

## Town of Holland

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*Improving drainage preserves roads. Having three-year plans helps the town successfully apply for county bridge aids.*



The farmer was real receptive because it improved his ability to farm his field," says TeStroete. "We had to go partly on his field to do it, but once we cleaned the ditch properly and put in new pipe, the water could get away.

### Planning ahead

"With their betterment program, which has been ongoing for nine years, they plan ahead several years," notes the TIC's Don Walker. "This allows time for coordination with utilities, securing permits, and working with land-owners." They replace culverts a year or so before improving the surface. This gives the soil time to settle through one or more frost cycles. Crack sealing, surface repairs, and a first lift of asphalt all are done a year ahead.

Over the years town board members have actively contributed ideas and selected projects for the long-range plans, with suggestions from TeStroete. Knowing what is coming up means they can act quickly to apply for county bridge improvement aids. This cooperative fund is available to pay half of a township's costs to improve large culverts and bridges.

"Past boards have been very aggressive about trying to maximize that money," says TeStroete.

"The town chair or road committee chairman has to sign paperwork to apply, then you receive the money in the next budget year, when the work is done."

Plenty of lead time also lets town officials use county resource staff effectively. The County Surveyor provides hydraulic analysis for all larger culvert and bridge projects, for example, and the county Ag agents and SCS staff help with drainage and erosion control projects. "They have a very good relationship with the county and take every advantage of their resources and assistance," notes Walker.

County Highway Commissioner Roger Laning sums it up: "They have forward-looking and proactive officials who are aware of various programs out there like the schools that the TIC puts on," he says "They've established a balance of the various roadway maintenance operations and don't focus on one over another. They put together a plan, and by God they've stuck to it, and it has paid dividends. They have been able to show that the plan has worked."

Town Chairman Don Becker is relieved. "I was expecting to hear that there might have been some problems requiring a lot of work and maybe taxpayers' money to fix," he says. "It was refreshing

to learn that this is pretty well done. The past board members and Roger deserve a pat on the back. And now we can go forward."

As they work on next year's budget, the evidence is solid. They have a high quality road system. There is no need for big increases to fix unexpected problems. And they are on track to stabilize or even reduce future payouts for pavement improvements. ■

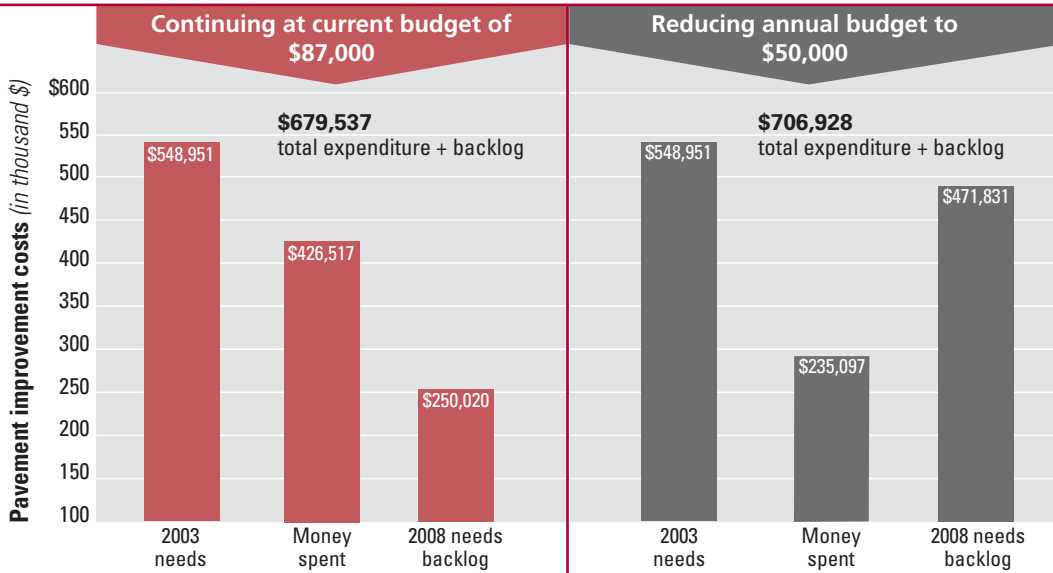
## New WISLR tools improve pavement planning

**THE WISCONSIN SYSTEM** for Local Roads (WISLR) unveiled new pavement analysis tools in November. The on-line tools help you look at your community's pavement needs today, develop a five-year improvement and maintenance plan, and evaluate how different budget decisions and project selections will affect future road conditions and budgets.

