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## 11 GLOSSARY & ACRONYMS

### 11.1 Glossary of Terms

**Accessibility** – The ability of people to reach desired destinations. These include employment, shopping, recreational facilities, medical facilities, cultural centers, airports, etc. Accessible regions allow residents to reach many such destinations in a shorter period of time. Regions with lesser accessibility allow residents to reach fewer destinations and require longer periods of time.

**Alternative**– A possible set of actions to address the transportation problems defined in the Purpose and Need. Each alternative includes all actions required to implement, i.e., if an alternative for a bridge replacement required the new bridge to be constructed adjacent to the old bridge, the description cannot exclude the new roadway approach.

**Aquifer** – One or more geologic formations containing sufficient saturated, porous and permeable material to transmit water at a rate sufficient to feed a spring or for economic extraction by a well. A sole source aquifer is the sole or principal source of drinking water for an area.

**Archaeological Research** – Indiana guidelines define the phases of archaeological research as follows:

- **Phase Ia** includes background research and systematic field reconnaissance to identify cultural resources within a project area. The reconnaissance consists of a surface survey and visual inspection of the soil when ground surface visibility and survey conditions are adequate; or, when ground surface and survey conditions are not adequate, the use of shovel probes, cores and/or auguring techniques to discover site evidence at or near the surface of the site.
- **Phase Ib** is an intensive reconnaissance with the use of controlled surface collections, close-interval shovel probing or piece plotting.
- **Phase Ic** is subsurface reconnaissance to locate archaeological sites buried in alluvial (sediment deposited by flowing water), colluvial (sediment moving downslope) or eolian (wind-borne) landforms.
- **Phase II** testing is conducted to make a formal determination of eligibility for sites for the National Register of Historic Places (NRHP). Sites are tested to determine the vertical extent of the site, the presence of subsurface cultural features (e.g., hearths, trash/storage pits, living surfaces), the nature and context of deposits, and extent of disturbance, if any. Field research is conducted through the controlled excavation of test units. These units usually measure between 1m x 1m and 2m x 2m. Testing may also involve the stripping of topsoil in areas to identify cultural features. Sites determined eligible for NRHP listing are recommended for avoidance and/or mitigation.
- **Phase III** archaeological projects are designed to mitigate or recover data from significant archaeological sites that cannot be avoided. These are sites deemed significant determined eligible for inclusion in the NRHP. These projects involve large-scale excavations and recovery efforts to mitigate adverse effects on a site. Mitigation plans are developed to determine the specific methodology and research design for the project.

**Archaeological Site** – A location where there is evidence of past human behavior or activity, including artifacts and features.

**Area of Potential Effects (Archaeological)** – The study area for archaeological cultural resource impacts. It is defined through consultation with the State Historic Preservation Officer (SHPO) and consists of the right-of-way for the preferred alternative. In Indiana, the SHPO is the Director of the Department of Natural Resources.



**Area of Potential Effects (Aboveground)** – The study area for aboveground cultural resource impacts. It is defined through consultation with the State Historic Preservation Officer (SHPO). In some areas of relatively flat relief, the APE was expanded to incorporate any potential physical, temporary and long-term visual, atmospheric, or audible impacts or alterations to aboveground resources. In Indiana, the SHPO is the Director of the Department of Natural Resources.

**Bedrock** – Solid rock underlying loose deposits such as soil.

**Best Management Practice (BMP)** – Control measures taken to mitigate changes to both quantity and quality of urban runoff caused through changes to land use. Generally, BMPs focus on water quality problems caused by increased impervious surfaces from land development. BMPs are designed to reduce stormwater volume, peak flows, and/or nonpoint source pollution through evapotranspiration, infiltration, detention and filtration or biological and chemical actions. BMPs can also improve receiving-water quality by extending the duration of outflows in comparison to inflow duration (known as hydrograph extension), which dilutes the stormwater discharged into a larger volume of upstream flow. Stormwater BMPs can be classified as “structural” (i.e., devices installed or constructed on a site) or “non-structural” (procedures, such as modified landscaping practices or street sweeping). There are a variety of BMPs available; selection typically depends on site characteristics and pollutant removal objectives.

**Biological Assessment (BA)** – The purpose of the biological assessment is to evaluate the potential effects on listed and proposed species and critical habitat that may be present in the action area. It includes information prepared by, or under the direction of, a federal agency to determine whether a proposed action is likely to: (1) adversely affect listed species or designated critical habitat; (2) jeopardize the continued existence of species that are proposed for listing; or (3) adversely modify proposed critical habitat. Biological assessments must be prepared for major construction activities for which formal Section 7 consultation is required. The outcome of the biological assessment determines whether formal consultation or a conference with the appropriate regulatory agency is necessary. These agencies include the United States Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service.

