

**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: Jessica Ackerman

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. The wetland mitigation plan was implemented with excavation of the southern portion of the site and the planting of trees.
- 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.
- August 2011: The ISGS was informed by IDOT that post-construction monitoring was completed.

WETLAND HYDROLOGY CALCULATION FOR 2011

The area of the site that satisfied wetland hydrology criteria (Environmental Laboratory 1987) for greater than 5% of the 2011 growing season was estimated to be 8.9 ha (22.0 ac) out of a total area of 8.9 ha (22.0 ac), and the area that satisfied wetland hydrology criteria for greater 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:

- 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 (MRCC 2011); according to the 1987 Manual, 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 15 was the starting date of the 2011 growing season based on soil temperatures measured 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 90% of normal and precipitation in Spring 2011 (March through May) was 106% of normal.
- In 2011, all the monitoring wells satisfied wetland hydrology criteria for greater than 5% of the growing season and for greater than 12.5% of the growing season, according to the 1987 Manual. All of the wells also satisfied wetland hydrology criteria for 14 or more

consecutive days during the growing season as per the 2010 Midwest Region Supplement.

- Surface-water elevations measured by logger SW1R were at or above 172.16 m (564.86 ft) from April 23 to May 3 (11 days), long enough to satisfy wetland hydrology criteria for greater than 5% of the growing season, and surface-water elevations were at or above 172.11 m (564.69 ft) from April 16 to May 11 (26 days), long enough to satisfy wetland hydrology criteria for greater than 12.5% of the growing season, according to the 1987 Manual. Surface-water elevations measured at SW1R were at or above 172.15 m (564.82 ft) from April 20 to May 5 (16 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.

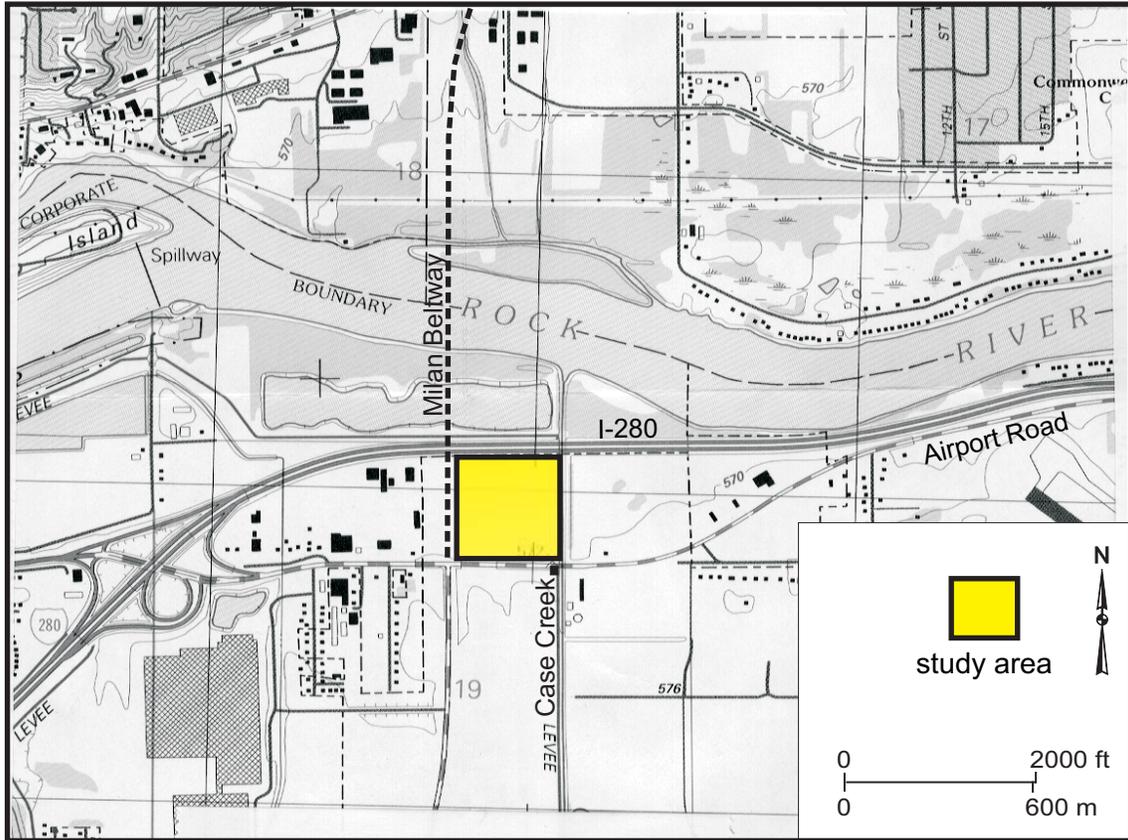
ADDITIONAL INFORMATION

- It was first noted in Fall 2009 that beaver had built a dam upstream of the outlet of the site, though surface-water data collected at the site that year indicate that construction of the dam began earlier in the year. Since the dam was built, the following changes have been observed at the site: the northern half of the site has become semi-permanently to permanently inundated due to the elevated water levels caused by the dam; cattails have colonized the portion of the site that was excavated in 2004, this year forming dense thickets of plants standing more than 8 feet tall; and muskrats have moved onto the site and begun clearing out the cattails, forming open-water areas that are used by waterfowl in the spring as nesting grounds.

