



Chapter 11: Glossary

Accessibility – The ability of people to reach desired destinations (such as 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. Inaccessible regions allow residents to reach fewer destinations, and require longer periods of time.

Alternatives – Possible routes for US 31 to connect US 30, near Plymouth, to US 20, near South Bend, plus a No-Build Alternative. The build alternatives include an estimated right-of-way for evaluating impacts.

Archaeological Site – An instance of past human behavior or activity, where humans conducted some activity and left evidence of it behind, including artifacts and features.

Best Management Practice (BMP) – The methods or practices determined by a particular industry to be the most effective, practical means of accomplishing the tasks of that industry. For example, BMPs for treating water pollution may include requirements for treatment, operating procedures, and practices to control runoff leaks, sludge, waste, or drainage.

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

CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System is a database that includes all sites currently on the National Priorities List, or being considered for it.

Collector-Distributor Road – When interchanges or interchange ramps are too close to one another to provide adequate distance for traffic operations (weaving, merging, and diverging) on the mainline, the freeway may be divided into lanes for through traffic and lanes for traffic getting on and off the freeway. Separated from the mainline, the lanes for weaving, merging, and diverging from the freeway are referred to as the collector-distributor road. The collector-distributor road has full access control, is designed for high speed travel, is connected to the mainline by transfer roads, and is connected to interchange ramps where traffic enters or exits the freeway.

Committed Project – A project that is expected to occur regardless of the proposed US 31 project. The SR 331 (Capital Avenue) extension of a six-lane divided arterial, from Day Road to Jefferson Boulevard and from Jefferson Boulevard to Harrison Street (12th Street), is an example of a committed project.

Congestion – A condition in which the number of vehicles using a road approaches the capacity of that road. It is characterized by increased travel time and, at high levels of congestion, stop-and-go conditions.

Corridor – Approximately 2000-foot wide in most areas, a corridor is used for each preliminary alternative to develop a working alignment for the initial screening of alternatives.

Cumulative Impacts – Are defined by the Council on Environmental Quality (CEQ) Regulations as “The impact on the environment which results 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.” (CEQ Regulations) Cumulative impacts include the direct and indirect impacts of a project together with the reasonably foreseeable future actions of others.



Direct Impacts – Are defined by the CEQ Regulations as “effects which are caused by the action and occur at the same time and place.” (CEQ Regulations) For this project, an example of a direct impact would be the taking of a wetland for right-of-way for an interchange.

Environmental Impact Statement (EIS) – A detailed document prepared as part of the NEPA process. A draft EIS (DEIS) is published to seek agency and public input. A final EIS (FEIS) will: (1) add the comments and responses to the DEIS and, (2) select a preferred alternative.

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, which would occur in the forecast year. For this study, the Forecast Year is 2030.

Geographic Information System (GIS) – A computer representation of data that is geographically distributed. These data can be generated and displayed to show their 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.

Grade Separation – Overpass or underpass by means of a bridge.

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

Historic Properties – Buildings, structures, sites, objects, or districts, which are an important part of the historical and cultural heritage of the United States.

Horizontal Alignment – Location of the road as it can be moved from side to side, usually done by using curves.

Impact Length – Length of an alternative that does not include the length of committed projects within the alternative. It represents the length of the alternative that will be new right-of-way for the proposed US 31 project.

Impaired Stream – A stream listed in the IDEM 2002 303(d) List of Impaired Waterbodies. These streams do not meet Indiana’s water quality standards. Streams may be impaired due to chemical or biological contaminants.

Indirect Impacts – Are 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...” (CEQ Regulations) For this project, an example of an indirect impact would be farmland bought by a developer to build a service station at an interchange.

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

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 and or signalization.

Jurisdictional Wetland – A wetland regulated by the Army Corps of Engineers as a “water of the United States” under the Clean Water Act. Impacts to jurisdictional wetlands must be mitigated (e.g., recreated, restored, or enhanced).



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

Level of Service (LOS) – A scale that measures the level of congestion on a road. It goes from “A” (free flowing traffic) to “F” (the highest level of congesti

Local Service Road (LSR) - This road provides direct access to property, and is often adjacent to facilities with partial or full access control that do not provide direct property access. Such roads are often provided when existing facilities are upgraded or new facilities are built with partial or full access control that cut off direct property access.

Managed Lands – Lands that are actively managed by federal, state, and local agencies and 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.