**Biological Opinion (BO)** – A document that includes: (1) the opinion of USFWS or the National Marine Fisheries Service as to whether or not a federal action is likely to jeopardize the continued existence of listed species, or result in the destruction or adverse modification of designated critical habitat; (2) a summary of the information on which the opinion is based; (3) a detailed discussion of the effects of the action on listed species or designated critical habitat; and (4) the incidental take statement and the terms and conditions (mitigation requirements) associated with the incidental take statement.

**Brownfield** – With certain legal exclusions and additions – the term “brownfield site” means real property, the expansion, redevelopment or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant.

**CERCLA Site** – A site contaminated with a hazardous substance and being remediated as part of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

**Clear Zone** – The unobstructed, relatively flat area provided beyond the edge of the traveled way, intended to allow errant vehicles to stop or maneuver without striking any fixed objects. The clear zone includes any shoulders and auxiliary lanes.

**Committed Project** – This refers to a future, not yet constructed, highway project which does not exist in the base year traffic forecast. However, it is expected to be constructed by the forecast year regardless of whether the proposed project is constructed.



**Congestion** – A condition in which the number of vehicles using a road approaches the capacity of that road. It is characterized by reduced travel speeds. High levels of congestion produce stop-and-go conditions.

**Construction Limits** – A boundary that defines the extent of the area within which construction activities can occur. The construction limits are contained within a project’s right-of-way limits but do not always occupy the entire right-of-way area. The construction limits and right-of-way limits are shown on the contract plans provided to a contractor for purposes of constructing a project.

**Contributing Sites/Structures** – Within the Indiana Historic Sites and Structures Inventory (IHSSI) rating system, this is a property that is not important enough to stand on its own as individually “outstanding” or “notable”. Such resources are important to the density or continuity of an area’s historic fabric. “Contributing” properties may appear in the National Register of Historic Places (NRHP) if they are part of a historic district but do not usually qualify individually.

**Core Forest** – Generally accepted to be the portion of the forest that is 100 meters from the edge. The outer portion is considered the edge habitat.

**Core Goal** – In Tier 1, certain project goals were identified as core goals. A Tier 1 project goal was identified as a core goal based upon consideration of the policy/legislative framework as well as the transportation and economic development needs assessment. A substantial improvement for each core goal was expected for the selected Tier 1 alternative. In Tier 2 studies, there is no designation of core goals.

**Cumulative Impacts** – Effects on the environment which result from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts include the direct and indirect impacts of a project together with the reasonably foreseeable future actions of others.

**Direct Impacts** – Effects that are caused by the action and occur at the same time and place. An example of a direct impact would be the acquisition and filling of a wetland for the construction of an interchange.

**Ecosystem** – The complex of living organisms, their physical environment and all their inter-relationships in a particular unit of space.

**Economic Model** – A computerized representation of the economy of a region. It models the interaction of components such as labor, capital, markets and government policy. The model used in this study, Transportation Economic Development Impact System (TREDIS), provides benefit-cost analysis, economic impact analysis and financial impact analysis for transportation planning. It is used in Mid-States Corridor to evaluate the relative performance of alternatives on Purpose and Need indicators. It also provides forecasts of added households and employment that occur due to the Mid-States Corridor project.

**Endangered Species Act (ESA)** – Federal legislation that makes it unlawful to take a federally threatened or endangered animal without a permit. Take is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or attempt to engage in such conduct.”

**Environmental Impact Statement (EIS)** – A detailed document prepared as part of the National Environmental Policy Act (NEPA) process. A draft EIS (DEIS) (1) designates a preferred alternative and (2) is published to seek agency and public input. A final EIS (FEIS) adds (1) the comments and responses to the DEIS and (2) refines the preferred alternative.

**Ephemeral Streams** – Streams that flow only after rainfall and generally do not support aquatic life.



**Farmland Protection Policy Act (FPPA)** – The goal of this act is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses by requiring the identification and addressing of adverse effects of their programs on the preservation of farmland, consideration of alternative actions to reduce adverse effects and ensuring compatibility with other programs and policies that protect farmland.

**FAST Act** – Fixing America’s Surface Transportation (FAST) Act (Pub. L. No. 114-94) provides long-term funding for surface transportation infrastructure planning and investment. The FAST Act authorized \$305 billion over fiscal years 2016 through 2020.

