

MTC CAC Sustainable Transportation Committee

DRAFT MTC Definition of “Sustainable Transportation”

“Sustainable transportation refers to transportation systems or modes that:

- Meet or exceed minimum safety standards;
- Ensure equity of access and mobility;
- Minimize local environmental impacts;
- Are global climate neutral;
- Are compatible with a thriving local and global economy;
- Do not depend on finite fuel supplies;
- Do not depend on energy generation systems that consume more usable energy than they produce.”

Background:

The purpose of the definition is to establish a core meaning and a degree of consistency for the term “sustainable transportation” as used by the MTC.

Several well-established definitions of “sustainability” exist. Few attempt to define sustainability in the context of transportation, and there is no universally accepted definition of sustainable transportation. The definition adopted by MTC could reflect the practical situations specific to Bay Area.

The core of transportation sustainability revolves around fuel supply. However, issues such as pollution and other forms of environmental damage, social equity, system efficiency, and safety are all aspects of sustainability worthy of due consideration. Over time, these factors can cause disruption or inability of a transportation system to function. Though mentioned in the definition above, they are also addressed in greater detail in a separate document: “DRAFT MTC Guiding Principles for Sustainable Transportation.”

The following are several existing definitions of “sustainability” and “sustainable transportation.”

- Sustainable development is development that "meets the needs of the present without compromising the ability of future generations to meet their own needs.” (The United Nations Brundtland Commission, 1987)
- The US Environmental Protection Agency uses the Brundtland Commission definition.
- “...sustainability is not about threat analysis; sustainability is about systems analysis. Specifically, it is about how environmental, economic, and social systems interact to their mutual advantage or disadvantage at various space-based scales of operation.” (Transportation Research Board, 1997)

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- Environmentally Sustainable Transportation is “transportation that does not endanger public health or ecosystems and meets needs for access consistent with a) use of renewable resources at below their rates of regeneration, and b) use of non-renewable resources at below the rates of development of renewable substitutes.” (Organization for Economic Cooperation and Development, 1998)
- “The goal of sustainable transportation is to ensure that environmental, social and economic considerations are factored into decisions affecting transportation activity.” (Transport Canada, 1999)
- A sustainable transportation system is “one in which fuel consumption, vehicle emissions, safety, congestion, and social and economic access are of such levels that they can be sustained into the indefinite future without causing great or irreparable harm to future generations of people throughout the world.” (B.C. Richardson, 1999)
- Sustainability is “the capacity for continuance into the long term future. Anything that can go on being done on an indefinite basis is sustainable. Anything that cannot go on being done indefinitely is unsustainable.” (Center for Sustainability-UK, 2004)
- A sustainable transportation system is one that:
 - Allows the basic access needs of individuals and societies to be met safely and in a manner consistent with human and ecosystem health, and with equity within and between generations
 - Is affordable, operates efficiently, offers choice of transport mode, and supports a vibrant economy
 - Limits emissions and waste within the planet’s ability to absorb them, minimizes consumption of non-renewable resources, limits consumption of renewable resources to the sustainable yield level, reuses and recycles its components, and minimizes the use of land and the production of noise. (European Conference of Ministers of Transport, 2004)