



SSTI REVIEW OF

Washington State DOT's Sustainability Efforts

State Smart Transportation Initiative

Transportation is a basic social and economic need. Providing affordable choices to meet transportation needs is an acknowledged responsibility of government. However, mobility solutions conceived a generation ago might not be economically or environmentally sustainable today.

The mission of the State Smart Transportation Initiative (SSTI) is to promote “smart transportation” practices that foster equitable economic development and environmental sustainability, while maintaining high standards of governmental efficiency and transparency.

SSTI operates in three ways:

1. As a community of practice, where participating agencies can learn together and share experiences as they implement innovative smart transportation policies.
2. As a source of direct technical assistance to these agencies on transformative and replicable smart transportation reform efforts.
3. As a resource to the wider transportation community, including local, state, and federal agencies, in its effort to reorient practice to changing social and financial demands.

SSTI is funded by the Rockefeller Foundation and the U.S. Department of Transportation.

SSTI Review of WSDOT’s Sustainability Efforts

This review was performed at the request of WSDOT to assess its sustainability efforts. SSTI convened a panel of experts that included people who have led transformative initiatives as heads of state DOTs. The panel combined practical and academic thinking. The expert panel reviewed background materials on WSDOT’s efforts and then interviewed stakeholders with varying perspectives on WSDOT’s work, including WSDOT staff; personnel from other state, federal, and local entities; and representatives from the not-for-profit sector. Intended as a peer review rather than an audit, the expert panel members brought their knowledge of transportation policy and trends to bear in assessing where WSDOT has succeeded and how its sustainability efforts could be strengthened.

WSDOT personnel were candid in their assessment of the department’s challenges, even as they shared their pride at leading the nation in numerous initiatives, including performance measurement and demand management. Special thanks go to Secretary Paula Hammond and to Seth Stark, WSDOT Sustainable Transportation Lead, who organized the site visit. All of the people interviewed were welcoming and eager to share their perspectives.

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SSTI Review
of Washington State
DOT's Sustainability
Efforts

Executive Summary: What SSTI found in Washington

The Washington State Department of Transportation (WSDOT)

is credited with numerous initiatives and programs that have been viewed as benchmarks against which other states' efforts can be measured. In light of such a record, the State Smart Transportation Initiative (SSTI) team examined WSDOT's sustainability efforts and focused on how different components related to one another and the extent to which WSDOT's sustainability efforts could be more strategic.

WSDOT is at the forefront in two important areas: performance measurement and demand management, both areas where WSDOT has been active for a decade or more and has developed tools that are a model for others. Measurement is central to the agency, and performance monitoring has become a guiding principle that has led to enhanced transparency and credibility of agency actions. While still searching for the ultimate sustainability outcome measures that are most informative and action-inducing, WSDOT has developed some distinct measures for sustainability elements. In the area of demand management, Washington's Commute Trip Reduction law continues to reduce the drive-alone rates by leveraging mandated partnerships with employers. Washington also leads in active traffic management, using tolling as a demand management strategy.

WSDOT faces significant challenges primarily in two areas. First is the coming revenue shortfall when a large part of gas tax revenues will go toward paying off bond debt, leaving insufficient funds for system preservation and maintenance. From a Triple Bottom Line perspective, Washington pays a great deal of attention to environmental and social balance sheets, but less so to fiscal sustainability. The stark reality is that payment on the bond debt will leave the agency unable to pay for preservation and maintenance of the system, with this happening within the next several years. Sustainability must encompass the long-lasting investment decisions that create transportation choices and thus must consider the financial foundation upon which such decisions depend.

The second challenge lies in the substance of the agency's sustainability effort and the consistency of its message. While the Moving Washington policy message articulates the current agency mission, the focus has been on road congestion, not overall mobility and access, and not on system preservation and maintenance. WSDOT needs to develop a stronger central strategic sustainability framework that takes into account the new fiscal realities, recognizes the need to address land use, and incorporates



The Tacoma Narrows Bridge incorporates sustainability elements including HOV lanes, capacity for future transit, and electronic tolling.

multimodalism. A strategic framework will enable WSDOT to assert more leadership with the legislature and foster engagement with local governments and environmental organizations.

This report recommends nine actions that WSDOT officials should take to enhance its sustainability effort:

1. Focus on big picture sustainability goals and coherence of the sustainability agenda at headquarters and in regions.
2. Get control over selection and management of transportation investments.
3. Put sustainability into the field.
4. Demonstrate sustainability concepts and characteristics in strategies, programs, projects, or targeted initiatives.
5. Connect sustainability to a brand or message.
6. Make sustainability “real” to a range of contexts and participants.
7. Incorporate sustainability into the standard operating procedures of the agency.
8. Better integrate transportation and land-use decisions.
9. Train WSDOT staff for internal consistency and external messaging.

WSDOT has been empowered, directed, and constrained in a variety of ways by the state legislature and referendums over the last 20 years.

Chapter 1. Setting the Context

A state DOT's sustainability efforts are often framed by legislative, regulatory, and political factors that influence its substance and direction. WSDOT has been empowered, directed, and constrained in a variety of ways by the state legislature and referendums over the last 20 years. Highlights include:

- In 1990, the state legislature passed the Growth Management Act (GMA) that was intended as a bottom-up approach to foster urban development and investment consistency within and between areas. The Act mandated the creation of growth management plans that included 20-year visioning; elements relating to land use, transportation, housing, and capital facilities; and a finding of "concurrency" between growth and transportation improvements. Urban growth boundaries were established for each city (and other incorporated areas). The Department of Commerce reviews and can challenge the locally developed plans. The GMA is an important institutional context for pursuing land-use and transportation strategies relating to sustainable development and provides a much stronger foundation for considering land-use strategies than found in many other states. But significantly, the GMA excludes state transportation investment from its concurrency requirement. Bringing state transportation infrastructure spending into the concurrency framework has been considered, but has not been done as a matter of either law (by the legislature) or policy (by WSDOT).
- In 1991, the Commute Trip Reduction (CTR) law aimed at reducing travel demand by encouraging employees to use non-single occupant vehicles for work trips or to compress their work week. Employers with 100 or more employees at a single worksite were to make "good faith efforts" to implement commute trip reduction strategies to meet specific goals: a 15% reduction in vehicle miles traveled (VMT) by 1995, a 25% reduction by 1997, and a 35% reduction by 1999 (later amended to 20% by 1997, 25% by 1999, and 35% by 2005). In 2006, the legislature adopted changes to the CTR law to make the program more targeted. The modified CTR program requires local governments in urban growth areas with the highest levels of traffic congestion to develop and implement plans to reduce drive-alone trips and VMT. Every two years, employers are to survey their employees' travel. Local jurisdictions then assemble this data and analyze progress toward meeting the CTR goals. Jurisdictions are required to report on progress toward reducing drive-alone trips and VMT and account for the expenditure of state funds every quarter. WSDOT's role in this program is primarily one of providing technical assistance to jurisdictions and employers, which includes training, data collection support, and documentation on best practices.
- Initiative 695, limiting revenue intake to no more than \$30 per car in excise tax, passed in 1999 and drastically cut the revenue stream from

the state motor vehicle excise tax. Virtually all transportation projects essentially came to a halt.

- A Blue Ribbon Commission, created in 2000, recommended a tax package centered on new gas taxes. This was a response to a “congestion crisis,” which saw Seattle ranked as the most congested urban area in the country by the Texas Transportation Institute. At the time, much of the discussion related to creating jobs and supporting economic growth by relieving congestion. The Commission also recommended WSDOT implement “accountability” reforms as a pre-condition for new funding. It has been very hard for WSDOT over a decade to re-frame the issue away from this focus on “congestion relief.”
- In 2001, the legislature passed a tax increase package largely centered on gas tax revenues (9¢ per gallon) and which was dedicated to a legislatively defined set of projects financed through bonding. However, adoption of this tax/project package was subject to a voter referendum, which rejected the law.
- In 2003, the state legislature passed a “nickel” gas tax/project package with 160 projects identified for funding, again primarily focused on relieving congestion. Some non-gas fees were also raised for a “multimodal account” for spending on investments other than highway purposes to which gas taxes are limited by state constitution. The legislature again relied on bonding in order to front-load project delivery as rapidly as WSDOT could proceed, thus beginning a legacy of using ongoing revenue streams to cover debt service.