**Flood Easement** – Flood easements may be acquired in some areas where new local access road bridge designs result in increased backwater exceeding 0.14 feet during the regulatory flood (the allowable limit identified in the Flood Control Act – IC 14-28). All bridge designs will comply with Federal Highway Administration (FHWA) approved design standards, which allow a maximum backwater increase of 1.0 foot during the regulatory flood.

**Floodplain** – Mostly level land along rivers and streams that may be submerged by floodwater. A “100-year floodplain” is an area subject to a 1 percent probability of a certain size flood occurring in any given year.

**Floodway** – The channel of a river or stream and those portions of the floodplain adjoining the channel which are reasonably required to efficiently carry and discharge the peak flow of the regulatory flood of any river or stream.

**Forecast Year** – A year that is 20-25 years into the future for which traffic forecasts are made. The design of any transportation facility must accommodate travel that would occur in the forecast year.

**Forest Type** – USDA classification of forest land based on and named for the tree species that form the plurality of live-tree stocking or density. It indicates the predominant live-tree species cover. Types can be grouped with closely associated species or type requirements.

**Forest Fragmentation** – The reduction of large, contiguous, forested areas into relatively small, isolated patches through natural or man-made sources.

**Geographic Information System (GIS)** – An information system that can store and analyze spatial data. This data can be generated and displayed to show physical location. Each data set with a certain type of information (e.g., the location of wetlands) constitutes a “layer” in the GIS. GIS layers can be superimposed to show the relationship between the locations of different items.

**Geographic Scope** – The study area for cumulative impacts. For Mid-States Corridor, the geographic scope consists of Daviess, Dubois, Greene, Lawrence, Martin, Monroe and Orange counties.

**Grade Separation** – Overpass or underpass.

**Groundwater** – That portion of the water beneath the surface of the earth that can be collected with wells, tunnels or drainage galleries, or that flows naturally to the earth’s surface via seeps or springs.

**High Quality Natural Community** – Any one of a number of unique habitats tracked by the Indiana Department of Natural Resources (IDNR) Division of Nature Preserves and ranked by their relative scarcity in the state.

**Historic Properties** – Buildings, structures, sites, objects or districts that are eligible for or listed in the National Register of Historic Places.



**Horizontal Alignment** – Location of the road as it can be moved from side to side, usually done by using curves. Horizontal curves are, in effect, transitions between two tangents. These deflectional changes are necessary in virtually all highway alignments to avoid impacts on a variety of field conditions (e.g., right-of-way, natural features, manmade features).

**Impaired Stream** – A stream listed in the Indiana Department of Environmental Management (IDEM) 2014 303(d) List of Impaired Waterbodies. These streams do not meet Indiana water quality standards. Streams may be impaired due to chemical or biological contaminants.

**Incidental Take Statement** – The part of a non-jeopardy biological opinion that estimates the amount or extent of incidental take of listed species likely to result from the action subject to consultation and exempts that take from Section 9 take prohibitions. Per Section 7(o)(2) of the ESA, actions that are conducted in conformance with the terms and conditions of an incidental take permit are exempt from the Section 9(a)(1) prohibitions on take.

**Indiana Historic Sites and Structures Inventory** – A continuing program of the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology (DHPA) since the mid-1970s. It is the responsibility of the DHPA's Survey and Registration Section to administer and maintain the survey data that have been collected on all above-ground resources identified.

**Indirect Impacts** – Defined by the CEQ Regulations as “effects which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate...” For this project, an example of an indirect impact would be farmland bought by a developer to build a service station at an interchange associated with the undertaking.

**Interchange** – A grade-separated crossing with entrance and exit ramps to allow access to and from the route crossed.

**Intermittent Streams** – Streams that flow from springs or during or after large rainfall events (often seasonal) and support some aquatic life.

**Intersection** – The place where two or more roads meet or cross. Unlike an interchange, crossing is at-grade without any separation by use of a bridge. Traffic control is by use of signage, signalization or roundabout.

**Isolated Wetland** – Wetlands that do not have a direct connection to a navigable waterway and do not fall under federal jurisdiction. They are under the jurisdiction of IDEM and are classified based on quality.

**Jurisdictional Wetland** – A wetland regulated by the U. S. Army Corps of Engineers (USACE) as “waters of the United States” under the Clean Water Act. Impacts to jurisdictional wetlands must be mitigated by recreating, restoring or enhancing wetlands.

