

Glossary



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AASHTO

American Association of State Highway and Transportation Officials

Alternatives Analysis

The process by which alternatives identified in the scoping process are screened to determine how well each meets the project purpose and need. Alternatives that qualify after screening are included in the environmental assessment for further analysis and ultimately in the identification of the preferred alternative.

AMI

area median income

APCD

Air Pollution Control Division (of the Colorado Department of Public Health and Environment)

Average Daily Traffic (ADT)

The average two-way traffic (number of vehicles) on a given highway over a 24-hour period.

Best Management Practice (BMP)

Any program, technology, process, siting criteria, operating method measure, or device that controls, prevents, removes, or reduces effects from a project or activity on the surrounding area.

Capacity

The maximum rate of traffic flow at which vehicles can traverse a point of highway in 1 hour.

CDOW

Colorado Division of Wildlife

CDOT

Colorado Department of Transportation

CDPHE

Colorado Department of Public Health and Environment

CE

categorical exclusion

Clean Water Act (CWA)

The Federal Water Pollution Control Act enacted in 1972 by Public Law 92-500 and amended by the Water Quality Act of 1987. The CWA prohibits discharge of pollutants to waters of the United States without a National Pollutant Discharge and Elimination System permit. Section 404 of the CWA addresses protection of wetlands and aquatic habitats from dredge and fill activities.

CNHP

Colorado Natural Heritage Program

Corridor

In this document, a highway and associated right-of-way only.

Council on Environmental Quality (CEQ)

The US Congress established the CEQ within the Executive Office of the President as part of the National Environmental Policy Act of 1969. Additional responsibilities were provided by the Environmental Quality Improvement Act of 1970.

CR

county road

dB

decibel

dB(A)

A-weighted decibel

DOLA

Department of Local Affairs

DOT

Department of Transportation

Early Action Compact (EAC)

Agreements between Environmental Protection Agency and communities to reduce ground-level ozone pollution. EACs require communities to develop and implement air pollution control strategies; account for emissions growth, and achieve and maintain the national 8-hour ozone standard.

EB

eastbound

Endangered Species Act (ESA)

Legislation passed by Congress in 1973 to protect listed plant and animal species and their habitats from harm.

Environmental Assessment (EA)

A document prepared by a federal agency under National Environmental Policy Act regulations to provide sufficient evidence and analysis of a proposed project or action to determine whether to prepare an environmental impact statement or a finding of no significant impact.

Environmental Protection Agency (EPA)

The US agency responsible for controlling air pollution, water pollution, noise, radiation hazards, pesticide hazards, solid waste disposal, and other potential risks to the natural environment.

EO

Executive Order

Expressway

A multilane, divided highway designed to move large volumes of traffic at high speeds under free-flow conditions with full control of access.

Farmland Protection Policy Act (FPPA)

Enacted in 1981 to minimize the extent to which federally funded projects contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses.

FEMA

Federal Emergency Management Agency

FHWA

Federal Highway Administration

Finding of No Significant Impact (FONSI)

A decision rendered as the result of an environmental assessment indicating that a proposed action has no significant environmental impacts that cannot be appropriately mitigated.

FIS

Flood Insurance Study

Floodplain

An area adjacent to a stream or lake that is inundated periodically by high flows.

GIS

geographic information system

Grade-Separated Intersection

An intersection of highway roads, railroad tracks, or dedicated transit rail tracks that run either parallel or across at different surface elevations.

Growth Management Area (GMA)

The result of the 1980s' Intergovernmental Agreement between Larimer County and the city of Loveland. The primary purpose of the Loveland GMA is to focus urban development adjacent to cities and towns in areas that could be annexed.

Habitat

The environment in which an organism lives; the arrangement of food, water, cover, climate, and space suitable to meet the needs of an animal or a plant.

HASP

Health and Safety Plan

Hazardous Materials

Materials that pose a risk to human health or the environment.

HCS

Highway Capacity Software

HHS

Health and Human Services
(US Department of)

HOV

High Occupancy Vehicle

HUD

Housing and Urban Development
(US Department of)

IGA

intergovernmental agreement

LEDPA

least environmentally damaging
practicable alternative per
CFR 40 Part 230 Section 404(b)(1)

LESA

Land Evaluation and Site Assessment

Level of Service (LOS)

A qualitative measure of the operational characteristics of a traffic stream, ranked from A (best) to F (worst). LOS is described in terms of speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.



