Map Unit Properties Table: Abraham Lincoln Birthplace National Historical Park

Age	Map Unit (Symbol)	Features and Description	Erosion Resistance	Suitability for Infrastructure	Hazards	Paleontological Resources	Cultural Resources	Mineral Occurrence	Habitat	Recreation	Geologic Significance
QUATERNARY	Alluvium (**Qal**)	Silt, clay, sand, and gravel present in floodplain deposits, channel deposits, and alluvial fan deposits associated with area waterways. Sand-rich beds are very fine to fine grained with silt and clay interbeds and poor sorting. Gravel layers contain granules, pebbles, and cobbles of chert, limestone, dolomite, silicified limestone, and limonite-cemented sandstone. Some colluvium present locally.	Low	Highly permeable. Avoid for wastewater treatment facility development. Avoid fragile riparian areas.	May be undercut by erosion and subject to mass wasting (e.g., sliding and slumping)	May contain fossils derived from nearby limestone units. Fossils likely concentrated in gravel-rich layers.	May contain artifacts and Native American camps and mounds. Chert cobbles may have provided tool and trade material.	Sand, gravel, and silt	Supports riparian areas along waterways and some wetland areas locally	Suitable for most light recreation. Avoid undercut and riparian areas for campground development.	Records the movement of waterways across the landscape and contains flood stage information
MISSISSIPPIAN	St. Louis Limestone (**Msl**)	Primarily light olive gray limestone, yellowish gray dolomite, and shale with silty, carbonaceous, siliceous, and cherty zones. Lower beds are clayey, laminated, and dolomitic. Bedding ranges from thick to thin and limy partings are common.	Moderate	Prone to sinkhole and karst development. Avoid for most development, especially wastewater treatment. Contains a viable aquifer for wells <30 m (100 ft) deep.	Prone to sinkhole development	Brachiopod fragments and colonial coral	Chert layers may have provided tool material. Calcite vugs may have provided trade material. Caves may have provided shelter.	Prevalent petroliferous odor; may be hydrocarbon reservoir elsewhere. Limestone quarried elsewhere. Shale marl used as a soil conditioner. Calcite-filled vugs.	Forms rolling-hill landscape and weathers to red, chert-rich, thick clayey soils	Caves may attract spelunkers and other speleological interests. Sinkholes pose hazards.	Widespread carbonate layer prone to cave development in other areas
MISSISSIPPIAN	Salem Limestone (**Ms**)	Highly variable with olive gray limestone bedded with yellowish brown shale. Coarse-grained layers grade into fine-grained layers, and bedding varies from thin to medium. Coarser layers are cross-bedded. Lower layers are rich in shale, siltstone, and some calcareous fossil zones and siliceous cements. Some dolomitic layers present locally.	Moderate	Springs are common at base; avoid these areas for heavy development. Contains a poor aquifer.	Unstable on slopes and if undercut. Prone to sinkhole development.	Brachiopods, fenestrate bryozoans, foraminifera, horn coral, crinoid columnals, trilobites, and blastoid calyxes	Chert and geodes may have provided tool and trade material	Massive bedded limestone may provide building material; some glauconite. Geodes (some filled with gypsum) in dolomitic layers.	Vugs and geodes may provide burrow habitat	Sinkholes may pose recreational hazards and unstable base for recreation infrastructure.	Widespread; correlates throughout the region
MISSISSIPPIAN	Harrodsburg Limestone (**Mhb**)	Contains light olive gray, coarse to very coarse grained limestone with bedding ranging from thick to thin and local brownish gray, thin-bedded, calcareous, and siliceous silty dolomitic limestone interbeds. Matrix is mostly finely crystalline calcite. Cross-bedded and stylolitic.	Moderate to high	Springs form at base. Avoid spring areas and especially porous zones for wastewater treatment development. Minor aquifer potential.	Prone to cave and karst development, including sinkholes and landslides if exposed on steep slopes	Abundant crinoid columnals; fenestrate bryozoans, echinoid plates, and brachiopods	Chert layers may have provided tool material. Large geodes may have been trade material.	Green glauconite, ledge-forming building material; geodes up to 22 cm (9 in) in diameter.	Forms steep slopes with nearly pure calcite ledges. May provide nesting habitat.	Avoid steep slopes for recreation facility development. Ledges may attract climbers on cliffs.	Records prolific Mississippian seas with occasional terrestrial input
MISSISSIPPIAN	Borden Formation (**Mb**) Muldraugh Member, Borden Formation (**Mbm**) Crinoidal Limestone, Borden Formation (**Mbls**)	Contains seven members, of which only **Mbm** and **Mbls** are differentiated on the map. Dominated by shale, siltstone, and thick to thin bedded limestone. Some members contain shale, clay, and silt rich layers. Tabular bedding is commonly discontinuous in thick-bedded massive quartzose silty layers. **Mbm** contains siltstone, dolomite, and limestone grading into fine-grained sandstone interlayered with dolomitic, calcareous, micaceous, and locally glauconitic layers. **Mbls** contains thin to thick bedded, cross-bedded, fossiliferous limestone layered with siltstone.	Moderate to high for silicified layers	Forms steep slopes prone to sliding and slumping. Avoid for heavy development. May be unstable for foundations and roads. Contains a poor aquifer.	Prone to landslide. Contains clay that is plastic when wet.	Crinoid columnals and other marine fossils	Chert and ironstone concretions may have provided tool material	Ironstone, phosphatic nodules, glauconite layers; oxidized pyrite nodules, quartz geodes.	Forms steep slopes (Muldraugh Escarpment) with steeply plunging gullies	Plastic clays may be slippery as a road or trail base. Avoid for recreation infrastructure.	Records widespread Mississippian sea with reef deposits resembling those in south-central Kentucky