

Mississippi River Elevation Monitoring

There are six Mississippi River monitoring sites that have been monitored for water level from April through November since 2005. The monitoring sites are identified by the river mile upstream from the confluence of the Mississippi and Ohio Rivers in Cairo, Illinois, and from the nearest riverbank to the river staff gage. The “E” refers to the eastern river bank and “W” refers to the western river bank. The site with the highest river mile is the farthest upstream.

Ordinary High Water Level (OHWL) values were calculated for some of the river sites where data were available. The OHWL data for the Mississippi River was provided by the Minnesota Department of Natural Resources and use NGVD (National Geodetic Vertical Datum) 1929. These data were converted to NAVD (North American Vertical Datum) 1988 to be compared to MWMO's river elevation data.

The following figures show river elevation values for each of the monitored river sites. River elevation values from 2017, 2018, and 2019 are overlaid in Figures 1-3 and Figures 5-8. Figure 4 shows the minimum, average, and maximum elevation values between years 2015-2019 at the MWMO river site just north of the Lowry Avenue Bridge in Northeast Minneapolis, MN.

River elevation data from previous years can be found in MWMO's annual monitoring reports.

Mississippi River Elevation at MR859.1W (Camden)

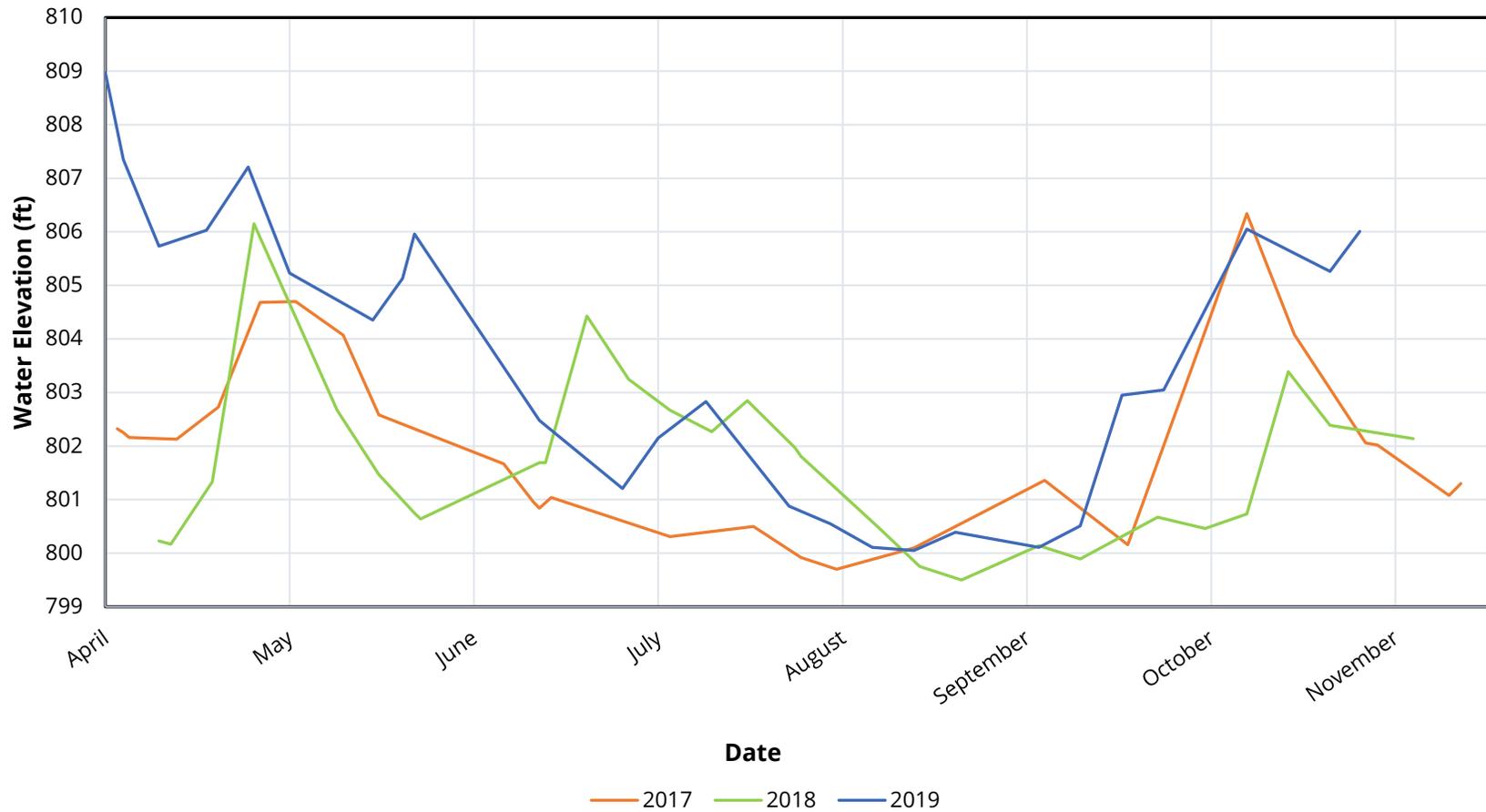


Figure 1. Mississippi River elevation values between April and November in 2017, 2018, and 2019 at river mile 859.1. Staff gage readings were collected approximately every week or when monitoring staff were on site and able to read gage.

Mississippi River Elevation at MR857.6W (MPRB Boat Launch)