As the 2003/2005 funding comes to an end over the next several years, difficult challenges lie ahead for WSDOT’s investment program.



A mountain highway in southwest Washington State.

- The legislature passed the Transportation Partnership Account tax/ project package in 2005, again going with bonding to show voters early project results. Citizens placed a repeal initiative on the ballot (Initiative 912). With strong opposition from business and labor, Initiative 912 failed. The 2005 package provided \$15.5 billion to build a set of legislatively-defined projects.
- WSDOT officials have been focusing their efforts since 2003 on delivering the 2003/2005 projects on-time and on-budget. The department hired new staff and consultants. As will be noted later, this ramping up of staff and consulting support has left WSDOT with a painful challenge of downsizing, now that the 2003/2005 tax revenue construction period is coming to an end in three to five years. As WSDOT officials termed it, there is a need for a different business model at the core workforce level.

REDUCING EMISSIONS FROM TRANSPORTATION

The Washington State legislature passed a law in 2008 that calls for Washington to reduce climate-altering greenhouse gases emissions according to this timeline:

- Return to 1990 emission levels by 2020.
- Bring emissions to 25% below 1990 levels by 2035.
- Bring emissions to 50% below 1990 levels by 2050.

Additional legal steps taken for reducing emissions from transportation include:

- California "Clean Car" Greenhouse Gas Tailpipe Standards (RCW 70.120A.010)
- Minimum renewable fuel content requirements and fuel quality standards (RCW 19.11.110, RCW 19.11.120)
- Mandatory disclosure of greenhouse gas emissions for new cars (RCW 70.120A.050)
- Electric vehicles planning and infrastructure provisions (Chapter 459 Law of 2009)
- Establishment of an alternative fuels corridor pilot project along I-5 (RCW 47.38.070)
- Approval of substitutes for ozone-depleting and high global-warming-potential vehicle refrigerants (RCW 46.37.470)
- Commute trip reduction program required from all large employers (RCW 70.94.537)
- Statutory benchmarks for reducing vehicle miles traveled (RCW 47.01.440)

Source: <http://www.ecy.wa.gov/climatechange/laws.htm>

- The focus on infrastructure expansion was also motivated by a 2007 performance audit, which concluded that WSDOT was not doing enough to reduce congestion. One of the WSDOT actions in response was to brand “congestion reduction” as one of the key Departmental thrusts in a policy called Moving Washington (2008), to some extent replacing a “Fix-It-First” focus. The concern with short-term congestion reduction is sometimes at odds with sustainability objectives that address congestion in the longer run.
- The legislature adopted a greenhouse gas (GHG) framework in 2008 that calls for reducing overall GHG emissions to 1990 levels by 2020; reducing GHG emissions to 25% below 1990 levels by 2035; and reducing GHG emissions to 50% below 1990 levels by 2050. Given that 47% of the GHG emissions in the state originate from the transportation sector, it was clear that transportation would have to play a significant role in achieving these goals, and yet the legislation occurred with minimal DOT input. The legislature also set VMT goals:
 1. Decrease the annual per-capita VMT by 18% by 2020
 2. Decrease the annual per-capita VMT by 30% by 2035
 3. Decrease the annual per-capita VMT by 50% by 2050

WSDOT is supporting several megaprojects currently in various levels of project development.

WSDOT officials did not have significant input on these benchmarks, nor were they asked by legislators what the implications or consequences might be of such benchmarks to the transportation program. DOT officials have interpreted these, along with other legislative actions, as intimations that the DOT is not viewed by key decision-makers as an agency that could help achieve sustainability goals (and in fact might be viewed as part of the problem), and that increased effort on the part of Departmental officials was needed to convey WSDOT’s sustainability record.

As the 2003/2005 funding comes to an end over the next several years, some difficult challenges lie ahead for WSDOT’s investment program unless new revenues are added to WSDOT’s portfolio. Projections for the 2015–17 biennium budget show the current gasoline tax of 37.5¢ per gallon leaves only 8¢ to support maintenance and operations.

Under these projections, debt service will require 71% of the 25.5¢ state share of fuel tax revenue. This leaves 8¢ per gallon for maintenance, operations, preservation, safety, and congestion-relief projects on the existing network, an amount that is wholly inadequate to even preserve or maintain the existing system. Enhancing sustainability concepts in WSDOT’s practices will likely be even more challenging when there is very little funding to support even basic preservation and maintenance.

WSDOT is supporting several megaprojects currently in various levels of project development, in some cases creating significant challenges in project financing, gaining community support, and incorporating

sustainability characteristics. For example, the Alaskan Way Viaduct project has seen a variety of alternatives and strategies proposed, all of them costly and controversial. The SR 520 project, at a total cost of \$4.65 billion (of which \$2.6 billion is funded), will include lane pricing as a revenue source. The Columbia River project in Vancouver will be a multi-billion dollar project that has already been recognized nationally for its efforts to incorporate sustainable concepts into project design. The project scopes and ultimate designs for these and other projects will surface from the project planning and project development processes associated with each. However, given the significant transportation funding challenge facing the state, mega-

billion dollar projects need to be very carefully scoped to face the reality of limited resources. As has been found in other states, perhaps the new fiscal reality leads not to the question, "how much is this project going to cost?" but rather "what can we do given this amount of money?"

WASHINGTON'S PRIMARY TRANSPORTATION REVENUE SOURCE IS LIMITED, COMMITTED, AND DOESN'T KEEP UP WITH INFLATION AND GROWING DEMAND

76% of all state transportation investments are financed by the gas tax.

37.5¢ Per gallon Washington state gas tax



-9.5¢ 261 specific transportation projects statewide* (2005 Transportation Partnership Projects)



-5¢ 160 specific transportation projects statewide (2003 Nickel Package projects)



23¢ Base Gas Tax



-11¢ Supports **cities** and **counties** for local roads



-4¢ Supports **debt service** to reduce bond debt that funded past highway and ferry projects

8¢ Remains for **maintenance, operations, preservation, safety improvements, and congestion relief projects** for state highways and ferries

* Of the 9.5¢, 8.5¢ is used by the state for highway projects, 1¢ goes to cities and counties for improvements to streets and roads.

WSDOT's most significant successes

WSDOT is known for its system performance monitoring and accountability efforts. The Gray Notebook, in which the department reports project status and progress toward benchmark achievement, is an example of project accountability and transparency that has received national recognition. This performance monitoring ethic as applied to WSDOT project activities, however, has raised questions about how one can measure progress toward sustainability goals as well as WSDOT's ability to track outcomes that it can only partially control.

Even with the emphasis on delivering the 2003/2005 capital projects, WSDOT has recognized the importance of improving transportation system performance through means other than major new capital investments. Moving Washington articulated operational efficiency and demand management as two of the three legs of the strategic stool to address the congestion problem. Further, it tagged the third leg, new capacity additions, with the qualifier “strategic.” That WSDOT has succeeded in a challenging political setting in articulating, defending, and even pushing ahead with operational efficiency and demand management approaches to managing highway assets in Washington is an important sustainability gain. The focus on road pricing on SR 167, SR 520, and I-405, for example, is intended as a way of managing peak-hour demand as well as providing a revenue source for expanding and operating transportation facilities. A variable speed limit demonstration in Seattle (also known as active road management) is another example of where WSDOT is leading the nation in the application of intelligent transportation system technologies to improve system efficiency.

