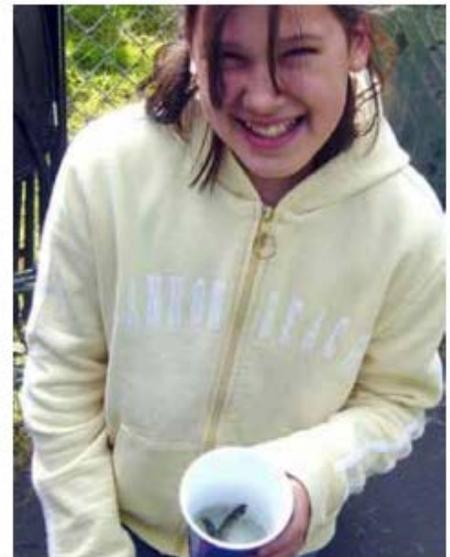

SUSTAINABLE TRANSPORTATION ACTION PLAN: 2015 – 2017



Introduction

WSDOT's Sustainable Transportation Action Plan (Action Plan) describes major WSDOT activities that promote sustainable practices and clean transportation in Washington state for the 2015 – 2017 fiscal biennium (July 1, 2015 – June 30, 2017). The Action Plan is meant to be a snapshot of the 2015 – 2017 biennium and is intended for use by WSDOT and external audiences. The Action Plan will be updated each biennium to form a record of agency intent and progress over time.

WSDOT Sustainability

WSDOT makes decisions and takes actions that promote the conservation of resources for future generations by focusing on the balance of economic, environmental and community needs. Sustainable transportation is WSDOT's approach for an adaptable, integrated, multimodal statewide transportation system that supports Washington's economy, preserves the environment and enhances our communities. It's a strategically managed and operated system that meets present needs without compromising the future.

Why is a Multimodal System Important to Sustainability?

A balanced multimodal transportation system offers a range of transportation modes (walking, bicycling, public transit and automobiles). A multimodal system is structured toward providing transportation facilities and services better designed to achieve broader community goals, such as increasing travel choices, improving economic competitiveness and enhancing communities.

A multimodal system which has less congestion and fewer trips made in single occupant vehicles run on fossil fuels creates a community with a smaller carbon footprint. A multimodal transportation system provides the base structure for achieving a sustainable transportation system that supports Washington's economy, preserves the environment and enhances our communities.

By operating the system efficiently and managing demand, we create travel reliability. By considering the impact of the state's system on the economy, the environment and communities in a cost-effective and resource-responsible manner, we act responsibly and sustainably.

Strategic Direction

WSDOT sustainability efforts are distributed throughout the agency and through partnerships with external stakeholders.

WSDOT employees are encouraged to promote sustainable transportation with a focus on the following:

- Supporting reductions in vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions.
- Encouraging more cost-effective and sustainable practices for construction and operations.
- Facilitating efficient and sustainable transportation for users.
- Researching and promoting the use of new technologies.
- Promoting alternative fuels and electric vehicle infrastructure.
- Preparing our communities and the transportation system to adapt to climate change.

WSDOT's vision is to be the best in providing a sustainable and integrated multimodal transportation system. Sustainability is one of WSDOT's core values. Strategic efforts at the state and agency level support the realization of that vision.

Results Washington

Governor Inslee's [Results Washington](#) includes indicators of success for five goal areas. WSDOT is directly responsible for some actions that support indicators related to clean transportation, and sustainable and efficient infrastructure.

WSDOT will also contribute to other goals such as quality of life, vibrant communities, clean and restored habitat, and healthy air and water.

