

Karst cave network below interchange

LETTERS TO THE EDITOR

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Karst cavities have been exposed during earth moving operations at the Spencer Road Interchange. At least five cavities, some containing cave decorations such as dripstone, have been uncovered in the path of the interchange and it is not known how many more lie below the surface.

Such cavities are typical of karst formations where underground networks riddle limestone terrain. In fact, cavities and interconnecting fissures often comprise the bulk of the void spaces within a karst formation.

Collectively these void spaces create instabilities and therefore have an impact on the foundational bearing strength of the material that would support the interchange. There are also the considerations of groundwater movement and the ecology of karst which is considered a subterranean wetland.

Before the clear cutting occurred there was to be a karst survey but it was prevented by treesitters who questioned the qualifications of "karst experts" who refused to enter the 80 metre-long Langford Lake cave for safety reasons. It is noteworthy that the B.C. Speleological Federation rated the level of difficulty of this cave as easy due to its relatively horizontal grade.

Concerns about potential void spaces and the hazards associated with building on a foundation of cavities were expressed to the City but no survey was conducted — something that could have been done once the tree-sitters were removed and before clear-cutting.

In mid-February, after the trees had been removed, the City said they would conduct a karst survey. It has been a number of months since that commitment and the very area that they are to be surveying is being bulldozed and the sensitive karst features are being destroyed with no determination of the extent of other potential void spaces.

There are many examples of structures and roadway failures that had been built over karst formations. See www.spencerspond.ca/cave for more information.

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