WSDOT also has a record in multimodal transportation that includes: operating the nation’s largest ferry system (and supporting it with gas tax revenues); subsidizing the Amtrak Cascades intercity passenger service; actively saving and marketing short-line freight rail lines in eastern Washington; investing in track improvements for Class 1 railroads; building, operating, and monitoring adherence to performance standards on the 225-mile Puget Sound HOV network with direct-access HOV ramps; implementing the SR 520 Urban Partnership Agreement that includes significant commitments to transit access and reliability (as well as using variable tolling for demand management); participating in a statewide park-and-ride lot program; incorporating bicycle and pedestrian facilities into highway design (e.g., I-90 and SR 16 New Narrows Bridge); supporting the largest vanpool program in the country; and managing a regional mobility grant program for communities and regions. Conspicuously absent from the multimodal record is a state role in transit, with localities carrying a significant share of funding.

WSDOT has developed multiple initiatives in different functional areas that individually represent an effort to



WHAT IS MOVING WASHINGTON?

Moving Washington started out as a communication tool for WSDOT’s work to reduce congestion and emissions. It has expanded to become the framework WSDOT uses to talk about how they preserve their transportation system and optimize its performance. The evolution of this logo reflects their full mission and the refinement of the **Moving Washington** effort to communicate what they do as an agency and how they do it. The revision of the **Moving Washington** logo in 2011 is part of WSDOT’s response to SSTI’s policy recommendations.

WHAT’S NEW?

- The addition of the hub of “Maintain and Keep Safe” explicitly states WSDOT’s emphasis on preservation and safety.
- The “Operate Efficiently” blade was moved to the most prominent place on the propeller.

King County Metro manages the largest publicly-owned commuter van program in the nation.



achieve a sustainability outcome. For example, WSDOT has been active in reducing its reliance on petroleum-based fuels by requiring the purchase of hybrid vehicles for its own fleet, better managing herbicide use and materials used for snow and ice removal, composting roadkill, connecting habitats, more aggressively promoting stormwater control, developing wetland mitigation banks, and incorporating sustainability into the project development process for large projects like the State Route 520 Bridge Replacement and the Columbia River Crossing project.

WSDOT has produced several documents and reports that describe and highlight agency efforts in sustainability, such as the 2003 Interim Sustainability Plan, the 2008 Sustainability Plan and Progress Report, and the 2010 Sustainable Transportation Report. Although these plans and reports lay out a framework for sustainability efforts within WSDOT, the framework falls short as an investment strategy and direction for the agency's portfolio of projects and responsibilities.

Unlike most other state DOTs, WSDOT has identified a high-level "Sustainability Team" that meets every six to eight weeks to coordinate agency-wide efforts that are associated with sustainability. A planning group consisting of representatives from maintenance, operations, environmental, adaptation, materials, and planning meets bi-weekly to identify and oversee sustainability initiatives. The group has established goals with specific action items and "process owners" in charge of implementation. The WSDOT sustainability program lead coordinates the activities of the Sustainability Team and monitors legislative activities and sustainability activities at other agencies.

Although the WSDOT experience in working with other agencies (e.g., Ecology and Commerce) on statewide sustainability initiatives has been mixed, the most recent multi-agency effort on climate change/adaptation has worked well. The agencies created a climate advisory team, along with a transportation implementation working group. A climate action team is developing strategies to implement recommendations from the working group. There was a sense from WSDOT officials that the evolution of this multi-agency effort and the mutual recognition of the substantive contributions from each partner have led to a collaboration model that could work in future efforts.

Washington's Commute Trip Reduction (CTR) program has made a noticeable impact on travel demand. Strategies include vanpools (highest number in the nation), flexible work strategies, and transit passes, among others. In 2006, the program expanded to bring in smaller employers through a voluntary program based at local Growth and Transportation Efficiency Centers (GTEC).

The seven GTEC centers are located in some of the most congested, and highest trip-generating, urban neighborhoods with limited parking, many small employers, and a desire to focus on smart-growth and land-use policies. GTECs have allowed an enhanced, locally driven, community-focused implementation of CTR. Their flexible state framework allows for unique and effective local interpretation, new public-private partnerships, and maximum leveraging of local funds, investments, and policy changes.

The CTR program has demonstrated effects in reducing both VMT and the number of solo drivers. For example, from 2007/2008 to 2009/2010, the drive alone rate at CTR affected worksites decreased by 5% and is now about 13 percentage points lower than the national average. This compares to the reduction in the drive alone rate for the trip to work for Washington as a whole, which was just 1.4%, or for the nation, which was flat. The drive alone rate reduction between 2007/08 and 2009/10 at CTR-affected worksites served by GTECs was even higher, at 8.6%.

WSDOT's sustainability activities are still a work in progress and important steps remain ahead

WSDOT's sustainability actions around pricing, fuels, and metrics individually stand alone as national models. However, there does not seem to be any overarching connection or policy framework that lends itself to describing WSDOT's sustainability efforts as a program or strategic direction of the agency. This suggests a need for better branding of sustainability as an agency priority (or at least of finding a brand that sustainability can logically fit into) and improved communications/marketing with both internal and external constituencies. Developing an overarching connection among the many different sustainability actions should be an important

The Gray Notebook is an example of project accountability and transparency that has received national recognition.

priority. One way to do this would be to explicitly orient the department toward system preservation and multimodalism, requiring a higher bar for capacity projects – a move that, when implemented, might also reduce the tendency of earmarking legislators to define the WSDOT program if clear standards were in place.

WSDOT's assets (putting aside the ferry system) are in surprisingly good shape. The Maintenance Accounting Program (MAP), for example, that emerged around 1990 is a national model for setting and marking progress against key maintenance targets.

However, this preservation record and commitment are now at severe risk from the funding crisis exacerbated by the debt leveraging strategies adopted in 2003 and 2005. Asset preservation is the very cornerstone of sustainability. The fact that it is at risk in Washington today is a huge challenge to the state.

Although WSDOT has developed some important and exciting sustainability initiatives, it appears that most of these efforts are the result of interactions and discussions among staff in the central office, and thus "owned" by the headquarters. In some cases, regional office staff and local planning staff are not sure what they are supposed to be doing with respect to fostering a sustainability agenda, or for that matter that such an agenda for WSDOT even exists. A key task is to become clear about the core elements of an agency strategic sustainability framework and focus them internally at headquarters, in the regions, and in external communications. WSDOT should develop an agency-wide strategy for articulating what sustainability means, perhaps augmented with examples of sustainability-related project actions (e.g., context sensitive solutions or "complete streets" examples).

Though Washington has one of the strongest growth management laws in the country, WSDOT tends not to be

TRANSPORTATION DEMAND MANAGEMENT IN WASHINGTON STATE

Commute Trip Reduction

Washington State's Commute Trip Reduction (CTR) Law was designed to improve air quality, reduce traffic congestion, and reduce the consumption of petroleum fuels through employer-based programs that discourage driving alone. By encouraging people to carpool, vanpool, ride the bus, walk, bike, work from home, or compress their workweek, the CTR program helps to make the transportation system work more efficiently. A decreased proportion of drive-alone commutes reduces delay for everyone traveling on the system.

A 2009 report to the Washington legislature credited CTR with removing 28,000 vehicles from Washington roadways every weekday morning. The benefits of that volume reduction include:

- **Reduced congestion:** CTR reduced delay by 7.6% in the Central Puget Sound Region in 2009.
- **Emissions reductions:** By reducing VMT by 62 million miles each year between 2007 and 2009, CTR participants prevented 27,490 metric tons of greenhouse gas (GHG) emissions annually.
- **Energy consumption reductions:** The reduced VMT equates to an annual savings of 3 million gallons of gas.
- **Cost-effective results:** In 2009, state investment in CTR provided a congestion reduction benefit in Central Puget Sound worth \$35 for every \$1 invested.

