
2007 Sustainability Plan and Progress Report

October 15, 2007



**Washington State
Department of Transportation**

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FOREWORD

Governor's Executive Orders (EO) 05-01, 04-01, and 02-03 direct the Washington State Department of Transportation (WSDOT) among other agencies to develop an action plan that incorporates sustainable business practices through a prescribed planning and reporting system. The 2007 WSDOT Sustainability Plan reports on the application of sustainability and efficiency goals set forth by the executive orders.

This report shows and explains the tenets of sustainability and sustainable practices for:

- Maintaining the long term integrity of practices which affect three fundamental conditions: social, economic, and environmental, all of which are interrelated.
- Sustainable development, as instituted by the 1987 Brundtland Report, is the creed that business practices should provide for current needs without compromising the needs of future generations.

The vision of the Washington State Transportation Plan, a plan which guides long-term transportation policy and investments in a manner that serves citizens' safety and mobility, the state's economic productivity, the communities' livability, and the ecosystems' viability is aligned with these conditions, this report, and the principles of sustainability.

Dynamic Tenets of Sustainability



The 1987 Brundtland Commission Report

The World Commission on Environment and Development published a report in 1987 titled "Our Common Future." Named after commission chair Gro Harlem Brundtland of Norway, the Brundtland Report developed the principles and guidelines for sustainable development.

The report declared that critical global environmental problems resulted from the tremendous poverty of the Southern Hemisphere and the unsustainable patterns of consumption and production in the Northern Hemisphere. Commonly referred to as sustainable development, the report called for an approach that advances development and the environment together. It contained two key concepts: the concept of meeting "needs" relevant to the limitations of human and natural systems. In the Commission's words, "sustainable development is... a process of change in which the exploitation of resources, direction of investment, the orientation of technological development, and institutional change are made consistent with the future, as well as present needs."

Sustainable development is defined as, "development that meets the needs of the present, without compromising the ability of future generations to meet their own needs."

I. INTRODUCTION

A. Organization of the Report

This report builds on WSDOT's 2003, 2005, and 2006 Interim Sustainability Plan: Annual Progress Report by providing an updated accounting of sustainability trends. Moreover, it expands upon agency-wide sustainable practices with the provision of more detailed data as they become available and by bringing activities into greater focus.

Section I sets the operational framework that guides this report. With the objective that WSDOT adapts to changing needs, Section II of this report improves upon stated sustainability policies, goals, and strategies as appropriate. Also, this update complies with Washington State sustainability directives by updating policy guidance and reporting on sustainability measures related to petroleum, paper, energy, and persistent toxic chemicals usage as outlined in Section III. Section IV addresses transportation and its role in emerging sustainability and climate change discussions.

The 2007 Sustainability Plan and Progress Report is due to the Office of Financial Management by October 15, 2007.



B. Summary of Sustainability Practices

Executive Order or Statute	Topic	Requirement	Target Date	2003 Base Year	2005 (First year for required measures)	2006	2007 Update		WSDOT Focus Area	Row and Columns		
							Status	Action				
A	B	C	D	E	F	G	H		I			
EO 05-01 and ESSB 5509	Construction	Incorporate green building practices (LEED Silver) to projects costing more than 50% of facility's assessed value	2005-2007 biennium and thereafter	N/A	NOT REPORTED	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	1		
				N/A	NOT REPORTED	INCOMPLETE: unidentified const. timeline	COMPLIANT	CONTINUE PRACTICE	WA State Ferries	2		
EO 05-01, SSB 6514 (B2), HB 1242 and SSL 6508 (B2)	Petroleum	20% Reduction in Petroleum Use	9/1/2009	3,099,424 gals.	INCOMPLETE: increase in petroleum use	INCOMPLETE: increase in petrol use	INCOMPLETE: increase in petroleum use	INVESTIGATE: identify areas for improvement	Statewide	3		
				19,215,419 gals.	NOT REPORTED	INCOMPLETE: due to service reduction	INCOMPLETE: increase in petroleum use	INVESTIGATE: identify areas for improvement	WA State Ferries	4		
		Freeze purchase of 4WD vehicles	9/1/2009	N/A	NOT REPORTED	COMPLIANT	COMPLIANT	INCOMPLETE: increase in 4WD vehicle purchase	CONTINUE PRACTICE	Statewide	5	
		Give priority to hybrid or other fuel efficient/low emission vehicle purchases	9/1/2009	N/A	NOT REPORTED	COMPLIANT	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	6	
		Replace standard diesel use with B20 blend (Begin use of B5 as soon as practicable)	9/1/2009	N/A	Northwest Region B5 Pilot Project	INCOMPLETE	COMPLIANT	INVESTIGATE: status and use	Statewide	7		
				N/A	WA State Ferries B20 Pilot Project	INCOMPLETE: project suspended	COMPLIANT	CONTINUE PRACTICE	WA State Ferries	8		
		Priority to replace pre-1996 light duty vehicles driven more than 2,000 miles/year	January, 2008	N/A	COMPLIANT	COMPLIANT	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	9	
		Employ professional fleet management and planning practices	9/1/2005 and thereafter	N/A	COMPLIANT	COMPLIANT	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	10	
				N/A	COMPLIANT	COMPLIANT	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	WA State Ferries	11	
		Establish clear direction on rental vehicle use	3/1/2005	N/A	COMPLIANT	COMPLIANT	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	12	
		EO 05-01 and EO 02-03	Paper	Reduce use of office paper by 30%	9/1/2009	64,289 reams (8.5x11) HQ only	INCOMPLETE: data not comparable to 03	INCOMPLETE: 110,709 reams (8.5 x11) = not comp. to 03 data	INCOMPLETE: data not available	INVESTIGATE: develop consistent measurement and tracking methods	Statewide	13
				Increase % of environmentally preferred paper by 50%	9/1/2009	0	COMPLIANT	COMPLIANT	INCOMPLETE: data not available	INVESTIGATE: develop consistent measurement and tracking methods	Statewide	14
Recycle 100% of used office paper	9/1/2009			0	NOT REPORTED	INCOMPLETE: no comparable data	INCOMPLETE: data not available	INVESTIGATE: develop consistent measurement and tracking methods	Statewide	15		
Increase use of post consumer recycled products for janitorial paper products	9/1/2009			N/A	NOT REPORTED	INCOMPLETE: no comparable data	INCOMPLETE: data not available	INVESTIGATE: develop consistent measurement and tracking methods	Statewide	16		
EO 05-01 and EO 02-03	Energy	Reduce energy purchases by 10% from 2003 by 9/1/2006	9/1/2009	108,825,431 kwh 719,190 btu	N/A	INCOMPLETE: increase natural gas usage by 37%	COMPLIANT	CONTINUE PRACTICE	Statewide	17		
		Report annual energy use to GA	9/1 annually	N/A	NOT REPORTED	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	18		
EO 05-01	Additional Information Needed	Annual petroleum use, vmt on state business, number and type of vehicles used	9/1 annually	N/A	COMPLIANT	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	19		
		Number of exception purchase of 4WD vehicles		N/A	COMPLIANT	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	20		
		Amount and type of janitorial paper products purchased		N/A	COMPLIANT	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	21		
		Quantity of office paper recycled		N/A	COMPLIANT	COMPLIANT	COMPLIANT	INVESTIGATE: develop consistent measurement	Statewide	22		
		Justification of virgin paper purchased		N/A	COMPLIANT	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	23		
EO 04-01	Persistent Toxic Chemicals	Adopt measures to reduce the use of equipment, supplies, and other products that contain persistent, toxic chemicals	9/1 annually	N/A	COMPLIANT	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	24		
EO 02-03	Long Term Sustainability Goals	Institutionalize sustainability as an agency value	9/1 annually	N/A	NOT REPORTED	NOT REPORTED	COMPLIANT	CONTINUE PRACTICE	Statewide	25		
		Raise employee awareness of sustainable practices in the workplace	9/1 annually	N/A	COMPLIANT	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	26		
		Minimize energy and water use	9/1 annually	N/A	NOT REPORTED	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	27		
		Shift to clean energy for both facilities and vehicles	9/1 annually	N/A	NOT REPORTED	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	28		
		Shift to non-toxic, recycled and remanufactured materials in purchasing and construction	9/1 annually	N/A	NOT REPORTED	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	29		
		Expand markets for environmentally preferable products and services	9/1 annually	N/A	NOT REPORTED	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	30		
		Reduce or eliminate waste as an inefficient or improper use of resources	9/1 annually	N/A	NOT REPORTED	COMPLIANT	COMPLIANT	CONTINUE PRACTICE	Statewide	31		

C. WSDOT Facts

Our Mission:

“To keep people and business moving by operating and improving the state’s transportation systems vital to our taxpayers and communities.”

Just as each state agency is unique in its mission and function, inherent responsibilities are distinct to WSDOT. It is important to keep several issues in mind when reviewing this report:

- WSDOT is one of the state’s largest agencies.
- The WSDOT mission concerns the safe and efficient flow of people, goods, and services.
- WSDOT manages approximately 20,000 lane-miles of interstate and state highways including the largest public ferry system in the nation.
- With the Nickel funding package in 2003 and additional funding provided in the Transportation Partnership Act approved in 2005, WSDOT is in the midst of a significant construction program for the next 16 years. Consequently, this results in an increase in all phases of project delivery and operational demands.
- Weather conditions fluctuate significantly from year to year, thereby causing variability in work-related vehicle miles traveled and fuel use for highway operations.

D. Agency Info

<i>Agency:</i>	Washington State Department of Transportation
<i>Address:</i>	310 Maple Park Avenue, SE Olympia, WA 98504-7370
<i>Agency Number:</i>	405
<i>Coordinating Division/Office:</i>	Strategic Planning and Programming Transportation Planning Office
<i>Coordinator:</i>	Jason Beloso, Transportation Planning Specialist
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<i>Executive Sponsor:</i>	Paula Hammond, Secretary of Transportation
<i>Phone Number:</i>	(360) 705-7054
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**Washington State
Department of Transportation**

Executive Order

Number: E 1018.00

/s/ Douglas B. MacDonald
Secretary of Transportation

Date: September 26, 2001

Environmental Policy Statement

The WSDOT acknowledges the state's vital interests in protecting and preserving natural resources and other environmental assets and its citizens' health and safety. These interests must be integrated with other vital interests committed to the Department, including the cost-effective delivery and operation of transportation systems and services that meet public needs.

The WSDOT shall conduct all its affairs in accordance with the dictates of sound environmental protection practices, including pollution prevention wherever reasonably possible. The Department shall also avoid, minimize and appropriately mitigate adverse environmental impacts. These undertakings extend to the construction, maintenance and operation of its systems and facilities. Legal obligations in these matters are established by applicable laws and regulations; this policy statement is not intended to create further or additional legally-enforceable requirements.

To support the performance of the Department's responsibilities and undertakings, the Secretary of Transportation, commits the Department:

- To implement and maintain an environmental management system that embraces all the Department's program functions;
- To establish, maintain and make available to the public appropriate performance indicators of the Department's exercise of its environmental stewardship and to consistently review these indicators as a basis to improve the Department's performance;
- To comply with all environmental laws and regulations applicable to our business and activities;
- To assure that employees of the Department receive training appropriate to their functions concerning the Department's environmental responsibilities;
- To communicate to contractors, designers, consultants and other participants in the Department's work the management practices and compliance requirements established to further the aims of this Policy Statement;

II. SUSTAINABILITY GUIDELINES

A. Sustainability Policy

WSDOT supports the sustainable practices required of state agencies as directed in the preamble of Executive Order 02-03 establishing that:

- The state is committed to the mutually compatible goals of economic vitality, a healthy environment, and strong communities;
- Sustainable practices require decisions based on systematic evaluation of the long-term impacts of an activity or product on health, safety, communities, the environment, and the economy of Washington;
- Reversing the steady decline in the natural resources and ecosystems on which people and economic vitality depend is critical to our future;
- Regional and global implications of climate change, loss of biological diversity, and threats to resources such as clean water require us all to examine and change behaviors;
- State governments should model sustainable business practices contributing to the long-term protection and enhancement of our environment, our economic, and the health and quality of life of current and future generations.