**Last Resort Housing** – A program used when comparable replacement housing is not available or when it is unavailable within the displacee's financial means, and the replacement payment exceeds the state legal limitation. The purpose of the program is to allow broad latitude in methods of implementation by the state so that decent, safe and sanitary replacement housing can be provided. This program is used, as the name implies, only as a “last resort,” when there is no adequate opportunity for relocation within the area.

**Layer** – Individual digital GIS data file. Many layers (e.g., aerial photos, roads, churches) are used in a project to create one map.



**Least Environmentally Damaging Practicable Alternative (LEDPA)** – Pursuant to Section 404 of the Clean Water Act, the alternative which is the Least Environmentally Damaging Practicable Alternative or LEDPA is the only alternative which may receive permits from the U.S. Army Corps of Engineers (USACE).

**Level of Service (LOS) Ratings** – A scale that measures the levels of congestion and/or delay on a road. It goes from A (free flowing traffic) to F (the highest level of congestion/delay).

**Managed Lands** – Lands that are actively managed by federal, state agencies, local agencies or private land trusts. Lands include natural areas, city parks, nature and wildlife preserves, refuges, forests, fish and wildlife areas, river access sites and historic sites.

**MAP-21** – The Moving Ahead for Progress in the 21st Century Act (P.L. 112-141), signed into law by President Obama on July 6, 2012. It funded surface transportation programs for fiscal years (FY) 2013 and 2014.

**Memorandum of Agreement (MOA)** – A written document describing a cooperative relationship between two parties wishing to work together on a project or to meet an agreed upon objective. An MOA serves as a legal document and describes the terms and details of the partnership agreement.

**Memorandum of Understanding (MOU)** – A legal document which describes the terms of an arrangement between two or more parties forming a bilateral or multilateral agreement.

**Metropolitan Planning Organization (MPO)** – The forum for cooperative transportation decision-making for a metropolitan area. Title 23 USC Section 134 requires that (1) an MPO be designated for each Urbanized Area (UZA) containing 50,000 or more persons based on the latest U.S. Census, and (2) the metropolitan area has a continuing, cooperative and comprehensive transportation planning process.

**Migratory Bird Treaty Act (MBTA)** – Federal legislation that makes it unlawful to pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, ship, transport or otherwise be involved with any migratory bird, part, nest, egg or product.

**Mitigation** – In the context of the NEPA process, CEQ regulations define mitigation as: avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or compensating for the impact by replacing or providing substitute resources or environments. The mitigation of impacts must be considered whether or not the impacts are significant.

**National Environmental Policy Act (NEPA)** – Legislation passed by Congress in 1969 that requires preparation of an environmental impact statement (EIS) for federal actions that may significantly impact the environment.

**National Priorities List (NPL)** – The list of national priorities among the known releases or threatened releases of hazardous substances, pollutants or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the United States Environmental Protection Agency (USEPA) in determining which sites warrant further investigation.

**National Register of Historic Places (NRHP)** – The official list of the nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic aboveground and archaeological resources.



**National Wetland Inventory (NWI)** – A national geospatial data product maintained by the USFWS that is accessed through Wetlands Mapper. Wetlands Mapper integrates digital map data with other resource information to provide current information on the status, extent, characteristics and functions of wetlands, riparian and deep-water habitats.

**Natural Region** – A major, generalized unit of the landscape where a distinctive assemblage of natural features is present. The natural region classification system includes several natural features, such as: climate, soils, glacial history, topography, exposed bedrock, pre-settlement vegetation, species composition, physiography and plant and animal distribution.

**No-Build Alternative** – Evaluation of the scenario in which a proposed project is not built. Also referred to as the No-Action Alternative, the no-build scenario represents conditions in the forecast year assuming that all other projects in the fiscally constrained long-range plans of Indiana Department of Transportation (INDOT) and local agencies are implemented. Performance and impact measures use the no-build scenario as a baseline condition.

**Nonpoint Source** – Refers to water pollution and references sources of pollution which are not from point sources. Nonpoint source pollution generally results from land runoff, precipitation, atmospheric deposition, drainage, seepage or hydrologic modification. Nonpoint source (NPS) pollution, unlike pollution from industrial and sewage treatment plants or other point sources, comes from many diffuse sources.

**Notable Sites/Structures** – Within the IHSSI rating system, these are properties that did not merit an “Outstanding” rating, but still are above average in their importance. Further research or investigation may reveal that the properties could be eligible for NRHP listing. The properties may be eligible for the Indiana Register of Historic Sites and Structures.

**Official with Jurisdiction** - The official empowered to represent a Section 4(f) resource on matters related to the property. Typically for historic sites the official with jurisdiction is the State Historic Preservation Officer (SHPO). For public parks, recreation areas and wildlife and waterfowl refuges the official with jurisdiction is the agency or agencies that own or administer the property.

