

Glossary and Acronyms

additional farmland soils of statewide importance - These soils, in addition to Prime Farmland, are important for production of crops. These soils have properties that are nearly equal to those of Prime Farmlands

aquifer - rock or sediment in a formation, group of formations, or part of a formation which is saturated with water and sufficiently permeable to transmit economically significant quantities of water to wells and springs

Army Corps of Engineers (ACOE) - A federal agency that administers Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act; regulatory programs addressing wetlands and waterways protection

at-grade - referenced to the intersection of two roadways, or a roadway and a railway, which cross at the same elevation. This intersection can be controlled by traffic signals or stop signs.

avian - refers to all things of, relating to, or derived from birds

ballast - gravel or broken stone laid in a railroad bed

best management practices (BMPs) - Techniques and measures employed during and after construction to treat surface runoff and protect receiving water quality

biodiversity - biological diversity in an environment as indicated by numbers of different species of plants and animals

CAAA - Clean Air Act Amendments of 1990

capacity - the capability of a roadway to accommodate traffic usually expressed as the number of vehicles per lane per hour for a given level of service

capacity deficiency - a deficiency that occurs when a roadway's capacity is unable to accommodate the traffic volume demands placed on it

carbon monoxide (CO) - a colorless, odorless, tasteless gas formed in large part by incomplete combustion of fuel. Full combustion activities (i.e. transportation, industrial processes, space heating, etc.) are the major sources of CO.

CHC - Connecticut Historic Commission

community well - a public water system that serves at least 25 residents throughout the year; comprised of one or multiple wells or reservoirs

Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) - a computer database that contains federal and state files regarding potential oil and hazardous waste sites

ConnDOT - Connecticut Department of Transportation

cost effectiveness - the total cost per new transit rider. The analysis considers the total annual infrastructure and capital costs and the annual operating cost. These costs are divided into the total annual new ridership to determine the cost per new transit rider. A new transit rider is defined as someone who was previously using a non-transit mode (usually highway) for the same trip.

CTDEP – Connecticut Department of Environmental Protection

cumulative impacts – the impacts on the environment which result from the incremental impact of a project when added to other past, present, and reasonable foreseeable future actions regardless of what agency or person undertakes such other actions

daily traffic volume – the number of vehicles that use a given roadway over a 24-hour period in either direction

dba - Loudness is the sound pressure level measured on a logarithmic scale in units of decibels (dB). For community noise impact assessment, sound level frequency characteristics are based upon human hearing, using an A-weighted (dba) frequency filter. The A-weighted filter is used because it approximates the way humans hear sound.

deciduous – refers to woody vegetation, such as oak or maple trees, which shed their leaves during the non-growing season

development node - an area that has experienced or is expected to experience development and a resulting growth in employment and/or population

displacement – the act of displacing businesses, persons, or households from structures for highway right-of-way and later demolished to permit highway construction

edge habitat – an area along a transitional zone between two or more vegetational cover types that provides feeding, breeding, nesting, or cover habitat for wildlife

EIS - Environmental Impact Statement

farmland soils - soil whose conversion to non-agricultural use is regulated under the Farmland Protection Policy Act (FPPA) of 1981 by the United States Department of Agriculture.

Farmland Protection Policy Act (FPPA) - was enacted in 1981 by the United States Department of Agriculture (USDA) to ensure that significant agricultural lands be protected from conversion to non-agricultural uses. For highway projects receiving federal aid, the regulations promulgated under the FPPA (7 CFR part 658, 1984) require the State highway authority to coordinate with the USDA Natural Resources Conservation Service. The FPPA regulates four types of farmland soils; prime farmland, unique farmland, farmland of state-wide importance, and farmland of local importance.

Federal Emergency Management Agency (FEMA) – a federal agency that regulates federal actions in floodplains

FHWA - Federal Highway Administration

FIRM – Flood Insurance Rate Map

floodplain – the flat area adjoining a river channel constructed by the river in the present climate and overflowed at times of high discharge

FRA – Federal Railroad Administration

FTA - Federal Transit Administration

GAA quality groundwater – groundwater tributary to public water supply watersheds or within the area of influence of community and non-community water supply wells and presumed suitable for direct human consumption without the need for treatment

Geographic Information System (GIS) – a computer based application used to perform spatial analysis

geometric deficiency - a deficiency that occurs when a roadway's geometric characteristics (lane width, shoulder width, horizontal curvature, vertical grade, etc.) do not meet prevailing design standards

grade separation – the intersection of two roadways, or a roadway and a railway, which cross at different elevations. One roadway overpasses or underpasses the other roadway with a structure(s).

