MILAN BELTWAY, ROCK ISLAND **ISGS #76**
WETLAND MITIGATION SITE
FAU 5822
Sequence #67
Rock Island County, near Moline, Illinois
Primary Project Manager: Steven E. Benton
Secondary Project Manager: Jessica R. Ackerman

SITE HISTORY

- February 2008: The ISGS was tasked by IDOT to conduct 5-year monitoring.

- March 2008: A monitoring network was installed on the site by ISGS.

WETLAND HYDROLOGY CALCULATION FOR 2012

The target compensation area for the Milan Beltway, Rock Island wetland mitigation site is 3.61 ha (8.92 ac). Using the 1987 Manual (Environmental Laboratory 1987), 2.74 ha (6.76 ac), of a total site area of 4.13 ha (10.20 ac), satisfied wetland hydrology criteria for greater than 5% of the 2012 growing season, and 1.28 ha (3.16 ac) satisfied wetland hydrology criteria for greater than 12.5% of the growing season. Using the 2010 Midwest Region Supplement (USACE 2010) to the 1987 Manual, 1.66 ha (4.10 ac) satisfied wetland hydrology criteria for 14 or more consecutive days during the growing season. See Additional Information below for individual wetland hydrology acreages in areas A, B, C, D, and E. 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 2012); 5% of the growing season is 10 days, and 12.5% of the growing season is 25 days, according to the 1987 Manual. According to the 2010 Midwest Region Supplement, March 21 was the start date of the 2012 growing season based on plant growth observed at the site.

- Total precipitation during the monitoring period as recorded at the Quad City International Airport weather station in Moline, Illinois, was 75% of normal, and total precipitation in Spring 2012 (March through May) was 96% of normal.

- In 2012, water levels satisfied wetland hydrology criteria for greater than 5% of the growing season at soil-zone monitoring wells 3S, 6S, 7S, 8S, 12S, 13S, 14S, 15S, 16S, 18S, 18VS, 19S, 20S, 21S, 21VS, 22S, 23S, and 24S, and for greater than 12.5% of the growing season at monitoring wells 15S, 18S, 18VS, 19S, 20S, 21S, 21VS, and 22S, according to the 1987 Manual. In addition, wells 13S, 15S, 16S, 18S, 18VS, 19S, 20S, 21S, 21VS, and 22S, satisfied wetland hydrology criteria for 14 or more consecutive days during the growing season per the 2010 Midwest Region Supplement.

- Portions of Area D were inundated for the entire monitoring period. Surface-water elevations measured at Gauge C reveal that the portions of Area D at and below an elevation of 172.51 m (565.97 ft) were inundated for periods long enough to satisfy

wetland hydrology criteria for greater than 5% of the growing season and for more than 12.5% of the growing season, according to the 1987 Manual. In addition, portions of Area D at and below an elevation of 172.51 m (565.97 ft) were inundated for 14 or more consecutive days during the growing season per the 2010 Midwest Region Supplement.

- Surface-water elevations recorded by data loggers SW1 and SW2, and by the USACE, Rock River gauge at Moline (USACE 2012), revealed that the Rock River did not flood the site. Numerous, brief peaks, resulting from storm-water runoff in the drainage basins of the ditches, were recorded by the on-site loggers, but only portions of Area D were inundated long enough to satisfy wetland hydrology criteria.

ADDITIONAL INFORMATION

- The following are acreages of jurisdictional wetland hydrology in each area of the site: 0.02 ha (0.06 ac) of Area A, 0.10 ha (0.25 ac) of Area B, 0.71 ha (1.75 ac) of Area C, 1.21 ha (2.99 ac) of Area D, and 0.70 ha (1.72 ac) of Area E satisfied wetland hydrology criteria for greater than 5% of the growing season (Environmental Laboratory 1987); 0.00 ha (0.00 ac) of Area A, 0.00 ha (0.00 ac) of Area B, 0.00 ha (0.00 ac) of Area C, 1.21 ha (2.99 ac) of Area D, and 0.07 ha (0.17 ac) of Area E satisfied wetland hydrology criteria for more than 12.5% of the growing season (Environmental Laboratory 1987); 0.00 ha (0.00 ac) of Area A, 0.00 ha (0.00 ac) of Area B, 0.00 ha (0.00 ac) of Area C, 1.21 ha (2.99 ac) of Area D, and 0.45 ha (1.12 ac) of Area E satisfied wetland hydrology criteria for 14 or more consecutive days during the growing season per the 2010 Midwest Region Supplement.