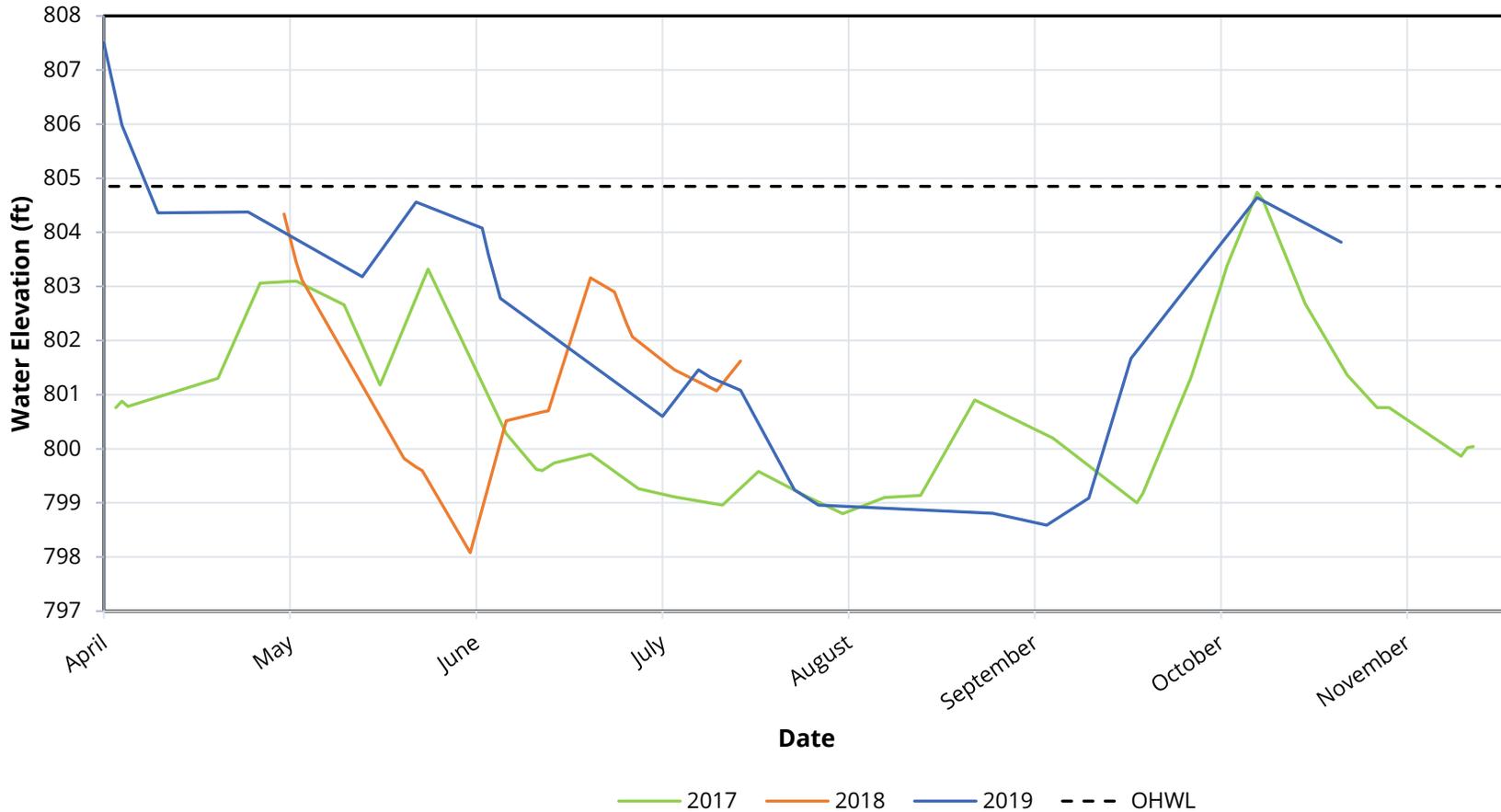


Figure 2. Mississippi River elevation values between April and November in 2017, 2018, and 2019 at river mile 857.6. Staff gage readings were collected approximately every week or when monitoring staff were on site and able to read gage. During July 2018, the staff gage was dislodged and lost.

Mississippi River Elevation at MR856.4E (MWMO)

