

photo of the month



Honorable mention



This month's *Inside ODOT* Photo of the Month (left) is by **Tim Hale**, survey crew leader in Corvallis. The photo is of the work in progress on the U.S. 20 Pioneer Mountain – Eddyville project. Honorable mention goes to **Larry Olson**, District 2C manager in Troutdale, for the photo of a nearly-frozen Multnomah Falls.

If you have a photo you would like to share, e-mail us at inside.odot@odot.state.or.us, or call (503) 986-3359.

Remember — you can still vote for the Inside ODOT Photo of the Year! Call, e-mail or use the link from last month's Inside ODOT. We'll announce the winner next month.

The incredible importance of working culverts

All across the country, the deteriorating highway culvert infrastructure is a major challenge threatening our transportation system. Culverts have traditionally received less attention compared to other more visible infrastructure along the highways. While more importance usually is given to pavements and bridges, the maintenance of culverts has commonly been overlooked. This is largely due to the limited visibility of culverts, particularly when they are performing adequately. But when culverts fail, everyone notices — everyone who wants to drive on roads, anyway.

Without properly functioning culverts, in a state such as Oregon where rivers and streams flow throughout every region, roads collapse or wash out and traveling becomes dangerous, at best, and often impossible. Culverts are an integral part of the highway system. The need to accurately assess the condition of and develop plans for replacement or rehabilitation of these structures is increasing

Getting to know our culverts

The Engineering and Asset Management Unit within Technical Services has embarked on a comprehensive program to inventory and assess the condition of all culverts located along the state's transportation system. The actual number of culverts to be inventoried along ODOT's highway system is unknown. Estimates range from 30,000 – 35,000, and many of these culverts need repair or replacement.

Field crews are using a Trimble GeoXT™ to map and record data about the location and condition of the culverts. The GeoXT™ is a submeter Global Positioning System combined with a hand-held computer. Using software from Trimble, staff created a data dictionary to provide consistent fields to populate during the inspections.

The field crews are collecting information based on two modules. The Inventory Module includes the location, physical dimensions, facility usage and material, to name a few. This informa-

tion helps ODOT determine how many culverts we have, for example, or where they are located. The inventory module also includes fields to provide the fish passage program with critical information, such as jump height and locations where facilities exist to help fish move upstream of our highways. The Assessment Module is based on ratings fields contained in four different site components: geotechnical, hydraulics, structure and watershed. There are 32 ratings fields all together, including roadway and embankment conditions, invert damage, open joints and hydraulic adequacy. This information is also accompanied by four photographs to provide a visual history of the culvert.

Making the data work

Back in the office, staff performs a quality control review on the information. The corrected information is uploaded into the "Drainage Facilities Management System" or DFMS.

ODOT staff developed the DFMS database to add, track and update

information on culverts. A web-based system, DFMS can be accessed from any ODOT network. Project teams can access all the important data to develop work solutions, determine costs, and make decisions about culvert replacement or rehabilitation as part of projects. In addition, staff can track and schedule the maintenance and repair of these drainage facilities.

The job is never done

Field crews started the field inventory in July 2007, and the end is not near. A typical year consists of working from April through October, depending on the weather and funding. To date, staff has inventoried more than 4,000 culverts along corridors throughout Oregon. To keep up with inventory progress, visit the Asset Management home page, www.oregon.gov/ODOT/TD/asset_mgmt/.

For more information on the inventory and assessment of culverts, contact Robert Trevis at (503) 986-3526.

Giving to charity up among ODOT employees

ODOT employees opened their hearts and wallets for the 2008 Charitable Fund Drive — according to state figures, agency giving went up 59.7 percent. Shanon Jackson, office specialist in Financial Services and agency coordinator for the 2008 CFD, credited the caring nature of ODOT employees for the success.

"It's clear there were a large number of employees that thought of others," Jackson said. For her efforts, she received a Certificate of Appreciation and an "outstanding" rating. The Campaign Management Organization also sent Shanon a letter of congratulations, noting she "did a fabulous job with a very large agency."

Financial Policy and Compliance Manager Maureen Bock, who represents ODOT on the CFD board, added, "I really appreciate all the hard work that goes into making the campaign a success. The pace is frantic and the success of the campaign really depends on the efforts of volunteers like Shanon."

Congratulations, Shanon — and everyone who gave in the Charitable Fund Drive!



Gifts stand ready for delivery to the Oregon State Hospital. Staff throughout the agency, including those from Mill Creek, the T-Building, DMV Headquarters, the Materials Lab, Research and others, gathered some 100 – 150 presents to brighten patients' holidays.