49 Safety Rest Areas Annual Preservation Report

Notable results

- ***Rest areas met maintenance goals in 2012 with a "B" rating on a scale from A+ to F-, in line with funded level of service***
- ***WSDOT installed electric vehicle charging stations at two Interstate 5 rest areas in 2012, Custer and Gee Creek***

Rest areas continue to meet maintenance goals in 2012

Safety rest areas scored a "B" rating through the 2012 Maintenance Accountability Process (MAP) on a scale of A+ to F-, with A+ being the best. This is the same score as 2011 and a slight increase from 2010, when the program had a "B-" rating. WSDOT measures the outcome of rest area maintenance activities.

Public surveys are conducted periodically throughout the year to rate the condition of rest areas and consider things like cleanliness, litter and garbage disposal, and functionality of hand dryers, faucets and partitions. The "B" rating in 2012 met the target for maintenance goals set at the level of service funded for rest areas. (See *Gray Notebook* 48, p. 18).

No rest areas in poor condition in 2012

The 2012 safety rest area facility condition ratings were a 5 percent improvement in the statewide average condition ratings since 2010. Condition assessments are performed every two years. The 2012 assessment is the most recent and was reported in *Gray Notebook* 45, p. 12. One of the primary goals is to ensure no rest area is in poor condition, which signals a high potential for failure that would likely impact rest area operations. In 2012, WSDOT met this goal with no rest areas in poor condition.

Rest area preservation is highest priority

The highest priority for rest areas is to maintain, operate and preserve existing assets with the goal of extending the useful life of buildings and site components. It is vital that rest areas are preserved and well maintained in order to deliver the services expected by the traveling public, who are more inclined to stop and use rest areas that are safe and well maintained.

Electric vehicle and charging station at the Custer rest area. See the next page for more details.

Preservation backlog increases slightly

The deficiency backlog for rest area preservation was $14.4 million in 2012, a slight increase from 2010. Facility condition assessments are used to quantify rest area preservation needs. The condition of individual site and building systems is evaluated and documented using industry standards for facility management and design. Evaluation results help identify deficiencies and are used to determine facility replacement priorities and quantify the statewide backlog of preservation work. If a system is found to be deficient, a preliminary repair cost is estimated. The sum of the repair cost estimates define the deficiency backlog.

WSDOT improves sewer and water assessment

WSDOT is working to improve the condition assessment of sewer and water systems, which are critical to rest area operations. These systems are located underground and have not been assessed to the level necessary to fully understand their condition and potential for failure. Sewer and water deficiencies are difficult to identify before system failures occur and require rest area closures for repairs.

For future condition assessments, WSDOT plans to rate individual system components, such as pumps, pressure tanks, transport lines, water reservoirs, and sewage lagoons. This will provide a more detailed analysis of the preservation needs of these critical rest area systems.

Rest area projects are prioritized for safety and preservation

Minor preservation projects prioritize safety first

WSDOT prioritizes minor rest area preservation projects as they are identified in the categories listed below.

- ***Occupant*** projects have hazardous site or building components that jeopardize the health and safety of staff, the public, the environment, and/or are immediate violations of local, state or federal codes and regulations.
- ***Preservation*** projects require replacement or repair of frequently failing systems or systems with high risk of failure requiring consistent corrective maintenance.
- ***Operational*** projects have insufficient building space or site improvements that impact critical operations.

WSDOT funded or completed $193,000 of occupant projects in the 2011-2013 biennium, addressing Americans with Disabilities Act compliance issues and providing a storage building for cleaning chemicals. In addition, $240,000 of preservation projects were funded or completed; no operational projects were funded this biennium.

WSDOT installs electric vehicle charging stations at two rest areas on Interstate 5

Electric Vehicle Service Equipment (EVSE), or charging stations, were recently installed as demonstration projects at two border-entry I-5 rest areas: northbound Gee Creek at milepost 11 near Vancouver, Wash. and southbound Custer at milepost 269 near the Canadian border. The project cost of $64,000 was funded by a grant from the Washington State Department of Commerce, State Energy Office.

Each rest area provides two Level 2 EVSE parking stalls and an information kiosk to promote the West Coast Green Highway Project. Level 2 EVSE uses single phase 240 volt power, which takes two to eight hours to recharge an electric vehicle battery depending on its level of depletion. Use of the electric vehicle chargers has been low, with an average of 4.7 sessions per site per month. Sessions average 37 minutes and use about two kilowatt hours of electricity.

