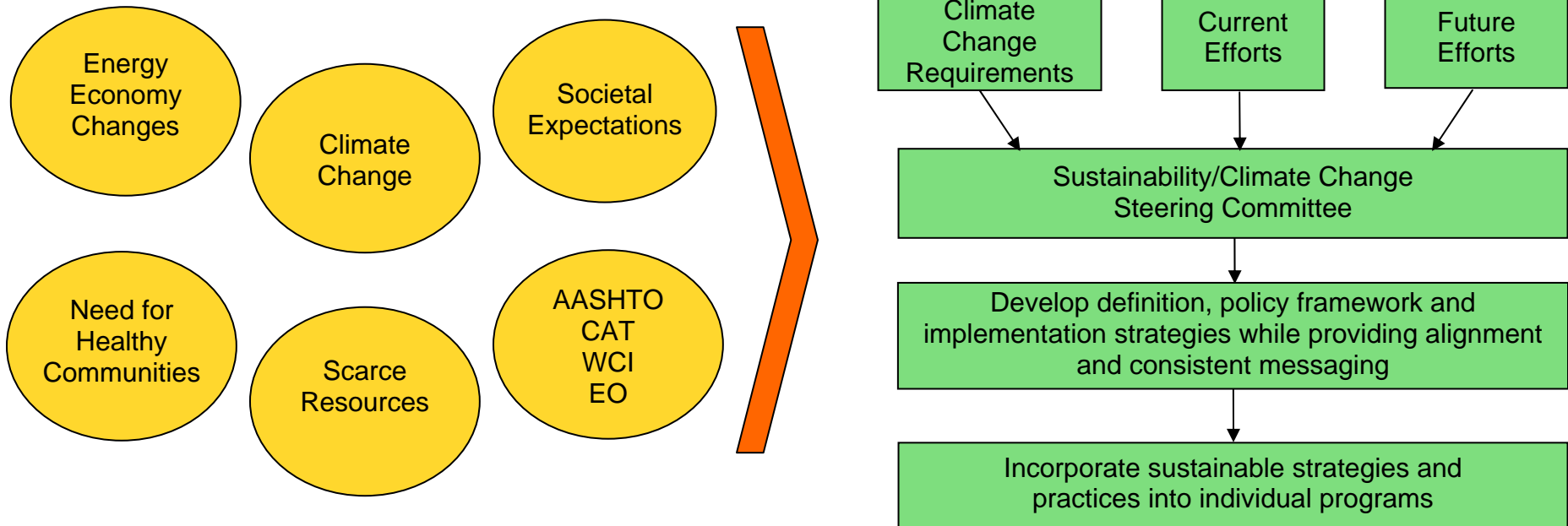


WSDOT Sustainable Transportation

Paula Hammond, Secretary, WSDOT



Working Definition:

- 1) Meeting the needs of the present while enhancing the ability of future generations to meet their own needs
- 2) A sustainable transportation system is a system that:
 - Is affordable, efficient and supports a vibrant economy
 - Meets social and environmental needs
 - Meets user mobility needs
 - Minimizes emissions
 - Reduces consumption of non-renewable resources
 - Reuses and recycles
 - Minimizes land use and noise pollution
 - Is utilized to its maximum potential
 - Reduces risks
 - Reduces costs
 - Durability = Sustainability

Levels of Sustainability:

- 1) Individual Employee (Citizen)
- 2) Agency Operational (Internal)
- 3) Agency System
- 4) Societal
(WSDOT's role in shaping the future)

Examples:

- Carpooling to meetings
 Recycling paper
 One coffee pot (not six)
- No Idle Policy
 Fuel efficient vehicles in fleet
 LEED Buildings
 Equipment utilization and resource sharing
- Use of RAP
 Signal Timing
 Adequate preservation and maintenance \$
 "Moving Washington"
- Driving changes in driver behavior
 Tolling fees that reward green vehicles
 Initiating Mass Transit HOV

Sustainable Transportation Workplan Development and Implementation

August 19, 2009

Background and Focus

The main focus of WSDOT's sustainability work is on implementing several recent climate change and sustainability laws and an executive order. The attached spreadsheet provides a detail of these tasks including, who is responsible, the deliverables and timeline for accomplishing the task.