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

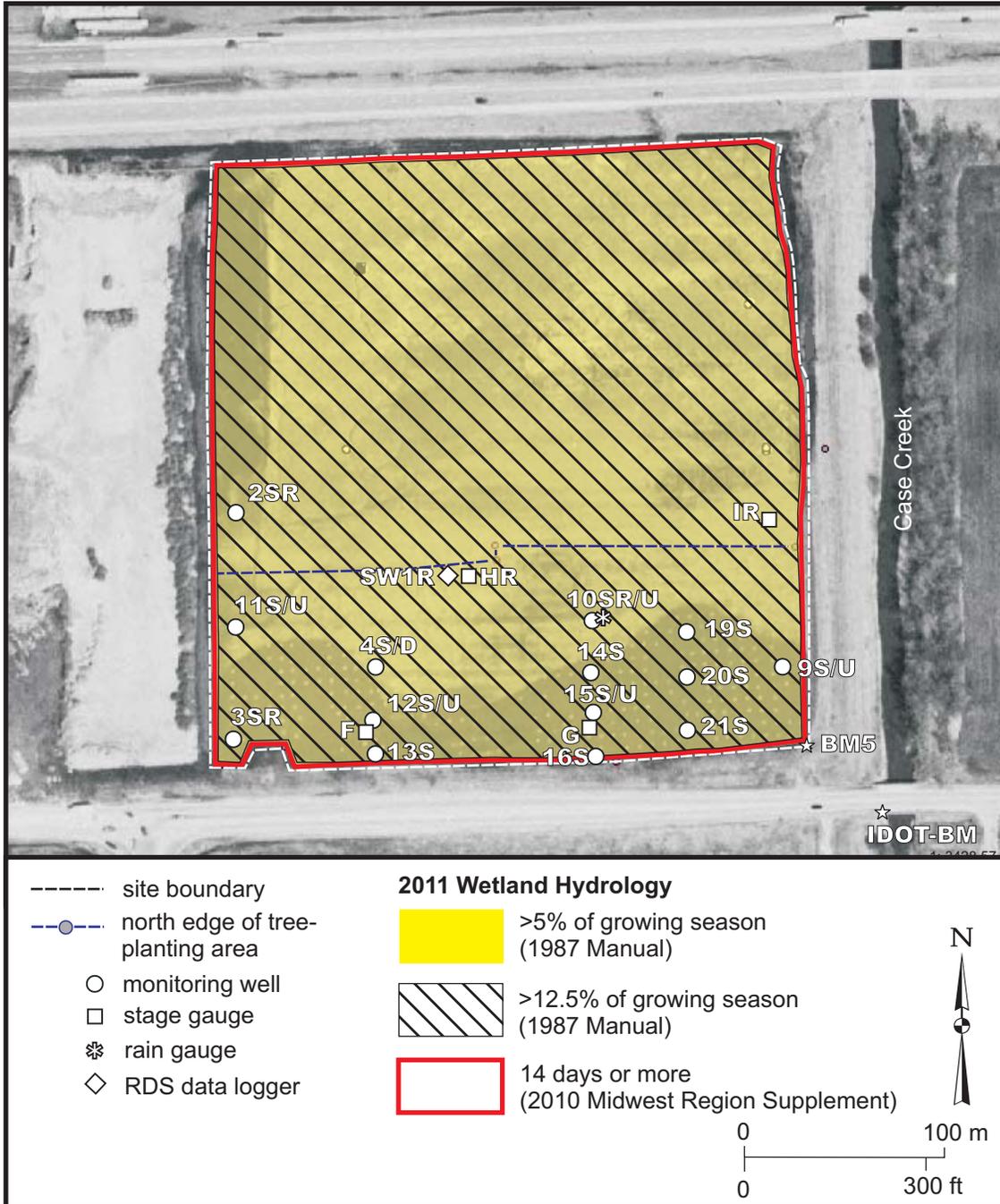


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Estimated Areal Extent of 2011 Wetland Hydrology

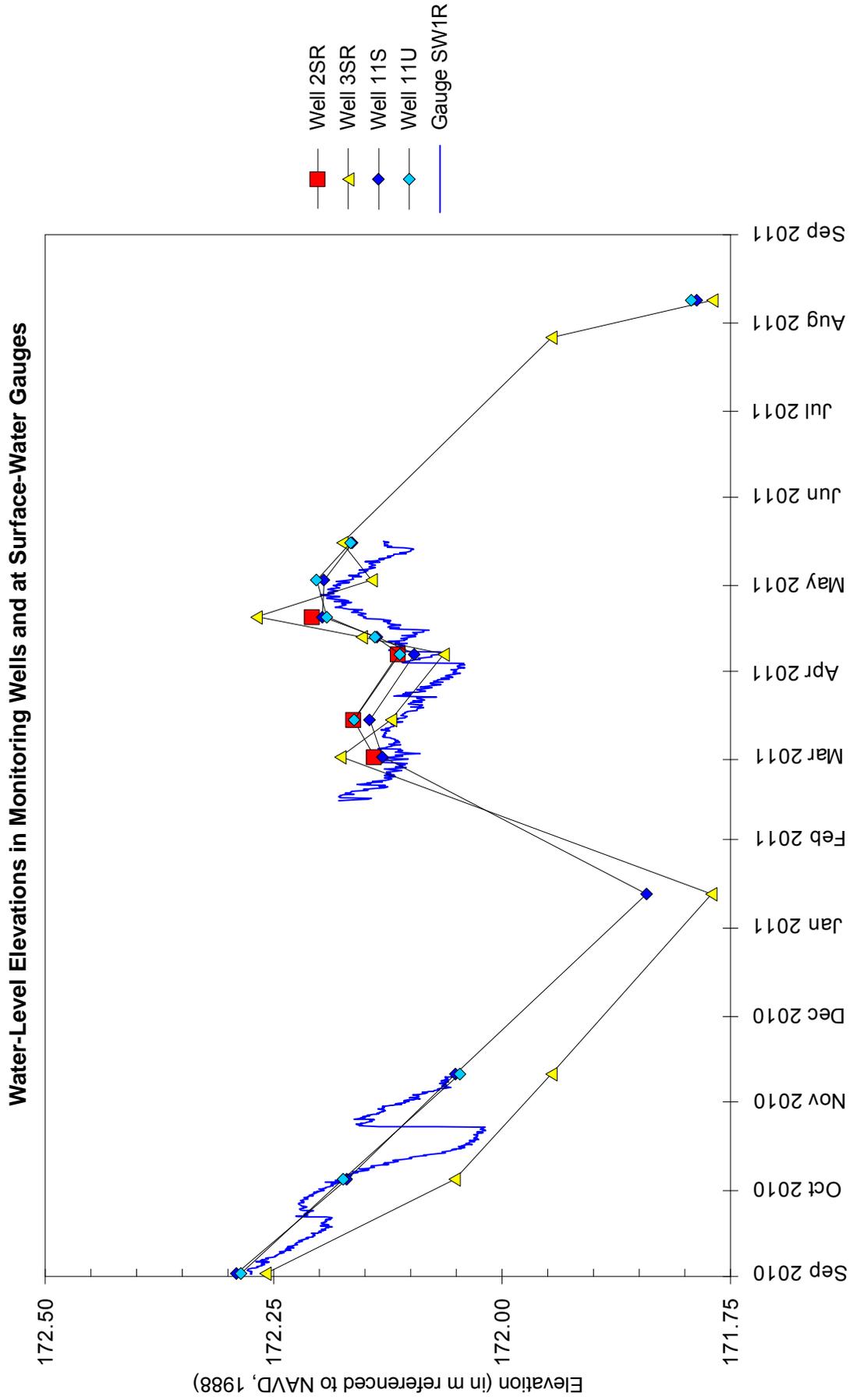
September 1, 2010 through August 31, 2011