"It's very flexible and easy to use," says TIC staffer Steve Pudloski. "It is better than the old PASERWARE because it is tied directly to the WISLR database. Road managers can update their road inventory data and modify pavement sections at the same time as they do pavement analysis." Pudloski had been responsible for teaching PASERWARE, the TIC's pavement analysis software, and consulting with local roadway managers on how to use it. More than 600 communities were using the program when it was discontinued last spring.

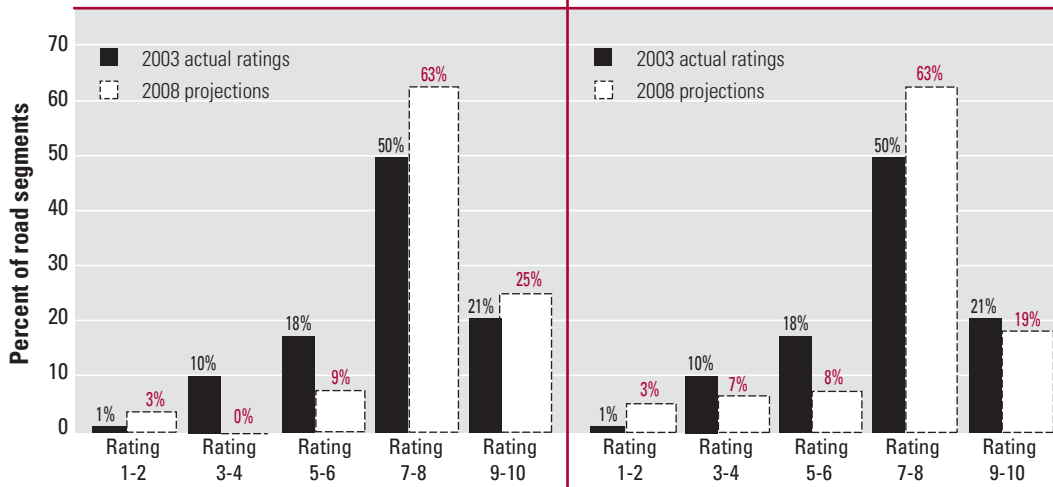
Four WISLR enhancements are especially notable.

- WISLR uses budget dollar amounts instead of average road system ratings to describe current pavement condition, changes over time, and the backlog of needs not met.
- It offers a project list that usually optimizes your budget by giving priority to preventive maintenance.
- It uses real deterioration data from Wisconsin roadways to predict pavement life.
- It creates a series of maps that show current pavement conditions, the projects selected for each year of the 5-year plan, and the type of projects selected, such as sealcoats, resurfacing, etc. ▶



**Projected pavement improvement expenditures and needs, 2003-2008**

WISLR Needs Analysis Tools show the projected backlog of needs in thousands of dollars, and projected condition rating for continuing \$87,000 annual budget (bottom left) and for a reduced \$50,000 annual budget (bottom right).



**Projected 2008 PASER asphalt pavement ratings compared to 2003 ratings**

### Needs in dollars: Town of Holland case study

What if elected officials cut the maintenance budget this year? How much will it cost in 2010? WISLR's Needs Analysis charts (see above) can give answers in dollars—a measure that is easier to understand.

Last year, for example, some Town of Holland residents suggested that the Town Board was spending too much on roads [see related story, page 1]. Were they right or wrong? Pudloski applied the WISLR Needs Tools to Holland's real budget information and 2003 condition data to show the effects of budget cutting.

"They start out with an exceptionally good system," says Pudloski. "Cutting the pavement maintenance budget back to

\$50,000 from \$87,000 causes the backlog of need to grow, but doesn't have a big effect in five years. Keep it up for ten years, though, and I don't think the system will be as good."

The table below shows the 5-year costs and impacts of the two budgets. Spending 47% less each year nearly doubles the backlog of need, but the

total projected cost difference is minimal: just \$27,391.

"Cutting the budget now means that they will be living with that \$500,000 backlog for a long time," says Pudloski.

"However, if they keep spending at the higher level for five years, then they can start cutting back their maintenance budget in the next five years."

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	\$87K	\$50K	Difference
<b>Initial need</b>	\$548,951	\$548,951	\$0
<b>Yearly project budget</b>	\$87,000	\$50,000	(\$37,000)
<b>5-year budget</b>	\$435,000	\$250,000	(\$185,000)
<b>5-year actual</b>	\$429,517	\$235,097	(\$194,420)
<b>Backlog</b>	\$250,020	\$471,831	(\$221,811)
<b>5-year actual + backlog</b>	\$679,537	\$706,928	\$27,391

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## New WISLR tools

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### Getting started. Getting help.

