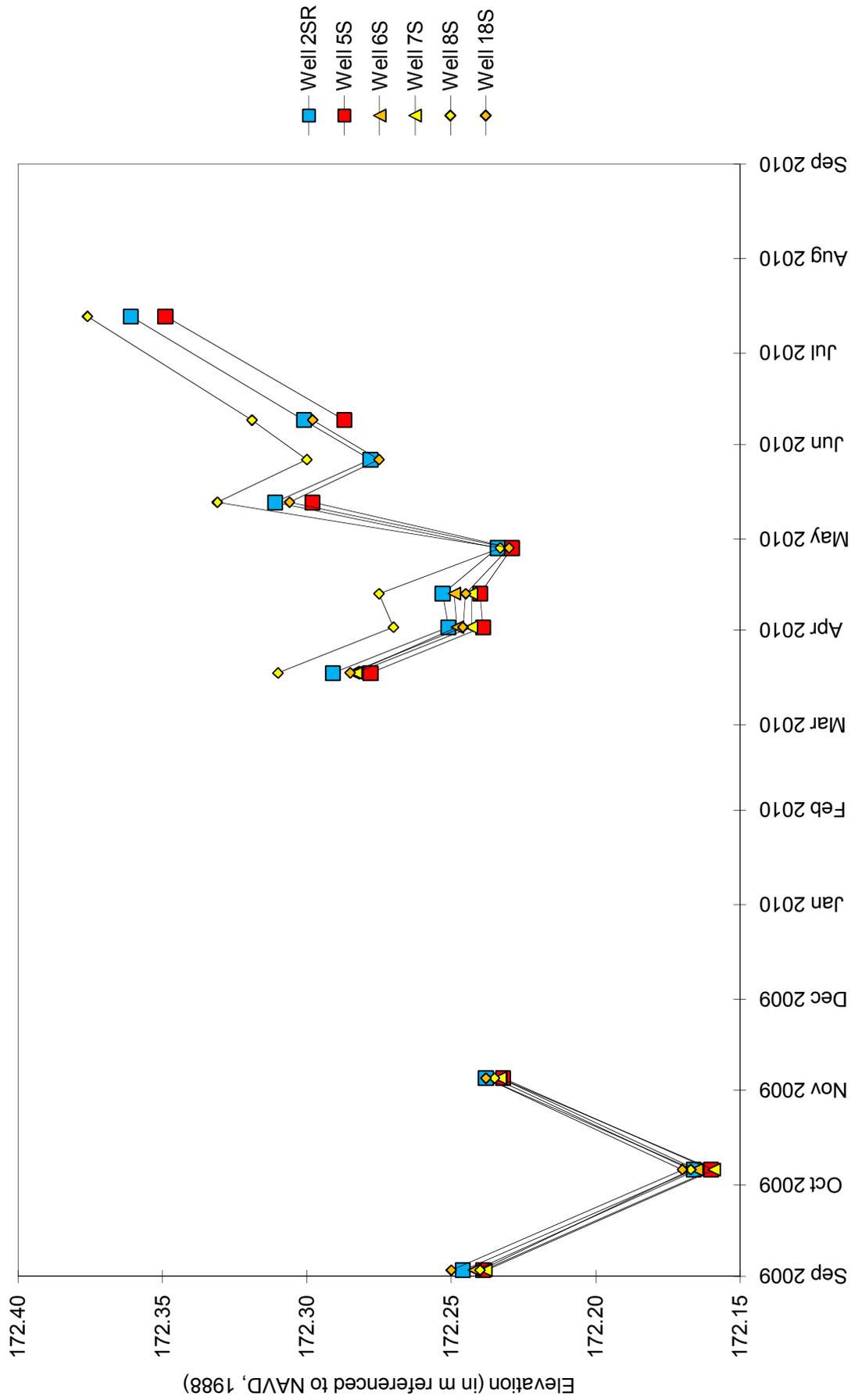
September 1, 2009 through August 31, 2010

Map based on USGS digital orthophotograph, Milan NE quarter quadrangle  
from 03/30/2000 aerial photography (ISGS 2005)