B. Long-Range Goals from EO 02-03

1. Save money by reducing resource consumption on a variety of levels agency-wide.

Action Steps:

- Develop a quarterly tracking method for demonstrating savings realized by each sustainability practice deployed.

2. Minimize energy and water use.

Action Steps:

- Document statewide activities and use related to water consumption and conservation in administrative buildings, at safety rest areas, in maintenance facilities, construction sites and other facilities.
- Define targets for reduction appropriate to primary functions at all WSDOT facilities.
- Develop additional water and energy use policies.
- Track performance.

3. Shift to clean energy for both facilities and vehicles.

Action Steps:

- Determine feasibility for retrofitting existing fleet to alternative fuels.
- Consider alternative energy sources for existing facilities, especially Leadership in Energy, Efficiency and Design (LEED)-built facilities.
- Determine the cost and conduct testing of pilot applications for solar power generation at facilities in eastern Washington where appropriate.
- Evaluate potential benefits of enrolling in clean energy programs through energy utilities.
- Identify and consider other alternative energy programs and applications as they become available.

4. Reduce or eliminate waste as an inefficient or improper use of resources.

Action Steps:

- Examine other statewide resources consumed on day-to-day operations, as well as for seasonal maintenance and operations.
- Evaluate application for construction projects built by WSDOT and contractors/others.

5. Shift to non-toxic, recycled, and remanufactured materials in purchasing and construction.

Action Steps:

- Amend appropriate manuals and conduct training to educate the workforce on practices that shift consumption to non-toxic, recycled and remanufactured materials in purchasing and construction.
- Encourage professional certification and training in the field of purchasing to achieve sustainability goals.
- Work with the Washington State Department of General Administration to make non-toxic, recycled, and remanufactured products more available for state agency use.

6. Support and encourage expansion of markets for environmentally preferable products and services.

Action Steps:

- Participate in education of WSDOT workforce through internal and external conferences and research to support and encourage expansion of markets for environmentally preferable products and services.

7. Institutionalize sustainability as an agency value.

Action Steps:

- Implement an employee awareness program to institutionalize sustainability as an agency value.
- Develop a Sustainability Resources Web site.
- Write periodically for the intranet Web page.

8. Raise employee awareness of sustainable practices in the workplace.

Action Steps:

- Develop simple applications and supportive materials for sharing information to raise employee awareness and culture of sustainable practices.

III. PERFORMANCE MEASURES

This section reports WSDOT trends aimed at specific sustainability topics and targets as required by Executive Orders 05-01 and 04-01.

A. Fleets and Transportation

Background

The responsibilities of the Fleet & Equipment Program of the Maintenance and Operations (M&O) Division encompasses the purchase, maintenance, logistical support, and disposal of the department's array of vehicles and equipment. In 2006, the program included 11,000 items valued at \$222 million dollars such as:

- Medium- and heavy-duty on- and off-road equipment
- Passenger-carrying vehicles
- Laboratory equipment
- Surveying equipment
- Wireless equipment

The program also provides logistical support for 35 equipment repair facilities and 131 fueling facilities statewide. The fueling facilities are also used by the Washington State Patrol (WSP). Vehicle repair services and fuel are provided to other organizations and government agencies upon request and on a fee basis.

Since 1992, the Maintenance and Operations Division has implemented several business practices aligning with and supporting today's sustainability goals. These actions improve productivity and reduce long-term costs. They include:

- Maximize equipment standardization to improve inventory, and lower acquisition and operational cost;
- Systematically replace vehicles and equipment at the end of established life cycles to keep inventory productive and to progressively take advantage of new operational and environmentally friendly technology.

The following benefits decreased the program's financial burden on the department and clients:

- More modern vehicles, equipment, improved operational design, and reliability;
- Reduction in paper transactions, eliminating several time-consuming processes;
- State-of-the-art vehicle fueling infrastructure providing WSDOT and WSP with greater operating support that improves fuel accountability.

The vehicle and equipment inventory for WSDOT is divided into several distinct classes, each having a specific use. The inventory includes replacements and extended-use units retained.

Passenger-carrying vehicles are used primarily for administrative transportation, e.g., transportation of office staff to meetings and other state business. Other classes of vehicles are considered "task-oriented" or "on-demand" vehicles. These vehicles have specific and specialized uses delivering various public services such as small aircraft, bulldozers, snowplows, and other light-duty vehicles. Fuel consumption by these vehicles varies annually based upon weather conditions and maintenance are construction activities.

This section provides a snapshot of WSDOT's fleet transportation data. It is important to note that data being presented is dynamic and may change from year to year in order to reflect the most accurate data.

The Maintenance and Operations Division implemented the statewide Fleet and Equipment Management System (FEMS) in 1999. This enabled the division to more effectively manage business by working with WSDOT's Financial Accounting system, effectively collecting and reporting data related to inventory management, including vehicle and fuel use. FEMS also provides an effective tool in fleet operations, decision-making, and measurement of program performance.

Section Summary

Executive Order or Statute	Topic	Requirement	Target Date
EO 05-01, RCW 43.19.642 (B20)	Petroleum	20% Reduction in Petroleum Use	9/1/2009
		Give priority to hybrid or other fuel efficient/low emission vehicle purchases	9/1/2009
		Freeze purchase of 4WD vehicles	9/1/2009
		Replace standard diesel with B20 blend (Begin use of B5 as soon as practicable)	9/1/2009
		Priority to replace pre-1996 light duty vehicles driven more than 2,000 miles/year	January, 2008
		Employ professional fleet management and planning practices	9/1/05 & thereafter
		Establish clear direction on rental vehicle use	3/1/2005

Petroleum Use Reduction

Target: Reduce Fossil Fuel Use by 20% in the Operation of State and Privately Owned Vehicles Used for State Business

Target Date: September 1, 2009

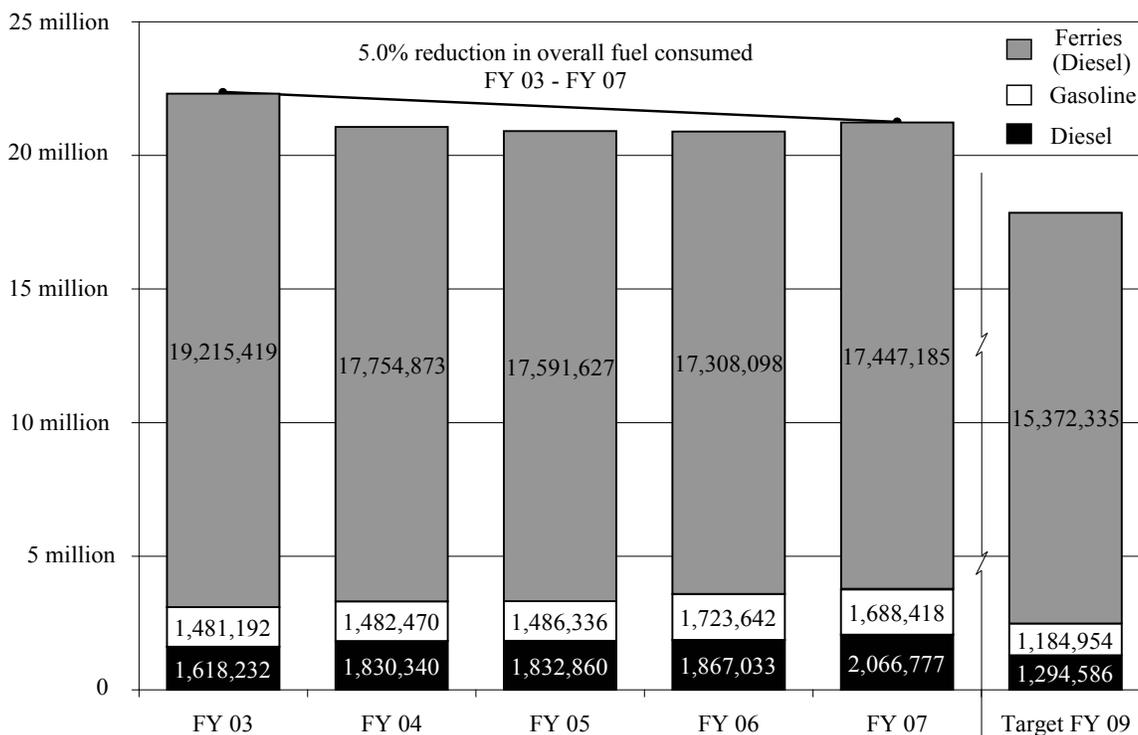
Washington State Ferries (WSF) and WSDOT Fuel Consumption

Fuel consumption by WSDOT and WSF is illustrated in Figure 1 by fiscal year and by fuel type: gasoline and diesel. This includes all fleet fuel purchases made through WSDOT Green or Voyager fuel cards.

Overall fuel is largely consumed by WSF, and to a smaller extent fuel use by vehicles and equipment with specific functions. Figure 1 shows an overall reduction in fleet fuel consumption by 5% (1,112,463 gallons) from FY03 to FY07. In order to achieve the FY09 target, a combination of fuel reduction measures from WSDOT and WSF is needed.

Figure 1

WSDOT Fuel Consumption (Gallons)



Source: WSDOT Fleet and Equipment Operations; Washington State Ferries

Washington State Ferries

Washington State Ferries' fuel consumption is separated to highlight the different trends in the overall fuel consumption. WSF provides marine transportation services, rather than maintaining the transportation system's infrastructure. Reduction in fuel use was the result of eliminating passenger-only ferry service in 2004. Service from the Kitsap Peninsula to downtown Seattle was terminated as a result of an in-depth ferry service analysis at the direction of the legislature.

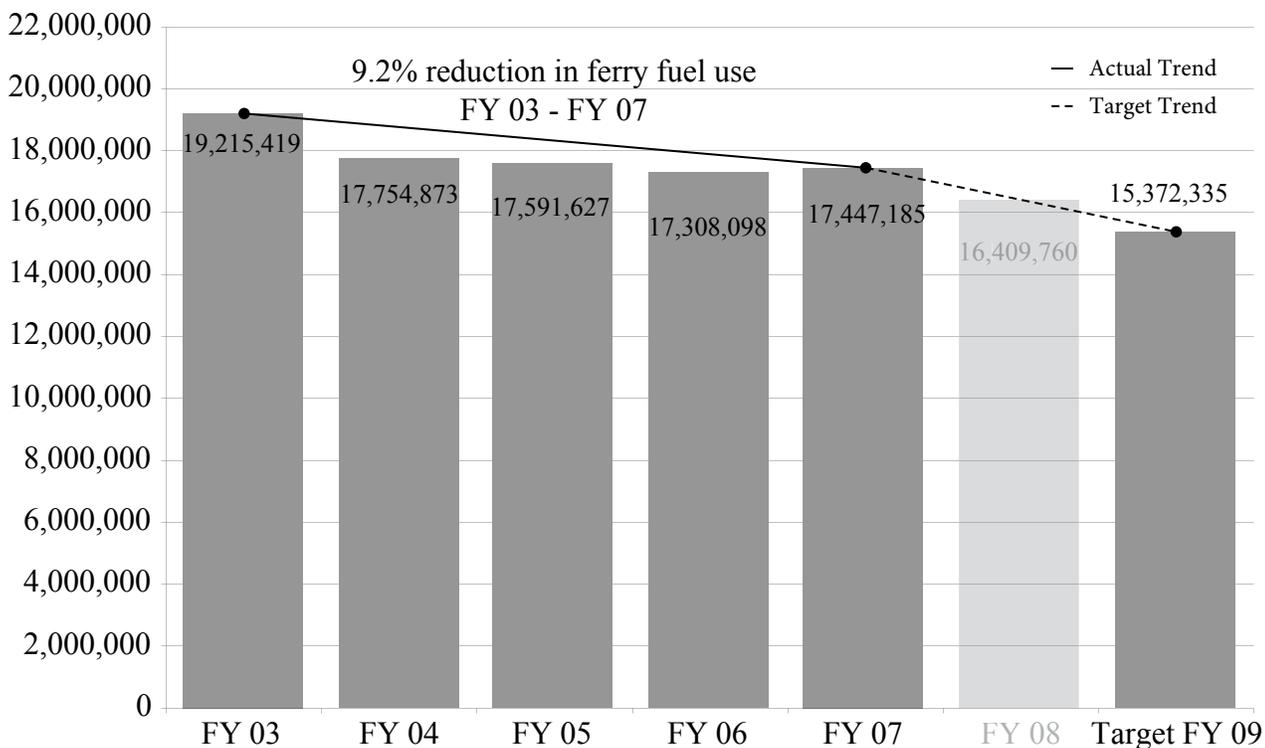
The analysis found duplication in passenger-only ferry service which could easily be absorbed by the car-passenger ferry service and thus reduce operational costs. Currently, WSDOT does not have an adopted policy specifying service reduction as a means of fuel conservation.

