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Gaining traction

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By Nathan Isaacs, Herald staff writer

PROSSER -- Broken taillights, a cracked windshield, lost hubcaps and license plates litter the grassy Interstate 82 median just west of an overpass that crosses the Sunnyside Canal near Prosser.

The spare parts are the remains of wrecks that have happened there over the years. Between 1999-2004, 51 accidents were reported there, according to the latest data from the state Department of Transportation. About 70 percent of those were caused by snow and ice on the roadway.

It's one reason the overpass, about a mile west of Prosser, was selected as the first in the state and on the West Coast to be treated with a new road surface designed to keep roadways free of snow and ice.

"We want to see if this technology can reduce or eliminate those weather-related accidents," said Jim Henderson, a DOT maintenance supervisor.

Each year, adverse weather causes about 1.4 million car accidents nationally, resulting in 7,000 deaths, more than 600,000 injuries and costing \$42 billion, according to the National Oceanic and Atmospheric Administration.

The SafeLane Surface Overlay system is designed to prevent snow- and ice-related accidents. Transportation departments around the country are testing the material, which became commercially available last year.

About 18,000 vehicles, about 17 percent of which are semi-trucks, travel across the overpass near Prosser every day, Henderson said. He said only the westbound lanes would be treated with the new surface. This will allow state officials to measure the treatment's effectiveness by comparing it with the untreated eastbound lanes.

He said it could be years before enough data -- and money -- is available to treat other bridges, overpasses and prob-

lematic areas around the state. The system could eventually even wind up on I-90 over Snoqualmie Pass.

So, what is the treatment?

Anthony Hensley is the business development manager for Cargill, the Minnesota-based company that sells the product. He said it basically involves blasting the highway clean, then applying an epoxy followed by a layer of small rocks and repeating steps two and three.

The key is the rocks that are used, said Russ Alger, who spent about 10 years developing the technology as a researcher for Michigan Technical University. He and Toby Kunnari, who also developed the technology, own Superior Overlays and travel the country to work with DOT staff and contractors in applying the treatment. He said the rocks have the right combination of strength and porousness.

Before frost or ice storms, transportation workers will spray the treated highway with liquid de-icers. The porous rocks act like a rigid sponge, storing the chemicals inside, and automatically release the de-icer as ice or snow starts to form. Without the rocks, the de-icer liquid could run off the road or evaporate before it is needed, Hensley said.

The result, he said, is safer roads with better mobility and less maintenance because the overlay helps prevent frost or ice from forming on road or bridge surfaces and keeps releasing the anti-icing chemicals over several foul-weather days.

Hensley said the treatment costs about \$9 per square foot, including labor. He said the cost should go down as transportation workers become more familiar with the installation process. The company expects the treatment to last between 10 and 15 years. The epoxy manufacturer estimates it could last up to 20 years.

He said of the nine sites treated around the country last winter, none reported weather-related accidents. The company has brought the treatment to 17 other sites, including the I-82 overpass, in preparation for this winter season.