No fees are assessed to users at either rest area. Electrical service meters were installed at each site for the equipment. A sponsorship agreement with Adopt-A-Charger and the Seattle Electric Vehicle Association will cover utility expenses for the duration of the demonstration project, which lasts through October 2014.

Major projects prioritized by multiple deficiencies

Multiple deficiencies at one rest area, or projects that cost greater than $100,000 are categorized as major projects. These projects often involve building renovations and replacements, and include most water and sewer rehabilitations. Major projects are prioritized separately from minor projects to address multiple deficiencies at one site.

Travelers Rest major renovation completed

Travelers Rest is a rest area located at Snoqualmie Pass on State Route 906 (SR 906) near its junction with I-90. A $665,000 renovation in 2012 addressed several deficiencies, including upgrades to the heating, ventilation and air conditioning system, insulation upgrades, and improved Americans with Disabilities Act accessibility with a new unisex restroom and building entrance. The project was completed in December 2012 and repaired exterior surfacing, replaced the roof, and improved service doors, lighting, and drainage systems.

Water systems are rehabilitated at two rest areas in 2012

The water system at the Toutle River rest area on I-5 at milepost 54 was improved in 2012. The $225,000 project replaced the pump system and renovated the water storage reservoir, reducing the likelihood of frequent repairs. A $93,000 project replaced a 42-year-old water well at the eastbound Sprague Lake rest area on I-90 at milepost 242. The surface seal of the old well was deteriorated beyond repair. This was phase one of a two-part project to rehabilitate the entire water system, improving site operations and minimizing disruption from the deteriorating system.

SeaTac rest area major renovation begins this summer

The SeaTac rest area just north of Fife along northbound I-5 at milepost 140 is heavily used and in need of more capacity according to site users, maintenance staff and Federal Highway Administration design guidelines. Starting this summer, a $1.3 million project will renovate the existing restroom building, add a second restroom building, replace the recreational vehicle (RV) dump stations, expand the RV staging area to improve site circulation, and address drainage issues. Construction is scheduled to be completed in fall 2013, one year later than reported in *Gray Notebook* 45, p. 13.

Gee Creek rest area major renovation begins this summer

The heavily used southbound Gee Creek rest area, on I-5 north of Vancouver, Wash., is in need of additional capacity. This rest area also has several site deficiencies. The existing

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49 Ferries Vessel and Terminal Preservation Annual Report

Notable results

- *Seven percent of vessel systems are past due for preservation; the backlog is valued at $52 million*
- *Two new 144-car vessels are under construction to replace vessels built in the 1950s*
- *WSDOT invested $36.4 million in ferry vessel and terminal preservation, reducing needs by 2.6 percent for vessels and 1 percent for terminals*
- *Planned preservation work on three vessels was delayed by 22 emergency projects*

WSDOT delivers 80 percent of terminal projects under budget

The Washington State Ferries terminal condition assessment shows 86.9 percent of ferry terminal systems are in "good or fair" condition, similar to the previous year. The condition assessment of ferry vessels is presented for the first time in this article. This assessment shows 58 percent of ferry vessel systems fall within Condition Category 1, meaning they are not in need of replacement. WSDOT is required to inspect and evaluate ferry terminal and vessel assets at least once every three years.

As of March 31, 2013, WSDOT delivered eight of 10 terminal preservation projects planned for the 2011-2013 biennium. Use of asset management tools resulted in significant savings; expenditures totaled 56 percent of the budget ($16.9 million of $30.4 million allocated). Vessel preservation implemented a new asset management program, factoring in risk to service disruption. During the 2011-2013 biennium, vessels required 22 emergency repairs, particularly for the Motor/Vessel (M/V) *Walla Walla*. The emergency repairs impacted planned work due to shipyard capacity constraints. Sixty-two percent of funding budgeted for vessel preservation was spent to date. Additional details regarding the budget and expenditures are on p. 16.

