In 2007, Alton Gas applied to develop salt caverns to store natural gas and brine discharge infrastructure. The company plans to take water from the Shubenacadie River to hollow out the salt from the caverns, making room for natural gas to be stored. This would create a brine mixture that would be mixed with water in ponds next to the estuary before it is released back to the river. The proposal and environmental assessment did not include the construction of a natural gas pipeline, which means the overlapping effects of the full project could not be evaluated in whole.

The Alton Gas Storage project is currently under construction in Colchester County, Nova Scotia. The Province of Nova Scotia is unceded Mi’kmaq territory. The project is located along the Shubenacadie River, a tidal bore river that flows into Cobequid Bay. Mi’kmaq and settlers have used the river for generations for commercial and recreational fishing. Local and regional groups have spoken out against this project because of the dangers it poses to the river ecosystem, local residents and our climate.

Once completed, these salt caverns would be used to store natural gas during times of low demand. This gas would be accessible during winter months when the demand – and price – are higher. Nova Scotians have been promised cost savings and a reliable gas supply, yet the mechanisms that will prioritize local consumption over foreign demand have yet to be made clear.

**THE RISKS OF SALT CAVERN STORAGE**

Methane leaking from an underground well in Southern California since October 2015 is an environmental nightmare that has driven thousands of people from their homes. U.S. officials are faced with the decision of trying to trap and burn the methane, risking explosion, or continuing to watch this climate-menacing gas escape into our atmosphere, contributing to runaway climate change. Unfortunately, the unstoppable methane gas leak in California isn’t unusual in the world of underground natural gas storage.

An independent quantitative risk analysis done in 2015 by Rob Mackenzie for a similar gas storage project in Seneca Lake looked at the risk of underground hydrocarbon storage, including salt cavern storage. The analysis concluded that salt cavern storage poses an unacceptable risk due to the likelihood of serious consequences.

As of 2013 there were 40 underground natural gas storage facilities in the U.S. Of these, there have been 20 “serious” or “extremely serious” incidents between 1972 to 2012. The average number of salt cavern storage facilities in operation through the last two decades is close to 30. The incident rate in the U.S. has been more than 65 per cent. The average rate worldwide is 40 per cent, although this figure is assumed to be lower due to under reporting. The failure causes of these underground storage facilities include: corroded castings, equipment failure, brine erosion leading to breach, leakage into other geological formations and human error.

Here are some other concerning facts on incident rates:

- 13 cases had extremely serious or catastrophic property loss.
- 10 of the salt cavern incidents were accompanied by large fires and/or explosions.
- 8 required the evacuation of between 30 to 2,000 residents.
- 6 involved loss of life or serious injury.

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In 2005, worldwide, the percentage of incidents involving casualties at salt cavern facilities was 13.6 per cent.

These risks do not include the concerns raised around dumping brine in the Shubenacadie River as outlined in the third-party review conducted by Conestoga-Rovers & Associates. The Kwilmu’kw Maw-klusuaqn Negotiation Office commissioned the review, which led the Assembly of Nova Scotia Mi’kmaq Chiefs to stall the project over environmental concerns. Impacts on Atlantic Salmon, projected under the Species at Risk Act, and striped bass, listed as endangered under the Committee on the Status of Endangered Wildlife in Canada, were listed as areas of serious concern in the review.

Not only are the dangers of this project extremely alarming, the Nova Scotia government has not fulfilled its duty to consult. Sipekne’katik and Millbrook First Nations have stated they are opposed to this project until their concerns are heard and addressed. The government approved this project despite Indigenous and settler community opposition. The approval of fossil fuel infrastructure without Indigenous consent is unacceptable. This is in contradiction to the implementation of the UN Declaration on the Rights of Indigenous Peoples, Truth and Reconciliation Commission’s recommendations, and repairing our nation-to-nation relationship.

**TAKE ACTION!**

1. Tell Premier Stephen McNeil to halt this project until the concerns of Sipekne’katik and Millbrook First Nations are addressed.

2. Write, call or tweet Premier McNeil to demand a cumulative review of the salt cavern storage and its related infrastructure.

For more information about the Council of Canadians’ campaigns to protect water visit www.canadians.org/water or call toll-free 1-800-387-7177.

To take action locally, contact our Atlantic Regional Office at 1-877-772-7811.

Residents and local allies at awareness-raising fishing derby, including Council of Canadians organizers Tori Ball and Angela Giles.