

Glossary of Terms

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401 Certification/Water Quality Certification

Section 401 of the Clean Water Act requires the states to issue a 401 Water Quality Certification for all projects that require a Federal Permit (such as a Section 404 Permit). The "401" is essentially a verification by the state that a given project will not degrade Waters of the State or otherwise violate water quality standards.

A

Abatement [Noise]

A reduction in the degree or intensity of traffic and other noise sources through various forms of 'mitigative' measures, such as noise barriers or walls.

Aboveground Storage Tanks (AST)

Usually a metal, fiberglass or plastic storage tank generally considered to be containing an oil, gasoline or other hazardous material which is located at or near the ground surface (See Underground Storage Tank).

Abstain or Abstention

Under the Merger Process, abstain means that a team member does not actively object to a concurrence point but the agency representative does not sign the concurrence point form. The process may continue and the agency representative agrees not to revisit the concurrence point. Written justification for abstaining from a concurrence point should be provided to the project team within 5 days of the concurrence meeting.

Access Control

[See Control of Access].

Administrative Dispute Resolution Act (ADRA)

See Glossary of Environmental Laws

Adverse Effects

General phrase referring to potentially negative impacts to certain resources, such as changes to the setting characteristics and visual changes to a historic property.

Advisory Council on Historic Preservation (ACHP)

An independent Federal agency that promotes the preservation, enhancement and productive use of our Nation's historic resources and advises the President and Congress on national historic preservation policy. There are 20 statutorily designated members.

Affected Environment

The physical features, land area or areas to be influenced, or impacted, by an alternative alignment under consideration. This term also includes various social and environmental factors and conditions pertinent to an area.

Air Pollutants/Air Pollution

Substances in the air (generally considered man-made in origin) that could, at high enough concentrations, harm humans, animals, vegetation or materials. Five major air pollutants generally involving transportation projects include (ground-level) ozone, particulate matter, carbon monoxide, sulfur dioxide and nitrogen dioxide.

Air Quality Index (AQI)

The AQI is an index for reporting daily air quality. There are six categories with AQI values ranging from 0 to 500, levels of health concern between good and hazardous and their corresponding colors of green, yellow, orange, red, purple and maroon. The AQI focuses on five major air pollutants: (ground-level) ozone, particulate matter, carbon monoxide, sulfur dioxide and nitrogen dioxide.

Air Quality and Noise Management Plan (AQNMP)

A general subset of a Comprehensive Transportation Plan that examines human quality of life indicators such as air pollution associated with transportation projects and traffic noise.

Air Quality Standards

Levels of air pollutants prescribed by regulations that may not be exceeded during a specified time in a defined area. EPA establishes national air quality standards for major pollutants, including (ground-level) ozone, particulate matter, carbon monoxide, sulfur dioxide and nitrogen dioxide.

Alignment Refinement [See Horizontal & Vertical Alignment]

General phrase referring to an improvement and/or adjustment to a highway alignment to potentially avoid or minimize impacts to the environment or to correct a design deficiency.

Alternative

One of a number of specific transportation improvements proposals, alignments, options, design choices, etc., in a defined study area.

Ambient

Surrounding or existing environmental conditions. Generally used in reference to background noise levels, air quality conditions, water quality conditions, etc.

American Indian Religious Freedom Act of 1978

See Glossary of Environmental Laws

Americans with Disabilities Act of 1990 (ADA)

See Glossary of Environmental Laws

Anadromous Fish

Species of fish that live the majority of their lives in a marine environment, but swim up freshwater streams and rivers to spawn.

Antiquities Act of 1906

See Glossary of Environmental Laws

Annual Average Daily Traffic (AADT)

The total volume of traffic passing a point or segment of highway facility in both directions for 1 year, divided by the number of days in the year. (HCM 2000)

Aquatic Resource of National Importance (ARNI)

Under the Clean Water Act Section 404(q) Memoranda of Agreement between USEPA and the Department of the Army and between the USFWS and the USACE (dated August 11 and December 21, 1992, respectively), the USEPA or USFWS can elevate a disagreement over a proposed decision by USACE to issue a Section 404 permit if the proposal would have a substantial and unacceptable impact on an ARNI. The disagreement is elevated to higher authorities within each agency for a decision. ARNI is analogous to rivers designated as Outstanding National Resource Waters (ONRW).

Aquifer

An underground geologic formation, or group of formations, containing groundwater that can supply wells and springs. There are potentially shallow and deep level groundwater sources or aquifers (e.g., Castle Hayne Aquifer).

Archaeological and Historic Preservation Act of 1974

See Glossary of Environmental Laws

Archaeological Predictive Model

A GIS technology tool utilized by NCDOT to identify, predict and quantify potential archeological resources early in the NEPA process and assess potential impacts from various alternatives. This is part of a phased identification process using background reports and/or archeological probabilities to establish context based upon information from known sites near a given project.

Archaeological Resources Protection Act of 1979

See Glossary of Environmental Laws

Area of Potential Effect (APE)

The geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking (Implementing Regulations for Section 106 of NHPA: 36 CFR 800.16d).

Areas of Environmental Concern (AECs)

Coastal Area Management Act (CAMA) Areas of Environmental Concern (AEC's) are the foundation of the N.C. Coastal Resources Commission's (CRC's) permitting program for coastal development. An AEC is an area of natural importance. It may be easily destroyed by erosion or flooding; or it may have environmental, social, economic or aesthetic values that make it valuable to our state. The CRC classifies areas as AEC's to protect them from uncontrolled development, which may cause irreversible damage to property, public health or the environment. AEC's cover almost all coastal waters and about 3 percent of the land in the 20 coastal counties. The CRC has established four categories of AECs: The Estuarine and Ocean System; The Ocean Hazard System; Public Water Supplies; and Natural and Cultural Resource Areas.

Arterial

A class of roads serving major traffic movements (high speed, high volume) for travel between major points. An AASHTO design classification.

Average Daily Traffic (ADT)

The total volume of traffic passing a point or segment of a highway facility in both directions for an average weekday.

Avoidance Alternative

A general term used to refer to any alignment proposal, which has been developed, modified, shifted, or downsized to specifically avoid impacting one or more resources (e.g., an alternative that avoids an eligible historic property).

Avoidance and Minimization

A general phrase addressed in NEPA and Section 404 regulations which provides that potential impacts to the natural and human environment are avoided and minimized to the extent practicable. Under the Merger Process, this phrase refers to Concurrence Point 4A.

B

Baffle

A device or structure that reduces water velocity and provides an adequate depth of flow in a culvert to facilitate fish passage.

Bankfull Elevation

For streams with an active floodplain, it is elevation at which flooding occurs.

Bents

A transverse structural member or frame supporting spans of a bridge. Bents consist of a horizontal bent cap supported by vertical piles, drilled piers or columns. A bent with columns will include foundations of either spread footings, footings on piles, or footings on drilled piers.

Berm [Earthen]

An earthen berm is a narrow ledge or shelf as along a slope or a shoulder of a road. Berms are often used to deflect precipitation and overland surface flows to basins, ponds and other stormwater control devices.

Best Fit Alignment

Road widening design that utilizes symmetrical or asymmetrical widening alignments (or a combination of both) in order to provide a cost effective alternative that avoids and minimizes impacts to the natural and human environment.

Best Management Practices (BMPs)

Techniques that minimize water quality impacts when performing work in or around bodies of waters or jurisdictional areas. (See NCDOT Construction and Maintenance BMP Manual, February 2003).

Biological Assessment (BA)

The information prepared by another agency or the document itself which has been prepared under Section 7 of the ESA to determine whether a proposed major construction activity under the authority of a Federal action agency is likely to adversely affect listed species, proposed species or designated critical habitat.

Biological Opinion (BO)

When a Federal agency determines through a Biological Assessment or other review that a proposed action is likely to adversely affect a listed species, the Federal action agency submits to the U.S. Fish and Wildlife Service (FWS) a request for formal consultation (90 days). Following the consultation process, the FWS will prepare a Biological Opinion on whether the proposed activity will jeopardize the continued existence of a listed species. The FWS has 45 days after completion of the formal consultation to write the BO.

Blue-line stream

The term blue-line stream is short-hand for a surface water that is approximately shown on the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic map prepared by the United States Geologic Survey (USGS). Blue-line streams are one of several sources of information that the N.C. Division of Water Quality (NCDWQ) uses when determining whether a water feature falls under the jurisdiction of the NCDWQ surface water and wetlands standards.

Borrow Areas

Sites used to gather fill material (i.e. soil, sand, and gravel) that can be used at another site during construction.

Boulevard

A facility with a functional purpose of moderate mobility and low to moderate access. The facility has limited or partial control of access, traffic signals, and a minimum of two travel lanes with a median. Connections are provided primarily at at-grade intersections with major and minor cross streets.

Box Culvert

A box (rectangular) shaped culvert, usually made of concrete, which conveys water flow through a roadway embankment. May also be used as a pedestrian or wildlife crossing under roadways.

Bridge Replacement Process

See Process III

Buffer Rules

Regulations with the purpose of protecting riparian buffers. These rules are described in 15A NCAC 02B of state law. Currently, buffer rules are in effect for the Neuse and Tar-Pamlico River Basins, the main stem of the Catawba River Basin, and the Randleman Reservoir subbasin.

Bureau of Indian Affairs (BIA)

See Acronym Cross Reference

C

Capacity Analysis

The use of engineering analytical tools to determine Level of Service for existing or projected traffic volumes. Used to evaluate degrees of traffic congestion.

Carbon Monoxide (CO)

An odorless, colorless gas formed when carbon in fuels does not completely burn and a primary air pollutant. Vehicle exhaust contributes approximately 60 percent of all carbon monoxide emissions nationwide.

Carolina Bays

Wetlands, usually elliptical in shape, which are located in natural shallow depressions and are largely fed by rain and shallow groundwater. Carolina Bays are unique coastal plain geologic formations that once were found from the mid-Atlantic states to Florida. The highest concentration of bays occurs in North and South Carolina. The bays are typically oriented along a northwest to southeast alignment. Undisturbed Carolina Bays usually represent high quality wetlands with unique flora and fauna species.

Categorical Exclusion (CE)

A category of actions defined under Section 40 CFR 1508.4 (NEPA) which do not individually or cumulatively have a significant effect on the human (and natural) environment and for which neither an environmental assessment (EA) nor environmental impact statement (EIS) is required. FHWA actions which typically qualify as Categorical Exclusions are specifically defined at 23 CFR 771.117(a). CEs are typically issued for most bridge replacement projects.

Causeway

An earthen or stone fill that extends into a floodplain, wetland or surface water (e.g., pond, stream, reservoir, or estuary). Causeways are typically found at the ends of bridges, and can also be used as a temporary access for construction, especially for bridges in larger streams and rivers.

Central Business District (CBD)

A general phrase typically referring to the downtown area of a city or metropolitan area where there is a concentration of retail and commercial buildings. Some typical characteristics of a central business district include a predominance of an area's public buildings, it features 'vertical zoning' and it usually has the highest land values of the region.

Citizens Information Workshop (CIW)

Public meeting held to inform citizens about an upcoming project; often there will be workshops for the public at various stages during the planning/design process.

Civil Rights Act of 1964 (Title VI)

See Glossary of Environmental Laws

Clean Air Act (CAA)

See Glossary of Environmental Laws

Clean Air Act Amendments of 1990 (CAAA)

See Glossary of Environmental Laws

Clean Water Act (CWA)

See Glossary of Environmental Laws

[NC] Coastal Area Management Act of 1974 (CAMA)

See Glossary of Environmental Laws

Coastal Barrier Resources Act of 1982 (CBRA)

See Glossary of Environmental Laws

Coastal Plain Counties (versus CAMA counties)

There are 41 coastal plain counties in eastern North Carolina that are listed in Appendix C of the Merger Process. The National Oceanic and Atmospheric Administration Fisheries Service (NOAA-Fisheries) and the N.C. Division of Marine Fisheries (DMF) must be contacted when a merger project is in one of these counties to determine if they will participate on the project team. The 20 CAMA counties are a subset of the coastal plain counties.

Coastal Zone

The coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches. The zone extends in Great Lakes waters, to the international boundary between the United States and Canada and, in other areas, seaward to the outer limit of the outer limit of State title and ownership under the Submerged lands Act (43 U.S.C. 1301 et seq.), the Act of March 2, 1917 (48 U.S.C. 749), the Covenant to Establish a Commonwealth of the Northern Mariana Islands in Political Union with the United States of America, as approved by the Act of March 24, 1976 (48 U.S.C. 1681 note), or section 1 of the Act of November 20, 1963 (48 U.S.C. 1705) as applicable. The zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters. Excluded from the coastal zone are lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents and to control those geographical areas which are likely to be affected by or vulnerable to sea level rise.