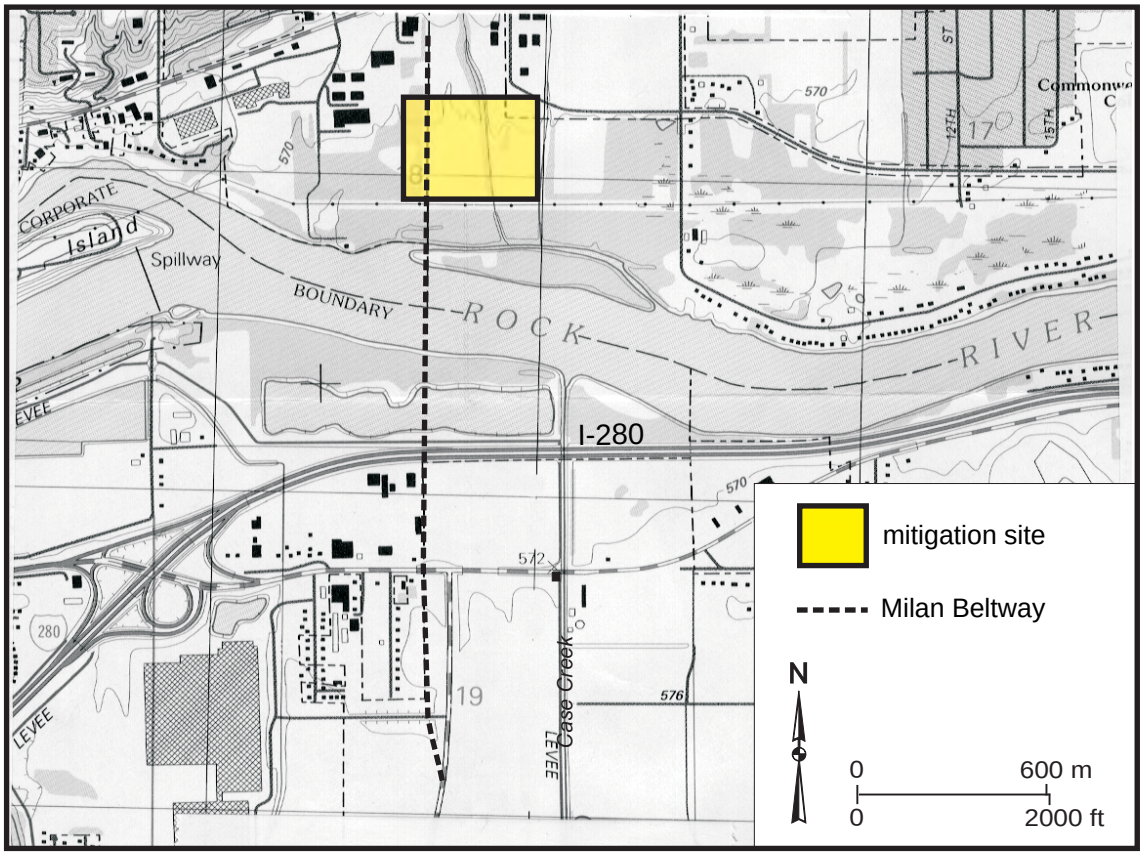
PLANNED FUTURE ACTIVITIES

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

Milan Beltway, Rock Island 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

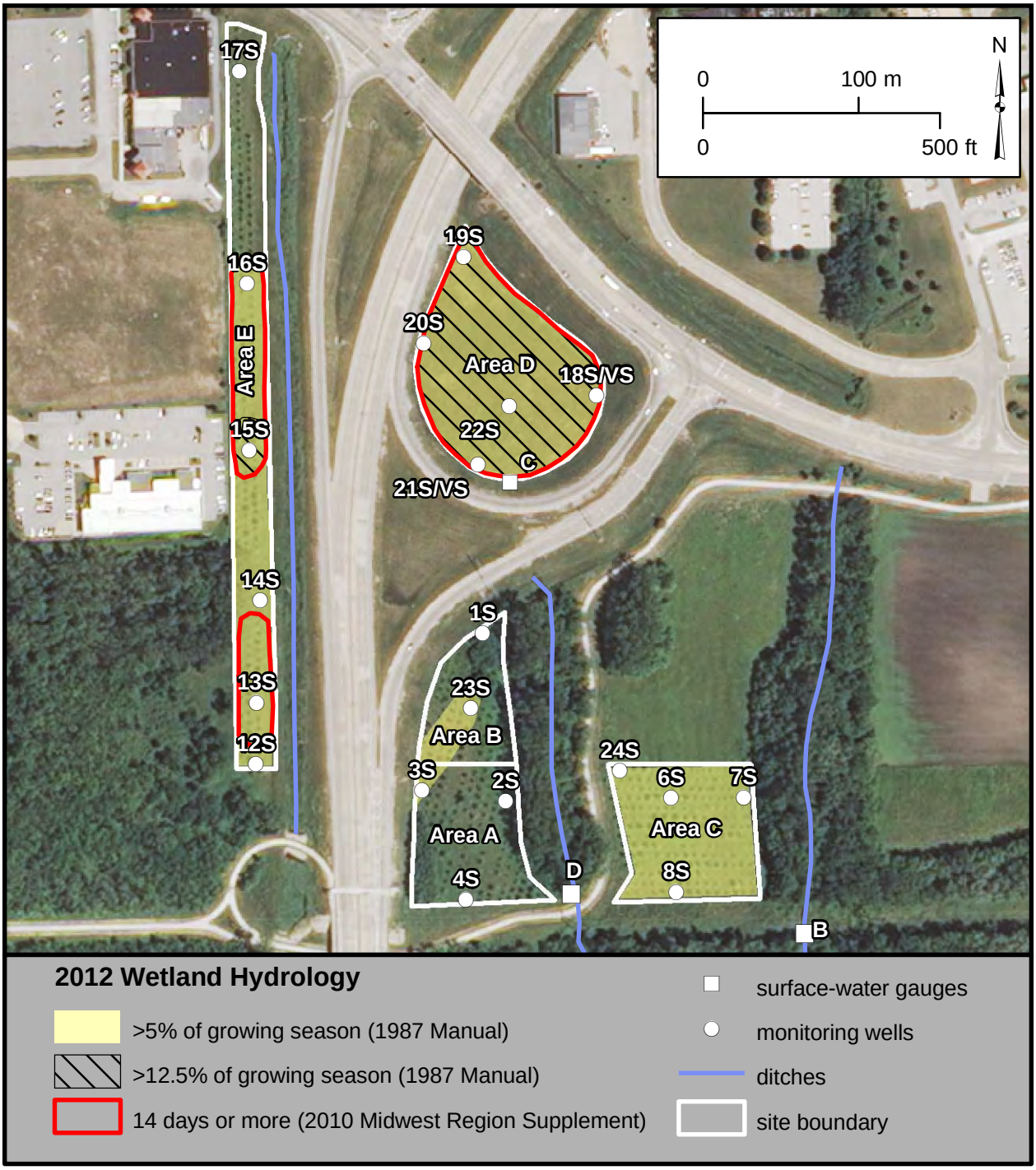


Milan Beltway, Rock Island Wetland Mitigation Site (FAU 5822)

Estimated Areal Extent of 2012 Wetland Hydrology

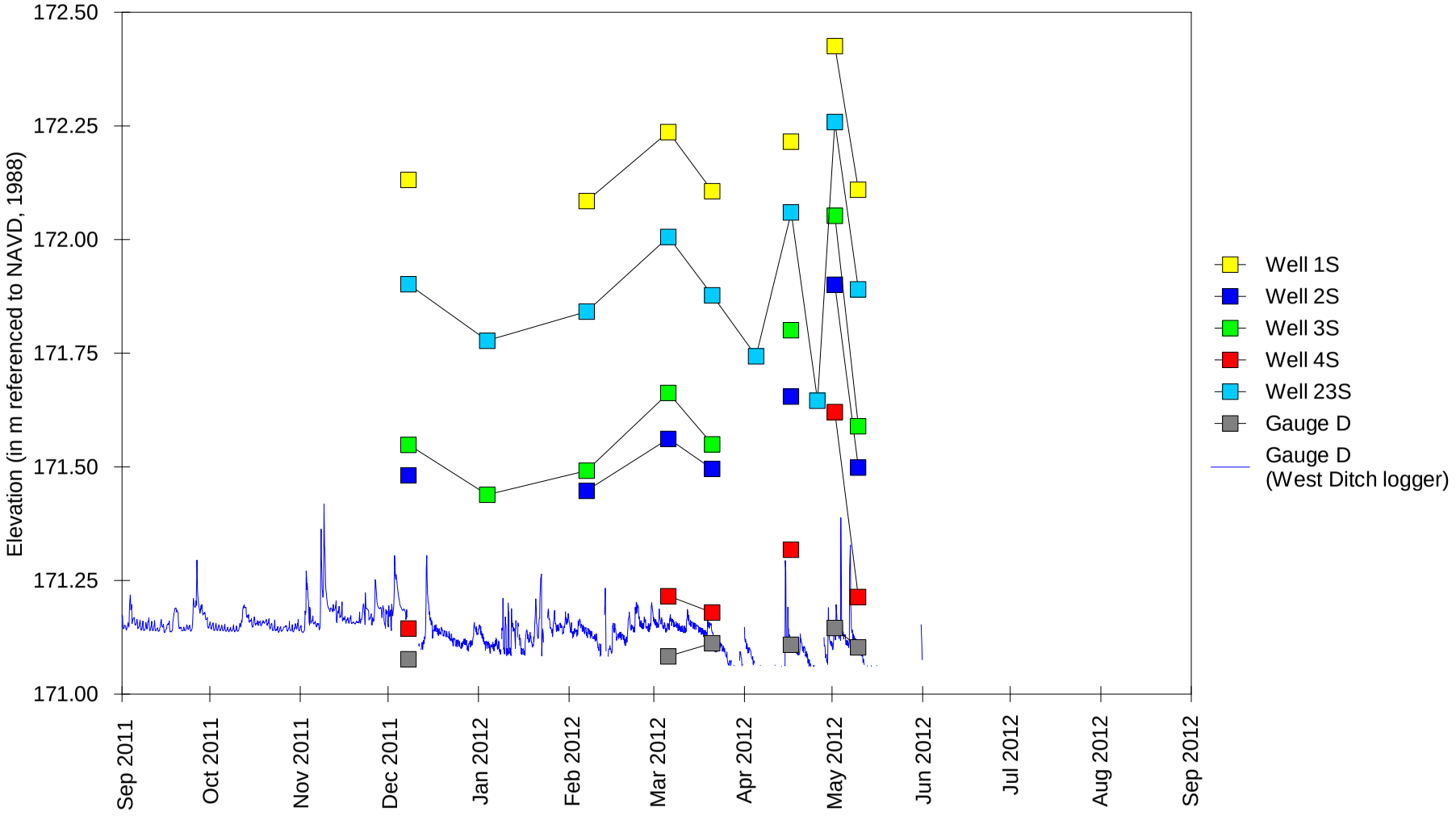
September 1, 2011 through August 31, 2012

