

Delayed repairs threaten Washington state bridges and highways. Will lawmakers act this year?

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1 of 6 | The I-5 Ship Canal Bridge is one of the most important spans on the West Coast. The bridge is rated in "fair" condition and needs \$315 million in maintenance and preservation work, including painting and repaving. (Steve Ringman / The Seattle Times)



By
Mike Lindblom

Seattle Times staff reporter

Day after day, a quarter-million people trust the lofty I-5 Ship Canal Bridge to carry them between North Seattle and downtown.

But the 12-lane span is wearing out. It's the highest-profile example of how Washington state fails to spend enough money maintaining and preserving its 7,000 miles of roads and bridges.

The I-5 crossing, one of the most important highway bridges on the West Coast, exhibits “severe deterioration,” says the [Washington State Department of Transportation \(WSDOT\)](#). Rust has formed around the steel beams, concrete layers are separating and potholes proliferate.

“While WSDOT has been deferring this work to try and keep the entire state highway system operational, it can no longer be ignored without dire consequences,” [says a state report](#).

The state would need to [spend an estimated \\$14.8 billion](#) over the coming decade, or nearly \$2,000 per resident, to achieve “minimally acceptable condition,” meaning roads, ferries and bridges could be maintained faster than they crumble. That’s twice the current spending on preservation, which WSDOT defines as planned repairs that extend the life of an asset, as opposed to stopgap jobs like pothole filling.

“We are on a glide path to failure under current funding,” state Transportation Secretary Roger Millar [said in early March](#).

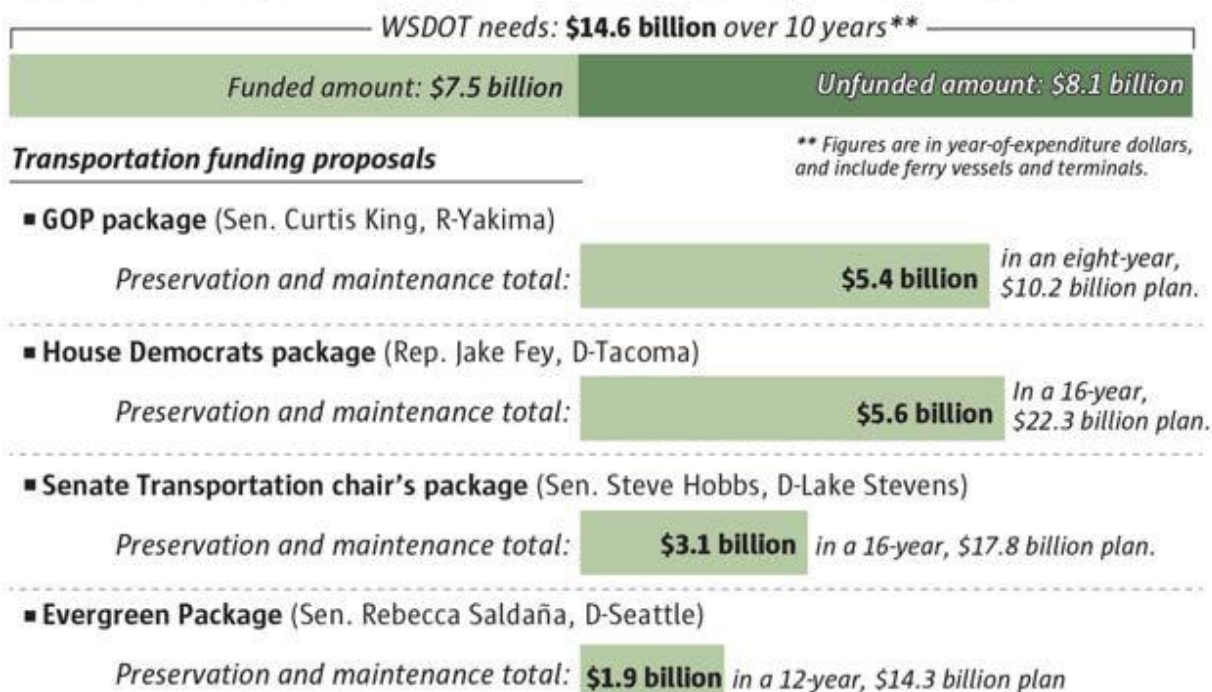
Will this be the year leaders stop procrastinating?