Coastal Zone Management Act of 1972 (CZMA)

See Glossary of Environmental Laws

Coastal Wetlands (CAMA)

The Coastal Area Management Act (CAMA) defines coastal wetlands as any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides (whether or not the tide waters reach the marshland areas through natural or artificial watercourses), provided this shall not include hurricane or tropical storm tides. Coastal wetlands contain some, but not necessarily all, of the following marsh plant species: (1) Cord Grass (*Spartina alterniflora*), (2) Black Needlerush (*Juncus roemerianus*), (3) Glasswort (*Salicornia* spp.), (4) Salt Grass (*Distichlis spicata*), (5) Sea Lavender (*Limonium* spp.), (6) Bulrush (*Scirpus* spp.), (7) Saw Grass (*Cladium jamaicense*), (8) Cat-tail (*Typha* spp.), (9) Salt Meadow Grass (*Spartina patens*), (10) Salt Reed Grass (*Spartina cynosuroides*). The coastal wetlands AEC includes any contiguous lands designated by the Secretary of ENR pursuant to G.S. 113-230 (a).

Code of Conduct

The Public Service Code of Conduct is a 1-page document that describes the following seven principles: professionalism; fairness and reasonableness; knowledge; honesty; timeliness; accountability; and respect. The Merger Process roles and responsibilities document states that Merger participants will abide by the Code of Conduct.

Code of Federal Regulations (CFR)

See Acronym Cross Reference

Cofferdam

A temporary barrier for creating a dry work space in an area that is normally submerged. It is usually made of interlocking steel piles but may be made from other impermeable material. It is used in constructing the foundations of bridges.

Collector

In rural areas, routes that serve intracounty rather than statewide travel. In urban areas, streets that provide direct access to neighborhoods and arterials. An AASHTO Design Classification.

Columns

Slender vertical structural compression members of bridge bents. Columns rest on foundations and support bent caps.

Comment Period

The comment period is the period of time whereby a State or Federal agency requests public and other agency review input on a NEPA document or a Section 404 permit decision. The comment period for EAs is typically 30 days and for DEISs it is 45 days. Comment periods for USACE Public Notices are typically 30 days. Comment periods may be utilized for requesting input on start of study letters and scoping notices and they may also be extended by the lead or issuing agency upon request.

Community Cohesion

Projects should attempt to promote or maintain community togetherness; disruption of community cohesion should be considered when analyzing the environmental impacts.

Community Impact Analysis (CIA)

Community impact analysis is a process to evaluate the effects of a transportation action on a community and its quality of life. The assessment process is an integral part of project planning and development that shapes the outcome of a project. (CG)

Compensatory Mitigation

Replacing the environment impacted by a project or providing substitute resources or environments. For purposes of Section 10/404, compensatory mitigation is the restoration, creation, enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) ["Superfund"]

See Glossary of Environmental Laws

Comprehensive Transportation Plan (CTP)

A multimodal series of maps depicting the transportation infrastructure needed to handle the area's travel demand for a minimum 20 year period. It is mutually adopted by NCDOT and the appropriate local agency (municipality, county, or MPO) and will serve as an official guide to providing a well-coordinated, efficient, and economical transportation system that utilizes all modes of transportation.

Concurrence [Point]

Refer to Memorandum of Understanding and Roles & Responsibilities for the concept and related statement.

Conformity

Transportation conformity is a Clean Air Act requirement that ensures that federally supported highway and transit projects are consistent with ('conform to') a state air quality implementation plan or SIP. Project specific air quality impacts are 'pre-planned' and pre-budgeted during the conformity analysis for particular air pollutants in areas or regions with air quality challenges.

Consensus

A term to mean general accord or collective opinion. Under the Merger Process, consensus may refer to the 'majority' of the team representative's opinion on a particular issue.

Consistency Decision (i.e. coastal program)

A consistency decision is required for all NCDOT projects in the 20 Coastal Area Management Act (CAMA) counties. If a project impacts a CAMA Area of Environmental Concern (AEC), then a CAMA permit is required. The CAMA permit, if issued, then also serves as the consistency decision. If a CAMA permit is not required, then DOT must follow a separate process to obtain a consistency decision by submitting a consistency certification to the N.C. Division of Coastal Management (DCM). Upon receiving a consistency certification submission, DCM will evaluate it for completeness. If complete, DCM will review the proposed project for conformance with the enforceable policies of the State's certified coastal management program. As part of this review process, the proposed project is circulated

to the public and a variety of State agencies for comment. After considering the comments and evaluating the proposed project's conformance with the enforceable policies of the State's coastal management program, DCM will issue either a letter of "concurrence" or "objection". This is the consistency decision.

Construction Management Plan (CMP)

Details the measures and procedures to be used to comply with the quality control provisions of the construction contract.

Constructive Use

Constructive use occurs when the transportation project does not incorporate land from a section 4(f) resource, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features or attributes of the resource are substantially diminished. Sec. 771.135 Section 4(f) (49 U.S.C. 303).

Context Sensitive Design (CSD)

Designs that result in a transportation project that reflects community consensus on purpose and need, with project features addressing equally safety, mobility and preservation of scenic, aesthetic, historic, and environmental resources. It involves policy judgments in the balancing of competing interests.

Control of Access

The regulation of public access rights to and from properties and public streets crossing highway facilities.

Full: Connections to a facility provided only via ramps at interchanges. All cross-streets are grade-separated. No private driveway connections allowed. A control of access fence is placed along the entire length of the facility and at a minimum of 1000 feet beyond the ramp intersections on the Y lines (minor facility) at interchanges (if possible).

Limited: Connections to a facility provided only via ramps at interchanges (major crossings) and at-grade intersections (minor crossings and service roads). No private driveway connections allowed. A control of access fence is placed along the entire length of the facility, except at intersections, and at a minimum of 1000 feet beyond the ramp intersections of the Y lines (minor facility) at interchanges (if possible).

Partial: Connections to a facility provided via ramps at interchanges, at-grade intersections, and private driveways. Private driveway connections are normally defined as a maximum of one connection per parcel. One connection is defined as one ingress and one egress point. The use of shared or consolidated connections is highly encouraged. Connections may be restricted or prohibited if alternate access is available through other adjacent public facilities. A control of access fence is placed along the entire length of the facility, except at intersections and driveways, and at a minimum of 1000 feet beyond the ramp terminals on the minor facility at interchanges (if possible).

No Control: Connections to a facility provided via ramps at interchanges, at-grade intersections and private driveways. No physical restrictions, i.e., a control of access fence, exist. Normally, private driveway connections are defined as one connection per parcel. Additional connections may be considered if they are justified and if such connections do not negatively impact traffic operations and public safety.

Cooperating Agency

"Cooperating agency" means any Federal agency other than a lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major Federal action significantly affecting the quality of the human environment. (Merger Roles and Responsibilities)

Corridor

A linear geographical area of an existing or proposed transportation facility. In the Merger Process, study corridors are normally 1000' wide for new location projects and 500 feet wide for widening projects.

Corridor/Design Public Hearing

Public hearings provide a forum for an open exchange of views concerning the need for the project, alternate locations, alternate major design features, and the related potential social, economic, and environmental effects. These features most generally can be covered during Conceptual Studies in a combined corridor and design hearing; however, for a difficult or controversial project, it may be expedient to hold separate corridor and design hearings.

Corrugated Metal Pipe (CMP)

A circular metal pipe with corrugations used to convey flow in storm drainage systems or through a roadway embankment.

Council on Environmental Quality (CEQ)

Established under NEPA within the Executive Office of the President, the Council coordinates Federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives. The Council may act as a referee in environmental assessment disputes between Federal agencies.

Cowardin Classification

This is a wetland and deepwater habitat hierarchical system of classification. Wetlands under this system are defined by plants (Hydrophytes), soils (Hydric soils) and frequency of flooding. Under the classification hierarchy there are five major types defined, including Marine, Estuarine, Riverine, Lacustrine and Palustrine. The Marine and Estuarine systems each have two subsystems, Subtidal and Intertidal. The Riverine system has four subsystems, including Tidal, Lower Perennial, Upper Perennial and Intermittent. The Lacustrine system has two subsystems, including Littoral and Limnetic. The Palustrine has no subsystems under this classification.

Creation [Mitigation]

1. The establishment of a wetland or other aquatic resource where one did not formerly exist. (60 Federal Register (FR) 228, pp. 58605-58614, "Federal Guidance for the Establishment, Use and Operation of Mitigation Banks," 28Nov95;)
2. The construction of a wetland in an area where wetlands did not exist in the recent past (15A NORTH CAROLINA ADMINISTRATIVE CODE (NCAC) 2H .0506 (h)(4)(A), (B), (C), (D);)

Critical Habitat [under Endangered Species Act]

An ecosystem or part of an ecosystem designated by the FWS needing conservation or other protective measures to ensure the survival and potential recovery of a threatened or endangered species. Critical habitat is required to be designated at the time a species is listed under the ESA unless designation would not be prudent or the critical habitat is not determinable.

Cumulative Impact

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 actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7). NCDOT uses interchangeably with Cumulative Effect. NCDOT will normally use Cumulative Effect in the Merger Process. DWQ considers cumulative impacts to be the combination of cumulative impacts and indirect effects as defined above.

Curb and Gutter

Streets are usually directly connected to stormwater drainage systems by concrete curb and gutter. The function of curb and gutter is to intercept and convey stormwater runoff from the highway or roadway to a drainage structure.

D

Deck Drains

Drains (usually 6-inch vertical pipes) located in a bridge deck to drain water off the bridge. The drains can also be placed horizontally (usually 4-inch pipes) through the bridge rails.

DeMinimus Impact (4f)

Under SAFETEA-LU, the Secretary can comply with Section 4(f) in a streamlined manner by finding that the program or project will have a "de minimus" impact on the area - i.e., there are no adverse effects of the project and the relevant State Historic Preservation Officer or other official with jurisdiction over a property concurs.

Department of Transportation Act of 1966 [Section 4(f)]

See Glossary of Environmental Laws

Design-Build Process

A construction project that combines two usually separate services into a single contract. Design-build allows an agency to contract a team of both designers and a contractor to simultaneously design and construct a project. The design-build entity may be a single firm, a consortium, joint venture or other organization assembled for a particular project.

Design Speed

A selected speed used to determine the various geometric design features of the roadway. The assumed design speed should be a logical one with respect to topography, the adjacent land use, the classification of the highway and the anticipated operating speed.

Detention Ponds

Ponds that are sized and configured to provide significant removal of pollutants from the incoming stormwater runoff. They maintain a permanent pool of water that is designed for a target sediment removal rate according to the size and imperviousness of the contributing watershed. Water is released at a rate such that downstream erosion is lessened.

Direct Effects

Effects caused by the action and occurring at the same time and place (40 CFR 1508.8). Changes in noise levels, fill discharges in wetlands and relocations of homes and businesses are some examples of direct effects. Used interchangeably with Direct Impacts. NCDOT will normally use Direct Impacts in the Merger Process. Other agencies may consider that when an effect is quantified it becomes a direct impact.

Disposal Areas

[See Waste Areas] The disposal site for surplus excavated materials. Waste and debris is disposed of in areas outside of highway right of way and the areas are to be provided by the contractor.

Disturbed/Maintained Land

A general land use category contained in environmental documents that includes lawns, parking lots, cleared areas, and other properties which have been substantially altered or developed. It does not include terrestrial forests, wetlands, prime farmlands and other specific natural resource land uses.

Division Environmental Officer (DEO)

As of 2001, all NCDOT Divisions have a DEO. The DEO Program's functions are to increase environmental stewardship, assist with obtaining permits, build relationships with local agencies, and provide environmental training.

Division of Air Quality (NCDAQ)

See Acronym Cross Reference

Division of Coastal Management (NCDCM)

See Acronym Cross Reference

Division of Community Assistance (NCDCA)

See Acronym Cross Reference

Division of Forest Resources (NCDFR)

See Acronym Cross Reference

Division of Marine Fisheries (NCDMF)

See Acronym Cross Reference

Division of Water Quality (NCDWQ)

See Acronym Cross Reference

Detailed Study Alternatives [Carried Forward] (DSAs)

Under the Merger Process, DSAs are preliminary alternatives found to be reasonable and feasible transportation alternatives that are studied and evaluated in greater detail for presentation in the environmental document. The alternatives selected and to be further considered under Concurrence Point 2.

Draft Environmental Impact Statement (DEIS)

The preliminary environmental document prepared by a State or Federal agency on the environmental impacts of its project and/or program proposals. The general FHWA criteria for preparing DEISs is found at 23 CFR 771.115 and the procedures for issuance at 23 CFR 771.123.