Map based on 2012 Farm Service Agency digital orthophotography, Rock Island County, Illinois (USDA-FSA 2012)



Milan Beltway, Rock Island Wetland Mitigation Site
September 1, 2011 through August 31, 2012

Water-Level Elevations
in Monitoring Wells and at Surface-Water Gauges in Areas A and B



Milan Beltway, Rock Island Wetland Mitigation Site
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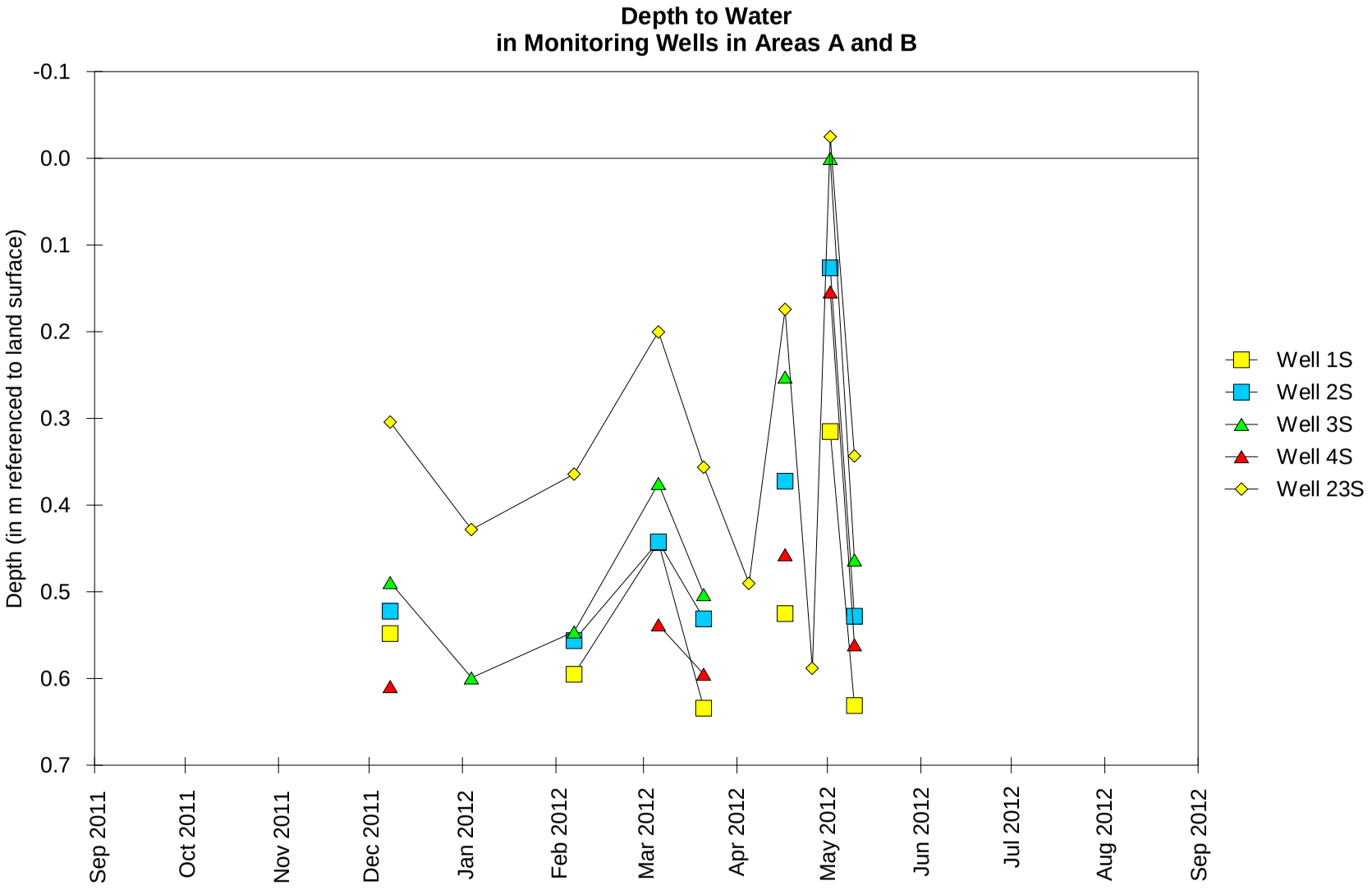
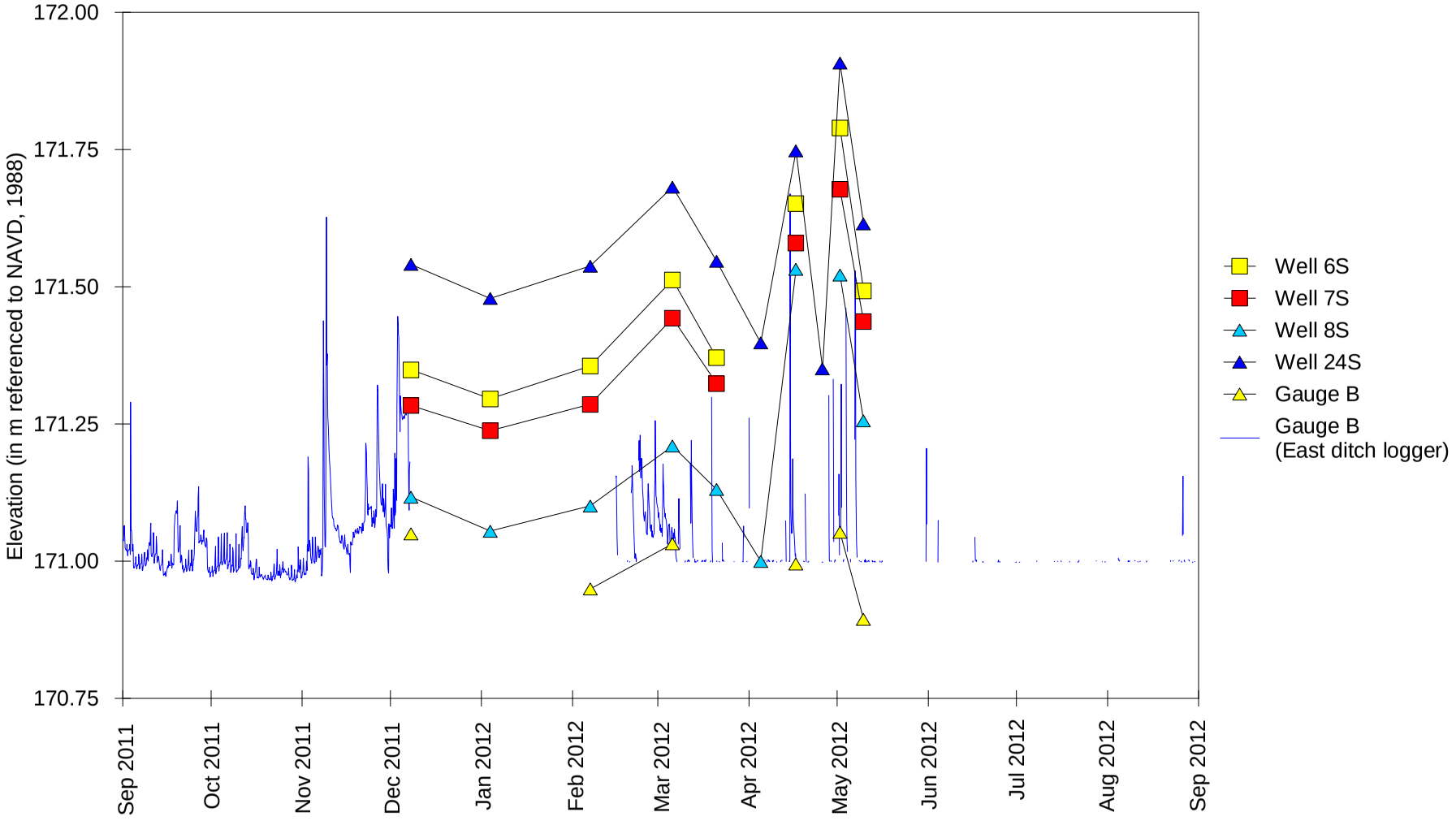


