

WORKING TOGETHER TO SUPPORT TRANSPORTATION EFFICIENT COMMUNITIES



Department of Commerce
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**WASHINGTON STATE
DEPARTMENT OF
ECOLOGY**



**Washington State
Department of Transportation**

WHAT IS A TRANSPORTATION EFFICIENT COMMUNITY?

Transportation efficient communities support health, prosperous economies, energy conservation and a sustainable environment by requiring less driving to meet daily needs.

How can cities and counties plan for Transportation Demand Management

What is transportation demand management?

Transportation demand management is a set of strategies that help people use the transportation system more efficiently. This includes activities that reduce the demand for roadway travel, particularly in single occupancy vehicles.

Transportation demand management reduces the demand for roadway travel through the use of transportation choices such as carpooling, vanpooling, transit, walking, bicycling, teleworking, and flexible work hours.

What are the benefits of transportation demand management?

Transportation demand management maximizes the efficiency of the existing transportation system (city streets, state highways, and transit) and can bring a variety of quality-of-life benefits (health, safety, time, etc.). In addition, by reducing trips, it limits pollution to the air and water and its many transportation options improve overall accessibility. The characteristics of transportation demand management are that it:

- Reduces road and parking facility costs.

- Helps consumers save money by reducing their need to operate automobiles.
- Improves travel options, particularly for non-drivers.
- Reduces air, noise, and water pollution, wildlife crashes, and other types of environmental damages.
- Reduces traffic congestion delays and associated costs.
- Supports strategic land use planning objectives, such as reduced sprawl, urban redevelopment, and reduced habitat fragmentation.
- Improves local environmental quality and community cohesion.
- Supports a community's economic objectives, e.g., productivity, employment, wealth, property values, and tax revenues.
- Improves public fitness and health due to more physical activity, usually through increased daily walking and bicycling.



KEY TAKEAWAYS

- Transportation demand management influences travel before choices are made and makes more efficient use of existing facilities.
- Transportation demand management improves the reliability and performance of the transportation system. A small change in demand can have large benefits.
- Transportation demand management prolongs the need for capacity expansion, lengthens the life of new investments, and/or makes managed facilities more efficient and effective.
- Transportation demand management provides a set of strategies that are relatively low cost and easy to implement.
- Transportation demand management fosters new public/private partnerships to manage the system.
- Transportation demand management mitigates some of the negative impacts of traffic, including reducing vehicle energy consumption and pollution emissions.

How does transportation demand management make a community livable?

One way for a community to be a great place to live, work, and play is to have transportation choices available in the community. Transportation demand management provides an individual or group, a more diverse transportation system that tends to be more efficient and equitable, because it allows travelers to choose the best option for each trip.

Transportation demand management provides communities accessibility to goods and services and reduces social isolation for seniors, people with disabilities, and members of lower income households. Transportation demand management also promotes greater health



and fitness in a community through walking and bicycling and residents may be more willing to participate in active transportation programs as a way to integrate physical activity into

their daily commute. Some of the health benefits of transportation demand management for a community include:

- Increased physical fitness among residents.
- Increased air quality.
- Reduced spending on road and parking facility expansions.
- Increased options for modes of affordable transportation and resulting increased mobility, particularly for non-drivers.
- Improved community livability, which can increase local property values and business activity.
- Increased public transit ridership, leading to additional reductions in automobile travel and associated emissions.

How does transportation demand management boost businesses and save money?

Transportation demand management can help local businesses by developing optimum travel patterns and concentrating development around the downtown core. In compact communities, increased accessibility to goods and services can be an economic stimulus for local businesses.

Transportation demand management can also save money by lessening demand for new road construction and reducing major roadway expenditures.



<https://www.pedbikeimages.org/DanBurden>

What types of infrastructure improvements are helpful for transportation demand management?