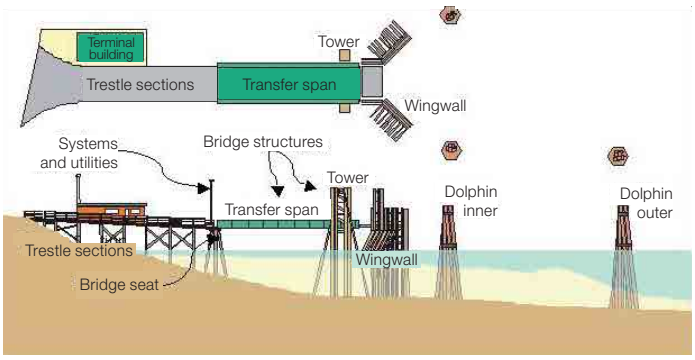
WSDOT owns and maintains 22 ferry vessels. Each vessel has up to 94 systems, for a total of 1,816 systems onboard the ferry fleet. The condition of vessel systems is presented in the tables on p. 15. In the 2013-2015 biennium two new 144-car ferry vessels will be delivered to WSDOT. These vessels will replace two vessels built in the 1950s, which will impact preservation investments.

WSDOT is also responsible for the preservation of 19 ferry terminals and a maintenance facility located at Eagle Harbor on Bainbridge Island. These 20 facilities currently have 757 systems that are grouped into seven types. The tables on the p. 13 show the categories and condition ratings of these terminal systems. The illustration below shows some of the systems at ferry terminals.

Terminal conditions similar to one year ago

In 2012, 86.9 percent of ferry terminal systems were rated in "good or fair" condition – 0.4 percent better than in 2011 (see definitions of condition ratings on p. 13). Systems rated in "poor or very poor" condition improved by 0.5 percent, declining from 13.0 percent in 2011, to 12.5 percent in 2012. Terminal engineers conduct condition assessments of each system as the first step in the preservation decision-making process. The next step is a review of the economic and operational risks to the terminal, resulting in selection of the type of preservation investments to terminals.

The percentage of ferry terminal systems in "good or fair" condition meets or exceeds the system-wide average of 86.9 percent for three of the seven system categories in the first table on p. 13. Similarly, of the 19 ferry terminals, 11 have a percentage of systems in "good or fair" condition, better than the system-wide average, shown in the second table on p. 13. Two terminals and the Eagle Harbor maintenance facility each have approximately 30 percent or more of their systems in "poor or very poor" condition.



Examples of ferry terminal systems.

Ferries terminal systems conditions improve slightly in 2012

Four types of systems each have 13 to 24 percent of their systems in "poor or very poor" condition

Landing aids (wingwalls and dolphins) guide vessels to the docks and protect people and infrastructure from injuries during hard landings (see p. 12 illustration); 24 percent of them are in "poor or very poor" condition. Many of the older landing aids are creosote-soaked wood pilings that are deteriorating from being immersed in saltwater. As funding becomes available, WSDOT plans to replace these timber landing aids with concrete and steel structures to increase their usable life span and to reduce marine contamination caused by creosote.

Passenger-only facilities are terminals designed to serve passenger-only ferries. While Washington State Ferries no longer operates passenger-only service, WSDOT maintains the structures at the Vashon Island and Seattle terminals and at the Eagle Harbor maintenance facility. Thirteen percent of these facilities are in "poor" condition. King County rents WSDOT's Seattle and Vashon Island passenger-only terminals for its Water Taxi service.

Washington State Ferries tracks structural condition rating for 757 terminal systems

Inspection results for 2012 by terminal

Terminal	Number of systems	Good or fair (70-100)	Poor or very poor (0-69)	Not rated
Anacortes	83	81.9%	15.7%	2.4%
Bainbridge Island	53	94.3%	5.7%	0.0%
Bremerton	45	86.7%	13.3%	0.0%
Clinton	42	100.0%	0.0%	0.0%
Coupeville	17	70.6%	29.4%	0.0%
Eagle Harbor Maintenance facility	76	68.4%	30.3%	1.3%
Edmonds	35	100.0%	0.0%	0.0%
Fauntleroy	24	100.0%	0.0%	0.0%
Friday Harbor	35	82.9%	17.1%	0.0%
Kingston	59	94.9%	5.1%	0.0%
Lopez Island	18	94.4%	5.6%	0.0%
Mukilteo	24	79.2%	16.7%	4.2%
Orcas Island	20	85.0%	15.0%	0.0%
Point Defiance	18	88.9%	11.1%	0.0%
Port Townsend	27	63.0%	37.0%	0.0%
Seattle	82	85.4%	14.6%	0.0%
Shaw Island	17	94.1%	5.9%	0.0%
Southworth	25	100.0%	0.0%	0.0%
Tahlaquah	18	100.0%	0.0%	0.0%
Vashon	39	92.3%	7.7%	0.0%
Total/average 2012	**757**	**86.9%**	**12.5%**	**0.5%**

Data source: WSDOT Ferries Division.