Milan Beltway, Rock Island Wetland Mitigation Site
September 1, 2011 through August 31, 2012

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



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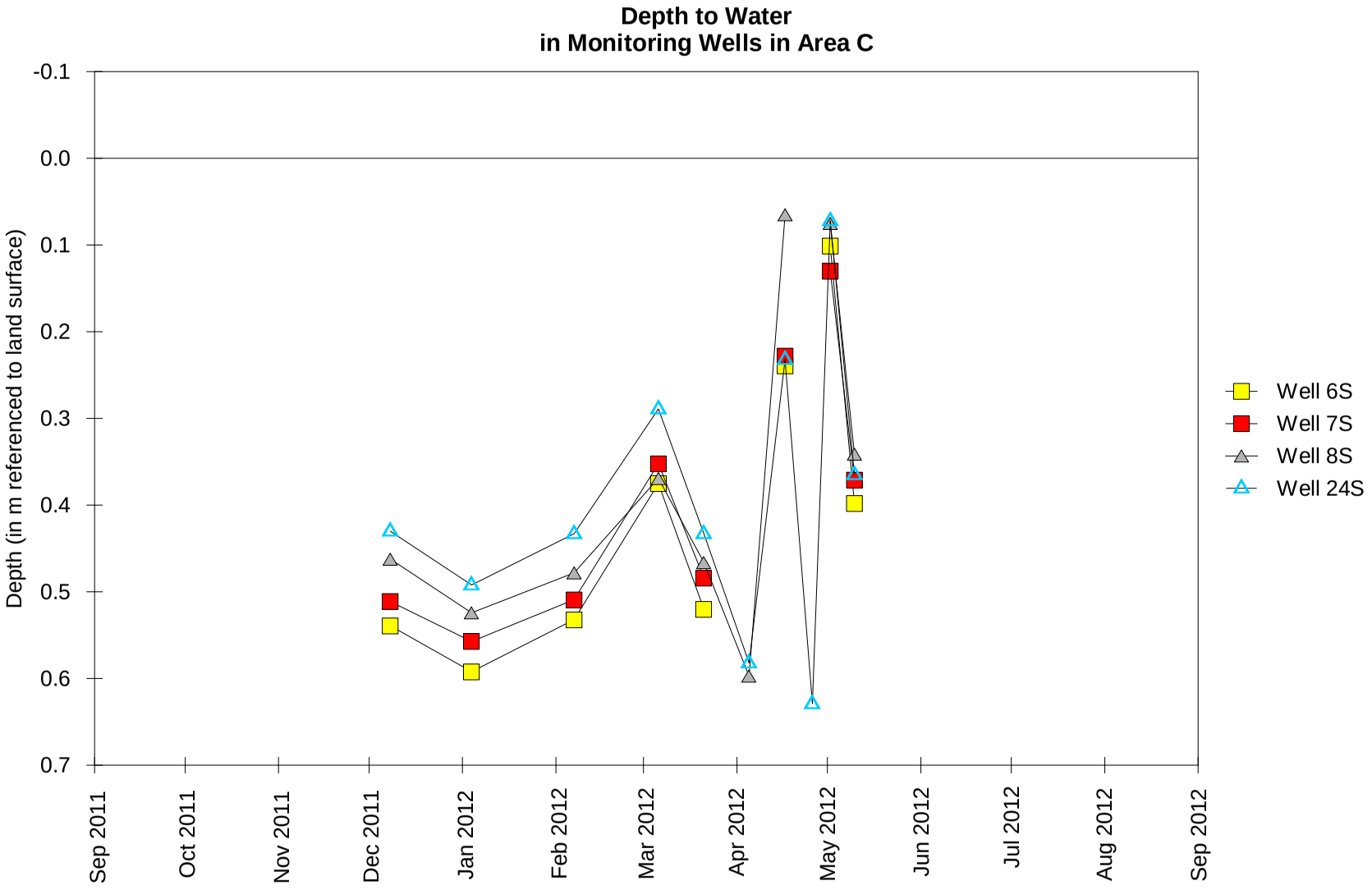
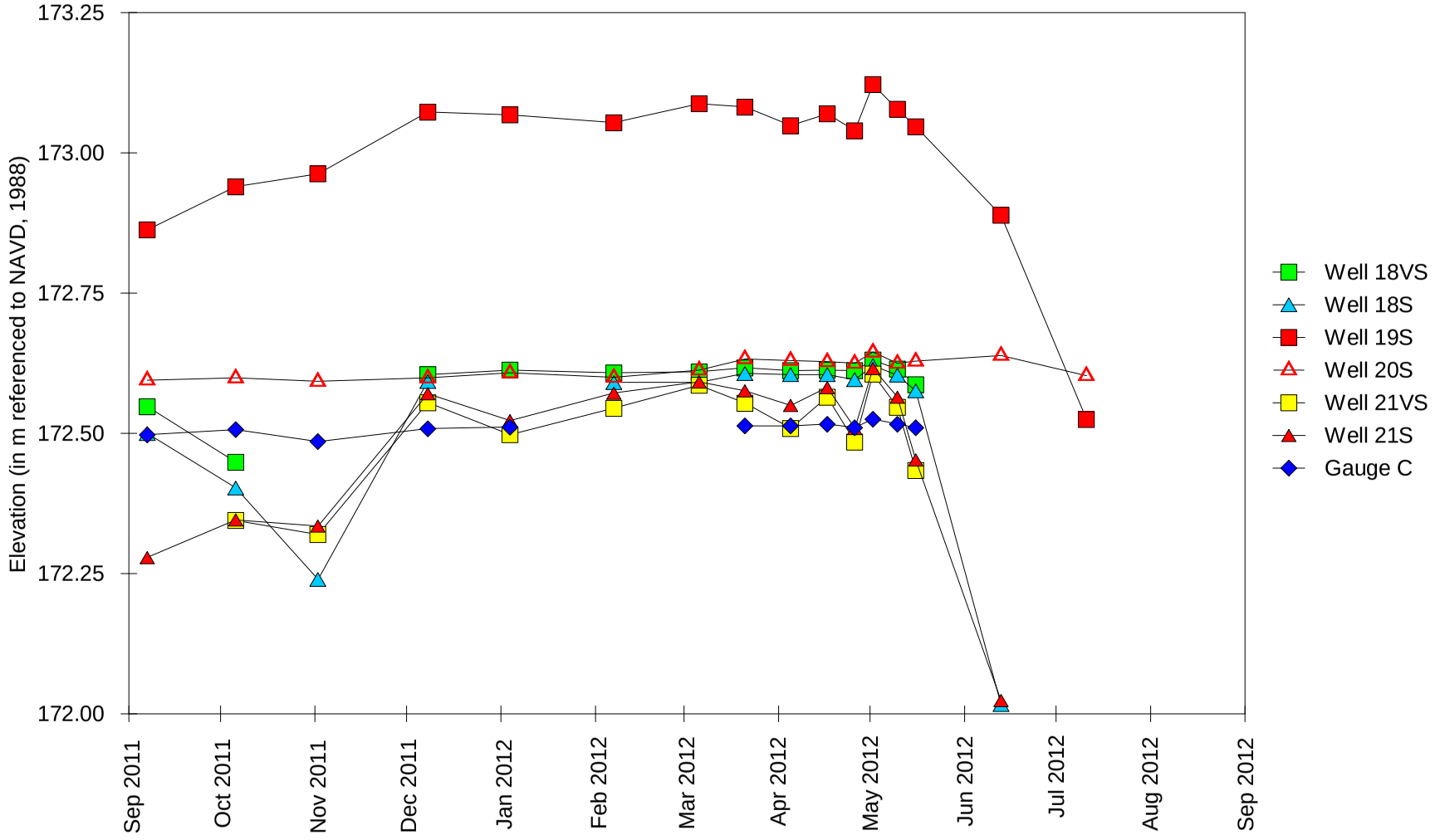