# Milan Beltway, Airport Road Wetland Mitigation Site September 1, 2009 through August 31, 2010

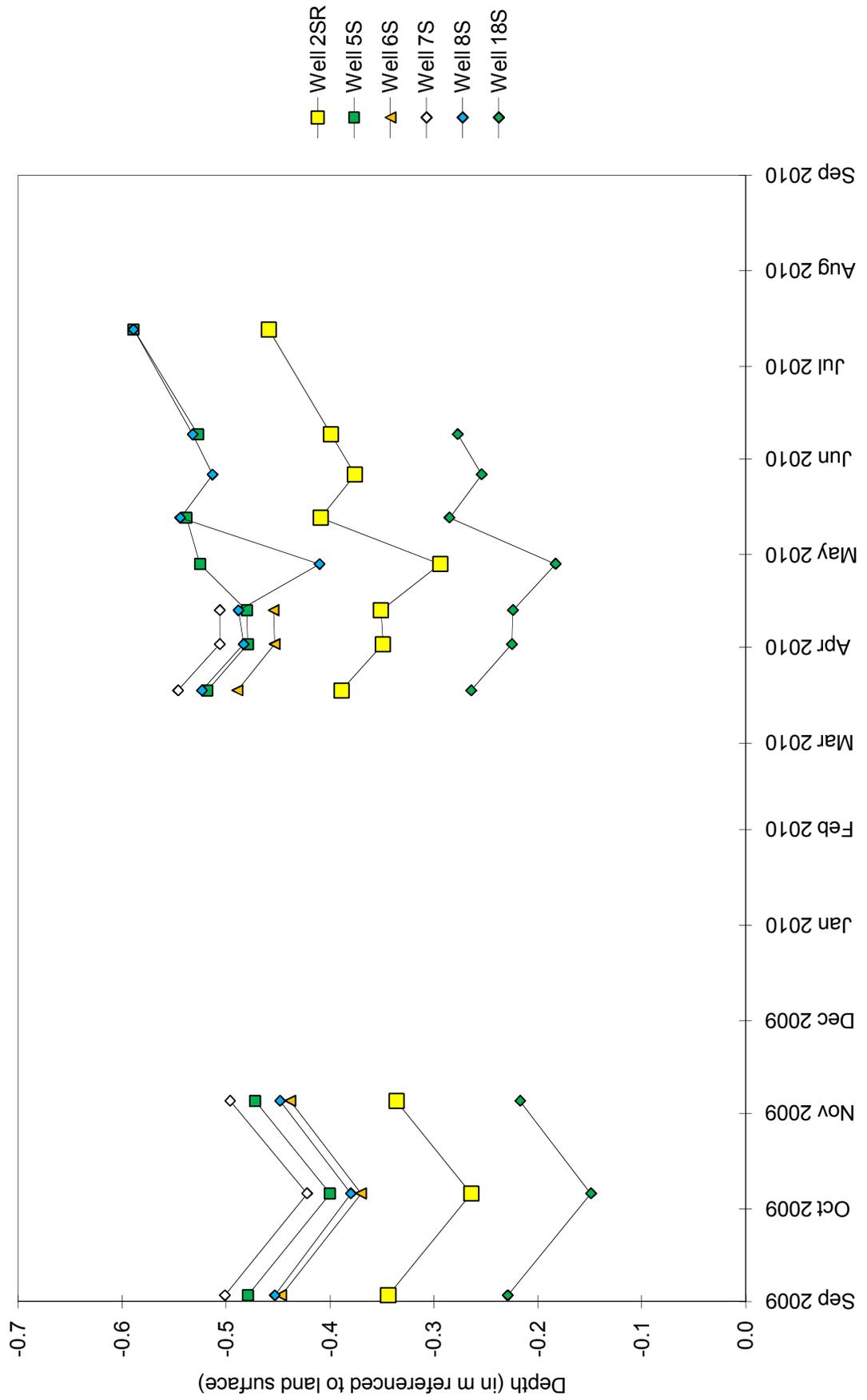
## Water-Level Elevations in Soil-Zone Monitoring Wells in the Northern Portion of the Site



# Milan Beltway, Airport Road Wetland Mitigation Site

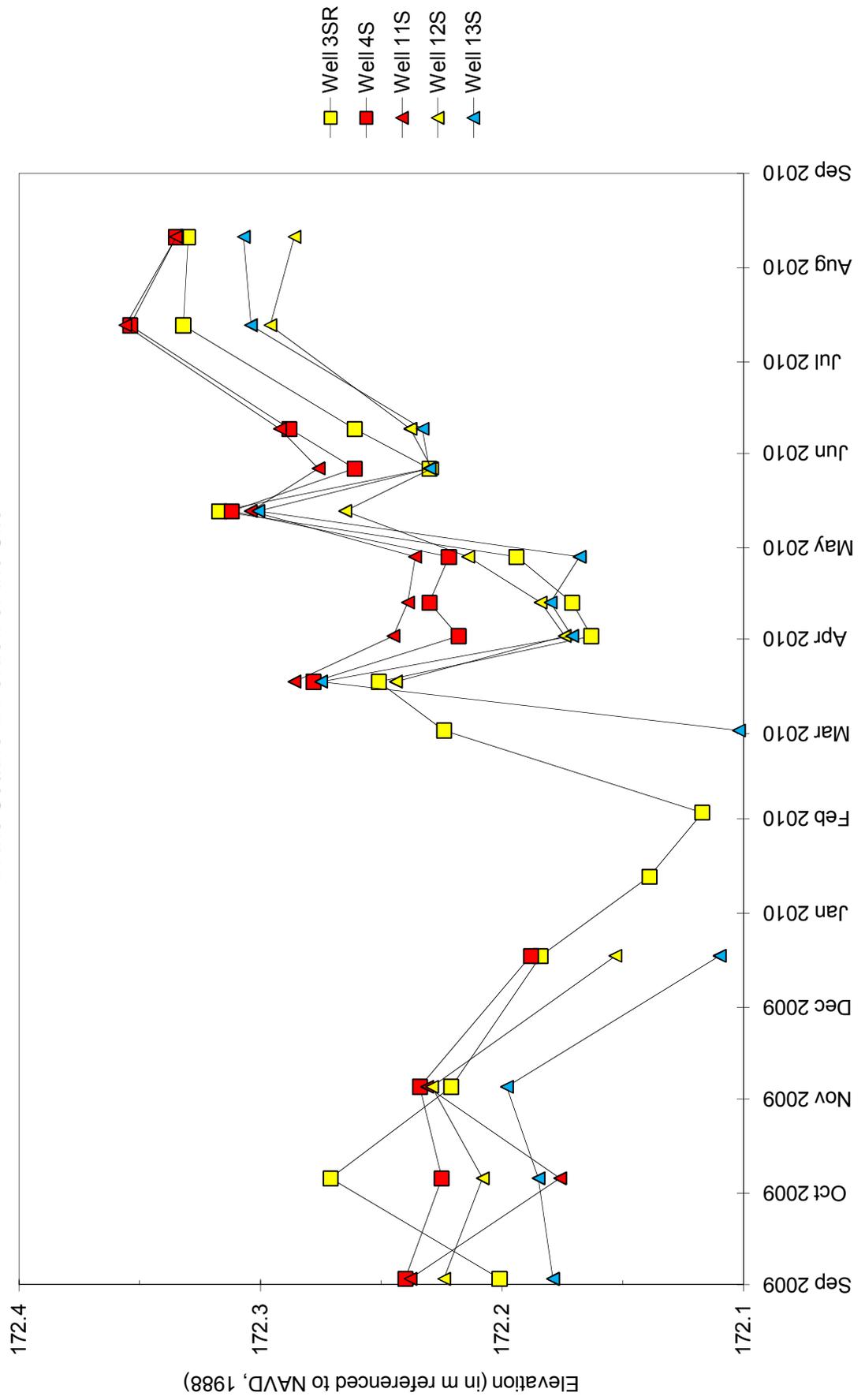
## September 1, 2009 through August 31, 2010