Memorandum of Agreement (MOA) – An agreement executed between two or more entities.

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

Mobility Corridors – These corridors are the top-end of the highway system and are meant to provide mobility across the state. They provide safe, free-flowing, high-speed connections between metropolitan areas of the state and surrounding states. They serve as the freight arteries of the state and are vital for economic development.

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 Highway System (NHS) – A system of those highways determined to have the greatest national importance to transportation, commerce, and defense in the United States. A national system of highways consisting of all Interstate highways and other principal arterial highways. Federal policy is to focus federal highway investments on these roads. The NHS includes 5% of the national roadway network but serves approximately 4% of the Nation’s highway travel.

National Natural Landmark – A site that is one of the best examples of a type of biotic community or of geologic features in its physiographic province.

National Wetland Inventory (NWI) – A portion of the U.S. Fish and Wildlife Service that produces information on the characteristics of the nation’s wetlands and deepwater 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 – The alternative for which a proposed project is not to build. This alternative is represented by the existing roadway network plus programmed major roadway improvements in the South Bend Metropolitan Area. This excludes any major investment in US 31. All benefits and impacts are forecasted with reference to the No-Build Alternative (also called the No-Action Alternative). The No-Build Alternative must remain under consideration throughout the study process.



Notable Sites/Structures – Property that did not quite merit an “Outstanding” rating, but still ranks above average in importance. Further research or investigation may reveal that the property could be eligible for National Register listing. The property may be eligible for the Indiana Register of Historic Sites and Structures. Most surveys were done by the Indiana Historic Landmark Foundation as part of the Indiana Historic Sites and Structures Inventory.

Outstanding Sites/Structures – Property that has enough historic or architectural significance that it is already listed, or should be considered for individual listing, in the National Register of Historic Places. Most surveys were done by the Indiana Historic Landmark Foundation as part of the Indiana Historic Sites and Structures Inventory.

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

Physiographic Region – An area characterized by consistency in soil and geology.

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 Census Bureau.

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

Programmed Major Roadway Improvements – Capacity Expansion projects in the South Bend Metropolitan Area (St. Joseph, Marshall and Elkhart counties) as reported in the MACOG Transportation Improvement Program (2003-2005 TIP) and the balance of Indiana as reported in the Indiana Statewide Transportation Improvement Program (INSTIP). Include major roadway investments such as major widenings that add through traffic lanes, the extension of existing roadways or construction of new roadways, new interchanges and major roadway realignments, or reconstructions that add through traffic carrying capacity.

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

RCRA Site – A site that is regulated by the Resource Conservation and Recovery Act associated with the generation, transport, storage, or disposal of hazardous waste.

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.

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.

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 106 Consultation – Consultation between a federal agency and interested parties, including the State Historic Preservation Officer, 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 1968.

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 4(f) – FHWA will not approve any program or project which requires the use of any publicly owned public park, recreation area, or wildlife or 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 site 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.

State Historic Preservation Officer (SHPO) – Administers the National Historic Preservation Program at the state level, reviews National Register of Historic Places nominations, maintains data on historic properties that have been identified but not yet nominated, and consults with Federal agencies during the Section 106 process.

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 (SO₂), carbon monoxide (CO), ozone, oxides of nitrogen (NO_x), 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).

Study Area – The special limits within which alternatives are considered.

Superfund Sites – Uncontrolled or abandoned places where hazardous waste is located, possibly affecting local ecosystems or people.

Threatened and Endangered Species (TES) – Species that are recognized by federal and state agencies as being in danger of extinction or being sufficiently compromised that they are at risk of becoming endangered, either nationally or in a state.

Total Length – Length of an alternative from US 30, near Plymouth, to US 20, near South Bend.



Travel Demand Model (TDM) – A computerized representation of the population, employment, socioeconomic characteristics, and transportation network of a region. Travel on the transportation network is forecasted as a function of population, employment, and socioeconomic characteristics. If proposed projects (such as an alternative of US 31) can be added to the transportation network, the model can forecast the effects of that proposed project.

Typical Cross Section – A cross 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 were developed from typical sections.

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

Volume-to-Capacity (v/c) Ratio – The ratio of the volume of traffic on a roadway to the capacity of that roadway. As the volume approaches the capacity, the roadway becomes congested.

Well Head Protection Area – 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, hydrogeologic/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% 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 preliminary alternatives.