Source: 2009 CTR Report to the Washington State Legislature. www.wsdot.wa.gov/transit/library.

very involved in land-use issues. There is little prospect that a state agency could (or should) dictate land uses, but WSDOT, with its VMT reduction charge, could assert itself in this arena more than it does. It could set aside funding, a la TIGER, for VMT-reducing projects that by definition would require good land-use practices. It might also look at using its access

WASHINGTON'S GTECS

One component of Washington's Commute Trip Reduction law is the Growth and Transportation Efficiency Center Program (GTEC). This program gives WSDOT a way to implement its efficiency goals at the local level.

Through GTEC, WSDOT offers grants to cities to manage their own programs for optimizing local transportation networks. Municipalities are required to match state grant money dollar for dollar. These funds support a broad range of program activities. At the seven established GTECs, these have included:

- Branding initiatives
- Marketing materials (websites, walking maps, bicycle guides, transit passes, promotional items)
- Construction of an indoor bike locker
- Development of revised parking management strategy
- One-on-one transportation consultations with local employers
- An audit of walkability conditions
- Completion of a greenhouse gas inventory for government operations
- CTR-relevant revisions to a local master plan
- City vanpool subsidies

In 2011, WSDOT revisited GTEC's program design to investigate ways to include more suburban areas of Washington. Current GTEC criteria make these areas less competitive than denser metro areas. Future iterations of the GTEC concept may be expanded to go beyond "transportation efficiency centers" to consider "transportation efficiency corridors." Other recommendations WSDOT developed for a more inclusive GTEC program include:

- Simplifying the GTEC application
- Introducing credit guarantees
- Integrating GTEC status into the funding prioritization criteria of other state agencies

Part of making sustainability relevant to key constituencies is describing sustainability in terms that are understandable to transportation system users and decision makers.

management powers to influence development plans, and it should develop scenario planning tools to demonstrate the long-term costs of poor land-use decisions with MPOs and local governments.

As is true in many states, distinct political and transportation differences exist between the urban and rural areas of Washington. For example, the more urban parts of the state have adopted fairly aggressive sustainability policies and land-use measures that are not widely accepted in the more rural areas (primarily east of the Cascade Mountains). A state policy focus on greenhouse gas reduction and climate change that is to be accomplished in some part through a reduction in vehicle miles traveled is likely a “non-starter” in rural Washington where VMT is viewed as a means of supporting a livelihood, whereas a strategy for improving the movement of trucks near the western ports could be viewed by the more rural, agriculturally-oriented parts of the state as an initiative that would benefit them.



Bellevue land use supports pedestrians.

Part of making sustainability relevant to key constituencies is describing sustainability in terms that are understandable to transportation system users and decision-makers. For example, the eastern regions of Washington understand the economic importance of having a transportation system that works and the need to keep this system in good physical and operating condition. In addition, there is a general understanding that the economic success of the eastern agricultural and export trade portions of the state depend on convenient and reliable access to the Ports of Seattle and Tacoma. The concept of sustainability would be more accepted in this part of the state if it could be linked to and explained in terms of economic benefit.

Institutionalizing any new concept into an organization's culture takes time and often relies on trial and error. Although ahead of many other state DOTs, WSDOT in many ways is still in the early stages of developing a sustainability ethic among its staff and incorporating sustainability into the agency's culture. A prerequisite for doing this is aligning major high level agency strategies with sustainability and making sure the staff and others understand the relationships. For example, what seems to be missing from the sustainability framework in terms of emphasis are the critical linkages to fiscal sustainability, land use and growth management, multimodalism versus traffic congestion reduction, and the effective engagement on these issues with localities.

One way of expediting the staff learning process is to identify opportunities for incorporating sustainability into WSDOT's standard operating procedures. Thus, for example, WSDOT should develop guidance on how sustainability can be considered in corridor planning, review the 21 design manuals currently in use and change them where appropriate to include sustainability practice (and perhaps consolidate into a smaller number of manuals), and develop and incorporate sustainability-related outcomes into WSDOT's nationally recognized performance monitoring system,

extending the Triple Bottom Line designation that has been embraced by the Department to the Gray Notebook.

WSDOT has a unique opportunity in the four megaprojects in various stages of project development (Alaskan Way Viaduct, SR 520, Spokane North/South Freeway and the Columbia River Crossing) to illustrate how sustainability concepts can be incorporated into various elements of project design. The department has made progress on several of these projects. Sustainability concepts are woven into the Alaskan Way Viaduct project (large bike/pedestrian investments, historic preservation commitments, big transit mitigation package, etc.) and on the Columbia River Crossing project. The new Narrows Bridge at Tacoma incorporates significant sustainability elements – HOV lanes, capacity for future transit, electronic tolling, and a bike crossing connecting Pierce and Kitsap Counties.

How sustainability concepts show up in project design is one of the ways that such concepts become “real” to both WSDOT internal and external audiences. The Columbia River Crossing project is an example (although it is not clear the extent to which the suggested actions will actually be adopted in project design). By using these highly visible projects to highlight sustainability in project design, WSDOT can show the benefits of producing a more sustainable project design.

Washington has a remarkable diversity and abundance of transit programs (with 30+ communities electing to tax themselves to pay for transit services). An impressive program of HOV lanes that support transit service and the push for Express Toll lanes to support transit speed and reliability are indications that WSDOT supports transit in its own way. However, it is not actively engaged in transit operations or finance. There is limited attention given to transit in its sustainability documentation, and very little discussion of the transit/land-use/multimodal

520 TOLLING PROJECT

A 1963 four-lane bridge on State Route (SR) 520 is being replaced with a six-lane crossing and a bike trail. This project will be partially financed with tolls. Tolling is expected to pay for at least \$1 billion of the \$4.6 billion project. The project is still nearly \$2 billion short of having the needed financing. Toll rates on the bridge would vary by time of day. Toll rates for two-axle passenger vehicles are shown below.

Weekdays	Good to Go!™ Pass	Pay By Mail	Pay By Plate	Customer Initiated Payment
11 p.m. to 5 a.m.	\$0.00	\$0.00	\$0.00	\$0.00
5 a.m. to 6 a.m.	\$1.60	\$3.10	\$1.85	\$2.60
6 a.m. to 7 a.m.	\$2.80	\$4.30	\$3.05	\$3.80
7 a.m. to 9 a.m.	\$3.50	\$5.00	\$3.75	\$4.50
9 a.m. to 10 a.m.	\$2.80	\$4.30	\$3.05	\$3.80
10 a.m. to 2 p.m.	\$2.25	\$3.75	\$2.50	\$3.25
2 p.m. to 3 p.m.	\$2.80	\$4.30	\$3.05	\$3.80
3 p.m. to 6 p.m.	\$3.50	\$5.00	\$3.75	\$4.50
6 p.m. to 7 p.m.	\$2.80	\$4.30	\$3.05	\$3.80
7 p.m. to 9 p.m.	\$2.25	\$3.75	\$2.50	\$3.25
9 p.m. to 11 p.m.	\$1.60	\$3.10	\$1.85	\$2.60



The expansion of this bridge on State Route 520 will be financed in part with electronic tolling.

mobility nexus that is often the cornerstone of a sustainability strategy. It is perhaps unfair to criticize an agency for not participating in a program area for which by law it has little or no responsibility (historically, transit decisions have been the prerogative of local governments). However, if WSDOT is serious about multimodal transportation, commute trip reduction, VMT reduction, growth management principles and GHG emissions reduction, then it needs to play a more active role in transit policy and investment.

Chapter 2. Surviving in a Turbulent Environment

WSDOT is an extremely progressive state DOT in many ways. It is known nationally for major initiatives in environmental stewardship, performance-based decision-making, innovative applications of transportation technologies, and road pricing. However, it is also an agency that is subject to legislative and gubernatorial policy requirements that place responsibilities on WSDOT to produce results in policy areas over which it has no direct control, while at the same time delivering transportation projects that it has been entrusted with through public referendums.