Preservation funds would grow in all four versions of the multiyear transportation packages lawmakers have proposed this legislative session, ranging from \$10 billion to \$22 billion, using mainly higher fuel taxes or carbon fees.

WSDOT might also receive more federal money if Congress passes President Biden’s \$2.3 trillion [American Jobs Plan](#), which includes a promise to modernize 10,000 bridges and 20,000 miles of roadways.

Deferred highway, ferries, railway repairs

The Washington State Department of Transportation requests a preservation-fund increase worth \$8.1 billion over 10 years, to bring its highways, ferries and railways to “minimum acceptable condition.” After two decades of spending for new megaprojects, lawmakers have suggested higher preservation funding as part of their transportation proposals in the Legislature. But they are still offering less than what WSDOT says it needs for repairs.



** Figures are in year-of-expenditure dollars, and include ferry vessels and terminals.

Source: Washington State Joint Transportation Committee

MARK NOWLIN / THE SEATTLE TIMES

Regardless of whether those plans materialize, [Gov. Jay Inslee](#) has recommended [a \\$429 million spending increase](#) on preservation for the regular 2021-23 state transportation budget.

Olympia’s hands have been tied by \$16.5 billion in existing and planned debt — more than half of the state’s share of gasoline tax — to build massive projects like the Highway 99 tunnel, Highway 520 bridge replacement and future [extensions of Highways 509 and 167](#) around SeaTac, Puyallup, Fife and Tacoma.

Billions more must be spent to replace fish-blocking road culverts, as required by a federal court ruling.

Bottom line: Only 8 cents of the 49.4-cent per gallon state gasoline tax are available for operations, maintenance, safety and preservation.

Pay now or pay more later

About 72% of Washington's highways are rated in acceptable condition, which means your wheels [bounce up-and-down less than 170 inches per mile, according to federal data](#). That's worse than the national average of 80% smooth pavement. [WSDOT's annual report](#), using looser criteria, shows 93% rated "fair" or better.

Potholes form on I-90 in Bellevue. Concrete panels on both sides of Snoqualmie Pass crack faster than contractors build new ones.

South of Spokane, regional WSDOT administrator Mike Gribner imposed an emergency lane closure on a Highway 195 bridge, when flaking concrete exposed rebar last summer. Steel braces will be added this year.

"We're driving on the edge of this. It's just a matter of time," Gribner warned. "We are going to lose segments of the roadways we can't repair."

Aging roads reflect the adage that you can pay now or [you can pay more later](#).

"If we're three to five years late, we pay more money to repair damage out there," Mark Gaines, state bridge engineer, told lawmakers last month. "If we wait too long, we have to replace the deck and it's about a 300% increase in cost."

The [Ship Canal Bridge](#), which opened in 1962, is in "fair" condition overall, with deck work the most immediate need, Gaines said.

The state needs \$315 million to repave the bridge, paint steel beams and do seismic strengthening.

The pavement is on the cusp of "serious delamination," in which large pieces crumble and expose steel rebar inside, said Dave McCormick, WSDOT assistant regional administrator.

Crews worked 7,500 hours [making temporary fixes](#) in the last five years, spokesperson Bart Treece said. WSDOT spent about \$187,000 on spot repairs during the year ending June 30, 2020, records show.