Map based on USGS digital orthophotograph, Milan NE quarter quadrangle
from 03/28/2005 aerial photography (ISGS 2005)

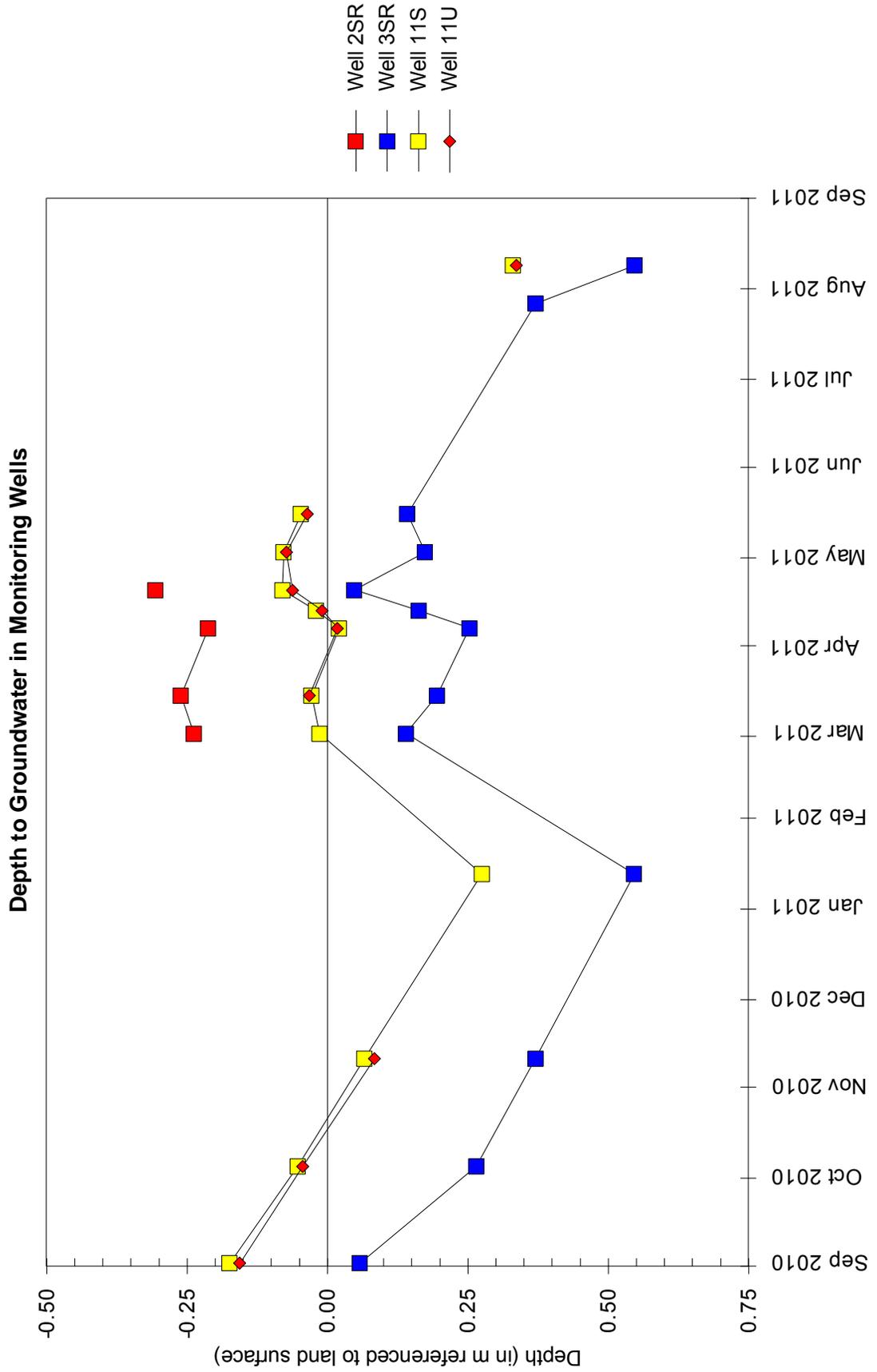


Milan Beltway, Airport Road Wetland Mitigation Site