New infrastructure or infrastructure upgrades can encourage multimodal transportation rather than ease traffic flow for SOVs. Upgrades can include a network of sidewalks; bike paths and trails; shortcuts between residential areas; bike racks and lock-up areas; and road improvements that enhance safety for bicyclist and pedestrians. In some cases, new infrastructure or infrastructure upgrades can help achieve changes to the way people travel.



What support does transportation demand management need for land use integration?

Support of a built environment that has safe and convenient walking, bicycling, and public transportation requires physical infrastructure



and support programs; services and incentives in place; mode shifts away from SOV travel; shifts in travel time or route choice; or shifts to higher occupancy vehicles (e.g. from vanpool to transit). This could mitigate the traffic impacts of any proposed plan or development proposal.

Achieving these transportation efforts include:

- Encouraging development within Growth and Transportation Efficiency Centers (GTEC).
- Implementing transit oriented development where appropriate.
- Managing parking supply.
- Implementing agreements that require developers to provide on-site physical facilities supporting use of transportation alternatives and demand management support programs, services, and incentives.
- Implementing CTR activities at large work sites such as:
 - Membership in a local transportation management association.
 - Designation of an on-site transportation coordinator.
 - Provision of readily available information on alternative transportation programs.
 - Support of on-site or regional ridematching.
 - Subsidized public transit and vanpool participation for building occupants.
- Using trip reduction ordinances aimed at land use development proposals.

Successful integration of transportation demand management may depend on positioning it as a means of saving money while providing transportation services, instead of solely emphasizing the reduction of SOV trips.

How do you determine which transportation demand management strategies are best to use?

Choosing transportation demand management strategies depends on the overall goal and desired results needed. Some strategies improve consumer travel options; others provide an incentive to reduce driving and rely on alternative modes; and some directly affect traveler behavior. Any of these strategies can result in a more efficient use of the transportation system, so it is important to work with communities to identify the best strategy for a specific area.

What transportation demand management strategies are the most effective?

Though transportation demand management is effective, it may be difficult to identify any one strategy that meets all needs. Additionally, certain strategies, (e.g. bus service combined with subsidized transit passes) may work best packaged together. However, certain strategies have succeeded in reducing travel demand and shifting travel away from SOV modes that are more efficient. Proven strategies that have succeeded in reducing drive alone travel by shifting travel choices to modes that are more efficient include:

Congestion Pricing	Provides a number of techniques that use charges to provide disincentives to drive vehicles in certain areas or on particular roadways during peak congestion.
Employee-based Commute Trip Reduction	Reduces vehicle trips by providing information about transportation options (other than driving alone) and by offering incentives for using active and shared travel modes, traveling off-peak hours, compressing work schedules, and teleworking.
Land Use Management and Urban Design	Encourages higher-density and mixed-use development. Provides access to frequent transit service and opportunities for pedestrian and bicycle trips to a mix of destinations.
Parking Management	Encourages efficient parking facilities, reduces parking demand, and shifts travel to non-SOV modes.
Walking and Bicycling	Includes reducing roadway congestion, pollution, and transportation costs. Helps to improve and maintain health.

Who should use transportation demand management strategies?

Transportation demand management is not only an effective strategy for planners but for transportation engineers as well. Effectively using the tools and techniques of transportation demand management, (commute trip reduction, telework, vanpool programs, parking management, etc.), eases the burden on the existing transportation system. It also allows busy corridors to perform as well as they were designed to perform, thereby lessening the need to add more lane space and freeing up scarce construction dollars for other transportation improvements.