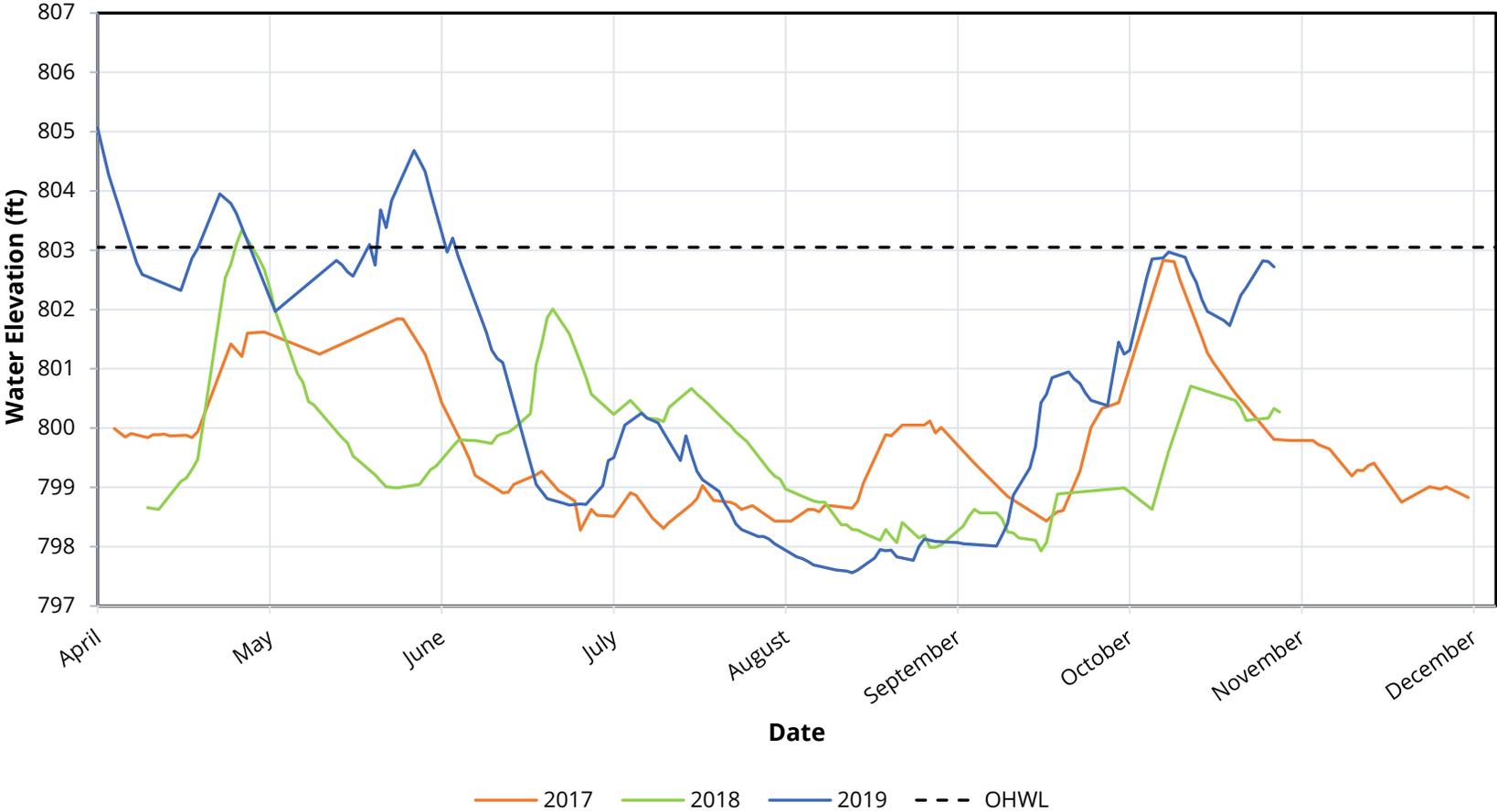


Figure 3. Mississippi River elevation values between April and November in 2017, 2018, and 2019 at river mile 856.4. Staff gage readings were collected daily Monday-Friday or when staff were available to read gage. Ordinary high water level (OHWL) value included for comparison.

Mississippi River Elevation at MR856.4E (MWMO)



Figure 4. Minimum, average, and maximum elevation values at Mississippi River mile 856.4 with total annual precipitation for years 2015-2019. Precipitation data collected at MWMO office with Texas Instruments heated rain gauge.

Mississippi River Elevation at MR854.9W (North Loop)