Groundwater Recharge Protection Areas – areas of land designated by water resource agencies through which rainwater or snowmelt percolate and replenish the underlying aquifer in the area of a public well. These areas require special protection because they directly affect the quality and safety of the public drinking water supply.

headway – the time interval between two vehicles traveling in the same direction on the same route

herpetofauna – refers to reptile and amphibian species

hourly traffic volume – the number of vehicles that use a given roadway over a 1-hour period

hydric soils – soils that are saturated, flooded, or ponded long enough during the growing season to develop at least temporary conditions where there is no free oxygen in the soil around the roots. Hydric soils correspond to federally and state regulated wetlands in many circumstances

hydrologic regime – the frequency and duration of inundation or soil saturation of a given area

impervious surface – a surface through which nothing, particularly precipitation, can penetrate

ISTEA - Intermodal Surface Transportation Efficiency Act

Land and Water Conservation Fund (LWCF) - Section 6(f) resources are those which have received funds under the Land and Water Conservation Fund Act

Level B Aquifer Protection Area – the mapped groundwater recharge area for a

stratified-drift aquifer supplying at least 1,000 people

level of service – a qualitative measure describing operational conditions within a traffic stream, and their perception by motorist and/or passengers; six levels of service are defined and they are given letter designations, from A to F, with level of service A representing the best operating conditions and level of service F the worst

light rail – a means of urban railway transportation using electric rail cars

limited-access facility – a highway where access to abutting properties is restricted of limited by control of the right-of-way

LNG - Liquid Natural Gas

LUST – Leaking Underground Storage Tank

MAC – Multimodal Advisory Committee

mesoscale air quality analysis – a regional analysis of air for chemical constituents

Metropolitan Planning Organization (MPO) - the organization designated as being responsible, together with the state, for carrying out a continuing, cooperative, and comprehensive transportation planning process that results in plans and programs that consider all transportation modes in an urbanized area.

microscale air quality analysis – a localized analysis of air for chemical constituents

MIS - Major Investment Study

MOA - Memorandum of Agreement

monorail – a single rail serving as a track for a wheeled vehicle

multi-modal service – the act of providing alternative modes or choices of

transportation service, such as bus, rail, taxi, etc.

National Ambient Air Quality Standards (NAAQS) – the prescribed level of pollutants in the outside air which cannot be exceeded during a specified time in a specified geographic area

National Environmental Policy Act (NEPA) – An act signed into law on January 1, 1970. Section 102 of the Act sets the requirements for an outlines the contents of environmental impact statements that are to accompany every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment.

National Historic District – a district identified as historic in the National Register of Historic Places

National Register of Historic Places (NRHP) – a listing of structures and locations of social and historic significance that have been approved by the National Park Service

National Wetlands Inventory (NWI) – a program administered by the U.S. Fish and Wildlife Service for mapping and classifying wetland resources in the United States.

Natural Resources Conservation Service (NRCS) – formerly the Soil Conservation Service, NRCS is a department within the United State Department of Agriculture, which is responsible for administering the Farmland Protection Policy Act.

NECR - New England Central Rail Road

Nitrogen Oxides (NO_x) – Nitric oxide (NO) and Nitrogen dioxide (NO₂) are collectively referred to as oxides of nitrogen (NO_x). NO forms during high temperature combustion process. NO₂ forms when NO further reacts in the atmosphere. NO_x reacts with the sunlight to form ozone, a colorless gas associated with smog or haze conditions. Ozone is a

pollutant regulated by the Clean Air Act Amendments for 1990.

