U.S. Department of the Interior
U.S. Geological Survey

Prepared in cooperation with the
Missouri Department of Natural Resources

Scientific Investigations Report 2023–5108
Plate 9 of 12

Table 1. Surface area and capacity at specified water-surface elevations for Old Lake (Bowling Green West) near Bowling Green, Missouri, April 26, 2021.

[Primary spillway elevation is about 779.6 feet; the mean water-surface elevation during the survey was about 773.9 feet (row shaded in the table)]

| Water-surface elevation,[1] in feet	Surface area, in acres	Capacity,[2] in acre-feet
732.0	0.063	0.047
734.0	0.580	0.470
736.0	1.01	2.12
738.0	1.58	4.64
740.0	2.06	8.26
742.0	2.50	12.8
744.0	2.85	18.0
746.0	3.20	24.0
748.0	3.58	31.0
750.0	5.84	40.0
752.0	8.27	54.0
754.0	10.8	73.0
756.0	13.1	97.0
758.0	15.2	126
760.0	17.5	158
762.0	19.1	195
764.0	20.8	235
766.0	22.4	278
768.0	23.9	324
770.0	25.1	373
772.0	26.9	425
773.9	28.8	478
774.0	28.9	481
776.0	30.5	540
778.0	32.2	603
779.6	33.6	656

[1]Elevations are referenced to the North American Vertical Datum of 1988 using the geoid model GEOID18.

[2]Capacities were calculated from surface testing at 0.28-foot vertical accuracy at a 95-percent confidence level. An explanation of the vertical accuracy calculation can be found in the "Bathymetric Surface, Contour Map, and Bathymetric Change Quality Assurance" section of the report of which this plate is a part.
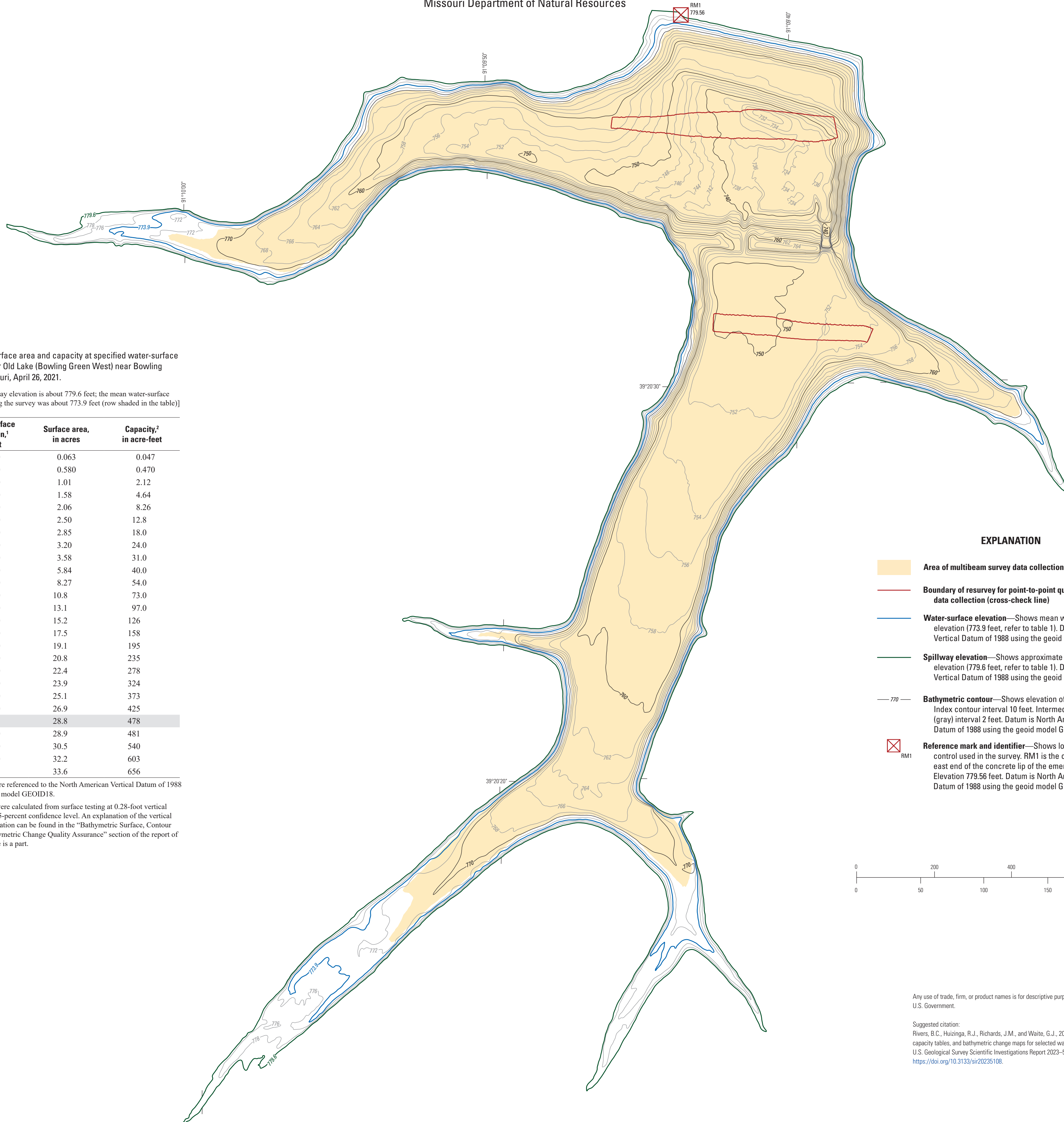
EXPLANATION

Area of multibeam survey data collection

Boundary of resurvey for point-to-point quality-assurance data collection (cross-check line)

Water-surface elevation—Shows mean water-surface elevation (773.9 feet, refer to table 1). Datum is North American Vertical Datum of 1988 using the geoid model GEOID18

Spillway elevation—Shows approximate emergency spillway elevation (779.6 feet, refer to table 1). Datum is North American Vertical Datum of 1988 using the geoid model GEOID18

770 Bathymetric contour—Shows elevation of the lake bottom. Index contour interval 10 feet. Intermediate contour (gray) interval 2 feet. Datum is North American Vertical Datum of 1988 using the geoid model GEOID18

RM1 Reference mark and identifier—Shows location of survey control used in the survey. RM1 is the chiseled X on the east end of the concrete lip of the emergency spillway. Elevation 779.56 feet. Datum is North American Vertical Datum of 1988 using the geoid model GEOID18
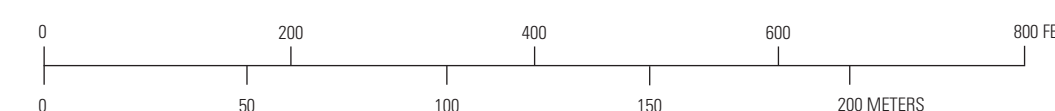
Bathymetric Contour Map and Surface Area and Capacity Table for Old Lake (Bowling Green West; lake 31) near Bowling Green, Missouri, 2021

By

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