Level of Service A: Free-flow operations; vehicles are able to move freely within the traffic stream. Average spacing between vehicles is 528 feet or 26 car lengths, giving motorists a high comfort level. Effects of minor traffic incidents are easily absorbed, with traffic quickly returning to free-flow operation.

Level of Service B: Reasonably free-flow; speeds are generally maintained. Lowest average spacing between vehicles is 330 feet or 18 car lengths. Ability to maneuver within the traffic stream is only slightly restricted; the motorist has a generally high comfort level. Incidents are still quickly absorbed.





Level of Service C: Speeds are still at or near free-flow speeds, but freedom to maneuver is noticeably restricted; lane changes require vigilance. Minimum average spacing between vehicles is in the range of 220 feet or 11 car lengths. Queues may form behind any significant lane blockage. Drivers experience an increase in tension because of additional vigilance required for safe operation.

Level of Service D: Speeds begin to decline slightly with increasing flows. Vehicles are spaced at about 165 feet or 9 car lengths. In this range, density begins to increase more quickly with increasing flow. Freedom to maneuver is more limited; drivers experience reduced physical and psychological comfort levels. Even minor disturbances create queuing.



Level of Service E: Operations are volatile, because there are virtually no usable gaps in the traffic stream. Vehicles are spaced at approximately 6 car lengths, with little room to maneuver at more than 50 mph. Any disruption (vehicles entering from an entrance ramp or changing lanes) causes a disruption wave to move throughout the traffic flow. The lower boundary of LOS E (between LOS E and LOS F) is considered to be operating at capacity, at which point the traffic stream has no ability to dissipate any disruptions. Maneuverability is extremely limited, and driver comfort level is extremely poor.

Level of Service F: This LOS signifies a breakdown in vehicular flow. Queues form behind breakdown points that occur because of traffic incidents and recurring points of congestion (merging or weaving where the number of vehicles arriving is greater than the number of vehicles discharged). Breakdown occurs when the ratio of arrival flow rate to actual capacity or the forecast flow rate to estimated capacity exceeds 1.00. Whenever LOS F conditions exist, there is a potential for breakdown in traffic flow to extend upstream for significant distances.



LUST

leaking underground storage tank

M-ESA

Modified Environmental Site Assessment

MMP

Materials Management Plan

Mobility

The ability of traffic to move unimpeded through a highway or highway corridor.

MP

milepost

MPO

Metropolitan Planning Organization

MS4

Colorado Department of Transportation's municipal separate storm sewer system

MSA

Metropolitan Statistical Area

MVMT

million vehicle miles traveled

NAAQS

National Ambient Air Quality Standards

NAC

Noise Abatement Criteria

National Environmental Policy Act (NEPA)

The National Environmental Policy Act of 1969 establishes policy, sets goals, and provides a means for protection of the environment in federal decision-making. Under NEPA, all federal agencies must consider the environmental impacts of any proposed action that includes federal money or affects federal land and public input in relevant decisions. The Council

on Environmental Quality regulations for implementing NEPA are found in 43 CFR 1500–1508.

NAWMA

North American Weed Management Association

NB

northbound

NCEDC

Northern Colorado Economic Development Corporation

NFRT & AQPC

North Front Range Transportation and Air Quality Planning Council

NHPA

National Historic Preservation Act of 1966

No Action Alternative

The project alternative that represents projected conditions in a study area without improvement; serves as a baseline for comparing action alternatives.

NPDES

National Pollutant Discharge and Elimination System

NRCS

Natural Resources Conservation Service

NRHP

National Register of Historic Places

OAHP

Office of Archaeology and Historic Preservation

PCB

polychlorinated biphenyl

PEM
Palustrine Persistent Emergent

PFO
Palustrine Persistent Forested

PIP
Public Involvement Program

PM_{2.5}
particulate matter of 2.5 microns or less

PM₁₀
particulate matter of 10 microns or less

Preferred Alternative
The alternative identified by means of the environmental assessment process as the action recommended to meet the purpose and need of a project.

Prime Farmland
Soil units with the best combination of physical and chemical characteristics to produce feed, food, forage, fiber, and oilseed crops as identified in the Farmland Protection Policy Act of 1981.

