



APPENDIX B
TYPICAL NEPA TERMINOLOGY

THIS PAGE INTENTIONALLY LEFT BLANK



TYPICAL NEPA TERMINOLOGY

- # -

100-year floodplain: The area along the river corridor that would receive floodwaters during a 100-year flood event. A 100-year flood event has the probability of occurring 1% of the time during any given year. If a 100-year flood event occurs, the following year will still have the same probability for occurrence of a 100-year event.

1601 Process: The *Interchange Approval Process* (CDOT, 2001; CDOT, 2005a; CDOT, 2005c) was established by the Colorado Transportation Commission to provide fair and consistent procedures regarding the review and evaluation of requests for new interchanges and major improvements to existing interchanges on the state highway system. CDOT typically integrates the interchange approval process requirements with NEPA and the CDOT transportation planning and development process. Due to long-term financial commitments and other legal limitations associated with the requirements of this policy directive, this guidance is applicable to local municipal governments and quasi-governmental entities (such as special districts like the E-470 Public Highway Authority) requesting a new interchange or major improvements to an interchange that have not been programmed through CDOT's transportation planning and development process.

The 1601 process requires, among other things, that the interchange:

- ▶ Be part of the Transportation Planning Region's (TPR's) approved fiscally-constrained Regional Transportation Plan (RTP), Statewide Transportation Improvement Program (STIP), and Statewide Long-Range Transportation Plan (LRTP)
- ▶ Be the subject of approved intergovernmental agreements which addresses the funding of the application development and review process, timeline and analytical expectations, and an intergovernmental agreement covering construction, operations, maintenance, and replacement of the interchange
- ▶ Have sufficient environmental and other studies performed consistent with FHWA interchange approval and NEPA requirements

Any Colorado Transportation Commission or CDOT action on the interchange request is contingent on approval of the appropriate environmental documentation.

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 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 mitigation measures, such as noise barriers or walls.

Action: A highway or transit project proposed for FHWA or FTA funding. It also includes activities such as joint and multiple use permits, changes in access control, etc., which may or may not involve a commitment of Federal funds.

Adverse Effects: In the context of Section 106, an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National



Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Adverse Impacts: Adverse impacts, (as defined by USDOT) and as applied to environmental justice, "may include, but are not limited to: air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and service; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organization; increased traffic congestion; isolation, exclusion or separation of minority or low-income individuals from the broader community; and the denial of, reduction in, or significant delay in the receipt of benefits of DOT programs, policies, or activities." Individuals potentially affected by a project should be identified through demographic analysis and targeted for early public involvement.

Advisory Council on Historic Preservation (ACHP): An independent agency of the U.S. government whose members are charged with advising the President and the Congress on matters relating to historic preservation; recommending measures to coordinate activities of Federal, State, and local agencies and private institutions and individuals relating to historic preservation; and advising on the dissemination of information pertaining to such activities. The Council reviews the policies and programs of federal agencies in regard to compliance with the National Historic Preservation Act (NHPA), as amended.

Affected Environment: The physical features, land area or areas to be affected by the alternatives presented in the NEPA document. 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. Three major air pollutants generally involving transportation projects include (ground-level) ozone, particulate matter, and carbon monoxide.

Alternative: One of a number of specific transportation improvements proposals, alignments, options, design choices, etc., in a defined study area for how, or whether to proceed with a proposed project.

Alternative Analysis: Process by which alternatives identified through the scoping process will be screened to determine how well each meets the Purpose and Need.

Americans with Disabilities Act (ADA): A national mandate for the elimination of discrimination against individuals with disabilities that provides clear, strong, consistent, enforceable standards addressing discrimination against individuals with disabilities; ensures that the Federal Government plays a central role in enforcing the standards established in the Act on behalf of individuals with disabilities; and invokes the sweep of congressional authority, including the power to enforce the fourteenth amendment and to regulate commerce to address the major areas of discrimination faced day-to-day by people with disabilities.

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.

Approval: General term referring to any document other than a permit that needs a signature by someone in authority at the agency having statutory jurisdiction over that activity. The document may be called an approval, certification, concurrence, easement, or license, all of which represent an agency saying, "Yes we authorize you to



conduct this activity as long as you do it in this manner." An approval may specify conditions under which the activity is approved.

Archaeological Resources: The locations of prehistoric or historic occupations or activities that can be used to reconstruct the way of life of cultures of the past. They may range from a single artifact to the extensive ruins of a historic military fortification.

Archaeological Resources Protection Act (ARPA): Regulates the taking of archaeological resources on federal lands by setting a broad policy that archaeological resources are important for the nation and should be protected. The act further establishes a requirement for the excavation or removal of archaeological resources from public or Indian lands with special permits. Violations of the law include civil and criminal penalties of fines and imprisonment.

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 APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

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).

- B -

Best Fit Alignment: Road widening design that uses symmetrical or asymmetrical widening alignments (or a combination of both) to provide a cost effective alternative that avoids and minimizes impacts to the natural and human environment.

Best Management Practices (BMPs): Effective, feasible (including technological, economic, and institutional considerations) conservation practices and land and water management measures that avoid or minimize adverse impacts to natural and cultural resources. BMPs may include schedules for activities, prohibitions, maintenance guidelines, and other management practices.

Biodiversity: Biodiversity, or biological diversity, is generally accepted to include genetic diversity within species, species diversity, and a full range of biological community types. The concept is that a landscape is healthy when it includes stable populations of native species that are well distributed across the landscape.

Biogenics: Vegetation sources of volatile organic compounds.

Biological Assessment (BA): The document or study prepared by the lead Federal agency or applicant under Section 7 of the Endangered Species Act (ESA) to determine if the Federal action will adversely affect listed species or modify designated critical habitat.

