

## Ottawa Sinkhole, Day 6: Hole 'stabilized' after weekend concrete work

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The LRT tunnel is half-filled with water directly under the Rideau Street sinkhole and the city doesn't know yet if a "roadheader" machine is submerged.

Steve Cripps, the city's director of the rail implementation office, said the water is about 2.5 metres high at the deepest part. The tunnel is about five metres in diameter.

The water level decreases moving westward toward Elgin Street, around which the water is a couple of inches deep, Cripps said Monday.

The water probably started entering the tunnel directly below where the sinkhole swallowed a massive chunk of Rideau last Wednesday, he said.

"Once you get farther to the west from where they were excavating, there is concrete-type material that lines the cavern," Cripps said. "Any seepage would have likely come in at the face where they're excavating."

Workers have been tunnelling from west to east and have made it just past Sussex Drive.

The city's LRT builder, Rideau Transit Group, is also working on all the fixes. RTG is pumping the water out of the 200-metre section of tunnel through pipes to a water treatment facility at LeBreton Flats, purpose-built for the LRT project. The water is then poured into the city's sanitary sewer.

Workers will be pumping water for at least a week and it won't be until then that they can access the face of the tunnel where they stopped digging, Cripps said.

Cripps noted that pumping water is a regular chore during construction since there's always water seeping into the tunnel as workers dig. Any water that comes out of the tunnel must be treated before being dumped into the sewer.

There could be LRT construction equipment impacted by the flooding in the tunnel, including one of the three 135-tonne roadheader machines.

"The roadheader would be in the tunnel in the area that has water, so we don't know what that really means because it's probably a bit farther in than crews have gone to date," Cripps said. "It is possible that it's partially submerged in water. We don't know what that really means at this time."

The city isn't concerned about other parts of the tunnel already excavated.

Cripps said the section of tunnel up by Elgin is sound because there has been temporary lining installed before the concrete liner goes in. Plus, the ground to the west is largely solid bedrock, compared to the softer ground around Rideau.

"The part we haven't been to yet, because they're still pumping water out, is right at the face where the excavation was happening," Cripps said. "It's too deep to get in there and have a look right now, but the part we have been in there's been no evidence of damage."

Workers have only 50 metres left under Rideau until the entire 2.5-kilometre length of tunnel is excavated. Cripps said RTG will likely start tunnelling westward from the Rideau station cavern, but first it needs to gauge the flooding in the tunnel on the other side of the non-excavated portion.

The big breakthrough moment was expected to happen in late June or early July, but Cripps said that will probably be pushed back. However, the full transit project is still on schedule. A two-week tunnelling setback in a multi-year construction project isn't "substantive," Cripps said.

It appears three vehicles actually fell into the sinkhole from the surface.

There was the van parked on the north side of the street, and there were two construction vehicles that dropped into the cavity. A lift, like the van, was later encased in concrete, but RTG managed to rescue a crane, Cripps said.

On the surface, RTG has finished the first phase of concrete work and "stabilized" the sinkhole.

There was no update Monday on the cost implications of the road collapse and infrastructure repairs.

Cripps said the city has assembled a team of staff and consultants to investigate.

"In terms of what's caused this and where responsibility lies, we haven't got that yet and it will be a little while before we do," Cripps said.

The city has a precautionary boil water advisory for six addresses on Rideau Street: 107, 109, 111, 111A, 113 and 115.

Cripps said the major focus has been on restoring services to businesses in the area.