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United States Environmental Protection Agency

Transportation Planning in the Northwest: Framework for Sustainability

transportation

A Message for Transportation and Land Use Decision Makers

Region 10's involvement in transportation projects has traditionally begun with the National Environmental Policy Act (NEPA) process. EPA is required to review NEPA documents to rate the environmental impacts of the project, and to ensure that the document itself meets the requirements of NEPA. In fulfilling our NEPA responsibilities, we identify major federal projects with high potential for environmental impacts and then work with the project's sponsors and lead agencies to eliminate unacceptable environmental impacts of the project, maximize environmental benefits, and develop sustainable solutions to the issues being addressed by the project.

Transportation projects, and in particular road building projects, have emerged repeatedly in Region 10 as major federal actions with a high potential for significant environmental impacts. We have found that road building, as the solution to transportation problems, is often treated as a foregone conclusion in NEPA documents and, in fact, is often accepted as a given by society in general. There are other solutions to many of our transportation needs; solutions that are sustainable, minimize or eliminate the environmental impacts intrinsic to road building, meet the transportation needs of the affected communities, and do not require the construction of new roads.

Chuck Clarke, Regional Administrator

The purpose of this transportation message is to fuel the creative efforts of transportation agencies and the public to develop these more sustainable solutions. It is not our intent to say that roads should never be built. We recognize that roads may represent the best solution to some transportation problems. However, in shaping the future of our communities, it is important to enter the NEPA process with a willingness to explore a variety of options and approaches, and to allow the NEPA process to do what it is intended to do: foster excellent decision making and action to "prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man." (PL 91-190, 42 U.S.C. 4321-4347)

The Environmental Protection Agency intends to work as much as possible with land use and transportation planning entities from the earliest planning stages to help this to happen.

Chuck Clarke

To work toward sustainable transportation solutions, EPA asks Northwest transportation and land use decision makers to:

Integrate land use planning, transportation planning, and environmental review so that the NEPA process is open to the full range of alternatives to solve transportation needs.

Photo courtesy of Calthorpe Associates

The land use planning, transportation planning, and environmental review processes currently occur in linear sequence, sometimes beginning with land use, sometimes with transportation. The result of a linear process is often a predetermined outcome that does not adequately consider or avoid undesirable effects to land use, transportation, and/or the environment, and that is difficult if not impossible to change. Achieving this integration and the sustainable outcomes we hope for will require the good will, cooperation, and dedication of all players. EPA intends to work with land use planning and transportation planning entities in exploring new ways of achieving a more integrated approach to land use, transportation, and environmental planning and review.

Acknowledge, evaluate, and discuss the serious environmental, economic, and social impacts often associated with road building and the use of privately owned vehicles.

The environmental costs of new roads are often enormous, and frequently are not acknowledged or openly discussed by project proponents. Roads contribute significantly to air pollution, water pollution, and wildlife habitat loss and fragmentation. Roads can contribute to urban sprawl and the loss of rural farming and forestry areas and natural areas near urban centers. They can change the face of the landscape and contribute to the loss of the very values people seek in a geographic area. It is important that project proponents acknowledge, adequately evaluate, and disclose such impacts during project planning.

Acknowledge and discuss the escalating nature of the road building solution.

Photo courtesy of Local Government Commission

Road building and expansion often result in induced growth effects (sprawl), and stimulate increased use of privately owned vehicles and vehicle miles traveled. This, in turn, leads to increased auto dependency and demand for more roads. In their 1995 report entitled, *Expanding Metropolitan Highways: Implications for Air Quality and Energy Use*, the Transportation Research Board concludes that "The evidence from the studies reviewed here supports the view that highway capacity additions can induce new trips, longer trips, and diversions from transit." In his March, 1997 paper entitled *Determining Generated Traffic External Costs*, Todd Litman of the Victoria Transport Policy Institute finds that the induced or generated traffic from increased highway capacity increases over time and "an increasing portion of generated traffic results from new trips, land use changes associated with urban sprawl, and increased auto dependency." This type of information should be discussed openly and evaluated during project planning.