September 1, 2011 through August 31, 2012



Milan Beltway, Rock Island Wetland Mitigation Site
September 1, 2011 through August 31, 2012

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



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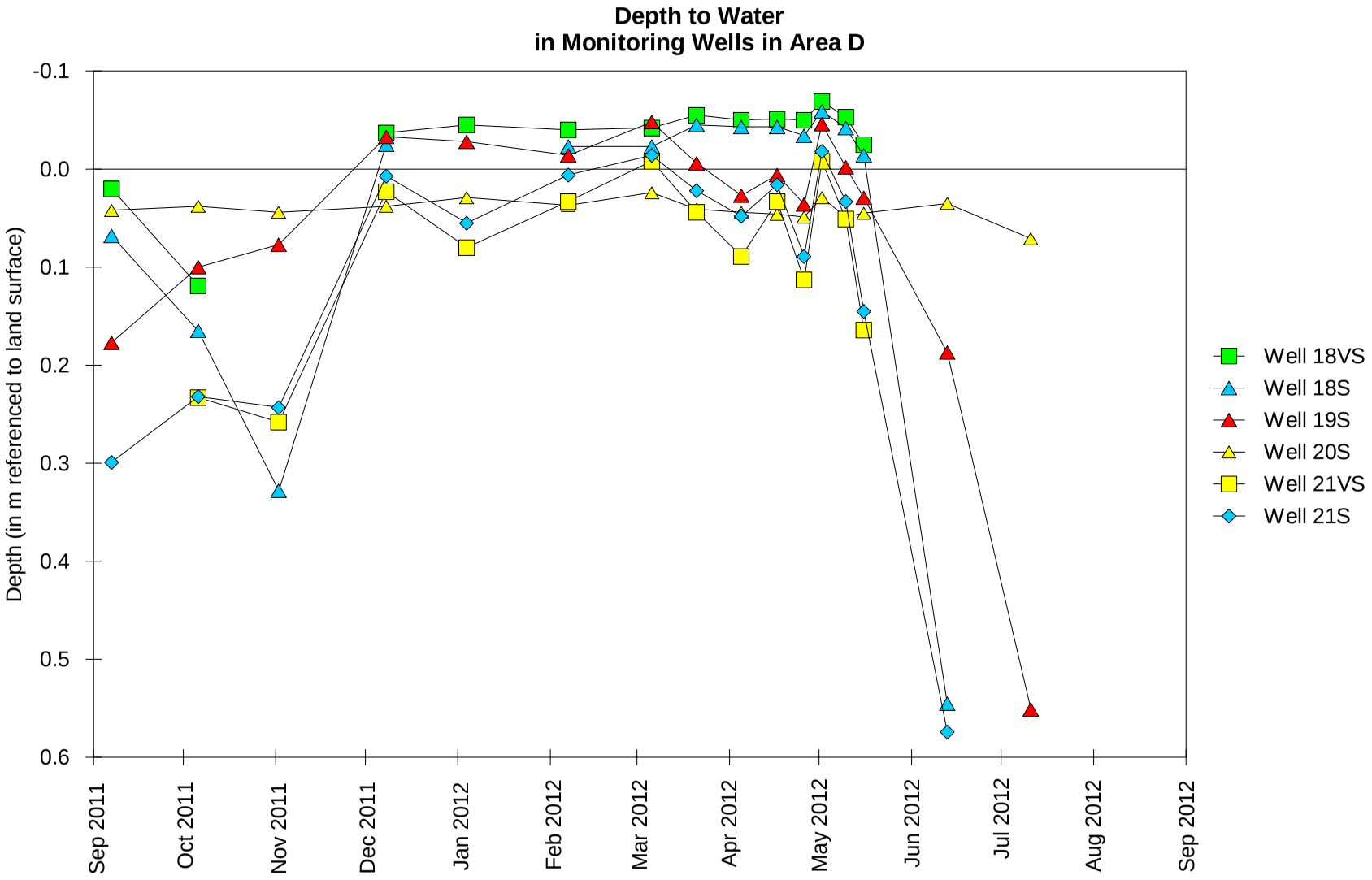

