Special Report 8 2020 GEOLOGY OF STARVED ROCK STATE PARK 88°56'W .Osp AND SURROUNDING AREA LA SALLE COUNTY. ILLINOIS Plum Island Starved Starved Rock **Geologic Time Glacial Episode** Rock Lock and Dam Disturbed ground: Human-made fill or excavations composed of a wide Saint Louis Lover's/Leap Canyon range of possible materials; includes former coal strip mines, silica mines, -Eagle Cliff Overlook Pontiac Canyon Cahokia Formation (undivided): Sorted silty sand, sand, or both; deposit-Sandstone Beehive Point ed in modern streams and floodplains within active stream valleys. Basswood Osp Overlook Overlook Canvon Cahokia Formation (thin over bedrock): Thin, sorted silty sand, sand, or 23 Lonetree **Hudson Episode** ILLINOIS both over bedrock; deposited in modern streams and floodplains where Aurora RIVER Canyon Delbridge Island ~14,700 years Canyon bedrock is very near land surface. before present (B.P.) Owl Canyon Canyon Quaternary to today Cahokia Formation (abandoned channels): Organic-rich silty sand, Period Lone Point sand, or both; deposited in abandoned stream channels and wetland areas. Hidden 2.58 million years Hennepin Canyon ago (Ma) to today Canyon T. 33 N Council Peyton Colluvium (sandy): Poorly sorted sand and sandy silt; slope wash Overlook French or slump deposits along canyon walls. Peyton Colluvium (fan facies): Sorted sand; redeposited alluvium in fans at mouths of canyons. Wisconsin **Lemont Formation – Yorkville Member:** Unsorted clay, silt, sand and Episode gravel (i.e., till); deposited beneath glacial ice. ~29,000-14,700 B.P. Osp. Hennepin Canyon Carbondale Formation: Thin beds of dark gray silty shale to fissile black Carboniferous shale, bituminous coal, mudstone, gray limestone, and guartz sandstone; Period deposited in a shallow marine environment. 358-298 Ma La Salle APPROXIMATE MEAN St. Peter Sandstone: Fine- to medium-grained well-rounded quartz sand; DECLINATION 2020 deposited in a coastal marine environment. Ordovician Period **Shakopee Dolomite:** (cross sections only) light gray, crystalline dolomite Kaskaskia 485-444 Ma with common shaley zones; deposited on an ancient sea floor; upper contact with St. Peter Sandstone is unconformably irregular. 89°00′W Geology by Jason F. Thomason, Illinois State Geological Survey. Digital cartography 88°58'W 88°56′W R. 3 E. C' by Emily Bunse, Shaina Lohman, Jason F. Thomason, and Deette Lund, Illinois State Rockford Geological Survey. West Map Area Base map compiled by the Illinois State Geological Survey from digital data (2018 Elevation U.S. Topo) provided by the U.S. Geological Survey. Shaded relief derived from 2017 (feet) A Starved Rock LaSalle Kaskaskia lidar elevation data provided by the U.S. Geological Survey and the Illinois Height Ottawa Canyon Wildcat Tonti St. Louis French Hennepin 700 Canyon Modernization Program (ILHMP). Contour interval 10 feet. Canyon Canyon I-y Canyon This map was prepared for public display at Starved Rock State Park. The Illinois 600 State Geological Survey and the University of Illinois make no guarantee, expressed Peoria 500 500 or implied, regarding the correctness or completeness of the interpretations presented in this document and accept no liability for the consequences of decisions made 400 Os by others on the basis of the information presented here. The geologic interpretations are based on data that may vary with respect to the accuracy of geographic location, North South North South the type and quantity of data available at each location, and the scientific and technical qualifications of the data sources. Maps or cross sections in this document are Elevation C Elevation not meant to be enlarged. (feet) 700 700 Effinghar Buffalo Bock Sauer, C.O., G.H. Cady, and H.C. Cowles, 1918, Starved Rock State Park and its environs, Plate State Park 600 600 600 St. Louis 1: The Geographic Society of Chicago, Bulletin No. 6, 148 p. Delbridge Island Shields, W.E., D.H. Malone, and B. Harp, 2005, Surficial geology of the LaSalle Quadrangle, py(s) 500 500 500

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Cross sections show the geology below land surface. The St. Peter Sandstone comprises the cliff faces of the park's canyons. The canyons were carved in part by glacial-meltwater flood events that occurred between 18,800 and 15,100 years ago.

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Horizontal Scale: 1 inch = 2,000 feet Vertical Scale: 1 inch = 400 feet Vertical Exaggeration: 5× Cross sections are for general use only to reflect the regional geology and do not conform precisely to the map.

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