Guiding Principles

1. Sustainable Transportation strategies will be:

- Based in science
- Balanced (providing a menu of options)
- Strategic (scalable and appropriate for different environments such as rural vs. urban)

2. WSDOT needs a full suite of strategies to reduce transportation greenhouse gas emissions. The primary ways to reduce greenhouse gas emissions from the transportation sector include:

- Reducing vehicle miles traveled (VMT)
- Improving vehicle technology
- Lowering the carbon content of fuels
- Improving the efficiency of the transportation system

3. Sustainable Transportation will require proactive steps to prepare for and adapt to the effects of climate change.

4. The ultimate goal of Sustainable Transportation is to support livable communities for the citizens of Washington State now and in the future.

5. Communicating the philosophy of Sustainable Transportation will require a robust communication effort to a broad range of audiences:

- WSDOT staff
- Members of the public
- Local, state, federal, and tribal officials
- Media

Organization

WSDOT has set up an executive steering committee that provides the overall guidance and direction on sustainability work, which includes climate change and energy related activities (see attached organizational chart). This group will report out to Executive

Management on a quarterly basis. The Steering Committee is supported by an Executive Advisory Committee with broad representation from key agency division directors.

There are several interagency teams that are focusing on coordinating the state’s work on climate change, sustainability and energy. See the attached chart for a list of the groups and the lead WSDOT staff for each group.

Implementation

The work has been divided into 13 main categories with a designated executive sponsor and a staff process owner who manages and tracks progress on the various tasks within a category.

<u>Focus Areas</u>	<u>Executive Sponsor</u>	<u>Process Owner</u>
GHG Reduction Strategies	Katy Taylor	Anne Criss
- <i>VMT reductions strategies</i>	<i>Katy Taylor</i>	<i>Keith Cotton</i>
- <i>Improve fuel</i>	<i>Jeff Doyle</i>	<i>Tonia Buell</i>
- <i>Vehicle technology</i>	<i>Jeff Doyle</i>	<i>Tonia Buell</i>
- <i>System Efficiencies</i>	<i>Ted Trepanier</i>	<i>Mike Dornfeld</i>
VMT Measurement	Brian Smith	Kathy Leotta
Research	Leni Oman	Kathy Lindquist
Low Carbon Fuel Standard	Jeff Doyle	Tonia Buell
West Coast Green Highway and Alternative Fuels Corridor	Jeff Doyle	Tonia Buell
Project Level Activities	Megan White	Carol Lee Roalkvam
Capital Funds Distribution	Katy Taylor	TBD
Materials	Tom Baker	TBD
Communication	Lloyd Brown	TBD
Agency Sustainability	Chris Christopher	Greg Hansen/Yvonne Medina
Preparation and Adaptation	Nancy Boyd	Carol Lee Roalkvam
Regional Engagement	Brian Smith	Elizabeth Robbins
National Engagement	Paula Hammond	Anne Criss

Key Emphasis Areas

Vehicle Miles Traveled

By Dec. 2010, WSDOT will develop estimates of vehicle miles traveled (VMT), evaluate and develop recommendations on existing VMT benchmarks to address low or no emission vehicles, and develop other strategies for reducing transportation emissions.

Task 1 and 2: Develop estimates of VMT and evaluate benchmarks, to be conducted in conjunction with ongoing work around VMT measurements as directed by RCW 47.01.440.

Task 3: Organize an initial meeting with the departments of Ecology and Commerce and a small stakeholder group comprised of environmental, business, and local government representatives. The group will be tasked with developing additional strategies for reducing GHG. There will be opportunities for interested parties and the public to comment on the development of this work most likely through open house presentations and/or through WSDOT's Climate Change website.

RCW 47.01.440 - Economic Study

RCW 47.01.440 directs WSDOT to report on anticipated impacts of vehicle miles traveled reduction strategies and specifically on the

1. Anticipated economic impacts on small businesses,
2. Anticipated impacts on low-income residents,
3. Anticipated impacts on agricultural employers,
4. Anticipated impacts on farm workers,
5. Anticipated impacts on distressed rural counties and counties with land base more than 50% in public or tribal lands.

Status: This work will be contracted through the Washington State Transportation Center (TRAC). Preliminary scoping indicates a study based on currently available information and data will cost approximately \$75,000. Partial funding has been earmarked and other possible funding sources identified. Development of a WSDOT Technical Advisory Committee is underway. The committee will work with TRAC to develop a scope of work and support project implementation.

Transportation Electrification

WSDOT is working with the Governor's Transportation Electrification Team (includes OFM, Commerce, Ecology, Revenue and GA) on a multi-state work plan to advance market adoption of electric vehicles on the west coast.

Task 1: Apply for federal grant funding for transportation electrification, including vehicles and charging infrastructure.