Unlike the increase in non-marine fuel consumption, figure 2 illustrates the decline in ferries' fuel consumption from FY03 to FY07 by 9.2% (1,758,234 gallons). However, usage from FY06 to FY07 increased by 0.8% (139,087 gallons).

In order to meet our 20% fuel reduction target by FY09 from FY07 (ferries only) fuel consumption will need to be reduced by an additional 2,074,850 gallons (11.9%).

Should a 20% fuel reduction come from ferries alone, fleet fuel reduction would be reduced by

Figure 2
WSDOT Petroleum Usage: Ferries Only



Source: Washington State Ferries

Task-Oriented and On-Demand Vehicles and Equipment

The majority of gas- and diesel-burning vehicles in the WSDOT fleet are classified as “task-oriented” or “on-demand.”

This includes vehicles such as bulldozers, snowplows, and light-duty delivery vehicles. Generally, fuel consumption varies annually based upon weather conditions, maintenance, and construction activities. As highlighted on page 13, projects and the scope of projects also impact fuel consumption.

Fleet fuel consumption (excluding ferries) increased by 21.2% (655,771 gallons) between FY03 and FY07 as shown in Figure 3. The increase on average equals 131,154 gallons per year.

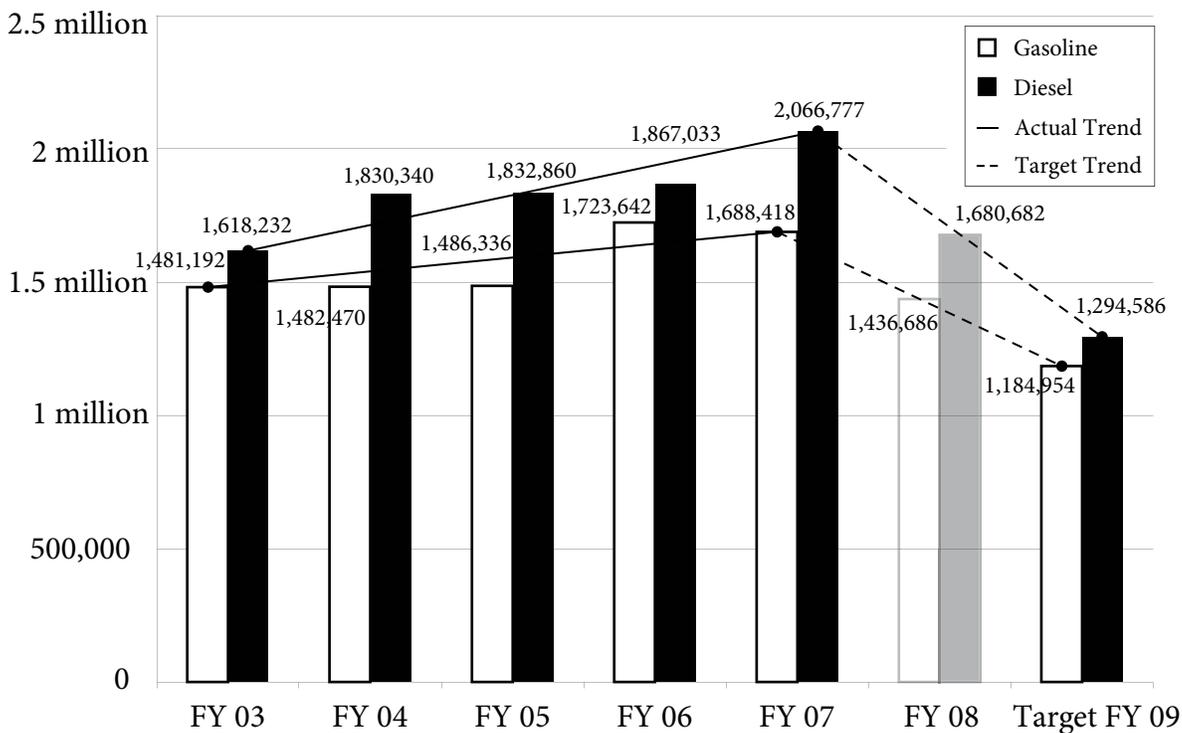
One factor contributing to the apparent increase is TEF’s reclassifications of the WSDOT vehicle fleet

in 2003 and 2006, and how fuel consumption was recorded. This also involved the replacement of the M-4 System. Fuel consumption under the M-4 system database was reported up-to-the-moment or as a snapshot. The snapshots were tallied for fiscal year recording. This might have affected the actual fuel consumption reported for FY03.

Figure 3 shows the actual trend (black line) as well as the trend line as it would be if WSDOT was trending toward the targeted reduction (dashed line). FY 08 is shown as a “ghost” image where it would appear on the targeted reduction trendline.

In order to meet our 20% fuel reduction target by FY09 from FY07 (ferries excluded), fleet fuel consumption would need to be reduced by 503,464 gallons of gasoline and 772,191 of diesel.

Figure 3
WSDOT Petroleum Usage (Ferries Excluded)



Further Discussion

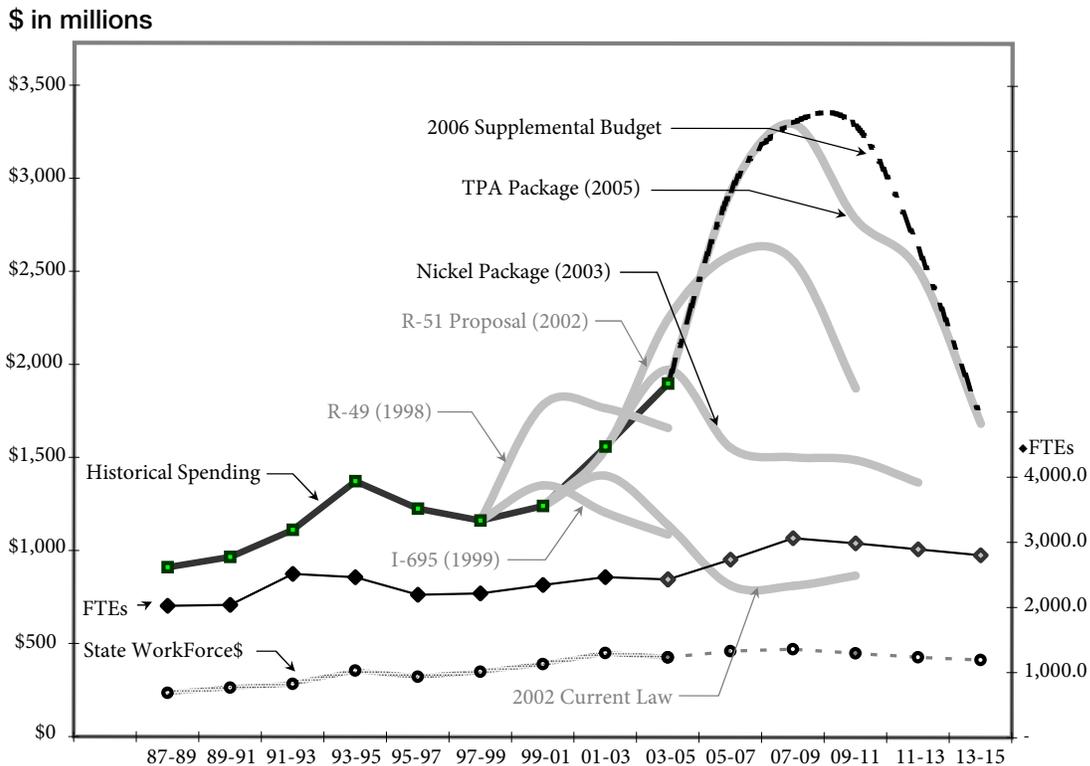
Figure 1 details the fuel consumption by WSDOT fleet vehicles, including passenger-carrying vehicles, and the FY09 target. Figure 4, below, plots historical and projected transition of several highway capital programs.

Under EO 05-01, agencies need to achieve a 20% reduction in petroleum use from base year 2003 by September 1, 2009. In order to meet this target, average fuel reduction of nearly 600,000 gallons per year would be needed.

Since the establishment of the target, WSDOT was provided with two significant funding and capital construction programs which account for increases in fuel consumption and work-related travel. Longer-term trends will be seen as WSDOT delivers its capital construction programs over the next few years.

The increase in full-time equivalent employees and highway capital expenditures correlates with the increase in fleet fuel use (excluding ferries) as well as vehicle miles traveled of passenger-carrying administrative vehicles (see Figure 9).

Figure 4
Highway Capital Program Trends
Historical and Projected expenditures and FTEs for 1987 - 2015



Source: WSDOT Systems Analysis and Program Development

The increase in highway capital programs alone does not completely substantiate the increase in fuel consumption. The rise in fuel use is also attributable to delivery of the agency's maintenance operations.

Figure 5 details where the bulk of WSDOT fuel is consumed. Operation and maintenance of the statewide transportation system and preservation programs together constitute 83.1% of the fuel used by the department in FY06. On-demand vehicles such as snow plows, sweepers, graders, and other equipment used to maintain the state's roadway infrastructure are included in these two categories.

The importance of the highway capital programs and the maintenance and operations of our roadway infrastructure to the economic vitality of the state will make it difficult for WSDOT to meet the 20% fuel reduction target. However, despite the anticipated increase in fuel consumption, WSDOT is taking positive steps.