Biological Opinion (BO): A document prepared by the US Fish and Wildlife Service (USFWS) that analyzes the effects of a Federal action on listed species and designated critical habitat, and states whether or not the action will jeopardize the continued existence of the listed species. If the BO authorizes incidental take, it will include an incidental take statement and terms and conditions that are binding. The USFWS will prepare a BO on whether the



action will jeopardize the continued existence of a listed species. The USFWS has 135 days to formulate a final BO which completes formal consultation.

Bureau of Land Management (BLM): The BLM, an agency within the U.S. Department of the Interior, administers 262 million acres of America's public lands, located primarily in 12 Western States. The BLM sustains the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

- C -

Candidate Species: Any species of fish, wildlife, or plant considered for possible addition to the list of endangered and threatened species. These are taxa for which National Oceanic and Atmospheric Administration (NOAA) Fisheries or USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions.

Capacity Analysis: The use of engineering analytical tools to determine Level of Service (LOS) for existing or projected traffic volumes. It is used to evaluate degrees of traffic congestion.

Categorical Exclusion (CatEx): A category of actions which do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect in procedures adopted by a Federal agency and for which, therefore, neither an Environmental Assessment (EA) nor an Environmental Impact Statement (EIS) is required. An agency may decide in its procedures or otherwise, to prepare EAs for the reasons stated in 40 Code of Federal Regulations (CFR) Sec.1508.9 even though it is not required to do so. Any procedures under this section shall provide for extraordinary circumstances in which a normally excluded action may have a significant environmental effect. FHWA actions which typically qualify as Categorical Exclusions are specifically defined at 23 CFR 771.117(a).

Certified Local Governments (CLGs): Local government historic preservation entities participating in the national historic preservation program, certified by the SHPO. Existence may afford property owners in the CLG jurisdiction the opportunity to participate in local (State, county, etc.) preservation incentives (e.g., tax incentives).

Civil Rights Act of 1991: Amends the Civil Rights Act of 1964 to strengthen and improve Federal civil rights laws, to provide for damages in cases of intentional employment discrimination, to clarify provisions regarding disparate impact actions, and for other purposes. The purposes of this Act are:

- ▶ To provide appropriate remedies for intentional discrimination and unlawful harassment in the workplace;
- ▶ To codify the concepts of "business necessity" and "job related" enunciated by the Supreme Court in *Griggs v. Duke Power Co.*, 401 U.S. 424 (1971), and in the other Supreme Court decisions prior to *Wards Cove Packing Co. v. Atonio*, 490 U.S. 642 (1989);
- ▶ To confirm statutory authority and provide statutory guidelines for the adjudication of disparate impact suits under title VII of the Civil Rights Act of 1964 (42 U.S.C. 2000e et seq.); and
- ▶ To respond to recent decisions of the Supreme Court by expanding the scope of relevant civil rights statutes to provide adequate protection to victims of discrimination.

Clean Air Act (CAA) of 1990: Growing public awareness and concern for controlling air pollution led to enactment of the Federal Clean Air Act of 1970. As amended in 1990, this law protects and enhances the quality of the nation's air resources, initiates and accelerates a national research and development program to prevent and control air



pollution, provides technical and financial assistance to State and local governments for air pollution control programs, and encourages and assists regional air pollution control programs.

Clean Water Act (CWA): Growing public awareness and concern for controlling water pollution led to enactment of the Federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law became commonly known as the Clean Water Act. The Act established the basic structure for regulating discharges of pollutants into the waters of the United States. It gave the US Environmental Protection Agency (EPA) the authority to implement pollution control programs such as setting wastewater standards for industry. The Clean Water Act also continued requirements to set water quality standards for all contaminants in surface waters. The Act made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. It also funded the construction of sewage treatment plants under the construction grants program and recognized the need for planning to address the critical problems posed by non-point source pollution.

Code of Federal Regulations (CFR): The CFR is a codification of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the Federal government. The CFR is divided into 50 titles which represent broad areas subject to Federal regulation. Each title is divided into chapters which usually bear the name of the issuing agency. Each chapter is further subdivided into parts covering specific regulatory areas. Large parts may be subdivided into subparts. All parts are organized in sections, and most citations to the CFR will be provided at the section level.

Colorado Discharge Permit System (CDPS): EPA handed the stormwater regulatory authority for the National Pollutant Discharge Elimination System (NPDES) program to the State of Colorado. CDPS is Colorado's version of the NPDES program.

Comment Period: The period of time whereby a State or Federal agency requests public and other agency review input on a NEPA document.

Community Impact Assessment (CIA): A process to evaluate the effects of a transportation action on a community and its quality of life. The assessment process should include all items of importance to people, such as mobility, safety, employment effects, relocation, isolation and other community issues.

Compensatory Mitigation: The restoration, establishment, enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources expressly for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization have been achieved. (See also Mitigation Bank.)

Conformity: Refers to air quality conformity regulated through 40 CFR 93 to assure attainment of criteria air pollutant standards set by the EPA for the purposes of protecting human health, and the natural and manmade environments. Projects are generally in conformity when they do not:

- ▶ Cause or contribute to any new violation of any standards in any area;
- ▶ Increase the frequency or severity of any existing violation of any standard in any area; or
- ▶ Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.



Context Sensitive Solutions (CSS): A collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist. CSS has alternatively been called Context Sensitive Design.

Cooperating Agency: 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. The selection and responsibilities of a cooperating agency are described in 40 CFR Sec. 1501.6. A State or local agency of similar qualifications or, when the effects are on a reservation, an Indian Tribe, may by agreement with the lead agency become a cooperating agency.

Council on Environmental Quality (CEQ): Established by Congress within the Executive Office of the President as part of NEPA, the CEQ coordinates Federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives. The Council's Chair, who is appointed by the President with the advice and consent of the Senate, serves as the principal environmental policy adviser to the President. The CEQ reports annually to the President on the state of the environment, oversees Federal agency implementation of the environmental impact assessment process, and acts as a referee when agencies disagree over the adequacy of such assessments.

