

APPENDIX E

GLOSSARY

Alluvium	Material, such as sand, silt or clay, deposited on land by streams (Missouri Cooperative Soil Survey).
Bedrock	The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface (Missouri Cooperative Soil Survey).
Boulders	Rock fragments larger than 2 feet (60 centimeters) in diameter (Missouri Cooperative Soil Survey).
Calcareous soil	A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid (Missouri Cooperative Soil Survey).
Canadian Shield	Also known as the Laurentian Plateau, it is a U-shaped region of ancient rock, the nucleus of North America, stretching north from the Great Lakes to the Arctic Ocean. Covering more than half of Canada, it also includes most of Greenland and extends into the United States as the Adirondack Mountains and the Superior Highlands. The first part of North America to be permanently elevated above sea level, it has remained almost wholly untouched by successive encroachments of the sea upon the continent. It is the earth's greatest area of exposed Archaean-age rock; the metamorphic rocks of which it is largely composed were probably formed in the Precambrian era. Repeatedly uplifted and eroded, it is today an area of low relief (1,000–2,000 feet above sea level) with a few monadnocks and low mountain ranges (including the Torngat and Laurentian Mountains) probably eroded from the plateau during the Cenozoic era (Columbia Electronic Encyclopedia, online data).
Candidate species	Plants and animals that have been studied and the U.S. Fish and Wildlife Service has concluded that they should be proposed for addition to the Federal endangered and threatened species list. These species have formerly been referred to as category 1 candidate species. From the February 28, 1996 <i>Federal Register</i> , page 7597: "those species for which the U.S. Fish and Wildlife Service has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded" (FWS Region 3 Endangered Species Glossary, online data).
Chert	A rock that closely resembles flint and consists primarily of chalcedony (quartz) with smaller amounts of other quartz and silica.

Chert is insoluble, unlike the carbonate rocks with which it usually occurs in Missouri (Nigh, 2007).

Clay

As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt (Missouri Cooperative Soil Survey).

Digital Elevation Model, 30 Meter

Digital Elevation Model, or DEM, refers to a type of topographical map depicting samples of elevation at 30 meter intervals (CARES website, online data). Topographical maps in Part II: Regional Profile of this plan are part of the Missouri portion of the National Elevation Dataset produced by the USGS and available online at the University of Missouri CARES website.

Drainage class

Refers to the frequency and duration of periods of saturation or partial saturation during soil formation, as opposed to altered drainage, which is commonly the result of artificial drainage or irrigation but may be caused by the sudden deepening of channels or the blocking of drainage outlets. Seven classes of natural soil drainage are recognized (Missouri Cooperative Soil Survey):

- *Excessively drained.*—Water is removed from the soil very rapidly. Excessively drained soils are commonly very coarse textured, rocky, or shallow. Some are steep. All are free of the mottling related to wetness.
- *Somewhat excessively drained.*—Water is removed from the soil rapidly. Many somewhat excessively drained soils are sandy and rapidly pervious. Some are shallow. Some are so steep that much of the water they receive is lost as runoff. All are free of the mottling related to wetness.
- *Well drained.*—Water is removed from the soil readily, but not rapidly. It is available to plants throughout most of the growing season, and the wetness does not inhibit growth of roots for significant periods during most growing seasons. Well drained soils are commonly medium textured. They are mainly free of mottling.
- *Moderately well drained.*—Water is removed from the soil somewhat slowly during some periods. Moderately well drained soils are wet for only a short time during the growing season, but periodically they are wet long enough that most mesophytic crops are affected. They commonly have a slowly pervious layer within

or directly below the solum, or periodically receive high rainfall, or both.