Particularly in the areas of greenhouse gas (GHG) emissions, climate change, and energy conservation, the transportation sector is expected to play an important role in achieving targets or goals, even though WSDOT's participation has not been well defined nor have WSDOT officials been part of the policy formulation. Most noteworthy in this regard was the law "requiring" a 50% reduction in 1990 statewide greenhouse gas emission levels by 2050. Apparently, the law is ambiguous enough that there is still some question as to whether the 50% reduction was mandatory or aspirational. The reduction was not sector-specific, but given that the transportation sector contributes 47% of the state's greenhouse gases, it will clearly have to be a major source of GHG emission reduction.

Given this importance of the transportation sector, another legislative mandate established reduction benchmarks in per-capita VMT leading up to a 50% reduction by 2050. An executive order (09-05) required WSDOT, in consultation with the Departments of Commerce and Ecology, and in collaboration with local governments, business, and environmental representatives to:

- Estimate current and future statewide VMT levels;
- Evaluate potential changes in the VMT reduction benchmarks as appropriate to address low- or no-emission vehicles;
- Develop additional strategies to reduce emissions from the transportation sector; and
- Report the findings and recommendations to the governor.

WSDOT has conducted analyses assuming what it considers very aggressive applications of VMT-reducing strategies and has only been able to reach a 10% VMT reduction level by 2050. These findings have been reported to the governor's office and the legislature.

The VMT reduction bill highlights the divergent views of WSDOT that are held both by constituents and by other parts of state government: is WSDOT simply "an emitter" (and thus the target of change) or is it a part of the way that Washington will meet its goal of sustainable, equitable, and efficient mobility (and therefore a part of the solution)?

WSDOT is an extremely progressive state DOT in many ways. However, it is also an agency that is subject to legislative and gubernatorial policy requirements.

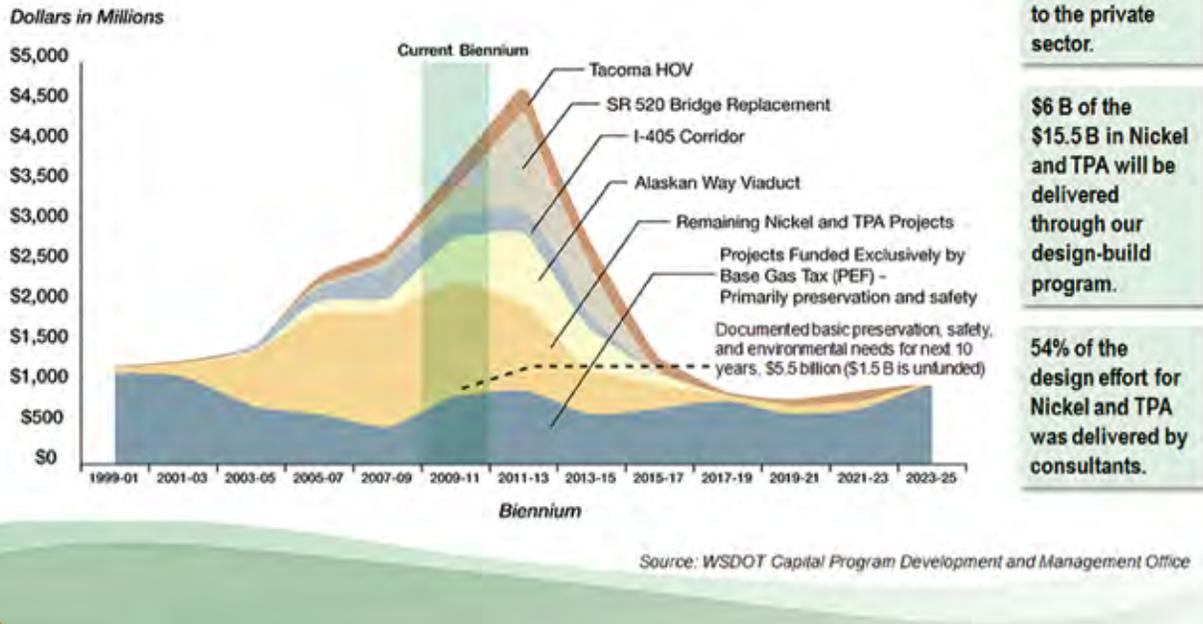
The VMT/GHG requirements do not seem to have prompted WSDOT to adopt a significantly more multimodal agenda or to use a project prioritization process more firmly grounded in a broad range of sustainability strategies (e.g., transit, pedestrian/bicycle infrastructure, land use, etc.). There are at least three reasons why WSDOT's project selection and highway emphasis has not been greatly changed by these laws.

1. WSDOT was already very supportive of bike/pedestrian activities and demand-management strategies such as ride sharing, telecommuting, and trip reduction through compact development. Washington has more vanpools than any other state and they tend to be used for long distance trips (60 miles average) by fairly sizeable groups (eight person average). Bike and pedestrian usage is high, with extremely active statewide advocacy groups and ambitious visions that have been reinforced through the Growth Management Act. A Commuter Trip Reduction Board has a long history and appears to have become a fundamental tool for both state and local planning.
2. The history of project prioritization in Washington is characterized by strong legislative influence on the list of projects that WSDOT is required to deliver and that consume a large percentage of WSDOT's resources. Whereas some DOTs might face a "pig in the python" distortion of their capital pipelines because of an accumulated need (the "baby-boom bridges") or a large project (Boston's Central Artery/Third Harbor Tunnel project), WSDOT has been the beneficiary of two statewide referenda that together funded 421 projects selected by the legislature. By 2016, this "Mt. Rainier" program of projects (or at least its funding) starts to wind down and is succeeded by reduced funding, redundant staff, and debt. While the projects selected by the legislature were broadly supported, they are consuming 13.5¢ of every 37.5¢ generated by the state gas tax and will leave WSDOT with unmet maintenance, preservation, and safety needs that approximate \$1.5 billion over a 10-year period.
3. WSDOT is constitutionally prohibited from spending its principal state revenue (gas tax) on transit (other than ferries, which are considered marine highways for some purposes) and on non-motorized modes that do not directly benefit the motoring public. While the scope of this prohibition appears somewhat erratic, it has inhibited any substantial state funding for transit. State funding for transit is estimated to be less than 3%; 70% of transit's funding in Washington comes from local sales taxes, approximately 17% from the Federal Transit Administration (FTA), and the balance from fares, advertising, etc. As a result, transit plays a limited role in WSDOT's strategic approach to reducing VMT and GHG. This stove-piped funding has inhibited WSDOT's ability to treat various modes of transport as a connected system, and it has discouraged some

WSDOT Highway Construction Program

All funds from the 2003 and 2005 gas tax increases are committed.

2011 Governor-proposed budget request - program total with select mega-projects highlighted



regions from making a long-term investment in transit. Some MPOs and transit authorities have been fairly aggressive in flexing federal funds to transit, such as Seattle, which obtained FTA funding for light rail and commuter rail projects.

Another state policy that helps define WSDOT's approach toward transportation planning and community land-use and growth policies is the state's Growth Management Act. The Growth Management Act, administered mainly by the Department of Commerce, required each local government to establish a growth boundary for its urban area and to classify the areas outside the urban area either as rural or as a resource area. While the state established the mandate to plan and the overarching policy framework (anti-sprawl, etc.), and also provides the population targets that each city/town must plan to accommodate, the GMA fostered local control since both the boundaries and the definitions of rural/urban are the product of local decision-making.

The GMA also demands that each local comprehensive plan meet a concurrency test by showing that, concurrent with the envisioned growth (defined as within a six-year period), the area will have the transportation



This roundabout is designed to accommodate a bike lane.

infrastructure necessary for the growth recommended in the comprehensive plan. However, this "truth in planning" has been limited by the fact that the state highway system is not subject to concurrency, i.e., it can continue to be either the solution (if extra highway capacity is to be sought) or the problem (if state highway congestion backs up into the local network or induces new sprawl) outside the reach of the plans created for the GMA.

The GMA envisions regional integration, and it created Regional Transportation Planning Organizations that often overlap with MPOs. However, the requirement for regional integration is not strong and need not result in more than a lack of conflict between adjacent plans. It has not played any role in WSDOT's selecting or prioritizing among capacity expansion projects – congestion reduction on a facility was identified by some as the sole factor for choosing among projects.