Critical Habitat: An ecosystem or part of an ecosystem designated by the USFWS 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.

Cultural Resource: Cultural resources include archeological sites, traditional sites, and the built environment resources, such as buildings, structures, objects, districts, and sites. A cultural resource that is listed on, or is eligible for, the National Register of Historic Places (NRHP) is considered a historic property for purposes of Section 106.

Cumulative Impact/Effect: 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 or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

- D -

Decision Document: Selects a preferred alternative.

de minimis Impact: A category of impacts to Section 4(f) resources established in Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) whose impacts are of such a minor extent as to not require a full Section 4(f) evaluation.

Department of Transportation (DOT): The DOT was established by an act of Congress on October 15, 1966. The mission of the DOT is to serve the United States by ensuring a fast, safe, efficient, accessible and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people, today and into the future. The DOT's vision is to lead the way to transportation excellence and innovation in the 21st Century.





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.

Determination of Eligibility: Formal recognition (by the State Historic Preservation Office (SHPO), State Advisory Council, the Keeper of the National Register, or an agency) of a property's eligibility for inclusion, but not actual listing, in the NRHP. Determinations of Eligibility may be prepared on National Register Registration Forms.

Direct Impact/Effect: A direct impact (or effect) is caused by the proposed action or alternative and occurs at the same time and place, most often during construction. Impacts may be ecological, aesthetic, historic, cultural, economic, social, or health-related. For example, a highway crossing a stream may directly impact its water quality, though such impacts can be mitigated.

Disproportionately High and Adverse Impact: The adverse impact is disproportionately high if it is predominately borne by a minority and/or low-income population, or if the adverse impact that could be suffered by the minority or low-income community is more severe or greater in magnitude than the adverse impact that could be suffered by the non-minority or non-low-income community. Cultural differences need to be factored into this analysis.

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.

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 are found at 23 CFR 771.115 and the procedures for issuance at 23 CFR 771.123.

- 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.

Effects: The Council on Environmental Quality (CEQ) regulations (40 CFR Sec. 1508.8) define several different types of effects that should be evaluated under NEPA. "Effects" include:

- ▶ Direct effects, which are caused by the action and occur at the same time and place; and
- ▶ Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Effects and impacts as used in these regulations are synonymous. Effects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial.



Endangered Species: Species identified by either the State or the Federal government as likely to be in danger of becoming extinct through a significant portion of or all of its range.

Endangered Species Act (ESA): Provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved and a program for the conservation of such endangered species and threatened species. All Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of the Endangered Species Act. Federal agencies shall also cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of a wetland site 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, flood water retention or wildlife habitat. Activities typically consist of planting vegetation, controlling non-native or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these. Enhancement results in a change in wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres.

Environmental Assessment (EA): A concise public document for which a Federal agency is responsible that serves to briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a Finding of No Significant Impact (FONSI); aid an agency's compliance with NEPA when no EIS is necessary; and facilitate preparation of an EIS when one is necessary. Includes brief discussions of the need for the proposal, of alternatives as required by section 102(2)(E) of the NEPA, of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted. The FHWA criteria and procedures for EAs are contained at 23 CFR 771.115 and 771.119.

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 Impact Statement (EIS): A detailed written statement prepared for major Federal actions that may cause significant impacts on the environment. It shall provide full and fair discussion of significant environmental impacts and shall inform decision-makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment. Agencies shall focus on significant environmental issues and alternatives and shall reduce paperwork and the accumulation of extraneous background data. Statements shall be concise, clear, and to the point, and shall be supported by evidence that the agency has made the necessary environmental analyses. An EIS is more than a disclosure document. It shall be used by Federal officials in conjunction with other relevant material to plan actions and make decisions.

Environmental Justice (EJ): A 1994 Presidential Executive Order that directed every Federal agency to make environmental justice part of its mission by identifying and addressing the effects of all programs, policies, and activities on "minority populations and low-income populations." The DOT's environmental justice initiatives accomplish this goal by involving the potentially affected public in developing transportation projects that fit



harmoniously within their communities without sacrificing safety or mobility. There are three fundamental environmental justice principles:

- ▶ 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.
- ▶ To ensure the full and fair participation by all potentially affected communities in the transportation decision making process.
- ▶ To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low income populations.

Environmental Protection Agency (EPA): The EPA provides leadership in the nation's environmental science, research, education and assessment efforts. EPA is responsible for researching and setting national standards for a variety of environmental programs and delegates to States and tribes responsibility for issuing permits, and monitoring and enforcing compliance. Where national standards are not met, EPA can issue sanctions and take other steps to assist the States and tribes in reaching the desired levels of environmental quality. EPA also works with industries and all levels of government in a wide variety of voluntary pollution prevention programs and energy conservation efforts.

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: Enacted into legislation for highway and transit projects with Transportation Equity Act for the 21st Century (TEA-21), environmental streamlining is the term used for a new way of doing business that brings together the timely delivery of transportation projects with the protection and enhancement of the environment. In its simplest terms, environmental streamlining consists of cooperatively establishing realistic project development time frames among the transportation and environmental agencies, and then working together cooperatively to adhere to those time frames. Because major transportation projects are affected by dozens of Federal, State, and local environmental requirements administered by a multitude of agencies, improved interagency cooperation is critical to the success of environmental streamlining.

Environmentally Preferable Alternative: The environmentally preferable alternative is the alternative within the range of alternatives presented in a Draft EIS that best promotes the goals of NEPA. In general, this is the alternative that causes the least damage to the environment and best protects natural and cultural resources. In practice, one alternative may be more preferable for some environmental resources while another alternative may be preferable for other resources. Note that identifying this alternative is also a requirement for Records of Decision (RODs) [40 CFR 1505.2(b)].

Executive Order (EO): Executive orders are official documents, numbered consecutively, through which the President manages the operations of the Federal government.