Executive Order 14-04

The Governor's [Executive Order 14-04](#) *Washington Carbon Pollution Reduction and Clean Energy Action* directs state agencies to reduce carbon emissions and improve energy independence. WSDOT is directed to encourage electrical vehicle (EV) use, expand the EV network, and improve multimodal planning to chart the path to a "*multimodal, coordinated, cost-effective, safe and low-carbon transportation system.*"

Results WSDOT

WSDOT’s strategic plan [Results WSDOT](#) frames future agency actions to ensure WSDOT is the leader in providing a sustainable, integrated and multimodal transportation system. It calls on WSDOT employees to be innovative and demonstrate that we are trustworthy leaders. Results WSDOT provides a clear roadmap that links six goals with a pathway to achieve them:

- | | |
|------------------------------|----------------------------|
| 1. Strategic investments | 4. Organizational strength |
| 2. Modal integration | 5. Community engagement |
| 3. Environmental stewardship | 6. Smart technology |

Goal 3: Environmental Stewardship: *“Promote sustainable practices to reduce greenhouse gas emissions and protect natural habitat and water quality.”* This goal and its intended outcomes below are central to the actions identified in the Action Plan.

- Improve environmental conditions: leave it better than before.
- Improve energy efficiency of transportation systems and WSDOT operations.
- Reduce WSDOT’s overall carbon footprint.

Relationship to Other WSDOT Initiatives

- The WSDOT Executive Team’s focus areas for 2016 are:
 1. **Implement Practical Solutions** and expand the program to incorporate life cycle management of the transportation infrastructure entrusted to us.
 2. A **Workforce Development** initiative to address compensation, succession planning and professional development issues that have been on the back burner for far too long.
 3. An **Inclusion Strategy** to ensure that our workforce looks more like all of the people we serve and do business with, and that we are sensitive to the cultures of all of the communities we serve.

Practical Solutions: Practical Solutions is a modern, performance-based approach to transportation decision-making. This data-driven approach uses the latest tools and performance measures to support decision making and considers not just roads, but the entire transportation system. Low cost efficiencies in operating highways, ferries, transit and rail, and reducing travel demand save money and avoid building costly new capacity.

Community engagement is a key factor in helping to develop Practical Solutions. Practical Solutions are found when all stakeholders work together to identify the purpose of action, assess data from all parts of the system, and examine a range of options before investment decisions are made. A new Corridor Sketch process is being used to present a range of strategies developed through performance-based planning. WSDOT is working on developing these sketches across the state to identify practical strategies and solutions that reflect a community's character.

The Practical Solutions approach will continue to evolve as WSDOT works with our partners, communities, citizens and businesses to find ways to bring low cost, effective solutions to keep transportation vital for generations to come.

Many of the actions contained in the Action Plan directly support WSDOT's implementation of practical solutions. For example, there are actions that optimize the transportation system's performance, such as the LED highway lighting pilot project. Other actions focus on improving the multimodal performance and meeting growing needs of communities.

Plan Organization

The Action Plan summarizes and groups actions by the desired outcome of the sustainable practice or action for the 2015 – 2017 biennium. However, readers should understand that most actions have multiple sustainable benefits and should look at this organization as a matter of convenience, rather than separation into non-associated categories. These actions are primarily those which WSDOT controls or influences through agency support. The Action Plan is organized into seven categorical themes:

1. Air quality/clean air
2. Active transportation/healthy communities
3. Asset management/extending the life of our assets
4. Grant making as a way to make change
5. System efficiency
6. Energy efficiency/clean energy
7. Reduce, reuse and recycle

For more information, please contact WSDOT Sustainable Transportation Lead [Seth Stark](#).

Topics Covered in the Action Plan

The following is an alphabetical list of the topic areas of WSDOT’s sustainable actions and practices highlighted in the Action Plan for the 2015 – 2017 biennium:

Topic	Action(s)
○ Aviation	45
○ Bicycle and Pedestrian Travel	8 & 30
○ Climate Preparedness	12 & 13
○ Commute Trip Reduction	35
○ Electric Vehicle Infrastructure	54 & 55
○ Energy Consumption and Waste	11, 64, 65 & 66
○ Facility Energy Efficiency	9, 52 & 53
○ Ferry Vessel Efficiency	47, 48, 49 & 50
○ Fish Passage	20 & 21
○ Freight Emissions	6, 7 & 46
○ Greenhouse Gas Emissions	1, 2 & 3
○ Highway Lighting Efficiency	57, 58 & 59
○ Highway Maintenance Sustainability	14, 15 & 16
○ Land Fleet Emissions	4, 5 & 51
○ Multimodal Planning	37, 38, 39, 40, 41, 42 & 43
○ Native Habitats	22 & 23
○ Operational Efficiencies	10, 31, 32, 33 & 34
○ Passenger Rail	44 & 56
○ Purchase Environmentally Preferred Products	60 & 61
○ Reduce, Reuse, and Recycle (When Disposing of Supplies)	62 & 63
○ Transit Sustainability	27, 28 & 29
○ Transportation Demand Management	24, 25, 26 & 36
○ Water Quality	17, 18 & 19

2015 – 2017 WSDOT Sustainable Transportation Actions

Each action is linked to a WSDOT webpage where you can find more information about the project or office leading the effort to complete it. For more information, please contact [Seth Stark](#), WSDOT Sustainable Transportation.

Theme	Topic	#	Action
Air Quality / Clean Air	Reduce Agency Greenhouse Gas Emissions	1	Report agency emissions annually: prepare agency GHG emissions inventory to better understand our emissions and their trends. Submit inventory to WA State Department of Ecology by Sept. 30 of each year. (Sustainable Transportation – previous GHG emissions inventory)
		2	Develop an agency reduction plan: identify actions taken to reduce agency GHG emissions so that we have a baseline of actions and can identify future actions. (Sustainable Transportation – previous GHG reduction plan)
		3	Revise agency emissions reduction plan to meet reduction goals in RCW with an emphasis on the 2020 goal. (Sustainable Transportation)
	Reduce Land Fleet Emissions	4	Replace 60 vehicles with hybrids or electric vehicles by June 2017. (Fleet & Equipment Operations)
		5	To displace approximately 85,000 gallons of gasoline annually, install conversion kits to increase the number of cleaner burning dual fuel propane/gas work trucks from 21 to 81 by October 2016. (Fleet & Equipment Operations)
	Reduce Freight Emissions	6	Complete the Strategic Highway Research Program 2 (SHRP2) C20 research project to better understand the food and wheat industry supply chains and how they are likely to respond to different policy and market scenarios aimed at reducing freight emissions. (Freight Systems)
		7	Assist Port of Tacoma in implementing a pilot study of vehicle wait-time awareness system using advanced technology to reduce truck delay in the port area. (Freight Systems)
Active Transportation / Healthy Communities	Promote Bicycle and Pedestrian Travel in the Transportation System	8	Partner with transportation planning and public health organizations to build awareness and increase bicycle and pedestrian investments and adopted complete streets policies. (Active Transportation)

Theme	Topic	#	Action
Asset Management / Extend the Life of Our Assets	Improve Facility Energy Efficiency	9	Add conditions to contract for new Olympic Region Headquarters and North Central Region Headquarters requiring LEED Silver or equivalent rating in construction of new headquarter facilities. (Region Headquarters Replacement Project)
	Increase Operational Efficiencies	10	Institutionalize Transportation Systems Management and Operations (TSMO) into WSDOT’s transportation system development process with support from multiple SHRP2 implementation assistance grants. Changes are focused on WSDOT’s Planning & Programming business processes and culture and creating more operational efficiencies. (Traffic Operations)
	Reduce Energy Consumption and Waste in Highway Construction and Materials	11	Extend pavement life and investigate alternative paving options to reduce energy use by performing one or more preventative preservation treatments on the pavement structure (this process is also known as One Touch). (Pavements)
	Increase Climate Preparedness	12	Establish and document the process for planning-level consideration of climate change and resilience. (Environmental Services & Multimodal Planning)
		13	To reflect the current practice and the best information available, update the Guidance for NEPA and SEPA Project-Level Climate Change Evaluations . (Environmental Services)
	Increase Highway Maintenance Sustainability	14	Continue the expansion of bridge cleaning and related maintenance to help extend the life of coatings on steel bridges. Using lowest life cycle cost maintenance, increasing the number of bridges that are cleaned annually delays the need for more expensive preservation projects. (Maintenance)
		15	Implement reduced mowing policy for highway roadsides through the Integrated Vegetation Management plan, saving an estimated \$500,000 annually on fuel, equipment and labor costs and enhancing pollinator habitat. (Roadside Vegetation and Maintenance)
		16	Deploy computer tablets and a re-developed version of the Highway Activity Tracking System (HATS) to maintenance employees working in the field statewide to increase efficiency of completing maintenance work and recording related information. (Maintenance)
	Improve Water Quality	17	Focus permit required stormwater monitoring on experimental treatment facilities to determine which have the greatest potential to minimize long-term cost, address specific transportation needs, and maximize environmental benefits. (Environmental Services)