Drilled Pier

A deep foundation designed to support loads from a bent by distributing those loads to surrounding soils. A drilled pier is constructed by placing fluid concrete and reinforcing steel in a drilled hole.

Drilled Shaft

See Drilled Pier

E

Easement

Access given to individuals other than the owner, allowing them to use a property for a specific purpose. Some examples are temporary construction and utility easements.

Ecosystem Enhancement Program (EEP)

NCDOT and NCDENR partnered to create the Ecosystem Enhancement Program, in order to deal with a rapidly expanding transportation program that would impact acres of wetlands and streams. The EEP protects the state's natural resources through the assessment, restoration, enhancement, and preservation of ecosystem functions, and through identifying and implementing compensatory mitigation programmatically, at the watershed level. Created by MOA between DENR, NCDOT, and USACE; Performs compensatory mitigation for stream and wetland projects (both DOT and in-lieu fee projects).

Edge of Pavement

The dividing line or point of intersection between the pavement and earth shoulder of a highway or roadway. The line or lines indicate the limits of the pavement.

Effect [See Environmental Effect]

As a general term, an effect is something brought about by an agent or cause. Synonyms include consequence, outcome and result.

Efficient Transportation Decision-Making (ETDM)

It is a project development process developed by the State of Florida, which includes extensive use of GIS data layers, and early interactive involvement by agencies into decision-making. The process creates linkages between land use, transportation systems and environmental resources to develop reasonable and feasible project alternatives.

Elevation Process

General phrase which most often refers to the Merger Process Guidelines, Appendix B, "Implementation Guidance for Conflict or Dispute Resolution". There are other types of specific elevation processes under Federal laws and regulations, including NEPA and Section 404 of the CWA.

Emergent Vegetation

A rooted herbaceous plant species that has parts extending above a water surface (USACE; Technical Report Y-87-1, Corps of Engineers Wetlands Delineation Manual, Department of the Army, Waterways Experiment Station, January 1987;).

Endangered Species Act of 1973 (ESA)

See Glossary of Environmental Laws

Endangered Species Management Plan (ESMP)

A plan required by the ESA for Federal facilities (e.g., Fort Bragg) for all listed and proposed threatened and endangered species that can be used as a tool to achieve conservation objectives for populations of threatened and endangered species and to minimize effects to the facility's primary mission. These plans should be consistent with the FWS's published Species Recovery Plans.

Enhancement [Wetland Mitigation]

1. The manipulation of the physical, chemical, or biological characteristics of a wetland site (undisturbed or degraded) to heighten, intensify, or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, floodwater retention, or wildlife habitat. Enhancement results in a change in wetland function(s) and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres. This term includes activities commonly associated with enhancement, management, manipulation and directed alteration (USACE, Regulatory Guidance Letter 02-2, Guidance on Compensatory Mitigation Projects for Aquatic Resource Impacts Under the Corps Regulatory Program Pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899, 24 December 2002;).
2. Activities conducted in existing wetlands or other aquatic resources which increase one or more aquatic functions (60 FR 228, pp. 58605-58614, "Federal Guidance for the Establishment, Use and Operation of Mitigation Banks," 28Nov95).
3. Increasing one or more of the functions of an existing wetland by manipulation of vegetation or hydrology (15A NCAC 2H .0506 (h)(4)(A), (B), (C), and (D);).
4. The net improvement an alternative plan, or project, makes to fish and wildlife resources (singularly or collectively) compared with the "without" plan or project conditions (USACE; Engineer Regulation (ER) 1105-2-100, 15Dec89;).

Environmental Assessment (EA)

The preliminary environmental document, which includes those, project or program actions which do not have a significant environmental impact. The FHWA criteria and procedures for EA's are contained at 23 CFR 771.115 and 771.119.

Environmental Effect

See Direct and Indirect Effects

Environmental Features Map

A topographic or photogrammetric map of the study area illustrating resource areas of concern, both natural and human environment. This mapping is used to identify alternatives that warrant study on a screening level basis.

Environmental Impact

See Direct Effects and Indirect Effects

Environmental Justice (EJ)

Under Merger Process, it is both the analysis and principals applied to transportation planning efforts under the Executive Order 12898 to ensure full and fair participation of low income and minority populations and communities in the decision-making process. There are three fundamental environmental justice principles

1. To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Environmental Management Commission (NCEMC)

See Acronym Cross Reference

Environmental Restoration

[See Restoration]

Environmental Stewardship

A general Federal and State initiative which demonstrates the care and commitment for preserving and enhancing the natural and human environment in delivering and maintaining an improved transportation system.

Environmental Streamlining

An initiative aimed at identifying ways that transportation and environmental agency representatives can more effectively work together in a collaborative and cooperative manner to avoid unnecessary delays in processing environmental documents, approvals and permits. The environmental streamlining provision was contained in TEA-21.

Ephemeral Stream

Generally, streams that form only during and immediately after precipitation (usually dry within 48 hours after a rain event). Ephemeral streams often do not have a well-defined channel and there may be no clear demarcation from other surface runoff. Some commonly used names for ephemeral streams include stormwater channel, drain, swale, gully, hollow, or saddle. In North Carolina, ephemeral channels are not normally regulated under Section 404 of the Clean Water Act.

Erosion

The general term referring to the 'natural' wearing away of the soil and land by precipitation, wind or other geological forces. Erosion is often accelerated and intensified by land-clearing human activities related to farming, residential and commercial development and public improvement projects such as highway construction. Accelerated erosion typically has adverse environmental effects to water quality and aquatic resources, increased air-borne particulate matter, and declines in arable land, etc.

Essential Fish Habitat (EFH)

EFH consists of both the water column and the underlying surface (e.g., Seafloor) of a particular area and NMFS designated areas essential to the long-term survival and health of our Nation's fisheries. This includes breeding, spawning, nursery, feeding and protection habitat functions for managed fishery species.

Estuarine Waters (CAMA) Access

In the 20 Coastal Area Management Act (CAMA) counties of North Carolina, the rules of the Coastal Resources Commission require that "Development shall not impede navigation or create undue interference with access to, or use of, public trust areas or estuarine waters." Estuarine waters are defined by CAMA to include all the waters of the Atlantic Ocean within the boundary of North Carolina and all the waters of the bays, sounds, rivers and tributaries thereto seaward of the dividing line between coastal fishing waters and inland fishing waters. The boundaries between inland and coastal fishing waters are set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Environment and Natural Resources and in the most current revision of the North Carolina Marine Fisheries Regulations for Coastal Waters, codified at 15A NCAC 3Q .0200.

Estuary

A generally broad portion of a river or stream near its outlet that is influenced by the marine water body into which it flows. The demarcation line is generally the mean tide level. Executive Order (E.O.) - An order signed by the President of the United States that has essentially the full force and effect as a Federally-promulgated law or regulation.

Expressway

A facility with a functional purpose of high mobility and low to moderate access. The facility has limited or partial control of access, no traffic signals, and a minimum of 4 travel lanes with a median. Connections are provided only at interchanges for major cross streets and at-grade intersections for minor cross streets.

F

Farmland Conversion Impact Rating

A NRCS method of determining prime and unique farmland impacts from a project based on twelve (12) site assessment criteria. Agricultural lands which score 160 points or greater should be disclosed in the environmental document and should discuss alternatives to avoid farmland impacts. Typically, Form CPA-106 is used for corridor type projects and Form AD-1006 is utilized for alternatives. Specific requirements can be found at 7 CFR 658.5. NCDOT generally provides copies of the NRCS forms in an appendix to the environmental document.

Farmland Protection Policy Act of 1981 (FPPA)

See Glossary of Environmental Laws

Feasibility Studies

A Feasibility Study is the investigation of a candidate State Transportation Improvement Project (STIP) requested by the public, local governments, and/or Board of Transportation members. The purpose of the study is to describe the proposed project, including costs of a few potential alternatives and identify potential problems and impacts, but not based on extensive analysis. NCDOT management and the Board of Transportation use the findings in selecting projects for the STIP.

Federal Aviation Administration (FAA)

See Acronym Cross Reference

Federal Emergency Management Agency (FEMA)

See Acronym Cross Reference

Federal Energy Regulatory Commission (FERC)

See Acronym Cross Reference

Federal Highway Administration (FHWA)

See Acronym Cross Reference

Federal Lead Agency

The Federal Lead Agency is the agency preparing or having taken primary responsibility for preparing the environmental document. Where federal-aid funding is anticipated, the U.S. Department of Transportation (FHWA) shall be the Federal lead agency in the environmental review process for a project. Where no federal-aid funding is anticipated, the USACE will normally be the lead agency. (Merger Roles and Responsibilities)

Federal Participating Agency

"Federal Participating Agency" means any Federal agency (other than a lead agency) which has jurisdiction or authority with respect to the project, has expertise or information relevant to the project, and intends to submit comments on the project. (Merger Roles and Responsibilities)

Federal Railroad Administration (FRA)

See Acronym Cross Reference

Federal Species of Concern (FSC)

A plant or animal species that may or may not be listed under the ESA as threatened or endangered in the future. Typically, FSC can include those plants and animals that are uncommon to rare, there is insufficient information to include them for listing or have very specific needs or diminishing habitat and may be candidates for future listing under the ESA. These species are not afforded Federal protection under Section 7 of the ESA.

Federal Transit Administration (FTA)

See Acronym Cross Reference

Final Environmental Impact Statement (FEIS)

The final environmental document for a project or program action which incorporates and addresses substantial concerns identified by the public or from review agencies following the issuance of the DEIS. FHWA requirements are specified at 23 CFR 771.125.

Finding of No Significant Impact (FONSI or FNSI)

The final environmental document where there has been a determination that the proposed action will not have a significant impact on the environment. FHWA requirements are specified at 23 CFR 771.121.

Fish and Wildlife Coordination Act of 1934

See Glossary of Environmental Laws

Flat [Wet Flat]

Typically found in the inner and outer coastal plain and sandhills on flat areas in interstream divides. These areas are seasonally saturated or inundated by a high or perched water table and soils are mineral to slightly organic. Non-riverine wetlands where the primary source of hydrology is precipitation. Vegetation varies from hardwoods to mixed pine hardwoods, to pine (NCDENR; A Field Guide to North Carolina Wetlands, EPA # 904/B-94/001, DEM Report No.96-01, January 1996;).

Floodplain

Generally, it is a plain or any land area bordering a river or stream subject or susceptible to periodic flooding. Often times the abbreviated term is utilized in reference to the 100-year floodplain which is the area adjoining a river or stream covered by water in the event of a 100-year flood. The 100-year flood is the flood having a 1% chance of being equaled or exceeded in magnitude in any given year. Contrary to popular belief, the 100-year flood is not a flood occurring once every 100 years.

Floodway

The floodway is the channel of a river or stream and the adjacent area that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water surface elevation more than one foot.

Form AD 1006

See Farmland Conversion Impact Rating

Freedom of Information Act (FOIA)

See Glossary of Environmental Laws

Freeway

A facility with a functional purpose of high mobility and low access. The facility has full control of access; no traffic signals, no driveways, and a minimum of 4 travel lanes with a median. Connections are provided only at interchanges for major cross streets. All cross streets are separated.

Footings

A shallow foundation designed to support and distribute the load of the above structure to soils below. A footing may sit directly on the soil or may sit atop a group of piles or drilled piers. A footing atop piles or drilled piers is sometimes referred to as a pile cap.

Functional Design

Very general highway design that includes horizontal and vertical alignments, edge of pavement, construction limits and right of way limits for all alignments, intersections and interchanges within a study corridor. Functional designs are prepared on orthophotography with Graphic Information System (GIS) features after project purpose and need is established (Concurrence Point No. 1). Functional Designs are prepared to determine constructability, estimate human and environmental impacts and establish a project cost.

Future 'No-build' Average Daily Traffic

[See ADT]

G

Geographical Information Systems (GIS)

Tools (including the computer programs) used to gather, transform, manipulate, analyze and produce information related to the surface of the Earth. This information or data may be represented by maps, three dimensional models, tables and/or lists.

Green Sheets

A green-colored sheet with a list of special project commitments developed during the NEPA process is included in each final environmental document (CE, EA, FONSI, DEIS, FEIS). Additional commitments that are identified during the subsequent project development and permitting, including permit conditions, are included in the green sheet, which is incorporated into the construction contract as necessary.

Groundwater

Water that is found underground in the cracks and spaces in soil, sand and rock.

H

Habitat Fragmentation

Is a potential effect to wildlife species beyond direct project impacts that may fragment needed habitat for a species survival. Many animals require a range of resources that are naturally patchy and therefore need to move around between resource sites. Linear projects, such as new rail lines and highway projects, can cause extensive fragmentation of wildlife habitat and result in isolated and degraded wildlife populations or increase mortality rates through direct conflicts. Wildlife passages constructed for highway projects are one potential method of minimizing some of the more direct impacts from fragmentation.