Farmland Conversion Impact Rating: A Natural Resources Conservation Service (NRCS) method of determining prime and unique farmland impacts from a project based on 12 site assessment criteria. Agricultural lands that score 160 points or more should be identified in the environmental document. The document should analyze alternatives that avoid impacts to such farmlands.

Federal Emergency Management Agency (FEMA): FEMA is an independent agency of the Federal government, reporting to the President. Since its founding in 1979, FEMA's mission has been to reduce loss of life and property and protect our nation's critical infrastructure from all types of hazards through a comprehensive, risk-based, emergency management program of mitigation, preparedness, response, and recovery.

Federal Highway Administration (FHWA): The FHWA is a part of the US Department of Transportation and is headquartered in Washington, D.C. The mission of the FHWA is to enhance mobility through innovation, leadership, and public service. FHWA provides expertise, resources, and information to continually improve the quality of our nation's highway system and its intermodal connections. FHWA undertakes this mission to enhance the country's economic vitality, quality of life, and the environment. The services FHWA provides are designed to meet the present-day transportation needs while laying the foundation to address the future transportation needs of our Nation.

Federal Highway Administration Directives: A directive is a written communication that prescribes or establishes policy, organization, methods, procedures, requirements, guidelines, or delegations of authority. It also provides information essential to the administration or operation of the FHWA.

Federal Highway Administration Policy Memorandums: Official FHWA issuances that establish new and/or revised policy and guidance for implementing the requirements related to FHWA's programs.

Federal Lead Agency: The Federal Lead Agency is the agency preparing or having taken primary responsibility for preparing an environmental document. Where Federal-aid funding is anticipated, the US DOT (FHWA) shall be the Federal Lead Agency in the environmental review process for a project.

Federal Nexus: A project has a Federal nexus when there is a connection with the Federal government (i.e., when any of the following occur: Federal land is within the project area, Federal money is used in the project, or Federal permits or approvals are required as part of the undertaking).

Federal Species of Concern: A plant or animal species that may or may not be listed under the Endangered Species Act as threatened or endangered in the future. Typically, federal species of concern 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): The FTA administers a program of financial assistance for the providers of urban and rural public mass transportation. The mission of FTA is to provide leadership, technical assistance, and financial resources for safe, technologically advanced public transportation which enhances all citizens' mobility and accessibility, improves America's communities and natural environment, and strengthens the national economy. The statutory authority for FTA's programs is the Federal Transit Act, as amended.



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 Effect: A determination by a federal agency in consultation with SHPO, pursuant to Section 106 that a proposed undertaking will have an effect on historic properties.

Finding of No Significant Impact (FONSI): A FONSI is a document by a Federal agency briefly presenting the reasons why an action, not otherwise excluded, will not have a significant effect on the human environment and for which an EIS therefore will not be prepared. It shall include the EA or a summary of it and shall note any other environmental documents related to it. If the assessment is included, the finding need not repeat any of the discussion in the assessment but may incorporate it by reference. FHWA requirements are specified at 23 CFR 771.121.

Floodplains: The riverside land that is periodically inundated by a river's floodwaters is called the floodplain. Floodplains serve important purposes. They temporarily store floodwaters, improve water quality, provide important habitat for river wildlife, and create opportunities for recreation.

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

Functional Design (Conceptual 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 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.

- G -

Geographical Information Systems (GIS): Tools (including 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.

Geology: The study of the structure of the Earth or another planet, in particular its rocks, soil, and minerals, and its history and origins.

Groundwater: Water that occurs below the surface of the earth, contained in pore spaces. It is either passing through or standing in the soil and underlying strata and is free to move under the influence of gravity.

- H -

Habitat Fragmentation: Is a potential effect to wildlife species beyond direct project impacts that may fragment needed habitat for 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 increased mortality rates through direct conflicts. Wildlife passages constructed for highway projects are one potential method of minimizing direct impacts from fragmentation.



Hazardous Material: A substance or combination of substances that, because of quantity, concentration, or physical, chemical, or infectious characteristics, may either:

- ▶ Cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating illness; or
- ▶ Pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Hazardous Substance: Hazardous substances designated in 40 CFR 116 pursuant to Section 311 of the Clean Water Act include any materials that pose a threat to public health or the environment. Typical hazardous substances have one or more of the following characteristics: toxicity, corrosivity, ignitability, explosivity, and chemical reactivity. Federal regulation of hazardous substances excludes petroleum, crude oil, natural gas, natural gas liquids or synthetic gas usable for fuel. State regulation of hazardous substances includes petroleum products.

Hazardous Waste: Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, spilled, or contaminated, or that are being stored temporarily prior to proper disposal.

High Occupancy Vehicle (HOV) Lanes: HOV lanes are a network of barrier-separated roadways that allow buses, vanpools, and carpools to move higher volumes of passengers on roadways.

Historic Property: Under the NHPA, any district, site, building, structure or object included in or eligible for the NRHP.

Human Environment: Human environment shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment.

- I -

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

Indirect Impacts/Effects: Indirect impacts (or effects) are caused by the proposed action or alternative and are later in time or farther removed in distance, but 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.

Intelligent Transportation System (ITS): An integrated application of a wide range of advanced technologies and ideas, which, in combination, can improve mobility and transportation productivity, enhance safety, maximize the capacity of existing transportation facilities, conserve energy resources and reduce adverse environmental effects and transportation problems.

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

Intergovernmental Agreements (IGA): IGAs are the process of determining and settling project obligations between the State and local agencies (city, county, etc.). They address such issues as funding and cost responsibilities,



maintenance responsibilities, transfer of jurisdiction of roadway from one agency to another, criteria for local land use and access management decisions, etc.

Intermodal: Interconnectivity between various types (modes) of transportation.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA): On December 18, 1991, the President signed the ISTEA providing authorizations for highways, highway safety, and mass transportation for the next 6 years. The purpose of the ISTEA is clearly enunciated in its statement of policy: “to develop a National Intermodal Transportation System that is economically efficient, environmentally sound, provides the foundation for the Nation to compete in the global economy and will move people and goods in an energy efficient manner”.