Chapter 3. Incremental Evolution toward a Sustainability “Umbrella”

WSDOT’s sustainability journey to date has been strongly influenced by a combination of factors. First, the legislatively-defined requirements and executive orders described earlier have caused WSDOT to be involved in a variety of sustainability initiatives that were never part of the WSDOT program agenda. This has resulted in WSDOT often being engaged with other state agencies where it is unclear what is to be achieved or how accomplishment should be measured. In addition, other state agencies are often given responsibility for planning or actions that affect the transportation system, but with no requirement for WSDOT involvement.

Second, WSDOT staff have initiated many actions and initiatives in what is considered the core business of a state transportation agency that are recognized by the profession as being part of an agency sustainability strategy. In large part this is due to an environmental ethic that is found in many WSDOT staff members, as well as a statewide sensitivity to environmental impacts that WSDOT has had to consider for decades when considering expansion of the state’s transportation system. Some of these nationally recognized actions and initiatives include programs to recycle pavement materials, reduce energy use in agency operations, incorporate bio-fuels into agency fleet operations and in construction activities, establish wetland mitigation banks, and promote habitat protection strategies.

Third, agency leadership has over the years fostered a more environmentally friendly approach to transportation system expansion and project development. Successive Secretaries have pushed the agency to incorporate environmental considerations in a meaningful way in a wide range of organizational activities. WSDOT is positioned to be part of leading-edge efforts such as road pricing, climate adaptation, intelligent transportation system (ITS) technology applications, and if a more strategic sustainability focus is incorporated, promotion of a multimodal system vision that is part of a larger sustainable transportation system perspective.

These different sources of sustainability efforts in WSDOT, each important in its own right as a motivating factor for an agency sustainability focus, have resulted in a range of effort and program development that in some cases are disconnected from one another. For example, the following list of legislative directives and executive orders gives some sense of the activities that WSDOT is engaged in. Such directives have required WSDOT to:

- Report energy usage to assess the need for energy audits.
- Install outlets for electric vehicle charging in its state fleet parking and maintenance facilities.
- Participate in the development of a statewide integrated climate change response strategy.

The Department of Commerce is responsible for providing guidance to local communities in implementing the state’s Growth Management Act.



Everett Station is an award-winning example of multimodal planning.

- Implement, monitor, and conduct economic assessment and analysis tasks for legislatively-defined VMT reduction benchmarks. Participate in a statewide effort to reduce GHG emissions in relation to target goals for the state. Quantify and reduce GHG emissions from agency activities.
- To the extent practicable, use 40% biofuels or electricity in fleet, vessels, and construction equipment by 2013.
- To the extent practicable, use 100% biofuels or electricity fleet, vessels, and construction equipment by 2015.
- Consult and collaborate with the Departments of Ecology and Commerce, local governments, and other stakeholders in the estimation of current and future levels of VMT; the evaluation of potential changes to the VMT benchmarks; and the development of additional strategies to reduce emissions from the transportation sector.
- Work cooperatively with the four largest metropolitan planning organizations to develop and adopt regional transportation plans that will provide additional transportation alternatives and reduce GHG emissions and annual per-capita VMT.
- Work with the Office of the Governor in the development of a West Coast Green Highway Initiative.
- Assess low-carbon fuel standards with the Department of Commerce and determine which standards would best meet Washington's GHG emissions reduction targets.

Perhaps the most challenging aspect of WSDOT's early sustainability efforts occurred in the multi-agency environment that developed several critical state sustainability-related initiatives and policies. While 47% of the state's

GHG emissions originate from the transportation sector, WSDOT had to seek representation in the early policy development process. Since that time WSDOT has increased communication with its sister state agencies in an effort to become more involved in transportation related policy development. Recently, the Ecology, Transportation, and Commerce (or Environment, Transportation, and Climate Change) sub-cabinet meetings have provided a forum for inter-agency communication and policy coordination.

A legislatively-directed climate adaptation effort to develop a statewide climate change response strategy has shown a more substantive role for WSDOT. WSDOT was co-chair of the statewide adaptation effort and led the Topic Advisory Group focused on Built Environment, Infrastructure and Communities. WSDOT has recently engaged with the Department of Commerce on the development of the 2011 State Energy Strategy.

The Department of Commerce is responsible for providing guidance to local communities in implementing the state’s Growth Management Act and is in the process of updating guidelines for how transportation fits into such an effort, including concepts like complete streets, regional trails, and multimodal planning. A broad representation of WSDOT’s offices is involved in this effort and is collaborating with Commerce to produce this guidance. Recognizing both the local governments’ and the state’s perspectives for desired outcomes, WSDOT regional and other staff are helping to implement more coordinated planning practices with local jurisdictions, the state’s Regional Transportation Planning Organizations, and Metropolitan Planning Organizations. Working toward better internal coordination, WSDOT is bringing together staff members who review local plans and regulations to support state guidance. This collective effort will be working on better defining the WSDOT agency review process and identifying opportunities to express key agency messages to the public and local governments. WSDOT’s Design Assistance unit regularly provides technical assistance to local governments for developing the transportation element of a growth management plan, and thus has a strong basis for contributing to these guidelines.

In summary, many agencies that have developed sustainability programs or strategies usually do so in response to leadership directives, staff initiatives, and/or in reaction to external forces. In WSDOT’s case, the evolution of a sustainability strategy has been in response to each, but more so in response to legislative and gubernatorial initiatives. This has resulted in a wide range of sustainability efforts, often disconnected from each other from the perspective of an overarching strategic focus, and primarily focused on environmental issues, only one dimension of the Triple Bottom Line concept of sustainability.

This became very clear in several of the discussions with WSDOT staff members and representatives from partner agencies in which the term

Other state agencies are often given responsibility for planning or actions that affect the transportation system, but with no requirement for WSDOT involvement.

"sustainability strategy" or "program" was questioned as to its applicability to WSDOT. The term "sustainability umbrella" was generally accepted as a concept that could be used to describe the many, often disparate, efforts that in some way related to sustainability.

This sustainability umbrella, however, has not occurred without some disconnects. There are significant differences with the concept of sustainability between eastern and western parts of the state. Climate change is broadly endorsed near Puget Sound, but not east of the Cascades. Areas such as Yakima County care about congestion if it slows farm products heading for Washington's ports, but VMT reduction is not seen as relevant to their rural roads. The one unifying goal seems to be a desire for jobs.

To some extent WSDOT also seems to be the product of unconnected values. While the megaprojects address short-term congestion concerns and promise to improve safety, they will (at best) maintain the functionality of important portions of the network. They may or may not improve growth options; with limited exceptions they are unlikely to enhance the sense of place or contribute to pedestrian- and transit-oriented development patterns. They will consume billions of dollars already appropriated and billions more yet to be found.

The 2009–2011 percentage of funding dedicated to preservation or maintenance, 11% and 5% of the entire budget, respectively, is lower than other states that have adopted a sustainability agenda. This may reflect the fact that Washington has a higher growth rate than some of the states stressing "Fix-It-First," but as WSDOT approaches the "Mt. Rainier cliff" at the end of the current legislatively-defined capital funding program it will face a difficult task balancing the need to complete the megaprojects and the need to keep the rest of the network (state and local roads, bridges, and ferries) in good repair. For example, the ferry system faces a \$1 billion need in vessel replacements; while 90% of Washington's bridges are in good condition, some 50% of local roads are not; and WSDOT's core program will require \$1.5 billion for the state highway system over a 10 year period, exclusive of the megaprojects and legislatively mandated projects. WSDOT will also be challenged when staff cuts follow funding reductions and the WSDOT downsizes to a "new normal" that addresses a core program/purpose, with other activities added or not as funding may allow. The imminent need for WSDOT to define that core was expressed by one MPO leader who suggested that WSDOT should "get focused" – a suggestion that reflects other states' aims to "right size."

