New technology from N.B. company helps government inspect culverts



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A made-in-the Maritimes innovation could help pinpoint growing concern about washouts on New Brunswick roadways.

With aging culverts scattered throughout the province, the New Brunswick government is investing in technology that can inspect them without having to dig with equipment.

"When it comes to culverts, they're sort of out of sight and out of mind until they collapse," says New Brunswick Transportation and Infrastructure Minister Bill Fraser.

That has been happening a lot in New Brunswick. A heavy downpour of rain in the fall of 2015 led to dozens of culverts being swept away, and a culvert that washed out near Hillsborough in March had already been a priority for replacement.

The New Brunswick government says the combination of aging infrastructure and climate change is putting pressure on the underground tunnels.



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Now, a Fredericton engineering company has developed technology it describes as a culvert 'cat scan' to inspect those tunnels.

Instead of digging around a culvert to figure out if there is a problem, the 100-pound device can provide a detailed view of a culvert's structural integrity.

"The ability to take a cat-scan image from a single side, so instead of being limited to human-sized objects, we can do industrial-sized objects," says John Bowles of Inversa Systems Inc.

Information engineers can use the technology to determine which culverts need to be repaired immediately, and which ones can wait. After a pilot project, the New Brunswick government has entered into a five-year, \$2.5-million contract with the Fredericton company to examine 250 additional culverts.

"Ensuring that our culverts and underground network is kept up to the standard it needs to be at the right place and at the right time, it's going to save us significant dollars, which we can then invest in other infrastructure priorities of New Brunswick," says Fraser.

"We've seen the results from the pilot program, that's why we're investing a significant amount of money for the next five years to do more, and we will continue to do more."

Inversa Systems Inc. is now branching out beyond New Brunswick, landing contracts in Quebec and Georgia.