Intermodal Surface Transportation Efficiency Act Management Systems: The management systems are intended to provide additional information and improved analysis to support development of metropolitan and statewide transportation plans, programs and projects. In particular, management systems are expected to improve the establishment of project funding priorities across modes and the analysis of trade-offs among the full range of potential transportation investments being considered.

Interstate Access Request (IAR): The Federal Highway Administration (FHWA) has retained all approval rights to the control of access to the interstate system. To obtain approval from FHWA to access the interstate a request for access must be submitted to FHWA through the CDOT. FHWA access approval is required when access on the interstate system is added or modified. This applies to all access changes on the interstate system regardless of funding and oversight. Each entrance or exit point, including “locked gate” and temporary construction access, to the mainline interstate is considered to be an access point. This guidance is limited to new interchanges, modifications to existing interchanges involving access control revisions for new ramps, or relocation or elimination of existing ramps.

Invasive (Nuisance) Species: An alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.

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 US Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act.

- 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 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 US DOT/FHWA for purposes of preparing any environmental document under the NEPA 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.

Jurisdiction By Law: Agency authority to approve, veto, or finance all or part of the proposal.



Jurisdictional Wetlands: All naturally occurring wetlands, some wetlands unintentionally created as the result of construction activities, and those created specifically for the compensation of wetland losses. However, not all wetlands created for compensation purposes are jurisdictional. They still have to maintain a “significant” nexus to a water of the US. These wetlands are regulated by the USACE and local jurisdictions.

- L -

Land Use Plan: A plan that establishes strategies for the use of land to meet identified community needs.

Lead Agency: Lead agency means the agency or agencies preparing or having taken primary responsibility for preparing the EIS.

Least Environmentally Damaging Practicable Alternative (LEDPA): The practicable alternative that minimizes impacts to aquatic resources, taking into account impacts to listed species and other aspects of the human environment.

Legislation: A bill or legislative proposal to Congress developed by or with the significant cooperation and support of a Federal agency, but does not include requests for appropriations. The test for significant cooperation is whether the proposal is in fact predominantly that of the agency rather than another source. Drafting does not by itself constitute significant cooperation. Proposals for legislation include requests for ratification of treaties. Only the agency which has primary responsibility for the subject matter involved will prepare a legislative EIS.

Level of Service (LOS): LOS refers to the overall quality of traffic flow at an intersection or mainline section. Levels range from very good, represented by LOS A, to very poor, represented by LOS F. LOS C or better operating conditions are typically considered acceptable.

Listed Animal or Plant Species: Refers to a species that is listed as a State or Federal threatened or endangered species. Before a plant or animal species can receive legal protection, it must first be placed on the state or federal list of threatened or endangered species.

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 long range strategy and capital improvement program developed to guide the effective investment of public funds in transportation facilities. The plan is updated every five years and may be amended as a result of changes in projected Federal, State and local funding, major improvement studies, congestion management system plans, interstate interchange justification studies and environmental impact studies.

Low-income: A person whose median household income is at or below the Department of Health and Human Services poverty guidelines for that size of household.

Low-income Population: Any readily identifiable group of low-income persons who live in a geographic area, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed USDOT program, policy, or activity.

- M -

Major Federal Action: Actions with effects that may be major and which are potentially subject to Federal control and responsibility. Major reinforces but does not have a meaning independent of significantly. Actions include the





circumstance where the responsible officials fail to act and that failure to act is reviewable by courts or administrative tribunals under the Administrative Procedure Act or other applicable law as agency action.

- (a) Actions include new and continuing activities, including projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by Federal agencies; new or revised agency rules, regulations, plans, policies, or procedures; and legislative proposals. Actions do not include funding assistance solely in the form of general revenue sharing funds, distributed under the State and Local Fiscal Assistance Act of 1972, 31 U.S.C. 1221 et seq., with no Federal agency control over the subsequent use of such funds. Actions do not include bringing judicial or administrative civil or criminal enforcement actions.
- (b) Federal actions tend to fall within one of the following categories:
 - (1) Adoption of official policy, such as rules, regulations, and interpretations adopted pursuant to the Administrative Procedure Act, 5 U.S.C 551 et seq.; treaties and international conventions or agreements; formal documents establishing an agency's policies which will result in or substantially alter agency programs.
 - (2) Adoption of formal plans, such as official documents prepared or approved by Federal agencies which guide or prescribe alternative uses of Federal resources, upon which future agency actions will be based.
 - (3) Adoption of programs, such as a group of concerted actions to implement a specific policy or plan; systematic and connected agency decisions allocating agency resources to implement a specific statutory program or executive directive.
 - (4) Approval of specific projects, such as construction or management activities located in a defined geographic area. Projects include actions approved by permit or other regulatory decision as well as Federal and Federally assisted activities.

Major Structures: Bridges, retaining walls, tunnels, and large reinforced concrete culverts.

May Affect - Not Likely to Adversely Affect: A finding that a project may cause an effect to a listed species, but the effect is wholly beneficial, discountable or negligible.

Moving Ahead for Progress in the 21st Century (MAP-21) - The Federal surface transportation legislation (Public Law 112-141) that authorizes funding for surface transportation programs for fiscal years 2013 into 2015.

Metropolitan Planning Organization (MPO): A regional policy body, required in urbanized areas with populations over 50,000, 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.

Minimization: Minimization involves measures developed during the planning phase of a project to reduce proposed impacts to a resource. Minimization measures could include alignment shifts.

Minority: A person who is:

- ▶ Black (a person having origins in any of the black racial groups of Africa);
- ▶ Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or the Spanish culture or origin, regardless of race);





- ▶ Asian (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or
- ▶ American Indian or Alaskan Native (a person having origins in any of the original peoples of North America, and who maintains cultural identification through tribal affiliation or community recognition).

