

Inspect, plan culverts in Fall

Record rainfalls this year put a lot of stress on drainage systems along roads. How did your culverts perform? The fall months—between mowing and plowing seasons—are a good time to inspect culverts. You can do minor maintenance before it snows and plan for next year's replacements. An early start gives you plenty of time to secure permits, get design help, and bid or schedule the work.

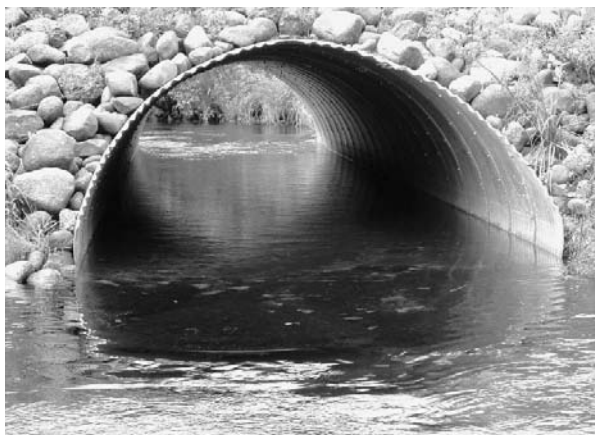
To spot culvert problems, use the **R-WEB** method: *Road, Waterway, Ends & Barrel*.

ROAD Is there a change? Sagging, cracking, or sideslope failure? **WATERWAY** Is the culvert clogged with silt? Are the ends overgrown with vegetation? Is there scouring, infill or debris in the stream or ditch? Is the stream lined up with the culvert? Check for high water marks that indicate ponding. **ENDS** Have they moved, settled, cracked? Has the stream or waterflow undermined the ends, scoured into the streambed or ditch, or seeped along the outside, creating holes by removing soil? **BARREL** Has the culvert's shape changed? What about joints and seams? Rips, tears, pitting, cracking, spalling?

Minor maintenance can include clearing the clogged culvert, adding a flared end treatment, or placing rock rip-rap around the culvert ends. If clogging is the problem, find where the sediment and debris have come from and try to correct the problem at the source to prevent a repetition. If the culvert is in a wetland or carries water from a navigable stream, you must contact the DNR before you do any maintenance or replacement work.

Planning and permits

When culverts need replacing, it is up to you to order the right type, size, length, and end treatment; spec the proper instal-



lation; and get the proper permits before starting work. The T.I.C.'s revised publication on culverts can help you understand the process. You may need one or more permits for the project, depending on the location and size of the culvert, extent of the work, and the county or municipality you're in.

Most culvert jobs are routine—replacing a cross-drain with another of the same size. However, you can't tell just by looking if a navigable stream or a wetland is involved. Some streams that are dry part of the year can still be officially navigable, for example.

Also, you are responsible for erosion control during and after construction, and you must submit a plan and secure a permit if the project will open one or more acres. Erosion control ordinances are even stricter in some counties. Dane County, for example, requires a permit for any disturbance over 4000 sq. ft., 400 lineal feet of a road ditch exposed, or any disturbance if the project is within 300 feet of a navigable waterway.

The best practice is to start early. Towns and smaller communities can usually contact their county highway department for help. Most counties will assist with sizing the new culvert and should know the local permitting process. Some will contract to do the installation.

If a stream or wetland might be involved, or you are not sure, contact the DNR Transportation Liaison as soon as possible. The time required may be as quick as a phone call, or as long as a couple months.

"We look at several hundred of these a year," says Al Stranz, one of three DNR Transportation Liaisons for the 16 county Northeast Region. "I might have been there before and know the area. But it's best is to leave enough lead time so I have some snow-free time to go out and look at it."

Wait until summer and it could take longer. "If we get the request during the busy summer months, it could take a while," says Kathy Bleser, Transportation Liaison in the South Central District.

Once you get your permit, be sure to read it and follow any instructions during

installation. It might require the work be done only in certain months, or that the pipe be buried 12 inches into the stream bed, or that you use a specific erosion mat. "We require fiber or jute types of erosion mats along streams where animals need to get in and out," says Bleser. "We've had situations where we found some rare species of frog caught in the net of the netted type of mat."

It's not just about the permits, though. Doing it wrong and having to do it over can cost a lot. On the other hand, your culvert replacement might help improve a trout stream, or make it easier for bass to reproduce. Local roadway agencies are an important part of the tourism industry, not just in providing good roads, but also in protecting and enhancing the water resources that draw those economically important visitors.

T.I.C. Bulletin No. 15, Culverts, is in print and on our Web site. See the web links on page 7 to locate your DNR Transportation Liaison.

WISLR update

by Mary Jo Trapani-Collins

How do you effectively and inexpensively address training needs for the *Wisconsin Information System for Local Roads (WISLR)* for up to 1923 municipalities statewide? One solution is to offer Computer Based Training (CBT) on CD, or Web Based Training (WBT) accessible online in WISLR, in addition to face-to-face training.

Interactive training using a computer helps make learning easy and interesting. Users can access training at their convenience and repeat it on demand. As positions turn over, new users can get up-to-speed quickly. In addition, modules are easy for WISLR to update so users stay current with new functionality.

Not only do many of the training topics give details about what is available in WISLR, but the modules also demonstrate how easy WISLR is to use by simulating WISLR screens, maps, and reports—including brief, helpful explanations.

Pavement rating submittals

Every two years, Wisconsin counties, cities, villages, and towns are required to submit pavement ratings to WisDOT. Pavement rating data is then loaded into WISLR for use by municipalities and the state. Submittal statistics for 2003 (as of July 2004) are:

- Municipalities submitting ratings: 95%
- Municipalities not submitting: 102
- Percentage of submittals loaded in WISLR: 93%