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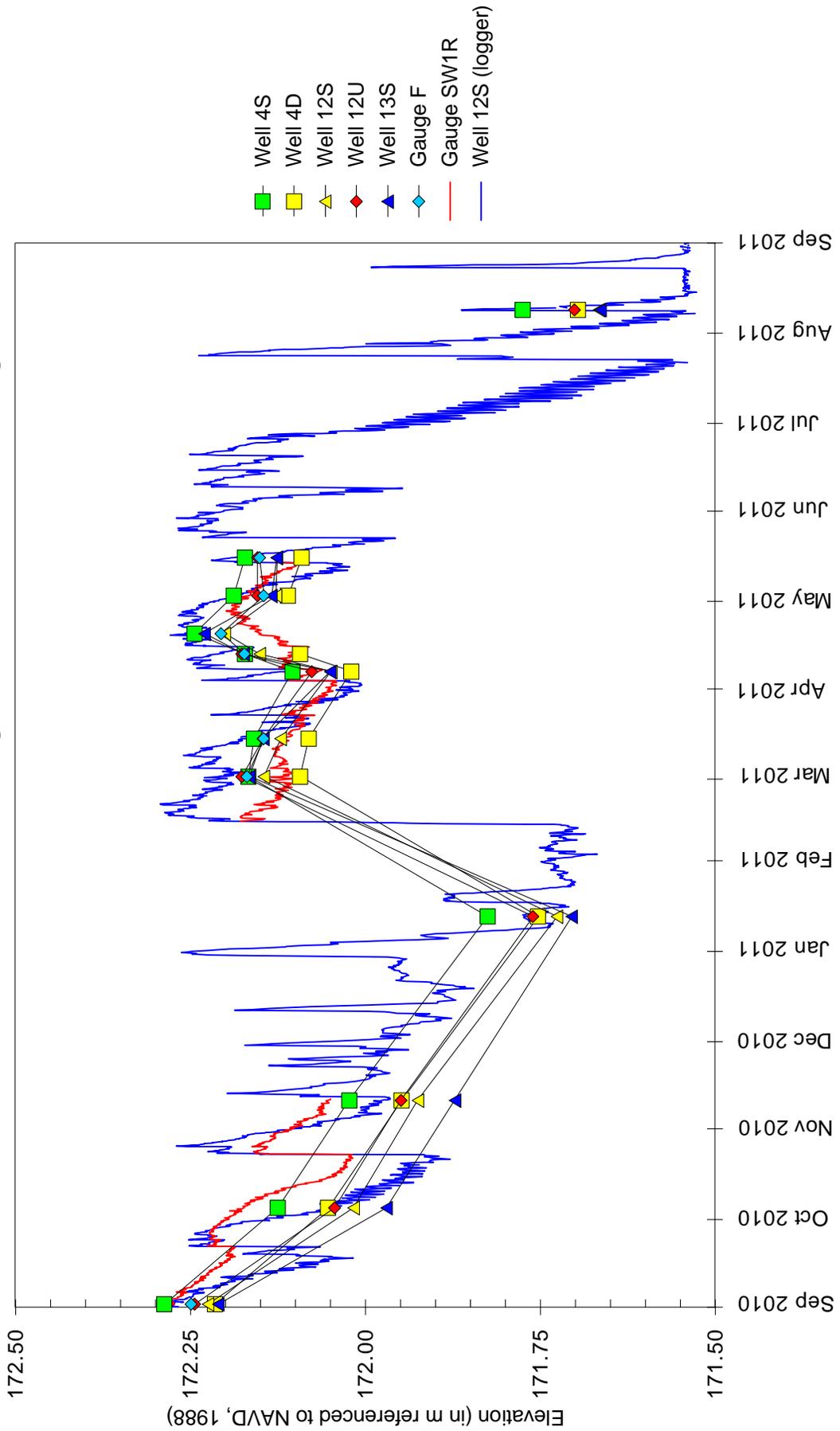
Milan Beltway, Airport Road Wetland Mitigation Site
 September 1, 2010 through August 31, 2011