Depth to Water in Soil-Zone Monitoring Wells  
in the Northern Portion of the Site



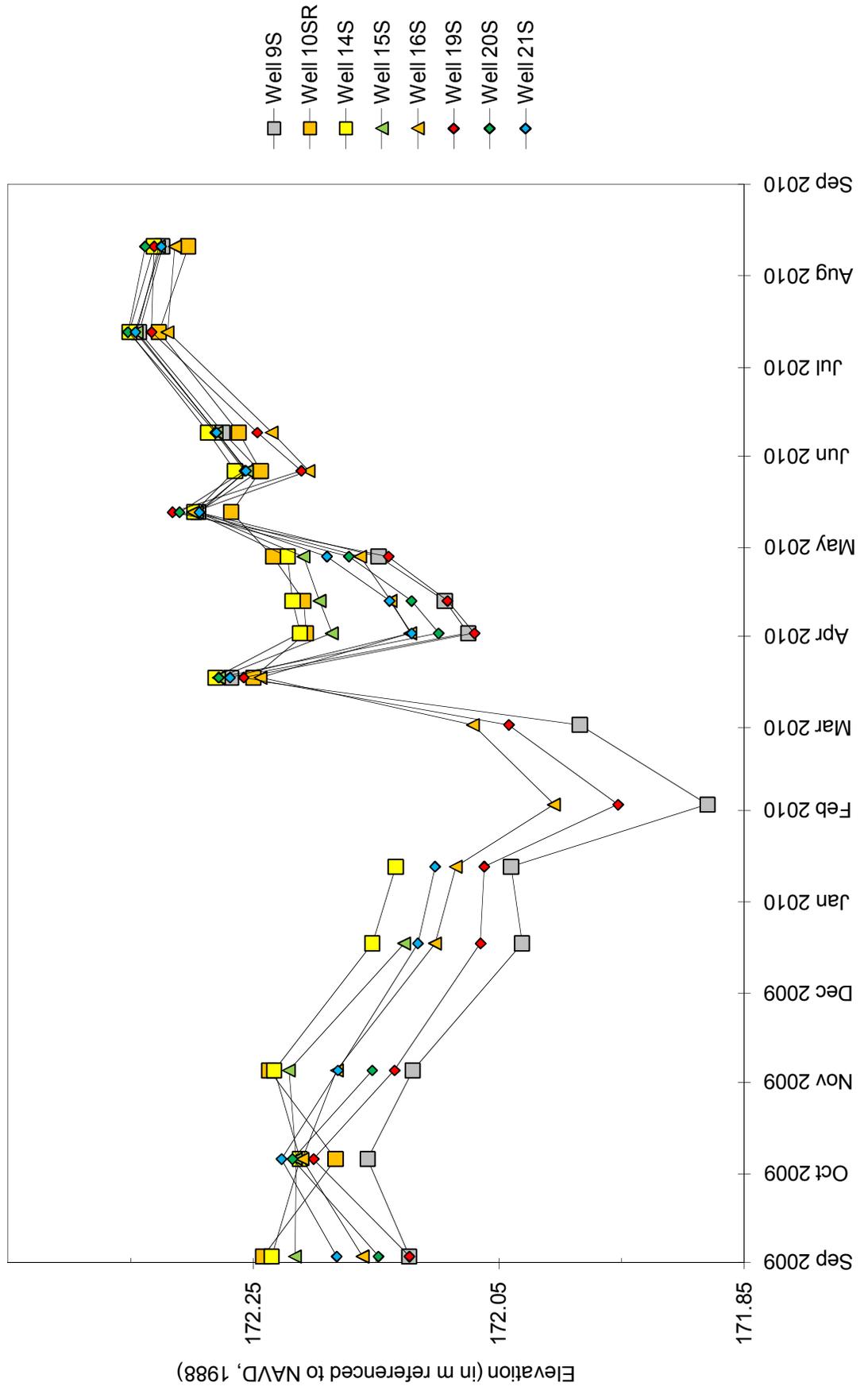
# Milan Beltway, Airport Road Wetland Mitigation Site September 1, 2009 through August 31, 2010