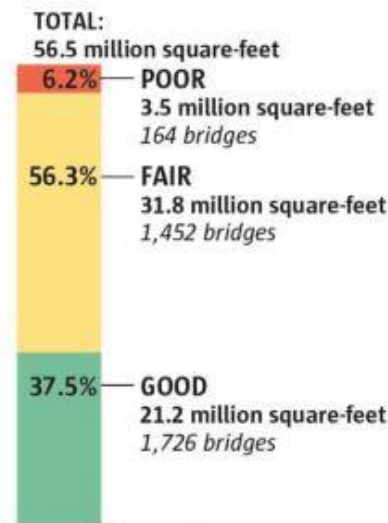
A major repaving is scheduled, but not until [late 2022 to spring 2025 southbound](#), then [from 2026 to 2028 northbound](#).

That’s also a safety project, because decks can’t be allowed to leak salt and grit that could corrode I-5’s structural beams.

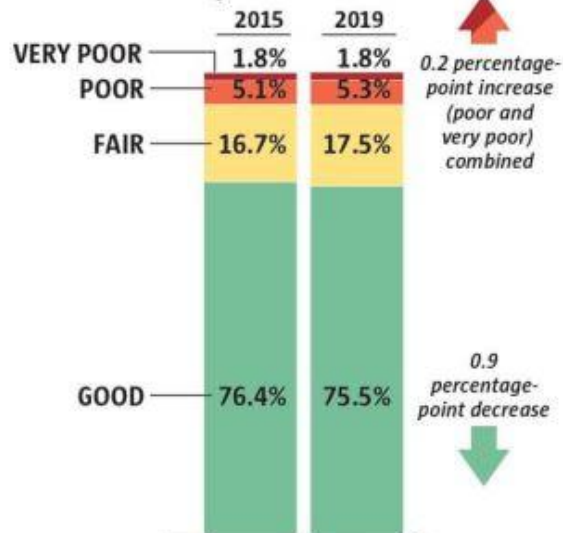
Wearing out

Only 37.5% of Washington state’s bridges (based on deck area) are in good condition, while 6.2% (also based on deck area) are considered poor. The average state bridge age is 50 years while concrete pavement averages around 40 years.

Condition of WSDOT’s 3,342 bridges
By deck area



Condition of roads
By lane miles



Sources: Washington State Department of Transportation, National Bridge Inventory, TWV. Bridge data for 2020, highway data for 2019.

Reporting by MIKE LINDBLOM, Graphic by MARK NOWLIN / THE SEATTLE TIMES

BY THE NUMBERS

Roads, bridges and ferries are on the brink of ruin, WSDOT says

Fifty-nine state-owned steel bridges are overdue for painting, but only 10 are being repainted now.

Ferries lost 678 days for unplanned maintenance in 2020, worsening from 622 days the year before.

Out of 20,875 lane-miles of state highways, about 1,400 are in poor condition but only 750 miles a year get repaved.

Washington state's bridges are in [better condition than most](#), at only 4.9% structurally deficient compared to 7.5% nationally. [Road condition](#) ranks 38th for urban interstate freeways and 46th for rural freeways, worse than U.S. averages.

The I-5 bridge was last painted 23 years ago and needs a new coat in the 2020s, state records show. To buy time, steel bridges are rinsed by low pressure hoses.

"If you take the bird guano and the debris and dirt off the steel, it reduces corrosion and preserves the life of the structure," McCormick said.

Potholes proliferate

On the Eastside, potholes routinely open, are filled, then reappear on elevated I-90 in Bellevue.

Because the columns sit in marshy Mercer Slough, the road decks drift slightly, so they don't always match at the expansion joints, McCormick said. When that happens, the edges between decks take harder wheel strikes.

Another rough spot is Highway 18 from Snoqualmie to Auburn, he said, where increased truck traffic runs on eroding pavement.

A full-time crew was created just to patch bridges in the region from Fife to Blaine.

“We didn’t need to do that before,” McCormick said. “In the ‘90s, we were eight years or so between overlays, paving projects.” Now the interval can be 12, 16 or even 20 years, he said.