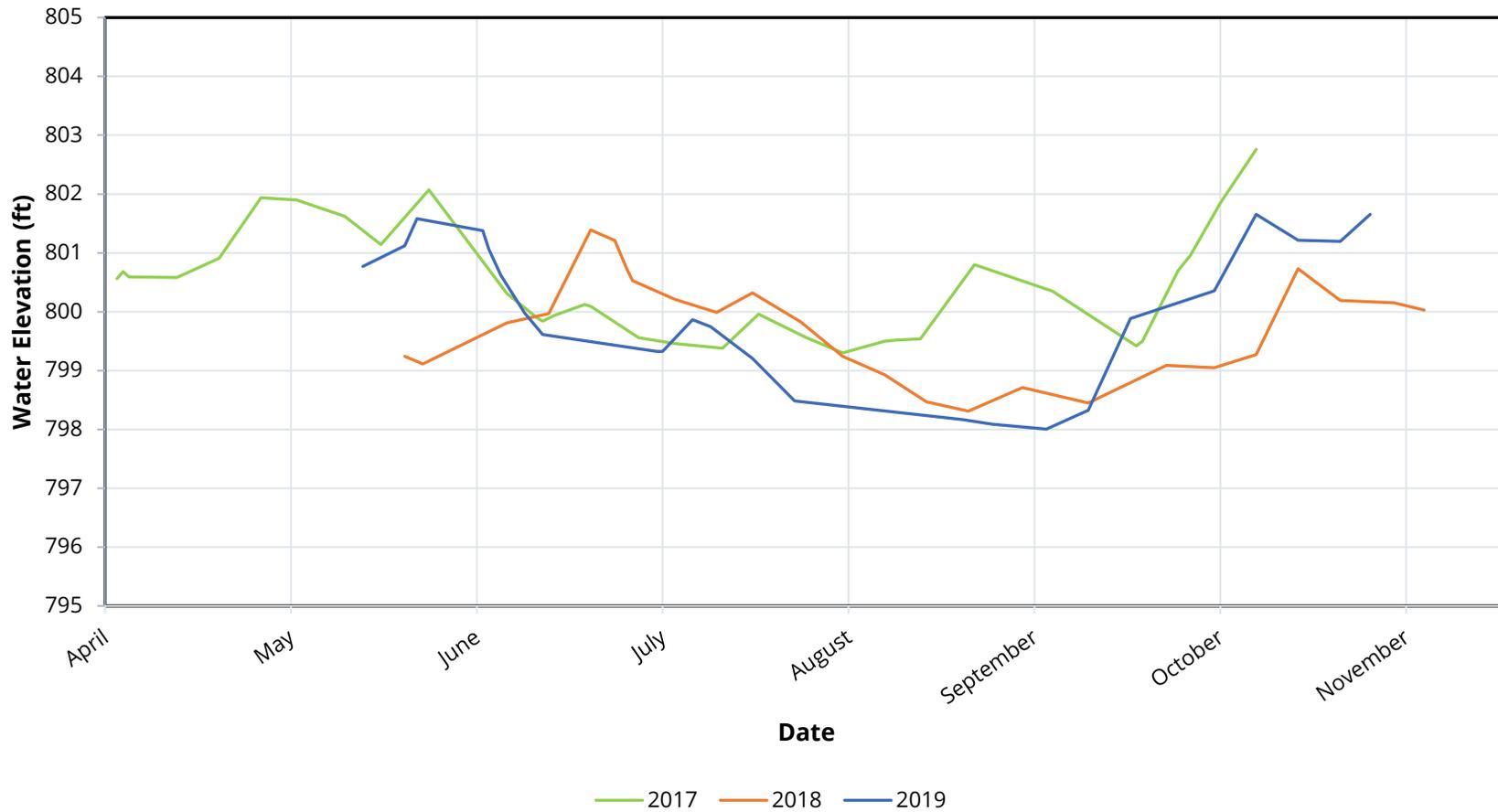


Figure 5. Mississippi River elevation values between April and November in 2017, 2018, and 2019 at river mile 854.9. Staff gage readings were collected approximately every week or when monitoring staff were on site and able to read gage

Mississippi River Elevation at MR852.2E (UMN Boat Launch)