Figure 5
Fuel Consumption by Program, 2007

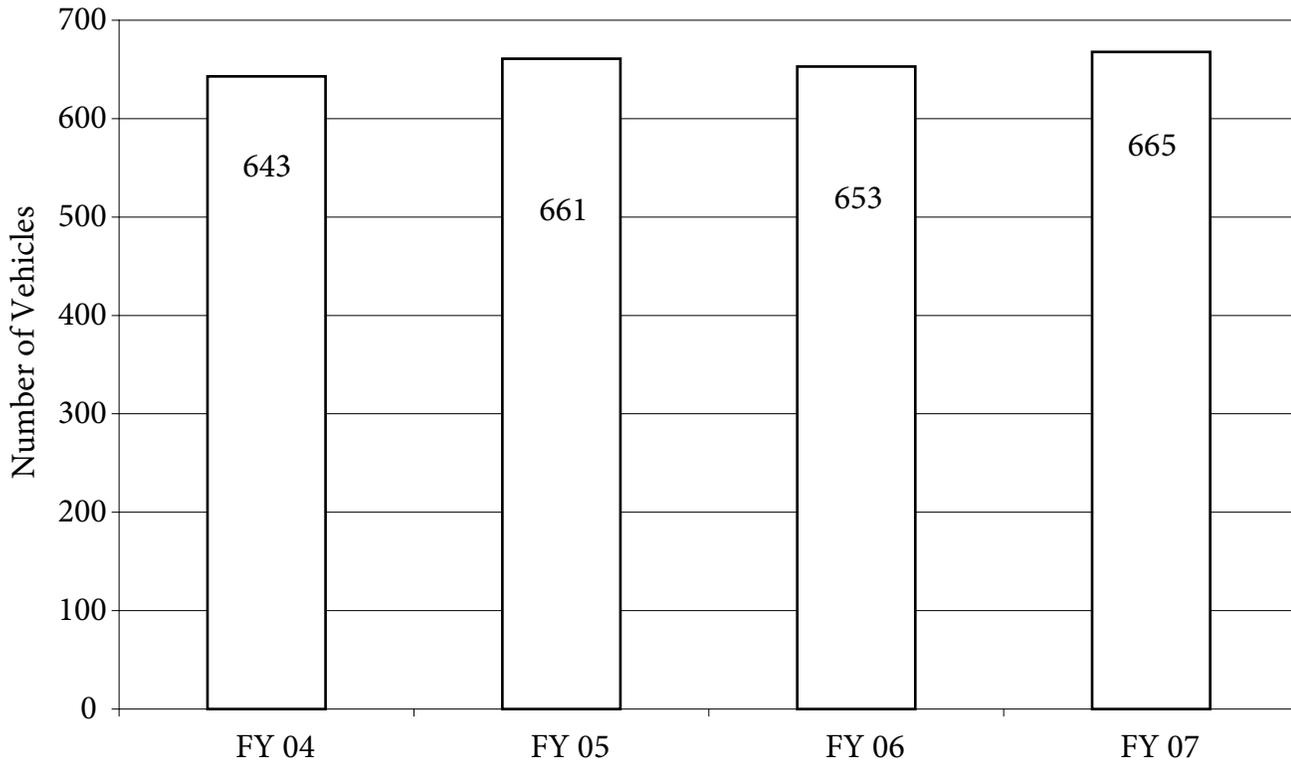
Program	Product	Cost	Quantity (Gallons)
Maintenance & Operations	Diesel	\$4,481,256.60	1,860,576.3
Maintenance & Operations	Gas	\$1,545,221.01	615,339.1
Preservation	Gas	\$1,514,726.14	585,960.6
Traffic	Gas	\$468,205.40	184,890.5
Transportation Equipment Fund	Gas	\$245,568.13	97,345.7
Transportation Equipment Fund	Diesel	\$202,076.86	76,501.1
Preservation	Diesel	\$153,325.33	62,681.8
WSF Operations and Maintenance	Gas	\$107,170.40	38,403.8
Program Delivery	Gas	\$91,089.74	35,345.6
Planning, Data, & Research	Gas	\$80,193.79	31,115.3
Capital Facilities	Gas	\$77,052.78	30,586.4
Traffic	Diesel	\$63,466.98	26,664.9
Improvements	Gas	\$69,182.80	26,066.9
Capital Facilities	Diesel	\$23,757.09	9,864.9
Information Technology	Gas	\$22,438.81	8,825.3
Local Programs	Gas	\$22,217.20	8,127.1
Planning, Data, & Research	Diesel	\$17,900.80	7,333.2
WSF Construction	Gas	\$19,345.89	6,919.8
WSF Operations and Maintenance	Diesel	\$15,179.54	5,590.1
Transp. Management & Support	Gas	\$8,627.34	3,368.8
Aviation	Gas	\$6,212.82	2,387.6
Aviation	Diesel	\$3,391.05	1,292.0
Rail Programs	Gas	\$2,662.08	981.6
Urban, Rural Public Transportation	Gas	\$2,373.94	855.9
Improvements	Diesel	\$1,343.48	538.5
Program Delivery	Diesel	\$37.23	15.2
Transp. Management & Support	Diesel	\$10.00	3.7
Total Gas			1,676,520.0
Total Diesel			2,051,061.7
Total All Fuel			3,727,581.7

Light-Duty Fleet Inventory

The passenger-carrying vehicle fleet make up the bulk of vehicles used for various assignments such as transporting staff to meetings, inspections, and

business-oriented tasks. Figures 6 and 7 illustrate inventory trends for passenger-carrying and light-duty vehicles.

Figure 6
Inventory Trend: Passenger Carrying Vehicles



Source: WSDOT Operations Transportation Equipment Fund

Light-Duty Vehicles Inventory

WSDOT's light-duty fleet inventory comprises of several vehicle classes. These include passenger-carrying vehicles commonly used for administrative

transportation, and other vehicles incident response vehicles used for uses d elivering various public services such as snow-plowing, bridge inspection, and lane stripe painting.

Figure 7
WSDOT Light Duty Fleet Inventory

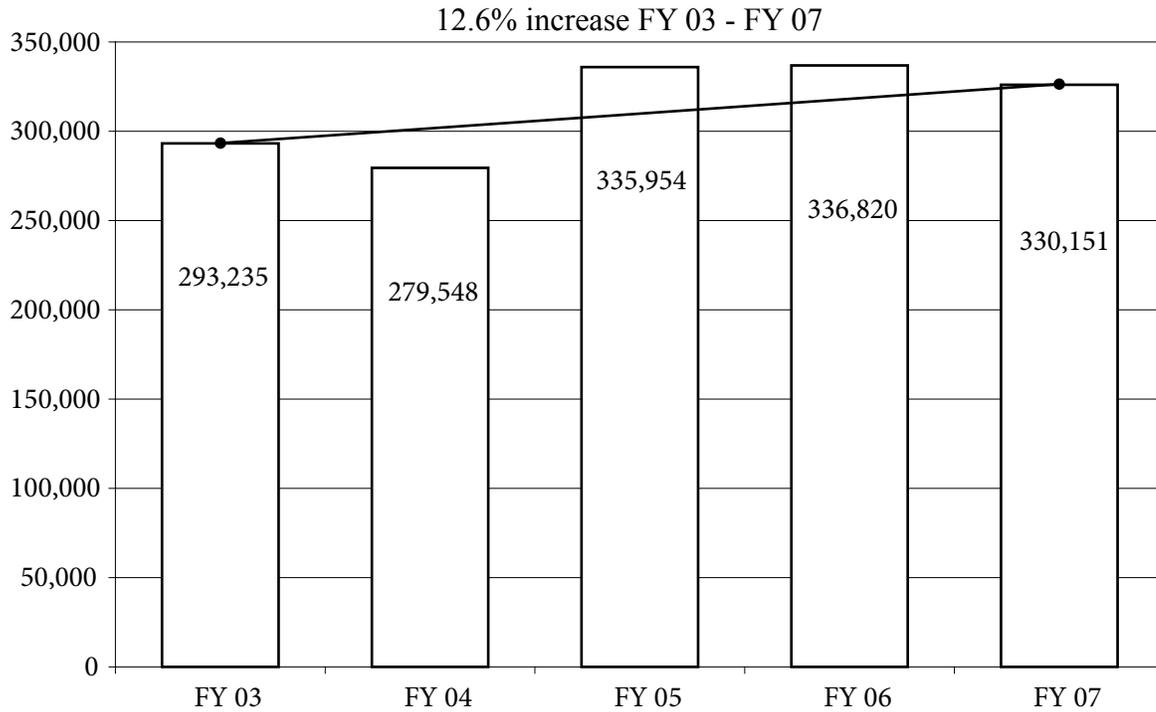
Inventory	FY 2004			FY 2005			FY 2006			FY 2007		
	Active	Retained	Total									
Passenger Carrying Vehicles	526	117	643	581	80	661	624	29	653	645	20	665
Light Cargo Carrying Vehicles	116	42	158	127	27	154	155	12	167	152	14	166
Incident Response Vehicles	49	17	66	57	12	69	48	7	55	54	6	60
Light Vehicles w/Special Bodies	195	83	278	211	46	257	248	20	268	242	15	257
Pickup Trucks	844	267	1,111	984	165	1,149	1,098	92	1,190	1,087	94	1,181

Source: WSDOT Fleet and Equipment Operations

Fuel Use: Passenger-Carrying Vehicles

Fuel consumption of passenger-carrying vehicles in FY07 has increased since FY03, as detailed in Figure 8, by 36,916 gallons (about 12.6%) from FY03. FY07 saw a decrease of 6,669 gallons from FY06.

Figure 8
Passenger Carrying Vehicles Fuel Use (Gallons)



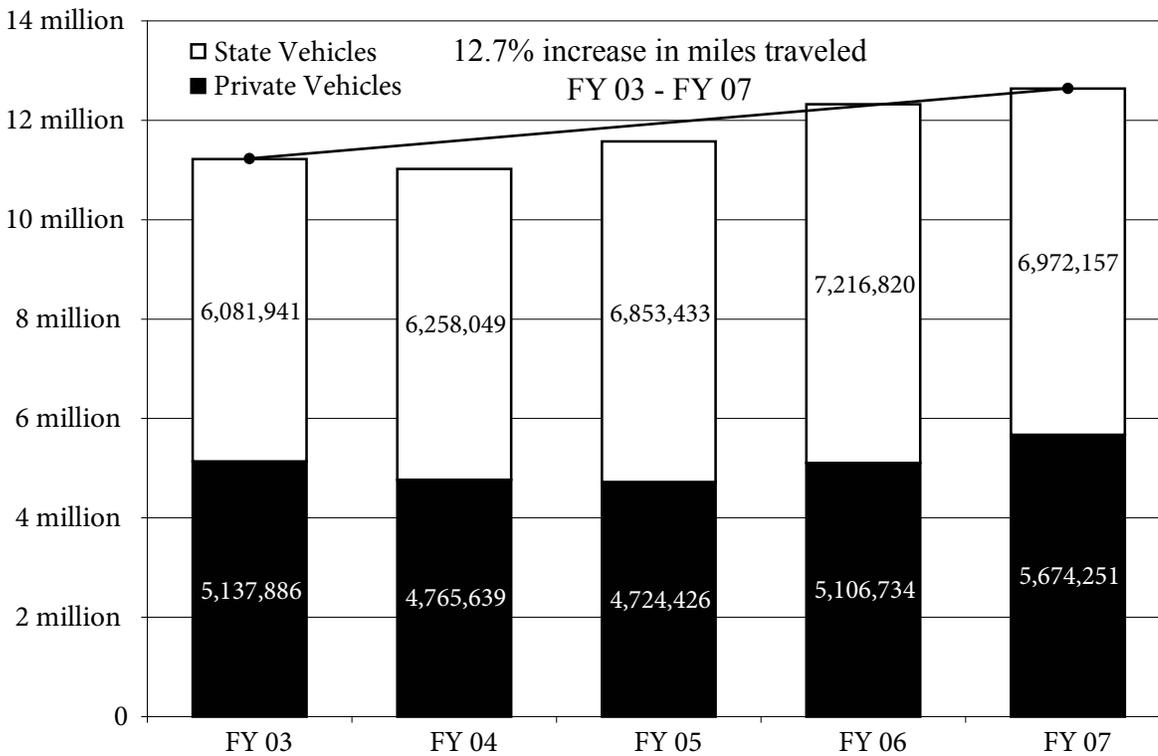
Source: WSDOT Operations Transportation Equipment Fund

Vehicle Miles Traveled: Passenger-Carrying Vehicles

WSDOT's inventory has 665 passenger-carrying vehicles. The limited fleet size means state vehicles are not always available for all business needs. In some instances, private vehicles are used for state business. Mileage is recorded for state vehicles and employees' private vehicles used for state business. WSDOT employees are reimbursed for the mileage incurred on private vehicles while performing state business. Vehicle miles traveled for both state and private vehicles are detailed in Figure 9.

Despite a decrease in FY04, combined vehicle miles traveled increased by a total of 1,426,581 miles (12.7%). The largest increase has been in the use of state vehicles, which increased 885,042 miles from FY03. Between FY06 and FY07, the use of private vehicles increased by 567,517 miles while the use of state vehicles decreased by 249,837 miles, for an overall increase of 327,680 miles.