Status: The team is finalizing three scenarios for state involvement in transportation electrification, ranging from a cautious approach that lets private industry and the collective marketplace adapt to various clean-transportation regulations and incentives

(no state commitment to advance any particular technology), to an aggressive state role in providing leadership and investment in emerging technologies, including incentives for private purchase of next-generation vehicles and fleet purchases by the public sector. The Governor will decide which approach to take in carrying out EO 09-05 (3).

Alternative Fueling Infrastructure

WSDOT's Public/Private Partnerships Office is authorized to develop an alternative fuels corridor pilot project in the I-5 corridor in Washington. Part of the West Coast Green Highway Initiative, WSDOT would seek to form partnerships with existing businesses in the I-5 corridor to provide refueling and recharging services to the public. In areas where no private firms are available to participate, WSDOT could use state-owned rights-of-way, such as highway rest stops, as host sites for refueling and recharging services.

Task 1: Obtain approval by FHWA for use of interstate rights-of-way to serve as fueling stations of last resort by end of 2009.

Status: Federal approval must be obtained in order to use interstate rights-of-way as potential host sites. FHWA has not taken action on an application submitted back in Q4, 2008, and has not responded to a letter from CA, OR and WA dated April, 2009 requesting their action. Transportation Secretary LaHood was briefed on this innovative project during his visit to Washington State this summer, and directed his local FHWA staff to take action. However, no word has been received from the local FHWA office or from the D.C. headquarters offices.

Improving the efficiency of the transportation system

Many initiatives that reduce congestion will result in reduced greenhouse gasses. There is no single solution for traffic congestion, but experience has shown that we can reduce congestion by focusing on three key strategies: adding road capacity strategically, operating the system we have efficiently, and providing choices that help manage demand.

Moving Washington includes integrated corridor-specific plans to target the unique problems facing local areas.

Task 1: Add Capacity Strategically. Target the worst traffic-flow bottlenecks in our system and address specific bottleneck locations to improve mobility on longer stretches of our highways. The concept is that focusing on bottlenecks increases system efficiency and may result in significant GHG reductions.

Task 2: Operate Efficiently. Improve the function of existing roads by taking steps to smooth traffic flows and avoid, or reduce, situations that constrict roads. Collisions account for at least 25 percent of traffic backups, so making our roads safer will go a long way toward easing congestion and the associated greenhouse gases. Technology, such as electronic tolling, traffic management centers, traffic cameras, variable message signs, and ramp meters help drivers better adapt to changing circumstances and unforeseen events. Traditional traffic operations, such as optimizing traffic

signal timing and the Incident Response program, are necessary to maximize efficiency of day to day flow. New initiatives, such as the implementation of Active Traffic Management are anticipated further enhance safety by reducing many of the collisions associated with congestion.

Lowering carbon content of fuels

The state Department of Ecology is working in consultation with WSDOT and Commerce to assess whether the California low-carbon fuel standards – or other national standards – would best meet Washington’s greenhouse gas emissions reductions targets.

Task 1: Complete final report and recommendations to the Governor by June 30, 2010.

Status: This interagency LCFS team is developing a work plan to be implemented over the next 16 months that includes a series of workshops to engage transportation and fuels industry stakeholders to obtain input on potential application of an LCFS for Washington. The first workshop date has been tentatively scheduled for September 14, 2009.

Project-level activities

There is no federal guidance on how to address project-level greenhouse gas emissions and we expect that any approach is likely to change with new tools and information. WSDOT’s current approach recommends larger projects include information about climate change and greenhouse gas emissions in environmental impact statements and environmental assessments and that our smaller projects do not address climate change specifically.

Task 1: Continue outreach and education on the interim guidance on assessing project-level greenhouse gases and considering impacts of climate change in NEPA and SEPA documents through 2009.

Task 2: Finalize WSDOT’s guidance on assessing project-level greenhouse gases and considering impacts of climate change in NEPA and SEPA documents by June 2010.

Status: We encourage consistency between projects by setting out a standard analytical process and providing template language to maintain key messages:

Our approach begins by placing our project-level actions in context with regional and statewide efforts to reduce GHG. This is essential because greenhouse gas emissions generated from highway users are best addressed at the planning level.

We summarize the Governor’s efforts and WSDOT’s role. Where we are able to calculate energy use, we now provide estimates of the emissions associated with the proposed projects, compared with no action/no build.

In all projects we summarize the project-specific elements that are consistent with GHG reduction and climate change preparation and adaptation strategies.