Hazardous Spill Catch/Retention Basin (HSCB)

A unique retention facility that is provided at strategic locations along arterial system highways to aid in containment and clean up of accidental spills from tanker trucks. The determination of these strategic locations is based on high truck usage and highway segments over Outstanding Resource Waters or within the critical area of water supply watersheds.

Headwaters

The source and extreme upper reaches of a stream or river [including the land draining to the stream or river]. (University of Washington, School of Aquatic & Fishery Sciences; www.cbr.washington.edu/crisp/models/crisp1manual/theory16/TCVchp72.html). USACE defines headwaters as being above the point on a non-tidal stream at which the average annual flow is five cubic feet per second (33 CFR 330, Part C, Condition 26(a)).

Herbaceous

1. Nonwoody vegetation. (Lewis, R. R. Wetlands Restoration/Creation/Enhancement Terminology: Suggestions for Standardization, 1989); 2. Having little or no woody tissue and persisting usually for a single growing season. (Webster)

High Quality Waters (HQW)

Waters which are rated as excellent based on biological and physical/chemical characteristics through DWQ monitoring or special studies, native and special native trout waters (and their tributaries) designated by WRC, primary areas designated by the Marine Fisheries Commission and other functional nursery areas, all water supply watersheds which are either classified as WS-I or WS-II by DWQ and all SA waters.

Highway Needs Inventory (HNI)

A long term planning document, which identifies highway improvements to serve existing and projected population and economic activity in the state.

Highway Trust Fund Act of 1989

See Glossary of Environmental Laws

Horizontal and Vertical Alignment

Horizontal alignment is a measure of the curvature of the roadway, while vertical alignment is a measure of the grade (slope) of the roadway.

Human Environment Unit (HES, formerly OHE)

Part of NCDOT's PDEA Unit, the HES is responsible for public involvement, community studies, noise, air, archaeology, and historic architecture.

Hydric Soil

A soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. (USDA; Revised Definition and Criteria for Hydric Soils, 19Aug94;)

Hydrologic Unit Code (HUC)

A phrase to express the hierarchical system for identifying and sub-dividing river basin units of the U.S. by codes. The system includes the hydrologic data based upon region, sub-region, accounting unit and sub-basin. Sub-basins are identified using an eight-digit code number (e.g., Northeast Cape Fear River near Chinquipin, NC: HUC #03030007).

Hydrophytic Vegetation

Hydrophytic vegetation is defined in the U.S. Army Corps of Engineers Wetland Delineation Manual as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. The vegetation occurring in a wetland may consist of more than one plant community (species association). The plant community concept is followed throughout the manual. Emphasis is placed on the assemblage of plant species that exert a controlling influence on the character of the plant community, rather than on indicator species. Thus, the presence of scattered individuals of an upland plant species in a community dominated by hydrophytic species is not a sufficient basis for concluding that the area is an upland community. Likewise, the presence of a few individuals of a hydrophytic species in a community dominated by upland species is not a sufficient basis for concluding that the area has hydrophytic vegetation.

I

Immediate Corrective Action (ICA)

An internal NCDOT notification to contractors or NCDOT crews to immediately correct potential violations to the Sediment and Erosion Control Act or to the Clean Water Act, to avoid a formal Notice of Violation (NOV) from a regulatory agency.

Implementation Guidelines

Refers to the Memorandum of Understanding (MOU) and Section 404/NEPA Merger Process Information document by the primary signatory agencies. Implementation Guidelines for Conflict or Dispute Resolution are addressed in Appendix B of this document and are defined under "elevation process".

Improve Existing

(Widen Existing) This option involves improvements to the existing roadway, as an alternative to a road on new location.

Indirect and Cumulative Effect (ICE) Analysis

CEQ Regulations require FHWA and other federal agencies to address and consider indirect and cumulative effects in the NEPA and decision-making process. The ICE Analysis uses appropriate methods to evaluate the potential for indirect and cumulative effects from a proposed project. The methods use a variety of factors such as zoning, land use plans, demographics, traffic models, growth and development trends, other likely infrastructure, and other information sources to provide an assessment of the foreseeable indirect and cumulative effects of a proposed project on a qualitative basis. NCDOT uses interchangeably with Indirect and Cumulative Impact. NCDOT will normally

use Indirect and Cumulative Effect in the Merger Process. Other agencies such as DWQ may require more detailed information in an ICI analysis.

Indirect and Cumulative Impact (ICI) Analysis

See Indirect and Cumulative Effects Analysis

Indirect Effects

Effects caused by the action and are later in time or further 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, and related effects on air and water and other natural systems, including ecosystems (40 CFR 1508.8). NCDOT uses this term interchangeably with Indirect Impacts. However, NCDOT will normally use Indirect Effects in the Merger Process.

Infiltration Basin

A shallow impoundment that is designed to infiltrate stormwater into the soil. Infiltration basins are believed to have a high pollutant removal efficiency, and can also help recharge the groundwater, thus restoring low flows to stream systems.

Inlet

The end of a culvert where flow enters the culvert. Also used to describe drainage structures that collect surface water runoff as part of the storm drainage system.

In-lieu Fee Mitigation

Stream, buffer, or wetland mitigation in which a regulatory agency collects fees in lieu of requiring a developer to compensate for losses through on-site mitigation or acquiring credits generated by a mitigation bank. The fees are accumulated for use in future mitigation projects (or banking programs) by the agency or by a designated resource agency. (Institute of Water Resources, National Wetlands Mitigation Banking (WMB) Study Reports 94-WMB-2, 94-WMB-6;)

Individual Permit (IP)

USACE authorization that is issued following a case-by-case evaluation of a specific project in accordance with the procedures of the applicable regulation and 33 CFR Part 325, and a determination that the proposed structure or work is in the public interest pursuant to 33 CFR Part 320. (33 CFR 322)

Interagency Agreement (IAG)

A general term used to denote a form of legal contract between two government organizations. As a Federal contract instrument, an interagency agreement is different from a MOUs or MOAs in that there is typically monetary considerations for agreed to services in an IAG.

Intermittent Stream

A stream that contains water for only part of the year, typically during winter and spring in North Carolina, when the aquatic bed is below the water table; flow occurs in a well-defined channel; groundwater is the primary source of water, but the flow may be heavily supplemented by stormwater runoff; often lacking the biological and hydrological characteristics commonly associated with the continuous conveyance of water.

Intermodal

Interconnectivity between various types (modes) of transportation

Intermodal Surface Transportation Efficiency Act (ISTEA)

See Glossary of Environmental Laws

Invasive (Nuisance) Species

Species of plants that detract from or interfere with a mitigation project, such as most exotic species and those indigenous species whose populations proliferate to abnormal proportions. (Lewis, R. R. Wetlands Restoration/Creation/Enhancement Terminology: Suggestions for Standardization, 1989)

Isolated Wetland

A wetland that is not adjacent to, or does not have a surface water connection to, navigable waters, tributaries to navigable waters, or non-isolated wetlands; unless it has a clear nexus (link) to interstate commerce, it is not normally regulated by the USACE under Section 404; however, it can be regulated by NCDWQ.

J

Jeopardy

A significant adverse effect on listed species or critical habitat to the extent that USFWS determines that the proposed action would jeopardize the continued existence of the listed species under the Endangered Species Act. (ESA)

Joint Lead Agency

More than one agency can be a "Joint Lead Agency." Any project sponsor that is a State or local governmental entity receiving funds under Title 23 US Code or Chapter 53 of Title 49 US Code for the project shall serve as a joint lead agency with the USDOT for purposes of preparing any environmental document under the National Environmental Policy Act of 1969 and may prepare any such environmental document required in support of any action or approval by the Secretary if the Federal lead agency furnishes guidance in such preparation and independently evaluates such document and the document is approved and adopted by the Secretary prior to the Secretary taking any subsequent action or making any approval based on such document, whether or not the Secretary's action or approval results in Federal funding. See Merger Roles and Responsibilities

Jurisdictional Impacts

Impacts to waters of the US (including wetlands) buffers or other areas subject to regulation under Section 10, Section 404, or NCDENR's buffer rules, coastal management regulations, or other rules.

L

Land and Water Conservation Fund Act of 1964, as amended Section 6(f)

See Glossary of Environmental Laws

Land Use Plan

A plan that establishes strategies for the use of land to meet identified community needs.
http://www.fhwa.dot.gov/planning/glossary/glossary_listing.cfm

Least Environmentally Damaging Practicable Alternative (LEDPA)

Based upon the Clean Water Act Section 404(b)(1) Guidelines, the LEDPA is the preferred alternative that is least damaging to aquatic resources (i.e., Wetlands and other waters of the U.S.), unless this alternative results in other significant adverse impacts. The evaluation of practicable alternatives must consider the impact to waters of the U.S. that would result from an alternative before compensatory mitigation is considered and requires the selection of an alternative that avoids and minimizes impacts to wetlands and other waters of the U.S. The Section 404(b)(1) Guidelines require that the LEDPA to aquatic resources be chosen unless this alternative results in other significant environmental consequences. Impacts to other resources such as residential and business relocations, historic resources, endangered species, and public community facilities, may be considered in selecting the LEDPA. The selection of a LEDPA also occurs after the public and other parties have had an opportunity to review and comment on alternatives under consideration in an USACE Public Notice or an environmental document. In the Merger Process, the selection of the LEDPA is Concurrence Point 3.

Letting

Opening of bids at a specified time on projects that NCDOT has advertised for receipt of bids from contractors. NCDOT normally takes bids on projects on one day each month (third Tuesday).

Level of Service (LOS)

A qualitative assessment of a road's operating conditions. It is a standard measurement used by transportation officials which reflects the relative ease of traffic flow on a scale of A to F. LOS A is free-flow with no delays while LOS F is rated congested and significant delays.

Level Spreader

A structural BMP device that diffuses storm water flow into sheet flow through buffers for compliance with riparian buffer protection rules.

Logical Termini

Logical termini for project development are defined as (1) rational end points for a transportation improvement, and (2) rational end points for a review of the environmental impacts.

Long-range Transportation Plan (LRTP)

A document resulting from a NCDOT and local collaboration on an area's long range transportation needs. In metropolitan areas, the Metropolitan Transportation Plan (MTP) includes those improvements that are expected to be funded over the next 20-25 years. In non-metropolitan areas, the Comprehensive Transportation Plan (CTP) identifies those improvements that are needed over the next 20-25 years, however funding may or may not be identified.

M

Magnuson-Stevens Fishery Conservation and Management Act

See Glossary of Environmental Laws

Major Structures

Bridges, retaining walls, tunnels, and large reinforced concrete culverts.

Marine Mammal Protection Act of 1972

See Glossary of Environmental Laws

Marine Protection Research and Sanctuaries Act of 1972

See Glossary of Environmental Laws

Maritime Forest

A forested community located by or near the sea on the mainland side of a barrier beach or island. It is characterized by its stunted growth due to the stresses imposed by its proximity to salt spray from the ocean. Typical vegetation includes live oak, red maple and swamp tupelo.

Marsh

An ecosystem of more or less continuously waterlogged soil dominated by emerged herbaceous plants but without a surface accumulation of peat. A marsh differs from a swamp in that it is dominated by rushes, reeds, cattails, and sedges, with few if any woody plants, and differs from a bog in having soil rather than peat as its base. Freshwater marshes are herbaceous areas that are flooded for extended periods during the growing season. Included are marshes within lacustrine systems, managed impoundments, some Carolina Bays, and other non-tidal marshes (i.e. marshes which do not fall into the Salt/Brackish Marsh category). Typical communities include species of sedges, millets, rushes and grasses that are not specified in the coastal wetland regulations. Also included are giant cane, arrowhead, pickerelweed, arrow arum, smartweed, and cattail. Salt/Brackish Marshes are any salt marshes or other marshes subject to regular or occasional flooding by tides, including wind tides (whether or not the tide waters reach the marshland areas through natural or artificial watercourses), as long as this flooding does not include hurricane or tropical storm waters. Coastal wetland plant species include: smooth cordgrass; black needlerush; glasswort; salt grass; sea lavender; salt marsh bullrush; saw grass; cattail; salt meadow cordgrass; and big cordgrass.

May Affect - Not Likely to Adversely Affect (MA-NLAA)

In a Biological Evaluation the groundwork is established for a determination of "may affect, not likely to adversely affect" or "may affect, likely to adversely affect" for species and habitat protected under the Endangered Species Act. This determination is initially made by the State DOT. Sufficient information must be provided to the USFWS/NMFS to make a "not likely to adversely affect" or "likely to adversely affect" determination in informal consultation, or a "jeopardy/adverse modification" or "non-jeopardy/no adverse modification" determination in formal consultation.