- *Somewhat poorly drained.*—Water is removed slowly enough that the soil is wet for significant periods during the growing season. Wetness markedly restricts the growth of mesophytic crops unless artificial drainage is provided. Somewhat poorly drained soils commonly have a slowly pervious layer, a high water table, additional water from seepage, nearly continuous rainfall, or a combination of these.
- *Poorly drained.*—Water is removed so slowly that the soil is saturated periodically during the growing season or remains wet for long periods. Free water is commonly at or near the surface for long enough during the growing season that most mesophytic crops cannot be grown unless the soil is artificially drained. The soil is not continuously saturated in layers directly below plow depth. Poor drainage results from a high water table, a slowly pervious layer within the profile, seepage, nearly continuous rainfall, or a combination of these.
- *Very poorly drained.*—Water is removed from the soil so slowly that free water remains at or on the surface during most of the growing season. Unless the soil is artificially drained, most mesophytic crops cannot be grown. Very poorly drained soils are commonly level or depressed and are frequently ponded. Yet, where rainfall is high and nearly continuous, they can have moderate or high slope gradients.

Ecosystem

A geographic area including all the living organisms (people, plants, animals, and microorganisms), their physical surroundings (such as soil, water, and air), and the natural cycles that sustain them. All of these elements are interconnected. Managing any one resource affects the others in that ecosystem. Ecosystems can be small (a single stand of aspen) or large (an entire watershed including hundreds of forest stands across many different ownerships) (U.S. Fish and Wildlife Service, online data).

Erosion

The wearing away of the land surface by water, wind, ice or other geologic agents and by such processes as gravitational creep (Missouri Cooperative Soil Survey).

Floodplain

A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially (Missouri Cooperative Soil Survey).

Glacial drift	Pulverized and other rock material transported by glacial ice and then deposited. Also the sorted and unsorted material deposited by streams flowing from glaciers (Missouri Cooperative Soil Survey).
Glacial till	Unsorted, nonstratified glacial drift consisting of clay, silt, sand, and boulders transported and deposited by glacial ice (Missouri Cooperative Soil Survey).
Hazard	Natural, technological or civil threats to people, property and the environment (Drabek and Hoetmer, 132).
Hazard identification	The process of identifying hazards that threaten a given area (SEMA <i>Regional Planning Commission Hazard Mitigation Planning Guide</i>).
Igneous	Igneous rocks (from the Greek word for <i>fire</i>) form when hot, molten rock (magma) crystallizes and solidifies. Igneous rocks are divided into two groups, intrusive or extrusive, depending upon where the molten rock solidifies. <i>Intrusive</i> , or plutonic, igneous rock forms when magma is trapped deep inside the earth, where it cools very slowly over many thousands or millions of years until it solidifies. <i>Extrusive</i> , or volcanic, igneous rock is produced when magma exits and cools outside of, or very near, the earth's surface (USGS and NPS, online data).
Land resource units	Geographic areas, usually several thousand acres in extent, that are characterized by a particular pattern of soils, climate, water resources, and land uses. A unit can be one continuous area or several separate nearby areas. Land resource units (LRUs) are the basic units from which major land resource areas (MLRA's) are determined. They are also the basic units for state land resource maps. They are coextensive with state general soil map units, but some general soil map units are subdivided into land resource units because of significant geographic differences in climate, water resources, and land use (NRCS, online data).
Loess	Fine grained material, dominantly of silt-sized particles, deposited by wind (Missouri Cooperative Soil Survey).
Major land resource areas	Major land resource areas (MLRAs) are geographically associated land resource units (LRUs). Identification of these large areas is important in statewide agricultural planning and has value in interstate, regional and national planning (NRCS, online data).