## Water-Level Elevations in Soil-Zone Monitoring Wells in the Southern Portion of the Site



# Milan Beltway, Airport Road Wetland Mitigation Site September 1, 2009 through August 31, 2010

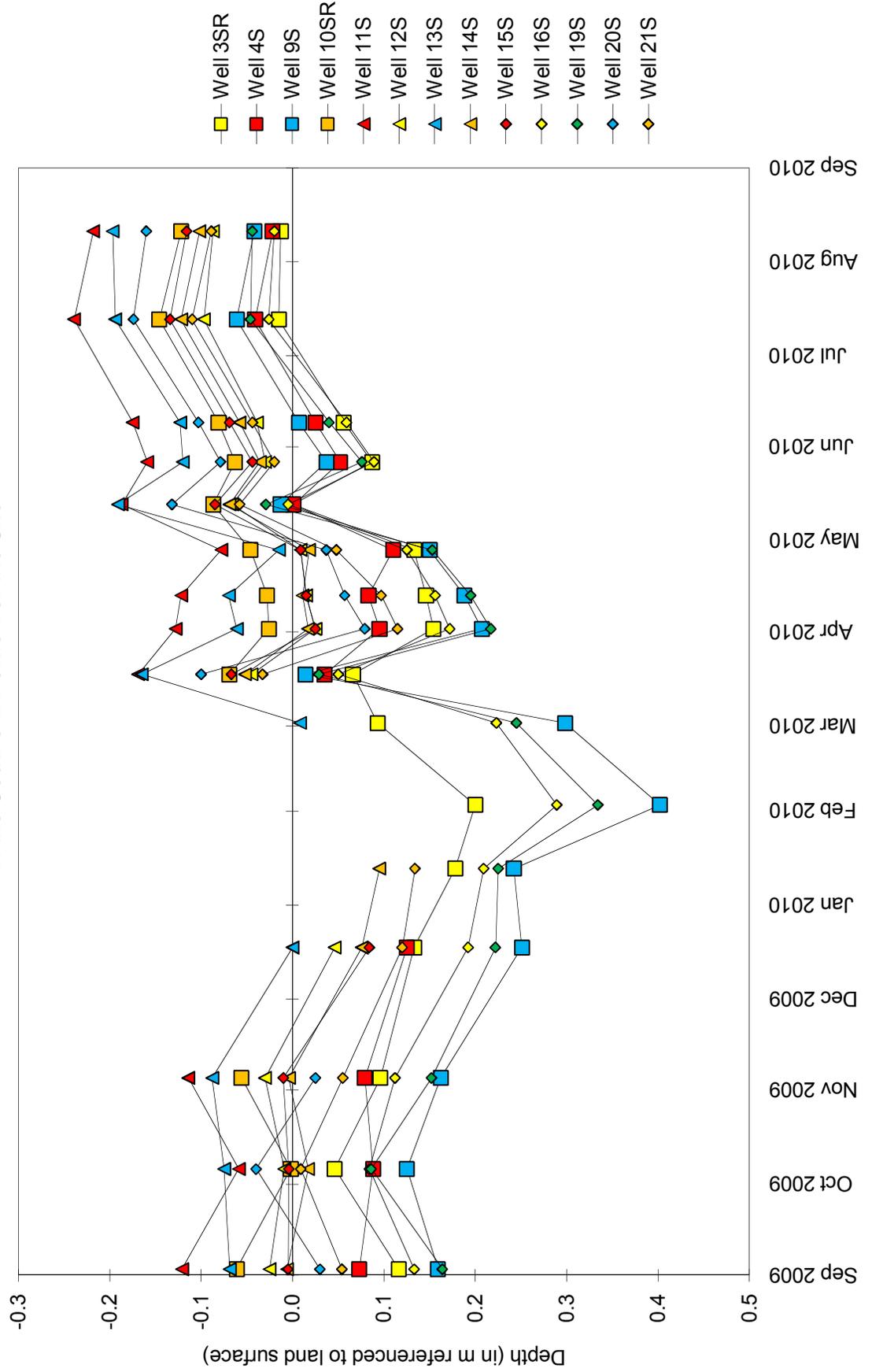
## Water-Level Elevations in Soil-Zone Monitoring Wells in the Southern Portion of the Site



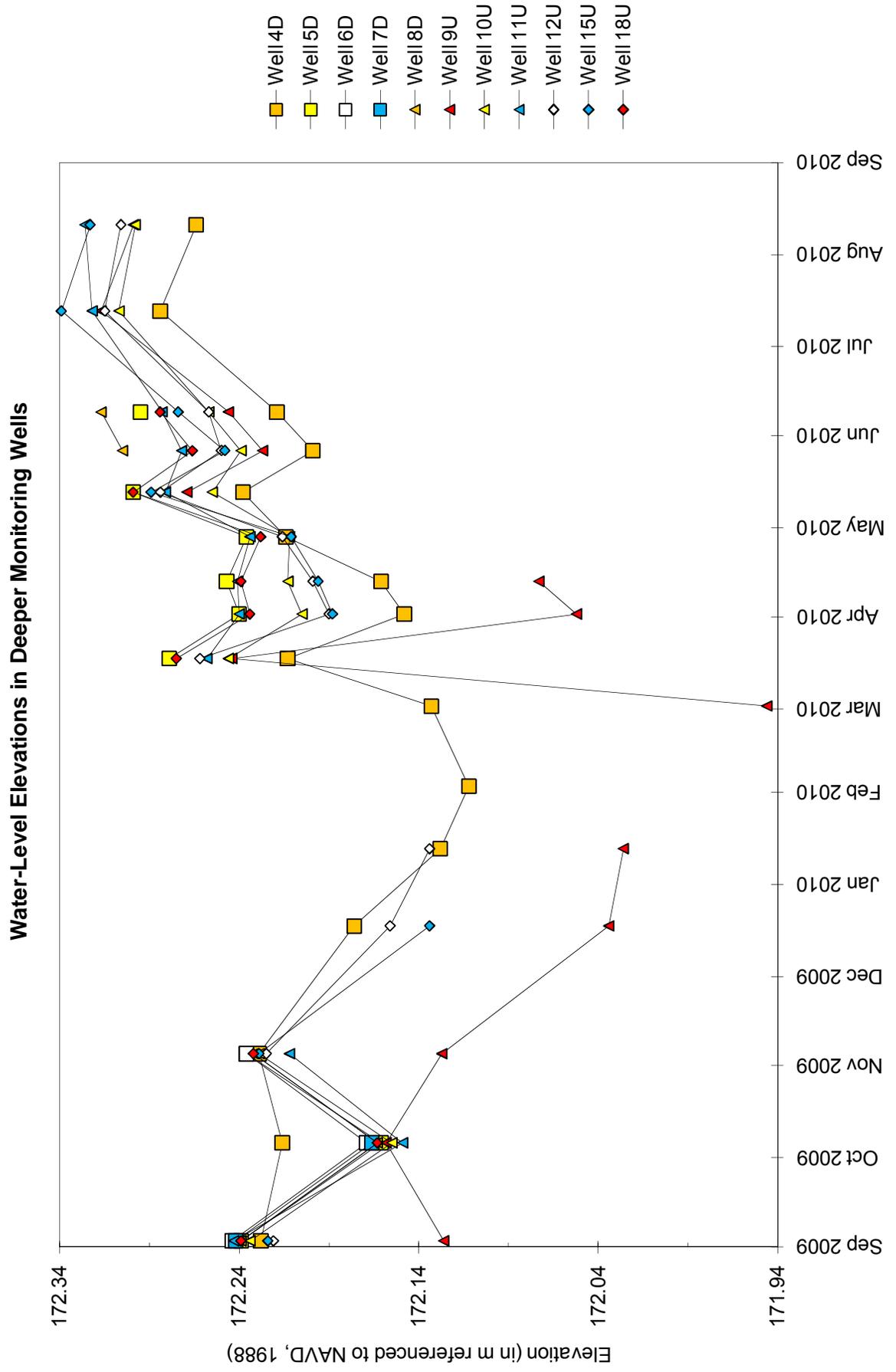
# Milan Beltway, Airport Road Wetland Mitigation Site