Note: Percentages may not add to 100 due to rounding.

Pavement conditions at ferry terminals are influenced by their age and their location within the terminal. Pavement at terminals usually last longer than other pavement in the state transportation system because of the slow operating speeds at terminals. Pavement on timber trestles is an exception; it has a very thin asphalt layer, resulting in a shorter life cycle. Fourteen

Washington State Ferries structural condition ratings hold steady for terminal systems

Inspection results for 2012 by category

Type of facility or system	Number of systems	Good or fair (70-100)	Poor or very poor (0-69)	Not rated
Buildings	137	97.8%	0.0%	2.2%
Landing aids[1]	179	76.0%	24.0%	0.0%
Overhead loading systems	66	90.9%	9.1%	0.0%
Passenger-only-ferry facilities	15	86.7%	13.3%	0.0%
Pavement[2]	79	84.8%	13.9%	1.3%
Trestle & bulkheads	71	93.0%	7.0%	0.0%
Vehicle transfer spans	210	86.7%	13.3%	0.0%
Total/average 2012	**757**	**86.9%**	**12.5%**	**0.5%**
Total/average 2011	**756**	**86.5%**	**13.0%**	**0.5%**

Data source: WSDOT Ferries Division.

Notes: Percentages may not add to 100 due to rounding. 1 Landing aids ensure the ferry vessels are aligned correctly at the terminals, and include wingwalls and dolphins. 2 One section of pavement was added since the 2011 rating reported in *Gray Notebook* 45, p. 14. The condition categories do not indicate whether systems are safe or unsafe, but rather how closely their condition should be monitored prior to spending funds on preservation.

Washington State Ferries define ferry terminal condition ratings from "good" to "very poor"

Category (rating score)	Description
Good (90-100)	The structure is performing as designed with all elements functioning as intended.
Fair (70-89)	All primary elements making up the structure are sound but there are some deficiencies in various elements. Examples: areas of rot, crushing, or marine borer activity in timbers; areas of corrosion for steel elements; cracking and spalling in concrete; wearing in mechanical systems; cracking and raveling in pavement systems.
Poor (50-69)	There is moderate deterioration of certain elements as defined under the "fair" condition. These deficiencies may affect the load carrying capacities or the use of the structure and require repair or partial replacement.
Very poor (0-49)	There is advanced deterioration throughout the structure that will require the use of the structure to be restricted. For landing aids, this means the structure will not provide the protection to other structures. For trestles and transfer spans this means there will be load restrictions. For pavement this means the sub-grade, as well as the pavement, will need to be rehabilitated.

Data source: WSDOT Ferries Division.

WSDOT's new vessel condition assessment is based on risk of failure

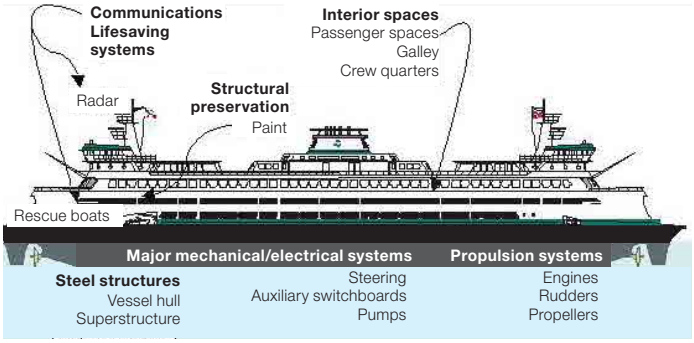
percent of pavement is in "poor or very poor" condition; preservation is often deferred because these paved areas do not cause delays in vessel sailings.

A *vehicle transfer span* is a bridge between the terminal and vessel. Vehicle transfer spans have multiple moving parts to accommodate vessels at high and low tides. The systems require frequent rehabilitation and are functionally obsolete; 13 percent are currently in "poor or very poor" condition. As funding becomes available, WSDOT plans to replace them with improved systems requiring less maintenance.