Tools and Resources:

General

- [Transportation Demand Management, Training Document](#)
- [Integrating Transportation Demand Management into the Planning and Development Process, A Reference for Cities](#)
- [Integrating Demand Management into the Transportation Planning Process: A Desk Reference](#)
- [Benefits of Transportation Demand Management \(TDM\)](#)
- [Tools and Practices for Land Use Integration, Transportation Demand Management](#)
- [Transportation Demand Management, A Small and Mid-Size Communities Toolkit](#)
- [Improving Travel Options with Transportation Demand Management \(TDM\)](#)
- [Transportation Demand Management Information Resource Center](#)
- [Practical Applications of Transportation Demand Management](#)
- [Welcome to Active Transportation and Demand Management](#)

Performance Measures

- [A Framework for Monitoring the Performance of Travel Demand Management and Vehicle Miles Traveled \(VMT\) Reduction Activities](#)
- [Development of Standard Performance Measures for Transportation Demand Management Programs](#)
- [Transportation Demand Management, Performance Measures](#)

Maps and Data

- [Smart Location Mapping \(EPA\)](#)

Identifying and Analyzing Strategies

- [Reference Sourcebook for Reducing Greenhouse Gas Emissions from Transportation Sources](#)
- [Transportation Demand Management for Site Plan Development](#)
- [Transportation Demand Management Strategies](#)
- [Synergistic integration of Transportation Demand Management Strategies \(Land Use, Transit, and Auto Pricing\) with New Technologies and Services \(Battery Electric Vehicles and Dynamic Ridesharing\) to Enhance Reductions in VMT and GHG](#)
- [Evaluating Pricing Strategies, TDM Encyclopedia](#)
- [Transportation Systems Management and Operations](#)

How do you implement transportation demand management?

Implementing transportation demand management depends on what travel changes are needed and what might encourage commuters to use the commute alternatives that are appropriate for the area and population. Transportation demand management can target an entire area, such as a city or county; a highway corridor, often one that is significantly congested; a small local area, such as an employment park; or a single site.

However a general approach to implementing transportation demand management might include the following:

- Determine transportation demand management goals—Identify what needs to be accomplished and what goals will meet that need.
- Conduct a site analysis—Be site-specific and choose strategies that fit the unique circumstances of the setting and target population, e.g. examine characteristics that might discourage or encourage the use of commute alternatives and identify barriers to alternative modes and how those barriers can be minimized.
- Consider technology as an option—Include Intelligent Transportation Systems, e.g. active traffic management, traffic cameras, variable message signs, ramp meters, traffic data collectors, electric charging stations, etc.
- Build support of the community—Coordinate public awareness activities such as focus groups and workshops. Design and/or provide materials that support effective outreach, e.g. brochures, websites, bus and ferry schedules, maps of bicycle and pedestrian paths, etc.
- Develop benchmarks and analysis—Identify measurable performance targets and include performance measures that allow for continuing progress.



By reducing vehicle traffic and improving overall accessibility, transportation demand management provides multiple benefits, including the most cost effective way to improve the transportation system.

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Tools and Resources:

Rural Areas

- [Transportation Demand Management in Rural Areas](#)

Freight and Intermodal Connections

- [Getting the Goods without the Bads: Freight Transportation Demand Management Strategies to Reduce Urban Impacts](#)
- [Freight Transport Management, Increasing Commercial Vehicle Transport Efficiency](#)

Examples:

- [A Case Study of Nike's Commute Trip Reduction Program](#)—Nike saw an opportunity to save money by building fewer parking spaces and promoting carpools, vanpools, and other employee benefits involving alternative transportation.
- [Mid-Ohio Regional Planning Commission \(MORPC\), Chapter 5—Education and Encouragement, 5.8 Transportation Demand Management](#)—MORPC is working to balance the need for travel with the quality of life in communities, by providing accessible travel options.
- [TDM Case Studies and Commuter Testimonials](#)—If a super villain stopped all travel options, real people, real companies, and real communities would feel the effects
- [Mitigating Traffic Congestion, Summary of Case Study Experience](#)—FHWA provides over 25 in-depth case examples of demand-side programs implemented in a rich and varied range of locations.
- [What is TDM?](#)—It helps people use the infrastructure in place for transit, ridesharing, walking, biking, and telework.
- [Integrating Active Traffic and Travel Demand Management: A Holistic Approach to Congestion Management](#)—This shows the need for and the benefits from integrating two innovative concepts in congestion management: active traffic management and travel demand management.

For More Information:

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