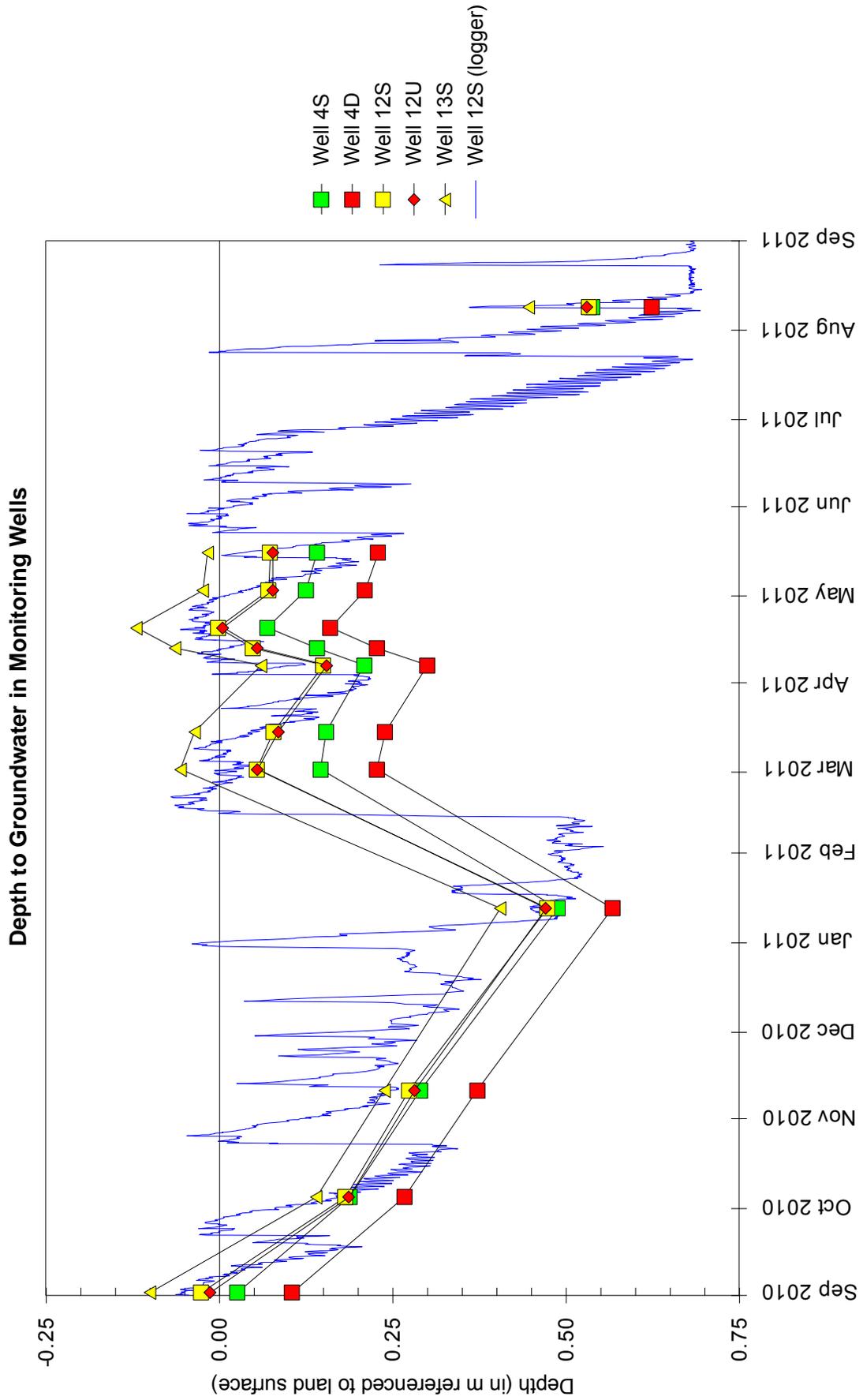
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Water-Level Elevations in Monitoring Wells and at Surface-Water Gauges