The WSDOT Air/Energy Program provides technical support in tailoring the level of effort to individual projects.

Capital funds distribution

The Governor's Office is interested in providing guidance to the agencies on how to implement the section of SB 5560, which calls for considering GHG and VMT reductions when distributing capital funds. Keith Philips from the Governor's Office will likely be pulling together an interagency group, including WSDOT, to help develop the guidelines.

Materials

While not a major contributor of greenhouse gas emissions, highway materials, and especially pavement materials, offer opportunities for change. We continue to work on a wide variety of areas:

Task 1: Catalogue reductions in greenhouse gases since circa 1990, due to changing materials technology, especially pavement technology.

Task 2: Continue investigating the use of Warm Mix Asphalt and the potential for reducing energy consumption and greenhouse gas emissions.

Task 3: Continue investigating alternative hydraulic cements and other additives to reduce consumption of Portland cement.

Task 4: Continue to reduce, reuse and recycle pavements, applying the best technology at the lowest life cycle cost.

Status: We have reduced greenhouse gas emission through the use of reused asphalt pavement (RAP); better, long-lived pavement designs; and dowel-bar-retrofit installations and alternative hydraulic cements for concrete pavements. These efforts continue as part of the strategic directions for the State Materials Lab.

Communications

As an emerging issue in terms of the developing science and public and professional awareness, communications will be a focal point of the sustainable transportation program. Information and messaging will be consistent with other communications efforts: presentations, news releases, other agency Web pages, fact sheets, folios, handouts, etc. Communications will be coordinated with other state agencies.

Task 1: Develop informational materials that explain Sustainable Transportation goals and actions needed to achieve those goals.

Task 2: Educate the public on how they can act to reduce greenhouse gas emissions as it relates to transportation.

Task 3: Build awareness of how WSDOT is leading work to address Sustainable Transportation, both as an agency and for working with partners to manage the state's transportation system.

Task 4: Define how our sustainable transportation work is integrated and aligned with the Governor's Climate Change Challenge, "Moving Washington," and other agency's priorities.

Status: A communications plan and materials were developed for WSDOT climate change activities; these items are being reviewed and incorporated into the agency's Sustainable Transportation program. Public Transportation has ½ FTE funded for a communications position and is seeking matching funding for this full time effort.

Preparation/Adaptation

Climate change will cause changes to the environment that may jeopardize the transportation system in ways we are just beginning to understand. E2SSB 5560 directs WSDOT to work with Dept. of Ecology and other state agencies to develop an integrated climate change response strategy for Washington State. WSDOT is also directed to incorporate adaptation plans of action when planning and designing policy, programs, and projects.

Task 1: Conduct a vulnerability assessment of WSDOT-owned infrastructure.

Task 2: Monitor ongoing research and emerging science to consider implications regarding WSDOT management of storm water and drainage-related structures.

Task 3: Develop procedures for the Environmental, Design, and other manuals.

Status: Nancy and Carol Lee have been working closely with Dept. of Ecology to initiate the interagency team charged with developing the climate change response strategy. A cross-functional WSDOT preparation/adaptation work group was initiated in early 2009 and is on hiatus pending further executive endorsement as part of the agency's Sustainable Transportation initiative.

Regional Transportation Plans

The Department of Transportation will work with the Puget Sound Regional Council, Spokane Regional Transportation Council, Southwest WA Regional Transportation Council, and Thurston Regional Planning Council to cooperatively develop and adopt regional transportation plans that provide people with transportation alternatives, reduce GHG emissions and meet VMT benchmarks.

Task 1: Work with larger regional transportation planning organizations (RTPOs) to develop regional transportation plans and report on progress by Dec. 2011.

Status: This work is being discussed in consultation with the RTPO/MPO/WSDOT coordinating committee. WSDOT has been fully engaged with the Puget Sound Regional

Council's plan update and in preliminary discussions with the Thurston Regional Planning Council. WSDOT is working to advance ongoing efforts around VMT measurement (per direction in RCW 47.01.440) prior to engaging with the Spokane Regional Transportation Council and the Southwest Washington Regional Transportation Council. WSDOT anticipates engaging with the Spokane and the Southwest planning organizations within the next two months.

National Engagement

Paula Hammond is chairing the AASHTO climate change steering committee. Anne Criss is providing staff support. Larry Ehl and Anne Criss are monitoring and providing comments on federal climate change legislation through the Governor's Office. Several staff are engaged in TRB advisory panels for climate change and transportation research.