## September 1, 2009 through August 31, 2010

Depth to Water in Soil-Zone Monitoring Wells  
in the Southern Portion of the Site

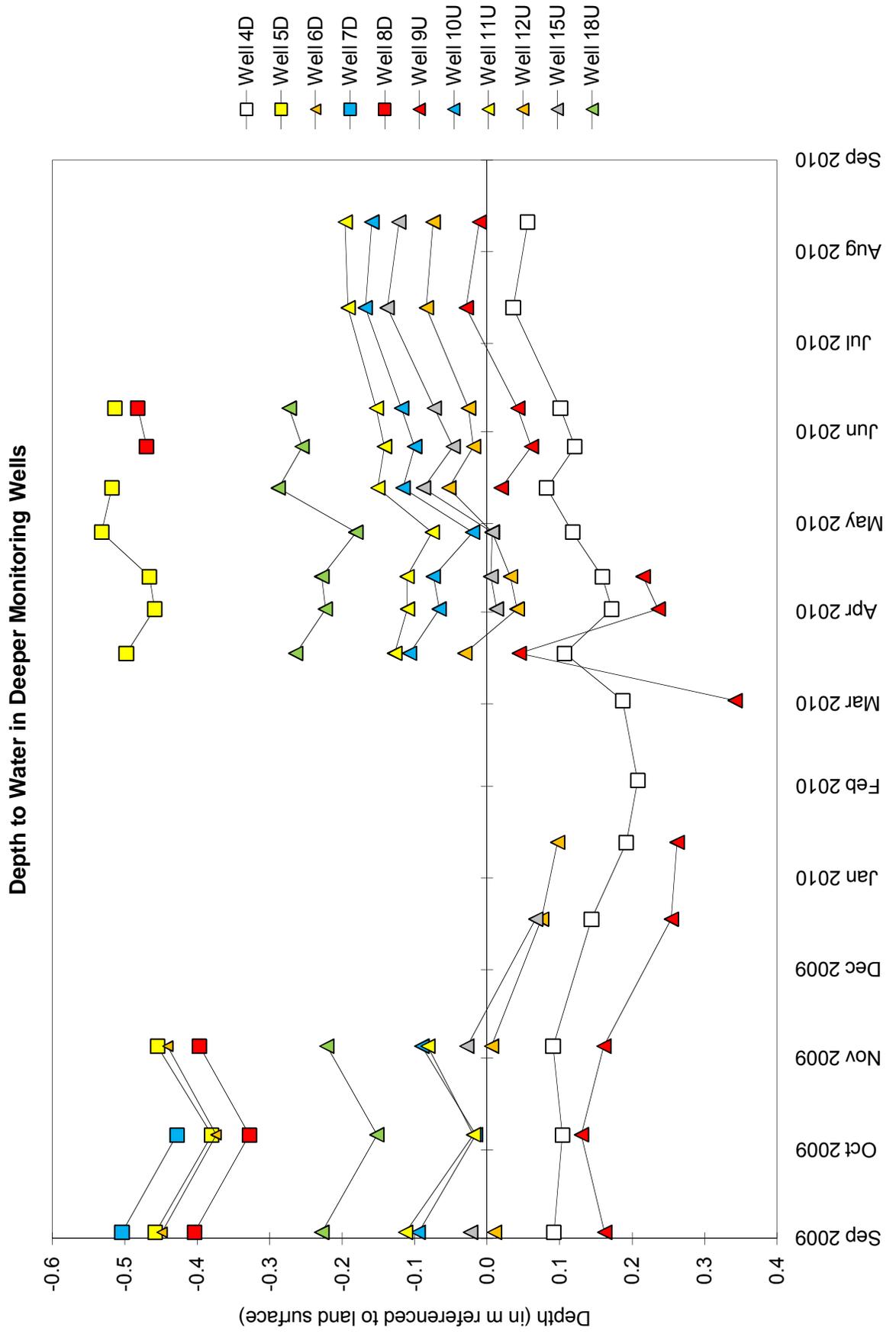


**Milan Beltway, Airport Road Wetland Mitigation Site**  
**September 1, 2009 through