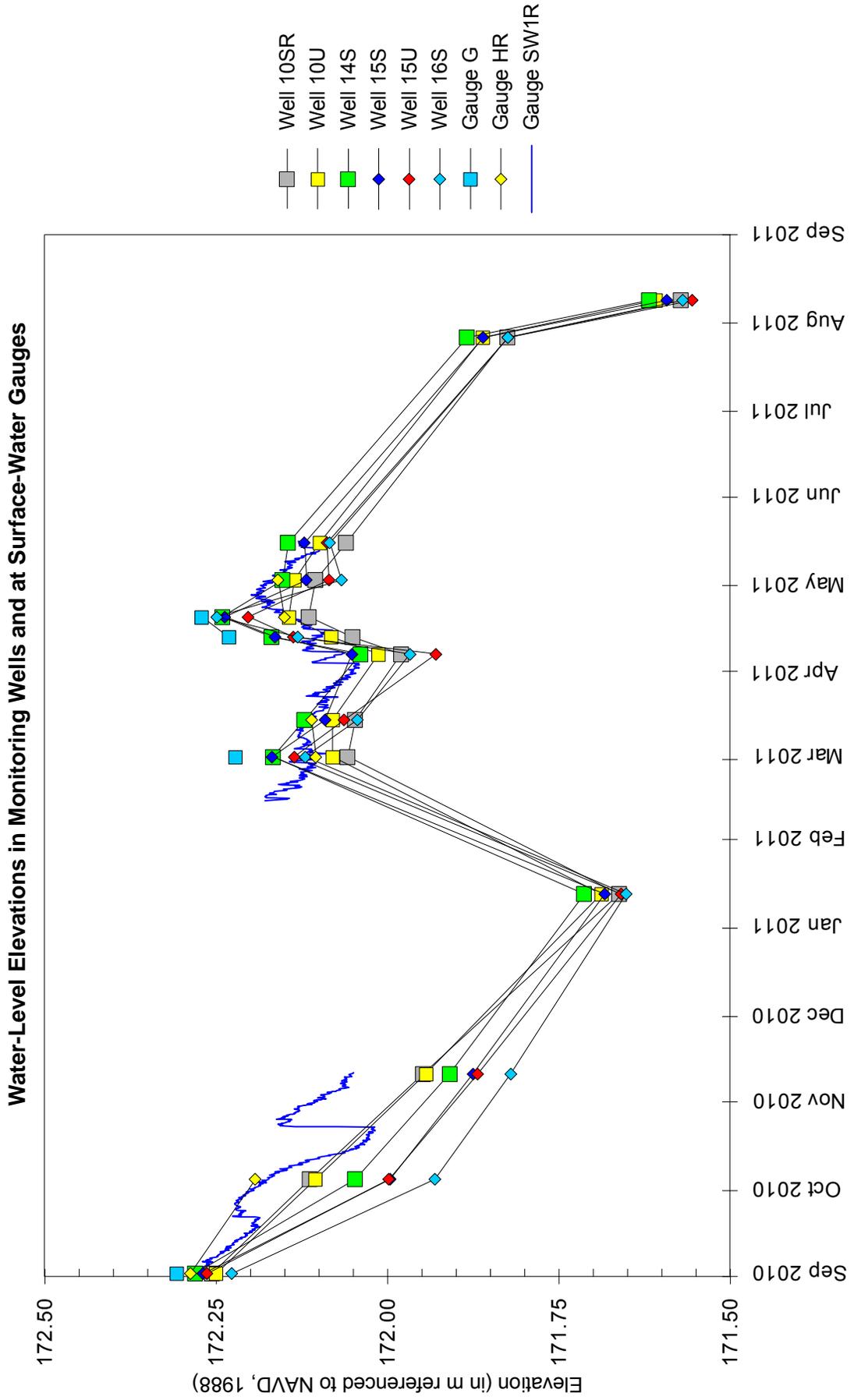


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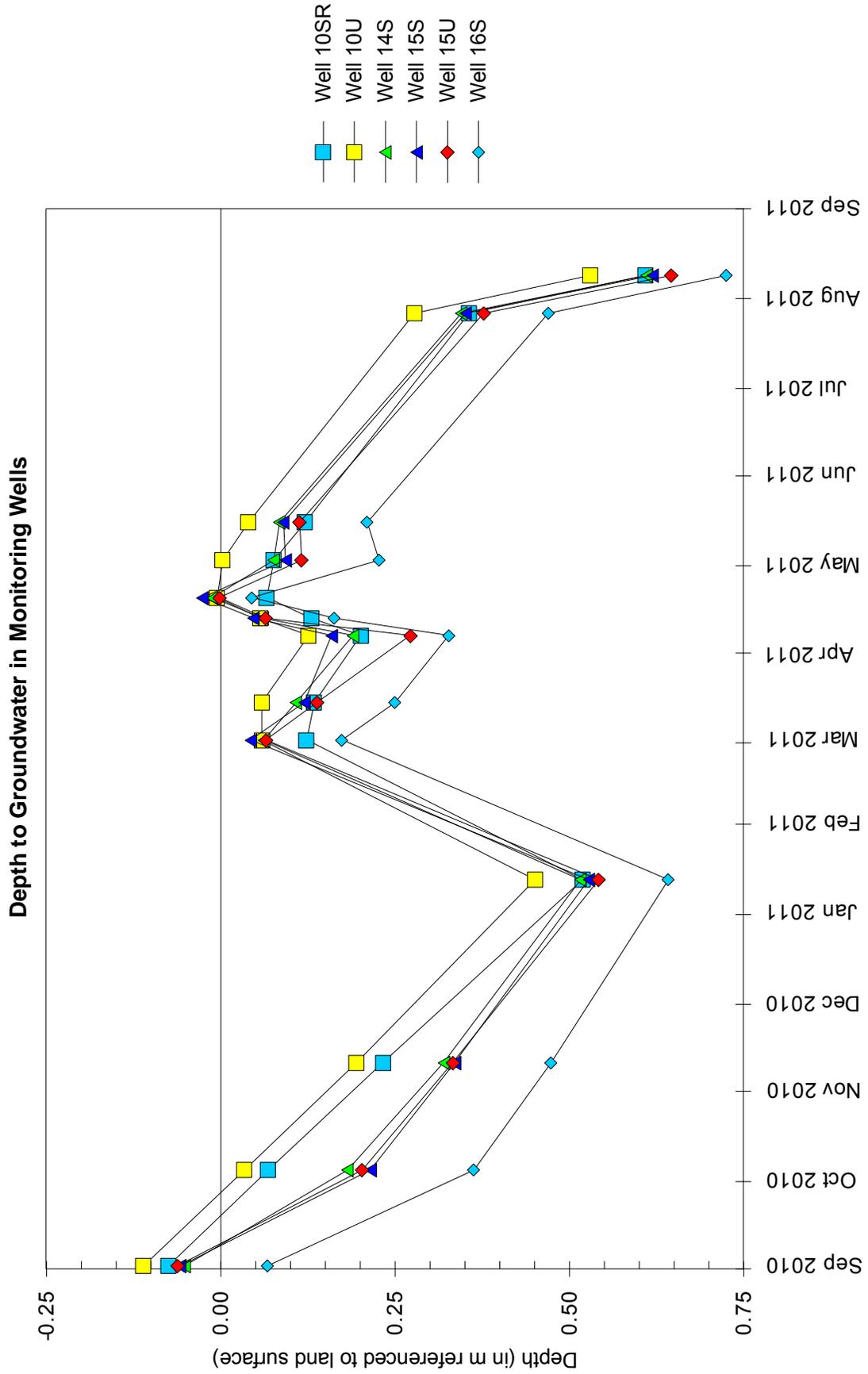


