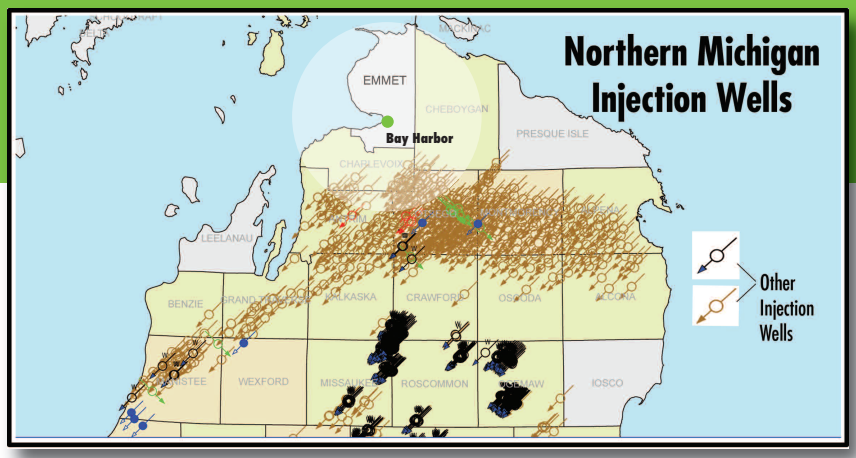
This is the third in a series of updates

outlining the water treatment and disposal options being considered right now by CMS Land and government officials. As part of the Little Traverse Bay Environmental Project, millions of gallons of groundwater, high in alkalinity and containing trace amounts of mercury and other contaminants, are collected at the shoreline in order to protect the Bay. Collection of this water will go on for the foreseeable future, but what to do with it for the long term remains a crucial unanswered question. Any final solution must answer the following questions:

- Does the solution **protect human health** and **Little Traverse Bay?**
- Does it provide a **local solution** to this local problem?
- Is it **supported by sound science?**
- Does it **significantly reduce the mercury levels** of the water?
- Does it **relieve local road congestion and safety issues** associated with tanker truck traffic?
- Does it **minimize disruption to the community, economy and tourism?**
- Is the solution **economically reasonable?**



Exploring Options for Protecting Our Bay

OPTION: Dispose of the collected water in a deep injection well in Emmet County.

Class I wells inject hazardous and non-hazardous wastes into deep, isolated rock formations that are thousands of feet below underground sources of drinking water. There are approximately 550 Class I wells in the United States. The geology of the Gulf Coast and the Great Lakes area is best suited for these types of wells, and most Class I wells are found in these regions. There are currently 24 Class I disposal wells in Michigan.

Two years ago, CMS Land began the process of identifying a suitable location for a disposal well and examined the available geological information around Emmet County. The company's analysis of the data indicated that there is a low likelihood that a well drilled in this area would be able to meet the project's water disposal needs. Instead, based on the abundant scientific data and the proven track record of disposal wells operating in Antrim County, a permit application was submitted to develop a disposal well there.

In contrast to the previously discussed well locations in Antrim and Otsego counties, there is very limited well data available in Emmet County. While the initial research into an Emmet County disposal well wasn't promising, the Michigan Department of Environmental Quality asked that CMS reexamine the area and submit an application for a local well as part of a thorough exploration of all local options. CMS is honoring that request and recently submitted permit applications to the MDEQ and U.S. Environmental Protection Agency. If the regulatory agencies approve the application, CMS would then be required to test drill the well to verify the geology before receiving an operating permit.

An Emmet County well, near the project site, would be a local solution and ease trucking and congestion concerns. When appropriately sited and constructed, disposal wells have a proven track record of safe disposal. However, as shown in the map above, there are no disposal wells located in Emmet County. This lack of local scientific data opens questions about the suitability of and likely legal challenges regarding the construction a disposal well in Emmet County.

Next: Send the collected water to the City of Petoskey water treatment plant for disposal.

A Solution for Northwest Michigan

	Trucking	Injection Wells*	Local Injection Well	City of Petoskey	Local Discharge
Local Solution			✓		
Supported by Science	✓	✓	?		
Reduces Mercury		✓	?		
Relieves Traffic Congestion			✓		
Minimizes Local Disruption			✓		
Economical			✓		
Protects the Bay & Human Health	✓	✓	?		

*Antrim and Otsego Counties

CMS LAND

Cleaning our shore. Protecting our bay.

LITTLE TRAVERSE BAY ENVIRONMENTAL PROJECT

Learn more at ***www.protectingourbay.com***