Minority Population: Any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed US DOT program, policy, or activity.

Mitigation: "Mitigation" includes:

- ▶ Avoiding the impact altogether by not taking a certain action or parts of an action.
- ▶ Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- ▶ Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- ▶ Preservation.
- ▶ Compensating for the impact by replacing or providing substitute resources or environments (40 CFR Sec. 1508.20).

Mitigation Bank:

- ▶ A site where wetlands and/or other aquatic resources are restored, established, 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.
- ▶ Wetland restoration, establishment, 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.

- N -

National Ambient Air Quality Standards (NAAQS): Levels of air pollutants prescribed by regulations that may not be exceeded. EPA establishes NAAQS for major pollutants, including (ground-level) ozone, particulate matter, carbon monoxide, sulfur dioxide and nitrogen dioxide.

National Environmental Policy Act of 1969 (NEPA): The Federal law that establishes the U.S. government policy towards the environment. NEPA's fundamental policy is to "encourage productive and enjoyable harmony between man and his environment." Federal agencies are required to assess the environmental impacts of their proposed actions.

National Highway System (NHS): The Interstate System as well as other roads important to the nation's economy, defense, and mobility; developed by the US DOT in cooperation with the States, local officials, and metropolitan planning organizations.



National Historic Preservation Act of 1966 (NHPA): An act to establish a program for the preservation of additional historic properties throughout the nation. Authorizes the Secretary of the Interior to maintain a National Register of Historic Places; directs the Secretary to approve state historic preservation programs that provide for a State Historic Preservation Officer with adequate qualified professional staff, a state historic preservation review board, and public participation in the state program; authorizes a matching grants-in-aid program to the states; directs federal agencies to take into account the effects of their activities and programs on historic properties; establishes the Advisory Council on Historic Preservation to advise the President, Congress, and federal agencies on historic preservation matters; gives the Advisory Council the authority to issue regulations instructing federal agencies on how to implement Section 106 of the act; establishes the Certified Local Government program; establishes a National Historic Preservation Fund program; and codifies the National Historic Landmarks program.

National Pollutant Discharge Elimination System (NPDES) Permit: A Federal permit issued for point source (end of pipe) discharges under the NPDES [per Section 402 of the Clean Water Act]; also used to regulate stormwater discharges from certain urban areas and developing counties.

National Register of Historic Places (NRHP): The nation's official list of cultural resources worthy of preservation. Properties listed in the NRHP include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture. The NRHP is administered by the National Park Service, which is part of the US Department of the Interior. Section 106 of the NHPA applies to resources listed in or eligible for listing in the NRHP.

Natural Resource Conservation Service (NRCS): The NRCS is a Federal agency that provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

National Wetlands Inventory (NWI): The NWI of the 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 USFWS has produced final maps for much of the nation. Approximately 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.

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. Nationwide Permits 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.

Native Plant: Any plant species that is indigenous to the state of Colorado.

New Location: A proposed alternative that does not use the alignment or right-of-way of an existing roadway or corridor.



No Action Alternative: The alternative in a plan that proposes to continue current management direction. "No action" means the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward.

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. It also 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.

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 (PM₁₀ and PM_{2.5}) or lead.

Non-jurisdictional Wetlands: Non-jurisdictional wetlands include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, canals excavated in uplands, stormwater detention ponds, wastewater treatment facilities created in uplands, and certain agricultural activities and landscape amenities created in uplands. Grass-lined swales and wastewater treatment facilities can be constructed in wetlands but must be so designated and specifically designed for water treatment purposes. Mitigation is required to compensate for the wetland lost to such a facility. Non-jurisdictional wetlands don't have to be artificial; for example, prairie potholes or other depressional wetlands not connected to a water of the US can be non-jurisdictional wetlands.

Non-Point Source: 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. Non-point 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.

Notice of Intent (NOI): A 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 FWHA 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.

Noxious Weed: Any plant or part of a plant that is not native to Colorado and has been designated by rule as being noxious or has been declared a noxious weed by the Colorado Department of Agriculture or a local advisory board, and meets one or more of the following criteria:

- (a) Aggressively invades or is detrimental to economic crops or native plant communities;
- (b) Is poisonous to livestock;
- (c) Is a carrier of detrimental insects, diseases, or parasites;
- (d) The direct or indirect effect of the presence of this plant is detrimental to the environmentally sound management of natural or agricultural ecosystems.



Noxious Weed Management Plan: A document which identifies species and locations of noxious weeds in a project area and details the planning and implementation of an integrated program to control noxious weed species.

- 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. However, the TEA-21 preference is for wetland banking unless locally important wetland functions will be lost if banking is chosen. After banking, the preference would be on-site mitigation and off-site as a last resort.

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.

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 differentially rectified to within a specific 2-dimensional geospatial accuracy and resolution that accounts for image distortion due to camera orientation, image orientation parameters, lens distortion, and earth surface topography. Digital orthophotography has an x, y coordinate system and typical resolutions of 0.5 inch, 1 foot, and 2 feet.

- P -

Participating Agencies: Participating agencies, as defined by SAFETEA-LU, are those Federal or non-Federal agencies that may have an interest in the project. The standard for participating agency status is more encompassing than the standard for cooperating agency status described above. Therefore, cooperating agencies are, by definition, participating agencies. But not all participating agencies are cooperating agencies. The lead agencies should consider the distinctions in deciding whether to invite an agency to serve as a cooperating/participating agency or only as a participating agency.

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.

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

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

Preferred Alternative: A 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. While the



preferred alternative is a different concept from the environmentally preferable alternative, they may also be one and the same for some projects.

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 to evaluate constructability, impacts to the human and natural environment and to re-establish project cost.

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.

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

Proposed Action: The proposed project, for example: bridge, interchange, bypass, new highway lane, etc.