Figure 9
Miles Traveled by Passenger Carrying Vehicles



Source: WSDOT Operations Transportation Equipment Fund

Fuel Efficiency: Passenger-Carrying Vehicles

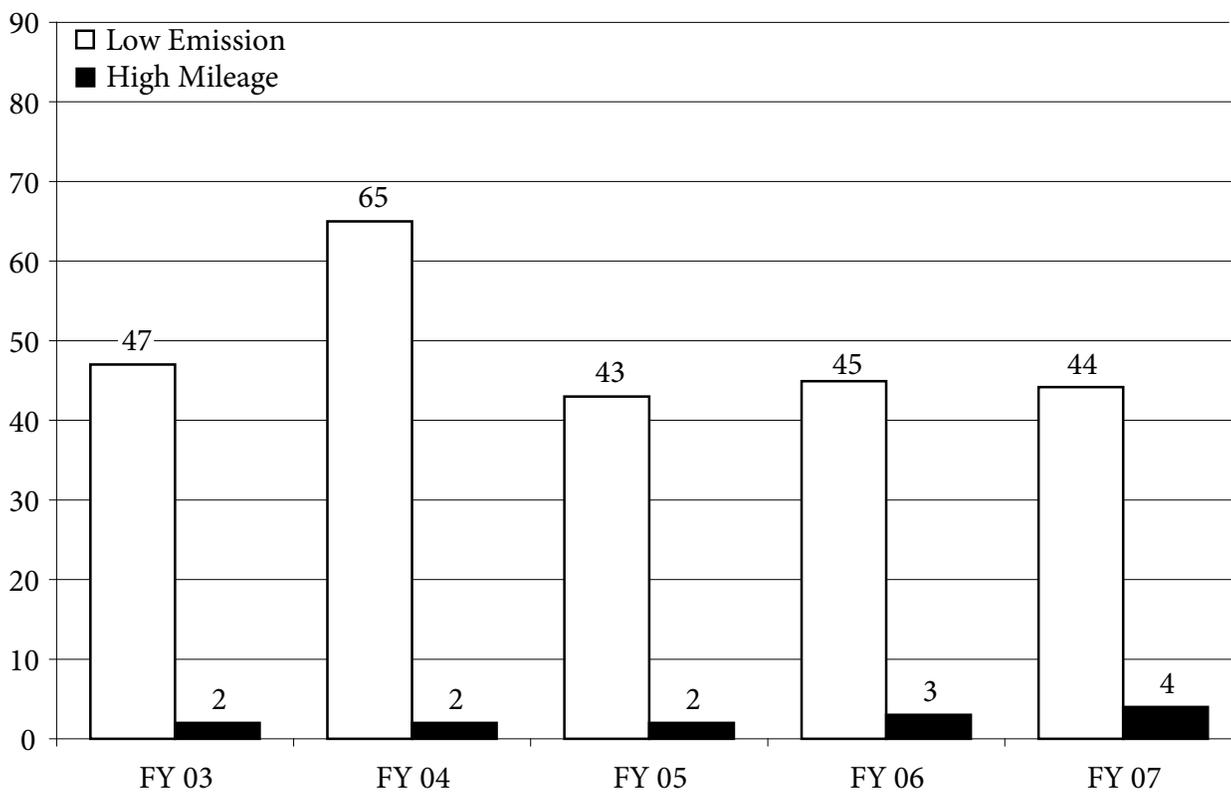
The federal Energy Policy Act (EPA) State and Alternative Fuel Provider Rule requires 75% of a state fleet's light-duty vehicle acquisitions must be comprised of alternative fuel vehicles. Executive Order 05-01 follows the EPA and specifies the purchase of high-mileage, fuel-efficient, low-emission vehicles when vehicle replacement occurs.

WSDOT replaces a percentage of the vehicle fleet annually based upon funding and the number of vehicles at the end of their service. As detailed in

Figure 10, the majority of replacement vehicles purchased by the agency meets this requirement. Additional vehicle replacement information is available on page 22.

“High-mileage” vehicles are defined as vehicles receiving 30 miles per gallon of fuel or better. “Low-emission” vehicles are defined as vehicles meeting the federal Environmental Protection Agency Tier 2 emission standards.

Figure 10
High Mileage and Low-Emission Light-Duty Vehicles Purchased



Source: WSDOT Operations Transportation Equipment Fund

Fuel Efficiency: Passenger Carrying Vehicles

Figure 11 depicts the average fuel efficiency of the agency's passenger-carrying vehicles during the fiscal years indicated.

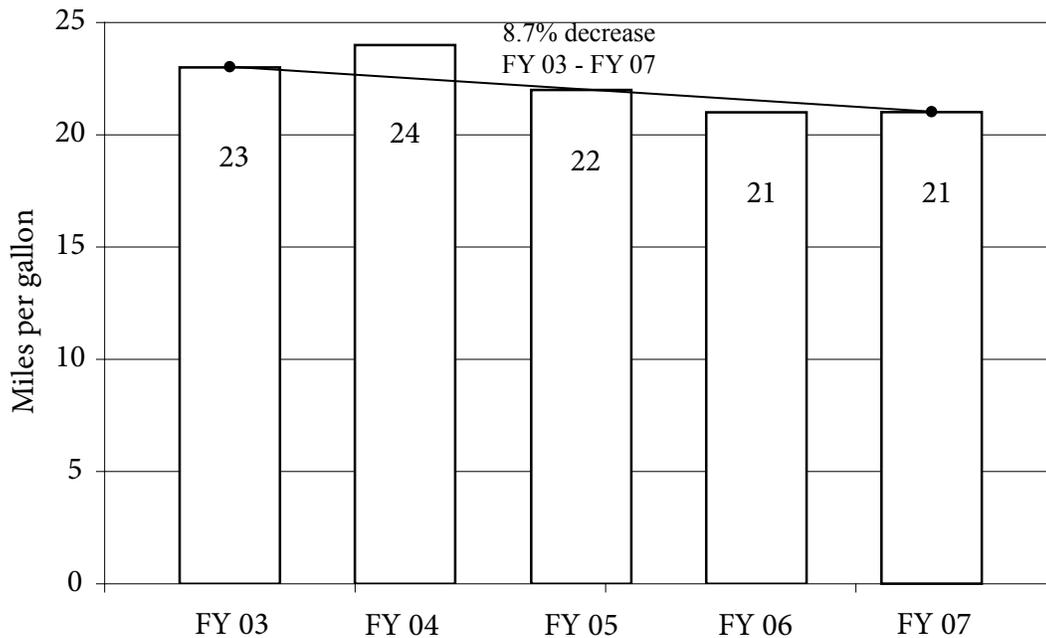
Fuel efficiency is based upon the vehicle manufacturer's estimated fuel consumption set by the U.S. Environmental Protection Agency. Several extenuating factors also affect fuel efficiency. Some of these factors are topography, weather, travel speed,

highway versus city driving, and the driving abilities and habits of operators.

The average fuel efficiency of passenger carrying vehicles is affected by the fleet's composition. The Ford Taurus is the most common vehicle in the passenger-carrying vehicle fleet. Class 01 inventory also includes 15 passenger vans contributing to lower average fuel efficiency ratings.

Figure 11

Average Fuel Efficiency of Light-Duty Vehicles



Source: WSDOT Operations Transportation Equipment Fund

Vehicle Purchase Priorities

Target: Give Priority to Hybrid or Other Fuel Efficient/Low Emission Vehicle Purchases

Target Date: September 1, 2009

Vehicle Purchases

WSDOT prioritizes vehicle replacement with the purchase of hybrid vehicles, consequent to the federal EPA requirements. The U.S. Environmental Protection Agency considers hybrid vehicles to meet high-mileage, fuel-efficient, and low-emissions requirements. Figure 12 illustrates WSDOT's agency fleet replacement.

Figure 12

Light Gas-Electric Hybrid Purchases

Fiscal Year	Total Low-Emission Light-Duty Vehicles Purchased	Hybrids Purchased	Percent Hybrids
FY03	47	2	4.3%
FY04	65	2	3.1%
FY05	43	2	4.7%
FY06	45	3	6.7%
FY07	44	4	9.1%

Source: WSDOT Operations Transportation Equipment Fund

Freeze Four-Wheel Drive Purchases

Target: Freeze Four Wheel Drive (4WD) Purchases (Exempting Those with Fuel Economy Greater than 30 MPG or Those Purchased for Law Enforcement or Emergency Response Purposes).

Target Date: September 1, 2009

The purchase of four-wheel drive sport utility vehicles (SUVs) has increased. As detailed in Figure 13, no four-wheel drive SUV purchase exemptions were granted by WSDOT in FY05, one four-wheel drive SUV purchase exemption was granted in FY06, and three exemptions were granted in FY07. Unless the agency director continues to grant exceptions, WSDOT should not purchase four-wheel drive vehicles obtaining less than 30 miles per gallon.

Figure 13

Exceptions Granted

4WD Sports Utility Vehicle Purchase	
FY05	0
FY06	1
FY07	3

Source: WSDOT Operations Transportation Equipment Fund

Biodiesel Use

Targets: Replace Standard Diesel Use With 20% Biodiesel Blend.
As soon as Practicable, Begin Use of 5% Biodiesel Blend.

Target Date: September 1, 2009

In 2004, Washington State Ferries, in partnership with the City of Seattle participated in a biodiesel pilot project. The project used biodiesel to fuel ferry vessels on the Fauntleroy-Southworth-Vashon service route. The ferries consumed approximately 142,000 gallons of biodiesel in the course of the four-month pilot project. The project was suspended due to mechanical problems incurred through the use of biodiesel in the ferry boats. Currently, the mechanical problems from using biodiesel are being studied.

Bio-Fueling Stations

In 2005, WSDOT started using 5% biodiesel (B5) mixed with regular diesel in maintenance vehicles in the Central Puget Sound area. WSDOT is introducing biodiesel to additional sites, based on availability of the fuel. At the time of publication, WSDOT is experiencing problems related to the blending of red dye in the biodiesel fuel. Biodiesel is only available in the Southwest region currently. WSDOT expects to be dispensing biodiesel with a 20% blend by July 2008.

Figure 14 details biodiesel availability and the quantity of biodiesel sold at WSDOT facilities. Washington State Ferries is now working with the Puget Sound Clean Air Agency to further evaluate biodiesel use in the marine environment. This study, which started in 2007, is known as the biodiesel research and demonstration project and is funded through a federal grant. It is a two-phased project that will include scientific research to identify the correct fuel specifications needed to operate on ferries and a fuel test demonstration to prove the use of the fuel.

Washington State Ferries received a research grant from The U.S. Department of Energy. The Puget Sound Clean Air Agency manages this grant, providing project administration, securing, and directing project funding. Seattle City Light also provides funding of up to \$350,000. Leading the research in these studies are Washington State University, University of Idaho, and Imperium Renewables. WSF receives the research and provides the platform for the demonstration project in ferries.

Figure 14
Biodiesel Purchased, Facilities and Quantities (gallons)

Site	Location Name	FY05	FY06	FY07
100	Corson		2,698	2,432
103	Signals	405	1,005	709
111	Bellingham			140
113	Maple Falls			85
120	Mount Vernon			190
121	Arlington			65
122	Coupeville			45
130	Everett			1,664
131	Monroe			200
132	Skykomish			180
140	Kent		1,185	1,590
142	Renton		100	162
143	Geneva		945	655
170	Bellevue WSDOT		2,480	1,855
173	Ballinger		670	552
301	Tumwater			2,121
310	Yelm			290
312	Lakeview			1,175
319	Mottman			735
322	Mt. Walker			385
323	Lofall			60
324	Mullinex			900
326	Shelton			670
331	Pt Angeles WSDOT			550
335	Seiku			120
338	Discovery Bay			160
341	Aberdeen			1,110
342	Amanda Park			195
348	Elma			1,201
401	Vancouver		230	2,778
411	Kelso		145	1,367
416	Mt. St. Helens			110
422	Morton			253
427	White Pass			780
431	Raymond			830
511	Camp Mason			130
	Total	405	9,083	14,845

Source: WSDOT Operations Transportation Equipment Fund

Vehicle Replacement Priority

Target: Replace Pre-1996 Light Duty Vehicles Driven more than 2,000 Miles/Year

Target Date: January 2008

Vehicle Replacement: Passenger Carrying Vehicles

WSDOT has established vehicle life cycles for each class of equipment. The replacement of individual units is based upon the individual vehicle life cycle completion.

A level purchasing methodology is used to determine the number of vehicle units to be replaced annually. The total number of units in a particular class is divided by the class life-cycle. For example, an equipment class with 100 units in inventory, on a 10-year life-cycle, means 10 units are replaced annually to replace the entire inventory in the 10-year period.

(100 units ÷ 10 years life cycle = 10 units replaced annually)

Level purchasing makes replacement planning predictable, provides a high degree of operational and funding consistency, and is easily understood by interested parties. This method also ensures a reliable fleet requiring less maintenance and fewer operational costs.

According to this schedule, within the next year, all pre-1996 light vehicles currently in the WSDOT fleet will be replaced thus meeting the intent of the executive order.