Noise Abatement Criteria (NAC) – noise levels measured in decibels that are used as a basis of comparison for evaluating the impact from predicted design year noise and for determining whether noise abatement measures should be considered

noise abatement measures – actions which reduce traffic noise impacts. Noise abatement measures can be traffic management measures, alteration of horizontal and vertical alignments, acquisition of property rights for construction of noise barrier, construction of noise barriers, acquisition of real property or interest for buffer zones, or noise insulation of public use or nonprofit institutional structures

non-community well – a public water system that serves at least 25 persons at least 60 days out of the year and is not a community or a seasonal water system

palustrine – the group of vegetated wetlands traditionally called by such names as marsh, swamp, bog, fen, and prairie. Palustrine wetlands may be situated shoreward of lakes, river channels, or estuaries; on river floodplains; in isolated catchments; or on slopes.

P&W – Providence & Worcester Railroad

peak hour – the hour of the day when traffic volume on a given roadway is highest

peak hour factor – the percentage of total daily traffic that occurs during the peak hour. A typical peak hour factor is 10 percent, meaning that 10 percent of total daily traffic occurs during the peak hour

primary/direct impacts – the immediate effects on the social, economic, and physical environment caused by the construction and operation of a highway; these impacts are usually experienced

within the right-of-way or in the immediate vicinity of the highway or other project element

prime farmland soil - soil map units which are designated by the Natural Resource Conservation Service as having the properties needed to produce sustained high yield crops when managed with modern farming techniques.

property takings – the acquisition of a portion or all of a property by eminent domain

relocations – the taking of a residence, business or other structure from a property owner, for public use, which requires the residents or business to be moved to an alternate location

Resource Conservation and Recovery Act Generator (RCRAGN) – a computer database that contains federal and state files regarding potential oil and hazardous waste sites

Resource Conservation and Recovery Act No Longer Registered Generator (RCRANLGN) – a computer database that contains federal and state files regarding potential oil and hazardous waste sites

RIDOT – Rhode Island Department of Transportation

RIHPC – Rhode Island Historic Preservation Commission

riparian – an area of land that encompasses and is contiguous to a stream or other water body

runoff – water that flows off the surface of the land. The portion of rainfall, melted snow or irrigation water that flows across the ground surface and eventually returns to streams or rivers and/or infiltrates into the ground

SCCOG - Southeastern Connecticut Council of Governments

SCWA – Southeastern Connecticut Water Authority

SEAT - SouthEast Area Transit

secondary impacts – the impacts which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable; secondary impacts may include induced changes to land use patterns, population density or growth rate, and related effects on natural systems, including ecosystems

Section 4(f) of the D.O.T. Act – Legislation requiring FHWA approval for any Federal-aid highway project using land from a significant publicly owned park, recreation area, historic property or wildlife and waterfowl refuge. FHWA must find that (1) there is no feasible and prudent alternative to the use of land from the property; and (2) the action includes all possible planning to minimize harm to the property resulting from such use.

Section 6(f) of the Land and Water Conservation Funds Act – legislation that provides for the purchase and preservation of tracts of land whose open space and water quality protection characteristics are desirable.

Section 10 of the Rivers and Harbors Act – legislation which resulted in a permit being required from the Army Corps of Engineers for projects requiring construction in or over navigable waters, the excavation from or dredging or disposal of materials in such waters, or any obstruction or alteration in a navigable water (e.g. stream channelization).

Section 106 of the Historic Preservation Act – A process involving the Federal Highway Administration, Connecticut Department of Transportation, State Historic Preservation Office, and the Advisory Council on Historic Preservation. This process must be followed for any federal-aid highway project affecting historic resources

potentially eligible, eligible, or on the National Register of Historic Places. In this process, historic resources are identified and steps are taken to avoid, minimize, and mitigate the impacts to historic resources.

Section 404 of the Clean Water Act – Provides the enabling legislation for regulation of wetland resources by the Army Corps of Engineers and the U.S. Environmental Protection Agency. A permit is required from the Army Corps of Engineers for highway projects involving discharge of dredged or fill material into waters of the United States. Jurisdiction under this law extends to lakes, rivers, streams, wetlands, and mudflats.