**Ordinary High-Water Mark (OHWM)** – The line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris or other appropriate means that consider the characteristics of the surrounding areas.

**Outstanding Sites/Structures** – Within the IHSSI rating system, this is a property that has enough historic or architectural significance that it is already listed or should be considered for individual listing in the NRHP.

**Palustrine Wetland System** – As it pertains to the project area, includes all non-tidal wetlands dominated by trees, shrubs and persistent emergent vegetation. The system groups the vegetated wetlands traditionally called by such names as: marsh, swamp, bog, fen and prairie, and includes ponds.

**Palustrine Emergent Wetland (PEM)** – A wetland type that supports erect, largely herbaceous perennial species and permanent water for most of the growing season, during those years of normal precipitation levels. These wetlands maintain the same appearance each year unless extreme climatic conditions cause flooding or other extreme local changes. Emergent wetlands traditionally include marsh, meadow and fen communities.

**Palustrine Forested Wetland (PFO)** – A wetland type that supports largely woody species greater than 20 feet in height and includes various hydrological regimes. This class generally possesses various layers of vegetation, including canopy trees, subcanopy trees, shrubs and ground layer herbaceous vegetation. Forested wetlands traditionally include bottomland hardwood and swamp communities.





**Palustrine Scrub-Shrub Wetland (PSS)** – The middle succession habitat between emergent and forested wetlands, dominated by vegetation less than 20 feet tall. Vegetation is dominated by shrubs, young trees and woody species that have been stunted due to adverse environmental settings.

**Palustrine Unconsolidated Bottom Wetland (PUB)** – Wetland and deep-water habitat that support less than 30 percent cover of vegetation, contain at least 25 percent cover of substrate smaller than stones and have various permanent or semi-permanent water regimes. These communities rarely comprise a stable substrate for aquatic vegetative growth.

**Perennial Stream** – Streams that are generally free-flowing year-round and support a wide variety of aquatic life.

**Performance Measure** – A rating (typically numerical) that assesses the degree to which an alternative satisfies a project goal.

**Phase I Environmental Site Assessment (ESA)** – A Phase I Environmental Assessment (ESA) is the practice established by the American Society of Testing and Materials (ASTM) E 1527 that constitutes all appropriate inquiries into the previous ownership and uses of a property consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35)(B). A Phase I ESA provides the user with an understanding of the potential or existing hazardous materials/waste liabilities of a property. A Phase I ESA consists of a records review, site reconnaissance, interviews and an evaluation. The Phase I ESA may include a recommendation for a subsequent Phase II ESA.

**Phase II Environmental Site Assessment (ESA)** – Consists of soil and/or groundwater sample collection for confirmation of the presence or absence of potentially contaminated materials.

**Physiographic Region** – An area characterized by similar topography and land use.

**Point Source** – Used in reference to water pollution. Any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or any other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

**Pollution** – The action or process of introducing contamination into the environment that causes an adverse change. Pollution can affect, land, water or air, and be in the form of chemical substances, energy, light, noise or heat.

**Populated Area** – General boundary where there is some density of residential development, similar to city limits.

**Poverty** – The status of any person living in a household with a total household income less than the poverty threshold. The poverty thresholds are based on the household size and are updated annually by the U. S. Census Bureau.

**Prime Farmland** – Land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops.

**Programmatic Agreement (PA)** – A commonly used program alternative under the National Historic Preservation Act codified under 36 CFR 800.14(b). They allow federal agencies to govern the implementation of a particular agency program or the resolution of adverse effects from complex projects or multiple undertakings similar in nature through negotiation of an agreement between the appropriate agencies.



**Public Hearing** – INDOT holds public hearings for all transportation projects that involve the development of an Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA). A public hearing, which is held following the approval of the draft environmental document, is an opportunity for the public to make formal statements of position immediately before project decision-making and preparation of the final environmental document. The disposition of both oral and written comments is included in the final approved NEPA document that constitutes FHWA approval. Public meetings, as needed during the development of the NEPA document, provide additional opportunities for early and continuing public involvement. The disposition of comments made during a public meeting is not required to be included in the environmental document.

**Purpose and Need** – The section of an environmental document that discusses the needs and defines the goals (purposes) of the project.

**Record of Decision (ROD)** – A NEPA requirement for an EIS, which explains the reasons for the project decision and summarizes any mitigation measures that will be incorporated in the project. Section 1319(b) of MAP-21 directs lead agencies in EISs, to the maximum extent practicable, to develop a single document that consists of a combined FEIS and ROD.