Figure 15

Pre-1996 Light Vehicle Replacement

Fiscal Year	Qty Remaining
FY06	3
FY07	1
FY08	0

Source: WSDOT Operations Transportation Equipment Fund

Fleet Management

Target: Employ Professional Fleet Management and Planning Practices

Target Date: September 1, 2005, and thereafter

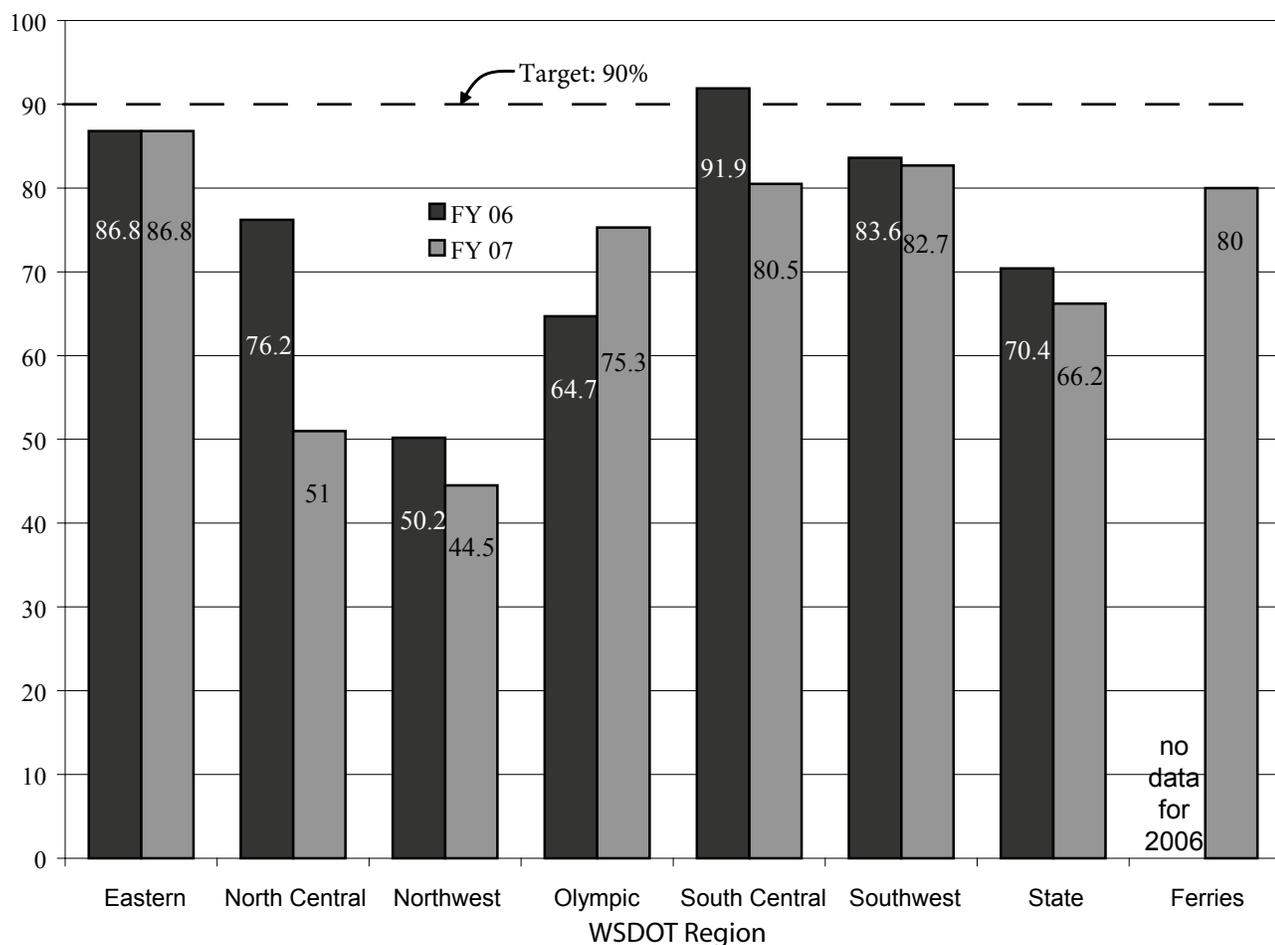
WSDOT uses a regularly scheduled vehicle preventive maintenance program to increase and maximize the mechanical life, productivity, and efficiency of WSDOT's fleet. This includes both vehicles and highway maintenance equipment.

The established goal is to accomplish 90% of all preventive maintenance services within 30 days after the manufacturer's recommended due date.

Figure 16 depicts WSDOT's six regions' preventive maintenance performance and the average statewide percentage for FY06 and FY07.

Figure 16

Percent of Preventative Maintenance Completed Within 30 Days After Date Due, by Region



Source: WSDOT Operations Transportation Equipment Fund

Direction on Rental Vehicle Use

Target: Establish Clear Direction on Rental Vehicle Use

Target Date: March 1, 2005

General Administration executed a mandatory contract with Enterprise Rent-A-Car. The program provides access to daily rental of automobiles from more than 4,500 airport terminals and other locations in Washington and nationwide. WSDOT rents vehicles from Enterprise.

In accordance with EO 05-01, a fuel-efficient, high-mileage compact or hybrid vehicle, if available, is the primary vehicle type for mandatory rental use. If unavailable, WSDOT requires a vehicle that gets 30 MPG or better. Four-wheel drive vehicles are available for rental during the winter months if travel involves traversing the Cascade Range. In cooperation with EO 05-01, Enterprise Rent-A-Car is examining the purchase of a number of alternative-fuel SUVs. Some compact SUVs would be biodiesel fueled and stationed initially at the Olympia location. WSDOT is pursuing identification of a suitable fueling station within the Olympia area.

General Administration also issued a request for state renters traveling solo to reserve a standard size or compact-sized vehicle, in accordance with EO 05-01. Additionally, in Washington State, Enterprise purchased roughly 150 hybrid vehicles (for the state contract) in use at locations with the most state business (Sea-Tac, Spokane Airport, etc.). Nationwide, 47% of Enterprise's fleet's fuel efficiency averages 28 MPG or better. Of those, 28% average 32 MPG or better.

Washington State Ferries (WSF) Fleet Initiatives Update

Emissions Reduction: Upgrading Fuel Injectors

Correction to 2006 Sustainability Plan and Progress Report Update, Page 49, WSF Initiatives: Washington State Ferries has not conducted design modification of the 16 electro-motive diesel engines on the Super Class vessels Hyak, Elwha, Kaleetan, and Yakima, as stated in the last sentence of the second paragraph under the sub-title Upgrading Fuel Injectors. This should be done by the end of FY08.

New Vessels

Washington State Ferries intends to replace existing ferries with four new auto ferries using a design-and-build process mandated by the state legislature and codified in RCW 47.60.810 *et seq.* Each ferry will have the capacity of 144 autos and 1,500 passengers. After delivery, shakedown, and crew training, they will be deployed to operate on existing ferry routes presently being served by vessels of similar and smaller capacities. As the new ferries enter service, a ripple effect will occur within the Washington State Ferries fleet where existing ferries will be redeployed throughout the system or retired. Eventually six ferries that are at or past the end of their useful service lives, including at least two of the Steel Electric Class ferries, are scheduled to be removed from service by the end of 2011. Construction is expected to start in February 2008.

Figure 17

Fuel Monitoring Equipment Installation Status per Vessel
June 30, 2007

Vessel Class	Vessel Name	Main Propulsion	Boilers
Jumbo Mark II	Wenatchee	X	n/a
Jumbo Mark I	Walla Walla	X	
Super	Kaleetan	X	X
Super	Chelan	X	
Issaquah	Kitsap	X	X
Evergreen State	To be determined	TBD	TBD

Washington State Ferries has purchased the main propulsion and auxiliary generators and received delivery of the auxiliary generators for these vessels. The new engines and generators are EPA Tier-2 compliant. As the vessels enter the fleet and old vessels are retired, WSF predicts a reduction in Nitrous Oxides (NOx), Carbon Monoxide (CO), Sulfur Oxides (SOx), Total unburned Hydrocarbons (THC), Particulate Matter (PM) from the fleet.

Biodiesel Pilot Test

In 2004, Washington State Ferries pilot tested a mixture of 20% biodiesel and 80% low-sulfur petroleum diesel on three vessels. Shortly after the first fueling, all three vessels in the test reported severe clogging in the fuel filters. Engineers initially thought that the clogging was related to the cleansing of the system. Symptoms continued however and after consulting with national fuel industry experts, distributors, and suppliers, Washington State Ferries suspended the use of biodiesel on the vessels and decided more study was needed before resuming use of this fuel type.

WSF Clean Fuels

Washington State Ferries continues to take major steps to reduce air pollution from its ferry fleet by testing and switching to use of cleaner fuels.

Ultra-Low-Sulfur Diesel Fuel

In October 2006, Washington State Ferries began shifting the vessel fleet to burning Ultra-Low Sulfur Diesel. Currently all vessels fueling at fixed facilities are burning Ultra-Low Sulfur Diesel. All vessels with mobile deliveries of fuel are burning Low Sulfur Diesel.

Washington State Ferries Fuel Conservation

Washington State Ferries is continuing its initiative to identify cost effective opportunities to decrease fuel consumption through changes in vessel and terminal operations. The first step in this effort was to install fuel monitoring equipment on the propulsions systems for vessels from each type and class in the fleet. The monitoring equipment provides information on how the different vessel types and classes consume fuel during acceleration, crossing, and deceleration into the dock. As of July 2007, five vessels from the four

**Figure 18
Fuel Use Monitoring Status per Vessel Class
June 30, 2007**

Vessel Class	Tests Completed	% Complete
Jumbo Mark II	Various speeds, various drafts	100
Jumbo Mark I	Various speeds, various drafts	75
Super	Various speeds, various drafts	100
Issaquah	Various speeds, various drafts	100
Evergreen State	Various speeds, various drafts	0

largest vessels classes have had the monitoring equipment installed. The monitors will be installed on other vessels, boilers, and auxiliary generators as the evaluation proceeds.

In addition to gathering data on fuel consumption by vessel type and class, the baseline fuel consumption profile for each route is being identified. The baseline fuel consumption profile is built from a compilation of the vessels fuel consumption data, crossing data, and loading and unloading data. From these profiles, Washington State Ferries can evaluate what are the most fuel efficient operations that will also meet current schedule requirements.

Conservation Measures Implemented

Washington State Ferries has reduced the dead weight on the Jumbo Mark I vessel class by reducing the amount of fuel carried on the vessels.

In May 2007, Washington State Ferries started a pilot test of operating the Jumbo Mark II class ferries on two main propulsion engines, instead of the three-engine standard operation. During the pilot test Washington State Ferries will be assessing operational concerns identified by the vessel and engine operators, as well as track actual fuel savings.