August 31, 2010**



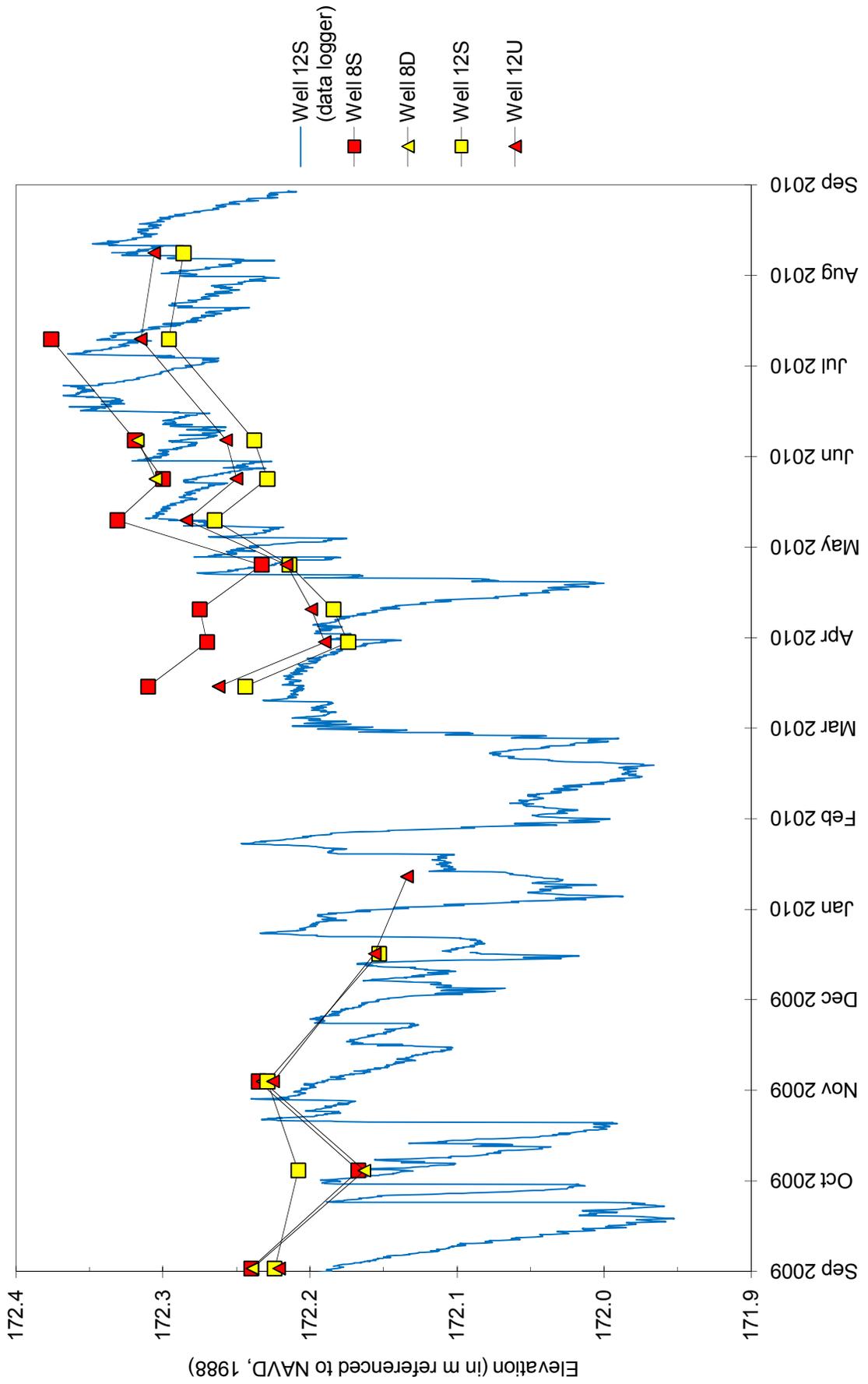
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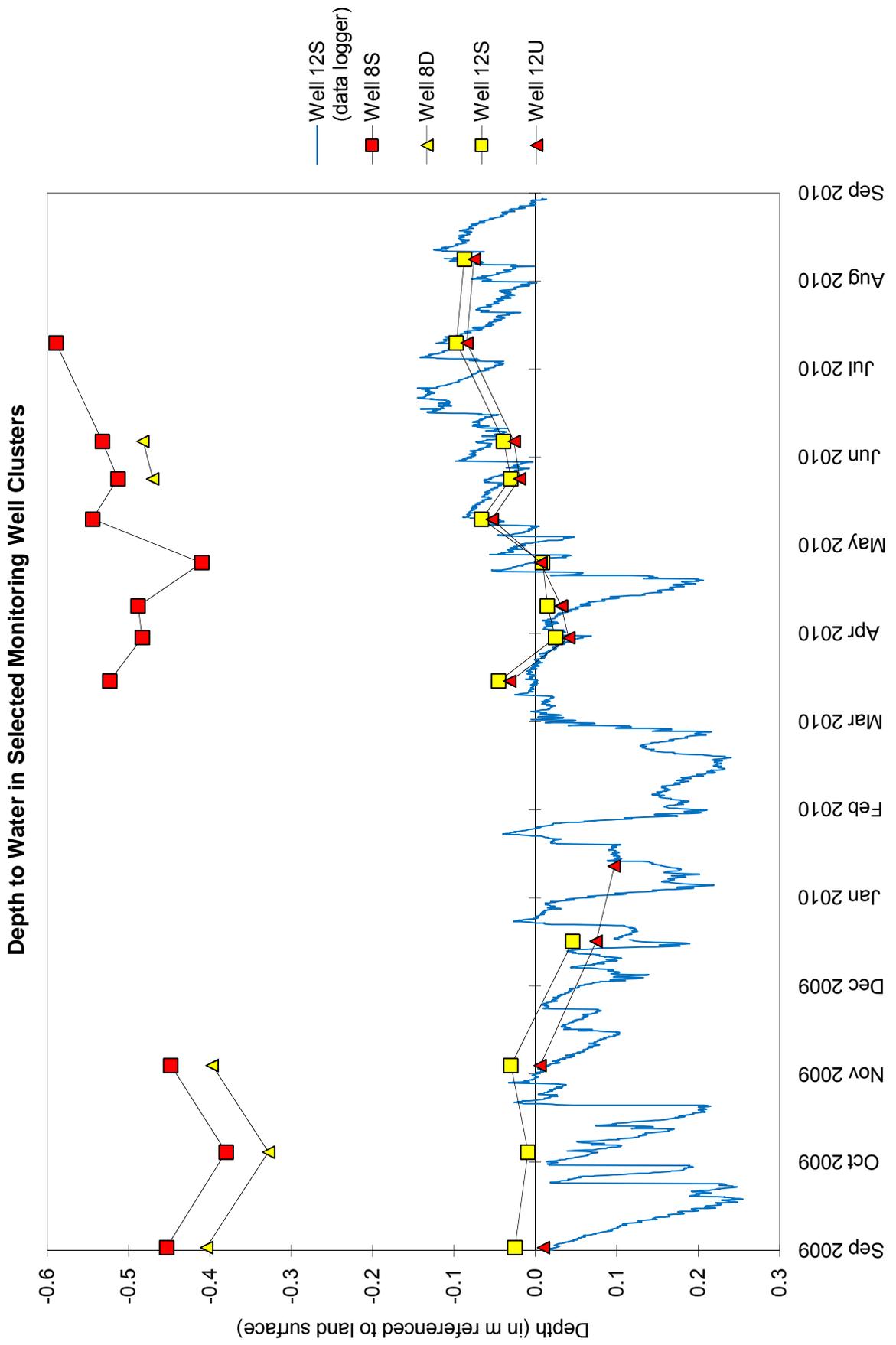
**Milan Beltway, Airport Road Wetland Mitigation Site**  
**September 1, 2009 through August 31, 2010**