Median

A median is the portion of highway separating opposing directions of the traveled way. Median width is expressed as the dimension between the edges of the traveled way and includes the left shoulders, if any.

Merger Management Team (MMT)

A small group of senior level representatives from the Merger Process's primary signatory agencies (DENR, NCDOT, FHWA and USACE) that meet on a monthly basis to discuss and troubleshoot any programmatic and policy-level issues that arise regarding implementation of the Merger Process.

Merger Training Team (MTT)

A group of representatives from several participating agencies who guided the development of the Merger Process Training.

Metropolitan Planning Organization (MPO)

A regional policy body, required in urbanized areas with populations over 50,000, that is responsible for carrying out the metropolitan planning requirements of federal highway and transit legislation in cooperation with state and other transportation providers; develops transportation plans and programs for the metropolitan area.

Migratory Bird Treaty Act (MBTA)

See Glossary of Environmental Laws

Mitigation

1. For the purposes of Section 10/404 and consistent with the Council on Environmental Quality regulations, the Section 404(b)(1) Guidelines and the Memorandum of Agreement between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation under the Clean Water Act Section 404(b)(1) Guidelines, mitigation means sequentially avoiding impacts, minimizing impacts, and compensating for remaining unavoidable impacts. (60 FR 228, pp. 58605-58614, "Federal Guidance for the Establishment, Use and Operation of Mitigation Banks," 28Nov95);
2. The practice of allowing unavoidable losses of wetlands in exchange for their replacement elsewhere through restoration or through creation of new wetlands. (National Research Council (NRC), Committee of Characterization of Wetlands, 1995. Wetlands, Characteristics and Boundaries, National Academy Press, Washington, D.C., 308pp.);
3. Mitigation can also refer to activities or practices done to moderate the impacts a project has on human or natural resources, such as an historic architecture site or an endangered species. (See State Highway Corridor - Glossary of Terms); http://www.ncdot.org/doh/preconstruct/tpb/SHC/pdf/shc_concept_development_report_glossary.pdf).

Mitigation Bank

1. A site where wetlands and/or other aquatic resources are restored, created, enhanced, or in exceptional circumstances, preserved expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to similar resources. For the purposes of Section 10/404, use of a mitigation bank may only be authorized when impacts are unavoidable. (60 FR 228, pp. 58605-58614, "Federal Guidance for the Establishment, Use and Operation of Mitigation Banks," 28Nov95);
2. Wetland restoration, creation, enhancement, and in exceptional circumstances, preservation, and contributions to such activities, undertaken expressly for the purpose of compensating for unavoidable wetland impacts or losses due to construction of one or more (highway) projects. Mitigation banks are usually developed in advance of project construction for situations when compensatory mitigation cannot be achieved on-site or where on-site mitigation would not be as environmentally beneficial (23 Code of Federal Regulations (CFR) 777/FHWA).

Moratorium

A temporary ban or halt to a specific activity. For NCDOT Projects, a moratorium usually refers to a defined period of time (i.e., "season" or "window") during which specific construction activities are not allowed in order to protect sensitive animal species from disturbance. For example, the typical moratorium for anadromous fish is from February 15th to June 30th. A moratorium usually does not apply to the entire project, but instead to certain aspects of the project, such as in-water work. The most common animals that receive protection from moratoriums in North Carolina are various fish species, mussels, piping plovers, sea turtles and manatees. Other endangered species may also be protected by moratoriums.

N

National Environmental Policy Act of 1969 (NEPA)

See Glossary of Environmental Laws

National Flood Insurance Reform Act of 1994

See Glossary of Environmental Laws

National Highway System (NHS)

The Interstate System as well as other roads important to the nation's economy, defense, and mobility; developed by the United States Department of Transportation in cooperation with the states, local officials, and metropolitan planning organizations.

National Historic Preservation Act of 1966 (NHPA) [Sections 106 & 110]

See Glossary of Environmental Laws

National Marine Fisheries Service (NMFS)

See Acronym Cross Reference

National Oceanic and Atmospheric Administration (NOAA)

See Acronym Cross Reference

National Pollution Discharge Elimination System (NPDES) Permit

A permit issued for point source (end of pipe) discharges under the "National Pollutant Discharge Elimination System" [per Section 402 of the Clean Water Act]; also used to regulate stormwater discharges from certain urban areas and developing counties. <http://www.nceep.net/resources/glossary.pdf>

National Register of Historic Places (NRHP)

The Nation's official list of cultural resources worthy of preservation. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The National Register is administered by the National Park Service, which is part of the U.S. Department of the Interior. Section 106 of the NHPA applies to resources listed in or eligible for listing in the NRHP. <http://www.cr.nps.gov/nr/about.htm>

National Trails System Act of 1968

See Glossary of Environmental Laws

National Wetlands Inventory (NWI)

The National Wetlands Inventory (NWI) of the U.S. Fish & Wildlife Service (USFWS) produces information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats. Congressional mandates in the Emergency Wetlands Resources Act require USFWS to map wetlands, and to digitize, archive and distribute the maps. With funding from other Federal, State, Tribal, local and private organizations, the Service has produced final maps for much of the nation. About half are digitized and available to the public on the Internet. Hard-copy maps are available through Cooperator-run Distribution Centers. A Congressional mandate also requires USFWS to produce status and trends reports to Congress at ten-year intervals. NWI maps and digital data are distributed widely

throughout the country and the world. NWI wetlands status and trends and other reports are used widely and referenced in policy decisions.

National Wildlife Refuge System Administration Act of 1966

See Glossary of Environmental Laws

National Wildlife Refuge System Improvement Act of 1997

See Glossary of Environmental Laws

Nationwide Permit/Nationwide General Permit

General permits are USACE authorizations that are issued on a nationwide or regional basis for a category or categories of activities. This refers to both those regional permits issued by District or Division Engineers on a regional basis and to nationwide permits that are issued by the Chief of Engineers through publication in the Federal Register. (33 CFR 325) Nationwide Permits (NWP) are general permits issued on a nationwide basis to authorize minor activities with minimal evaluation time. The thresholds for the impacts and the types of activities allowed under the Nationwide Program are established as national policy. Additionally, there are regional conditions associated with each Nationwide Permit used in North Carolina, which are established by the USACE Wilmington District and approved by the USACE Division Office in Atlanta.

Native American Graves Protection and Repatriation Act of 1990 (NAGPRA)

See Glossary of Environmental Laws

Natural Environment Section (NES, formerly ONE)

Part of NCDOT's PDEA Unit, the NES is primarily responsible for Natural Resource Surveys and Reports, Endangered Species Surveys, permits and on-site mitigation.

Natural Resources Conservation Service (NRCS)

See Acronym Cross Reference. Formerly USDA Soil Conservation Service or SCS.

New Location

A proposed alternative that does not utilize the alignment or right of way of an existing roadway or corridor.

No-Build Alternative

The proposed action would not take place and the resulting environmental effects from taking no action would be compared with the effects of the build alternatives. Serves as a baseline for comparison to the proposed build alternatives.

Noise Abatement Criteria (NAC)

The noise level above which projects will require consideration of noise abatement measures when studies identify a noise impact. For more detailed information, see NCDOT's Traffic Noise Abatement Policy.

Non-Attainment Area

It is an area that violates the U. S. Environmental Protection Agency (EPA) health standards for air quality as defined in the Clean Air Act. An area may be an attainment area for one pollutant (i.e. Ozone, PM2.5) and a nonattainment area for others.

Non-Federal Participating Agency

"Non-Federal Participating Agency" means any agency (other than a joint lead agency) which has jurisdiction or authority with respect to the project, has expertise or information relevant to the project, and intends to submit comments on the project.

N.C. Certified Sites

A N.C. Department of Commerce designation for properties that meet Phase I environmental assessment requirements and are 'certified' as being potential priority development parcels.

N.C. Environmental Policy Act

See State Environmental Policy Act - SEPA or NCEPA

Nitrogen Dioxide (NO₂)

A yellowish-brown, acid gas priority air pollutant that can cause respiratory problems. Nitrogen dioxide and other oxides of nitrogen are a concern because they cause a significant role in the formation of ozone, particle pollution, haze and acid rain. Vegetative burning following clearing and grubbing activities can be a major localized source of nitrogen dioxide emissions.

Noise Control Act of 1972

See Glossary of Environmental Laws

Non-Attainment

Designated areas of the country where air pollution levels persistently exceed the National Ambient Air Quality Standards for ozone (1-hour and 8-hour), carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter (PM-10 and PM-2.5) or lead.

Non-Point Source (of pollution)

Any source of pollution that enters the environment through some means other than a discrete conveyance, such as a pipe from a sewage treatment plant. Nonpoint source pollution is diffuse in character. The main form of non-point source pollution is the polluted runoff that drains into our streams, rivers, lakes and estuaries.

North Carolina Administrative Code (NCAC)

See Acronym Cross Reference

North Carolina Coastal Region Evaluation of Wetland Significance (NCCREWS)

NCCREWS is a GIS-based model developed by DCM that measures 3 major wetland functions (i.e., Hydrology, Water Quality and Wildlife Habitat), 7 wetland subfunctions, and 39 landscape and wetland parameters. Wetlands are assigned ratings of Beneficial, Substantial or Exceptional Significance, depending on how well they perform the various wetland functions.

North Carolina Department of Transportation (NCDOT)

See Acronym Cross Reference

North Carolina Department of Commerce (NCDOC)

See Acronym Cross Reference

North Carolina Department of Cultural Resources (NCDCCR)

See Acronym Cross Reference

North Carolina Department of Environmental and Natural Resources (NCDENR)

See Acronym Cross Reference

North Carolina Forest Service (NCFS) [See DFR]

See Acronym Cross Reference

North Carolina Moving Ahead!

In accordance with House Bill 48, identified as "North Carolina Moving Ahead", ratified by the North Carolina General Assembly, the NCDOT is authorized to use Highway Trust Fund cash balances in the amount of 630 million dollars (\$630,000,000) in fiscal years 2003-2005 for highway system preservation, modernization, and maintenance projects that will enhance safety, reduce congestion, improve traffic flow, reduce accidents, upgrade pavement widths and shoulders, extend pavement life, improve pavement smoothness, and rehabilitate or replace deficient bridges.

North Carolina Natural Heritage Program (NCNHP)

See Acronym Cross Reference

North Carolina Thinking Ahead!

A special working group looking for ways to meet more of the state's growing transportation needs. This 12-member group brings together a range of transportation stakeholders and experts from across the state and is examining short-term transportation needs such as safety, maintenance and economic development, as well as studying solutions to find resources to implement the state's long-range transportation plan.

North Carolina Turnpike Authority (NCTA)

The North Carolina Turnpike Authority was created in 2002 to study, develop, construct, operate and maintain toll roads in the state. The Authority's charge is to determine if and where there are areas where toll roads may be developed to provide alternate access to heavily congested roadways. The NCTA will complement the Department of Transportation's ongoing congestion-fighting efforts and will help meet more transportation needs than the department could otherwise afford. <http://www.ncdot.org/ncta/>

Notice of Intent (NOI)

Is an announcement published in the Federal Register that informs the public that an EIS is required to be prepared to address a project's potential environmental impacts. The FHWA Division prepares the NOI in accordance with 23 CFR Part 771.123 and 40 CFR Part 1508.22 as soon as a decision has been reached to prepare an EIS. The NOI briefly describes the project and study area, its purpose and need, preliminary alternatives (if there are any identified), the agency contact person (name and address), and what the chief environmental issues should be. A NOI is only issued for projects requiring the preparation of an EIS once the Lead Federal Agency (i.e., FHWA) has made its determination.

Nutrient Sensitive Waters (NSW)

Waters subject to growths of microscopic or macroscopic vegetation requiring limitations on nutrient inputs.

O

Obliterate

To remove all or part of the roadway and/or pavement.

Off-site Mitigation

Off-site mitigation may be used when there is no practicable opportunity for on-site mitigation, or when off-site mitigation is environmentally preferable. According to pending Federal guidance, one of the best tools for determining when off-site or out-of-kind mitigation is environmentally preferable is a holistic watershed plan. <http://environment.fhwa.dot.gov/strmlng/newsletters/jul04nl.asp>

On-site Mitigation

On-site, in-kind mitigation means compensatory mitigation which replaces wetlands or natural habitat area or functions lost as a result of a highway project with the same or like wetland or habitat type and functions adjacent or contiguous to the site of the impact. (23 CFR 777.2) <http://www.fhwa.dot.gov/hep/23cfr777.htm>

Origin/Destination (O/D) Study

Study of travel patterns for a town/city/region in which households or vehicles (depending on study type) are asked questions related to their daily travel. Examples of data may include: type of trip, length of trip, time of day and starting and ending points of trips. Data collected allows for calibration of a travel demand model to the traveler characteristics of an area.