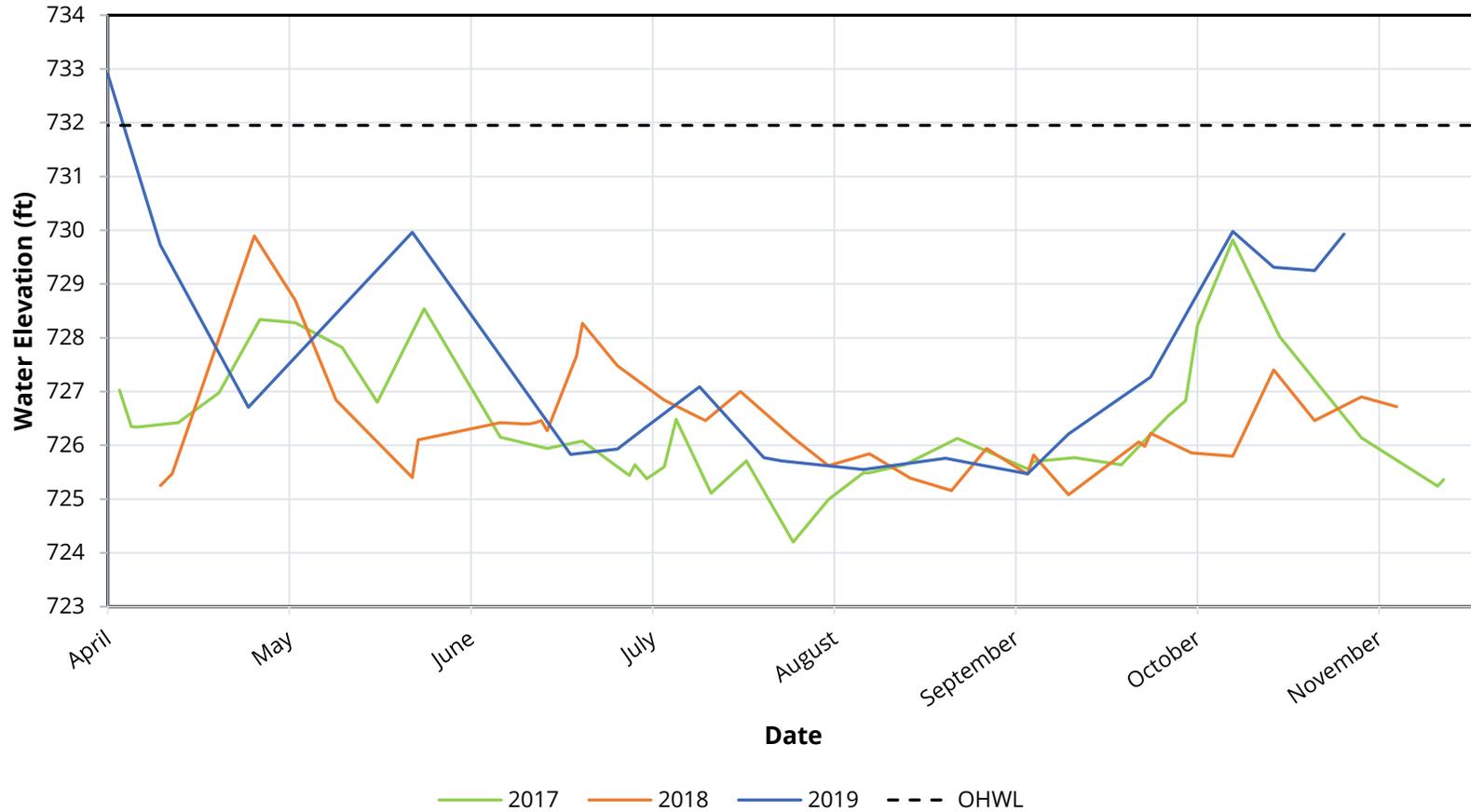


Figure 6. Mississippi River elevation values between April and November in 2017, 2018, and 2019 at river mile 852.2. Staff gage readings were collected approximately every week or when monitoring staff were on site and able to read gage. Ordinary high water level (OHWL) value included for comparison.

Mississippi River Elevation at MR849.9W (Lake Street Bridge)