**Relocation** – The purchase of private property (land and/or structures) for a public purpose, such as a transportation facility. The purchase price includes the costs of relocating residents or businesses. Also referred to as a displacement.

**Right-of-Way Limits** – Boundaries that define the area of land owned or obtained as an easement for purposes of constructing a road, railroad, power line, etc.

**Riparian** – Of, or pertaining to, rivers or streams and their banks.

**Riparian Forest** – Forested areas bordering streams or rivers. Riparian forests help to protect and enhance stream plants and animals, can contribute to the control of pollution entering the waterway and can serve as a corridor for the movement of plants and animals.

**Route Concept** – A line connecting points on a map, used in the scoping and screening phases of the Tier 1 analysis.

**Scoping** – The initial step of an environmental study. It includes the determination of a range of possible alternatives and analysis of Purpose and Need for the project.

**Screening** – The second step of an environmental study. It applies Purpose and Need criteria to all alternatives to arrive at a set of alternatives for detailed study.

**Section 4(f)** – A section of the Department of Transportation Act of 1966 which prohibits FHWA from approving any program or project which requires the use of any publicly-owned park, recreation area or wildlife/waterfowl refuge, or any land from a historic site of national, state or local significance unless: (1) there is no feasible and prudent alternative to the use, and (2) all possible planning to minimize harm resulting from such use is included.

**Section 4(f) Resource** – Any property which meets specific criteria for protection under Section 4(f) of the Department of Transportation Act of 1966. These sites include specific publicly-owned parks, recreation areas, and wildlife or waterfowl refuges as well as sites listed in or eligible for inclusion in the National Register of Historic Places.

**Section 7 Consultation** – Section 7 of the Endangered Species Act of 1973 requires federal agencies to consult with the USFWS on all federal actions that may affect a federally-listed species to ensure that their actions do not jeopardize listed species or destroy or adversely modify critical habitat.



**Section 106 Consultation** – Consultation between a federal agency and consulting parties, including the State Historic Preservation Officer and Tribes, regarding potential impacts of a federal action on historic sites and mitigation measures to reduce impacts. This consultation and review process is required by Section 106 of the National Historic Preservation Act of 1966.

**Section 404** – Section 404 of the Clean Water Act establishes a program to regulate the discharge of dredged and fill material into “waters of the United States,” including wetlands. Activities in “waters of the United States” that are regulated under this program include fills for development, water resource projects such as dams and levees, infrastructure development such as highways and airports and conversion of wetlands to uplands for farming and forestry.

**Section of Independent Utility (SIU)** – A section of a larger project that would perform a useful purpose if none of the other sections were to be built. These sections must conform to certain regulatory criteria to ensure that each section performs independently. These criteria, specified in 23 CFR § 771.111 (f), require that the project: connect logical termini and be of sufficient length to address environmental matters on a broad scope; have independent utility or independent significance; and not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

**Serious Crash** – A crash resulting in at least one fatality or serious injury.

**Socioeconomic Study Area** – The limits within which potential socioeconomic impacts which result from the implementation of alternatives are evaluated.

**State Historic Preservation Officer (SHPO)** – Administers the National Historic Preservation Program at the state level, reviews NRHP nominations, maintains data on historic properties that have been identified but not yet nominated and consults with federal agencies during the Section 106 process. In Indiana, the Director of the Department of Natural Resources serves as the SHPO.

**State Implementation Plan (SIP)** – Under the 1990 Clean Air Act Amendments (CAAA), each state is required to establish a plan for achieving and/or maintaining National Ambient Air Quality Standards (NAAQS) for pollutants that are considered harmful to the public health and environment, such as particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), ozone, oxides of nitrogen (NO<sub>x</sub>) and lead. This plan is known as the State Implementation Plan (SIP). The SIP establishes emission budgets (not to be exceeded) for “nonattainment” areas (i.e., an area that does not meet the NAAQS for one or more pollutants) and “maintenance” areas (i.e., an area that was formerly in nonattainment and now meets the NAAQS).

**State Isolated Wetlands** – Wetlands that do not have a direct connection to a navigable waterway and do not fall under federal jurisdiction. They are under the jurisdiction of IDEM and are classified based on quality.

**Succession** – The transition from one biotic community to another in a given habitat.

**Superfund Sites** – USEPA’s official list of hazardous-waste sites that present sufficient threat to human health or the environment to be eligible for cleanup under the Superfund program, which was enacted in 1980 as the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). USEPA maintains the National Priorities List (NPL), the official list of such sites.