WSDOT is required by law to inspect and evaluate the condition of terminal assets at least once every three years to determine the remaining service life. WSDOT conducts the assessments on a rolling schedule, completing approximately one-third of the assessments each year. Using this information, WSDOT is continuing to develop and implement asset management tools for ferry terminal preservation in order to identify the optimal approach for protecting assets. Typical trade-offs WSDOT evaluates through the asset management tools include when to provide maintenance versus rehabilitating or replacing a facility or system. For example, WSDOT's asset analysis showed that the optimal, cost-effective approach was to rehabilitate, rather than replace the Lopez Island ferry terminal wingwall.

WSDOT deploys a new approach for vessel condition assessment in 2012

WSDOT finalized a new approach for assessing the condition of ferry vessel systems in 2011, and finished implementing it throughout the fleet in 2012. Ferry vessel system condition ratings are expressed in terms of a risk category. Risk categories are illustrated in the matrix shown below, which includes a "probability of failure" factor and a "consequence of failure" factor. The probability factor considers the likelihood of a system failing as it ages. The consequence factor considers the impact that failure would have on a vessel's ability to operate on its scheduled sailings if the system failed. A system failure may result in the ferry vessel being taken out of service, which would impact customers much more than if the ferry vessel continues to safely operate with the failed system. The illustration below shows some of the systems on a ferry vessel. Vessel crew and engineering staff can adjust a system's risk assessment to reflect its observed condition during inspections. WSDOT uses the matrix to place a system in one of three condition categories. These categories do not indicate whether systems are safe or unsafe, but rather how closely their condition should be monitored prior to preservation.



Examples of ferry vessel systems.

For example, a vessel steering system and topside vessel paint coating are two systems that are prioritized for preservation using the assessment matrix. If a steering system failed, the vessel would immediately be taken out of service; it could take several months to fix. The steering system is placed in Condition Category 3 because of the increasingly high probability of failure as it nears the end of its life cycle and because of the adverse consequences of a failure (including a potential collision with another vessel or running aground). On the other hand, topside vessel paint coating is placed in Condition Category 2 because the probability of disrupting service is low, even as it passes the end of its useful life. The consequences of failure are also less severe, resulting in unsightly appearance and a slow process of corrosion (rust).

WSDOT uses a new risk assessment guide to prioritize ferry vessel preservation

Based on the likelihood of the system failing combined with the likely consequences of the system's failure

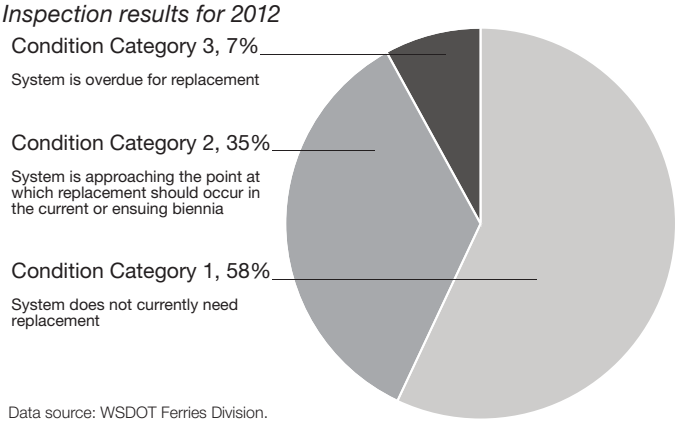
	Consequence of failure factor				
Percent of life cycle remaining (Probability of failure factor)	**Minimal impact: does not affect sailing**	**Marginal impact: less than 24 hours to repair**	**Moderate impact: one or more days to repair**	**Critical impact: one or more weeks to repair**	**Catastrophic: long-term, unscheduled impacts to sailings during repairs**
Beyond life cycle (nearly certain to fail)	Condition Category 2:			Condition Category 3: System is overdue	
0% - 9% (likely to fail)		System is approaching the		for replacement	
10% - 24% (failure possible)		point at which replacement should occur			
25% - 49% (unlikely to fail)	Condition Category 1:			in the current or ensuing biennia	
50% - 100% (very unlikely to fail)	System does not currently need replacement				

Data source: WSDOT Ferries Division.