For those who need help getting started with WISLR tools and understanding what to do with the reports, the TIC will hold workshops in May. You can learn to use the WISLR tools in time to develop your 2007 budgets. Watch for dates and locations in the Spring 2006 *Crossroads*.

*"We always said that preventive maintenance would extend pavement life, and now WISLR has hard data to prove it."*

Notice that under the smaller budget pavement condition deteriorates slightly compared to 2003 and more compared to the \$87,000 scenario. The percent of roads that will need no maintenance drops from 21% to 19%. The percent that will need resurfacing (rated 3-4) goes from 10% to 7%, instead of to 0%. As the town continues to put most of its budget into protecting their best roads, more pavements will slip into the lowest category.

"In a few years they will be paying big bucks for rebuilding," says Pudloski. "It costs four or five times as much to reconstruct a road as to resurface it and ten times as much as crack sealing and seal coating."

Using dollar amounts to project road system changes makes it easier for everyone to see and appreciate how today's decision will affect the budget a few years down the road. The WISLR tools use 2003 costs from asphalt contractor bids. The projections use the same prices for each future year. Contrasts are more direct, but inflation is not included.

### Budget-stretching plans

WISLR's needs analysis tools will automatically give you a very cost-effective five-year project plan. It uses a relatively simple priority system that emphasizes prevention to protect your roadway assets. Roads rated as a "7-Needs routine crack filling" get highest priority, followed by "6-Could sealcoat," and so on down the pavement ratings.

The plan also moves projects on major roads ahead of similar ones on minor roads, followed by local, and low use ones. The system uses the state functional classifications for this part of the analysis, but you can, and probably should, change a road's priority by assigning local importance categories.

"The system is very flexible," says Pudloski. "You can easily change the unit costs for each type of project to fit local experience. You can run alternative scenarios with different

budgets and different project selections. You can even change the cost estimate for a specific road project. The interface is very easy to use. Anyone who has ever used PASERWARE will certainly have no trouble with it."

Output can be maps that are color coded by project and year, or by kind of project. You can also put the selected project list into a spreadsheet on your own computer.

### Realistic pavement life

Some of the best news to come out of the WISLR database is that Wisconsin pavements have long lives. They are lasting in better condition for many more years than the PASERWARE pavement deterioration model had predicted. Properly designed, constructed and maintained hot mix asphalt roads are likely to last about 35 years before they need resurfacing and 50 years or more before needing to be rebuilt. Wisconsin communities are reaping rewards from sealcoating, chip

sealing, and crack filling newer roads, and resurfacing, when appropriate, in the middle to later stages of a pavement's life.

"We always said that preventive maintenance would extend pavement life, and now WISLR has hard data to prove it," says Pudloski. "Using Wisconsin's experience makes WISLR's pavement improvement plans and budget projections very realistic."

For everyone who struggled to get pavement rating data into the WISLR database in 2001 and 2003, here's your reward: simple, flexible tools that analyze your road system needs, report them in dollars, show the consequences of budget changes, and recommend projects that maximize your maintenance budget. Spreadsheet and map outputs can easily be converted into working documents for next year's projects.

As a bonus, if you enter your 2005 ratings online, you can work with current conditions right away. There's no delay for loading time, and reports are ready immediately.

## Submit 2005 pavement ratings by December 15

Since many folks wait until the last week or two to submit their pavement ratings, here are some reminders.

There are three ways to submit ratings:

- online, directly in WISLR, using the WEB-WISLR Pavement Rating Entry Screen (WisDOT preferred method)
- the "On/At Pavement Rating Spreadsheet—electronic version"
- the "On/At Pavement Rating Spreadsheet—paper copy"

"Users who want to submit on spreadsheets can download them from the WEB-WISLR Pavement Rating Entry Screen. They should save to a file (electronic) or print out a copy. They can also call me," says Crystal Van Wolderen, WISLR Pavement Rating Coordinator.

Getting on WEB-WISLR for the first time is easy, but it takes a couple steps. Brochures telling how to gain access were sent with the WISLR pavement packet in May.

If you don't have the May pavement packet and have not been on WEB-WISLR before, follow the WISLR link below, or get information from the TIC Web site. It has links to two brochures in pdf form which include descriptions of how to get first-time access:

<http://tic.engr.wisc.edu/links.html#WISLR>

To request pavement rating spreadsheets, contact Crystal Van Woelderen at 608/266-7135 or by e-mail: [downloadinfo@dot.state.wi.us](mailto:downloadinfo@dot.state.wi.us)

To gain first-time access to WEB-WISLR, follow the instructions under the heading "How to access and get started using WISLR" at the following Web address:

<http://www.dot.wisconsin.gov/localgov/wislr/index.htm>