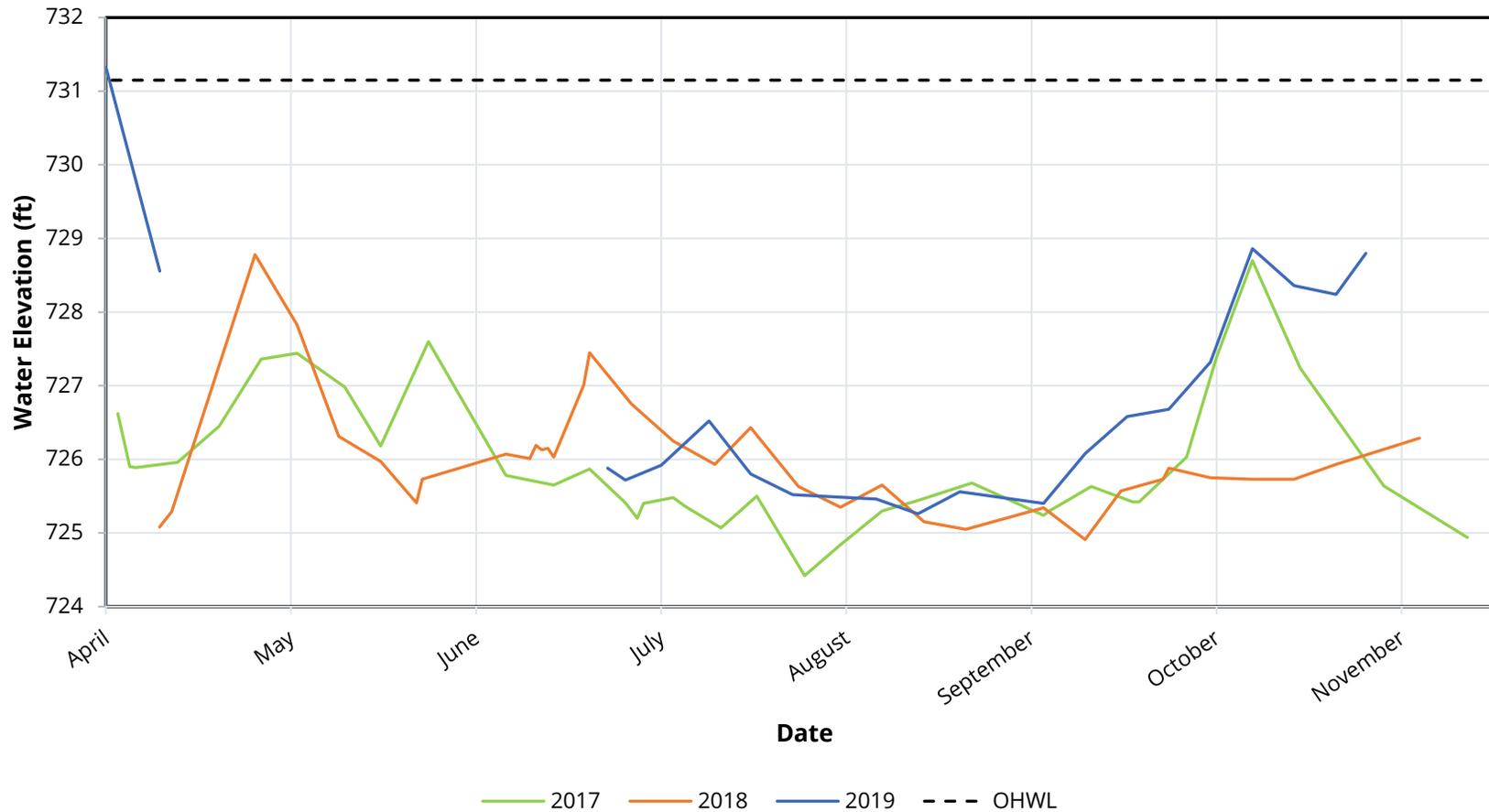


Figure 7. Mississippi River elevation values between April and November in 2017, 2018, and 2019 at river mile 849.9. Staff gage readings were collected approximately every week or when monitoring staff were on site and able to read gage. Ordinary high water level (OHWL) value included for comparison.