Public Comment Process: The public comment process is a formalized process required by NEPA in which a Notice of Availability must be published in the Federal Register which provides public notice that a DEIS and associated information, including scoping comments and supporting documentation, is available for public review and input pursuant to the Freedom of Information Act. In addition, formal public hearings must be conducted on the DEIS when required by statute or the CEQ NEPA Regulations.

Public Hearing: A public proceeding conducted for the purpose of acquiring information or evidence which will be considered in evaluating a proposed transportation project and/or a Department of the Army permit action and which affords the public an opportunity to present their views, opinions, and information on such projects and permit actions.

Public Scoping Process: Scoping is a formalized process used to gather the public's and other agencies' ideas and concerns on a proposed action or project. A NOI is published in the Federal Register announcing the agency's intent to prepare an EIS and a request for written public/other agency scoping comments to further define the goals and data needs for the project. In addition, although not required by the NEPA nor the CEQ NEPA regulations, public scoping meetings may be held and integrated with any other early planning meetings relating to the proposed project.

Purpose and Need: 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. Basis may include: capacity and transportation demand, safety, legislative directive, economic development/planned growth, modal interrelationships, system linkage and roadway deficiencies. The statement provides the basis for developing a range of reasonable alternatives and, ultimately, the identification of the preferred alternative.

- 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:

- ▶ State the basis for the decision;
- ▶ Identify all the alternatives considered and specify the "environmentally preferable alternative"; and
- ▶ 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 FEIS is distributed, nor 90 days after the DEIS is circulated.

Reevaluation: A reevaluation is required when (1) a project is proceeding to the next major approval or action [23 CFR 771.129(c)], (2) there are project changes such as laws, policies, guidelines, design, environmental setting, impacts or mitigation, or (3) greater than three years have elapsed since FHWA's approval of the DEIS [23 CFR 771.129(a)] or FHWA's last major approval action for the FEIS [23 CFR 771.129(b)].

Regionally Significant Project: A transportation project that serves regional transportation needs, such as access to and from the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, or transportation terminals as well as most terminals themselves. Such projects would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel.

Regulatory Agency: An agency that has jurisdiction by law.

Relocation: The adjustment of utility facilities required by a highway project. Relocation includes removing and installing facilities, acquiring necessary property rights in the new location, moving or rearranging existing facilities, or changing the type of facility, including any necessary safety and protective measures. Also means constructing a replacement facility, functionally equal to the existing facility, where necessary for continuous operation of the utility service, project economy, or for staging highway construction.

Right-of-Way (ROW): A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to transportation purposes.

Right-to-Know: 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 Buffers: Vegetation along the banks of rivers and streams which filter nutrients and pollutants from runoff.





SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users): The Federal surface transportation legislation (Public Law 109-59) that authorizes programs for highways, highway safety, and transit for the 5-year period 2005-2009.

Scope: The range of actions, alternatives, and impacts to be considered in an EIS. The scope of an individual statement may depend on its relationships to other statements. To determine the scope of EISs, agencies shall consider three types of actions, three types of alternatives, and three types of impacts. They include:

- a. Actions (other than unconnected single actions) which may be:
 1. Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:
 - (a) Automatically trigger other actions which may require EISs.
 - (b) Cannot or will not proceed unless other actions are taken previously or simultaneously.
 - (c) Are interdependent parts of a larger action and depend on the larger action for their justification.
 2. Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.
 3. Similar actions, which when viewed with other reasonable foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. An agency may wish to analyze these actions in the same impact statement. It should do so when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement.
- b. Alternatives, which include:
 1. No-action alternative.
 2. Other reasonable courses of actions.
 3. Mitigation measures (not in the proposed action).
- c. Impacts, which may be:
 1. Direct.
 2. Indirect.
 3. Cumulative.

Scoping Process: A process that allows for early identification of potentially significant environmental issues. This process begins with an introduction to the environmental review agencies and the public, the purpose of which is to initiate coordination and involvement activities that will span the life of the project. Agencies with specialized knowledge of these areas may be asked to participate as cooperating agencies, while other agencies are required by law to participate in project development.



Secondary Effect: An effect or environmental impact from a proposed action that is caused by the action and is 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.

Section 106: The section of the NHPA that requires Federal agencies to take into account the effects of their undertakings on historic properties, and to afford the ACHP a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in 36 CFR 800 "Protection of Historic Properties," the regulations issued by the ACHP.

Section 309 of the Clean Air Act, as amended: Section 309 of the Clean Air Act authorizes the EPA to review certain proposed actions of other Federal agencies in accordance with NEPA and to make those reviews public.

Section 4(f) of the US DOT Act of 1966: National legislation that stipulates that the FHWA will not approve any program or project which requires the use of any publicly owned park, recreation area, or wildlife or waterfowl refuge, or any land from an historic site of national, State, or local significance unless:

- ▶ There is no feasible and prudent alternative to the use, and
- ▶ All possible planning to minimize harm resulting from such use is included.

Section 404 Permit: A USACE permit to authorize the discharge of dredged or fill material into waters of the U.S. pursuant to section 404 of the Clean Water Act (33 U.S.C. 1344).

Section 6(f) of the Land and Water Conservation Fund (LWCF) Act: Section 6(f) mandates that no property acquired or developed with assistance under the LWCA shall, without the approval of the Secretary, be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he/she finds it to be in accord with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as he/she deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location.

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 EIS 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.

Significantly: As used in NEPA requires considerations of both context and intensity:

- a. Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather in the world as a whole. Both short- and long-term effects are relevant.
- b. Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:



1. Impacts that may be both beneficial and adverse. A significant affect may exist even if the Federal agency believes that on balance the effect will be beneficial.
2. The degree to which the proposed action affects public health or safety.
3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.
5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
8. The degree to which the action may adversely affect districts, sites highways, structures, or objects listed in or eligible for listing in the NRHP or may cause loss or destruction of significant scientific, cultural, or historical resources.
9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act
10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

Solid Waste: Federal regulations define solid waste as any garbage, refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material, resulting from industrial, commercial, mining, and agricultural operations and from community activities. Solid waste also includes hazardous wastes.