Chapter 4. Institutionalizing Sustainability in WSDOT

WSDOT has taken many important steps to institutionalize sustainability as an organizing concept into agency activities. WSDOT has identified a high-level "Sustainability Team" that meets every 6 to 8 weeks to coordinate agency-wide efforts associated with sustainability. A planning group consisting of representatives from maintenance, operations, environmental, adaptation, materials, and planning meets bi-weekly to identify and oversee sustainability initiatives. Goals have been established with specific action items and process owners in charge of implementation. The sustainability program lead has also been charged with coordinating activities of the Sustainability Team and monitoring legislative activities and sustainability activities at other agencies. This effort goes far beyond what is found in most state DOTs.

Changing SOPs can create a new focus for agency activities.

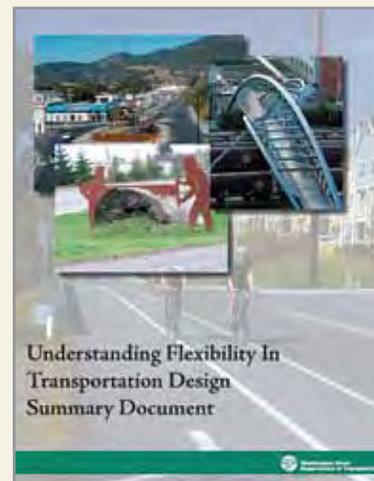
Institutionalizing a broadened and more strategic concept of sustainability in WSDOT's case means finding effective ways of adding new organizing concepts and a strategic framework to the best of the sustainability values, accomplishments, and products that are already inherent in the agency (and defending them in the coming fiscal crisis of the system preservation agenda). Changing an agency's standard operating procedures is one of the most successful means of creating a new focus or perspective on agency activities. For state DOTs, this usually means design guides or manuals, planning requirements, and performance monitoring.

Design

WSDOT currently has 21 guides that provide direction on different elements of project design. Of these, only the design guide on roadside management has incorporated sustainability concepts. There seems to be some disagreement as to whether an effort to incorporate sustainability approaches into the other 20 would be more worthwhile than simply restructuring the design guidance in total, for instance by reducing the number of manuals and promoting more flexibility in project design.

WSDOT has also been a national leader in adopting Context Sensitive Solutions (CSS) approaches to design, although it seems that the actual experience with CSS design approaches on WSDOT projects has been mixed. WSDOT has not yet adopted a Complete Streets policy.

WSDOT CONTEXT SENSITIVE SOLUTIONS GUIDEBOOK



Traditionally, the WSDOT Design Manual has focused on freeway and rural highway-type designs. WSDOT now offers a companion document, *Understanding Flexibility in Transportation Design*, which provides conceptual guidance for the application of context sensitive design in the project development process.

The Columbia River Crossing project, however, is an example of where WSDOT has made a commitment to sustainability in project design. The project will showcase what is possible when sustainability principles guide important decisions with respect to ultimate project design. This megaproject consists (at this point in time) of a new crossing of the Columbia River, freeway/interchange improvements on both sides of the river, a new light rail line connecting Vancouver to Portland, and pedestrian and bicycle lanes connecting to paths on both river banks. Both WSDOT and the Oregon DOT have committed themselves to addressing sustainability in a variety of ways, including materials recycling, use of warm pavement, biofuel use in construction equipment, energy conservation through LED, and solar technologies; and on a bigger scale by promoting multimodal solutions to the congestion, safety, and accessibility problems being faced in the corridor. Interestingly, the sustainability effort started by forming a sustainability technical committee consisting of both state DOTs, the Cities of Portland and Vancouver, the respective metropolitan planning organizations in the region, and the regional transit agencies. This group started its efforts by establishing a vision for what sustainability meant for a project of this magnitude. The commitment to sustainability needs to tie design sustainability to financial sustainability if the goal is a built project that actually incorporates the sustainability vision. Otherwise, promised design features may be cut, because they don't fit within the current budget.

Planning requirements

One of the successful strategies used by other state DOTs (e.g., Pennsylvania) interested in fostering sustainability principles in project and program development has been to move the consideration of such principles earlier in the planning and project development processes. For a typical state DOT, this means incorporating sustainability into statewide or corridor transportation plans. Interestingly, WSDOT's record in this regard is mixed.

WSDOT has produced plans and follow-on progress reports that focus on sustainability, e.g., the Interim Sustainability Plan (2003), 2008 Sustainability Plan and Progress Report, and 2010 Sustainable Transportation Report. These plans and reports lay out a framework for considering sustainability within WSDOT and can serve as a starting point.

However, WSDOT does not in general seem to give much attention to sustainability in corridor studies, and in particular the linkage to land use and urban development. This in part could be caused by the Growth Management Act giving primary responsibility for regional planning and land use to Regional Transportation Planning Organizations (and thus is not the purview of WSDOT), or due to the fact that historically WSDOT selects project priorities based on performance and/or condition ratings—the land use context is often seen as a secondary consideration at best.

While this has some legitimacy in that WSDOT must consider the statewide purpose of an asset as well as its local context, it can also lead to choices that are not well supported by the host communities because they do not reflect the community's vision for growth. Nevertheless, WSDOT has promoted scenario planning for local projects and has worked closely with other agencies to provide technical assistance teams to localities on topics ranging from school access patterns to healthy walking to development impacts. WSDOT has also worked with FHWA to implement a Main Street program. In specific settings such as these, WSDOT has done a good job of providing local officials with better options for decision-making.

The challenges facing WSDOT in corridor planning are demonstrated by the example of local municipalities along I-5 that have conducted their own corridor analyses and then advocated for large expansion projects, producing further disconnect with sustainability principles. By partnering with the community, WSDOT's task is to meld its transportation skills with the municipality's land-use controls to reduce demand and produce a far more sustainable result. WSDOT does not have land-use authority, of course, but it has some cards to play. For one thing, it is armed with a VMT-reduction mandate, which can only be accomplished with more travel-efficient development. It could also consider setting aside funding for transportation improvements in travel-efficient settings, a la the Atlanta Regional Commission's Livable Centers Initiative. It could review its mitigation and access management policies to make sure these incentivize travel-efficient land uses. And, with its local constituents, it could develop scenario planning tools that demonstrate to land-use authorities the effects on demand, both positive and negative, of various land-use plans.

WSDOT is known among state DOTs as a national leader in using performance-based decision making.

Performance monitoring

WSDOT is known among state DOTs as a national leader in using performance-based decision-making. The best example of how this has occurred at WSDOT is the Gray Notebook. Created in 2001, the Gray Notebook is a quarterly performance report that describes the status of the agency's key projects and program initiatives. A primary motivation for the development of the Gray Notebook was general skepticism on the part of top state leaders and the general public on the ability of WSDOT to produce an investment program on-time and on-budget. A key aspect of WSDOT's performance measuring approach was to develop an "adaptive and dynamic performance measurement to meet changing needs." In addition, program reporting was also intended to foster a "one-DOT" mentality among WSDOT staff.

With respect to sustainability, the performance-oriented culture of WSDOT (and the implicit suggestions that "what is measured, counts") has led to important questions as to how sustainable transportation practices can be incorporated even more into the quarterly reporting. WSDOT has

reorganized the Gray Notebook to be more in line with the strategic plan and the state's transportation policy goals. Thus, a stronger linkage will be made between projects and goals relating to safety, preservation, mobility/congestion, environment, stewardship, and economic vitality. Most of these relate in some fashion to sustainability goals. However, WSDOT is still facing a challenge in developing a credible strategy for incorporating additional sustainability concepts into the Gray Notebook. WSDOT is exploring how to indicate for each project or initiative the Triple Bottom Line factor that a particular project affects.

WSDOT officials have raised important questions concerning sustainability measurement – What needs to be measured in addition to what already is? How is progress and success determined? What is the baseline against which sustainable practices are to be assessed? How can the agency expand the existing knowledge base most efficiently? Answering these questions will go a long way to institutionalizing sustainability into the organizational culture.