**Water-Level Elevations in Selected Monitoring Well Clusters**



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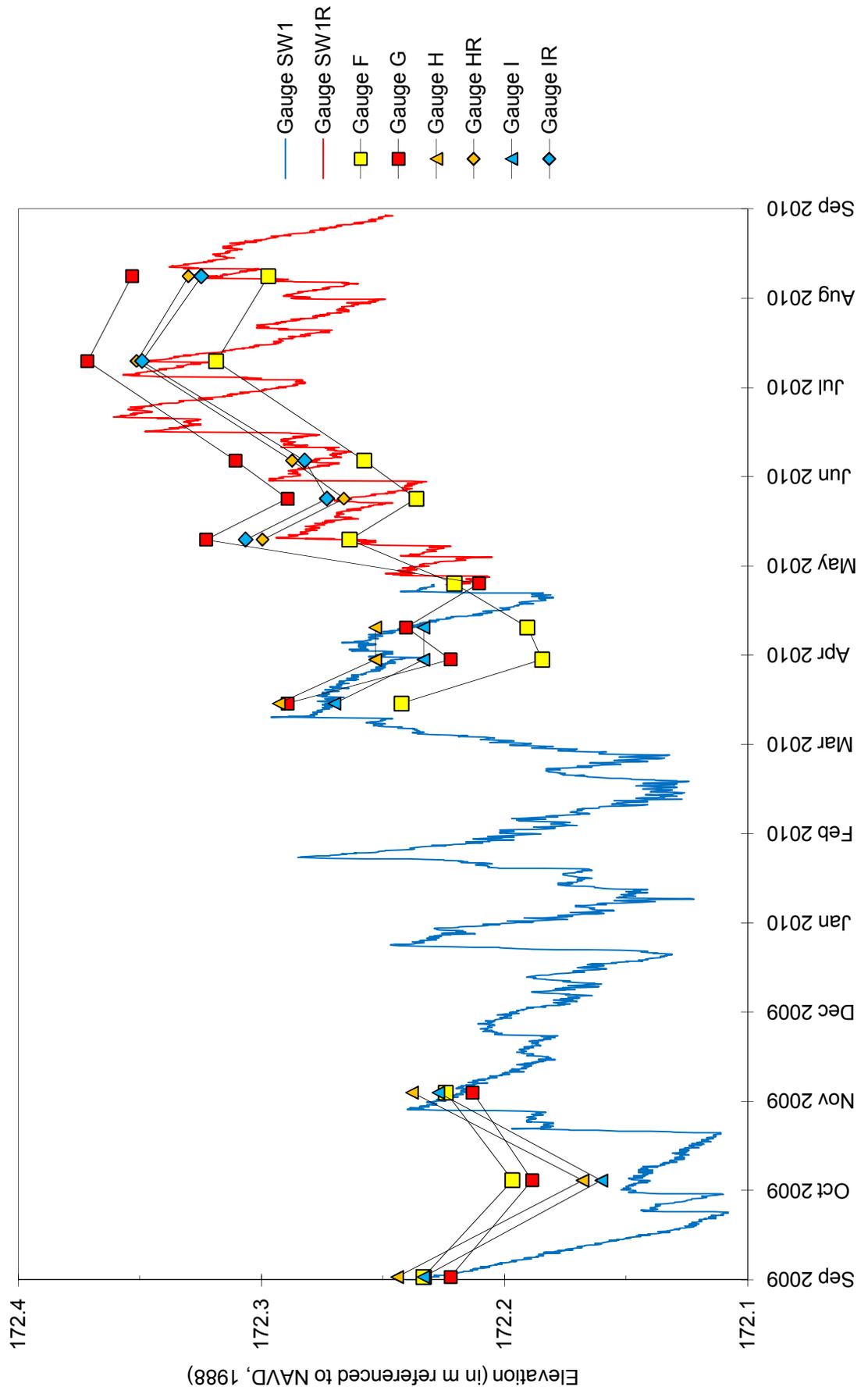
## September 1, 2009 through August 31, 2010