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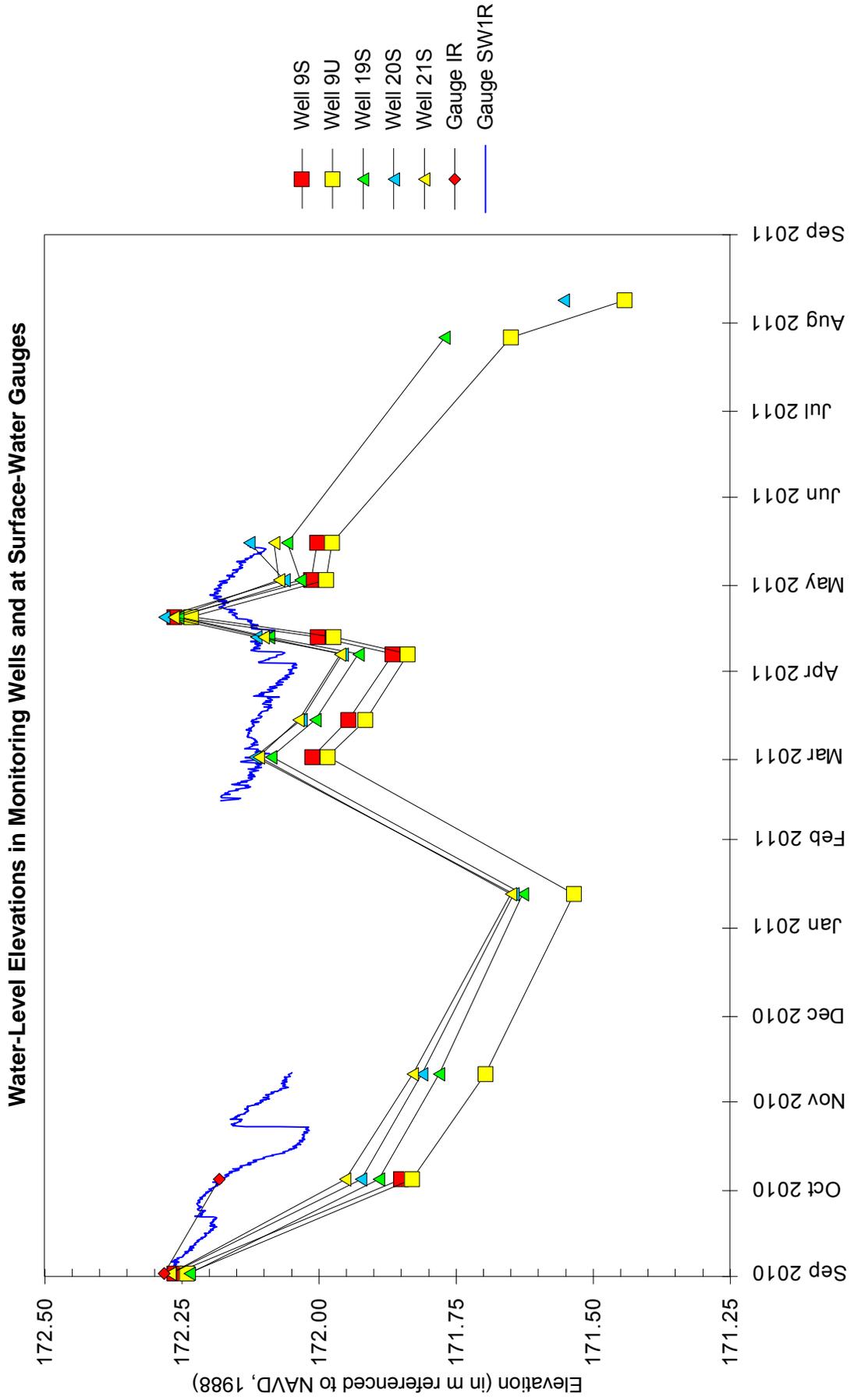


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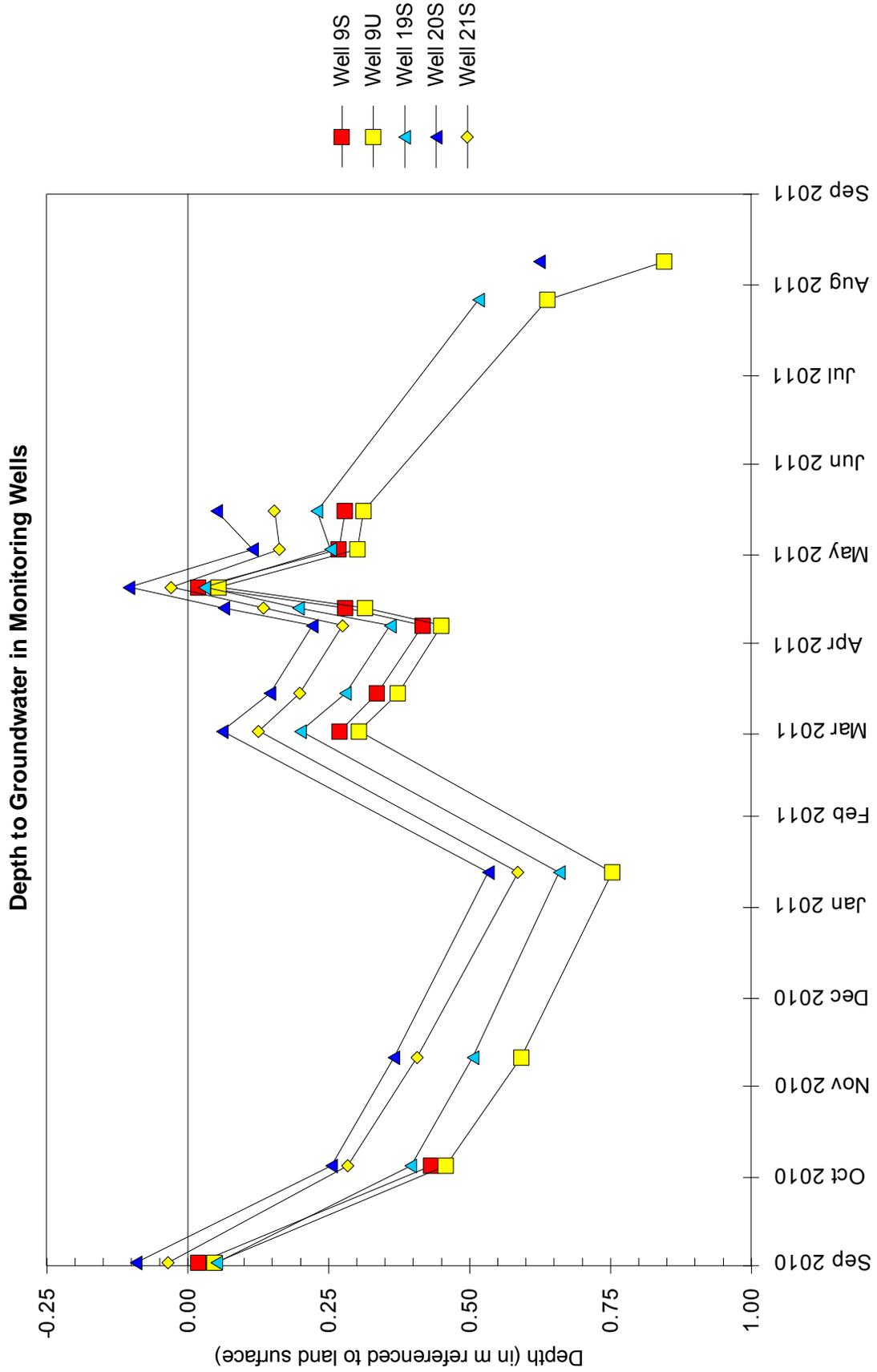