Across the state, WSDOT suspended routine repaving in 2020 for highways rated below 45 mph, freeway ramps and chip-sealed rural routes, citing a lack of money.

“There’s a whole host of roads in the breadbasket of Washington that make it hard for trucks to deliver food to market,” said Rep. Bob McCaslin, R-Spokane Valley.

I-90 through downtown Spokane and its east suburbs is in poor condition, even while a long-awaited north-side freeway is being built.

“The fact is, I-90 is terrible going through our state, and getting worse. Once you get to Montana, the road system obviously improves,” said Will Knedlik, president of the Washington State Good Roads & Transportation Association.

Billions for new projects

For the last two decades, lawmakers spent billions on highway expansions in a fast-growing state.

Bipartisan gas-tax hikes in the mid-2000s totaled 14 cents per gallon to launch projects like the Highway 99 tunnel, Snoqualmie Pass East I-90 widening and the new Highway 520 floating bridge, with small amounts for preservation.

Leaders knew the clock was ticking on old freeways. In 2008, then-WSDOT Secretary Paula Hammond said I-5 in Seattle needed a \$2 billion overhaul, but the political climate [made funding impossible that year](#).

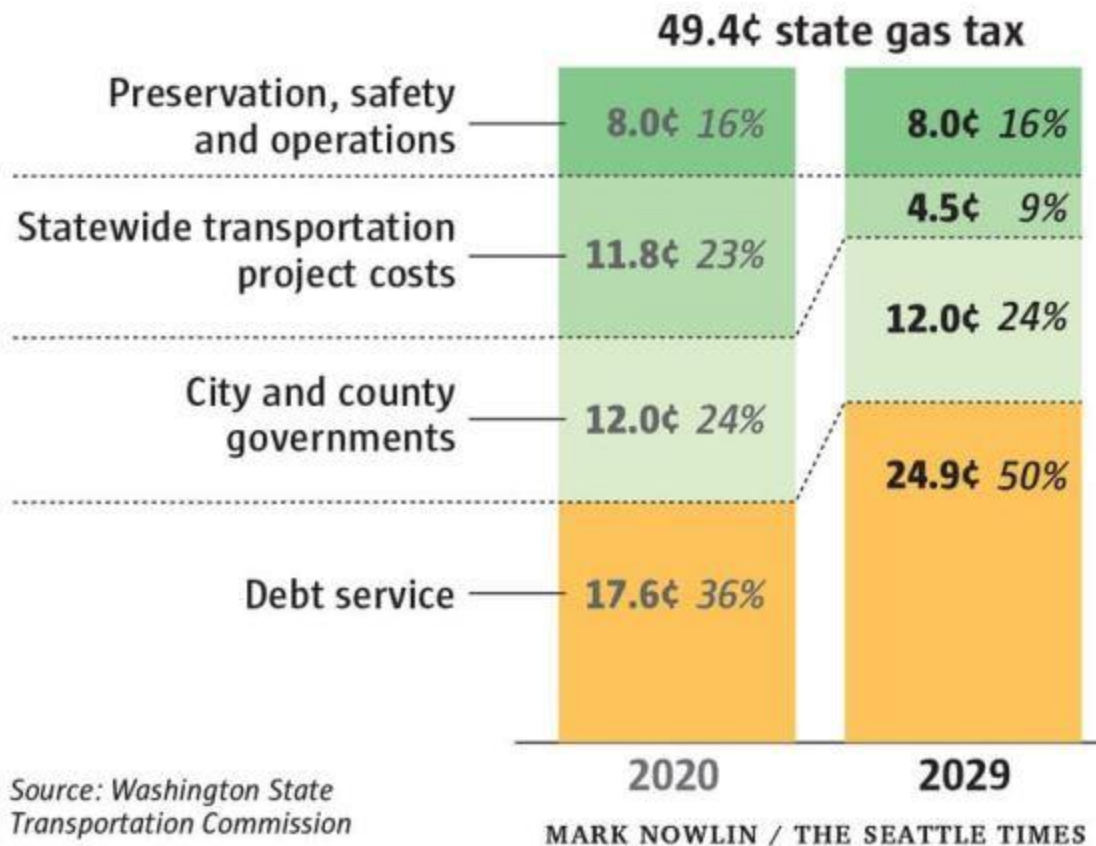
“Historically the attitude has been, if you’re going to raise revenue for transportation packages, you have to deliver something. It has to be new,” said former [Gov. Chris Gregoire](#).