B. Purchase of Goods and Services

Section Summary

Executive Order or Statute	Topic	Requirement	Target Date
EO 05-01 and EO 02-03	Paper	Reduce use of office paper by 30%	9/1/2009
		Increase % of environmentally preferred paper by 50%	9/1/2009
		Recycle 100% of used office paper	9/1/2009
		Increase use of post consumer recycled products for janitorial paper products	9/1/2009

Paper Use Reduction

Target: Reduce Use of Office Paper by 30%

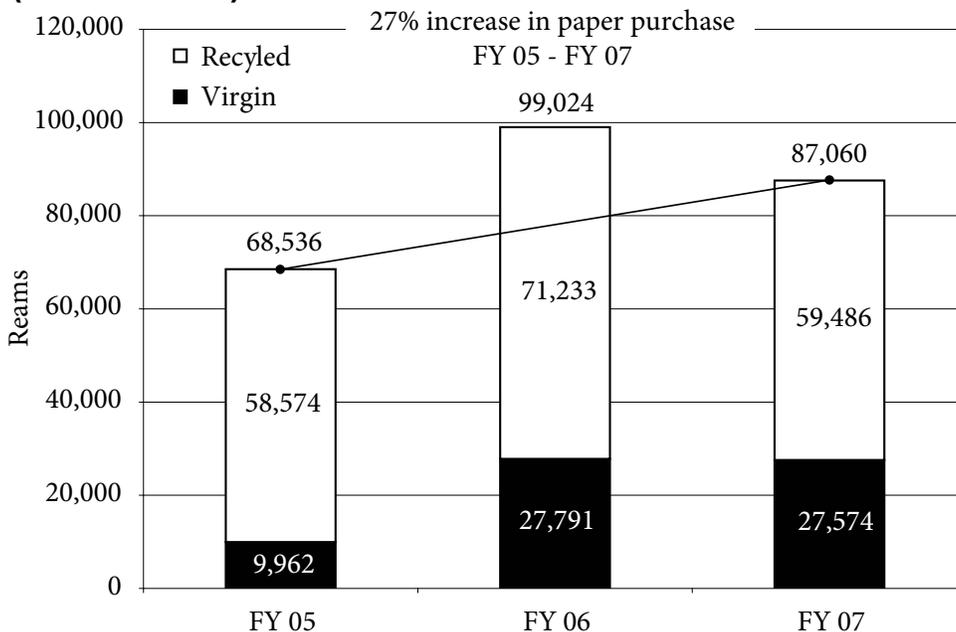
Target Date: September 1, 2009

All paper use data (except where noted) was collected through five sources: Printing Services, WSDOT Headquarters, General Administration's Central Stores, where WSDOT region offices purchase the majority of paper consumed, Corporate Express (previous state contract supplier), and Office Depot, the current state contract supplier. Paper purchases made through local retail stores and other contract suppliers are not measured in this report.

Paper purchases are reported in reams even though the measurement for paper purchases varies. Paper purchase data collected in this section is incomplete. WSDOT is in the process of developing consistent measurement and tracking methods.

According to data available for FY05 through FY07, WSDOT increased paper consumption by an estimated 27.7% or 19,028 reams over the three-year period. Agency-wide paper use fluctuates during legislative sessions and the increase in highway capital programs. Steps include implementing consistent and accurate tracking of paper purchases, using duplex function, electronic record keeping, and print management.

Figure 19
WSDOT Total Paper Purchases
(8.5 x 11 reams)



Source: WSDOT Printing Services; Washington State Department of General Administration: Central Stores

Environmentally Preferred Paper Purchases

Target: Increase Environmentally Preferred Paper Purchases by 50% from FY03 levels

Target Date: September 1, 2009

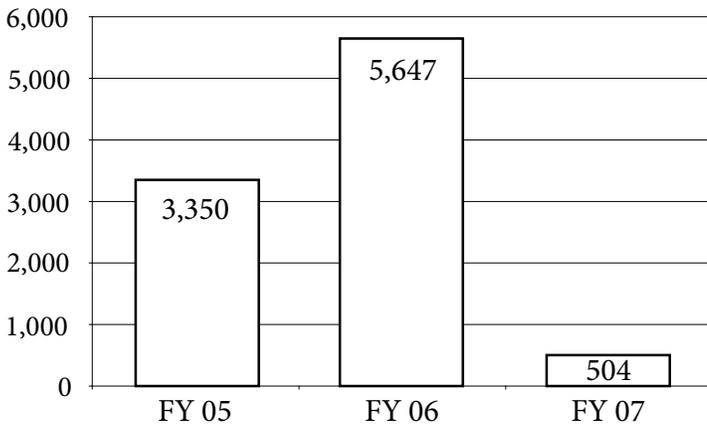
Per EO 05-01, Environmentally Preferred Paper is defined as 100% recycled paper with at least 50% post-consumer waste.

Due to inconsistencies in data collection, environmentally preferred paper purchase information may not be complete. The trend shows WSDOT

met and exceeded the target in FY06 with a 69% increase in environmentally preferred paper purchases. Data on environmentally preferred paper purchases for FY07 is incomplete. In addition, printing services experienced equipment failure and other problems due to the more fibrous paper type. This prevents a more aggressive approach to using environmentally preferred paper.

Figure 20

Environmentally Preferred Paper Purchases (8.5 x 11 reams)



Sources: WSDOT Printing Services; Washington State Department of General Administration: Central Stores

Janitorial Paper Products Use

Target: Increase Use of Post Consumer Recycled Products for Janitorial Paper Products

Target Date: September 1, 2009

The following table illustrates that the majority of janitorial products purchased in FY06 through Central Stores are paper-based. The majority of janitorial paper products contained in this list have at least 20% post-consumer content. In FY06, WSDOT purchased \$329,000 worth of janitorial paper products from

Central Stores. WSDOT will ensure consistent agency-wide measurements of janitorial paper product use.

FY07 data is currently unavailable.

Figure 21

WSDOT Janitorial Paper Product Purchases FY 2006

Product	Quantity	Unit	Post Consumer Content
TOILET TISSUE (GP 14580) 4 1/2 X 4 1/3	99	Case	20%
TOILET TISSUE (GP15590) 4-1/2X4-1/2"	132	Case	20%
TOILET TISSUE 4X4"(13102)JUMBO [2.55L]	2,460	Case	20%
TOILET TISSUE,KC 04460-50, 2 PLY	647	Case	20%
TOILET TISSUE JRT jumbo roll (KC 07805)	100	Case	N/A
TOILET TISSUE, jumbo roll, (KC 07827)	12	Case	N/A
TOILET(TJ1222)TISSUE,JUMBO ROLL,TWO PLY,6-ROLL/CS	227	Case	N/A
TOILET PAPER 4"X4" KC07805	3	Case	20%
SEAT COVER TOILET HALF FOLD 50RA	844	Case	60%
TOWEL, PAPER GP25190, C FOLD,	547	Case	40%
TOWEL(KC-01801)1P MULT-FOLD	73	Case	40%
TOWEL, GP23504,1P, SINGLE/FOLD	1,090	Case	80%
TOWEL KC01950, M-FOLD	180	Case	40%
TOWEL, paper, household, white, two ply, 11" x 9",	2	Case	40%
TOWEL, PAPER GP 26402	355	Case	40%
TOWEL GP89460 1PL FOR USE IN 4515-007-035 DISPENSE	87	Case	40%
TOWEL(20389)1-PLY, 16 PK/CS	179	Case	40%
TOWEL, GP21000, 2 PLY , MULTI FOLD	1,230	Case	45%-65%
TISSUE, 47410,FACIAL,WHITE 2 PLY	4,577	Box	20%
TOILET TISSUE,GP14448, RECY,	638	Case	21%
TOWEL(116)CLEANING CLOTH	3	Package	None
SHOP TOWEL KC05701, (12.5X14.5)	170	Case	None
TOWEL, HAND CLEANING, 6285-07	2	Each	None

Source: Washington State Department of General Administration: Central Stores

Virgin Paper Purchases

Target: Justification of Virgin Paper Purchased

Target Date: September 1, annually

Virgin paper is considered to be paper without recycled post-consumer content. The amount of virgin paper reams purchased has varied in recent years. The justification for virgin paper purchases is

based upon the type of project. In addition, certain printer manufacturers require virgin paper to prevent equipment damage.

Data collected for FY07 is incomplete.

Figure 22

WSDOT Virgin Paper Purchases (8.5 x 11 reams)

	FY03	FY04	FY05	FY06	FY07
Headquarters Purchases	2,819	542	1,282	1,730	1,168
Region Office Purchases from Central Stores	N/A	N/A	7,753	13,331	
Total	2,819	542	9,035	15,061	

Sources: WSDOT Printing Services; Washington State Department of General Administration: Central Stores

C. Facility Construction, Operation, and Maintenance

Section Summary

Executive Order or Statute	Topic	Requirement	Target Date
EO 05-01 and ESSB 5509	Construction	Incorporate green building practices (LEED Silver) to projects costing more than 50% of facility's assessed value.	2005-2007 biennium and thereafter
EO 05-01 and EO 02-03	Energy	Reduce energy purchases by 10% from 2003 by 9/1/2009	9/1/2009
		Report annual energy use to GA	9/1 annually

Incorporate Green Building Practices

Target: Construction or Remodeling Projects Larger than 5,000 Square Feet must Conform to LEED Silver Standards

Target Date: 2005-2007 biennium and thereafter

WSDOT has adopted the Leadership in Energy and Environmental Design (LEED) Rating System for design and construction of new and renovated buildings.

The LEED rating system was developed by the U.S. Green Building Council to encourage and facilitate the construction of more sustainably designed buildings. LEED certification is tiered into three categories: Silver, Gold, or Platinum.

Currently, no general WSDOT facilities are under construction. All future projects will conform to LEED Silver standard or better.

WSDOT and the Department of Corrections occupy the recently completed Edna Lucille Goodrich Building located in Tumwater, Washington (LEED Certified Gold).

The capital projects being built to LEED Silver standards will require some yet undetermined level of recycling of the demolished facilities as well as the use of recycled materials in the new facility. All other capital construction projects place the decision of what waste to recycle on the project contractor.

Washington State Ferries (WSF) Facilities Update

WSF Major Facilities LEED Status

WSF has the following terminal facility projects under design to a LEED Silver standard:

Figure 23

Washington State Ferries LEED Projects

Facility	LEED Design Level	Project Design Phase	Projected Build Date
Anacortes Terminal	Silver	50%	Summer 2009 with funding approval
Bainbridge Terminal	Silver	Master Plan/Env. 2%	To be determined
Edmonds Terminal	Silver	Preliminary 5% to 10%	2012 with funding approval
Mukilteo Terminal	Silver	30%	To be determined
Seattle Terminal	Silver	Master Plan/Env. 2%	To be determined

Waste Reduction

To reduce human and environmental health risk, quantity of waste, and cost in FY07, Washington State Ferries replaced all general cleaning products on the vessels and in the terminals with Green Seal approved cleaning products.

Washington State Ferries Waste Recycling

Washington State Ferries currently has a recycling program in place, in accordance with applicable city, state, and federal laws and regulations for the following wastes: all metals (aluminum, brass, copper, steel), used oil, soaked oil absorbents, metal oil filters, batteries, paper, cardboard, plastic bottles, and fluorescent lamps.

Washington State Ferries operations of 28 vessels, 20 terminals, the Eagle Harbor vessel repair facility, and the administrative offices generate a variety of wastes, including recyclables classified as solid waste, universal waste, and potentially hazardous waste.

Creosote Piling Removal

In 2000, Washington State Ferries made a commitment to design, construct, and maintain ferry terminal facilities in an environmentally responsible manner, using the best available practices and materials. As part of this commitment, WSF began removing creosote-treated timber from its ferry terminals.

In FY07, Washington State Ferries removed 135 creosote-treated pilings from Puget Sound to benefit fish and the marine environment. This brings the total of creosote-treated pilings removed to 3,985 since 2000 when the program began. WSF has the goal to remove an additional 3,800 creosote-treated pilings over the next nine years at the Anacortes, Mukilteo, Seattle, Bainbridge Island, Port Townsend, Keystone, and Southworth terminals, and at the Eagle Harbor Maintenance Facility.