Photo courtesy of Calthorpe Associates

Pursue transportation solutions that shift the focus from addressing only mobility in terms of level of service (speed), to solutions that focus on achieving multi-modal mobility, accessibility, livability, and sustainability.

EPA believes that sustainable solutions to transportation problems are more likely to be realized by focusing on longer-term approaches that provide increased transportation choices (multi-modal mobility), that bring people to the activities or the activities to the people (accessibility), that foster community vitality, environmental justice, and quality of life (livability), and that meet our social, economic, and ecological needs without compromising the ability of future generations of all species to do likewise (sustainability). We encourage planners and decision makers to think in terms of reducing transportation demand, and where demand exists, address the real and underlying transportation need: to move people and goods — not necessarily cars.

Before deciding upon new road solutions, consider the following:

Explore creative alternatives. Creative solutions that integrate land use with transportation while protecting the environment and enhancing livability can emerge from the public thinking when citizens are actively engaged and there is partnership with participating agencies and decision makers. Provide analytical support for community-generated ideas, and explore multi-faceted solutions. It may be possible to combine several ideas/alternatives that, collectively, will address the project need. A package of alternatives could include alternative transportation modes, trip reduction, land use adjustments, parking controls, pricing mechanisms, other incentives and/or disincentives, new route design or traffic circulation patterns, and more.

Photo courtesy of King County METRO

Photo courtesy of Local Government Commission

Diversify the transportation system by providing more transportation choices. The Transportation Equity Act for the 21st Century (TEA-21) continues and expands upon the important changes in transportation policy initiated by the Intermodal Surface Transportation Efficiency Act (ISTEA): it dedicates funding to alternatives to driving and to transportation modes that reduce air pollution and improve environmental protection and sustainability. Having a community that is provided multiple transportation choices enhances personal freedom, is more equitable for those who cannot afford or do not have the ability to drive, and is more protective of the environment by decreasing dependency on privately owned vehicles and the need for more lanes of pavement.

Emphasize transportation demand management. Include transportation demand management (trip reduction) and transportation system management (TDM and TSM) in all projects and alternatives, with the greater emphasis upon TDM. An array of travel alternatives, roadway use options such as carpool lanes, financial incentives, work hours and location management options exist, and more ideas are being generated. Land use strategies, such as mixed use and transit oriented development, also serve to curb travel demand.

Maximize the use of existing infrastructure. Further habitat degradation, fragmentation, and loss can be prevented by making better use of existing transportation infrastructure. For example, emphasize use of existing rights-of-way, improving existing rail lines, roads, and trails, and better integrating existing transportation infrastructure with land use planning. Actions such as re-striping pavement to provide bike lanes, peak hour lane conversion for high occupancy vehicles (HOV), and transit priority/preference techniques such as traffic signal override and synchronization, are easy, inexpensive innovations that can make a big difference in traffic flow and livability.

Consider redevelopment. Redevelopment prevents sprawl and protects farms, forests, and natural lands by making better use of existing developed areas and urban space. It can also exert a positive influence on the surrounding community. Businesses thrive when they are located in attractive settings that are accessible to pedestrians, bicyclists, and public transportation; communities develop when people get out of their cars; and the amenities provided by the natural environment, farmlands, and rural areas remain intact.

For more information...

With questions and comments about this publication, contact the U.S. Environmental Protection Agency, Region 10, Seattle, Washington at 1 (800) 424-4EPA. Several sources of further information and technical assistance include:

Transportation Environment Network
Website: http://www.epa.gov/tp/

Surface Transportation Policy Project
Website: http://www.transact.org

Local Government Commission, Center for Livable Communities
Phone: 1 (800) 290-8202

EPA Office of Mobile Sources
http://www.epa.gov/oms/traq

Livable Communities Initiative
Old Executive Office Building, Room 360
Washington, D.C. 20502
Website: http://tis.eh.doe.gov/livablecommunity/index2.html

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