Orthophotography

A digital image that has been corrected to account for image distortion due to the tilt of the camera. Digital orthophotography has an x, y coordinate system and typical resolutions of 0.5", 1', and 2'.

Outer Banks Task Force (OBTF)

A multi-agency work group which has several primary goals: Preserving the natural barrier island system in N.C.; minimizing impacts to Hatteras and Ocracoke islands; and maintaining access to and on the islands so that the transportation system is safe, efficient, and has minimal impact on the environment. Primary agencies on the OBTF include NCDOT, FHWA, USACE, NPS, FWS, NMFS, and NCDENR.

Outlet

The end of a culvert where flow exits the culvert. Also used to describe the location at which storm water exits a storm drainage system or roadway ditch system.

Outstanding Resource Water (ORW)

Unique and special waters of exceptional state or national recreational or ecological significance which require special protection to maintain existing uses.

Overbank Flooding

Any situation in which inundation occurs as a result of the water level of a stream rising above bank level. (USACE; Technical Report Y-87-1, Corps of Engineers Wetlands Delineation Manual, Department of the Army, Waterways Experiment Station, January 1987;)

Overstory

The trees in a forest of more than one story that form the upper or uppermost canopy layer. (Silvicultural Systems, U.S. Forest Service, Agricultural Handbook 445, 1973;)

Ozone (O₃)

Ozone is a colorless and odorless and chemically reactive gas which at ground level can be a very harmful air pollutant. Upper atmosphere ozone occurs naturally and forms a protective layer that shields the surface from the sun's harmful ultraviolet rays. Ozone at ground level is considered "bad ozone" and is emitted from automobiles, power plants, industrial boilers, refineries and other chemical process plants.

P

Palustrine Forests

Forested areas which are typically wet (wetlands) and include general habitats and sub-ecosystems such as Palustrine Emergent (PEM), Palustrine Scrub-Shrub (PSS), Palustrine Forested (PFO) and Palustrine Open Water (POW). A general forest classification apart from coastal, riverine and lacustrine (lake) forests.

Participating Agencies

See Federal Participating Agency, or Non-Federal Participating Agency.

Partnering Agencies

The agencies identified as partnering agencies within the Memorandum of Understanding: "Section 404 of the Clean Water Act and National Environmental Policy Act Integration Process for Surface Transportation Projects in North Carolina." Partnering agencies have a significant role as project team members in the Merger Process, and in some cases, may have a statutory compliance role or regulatory function to fulfill. The partnering agencies are as follows: U.S. Environmental Protection Agency; U.S. Fish and Wildlife Service; National Marine Fisheries Service; N.C. Wildlife Resources Commission; N.C. Department of Cultural Resources; U.S. Coast Guard; U.S. Forest Service; Tennessee Valley Authority; National Park Service; Eastern Band of Cherokee Nation; Metropolitan Planning Organizations; and Rural Planning Organizations.

Peak Hour

The 1-hour period during which the roadway carries the greatest number of vehicles. Traffic impacts are typically evaluated during the morning and afternoon peak hours when the greatest number of motorists are traveling to and from work.

Perched

A term used to describe when the bottom of a culvert is elevated above the streambed or ditch elevation (usually due to degradation of the streambed or from improper installation).

Perennial Streams

Streams that contain water year-round during a year of normal rainfall; flow occurs in a well-defined channel; the aquatic bed is located below the water table for most of the year; groundwater is a primary source of water, but the stream also carries stormwater runoff; exhibits the typical biological, hydrological, and physical characteristics commonly associated with a continuous conveyance of water.

Permit Area (USACE)

In the context of potential effects to cultural resources or endangered species, those areas comprising the waters of the US that will be directly affected by the proposed work or structures (those that require Section 10 or 404 permits) and uplands directly affected as a result of authorizing the work or structure. (33CFR325, App. C; December 5, 1991 Memorandum from John P. Elmore, USACE, to Major Subordinate Commands and District Commands).

Phase II (Stormwater plans/Stormwater permits)

Regulation that builds upon the existing Phase I program by requiring smaller communities and public entities that own and operate a municipal separate storm sewer system to apply and obtain an NPDES permit for stormwater discharges.

Phased Projects

Larger projects, which are divided into segments and are funded at different timeframes for right of way acquisition and construction.

Piers

See Bent

Piles

A deep foundation consisting of a heavy beam of timber, concrete or steel usually driven into the earth as a foundation or support for a bent. A pile distributes loads from the above structure to the surrounding soils.

Pipeline Projects

Merger eligible projects that were already underway at various stages of project development when the Original Merger process and/or the Merger Process were implemented. The Merger Process Owners decide if a pipeline project will be placed in the merger process and the appropriate concurrence point.

Pocosin

Freshwater shrub/scrub wetland communities (i.e. non-Estuarine shrub/scrub) dominated by evergreen shrubs, often mixed with pond or loblolly pines. Typically occur on saturated, acid, nutrient poor, sandy or peaty soils; usually removed from large streams; and subject to periodic burning.

Point Source (of pollution)

Readily identifiable inputs where waste is discharged to the receiving waters from a pipe or drain.

Ponded

A condition in which water stands in a closed depression. Water may be removed only by percolation, evaporation, and/or transpiration. [versus Flooded - A condition in which the soil surface is temporarily covered with flowing water from any source, such as streams overflowing their banks, runoff from adjacent or surrounding slopes, inflow from

high tides, or any combination of sources.] (USACE; Technical Report Y-87-1, Corps of Engineers Wetlands Delineation Manual, Department of the Army, Waterways Experiment Station, January 1987;).

Poured Shaft

See drilled pier

Preferred Alternative

A NEPA term for the alternative, which the lead agency believes, would fulfill its statutory mission and responsibilities, giving consideration to social, economic, environmental, technical and other factors.

Preformed Scour Hole (PSH)

A reshaped, riprap-lined basin located directly downstream of the outfall of a drainage structure to dissipate energy and promote diffuse flow.

Preliminary Design

Specific design that includes horizontal and vertical alignment, edge of pavement, construction limits, roadway superelevation and right of way limits. Preliminary designs are prepared on preliminary mapping in order to evaluate constructability, impacts to the human and natural environment and to re-establish project cost.

Preliminary Mapping

Topographic mapping (plan design files and contours) at a scale of 1"=100' and 1"=200'. Mapping will contain topographic features and delineate wetlands and streams. The accuracy of the 1"=100' topographic mapping (used primarily in urban areas) is plus or minus 0.5 feet in the x,y,z axis. The accuracy of the 1"=200' topographic mapping (used typically in the rural and cross-country areas) is plus or minus 1 foot in the x,y,z axis. Design Public Hearing Maps are developed using Preliminary Mapping.

Primary MOU Signatory Agencies

The agencies identified as primary signatories within the Memorandum of Understanding: "Section 404 of the Clean Water Act and National Environmental Policy Act Integration Process for Surface Transportation Projects In North Carolina." The primary agencies (i.e. sponsor agencies) are the process owners of the Merger Process, and are responsible for the successful implementation of the Merger Process. They are the primary decision-making authority with regard to NEPA and Section 404 permitting and are responsible for conflict or dispute resolution. The primary agencies are as follows: N.C. Department of Transportation; Federal Highway Administration, North Carolina Division; N.C. Department of Environment and Natural Resources; and U.S. Army Corps of Engineers.

Practicable [versus Practical]

Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. Practical means capable of being used or put into effect. The difference between practical and practicable lies in the feasibility of an action. Practicable means "feasible" as well as "usable". An action may be practical but not practicable.

Practical [versus Practicable]

[See practicable.]

Primary Nursery Area

Located in the upper portions of creeks and bays. These areas are usually shallow with soft muddy bottoms and surrounded by marshes and wetlands. Low salinity and the abundance of food in these areas are ideal for young fish and shellfish. To protect juveniles, many commercial fishing activities are prohibited in these waters; including the use of trawl nets, seine nets, dredges or any mechanical methods used for taking clams or oysters.

Problem Statements

Problem Statements are developed as part of the Long Range Planning process for each identified deficiency in an area's transportation system using data from the long range planning process. The PS is typically used by the Project Development and Environmental Analysis Branch (PDEA) to develop Purpose and Need statements for projects during the project development stage. The Purpose and Need statement is presented for concurrence in accordance with the Merger process for Merger projects and contains more detailed information pertaining to specific traffic data and community issues than the PS.

Process I

The Merger Process implementation procedures for Projects on New Location. Generally, Process I will be followed for all projects with any portion of the project on new location. However, if the new location segments are considered minor, then Process II can be used if agreed to by the Project Team.

Process II

The Merger Process implementation procedures for widening and other improvement projects.

Process III

The Merger Process agency coordination process for bridge replacement projects that are processed as categorical exclusions. Programmatic categorical exclusions will not be done for projects that follow this process. The project team will review each project at its initial meeting to determine the appropriate merger process that the project should follow. For example, a Bridge Replacement/CE project that needs project team concurrence on purpose and need would follow Process I or Process II instead of Process III.

Process Owners

[See primary MOU signatory agencies]

Project Development and Environmental Analysis (PDEA)

The Project Development and Environmental Analysis Unit (PDEA) was formed in response to the National Environmental Policy Act of 1969, which called for efforts to prevent or eliminate damage to the environment and the biosphere. PDEA's mission is to responsibly develop transportation projects in an environmentally sound manner and in partnership with all stakeholders.

Project Management Improvement Initiative (PMii)

PMii provides modern project planning and execution tools and methods for NCDOT projects and provides fiscal information to the Business System Improvement Project (BSIP). It is the NCDOT department wide project-scheduling tool.

Project Study Area

The area between logical termini in which alternatives can be developed that meet the Purpose and Need for the proposed improvement.

Predictive Models

[See Archaeological Predictive Model]

Preservation [mitigation]

1. The protection of ecologically important wetlands or other aquatic resources in perpetuity through the implementation of appropriate legal and physical mechanisms. Preservation may include protection of upland areas adjacent to wetlands as necessary to ensure protection and/or enhancement of the aquatic ecosystem. (60 FR 228, pp. 58605-58614, "Federal Guidance for the Establishment, Use and Operation of Mitigation Banks," 28Nov95);
2. Protection of existing habitat conditions, generally through acquisition or easement in perpetuity, or at least for the duration of project impacts. (USFWS, CFR 46(15):7656-7663, 1981);
3. The protection of wetlands through purchase donation or conveyance of a conservation easement to an appropriate government or non-profit agency for management. (15A NCAC 2H .0506 (h)(4)(A), (B), (C), (D));
4. Activities or practices done to protect existing human or natural resources, such as a historic architecture site.

Prime [or Unique] Farmlands

Land classified under the FPPA that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides and labor and without intolerable soil erosion. Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, fruits and vegetables.

Public Trust Areas (CAMA) Access

In the 20 Coastal Area Management Act (CAMA) counties of North Carolina, the rules of the Coastal Resources Commission require that "Development shall not impede navigation or create undue interference with access to, or use of, public trust areas or estuarine waters." Public trust areas are defined by CAMA as all waters of the Atlantic Ocean and the lands thereunder from the mean high water mark to the seaward limit of state jurisdiction; all natural bodies of water subject to measurable lunar tides and lands thereunder to the normal high water or normal water level; all navigable natural bodies of water and lands thereunder to the normal high water or normal water level as the case may be, except privately-owned lakes to which the public has no right of access; all water in artificially created bodies of water containing public fishing resources or other public resources which are accessible to the public by navigation from bodies of water in which the public has rights of navigation; and all waters in artificially created bodies of water in which the public has acquired rights by prescription, custom, usage, dedication, or any other means. In determining whether the public has acquired rights in artificially created bodies of water, the following factors shall be considered: (1) the use of the body of water by the public; (2) the length of time the public has used the area; (3) the value of public resources in the body of water; (4) whether the public resources in the body of water are mobile to the extent that they can move into natural bodies of water; (5) whether the creation of the artificial body of water required permission from the state; and the value of the body of water to the public for navigation from one public area to another public area.

Public Trust Doctrine

The Public Trust Doctrine is the principle that the State holds title to submerged land under navigable waters in trust for the benefit of the public. The doctrine dates back to English common law and became part of North Carolina's common law after the Declaration of Independence.

Purpose and Need (P&N) [Statement]

In a broad context, the general intent and justification for an intended action to address a specified transportation-related problem. The statement should clearly demonstrate that a 'need' exists and should define the 'need' in terms understandable to the general public. The statement should clearly describe identified and documented problems that the proposed action is to correct. Under the Merger Process, the phrase 'Purpose and Need' generally refers to Concurrence Point 1.