**Threatened and Endangered Species (TES)** – Species that are recognized by federal and state agencies as being in danger of extinction (threatened) throughout all or a significant portion of its range or is likely to become endangered (endangered) within the foreseeable future, either nationally or in a state.



**Tiering** – A two-step process applied to NEPA evaluations where the first step (tier) focuses on broad issues such as general location, mode choice and area-wide air quality and land use implications of the major alternatives. The second step (tier) addresses site-specific details on project impacts, costs and mitigation measures.

**Tier 1 EIS** – An EIS that may be completed for large studies that require certain major questions to be answered before a more detailed study (Tier 2 EIS) can be done.

**Tier 2 NEPA Studies** – More detailed NEPA studies completed after the Tier 1 EIS, as completed and authorized with a Record of Decision (ROD).

**Tier 2 Sections** – Shorter sections of the alternative that are selected in the Tier 1 ROD. Each Tier 2 Section is evaluated in a separate NEPA study.

**Topography** – The configuration of the surface of a place or region, including its relief.

**Total Length** – Length of an alternative extending the entire distance of a section's corridor.

**Travel Demand Model** – A computerized representation of the population, employment, socio-economic characteristics and transportation network of a region. Travel on the transportation network is forecasted as a function of population, employment and socio-economic characteristics. If proposed projects can be added to the transportation network, the model can forecast the effects of that proposed project.

**Typical Section** – A section cut through a roadway that shows the typical configuration and design features. This will usually include lane and shoulder widths, profile grade and construction centerline location, roadway cross slopes, side slopes, ditches and clear zones. Right-of-way width estimations are developed from typical sections.

**Uneconomic Remnant** – That portion of a property remaining after acquisition, the retention of which provides little utility or economic benefit to the owner. For farmland, an uneconomic remnant is a unit of land too small to economically farm.

**Vertical Alignment** – Location of the road as it can be moved up or down through hills and valleys.

**Waters of the State** – Accumulations of water, surface and underground, natural or artificial, public and private or a part of the accumulations of water that are wholly or partially within, flow through or border upon Indiana.

**Waters of the U.S.** – Navigable waterways, tributaries to navigable waterways, wetlands, lakes and ponds that are under the regulation of USEPA and USACE under Sections 401 and 404 of the Clean Water Act.

**Watershed** – The surface area that drains to a specified point on a watercourse.

**Wellhead Protection Area (WHPA)** – The surface and subsurface area which contributes water to a public water supply well and through which contaminants are likely to move through, and reach, the well over a specified period of time. A wellhead protection area may be delineated by a fixed radius, hydrogeological/geomorphic mapping, analytical, semi-analytical or numerical flow/solute transport methods.

**Wetland** – A type of land use protected by various state and federal laws. Wetlands are characterized by plants adapted to a wet environment, soils which are characterized by anaerobic conditions and which are inundated or saturated to the surface for at least 5 percent of the growing season in most years.

**Working Alignment** – A conceptual footprint of the right-of-way within a corridor used solely to estimate and compare the environmental impacts of the various alternatives. This is not a final alignment, which would be determined in the design phase.



## 11.2 Acronyms

### 11.2.1 Terms

AC	Affected Community
ACS	American Community Survey
ADT	Average Daily Traffic
APE	Area of Potential Effect
BA	Biological Assessment
BAFL	Best Available Floodplain Layer
BFE	Base Flood Elevations
BMP	Best Management Practice
BO	Biological Opinion
BTU	British Thermal Unit
CAAA	Clean Air Act Amendment
CAA	Clean Air Act
CBG	Census Block Groups
CERCLA	Comprehensive Environ. Response, Compensation, and Liability Act (Hazardous Waste Sites)
CFR	Code of Federal Regulations
CIA	Community Impact Assessment
CFWP	Classified Forest and Wildlands Program
COC	Community of Comparison
CWA	Clean Water Act
dB	Decibels
dba	Decibels measured using the A-weighted scale
DEIS	Draft Environmental Impact Statement
DHV	Design Hourly Volume
ECL	Early Coordination Letter
EIS	Environmental Impact Statement
EJ	Environmental Justice
EMS	Emergency Medical Service