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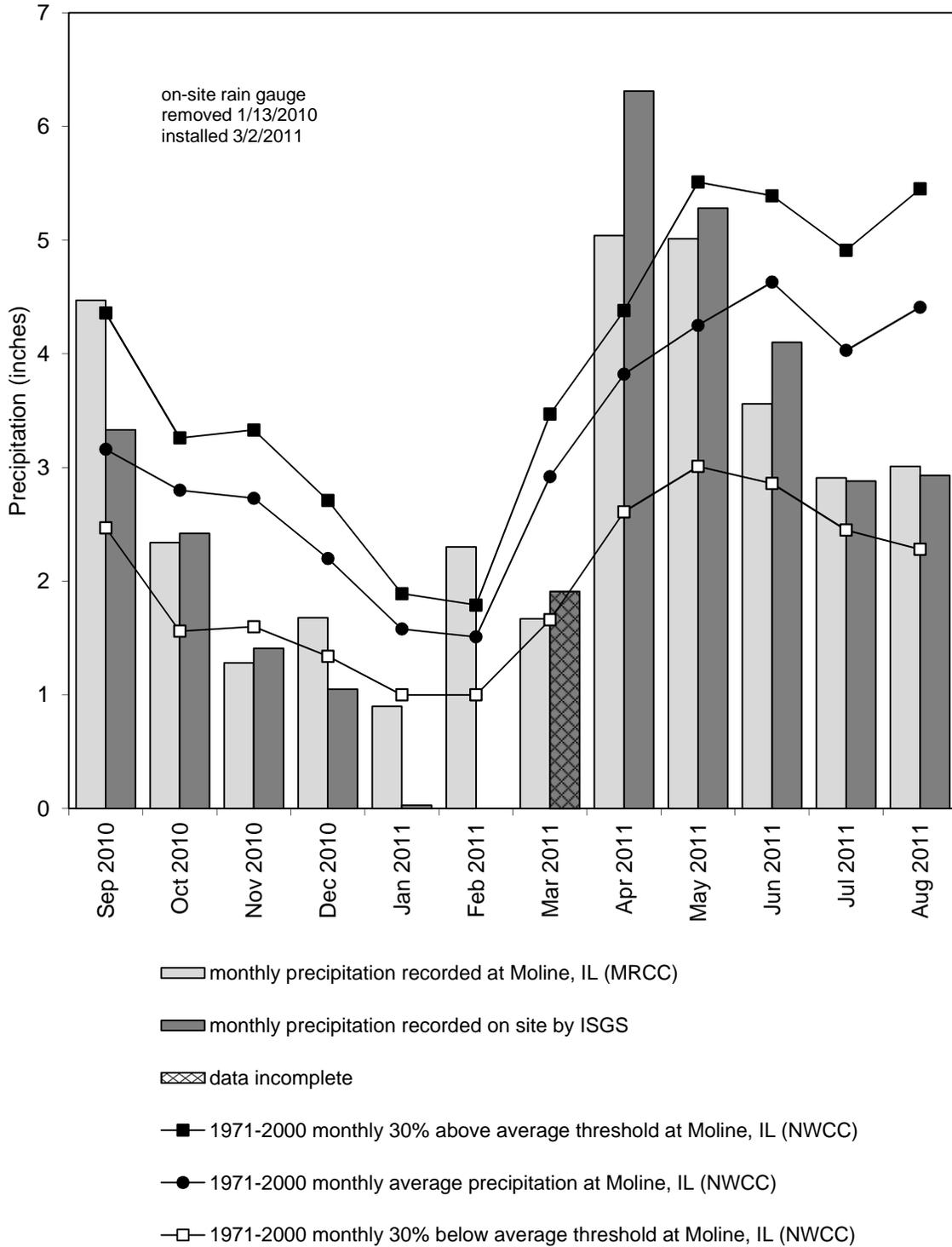


Milan Beltway, Airport Road Wetland Mitigation Site
 September 1, 2010 through August 31, 2011



Milan Beltway, Airport Road Wetland Mitigation Site September 2010 through August 2011

**Total Monthly Precipitation Recorded on Site and at the
Quad City International Airport, Moline, IL**



Graph last updated 10/31/2011