Seven percent of vessel systems are past due for replacement

Ferry vessels must meet U.S. Coast Guard requirements to operate. When deciding which systems in Condition Category 3 need to be preserved first, WSDOT gives priority to those required to operate the vessel within Coast Guard regulations.

Seven percent of ferry vessel systems are past due for replacement
Inspection results for 2012



Data source: WSDOT Ferries Division.

The pie chart above shows that as of March 31, 2013, 7 percent of the 1,816 ferry vessel systems were in need of replacement (Condition Category 3); 35 percent are approaching the end of their life cycle (Condition Category 2); and 58 percent do not currently need to be replaced (Condition Category 1). The condition of ferry vessel systems are presented by type of ferry vessel system and by individual ferry vessel (see tables below and right). Four of the eight types of ferry vessel systems have a higher percent of systems in Condition Category 1 than the system-wide average of 58 percent. However, 17 percent of piping and 14 percent of propulsion systems are past due for replacement. Seven of the 22 vessels have a higher percent of their systems in Condition Category 1 than the system-wide average. The M/V *Hiyu* tops the list of vessels needing preservation, with 32 percent of its systems past due for replacement. This vessel is used as a substitute on some routes when other vessels are taken out of service for maintenance, and no other spare vessels are available.

Ideally, all of the preservation backlog that is feasible to accomplish within the biennium would be funded; in a

Fourteen percent of vessel propulsion systems are past due for replacement (Condition Category 3)
Inspection results for 2012 by type of vessel system

Types of ferry vessel systems	Number of systems	Percent of systems in Condition Categories[1] 1	2	3
Piping systems	138	50%	33%	17%
Propulsion systems	257	20%	66%	14%
Communication, navigation, lifesaving systems	559	69%	23%	8%
Major mechanical/electrical systems	277	55%	39%	6%
Structural preservation (paint) systems	182	63%	36%	2%
Steel structures	162	66%	33%	1%
Passenger and crew spaces	62	53%	47%	0%
Security systems	100	88%	12%	0%
Total/average 2012[2]	**1,737**	**58%**	**35%**	**7%**

Data source: WSDOT Ferries Division.

Notes: Percentages may not add to 100 due to rounding. 1 Systems in Condition Category 1 do not currently need to be replaced; those in category 2 should be monitored for replacement within the next two biennia; those in category 3 are past due for replacement. 2 Excluding the M/V *Evergreen State* that will be replaced in the 2013-2015 biennium.

WSDOT tracks vessel condition by percent of systems past due for replacement (Condition Category 3)
Inspection results for 2012 by vessel

Ferry vessels	Number of systems	Year built/ rebuilt	Percent of systems in Condition Categories[2] 1	2	3
M/V *Hiyu*	53	1967	25%	43%	32%
M/V *Hyak*	86	1967	41%	41%	19%
M/V *Klahowya*[1]	80	1958/1995	46%	41%	13%
M/V *Yakima*	86	1967/2005	52%	37%	10%
M/V *Tillikum*[1]	80	1959/1994	45%	45%	10%
M/V *Kaleetan*	86	1967/2005	42%	49%	9%
M/V *Elwha*	84	1967/1991	36%	56%	8%
M/V *Walla Walla*	89	1973/2005	55%	37%	8%
M/V *Chelan*	81	1981/2005	53%	40%	7%
M/V *Puyallup*	94	1999	62%	32%	6%
M/V *Wenatchee*	94	1998	60%	34%	6%
M/V *Kitsap*	79	1980/1992	46%	48%	6%
M/V *Issaquah*	79	1979/1989	56%	39%	5%
M/V *Cathlamet*	80	1981/1993	56%	39%	5%
M/V *Kittitas*	80	1980/1990	56%	39%	5%
M/V *Spokane*	89	1972/2004	60%	36%	4%
M/V *Sealth*	80	1982	49%	48%	4%
M/V *Tacoma*	94	1997	60%	38%	2%
M/V *Chtzemoka*	81	2010	100%	0%	0%
M/V *Kennewick*	81	2011	100%	0%	0%
M/V *Salish*	81	2013	100%	0%	0%
Total/average 2012	**1,737**		**58%**	**35%**	**7%**
M/V *Evergreen State*[1]	79	1954/1988	38%	33%	29%

Data source: WSDOT Ferries Division.