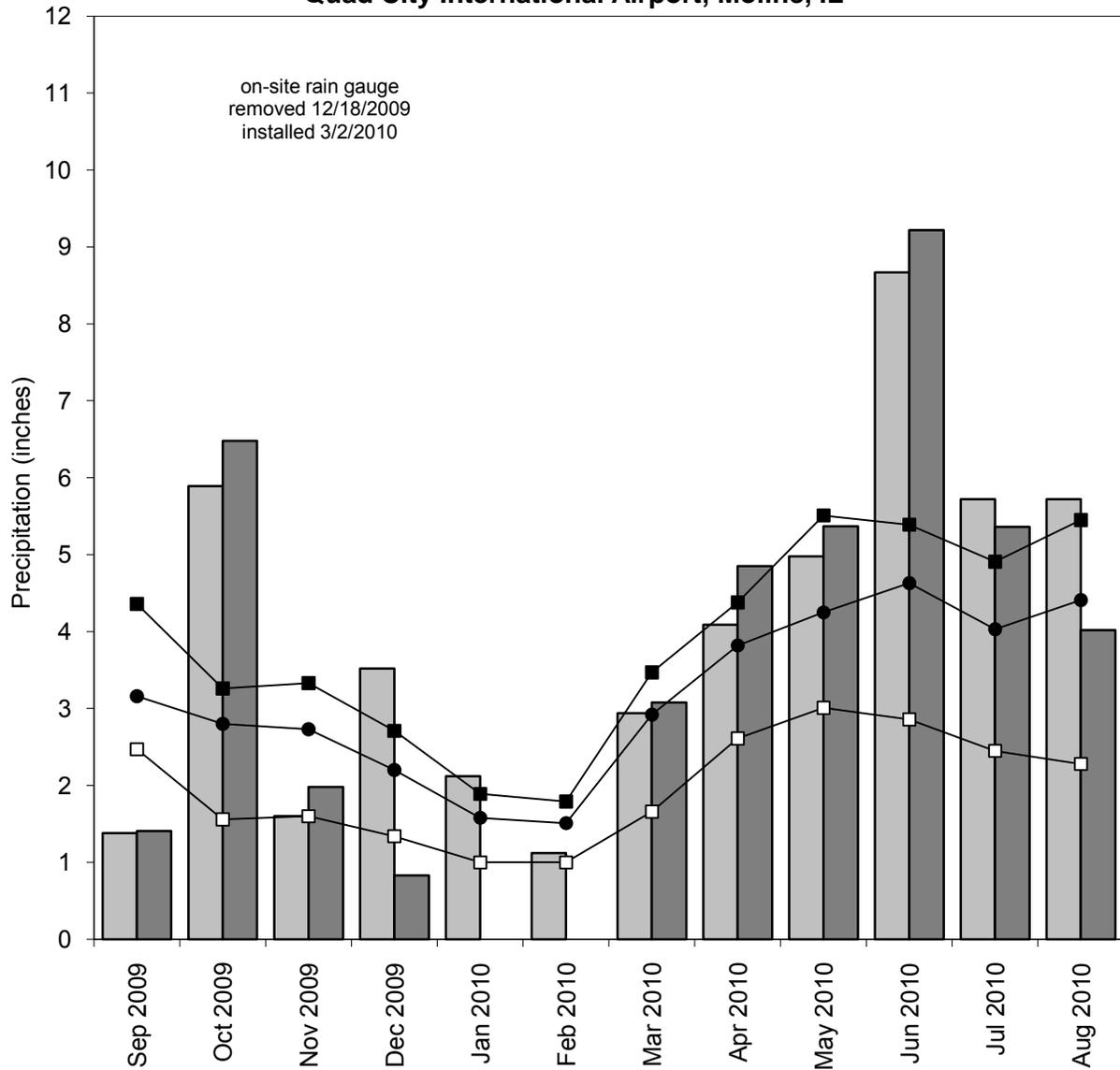
# Milan Beltway, Airport Road Wetland Mitigation Site

## September 1, 2009 through August 31, 2010

Water-Level Elevations at Surface-Water Gauges



**Milan Beltway, Airport Road  
Wetland Mitigation Site  
September 2009 through August 2010  
Total Monthly Precipitation Recorded on Site and at the  
Quad City International Airport, Moline, IL**



- monthly precipitation recorded at Moline, IL (MRCC)
- monthly precipitation recorded on site by ISGS
- 1971-2000 monthly 30% above average threshold at Moline, IL (NWCC)
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- 1971-2000 monthly 30% below average threshold at Moline, IL (NWCC)

Graph last updated September 29, 2010