Theme	Topic	#	Action
Asset Management / Extend the Life of Our Assets (continued)	Improve Water Quality (continued)	18	Continue annual inspection and maintenance program for stormwater treatment facilities to ensure that highway runoff is treated for quantity and quality before it leaves the highway right of way. (Maintenance)
		19	Prioritize highway segments statewide for standalone stormwater retrofit to maximize environmental benefits. (Environmental Services)
	Remove Barriers to Fish Passage	20	Remove 21 barriers to fish passage in calendar year 2016. (Fish Passage)
		21	Remove 30 barriers to fish passage in calendar year 2017. (Fish Passage)
	Preserve Native Habitats	22	Develop a prioritized GIS map for where restoration and creation of pollinator habitat should occur statewide to guide decision-making for maintenance and project teams. (Pollinators and the Roadside)
23		Preserve native habitat whenever feasible, restore project disturbances using native plants, including native flowering species, and include other habitat features into project revegetation plans. (Roadside and Site Development)	
Grant Making as a Way to Make Change	Improve Transportation Demand Management	24	Provide local governments in central Puget Sound funds to expand their TDM programs to both reduce SOV trips and improve their ability to partner with WSDOT on practical solutions. Focus funding on supporting local government efforts to achieve the regional growth center and corridor emissions targets. (Transportation Demand Management)
		25	Develop strategies to more effectively align WSDOT grant programs with practical solutions efforts, specifically focusing on linking the grants to corridor sketch work. (Public Transportation)
		26	Continue to modify the Regional Mobility Grant and Consolidated Grant programs' award criteria to incent transportation efficiency and greenhouse gas emissions reductions and VMT reductions. (<i>Public Transportation</i> Regional Mobility and Consolidated grant programs)
	Increase Transit Sustainability	27	Develop and employ strategies to enhance the share of all electric vehicles through criteria management when awarding transit-related grants. (<i>Public Transportation</i> Regional Mobility and Consolidated grant programs)
		28	Encourage transit agencies to purchase new buses that use alternative fuels (e.g., electric buses) to increase clean-fuel technology and improve public transportation fleet fuel efficiency. (<i>Public Transportation</i> Capital Programs & Procurement)