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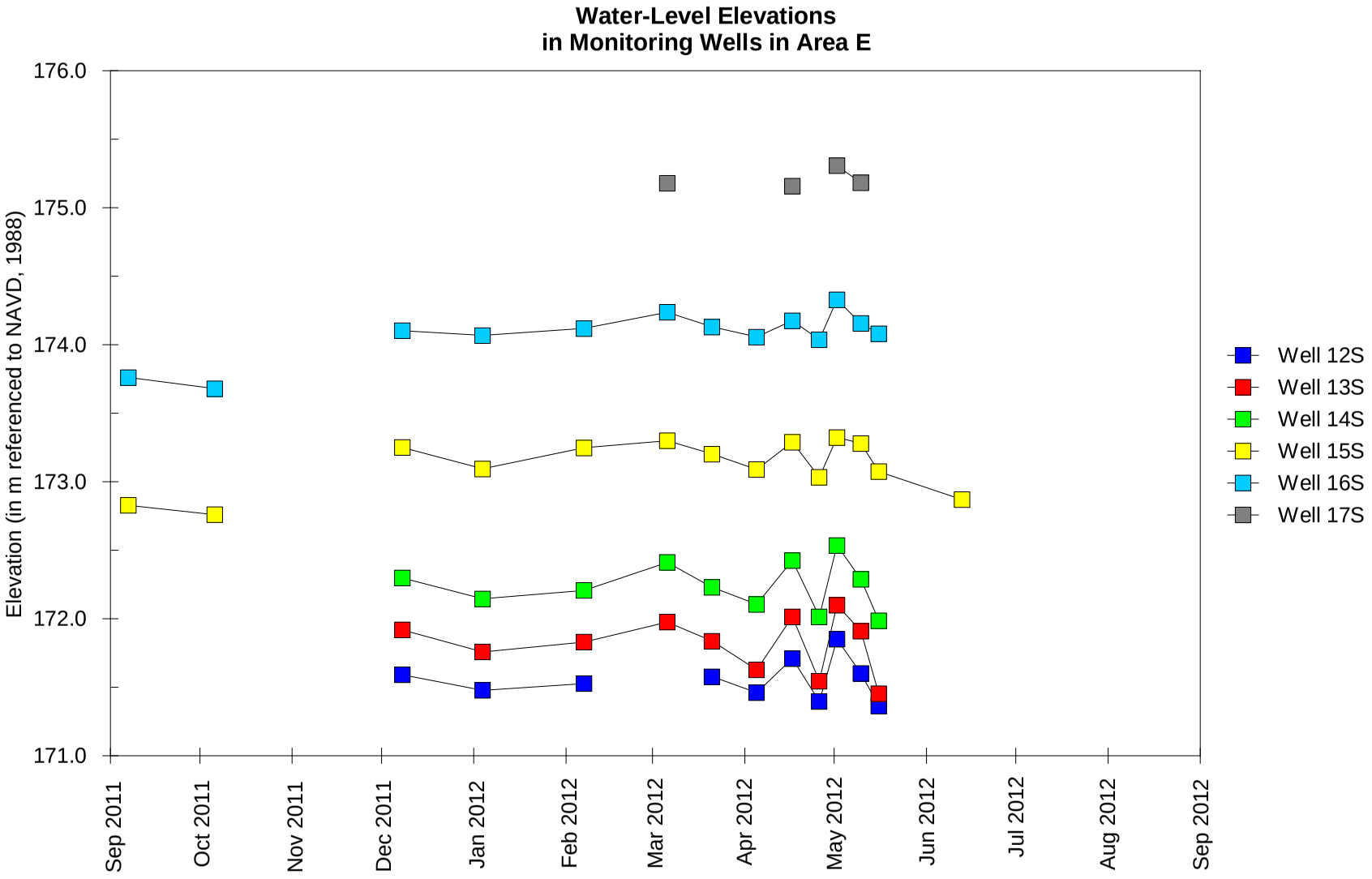