Energy Use

Target: Reduce Energy Purchases by 10%

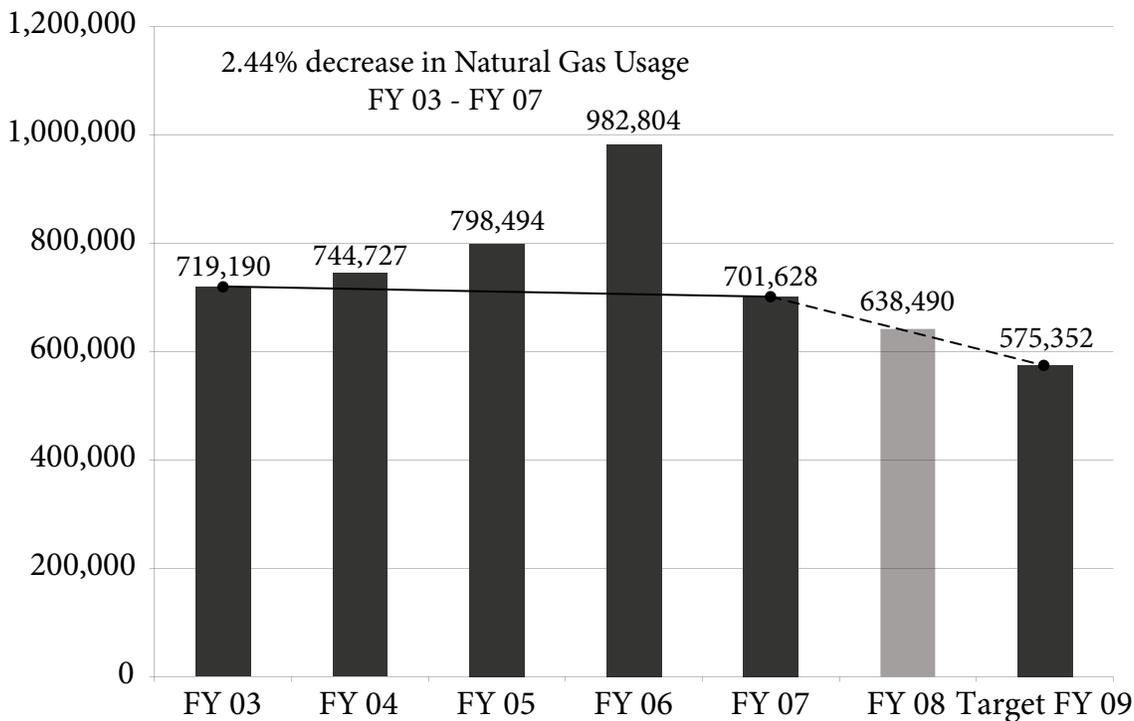
Target Date: September 1, 2006

Energy consumption is reported to the Department of General Administration annually. Natural gas use is reported in therms and kilowatt hours (KWH). The sustainability target aims at reducing energy purchases by 10% from FY03.

Figure 24 shows a 2.4% decrease in the use of natural gas from FY03. It is likely that improper use of or poorly programmed thermostats were contributing factors to the increases through FY06, which has since been rectified. WSDOT is now on track, with continued energy conservation practices, to meet the FY09 goal.

Figure 24

WSDOT Natural Gas Usage (Therm)

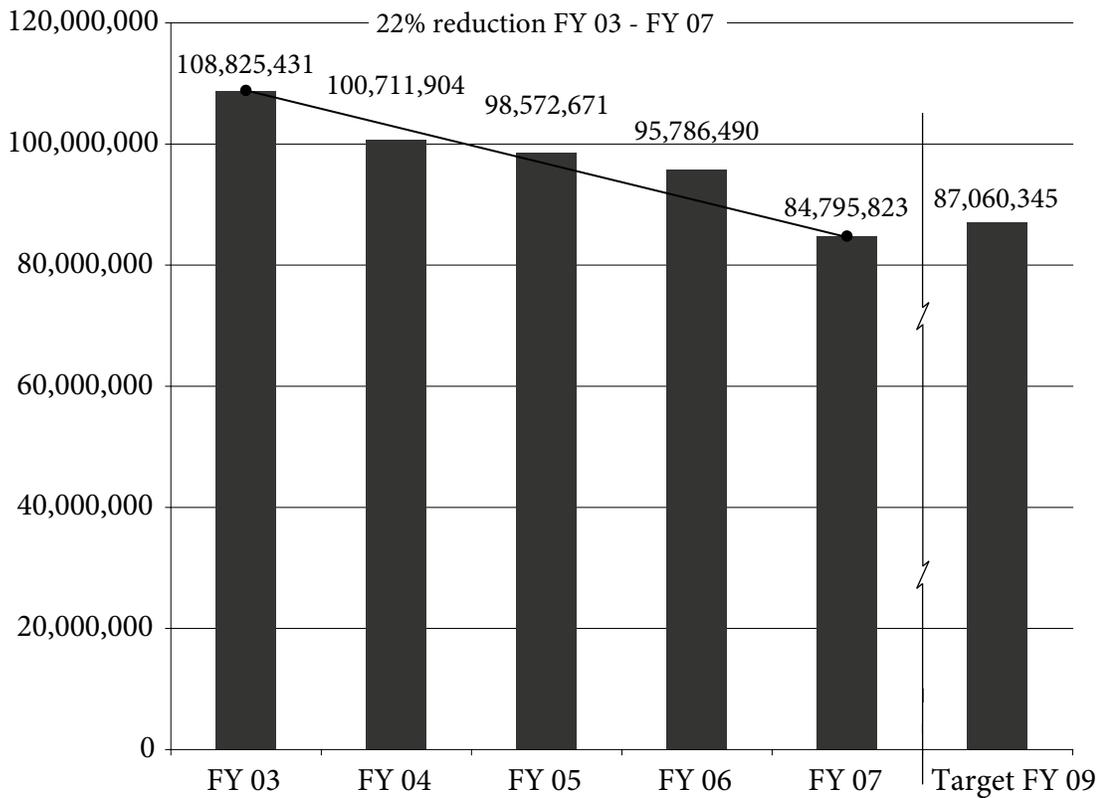


Source: Washington State Department of Transportation: Facilities Office

Figure 25 illustrates progress made toward meeting the electricity reduction target. Likely contributors to the decline in electricity use stem from newer, more energy efficient technologies, appliances, and equipment. However, greater reductions may be achieved through education about or policies pertaining to computer, printer, and copier machine use.

Education and outreach efforts significantly address impacts on energy conservation. As of FY07, WSDOT has exceeded expectations and lowered energy usage by 24,029,708 KWH (22%).

Figure 25
WSDOT Electricity Usage (KWH)



Source: Washington State Department of Transportation: Facilities Office

D. Waste Management and Recycling

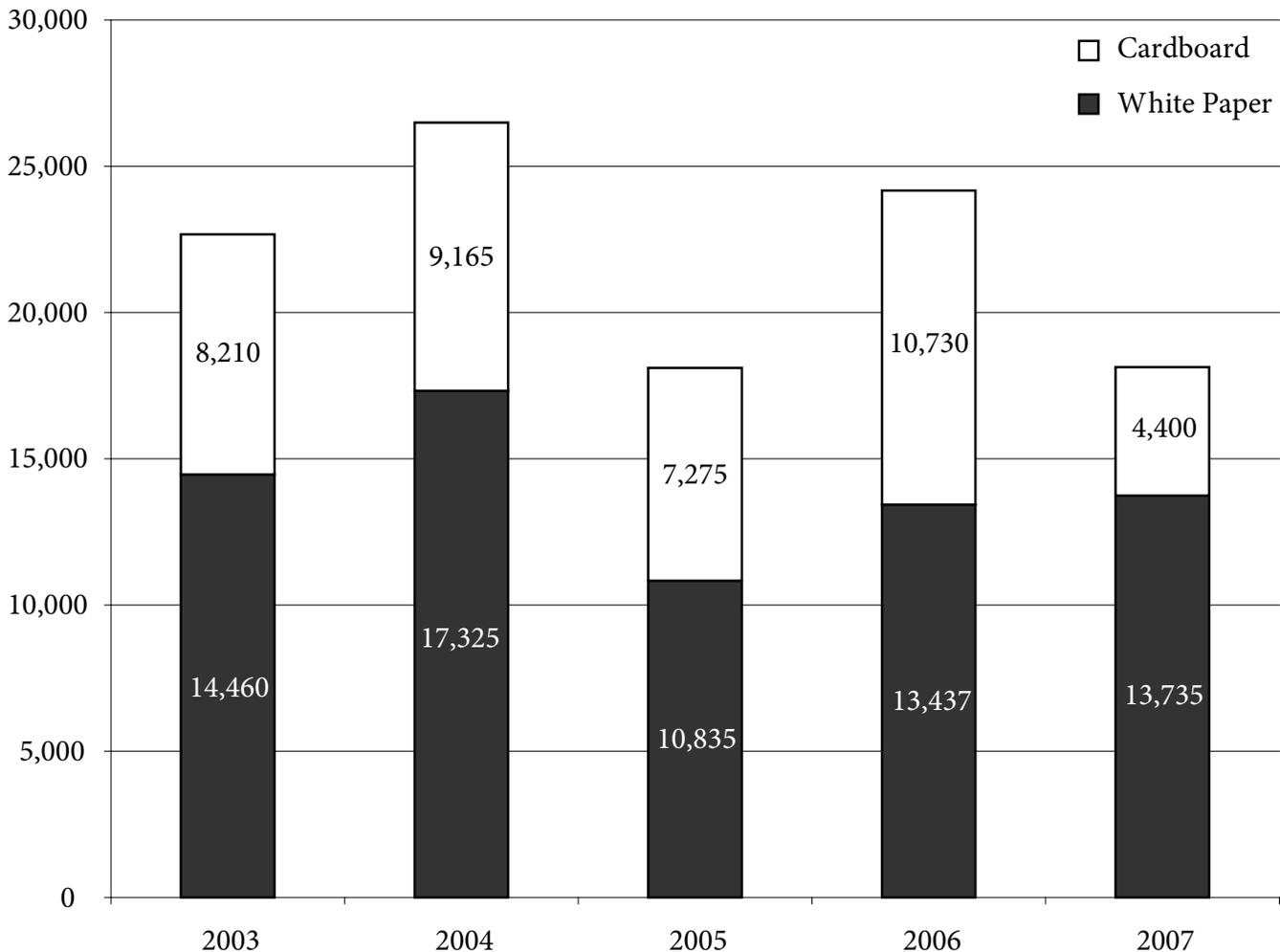
Paper Recycling

Target: Recycle 100% of Used Office Paper

Target Date: September 1, 2009

At WSDOT Headquarters, paper is recycled along with periodicals, newspapers, cardboard boxes, etc. Currently, no accurate or consistent methodology measures the amount of paper recycled agency-wide. However, we intend to identify the degree and proper methodology of paper recycling practices in order to provide this data in future reports.

Figure 26
WSDOT Total Paper and Cardboard Recycling (in lbs.)



Source: WSDOT Administrative Services

E. Persistent Toxic Chemicals

Section Summary

Executive Order or Statute	Topic	Requirement	Target Date
EO 04-01	Persistent Toxic Chemicals	Adopt measures to reduce the use of equipment, supplies, and other products that contain persistent, toxic chemicals	9/1 annually

Target: Adopt Measures to Reduce Use of Equipment, Supplies, and Other Products Containing Persistent Toxic Chemicals

Target Date: September 1, annually

The major areas where materials with persistent toxic qualities have been used or exist within the highway right-of-way or agency facilities include: maintenance operations such as paint stripping, metal bridge painting, and herbicides for vegetation management, and in older facilities from lead paint and mercury in light filaments and tubes.

A legislative rule came into effect in FY06 prohibiting the Department of Ecology from listing certain chemicals as persistent toxics, such as pendimethalin,

even if listed by the U.S. Environmental Protection Agency.

The Department of Ecology is tasked with “using its existing programs and authorities to reduce persistent, toxic chemicals over time” and that WSDOT continues to report on pendimethalin if found in U.S. EPA’s list.

Pendimethalin was reported in the 2006 Sustainability Plan and Progress report. However, this chemical has not appeared on the list since FY06, and reports of usage of this chemical have been only in trace amounts. These amounts are of an insignificant quantity and would produce a negligible, if any, effect on health, safety, and the environment.

IV. FUTURE CHALLENGES AND NEXT STEPS

A. Climate Change and Sustainability

Washington State began an in-depth discussion on Climate Change in early 2007. Governor's Executive Order 07-02 created a stakeholder committee to addressing climate change across all sectors of the state. The objectives of the committee are to develop strategies and policies in reducing climate pollution, growing the clean energy economy, and moving toward energy independence.

Sustainability is closely linked to the climate change discussion in that the drivers of climate change are the result of unsustainable practices. WSDOT is engaged in identifying ways to slow the advance of climate change at the planning, program, and project levels, including the administrative level through better sustainability practices. The sustainability connection to climate change will continue to be emphasized in future reports.

Additional sustainability information is available on our Web site at <http://www.wsdot.wa.gov/planning>. Information and tips on how to lessen impacts on climate change may be found through the Department of Ecology's Web site at <http://www.ecy.wa.gov/climatechange>.

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