R

Receptors [Noise]

Entities such as residential homes, apartments, parks, places of worship and churches, schools, commercial businesses and other facilities which can be affected by noise pollution from a proposed project. Noise receptors may potentially receive an increased, decreased or 'no-change' level of noise from ambient to future conditions based upon noise modeling. For widening projects, noise receptors are generally those existing entities and facilities along the right of way, which may or may not receive a potential noise increase. For new location projects, noise receptors are those entities generally located within several hundred feet from the proposed centerline of the new road.

Record of Decision (ROD)

The ROD is the final step in the EIS process and is the lead agency's (normally FHWA) decision that identifies the alternative selected for implementation. The ROD should: (1) state the basis for the decision, (2) identify all the alternatives considered and specify the "environmentally preferable alternative", and (3) state whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted and, if not, why they were not. The ROD may not be issued sooner than 30 days after the approved final EIS is distributed, nor 90 days after the Draft EIS is circulated. http://www.fhwa.dot.gov/environment/doc_eis.htm

Regional Conditions [USACE]

There are regional conditions associated with each Nationwide Permit used in North Carolina by the Wilmington District. These regional conditions are established by the District and approved by the Corps Division, to ensure that the implementation of the nationwide permit program in waters and wetlands of North Carolina are consistent with meeting the program's goals of streamlining the permit process for those activities that have no more than minimal impacts to the environment.

Regional General Permit

Regional General Permits (GPs) are general permits (See Nationwide Permit) specific to the USACE-Wilmington District for waters and wetlands of North Carolina, and the associated conditions are established by the District.

Reinforced Concrete Box Culvert (RCBC)

[See box culvert] Most box culverts used by NCDOT are constructed with this type of material.

Relocations

Proposed projects may result in the displacement of residents and/or businesses; Relocation impacts are evaluated as part of the NEPA process. <http://www.fhwa.dot.gov/legsregs/directives/techadv/t664008a.htm>

Reservoir Salvage Act of 1960

See Glossary of Environmental Laws

Resource Conservation and Recovery Act of 1976 (RCRA)

See Glossary of Environmental Laws

Restoration [mitigation]

1. The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded wetland. (USACE, Regulatory Guidance Letter 02-2, Guidance on Compensatory Mitigation Projects for Aquatic Resource Impacts Under the Corps Regulatory Program Pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899, 24 December 2002);
2. Re-establishment of wetland and/or other aquatic resource characteristics and function(s) at a site where they have ceased to exist, or exist in a substantially degraded state. (60 FR 228, pp. 58605-58614, "Federal Guidance for the Establishment, Use and Operation of Mitigation Banks," 28Nov95);
3. Re-establishment of pre-existing habitat or condition. Differs from enhancement, which seeks to increase one or more values of an existing habitat. (USFWS, Draft Chapter on Mitigation Banking);
4. The re-establishment of wetland hydrology and vegetation in an area where it previously existed. (15A NCAC 2H .0506 (h)(4)(A), (B), (C), (D));
5. Return of an ecosystem to a close approximation of its condition prior to disturbance. (NRC, Committee of Characterization of Wetlands, 1995. Wetlands, Characteristics and Boundaries, National Academy Press, Washington, D.C., 308pp.

Retention Pond

Pond designed to hold a specific amount of water indefinitely, releasing the water at flow rates and frequencies similar to those that existed under natural conditions. Usually the pond is designed to have drainage leading to another location when the water level gets above the pond capacity, but still maintains a certain capacity.

Right of Way (ROW)

The area or property reserved for a specific transportation function such as a roadway or transit corridor. (DOT GL)

Right-to-Know (RTK)

A general term referring to governmental requirements concerning a citizen's or a community's 'right-to-know' about environmental and public health concerns, such as spills and releases of toxic chemicals.

Riparian Areas

Lands adjacent to waterbodies. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects waterbodies with their adjacent uplands. Riparian areas are

adjacent to streams, lakes and estuarine-marine shorelines and provide a variety of ecological functions and services and help improve or maintain local water quality. Riparian areas are not synonymous with riverine areas.

Riparian Buffers

Vegetation along the banks of rivers and streams which filter nutrients and pollutants from runoff. Divided into two zones [see Zone1/Zone 2 below] and protected by the state's buffer rules.

Rivers and Harbors Appropriation Act of 1899 (Sections 9 & 10)

See Glossary of Environmental Laws

Roadside Environmental Unit

Unit of the NCDOT whose mission is "to provide roadside elements for a statewide highway system that is safe, environmentally sound, attractive, and responsive to the public's needs." Some of their responsibilities include the delegated Sediment and Erosion Control Program, Vegetation Management, NPDES stormwater management, program, hazardous materials management, environmental compliance issues, the Wildflower Program, Adopt-A-Highway, Rest Areas and Landscape Design.

http://www.ncdot.org/doh/operations/dp_chief_eng/roadside/mission.html

Roadway Geometric Deficiencies

Shortcomings with various geometric elements, such as design speed, lane and shoulder widths, bridge widths, structural capacity, horizontal and vertical alignment, stopping sight distance, grades, cross-slopes, superelevation, and horizontal and vertical clearances. <http://www.fhwa.dot.gov/legsregs/directives/techadvs/t504028.htm>

Rural Planning Organization (RPO)

A regional planning body, established by NC General Statutes, Chapter 136, Article 17, Section 136-210-213, to provide assistance to rural areas in developing transportation plans and programs.

S

Safe Drinking Water Act of 1944 (SDWA)

See Glossary of Environmental Laws

Safe, Accountable, Flexible and Efficient Transportation Equity Act - Legacy for Users of 2005 (SAFETEA-LU)

See Glossary of Environmental Laws

Saturated Soils

A condition in which all easily drained voids (pores) between soil particles in the root zone are temporarily or permanently filled with water to the soil surface at pressures greater than atmospheric. (USACE; Technical Report Y-87-1, Corps of Engineers Wetlands Delineation Manual, Department of the Army, Waterways Experiment Station, January 1987.)

Scoping Letter

Scoping is a formal coordination process, which determines the scope of issues to be addressed, and identifies the significant issues related to the proposed action. Scoping usually involves an internal meeting with NCDOT staff. It occurs early in the planning process and may involve agencies and interested public. The scoping letter is the first formal request for NCDOT staff to become involved in the planning process. Documented with formal meeting minutes.

Scrub-shrub Vegetation

1. Woody vegetation less than 20 feet tall. (Cowardin, L.M., et al., Classification of Wetlands and Deepwater Habitats of the United States, December 1979); 2. Shrub wetlands including areas dominated by woody vegetation less than 6 meters (20 feet) tall. The species include true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions. (Dahl, T.E. and C.E. Johnston, 1991. Status and Trends of Wetlands in the Conterminous United States, Mid-1970's to Mid-1980's. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.).

Secondary Effect

An effect or environmental impact from a proposed action that are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. A secondary effect may include land use pattern changes resulting from the construction of a new highway, air quality changes within a locality, etc. Note: Secondary effect and indirect effect are used interchangeably; NCDOT uses indirect effect.

Secondary Nursery Area

Located in the lower portions of creeks and bays. As they develop and grow, young fish and shellfish, primarily blue crabs and shrimp, move into these waters.

Section 4(f) [of the Transportation Act of 1966]

See Glossary of Environmental Laws

Section 7 [of the Endangered Species Act of 1973]

See Glossary of Environmental Laws

Section 10 [of the Rivers and Harbors Act of 1899]

See Glossary of Environmental Laws

Section 106 [of the National Historic Preservation Act of 1966]

See Glossary of Environmental Laws

Section 303(d) Listed Waters [of the Clean Water Act of 1977]

See Glossary of Environmental Laws

Section 401 [of the Clean Water Act of 1977]

See Glossary of Environmental Laws

Section 404 [of the Clean Water Act of 1977]

See Glossary of Environmental Laws

Service Road

Also known as a frontage road that generally parallels a highway or through street. Businesses, such as gas stations, restaurants and motels, may be located along the service road. On occasion, a service road in rural areas may have been the original alignment of the highway prior to the construction of the freeway. (CG)

Shellfishing Waters

Also known as class SA waters, these are saltwater areas suitable for commercial shellfishing.

Shoulder Section

A roadway with an earth shoulder and a ditch on the outside of the pavement.

Significant Impacts

Any number of social, environmental or economic effects or influences which may be brought about as a result of the implementation of a transportation improvement that are of such a magnitude or degree of intensity or duration as to 'require' the preparation of an environmental impact statement under NEPA. 'Significant impacts' may include effects that are direct, indirect or cumulative and include both the short-term and long-term duration of the effect. FHWA project development and environmental planning requirements under transportation decision-making refers to the context of an action and intensity or the severity of impact (referring to criteria at 40 CFR 1508.2).

Significant Natural Heritage Program Area

A Significant Natural Heritage Area (SNHA) is an area of land or water identified by the N.C. Natural Heritage Program (NCNHP) as being important for conservation of the State's biodiversity. SNHA's contain one or more Natural Heritage elements - high-quality or rare natural communities, rare species, and special animal habitats. Approximately 25% of

the SNHA's in North Carolina are entirely or partially in conservation ownership, including conservation easements. However, many remain privately owned and are unprotected from threats such as development.

Sill

A sill is a sediment retention device typically made of rock or concrete which is installed at the upstream end to one side of a culvert to create diversity in flow velocity, depth and energy dissipation patterns that aid fish passage. Sills are used as velocity control devices and can be used to restore the natural stream width after the installation of a culvert.

Slope Stakes

Point of reference indicating the earthwork limits on each side of the centerline of a roadway. The slope stake represents the intersection of the ground and each side slope.

Slough

1. A depression or hollow usually filled with deep mud or mire;
2. A stagnant swamp, marsh, bog, or pond, especially as part of a bayou, inlet or backwater; or
3. A local or regional term referring to a man-made, 'concrete' water conveyance system (e.g., a concrete-lined roadside ditch).

Soil and Erosion Plan

May also be referred to as a 'Soil Erosion and Sediment Control Plan'. A plan that addresses the construction related impacts from a project, including measures to reduce extensive areas of soil disturbance, identification of clearing and grubbing (construction) limits, installation of sedimentation devices such as silt fences, gravel or stone berms around drainage inlets/outlets, staked hay-bales, diversion swales, detention/retention ponds, etc., measures to re-grade, re-vegetate and stabilize exposed soils, and the use of other appropriate best management practices to minimize sediment runoff to streams, rivers and other water bodies or from high winds.

Special Aquatic Sites [under Section 404]

Wetlands, mud flats, vegetated shallows, coral reefs, riffle and pool complexes, sanctuaries, and refuges as defined in the CWA regulations at 40 CFR 230.40 through 230.45. These areas get special consideration under the guidelines at Section 404(b)(1) of the Clean Water Act that address avoidance, minimization and compensatory mitigation of waters of the United States.

Sponsor Agencies

[See Primary MOU Signatory Agencies]

Start of Study Letter

This letter officially initiates the coordination process between NCDOT and groups outside NCDOT. The letter solicits input from federal and state agencies (including the State Clearinghouse), local government agencies, and the public. Since these letters are sent early in the planning process, the level of detail provided is very general and usually only includes a TIP description and a vicinity map.

State Clearinghouse

The State Clearinghouse operates and manages the N.C. Environmental Review Process. The purpose of the process is to notify potentially affected state/local government agencies and the public of proposed activities in their jurisdiction and offer them the opportunity to review and comment on the adequacy of the environmental impact documents prepared for the proposals before final decisions are made. The State Clearinghouse provides the following services to carry out this process:

1. Administers the state and local agency review and comment process for environmental review documents prepared pursuant to the National and North Carolina Environmental Policy Acts; and
2. Publishes the North Carolina Environmental Bulletin (a bi-weekly summary of environmental documents currently being circulated for review and comment).

State (North Carolina) Environmental Policy Act (SEPA or NCEPA)

The purpose of the N.C. Environmental Policy Act is to provide a method by which decision-makers may consider environmental aspects and consequences of a proposed development. A review under SEPA may be triggered

whenever a project meets the following criteria:

1. Expenditure of public monies or use of public lands (includes submerged public bottom lands);
2. An action (i.e. a State permit decision);
3. A potential impact; and
4. The project exceeds approved minimum criteria. State agencies may choose to establish specific minimum criteria designating minimum levels of environmental impact. Once these criteria have been approved, no filing of environmental documents is required for projects whose impacts do not exceed the criteria thresholds. If an agency establishes minimum criteria, the agency must review the criteria every five years and revise them as necessary. All proposed minimum criteria and revisions to minimum criteria must be approved by the Secretary of Administration prior to an agency's publication of Notice of Text under G.S. 150B establishing or revising such minimum criteria.