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ESA	Endangered Species Act
ESA	Environmental Site Assessment
EV	Electric Vehicle
EWPP-FPE	Emergency Watershed Protection Floodplain Easement
FAST	Fixing America's Surface Transportation Act
FEIS	Final Environmental Impact Statement
FIA	Forest Inventory and Analysis
FIRM	Flood Insurance Rate Map
FPPA	Farmland Protection Policy Act
GHG	Greenhouse Gases
GIS	Geographic Information System
GRP	Grasslands Reserve Program
HPR	Historic Property Report
HNF	Hoosier National Forest
IAC	Indiana Administrative Code
IHSSI	Indiana Historic Sites and Structures Inventory
INDOT	Indiana Department of Transportation
INSTIP	Indiana Statewide Transportation Improvement Program
ISTDM	Indiana Statewide Travel Demand Model
ITS	Incidental Take Statement
L1UB	Lacustrine Limnetic Unconsolidated Bottom
LEDPA	Least Environmentally Damaging Practicable Alternative
Leq	equivalent continuous noise level
Leq(h)	hourly equivalent continuous noise level
LOS	Level of Service
LUST	Leaking Underground Storage Tank
LWCF	Land and Water Conservation Fund
MAP-21	Moving Ahead for Progress in the 21st Century Act
MBTA	Migratory Bird Treaty Act



MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPA	Metropolitan Planning Area
MS4	Municipal Separate Storm Sewer Systems
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NASS	National Agricultural Statistics Service
NEPA	National Environmental Policy Act
NHL	National Historic Landmark Program
NHPA	National Historic Preservation Act
NLCD	National Land Cover Database
NOI	Notice of Intent
NOx	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRHP	National Register of Historic Places
NRI	Nationwide Rivers Inventory
NSA	Naval Support Activity
NSWC	Naval Surface Warfare Center
NWI	National Wetlands Inventory
OHWM	Ordinary High-Water Mark
OPT	Gas, Oil, and Other Petroleum Tests
PA	Programmatic Agreement
PEM	Palustrine Emergent Wetland
PFO	Palustrine Forested Wetland
PIM	Public Information Meeting
PIP	Public Involvement Plan
PLSS	Public Land Survey System
PM 2.5	Particulate matter with diameters less than 2.5 micrometers (a potential air pollutant)



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PSS	Palustrine Scrub-Shrub Wetland
PUB	Palustrine Unconsolidated Bottom Wetland
PUS	Palustrine Unconsolidated Shore Wetlands
RIIT	Regional Issues Involvement Team
ROD	Record of Decision
ROW	Right-of-way
SAA	Summer Action Area
SDEIS	Supplemental Draft Environmental Impact Statement
SFHA	Special Flood Hazard Areas
SHAARD	State Historical Architectural and Archaeological Research Database
SIDC	Southern Indiana Development Corporation
SIP	State Implementation Plan (for air quality)
SIU	Section of Independent Utility
SMP	Spill Management Plan
SR	State Rare (species), also State Route (highway)
SSC	State Special Concern (species)
SWCD	Soil and Water Conservation District
SWPPP	Storm Water Pollution Prevention Plan
SWWF	Significant Water Withdrawal Facility
TES	Threatened and Endangered Species
TIN	Triangular Irregular Network
TMDL	Total Maximum Daily Load
TMP	Traffic Management Plan
TNM	Traffic Noise Model
TREDIS	Transportation Economic Development Impact System
TSS	Total Suspended Solids
UST	Underground Storage Tank
UZA	Urbanized Area
VFC	Virtual File Cabinet





VFD	Volunteer Fire Department
VHT	Vehicle Hours of Travel
VMT	Vehicle Miles Traveled
VOT	Volatile Organic Compound
WAA	Winter Action Area
WHPA	Wellhead Protection Area
WNS	White Nose Syndrome
WQC	Water Quality Certification
WRP	Wetlands Reserve Program

## 11.2.2 Agencies and Organizations

ACHP	Advisory Council on Historic Preservation
ASTM	American Society of Testing and Materials
CEQ	Council on Environmental Quality
DOI	U.S. Department of Interior
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FSA	Farm Service Agency
IDEM	Indiana Department of Environmental Management
IDNR	Indiana Department of Natural Resources
IDNR-DFW	IDNR Division of Fish and Wildlife
IDNR-DHPA	IDNR Division of Historic Preservation & Archaeology
IDNR-DNP	IDNR Division of Nature Preserves
IDNR-DOW	IDNR Division of Water
IGS	Indiana Geological & Water Survey
INDOT	Indiana Department of Transportation
INDOT-CRO	INDOT Cultural Resources Office
INRC	Indiana Natural Resources Commission



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MPO	Metropolitan Planning Organization
NFIP	National Flood Insurance Program
NFS	National Forest System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
SHPO	State Historic Preservation Officer
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
USHHS	United States Department of Health and Human Services
WPCB	Water Pollution Control Board (Indiana)