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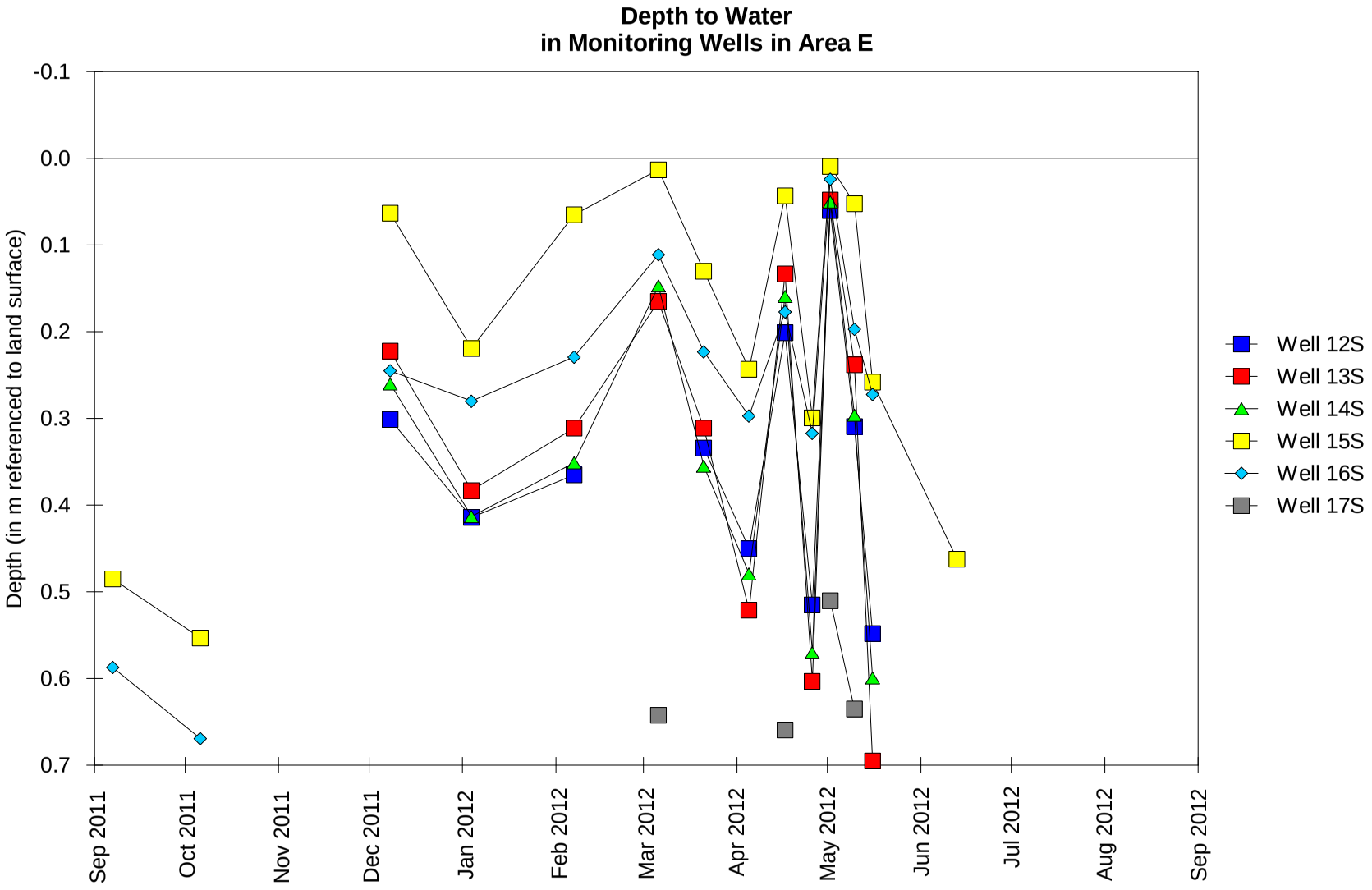
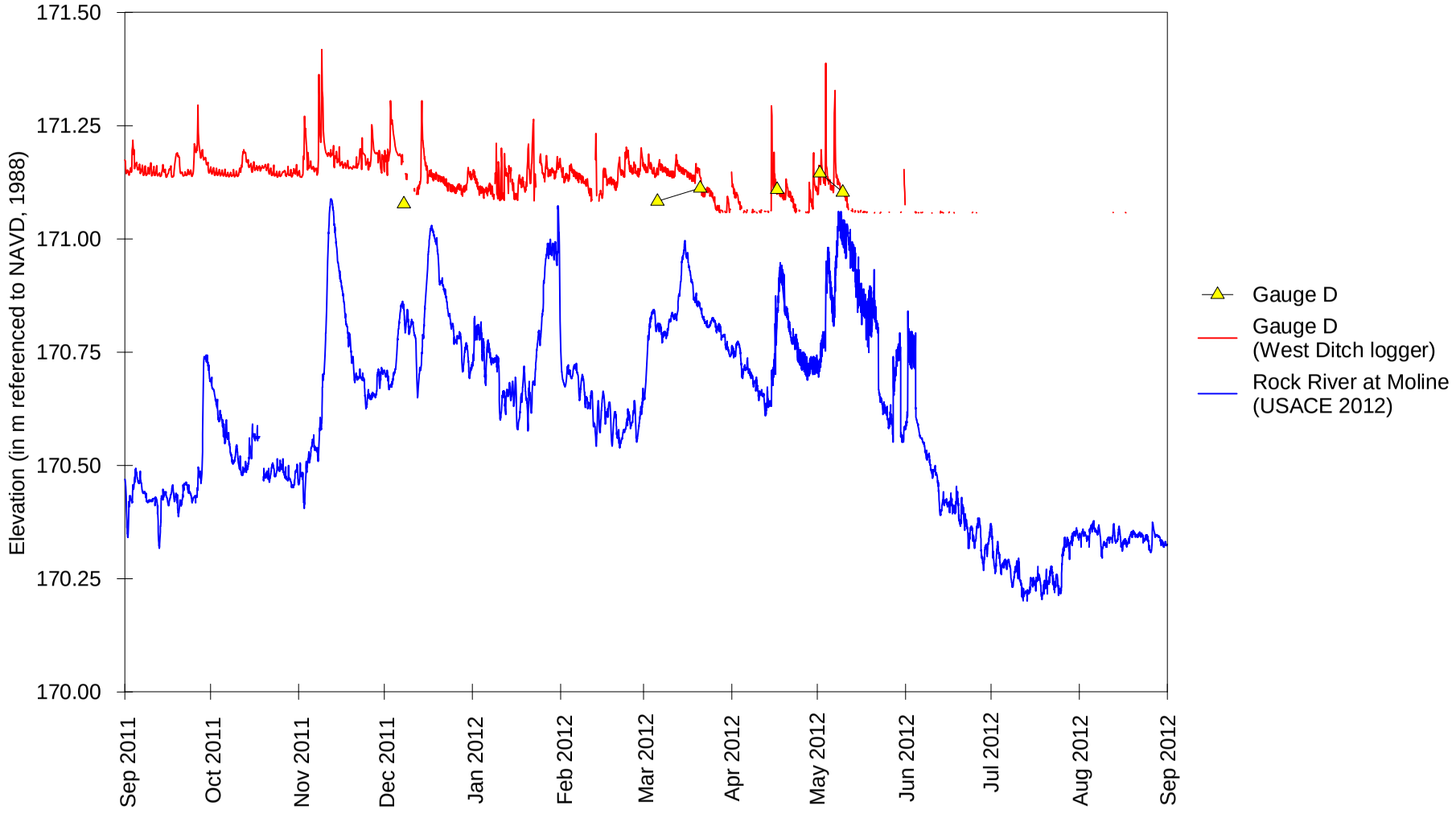