Theme	Topic	#	Action
Grant Making as a Way to Make Change (continued)	Increase Transit Sustainability (continued)	29	Review the effectiveness of the Washington Intercity Bus Program at providing travel options and mobility to rural communities to increase alternative travel modes, reduce greenhouse gas emissions and increase social equity. Expand the focus to consider whether regional connectors can contribute to creating a more complete system. (<i>Public Transportation Intercity Bus Program</i>)
	Promote Bicycle and Pedestrian Travel in the Transportation System	30	Identify and deliver planned & funded bicycle and pedestrian investments including the Safe Routes to Schools Program (administer funds and grant programs; provide support to local agencies). (<i>Safe Routes to Schools and Active Transportation programs</i>)
System Efficiency	Increase Operational Efficiencies	31	Influence the planning, programming and project-delivery process to identify roundabouts as a potential alternative in alignment with WSDOT’s “roundabout first” policy (12 locations already identified where roundabouts should be considered as an intersection-improvement alternative). (<i>Roundabouts</i>)
		32	Increase the investment in Incident Response to increase system efficiency and reduce congestion. Add 10 trucks, expand service hours and coverage to reduce incident response time and duration of the mobility performance reduction. (<i>Incident Response Program</i>)
		33	Improve freight operations and system efficiency by implementing a truck height clearance information and route assistance system. Upgrade the route-assistance webpage by adding precise vertical clearance information—by lane—to help truck drivers select and navigate routes, as well as reduce travel time and incident-related congestion. (<i>Bridge Vertical Clearance Trip Planner</i>)
	Expand Commute Trip Reduction	34	Implement \$7.3 million Low Cost Enhancement (LCE) projects. LCEs are small projects that improve safety and/or reduce congestion on state highways, such as traffic-control improvements; roadway striping or other road-marking improvements; installation or improvement of traffic signals or other electronic devices; and/or roadway access control through channelization or lane reconfiguration. LCEs allow Traffic Operations to respond quickly to emerging needs and usually cost less than \$50,000. (<i>Traffic Operations</i>)
		35	Increase awareness of the Commute Trip Reduction Board’s 2017 session proposal to broaden the policy focus from commute trips to other types of trips. This broadening of the trip-reduction focus would reduce congestion and greenhouse gas emissions. (<i>Commute Trip Reduction</i>)
Improve Transportation Demand Management	36	Alaskan Way Viaduct (AWV) Construction Mitigation Program: mitigate the traffic impacts of the AWV construction through strategic investments in enhanced transit and TDM services to maintain travel reliability through the construction corridor. (<i>AWV Construction Mitigation</i>)	

Theme	Topic	#	Action
System Efficiency (continued)	Support Multimodal Planning	37	Complete WSDOT’s multimodal, long-range statewide transportation plan (WTP 2035 Phase 2) by December 2017, which will set strategies to increase efficiency and reduce costs and greenhouse gas emissions and satisfy the requirements set forth in Governor’s Executive Order 14-04. (Washington Transportation Plan)
		38	Finalize “ Integrating Demand Management into WSDOT Planning and Programming ” research by Center for Urban Transportation Research and roll out results and products so that we make the best possible use of our existing transportation system and resources. (Planning Policy & Implementation)
		39	Provide local jurisdictions with the information necessary to develop local plans that include transportation efficiency considerations through the joint agency technical-assistance “Web-hub” and related materials. (Community Planning Portal)
		40	Implement direction in budget proviso regarding outreach to local transit agencies, and prepare report to the Legislature on practices that minimize impacts to transit and freight during project construction. (Environmental Services Office & Public Transportation)
		41	Complete Phase 1 of the corridor sketch for 300 corridor segments statewide, information compiled includes corridor description, current and future functions, community outreach, and performance expectations. (Multimodal Transportation Planning)
		42	Initiate Phase 2 of the corridor sketch to focus on developing strategies to address identified performance gaps and inform future cost-effective investment decisions. (Multimodal Transportation Planning)
	43	Revise environmental procedures and trainings to emphasize practical solutions and community-engagement priorities, including environmental justice. (Environmental Guidance & Community Engagement Plan)	
	Passenger Rail	44	Engage rail-station owners, local governments and transit agencies in efforts to improve relationships and planning coordination to achieve multimodal connectivity. (State Rail Plan)
	Aviation	45	Complete FAA-funded study that includes geospatial and aeronautical data collection at select airports by December 2016, which will develop aviation system goals and objectives and airport metrics relating to financial and environmental sustainability. (Aviation)
	Reduce Freight Emissions	46	Work with rail-line operators to ensure maintenance on—and continued operation of—the Palouse River and Coulee City Rail System so that grain can be moved by rail rather than trucks. (Palouse River and Coulee City Rail System)