Chapter 5. Recommendations Toward A Comprehensive Sustainability Strategy

Individual programs and initiatives in WSDOT, especially those relating to environmental quality and materials, are national role models. There are a lot of “dots” in the agency with a staff willing and anxious to help connect the dots. The following actions would go a long way to providing a comprehensive and comprehensible rationale for WSDOT’s sustainability strategy.

There are a lot of “dots” in the agency with a staff willing and anxious to help connect the dots.

- 1. The first order of business is to focus on big picture sustainability goals and coherence of the sustainability agenda at headquarters and in the regions:** “Moving Washington” and Sustainable Transportation are seen by some as being counter to one another, causing confusion and conflict for both internal and external audiences. On top of that, the sustainability goals cannot succeed without fiscal sustainability, and the preservation imperative, which is clearly at risk given the fiscal situation, cannot be successful without dealing with fiscal sustainability. Once these are reconciled, the next step is ...
- 2. Managing project selection and assets:** Asset management needs to be WSDOT’s top priority. The 2003 and 2005 legislative selection of 421 expansion projects will soon require debt service payments equaling almost 18¢ of every 25.5¢ WSDOT is allocated from the gas tax. Prioritizing projects in a tightly constrained fiscal environment will be a challenge even without more legislative earmarks. WSDOT has a strong asset management program, a program that could serve as an important foundation for developing and monitoring sustainability actions. Attending to asset management presents an opportunity for ...
- 3. Putting sustainability into the field:** Whether rightly or wrongly, many felt that WSDOT’s sustainability efforts were really the focus of staff in headquarters and that not much had been done to explain or demonstrate what sustainability really meant “on the ground.” As many noted, there is a proliferation of groups and committees formed on many different topics that fall under the sustainability umbrella, but which do not register in the regions or in many of the planning organizations. A challenge will be to create a sustainability narrative that can be used in the field to explain how sustainability concepts can be integrated more fully into day-to-day operations. WSDOT should develop a strategy for ...
- 4. Demonstrating sustainability concepts and characteristics in strategies, programs, projects, or targeted initiatives:** WSDOT needs to inject the broader concepts of multimodalism, fiscal sustainability, land use, etc., more forcefully into its sustainability effort. Examples of how these concepts are integrally linked to sustainability in the Washington context should be identified and used to illustrate such linkage. In addition, just as SR 520 is viewed as the proof of concept



Tacoma Link helps connect downtown Tacoma with the surrounding population.

for road pricing in Washington, so too could WSDOT invest in different types of projects that showcase some aspect of sustainable planning, design, construction, operations, or maintenance. WSDOT already has several excellent examples of sustainable practices in operations and maintenance, so it would not be too difficult to highlight those projects that have already shown their value. More difficult, but more important to demonstrate, are the big ideas of multimodalism and the effect of land-use policies in managing the demand side. A useful example of the former might be a no- or low-build road project, made possible by incorporating bike, ped, transit, or rail modes. On the latter, WSDOT could identify a case where location-efficient land use has mitigated demand. Before undertaking a targeted implementation strategy, it is important for WSDOT to be ...

5. Connecting sustainability to a brand or message: Moving Washington was pointed to by many as a success in branding the state's transportation investment strategy, in this case starting with safety, preservation, and operations, then leading to strategic capacity expansion. However, the Moving Washington message has become "muddied" with the seeming emphasis on capacity expansion. It is important to both internal and external participants that some sense of what sustainability means in understandable terms is provided by WSDOT. It is important to recognize, however, that "sustainability" could very well be interpreted differently by different actors, in Washington most noticeably by region of the state. A big challenge is to visualize transportation challenges statewide – so that Puget Sound can see Yakima's problems, and vice versa, and that both can understand how individual pieces of the transportation network benefit the economic well-being of the entire state. Right now, regions are balkanized and see their respective areas in competition with each other both for resources and in policy goals. Thus, this implies ...

6. Making sustainability "real" to a range of contexts and participants: Sustainability is usually defined along three dimensions—environmental stewardship, economic development and social equity. Most of the emphasis in WSDOT to date has been on the environmental dimension. However, some parts of the state are likely to respond more favorably to the economic dimension, and perhaps others to the equity argument. This is certainly the case in the eastern part of the state where transportation is directly linked to livelihoods and economic survival. Economic vitality is one of the six policy goals that the legislature has established for transportation agencies, but it cannot be achieved if there is no fiscal sustainability for maintaining the system. It will help in reinforcing the sustainability message if WSDOT staff itself knows what is desired and by ...

7. Incorporating sustainability into the standard operating procedures of the agency:

It is often difficult to convey a sustainability message to everyone in an organization, and it is impossible to influence the mindset of future employees. However, one of the most important actions WSDOT can undertake is to integrate sustainability principles into the day-to-day planning, programming, investment, design, and operations activities of the agency. This will be particularly important as WSDOT cuts back on staff and more emphasis is placed on a core business model. The first effort should be to expand capacity expansion criteria to encompass land-use considerations and go beyond congestion measures. Another effort should be to incorporate multimodalism into a reorganization and rewriting of the WSDOT design manuals, in order to guide planners and designers in ways of thinking about alternatives to new lane miles. Twenty-one manuals, of which only one even discusses sustainability concepts and none of which incorporates complete streets principles, is unwieldy and not conducive to presenting a common foundation for sustainability concepts or for encouraging flexible and innovative design. Clear guidance on corridor planning that includes sustainability concepts would assist staff. A third effort should be an examination of how the Department's asset management program could be used to ensure the upkeep of the existing system and identify sustainability opportunities or monitor the status of prior applications. One of the key messages in this guidance should be ...

WASHINGTON'S TRANSPORTATION POLICY GOALS

In 2010, six statewide transportation policy goals were re-affirmed in statute to guide the management of the state's transportation system.

- **Preservation:** To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services
- **Safety:** To ensure the safety and security of transportation customers and the transportation system
- **Mobility:** To improve the predictable movement of goods and people throughout Washington
- **Environment:** To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment
- **Stewardship:** To continuously improve the quality, effectiveness, and efficiency of the transportation system
- **Economic Vitality:** To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods

8. Better integrating transportation and land-use decisions: Although Washington is known as a strong growth management state, the lack of actual mechanisms in the structure of growth management by which effective transportation planning can be made a factor in good land-use planning suggests that Washington's growth management performance is not as strong as its reputation. In reality WSDOT and regional/local planning and land-use considerations are often disconnected. WSDOT's current collaboration with the Department of Commerce on a transportation guidance update under the Growth Management Act offers an opportunity for further integration of land use and transportation. The approach ultimately should be to make it easier (i.e., cheaper and



WSDOT operates the nation's largest ferry system.

more attractive) to potential residents and businesses to develop density in urban areas where growth is desired (e.g., by making schools an attractive draw). Tolling highways, for example, could make sprawl a much more expensive proposition, and other tools may be potentially useful as well. This raises the need for ...

9. Training WSDOT staff for internal consistency and external messaging: Three points were raised that show the need for additional training opportunities for staff. First, staff noted that tight budgets limit their ability to attend conferences and seminars that would update their skills. Second, the geographic divide between urban and rural areas makes it harder to have a consistent internal approach. Third, the lack of interaction with others who are working on Washington's sustainability agenda (e.g., environmental groups, MPOs, and legislative staff) magnifies the outside perception of WSDOT as a part of the problem rather than a part of the solution. Better use might be made of the University of Washington resources to have trainings/seminars where WSDOT staff had more opportunity to interact with other transportation and land-use actors, including some who think that "WSDOT is only an asphalt and steel organization."

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In addition to the review team, representatives from two other state departments of transportation, **John Halikowski**, Director of Arizona Department of Transportation, and **Julie Hunkins**, Manager at the Quality Enhancement Unit of North Carolina Department of Transportation, contributed to the review.



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