Mesic	Relatively moist A term used to describe landscapes capable of supporting vegetation (mesophytes) requiring an adequate moisture supply (Nigh, 2008).
Metamorphic rock	Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement. Nearly all such rocks are crystalline (Missouri Cooperative Soil Survey).
Mitigation	Sustained action that reduces or eliminates long-term risk to people and property from natural hazards and their effects. It describes the ongoing efforts at the federal, state, local and individual levels to lessen the impact of disasters upon families, homes, communities and economy (SEMA <i>Regional Planning Commission Hazard Mitigation Planning Guide</i>).
Missouri Ecological Classification System	The Missouri Ecological Classification System is one of several systems used to classify the land surface. This system divides Missouri into sections, subsections and landtype associations based on geography, topography, geology, vegetation, soils and other natural characteristics. This system is described in more detail in the “Ecosystems” section of this plan. Refer to Nigh and Schroeder’s <i>Atlas of Missouri Ecoregions</i> for detailed information on this system and the natural environments of the state.
Parent material	The unconsolidated organic and mineral material in which soil forms (Missouri Cooperative Soil Survey).
Pediment	Fine textured sediment that is similar in composition to the constituents of the underlying material (Missouri Cooperative Soil Survey).
Period	A unit of time on the geologic timescale. Periods are shorter than an era and longer than an epoch. Periods are of variable length, generally lasting tens of millions of years, with characteristic fossils found preserved in the sediments deposited during the period. It is also used to designate a characteristic of geologic time, such as the glacial period (Columbia Electronic Encyclopedia, online data).
Residuum	Residual soil material. Unconsolidated, weathered or partly weathered mineral material that accumulated as consolidated rock disintegrated in place (Missouri Cooperative Soil Survey, online data).
Risk	The probability that a hazard will occur during a particular time period (Drabek and Hoetmer, 132). It is the estimated impact that a hazard

[may] have on people, services, facilities and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage (SEMA *Regional Planning Commission Hazard Mitigation Planning Guide*, 37).

Risk assessment

The process of measuring the potential loss of life, personal injury, economic injury and property damage resulting from hazards (SEMA *Regional Planning Commission Hazard Mitigation Planning Guide*, 37).

Sand

As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay (Missouri Cooperative Soil Survey, online data).

Sandstone

Sedimentary rock containing dominantly sand-sized particles (Missouri Cooperative Soil Survey, online data).

Sedimentary rock

Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone (Missouri Cooperative Soil Survey, online data).

Silt

As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay (Missouri Cooperative Soil Survey, online data).

Slope

The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance. In this survey the following slope classes are recognized (Missouri Cooperative Soil Survey, online data):

Nearly level	0 to 1 percent
Nearly level and very gently sloping	0 to 3 percent
Very gently sloping	1 to 3 percent
Gently sloping	2 to 5 percent
Moderately sloping	5 to 9 percent
Strongly sloping	9 to 14 percent
Moderately steep	14 to 20 percent

	Steep	20 to 30 percent
	Very steep	More than 30 percent
Soil	A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief over periods of time (Missouri Cooperative Soil Survey, online data).	
Soil Association	A group of soils geographically associated in a characteristic repeating pattern and defined and delineated as a single map unit (Missouri Cooperative Soil Survey, online data).	
Species	From Section 3(15) of the <i>Federal Endangered Species Act</i> : "The term 'species' includes any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." A population of individuals that are more or less alike, and that are able to breed and produce fertile offspring under natural conditions.	
Stones	Rock fragments 10 to 24 inches in diameter (Missouri Cooperative Soil Survey, online data).	
Threatened	The classification provided to an animal or plant likely to become endangered within the foreseeable future throughout all or a significant portion of its range.	
Till plain	An extensive area of nearly level to undulating soils underlain by glacial till (Missouri Cooperative Soil Survey, online data).	
Topsoil	The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining (Missouri Cooperative Soil Survey, online data).	
Upland	Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams (Missouri Cooperative Soil Survey, online data).	
Vulnerability	Susceptibility to injury or damage from hazards (Drabek and Hoetmer, 132).	
Vulnerability assessment	The extent of injury and damages that may result from a hazard event of a given intensity in a given area (SEMA, <i>Regional Planning Commission Hazard Mitigation Planning Guide</i>).	

Watershed	The land area that drains water to a particular stream, river or lake. It is a land feature that can be identified by tracing a line along the highest elevations between two areas on a map, often a ridge. Large watersheds, like the Missouri River basin, contain numerous smaller watersheds (USGS Water Resources of Georgia, online data).
Water table	The highest part of the soil or underlying rock material that is wholly saturated with water. In some places an upper, or perched, water table may be separated from a lower one by a dry zone (Missouri Cooperative Soil Survey, online data).
Weathering	All physical and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the material (Missouri Cooperative Soil Survey, online data).