Theme	Topic	#	Action
Energy Efficiency / Clean Energy	Improve Ferry Vessel Efficiency	47	Complete B10 feasibility study aboard a Jumbo MK II Washington State Ferry vessel by June 2017. The study will evaluate function of B10 in vessel as well as stack emissions. (Washington State Ferries)
		48	Explore public/private funding opportunities for the LNG-fueled passenger ferry initiative. (Washington State Ferries - LNG)
		49	Improve vessel fuel efficiency by replacing existing four-blade propellers with five-blade propellers on nine vessels by June 2017. Each replacement is expected to save 8-10 percent in fuel costs. (Washington State Ferries)
		50	Continue centrifugal lube oil filter testing for a second year to determine if this is an effective way to reduce lube oil use and paper oil filter waste. (Washington State Ferries)
	Reduce Land Fleet Emissions	51	Increase the use of biodiesel in land fleet to B15 by June 2017. (Fleet & Equipment Operations)
	Improve Facility Energy Efficiency	52	Using EPA's Energy Star Portfolio Manager, continue benchmarking all reporting public facilities (and other facilities where utility data can be automatically uploaded) to better understand our facility energy use and opportunities for improvements. (Facilities Operations)
		53	Engage an energy services company to perform energy audits on facilities to identify and implement cost-effective, energy-efficiency upgrades. (Facilities Operations)
	Develop Electric Vehicle Infrastructure	54	Develop draft guidance on the new Electric Vehicle Charging Infrastructure (EVCI) Pilot Program by August 2016. (Electric Vehicle Charging Infrastructure)
		55	Conduct rulemaking for the new EVCI pilot Program by August 2016. (Electric Vehicle Charging Infrastructure)
	Passenger Rail	56	Complete the purchase of eight new diesel electric locomotives for the Amtrak Cascades intercity rail service. The new locomotives will feature improved fuel efficiency, safety upgrades, lower emissions and increased reliability. (Passenger Rail)
	Increase Highway Lighting Efficiency	57	Implement a statewide LED roadway lighting conversion-and-removal project to save energy consumption and maintenance fees. Convert approximately 1,900 roadway lights to high-efficiency LED technology and remove 600 existing lights along corridors in Northwest and Olympic regions. (LED Adaptive Lighting and Illumination Reform)
58		Rescind all continuous and/or additional illumination approvals to increase efficiency, eliminate waste, and/or promote the use of energy saving improvements. (Adaptive LED Lighting System on State Highways)	

Theme	Topic	#	Action
Energy Efficiency / Clean Energy (continued)	Increase Highway Lighting Efficiency	59	Issue project-delivery memos covering various roadway-illumination efforts: 1) All projects in planning, design or construction shall consider LED and adaptive lighting technology and/or reduction of roadway lighting. 2) All architectural lighting agreements or similar custom lighting agreements. 3) All WSDOT-developed design-policy criteria related to roadway illumination (lighting) other than Design Manual Chapter 1040. (Traffic Operations)
		60	Increase the percentage of WSDOT's green supplies purchased by June 2017 to reduce the consumption of virgin materials. (Procurement and Materials Management)
Reduce, Reuse, & Recycle	Purchase Environmentally Preferred Products	61	Reduce the consumption of virgin paper by the Accounting & Financial Services (AFS) Division by 40 percent by the end of the biennium. (Procurement and Materials Management)
		62	Increase the amount of metal recycled and property reused by WSDOT to reduce the impacts on landfills and the consumption of non-recyclable materials. (Procurement and Materials Management)
	Reduce, Reuse and Recycle When Disposing of Supplies	63	Develop a policy to reduce the impacts on landfills and the consumption of non-recyclable materials or sale to surplus of old materials to save on landfill costs and reduce waste. (Procurement and Materials Management)
		64	Develop with construction-aggregate partners specifications to allow for the use of recycled concrete aggregate in new concrete to reduce construction waste. (State Materials Laboratory)
	Reduce Energy Consumption and Waste in Highway Construction & Materials	65	Reusing roadway materials by returning the material "in-place" as the same material to reduce energy consumption, such as reclaimed asphalt pavement and hot-in-place reuse. (Pavements)
		66	Recycle materials to reduce waste by taking roadway material in one form and converting it to a material in another form, such as cold-in-place recycling and asphalt shingle recycling. (State Construction Office/Pavements)

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