SHPO - State Historic Preservation Officer

sight distance – the length of roadway ahead visible to the driver

SLOSSS - Suggested List of Surveillance Study Sites - A list of locations which have 15 or more accidents and where the actual accident rate is greater than the critical accident rate. The critical accident rate is a function of time period, section length, traffic volume and the system average accident rate for the category of highway being tested for accident abnormality. Suggested Surveillance locations are determined for various classes of locations that include intersections (and those locations where the segment between intersections is not greater than 0.1 miles) and sections of a segment of highway between intersections greater than 0.1 miles apart.

sole source aquifer (SSA) – an aquifer designated by EPA as the “sole or principal source” of drinking water for a given aquifer service area; that is, an aquifer which is needed to supply 50% or more of the drinking water for that area and for which there are no reasonably available alternative sources should the aquifer become contaminated

State Implementation Plan (SIP) – a plan created under The 1990 Clean Air Act Amendments (CAAA) that establishes emission reduction requirements for ozone and carbon monoxide non-attainment areas. Proposed projects must demonstrate that the impacts of their emissions are consistent with the appropriate SIP.

SWL – Solid Waste Landfill

TASR - Traffic Accident Surveillance Report

traffic generator – any business, government office, or place of employment or destination that generates or attracts traffic

transitway – a right-of-way dedicated to use by public transit vehicles

transportation center – a transit station, generally located at the end of a transit line with a large parking lot or parking garage, and amenities for people using the station, such as a visitors’ center/kiosk with information on area tourist attractions and multimodal connections

transportation deficiencies – a highway related facility which is unable to safely and efficiently satisfy travel demands because of the intensity of traffic volumes, capacity, and/or safety

transportation demand management (TDM) – a system of actions whose purpose is to alleviate traffic problems through improved management of vehicle trip demand

Transportation Improvement Program (TIP) – a staged multiyear program of transportation projects funded by the Federal Highway Administration and Federal Transit Administration.

transportation systems management (TSM) – a system of effecting improvements on the existing transportation system to increase

capacity, thereby avoiding expensive new construction

United States Department of Agriculture (USDA) – A federal agency responsible for administering programs that address farming issues

United States Environmental Protection Agency (USEPA) – A federal agency responsible for administering programs that address environmental issues

United States Fish and Wildlife Service (USFWS) – A federal agency responsible for addressing the protection of fish and wildlife including rare, threatened, or endangered species. The USFWS plays an advisory role in the Section 404 regulatory program administered by the U.S. Army Corps of Engineers.

UST – Underground Storage Tank

vehicle capacity – the maximum number of vehicles that can reasonably traverse a given section of roadway in a specified time period (usually one hour). Capacity is based on a number of physical characteristics of an individual roadway, including the number and width of travel lanes, shoulder width, functional classification, terrain, and the roadway's general environment

vernal pool – a temporary pool of surface water or ground water discharge to a topographic depression that provides breeding habitat for certain amphibian and invertebrate species

volatile organic compounds (VOCs) – colorless gaseous compounds originating, in part, from the evaporation and incomplete combustion of fuels. VOCs react, in the presence of sunlight, to form ozone, a pollutant regulated by the CAAA.

volume-to-capacity ratio (V/C ratio) – the two-way, hourly traffic volume divided by the two-way, hourly vehicle capacity of the roadway. Where V/C ratios are lower than 0.80, a roadway is

considered to be operating under capacity with little or no delay. V/C ratios between 0.80 and 1.00 indicate that a roadway is operating near, or at, capacity with vehicle delay becoming moderate to long. V/C ratios greater than 1.00 indicate that a roadway is operating over capacity with severe congestion and excessive delays

vpd – vehicles per day

watercourses (State of Connecticut definition) - rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon Connecticut or any portion thereof, not regulated pursuant to Connecticut General Statutes Sections 22a-28 to 22a-35, inclusive. Intermittent watercourses shall be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) Evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation

watershed – a land area that collects and discharges surface stream flow to a single point

wellhead protection area – areas of land where human activities are regulated to protect the quality of ground water that supplies public drinking water wells

wetland (general definition) – those areas that are inundated or saturated by surface or groundwater 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 (State of Connecticut definition) – land, including submerged land, not regulated pursuant to

Connecticut General Statutes
Sections 22a-28 to 22a-35, inclusive, which
consists of any of the soil types
designated as poorly drained, very poorly
drained, alluvial, and floodplain by the
National Cooperative Soils Survey, as
may be amended from time to time, of the
Natural Resources Conservation Service

of the United States Department of
Agriculture

WMA – Wildlife Management Area

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