State Implementation Plan (SIP)

A term referred to under the Clean Air Act requirements that comprise the regulations and other materials for meeting clean air standards. A SIP may include State regulations that EPA has approved, orders requiring pollution control at individual companies, and planning documents such as area-specific compilations of emissions estimates and computer modeling analyses that demonstrate that regulatory limits can be met.

Statewide or Locally Important Farmland

A third designation under the Farmland Protection Policy Act (FPPA) that includes land identified by state or local agencies for agricultural use (e.g., Local Agricultural Districts), but are not of national significance. A specific discussion of avoidance measures in NEPA documents is not required for potential impacts to this agricultural land classification.

Statewide Planning Branch

See Transportation Planning Branch

Stormwater Management Plan

A Stormwater Management Plan protects sensitive waters by maintaining a low density of impervious surfaces, maintains vegetative buffers, and transports runoff through vegetative conveyances.

Strategic Highway Corridors (SHCs)

A set of primarily existing highways vital to moving people and goods to destinations within and just outside North Carolina. The corridors include 55 major or "parent" corridors along with the associated "spurs" (denoted by letters), totaling 5,378 centerline miles, including all existing and proposed interstates. These corridors only account for approximately 7% of the entire state-maintained highway system, yet they carry approximately 45% of the state's traffic. <http://www.ncdot.org/doh/preconstruct/tpb/SHC/concept/corridors/>

Strategic Highway Network (STRAHNET)

The Department of Defense's Strategic Highway Network for moving military personnel and equipment. This is a network of highways which are important to the United States' strategic defense policy and which provide defense access, continuity and emergency capabilities for defense purposes. <http://www.fhwa.dot.gov/hep10/nhs/>

Subbase

A general construction term used to describe the layer of materials beneath the asphalt, concrete or other final roadway surface (e.g., gravel or stone).

Submerged Aquatic Vegetation (SAVs)

Vegetation rooted in the substrate of a body of water (usually no deeper than 10 feet) that does not characteristically extend above the water surface and usually grows in associations or beds. It serves as a nursery area for juvenile aquatic species and supports adult populations of economically important seafood species. SAV beds also enhance water quality by reducing turbidity and stabilizing sediments. Also referred to as seagrass.

Substantive Comments

A phrase that may be used to describe the type or 'degree' of review comments. Under Merger, the phrase may be synonymous with 'Essential', 'Actual', 'Substantial' or 'Firm' comments and typically involve regulatory concerns or

issues identified by a review agency. Substantive comments may differ from other review comments in being less advisory in nature and more prescribed.

Substructure

The elements of a bridge that support the superstructure of a bridge. Typically the substructure consists of a foundation, one or more columns, and a cap upon which the superstructure rests. The substructure units of a bridge may be referred to as end bents or abutments which are the end units that assist in tying the bridge to the approach roadway, or bents or piers which are those units supporting two spans of the superstructure where they join together.

Sulfur Dioxide (SO₂)

A colorless, reactive gas produced when sulfur-containing fuels such as coal and oil are burned. For transportation related projects, diesel powered equipment and motors are most often associated with this priority air pollutant.

Superelevation

The banking of a roadway around a curve to counter some of the lateral centrifugal force.

Superstructure

The element of a bridge on which traffic, pedestrians or cyclists travel. The superstructure spans the creek, river, wetlands, road, highway or railroad. The superstructure may consist of rails or barriers, deck, and girders and rests atop the substructure. The structural element or the main element of the superstructure may be a structural slab, concrete or steel I-girders, concrete or steel box girders, voided slabs such as cored slabs or box beams, or others.

Supplemental Draft Environmental Impact Statement (SDEIS)

A DEIS that has been updated or 'supplemented' with new or revised information. Under NEPA, numerous documents may be 'supplemental', including EAs, FEISs, etc. Decisions to supplement EISs rest with the Lead Federal Agency.

Surface Waters

Water present above the substrate or soil surface. (USACE; Technical Report Y-87-1, Corps of Engineers Wetlands Delineation Manual, Department of the Army, Waterways Experiment Station, January 1987;).

Swale

A water drainage conveyance that directs stormwater drainage to receiving waters and/or holds it and allows it to gradually infiltrate into the soil.

Swamp

A swamp is a wetland that features permanent inundation of large areas of land by shallow bodies of water, generally with a substantial number of hummocks, or dry-land protrusions. Swamps usually are regarded as including a large amount of woody vegetation. When a wetland area does not exist, it is usually termed a marsh.

System Linkage

With regards to the purpose and need of a project, this term refers to the need to provide roadway improvements due to discontinuity of the existing roadway network. For example, this may refer to the need to provide a more direct connection between activity centers or to create continuity in terms of facility type and function. Information about system linkage explains how the project fits in with the transportation system, including the relationship to other plans and other modes. Possible data to support this need includes roadway network discontinuity, travel time comparison, travel demand studies, Intra-state and Strategic Corridor systems, Military/Homeland security needs, and access needs.

T

Tennessee Valley Authority (TVA)

See Acronym Cross Reference

Terrestrial Forests

A phrase that may be used to refer to 'upland' forests or used to describe forests that not associated wetland or swamp forest ecosystems. Forests that are not palustrine. One of potentially a dozen 'key' environmental impact indicators utilized for assessing the total impacts from a project on the natural and human environment.

Thalweg

The deepest point of a stream cross section. It is the low flow channel of the stream.

Thoroughfare

A facility with a functional purpose of moderate to low mobility and high access. The facility has no control of access, traffic signals, driveways with full movements and a minimum of 2 travel lanes without a median.

Thoroughfare Plan

See Comprehensive Transportation Plan

Threatened and Endangered (T&E) Species

Plants or animals that can receive protection under the ESA which are placed on a Federal list. Listing of a species as either threatened or endangered is a strict legal process. An 'endangered' species is one that is in danger of extinction throughout all or a significant portion of its range. A 'threatened' species is one that is likely to become endangered in the foreseeable future.

Top-down Construction

This construction method enables work to be undertaken above ground while digging underground, which makes it possible to shorten construction schedules; sometimes used when constructing bridges.

http://www.takenaka.co.jp/takenaka_e/school_e/sch03/03_6.html

Top-of bank. The upper edge of the streambank

May be the same as bankfull elevation in an unentrenched stream, or is called a terrace in the case of an entrenched stream.

Traffic Management Plan (TMP)

The Traffic Management Plan (TMP) is a cohesive program of operational and demand management strategies designed to maintain acceptable levels of traffic flow during periods of construction activities.

http://ops.fhwa.dot.gov/wz/practices/best/view_document.asp?id=9&from=topindex&Category_id=113

Transportation Enhancement

Transportation Enhancement (TE) activities benefit the traveling public and help communities to increase transportation choices and access, enhance the built and natural environment, and provide a sense of place. To be eligible for funding, a TE project must fit into one or more of the 12 eligible categories and relate to surface transportation (see 23 U.S.C. 101(a)(35)). http://www.fhwa.dot.gov/environment/te/principles_pt1.htm

Transportation Equity Act for the 21st Century (TEA-21) of 1998

See Glossary of Environmental Laws

Transportation Improvement Program (TIP)

A published document which outlines project funding information, priorities, and schedules for a seven year period in North Carolina. This information is provided for projects and studies in various NCDOT divisions including highways, aviation, enhancements, public transportation, rail, bicycle and pedestrians and the Governor's Highway Safety Program.

Transportation Planning Branch (formerly known as Statewide Planning Branch)

Branch of the NCDOT that provides multi-modal transportation planning services to municipalities, counties, regions, MPOs and RPOs. The Branch includes the Transportation Planning Units (including Traffic Forecasting Groups), Technical Services Unit (including the Traffic Surveys Group), and the Research and Development Unit.

<http://www.ncdot.org/doh/preconstruct/tpb/about/>

Travel Demand Model (TDM)

A tool that has specific analytical capabilities, such as the prediction of travel demand and the consideration of destination choice, mode choice, time-of-day travel choice, and route choice, and the representation of traffic flow in the highway network. These are mathematical models that forecast future travel demand based on current conditions, and future projections of household and employment characteristics. Travel demand models were originally developed to determine the benefits and impact of major highway improvements in metropolitan areas. http://ops.fhwa.dot.gov/trafficanalysis/tools/tat_vol1/sect4.htm

Trout Waters

Freshwaters protected for natural trout propagation and survival of stocked trout.

Type of Access Control

(Control of access – See Access Control)

Typical Section

A basic description of the type of roadway. Includes number of lanes, shoulder or curb and gutter, lane widths, shoulder widths, median width if any, standard side slopes.

Underground Storage Tank (UST)

Any metal, fiberglass or plastic storage tank or container that is 90% or more buried in the earth and typically contains oil, gasoline or other hazardous materials. Under Merger, the phrase typically refers to 'UST sites', which may or may not pose a contamination problem and might require additional geotechnical studies to determine their potential risk.

U

Understory

The vegetation layer between the overstory or canopy and the groundcover of a forest community, usually formed by shade-tolerant species or young individuals of emergent species. May also refer to the groundcover if no tree or shrub layer is present. (USGS - biology.usgs.gov/s+t/SNT/noframe/zy198.htm).

Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970

See Glossary of Environmental Laws

United States Army Corps of Engineers (USACE or ACE)

See Acronym Cross Reference

United States Coast Guard (USCG)

See Acronym Cross Reference

United States Department of Agricultural (USDA)

See Acronym Cross Reference

United States Department of Commerce (USDOC)

See Acronym Cross Reference

United States Department of Health and Human Services (US DHHS)

See Acronym Cross Reference

United States Department of Homeland Security (US DHS)

See Acronym Cross Reference

United States Department of Interior (US DOI)

See Acronym Cross Reference

United States Department of Justice (DOJ)

See Acronym Cross Reference

United States Department of Transportation (USDOT)

See Acronym Cross Reference

United States Environmental Protection Agency (USEPA or EPA)

See Acronym Cross Reference

United States Fish and Wildlife Service (USFWS or FWS)

See Acronym Cross Reference

United States Forest Service (USFS)

See Acronym Cross Reference

United States Geological Survey (USGS)

See Acronym Cross Reference

Utility Relocations

Moving a utility for a road project; the utility's service should be restored so that it may continue to provide its product to its users in a fashion similar to that which existed prior to its relocation as a result of the highway project. <http://www.fhwa.dot.gov/reports/utilguid/util1.htm>

V

Vehicles Per Day (VPD)

The number of vehicles that travel on a road each day.

W

Water Supply Critical Area

The land adjacent to a water supply intake where risk associated with pollution is greater than from remaining portions of the watershed. Critical area is defined as land within one-half mile upstream and draining to a river intake or within one-half mile and draining to the normal pool elevation of water supply reservoirs.

Water Quality Certification [See "401 Certification" above]

Water Supply Waters

Waters protected as water supplies, classified as WS-I through WS-V, with each a different level of water supply protection.

Watershed

The area of land draining into a river, river system, or other body of water.

Weep Holes

Holes used for drainage. Typically used in the walls of box culverts or retaining walls to drain groundwater from behind the walls. Also, may sometimes be used to refer to deck drains on bridges.

Wetlands

The term "wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. (33 CFR 328.3(b);).

Wetland Delineation

A survey conducted by a qualified person to determine the extent of wetland and the types of wetland that would be impacted by a project. To be a jurisdictional wetland, a wetland must exhibit hydrophytic vegetation, hydric soils, and wetland hydrology. Wetland delineations are conducted in accordance with the U.S. Army Corps of Engineers Wetland Delineation Manual.

Widen Existing

Increasing the width of the current roadway. Adding additional lanes in each direction of travel to increase the capacity or safety of an existing roadway.

Wild and Scenic Rivers Act of 1968

See Glossary of Environmental Laws

Wilderness Act of 1964

See Glossary of Environmental Laws

Wildlife Resources Commission (NCWRC)

See Acronym Cross Reference

Z

Zone 1

The inner zone of a riparian buffer. Starting from the stream's top of bank, moving out the first 30 feet. This vegetated area should be left undisturbed according to the NCDWQ Buffer Rules.

Zone 2

The outer zone of a riparian buffers. Starting from the end of zone 1, moving out an additional 20 feet. According to the NCDWQ Buffer Rules, the vegetation in zone 2 may be managed and maintained.

Zoning

A general term referring to local land use controls and classifications of types of land uses, such as commercial, industrial, residential, recreational, agricultural, etc. Frequently, a 'mis-used' term referring to the local or regional 'legal process' of re-classifying land uses for different or changed purposes.