Gregoire recalls that around 2012, her final year in office, she tried to rally support for preservation spending.

In hindsight, she should have sweetened the deal for lawmakers by tacking on new projects, she said. "We tried to get it as a stand-alone. Upon reflection, I think that's a mistake."

Where your gas-tax money goes

The state's 49.4-cent-per-gallon gas tax must be spent on highways and roads. But by 2029, half will go toward paying debt that finances new projects. Only 8 cents a gallon – 16% of the tax – goes to preservation, safety and operations.



In 2015, a 11.9-cent gas tax boost added \$1.4 billion — out of \$16 billion package — to operations, maintenance and preservation combined, not enough to catch up.

"He [Inslee] has had no interest in roads until today," said Knedlik, the Good Roads group president. "I don't think he has any concept we're becoming more road-dependent at the same time we're letting the roads go to hell." Amazon and growing delivery services heighten the need for well-maintained roads, Knedlik said.

Inslee's staff counters that he's long supported Millar's advocacy for maintenance and preservation, and the governor became more vocal in 2021 because a revenue package is now in play in Olympia.

WSDOT has found cash for occasional repavings. The state replaced some of I-5's [steel-covered expansion joints](#) in South Seattle, dating back from the 1960s, that break and cause traffic snarls. Repavement from the ship canal to Northgate is planned mid-decade, but many other projects [remain unfunded](#).

This year, a proposed \$17.8 billion, 16-year plan drafted by Senate Transportation Committee chair Steve Hobbs, D-Lake Stevens, would allocate [\\$3.1 billion for maintenance and preservation](#), including ferries. That would meet less than half the WSDOT request.

"I would like to give them everything that I can, but it's based on votes and how much I can raise," Hobbs said.

Hobbs argued his preservation share is really a couple of billion dollars higher because some projects replace worn-out highway links. Chiefly, these are wider westbound Highway 2 trestle to Everett in his district, a I-5 Columbia River bridge to Oregon, and a Columbia River bridge in the gorge [between White Salmon and Hood River, Oregon](#).

Even a pro-environment transportation plan by Sen. Rebecca Saldaña, D-Seattle, called the Highway 2 and I-5 projects "deferred preservation," realizing they're nonnegotiable with Hobbs.

Gregoire and lawmakers applied similar logic last decade by shoveling billions

into the new Highway 520 floating bridge and Highway 99 tunnel, so fragile spans could be demolished. Replacement became the ultimate preservation.

Hobbs said political realities force him to offer specific road projects in each district, to line up enough votes.

“Otherwise, it’s just a big bucket of money no one’s going to support,” he said.

If lawmakers don’t act, Knedlik said, his group will seek a voter initiative that would enact a small gas tax dedicated to preservation.

Washington state’s earthquake response plan assumes the I-5 Ship Canal Bridge will be unusable after a Big One. Instead, trucks from Paine Field would loop around I-405, then take the I-90 floating bridge into Seattle. Trucks would also ferry supplies over Snoqualmie Pass.

Just before the 20th anniversary of the Feb. 28, 2001 Nisqually quake, bridge engineer Gaines said WSDOT’s lifeline I-90 routes are also behind on seismic upgrades.

Asked why the state tolerates that, he offered a surprising answer: “I would hate to spend money on making a bridge resilient to earthquakes and then have to close it five years from now because we weren’t able to get it painted on time.”

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