Notes: Percentages may not add to 100 due to rounding. 1 The two new 144-car vessels under construction are expected to replace the M/V *Evergreen State* and either the M/V *Klahowya* or M/V *Tillikum* by 2015. 2 Systems in Condition Category 1 do not currently need to be replaced; those in category 2 should be monitored for replacement within the next two biennia; those in category 3 are past due for replacement.

Investments in terminals and vessels reduce preservation backlog

fiscally-constrained environment, financial resources should be applied to the systems with the highest risk of disrupting service to the public should the system fail. Two new 144-car vessels are due to WSDOT in the 2013-2015 biennium to replace vessels built in the 1950s: the M/V *Evergreen State* and either the M/V *Klahowya* or the M/V *Tillikum*. Only work necessary to keep the vessel in service is done on vessels planned to be replaced in the near future. This allows for preservation dollars to be invested on vessel systems with a longer term benefit to the fleet.

One of the new 144-car vessels, the M/V Tokitae*, is shown here in March 2013 under construction at Vigor Industrial's Seattle shipyard. Delivery is scheduled for 2014. Photograph by Stuart Isett/Vigor.*

Progress toward reducing the backlog is monitored by tracking the cost of the backlog over time. The dollar value of the preservation backlog includes all of the items in Condition Category 3 plus items in Category 2 that are beyond their life cycle (top row of matrix on p. 14), totaling $51,858,052 in Category 3 and $159,457,764 in Category 2. The backlog value does not include work on the M/V *Evergreen State*. WSDOT tracks the cost of the backlog by comparing the quantity of items due for replacement and their total replacement costs.

Vessel preservation challenges ahead

WSDOT faces challenges in the coming decade regarding vessel preservation, including the aging diesel-electric propulsion systems of seven vessels built in the 1950s and 1960s. Older vessels require significant investments for hull, bilge and structural preservation. The M/V *Puyallup*, M/V *Tacoma*, and M/V *Wenatchee* have propulsion control systems that are no longer supported by the original equipment manufacturer; they are slated for replacement in the 2017-2019 biennium, although funding is not yet confirmed. In addition, the topside paint on 17 vessels (77 percent of the fleet) requires preservation by 2017.

WSDOT invests $36.4 million in terminal and vessel preservation to reduce backlog of needed work

WSDOT's Life Cycle Cost Model (LCCM) manages the preservation of ferry terminal and vessel systems valued at $2.5 billion. Preservation need consists of the value of the backlog of needed preservation existing at the start of the biennium plus the additional preservation needed during the biennium. WSDOT uses the LCCM to identify preservation needs and to track planned versus actual reduction in need. Progress during the biennium in reducing the backlog is monitored by comparing actual biennium-to-date reduction in need to the end-of-biennium planned reduction in need.

WSDOT receives funding from the state legislature each biennium to address ferry terminal and vessel preservation needs. In the 2011-2013 biennium (July 2011 through June 2013), the budget was $30.4 million for terminal preservation and $31.4 million for vessel preservation. As of March 31, 2013 (the end of the seventh quarter of this biennium), WSDOT spent 56 percent ($16.9 million) of the funding provided for terminal preservation and 62 percent ($19.5 million) of the funding provided for vessel preservation. The impacts of these investments on ferry terminal and vessel preservation needs are measured using the preservation need percent. This score is calculated by dividing the value of systems that are beyond their life cycle by the value of all systems.

Terminal preservation need reduced 1 percentage point

WSDOT used the LCCM to estimate that 16.4 percent of the value of terminal systems would be beyond their life cycle by the end of the 2011-2013 biennium unless funds were invested to preserve the systems. Terminal preservation investments completed through March 2013 reduced the percentage of the value of terminal systems beyond their life cycle by 1.0 percentage point to 15.4 percent (compared to the planned reduction of 1.1 percentage point at the end of the biennium). The primary drivers of this reduction were preservation projects at the Seattle, Lopez Island and Edmonds ferry terminals and at the Eagle Harbor ferry maintenance facility.

As of March 2013, 45 percent ($13.5 million) of the ferry terminal preservation budget remains, due primarily to 11 projects that each have budgets of $200,000 or more remaining. Three projects at the Anacortes, Lopez Island and Point Defiance terminals are underway and will spend more than $1 million in the last quarter of the biennium.

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