Special Expertise: Statutory responsibility, agency mission, or related program experience.

State Historic Preservation Officer (SHPO): The official appointed or designated by the Governor of each State pursuant to Section 101(b)(1) of the NHPA to administer the State historic preservation program or a representative designated to act for the SHPO. The SHPO consults with Federal and State agencies during Section 106 review, reviews NRHP nominations, and maintains file data on cultural resources.

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.



Stormwater: Rainwater (or other water that results from precipitation such as snowmelt) that flows over land and into natural and artificial drainage systems. Stormwater runoff is a major transporter of non-point source pollutants.

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

Substantive Comments: A phrase that may be used to describe the type or degree of review comments. 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.

Supplemental Draft Environmental Impact Statement (EIS): 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.

System Level Study (SLS): Required by CDOT Policy Directive 1601 for new interchanges or major improvements to existing interchanges. Identifies the short and long-term environmental, community, safety and operational impacts of a proposed interchange, or interchange modification, on the State Highway system and surrounding transportation system to the degree necessary for the Transportation Commission, Chief Engineer, or Regional Transportation Director as appropriate, to make an informed decision whether a proposed new interchange or interchange modification is in the public interest. A Systems Level Study must include a preliminary financial plan that identifies which parties are responsible for applicable costs.

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.

Socioeconomics: Study of the effects of both social and economic factors on individuals and communities.

Statewide Transportation Improvement Program (STIP): A staged, multiyear, statewide, intermodal program of transportation projects which is consistent with the statewide transportation plan and planning processes and metropolitan plans, TIPS, and processes.

- T -

Technical Reports: Determine the impacts to social and environmental elements (i.e., air quality, noise, traffic, aesthetics, wetlands, wildlife, socioeconomics, historic resources, land use, etc.). The Technical Reports are summarized in the environmental document (i.e., EA, EIS, Supplemental EIS).

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.

Tiering: Tiering refers to the coverage of general matters in broader EISs (such as national program or policy statements) with subsequent narrower statements or environmental analyses (such as regional or basinwide program statements or ultimately site-specific statements) incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared. Tiering is appropriate when the sequence of statements or analyses is:

- ▶ From a program, plan, or policy EIS to a program, plan, or policy statement or analysis of lesser scope or to a site-specific statement or analysis.
- ▶ From an EIS on a specific action at an early stage (such as need and site selection) to a supplement (which is preferred) or a subsequent statement or analysis at a later stage (such as environmental mitigation). Tiering in such cases is appropriate when it helps the lead agency to focus on the issues which are ripe for decision and exclude from consideration issues already decided or not yet ripe.

Transportation Demand Management (TDM): The TDM program assists communities with the development of services and facilities for alternative transportation methods. Methods of accomplishing this goal include rideshare programs, park and ride lots, telecommuting programs, and incentive programs to encourage the use of alternatives to driving alone.

Transportation Demand Measures: The use of incentives, and market devices to shift travel into non-motorized or higher-occupancy modes, and/or shift travel onto less congested routes.

Travel Demand Model: 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.

Transportation Enhancement (TE): 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.

Transportation Equity Act for the 21st Century (TEA-21): The TEA-21 was enacted June 9, 1998 as Public Law 105-178. TEA-21 authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 6-year period 1998-2003.

Transportation Improvement Program (TIP): Short-term (three to five years) plan of approved policies developed by an MPO for a jurisdiction that is fiscally constrained.

Transportation Systems Management (TSM): A part of the transportation planning process which identifies short-range, low-cost improvements for the urban transportation system (including both roads and public transportation). Its goal is to insure the most efficient use of the present transportation system, and it may identify improvements such as better fare structures for buses, traffic engineering changes, and new management systems for public transportation.



- U -

Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970: Provides for uniform and equitable treatment of persons displaced from their homes, businesses, or farms by Federal and Federally assisted programs and to establish uniform and equitable land acquisition policies for Federal and Federally listed programs. Whenever acquiring real property for a program or project by a Federal agency results in displacing anyone, the agency shall reimburse and provide relocation planning, assistance coordination, and advisory services.

US Army Corps of Engineers (USACE): Federal agency that is the world's largest public engineering, design, and construction management agency. Much of the USACE infrastructure mission is related to its water resources mission. The USACE builds and maintains a variety of water resource related infrastructure including locks and dams, flood reduction structures and reservoirs, hydroelectric facilities and other projects.

US Department of Interior Fish and Wildlife Service (USFWS): A Federal agency whose mission is to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

US Department of Interior Forest Service (USFS): A Federal agency that manages public lands in national forests and grasslands. The mission of the USFS is to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations.

US Department of Interior Geological Survey (USGS): The soil science agency for the Department of Interior. It is a multi-disciplinary science organization that focuses on biology, geography, geology, geospatial information, and water. It is an independent fact-finding agency that collects, monitors, analyzes, and provides scientific understanding about natural resource conditions, issues, and problems. The USGS focuses its efforts on four major areas: natural hazards, resources, the environment, and information and data management.

Utility Relocations: When 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.

- V -

Vehicles Per Day (vpd): The number of vehicles that travel on a road each day.

Visual Resources: Visual resources are those physical features that make up the visible landscape, including land, water, vegetative and man-made elements. These elements are the stimuli upon which actual visual experience is based. Visual resources are not, however, limited to elements or features that are of outstanding visual quality. A location or element in the visual environment can have visual values attributed to it by its viewers regardless of its quality. Viewer sensitivity can confer visual significance on landscape features and areas that would otherwise appear unexceptional.

- W -

Wetland: A wetland is defined by the USACE as 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.



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 USACE Wetland Delineation Manual and associated Regional Supplements.

Widen Existing: Increasing the width of the current roadway and/or adding additional lanes in each direction of travel to increase the capacity of safety of an existing roadway.

- Z -

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.