Purpose and Need
The underlying reason for conducting environmental studies and analysis; the purpose and need to which the agency is responding by proposing alternative solutions.

REA
Rural Electric Association

Receptor
A term used in noise analysis to refer to a site or location potentially subject to noise impacts.

Right-of-Way
A general term denoting land, property, or interest same; usually a strip acquired

for or devoted to transportation purposes.

RTP
Regional Transportation Plan

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

Legislation that replaces the Transportation Equity Act for the Twenty-First Century (TEA-21); signed into law on August 10, 2005, as Public Law 109-59. SAFETEA-LU represents the largest surface transportation investment in US history. SAFETEA-LU builds on the foundation of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and TEA-21, supplying the funds and refining the programmatic framework for investments needed to maintain and grow the nation's vital transportation infrastructure. SAFETEA-LU continues an emphasis on a strong fundamental core formula program, coupled with targeted investment, featuring safety, equity, innovative finance, congestion relief, mobility and productivity, efficiency, environmental stewardship, and environmental streamlining.

SB
southbound

Scoping
An open public process initiated at the beginning of an environmental assessment to help identify the relevant agencies' and public's concerns and recommended solutions.

Screening (alternatives analysis)
A systematic process in which a broad range of alternatives is narrowed down to those that best meet the goals of a project based on the project's purpose

and need, and on key issues and concerns related to the study area. Alternatives that pass through the screening process are taken into environmental assessment to identify a preferred alternative.

Section 4(f)

Properties that are defined under Section 4(f) of the Department of Transportation Act of 1966 (49 USC 303). DOT regulations explicitly state that the Secretary of Transportation cannot approve the acquisition of publicly owned land from a park, recreation area, or wildlife refuge, or land from a national, state, or local historic site unless no feasible and prudent alternative exists. These properties are commonly referred to as 4(f) properties.

Section 6(f)

Properties that are defined under Section 6(f)(3) of the Land and Water Conservation Fund Act signed into law on September 3, 1964. These properties consist of publicly owned land, including parks and recreation areas purchased or improved with monies from the Land and Water Conservation Fund, and are intended to remain in use for public recreation in perpetuity.

SH

state highway

SHPO

State Historic Preservation Officer

SIMTRAFFIC

A type of traffic analysis software.

SMARTTrips™

A regional public program designed to reduce automobile dependency and promote the use of alternative transportation in northern Colorado.

SMARTTrips is a division of the North Front Range Transportation and Air Quality Planning Council. The program includes marketing bus transit service to northern Colorado communities. SMARTTrips encourages residents to leave their cars at home at least one day a week to help preserve air quality, decrease traffic congestion, conserve fuel, and promote better health.

Statewide Transportation Improvement Program (STIP)

Identifies necessary transportation improvements throughout Colorado that currently have funding available.

Study Area

In this document, an area larger than the corridor width and associated with a particular resource. The study area varies with the resource being analyzed.

SWMP

stormwater management plan

SYNCHRO HCM

A type of traffic analysis software that uses the average delay to define level of service for signalized and unsignalized intersections.

Threatened and Endangered Species (TES Species)

A classification of plant and animal species listed in the Endangered Species Act. Endangered species are in danger of becoming extinct; threatened species are in danger of being listed as endangered.

Transportation Improvement Program (TIP)

A prioritized program of transportation projects to be implemented in appropriate stages over 3 to 5 years as set forth in Department of

Transportation's joint regulations for transportation programming. The projects are recommended from those in the transportation systems management element and the long-range element of the planning process. Participation in this program is required as a condition for a locality to receive federal transit and highway grants.

UPRR

Union Pacific Railroad

USCOE

United States Army Corps of Engineers

USFWS

United States Fish and Wildlife Service

VMT

vehicle miles traveled

WB

westbound

Weighted Hazard Index (WHI)

Compares the frequency and severity of crashes to the statewide average. WHI values greater than zero exceed the statewide average, and values less than zero are below the statewide average.

WET

wetland evaluation technique

Wetland

An area sufficiently inundated by surface water or groundwater to support a predominance of vegetation adapted for life in saturated soil conditions (bogs, ponds, estuaries, marshes).

Chapter 1

Purpose and Need