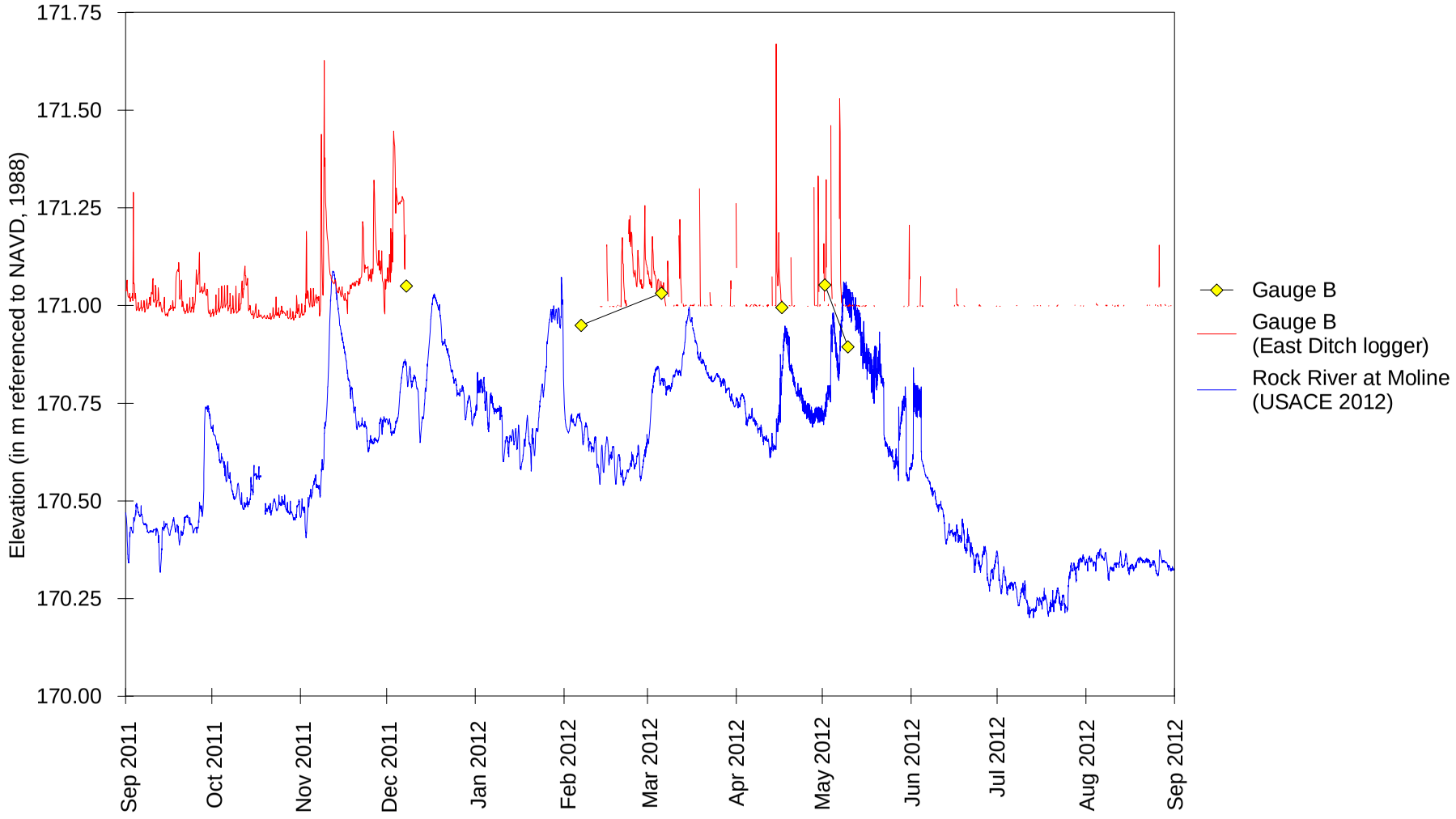
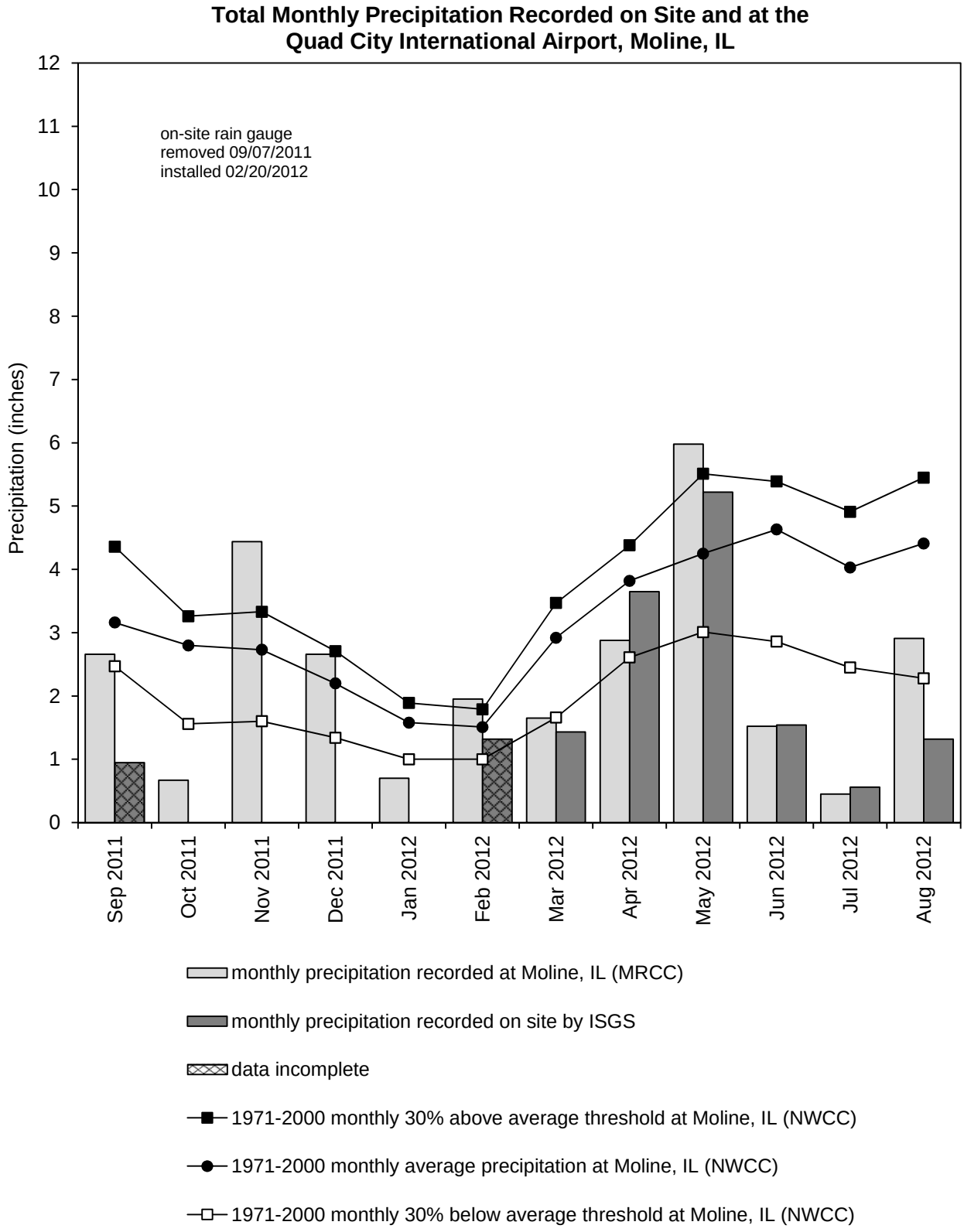
Milan Beltway, Rock Island Wetland Mitigation Site
September 1, 2011 through August 31, 2012

Water-Level Elevations
at Surface-Water Gauges in the West Ditch and the Rock River



Milan Beltway, Rock Island Wetland Mitigation Site
September 1, 2011 through August 31, 2012

Water-Level Elevations
at Surface-Water Gauges in the East Ditch and the Rock River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September 2011 through August 2012