Mississippi River Elevation at MR848.1W (4300 West River Parkway)

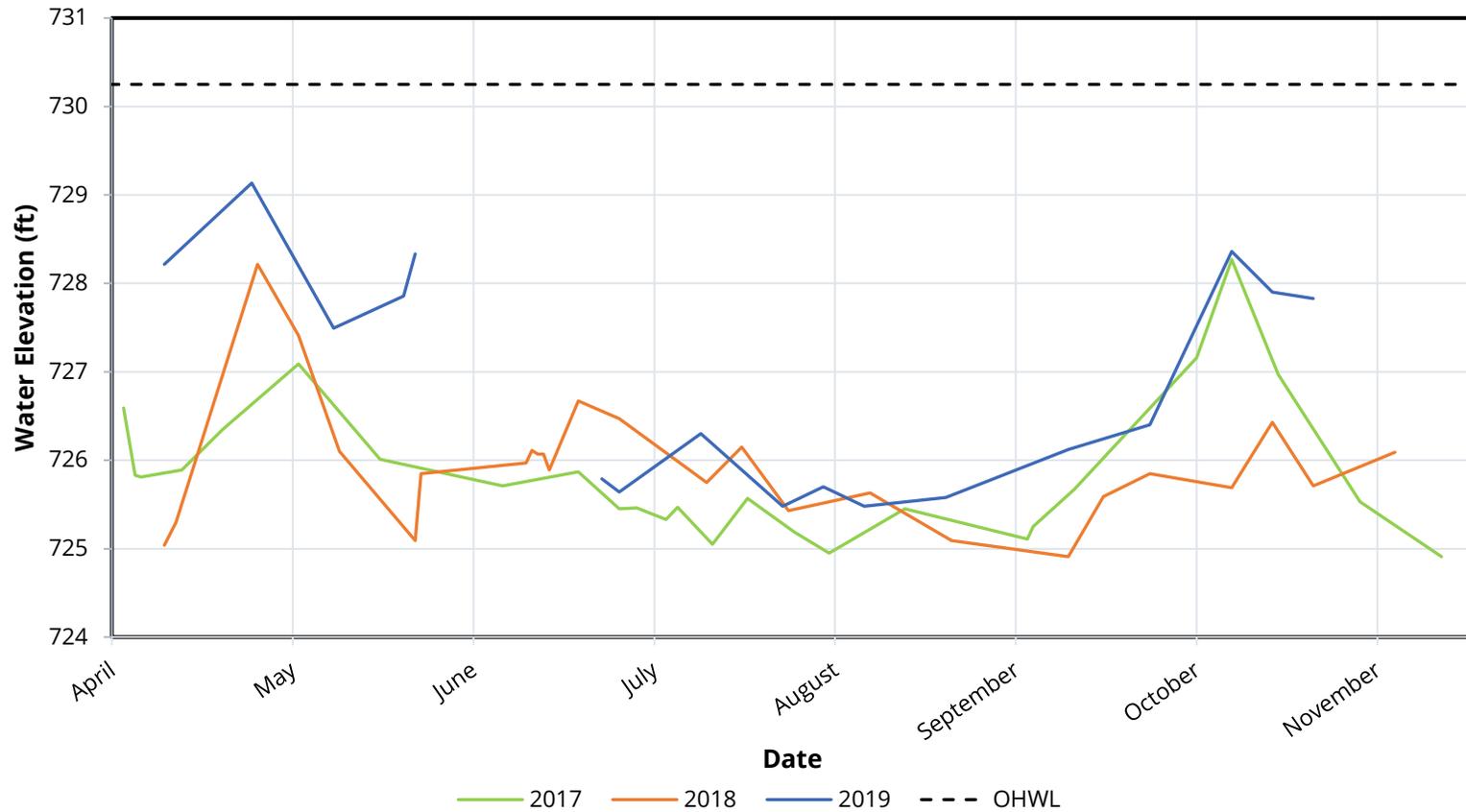


Figure 8. Mississippi River elevation values between April and November in 2017, 2018, and 2019 at river mile 848.1. Staff gage readings were collected approximately every week or when monitoring staff were on site and able to read gage. Ordinary high water level (OHWL) value included for comparison.