The federal Underground Injection Program

How the program relates to Kennecott Eagle Mine
Kennecott Eagle Mine

- Kennecott has applied for a Class V UIC permit for the Treated Water Infiltration System (TWIS)
- This application is under review
- When the review is complete, EPA will announce a proposed (draft) decision for public comments
The federal Safe Drinking Water Act created the Underground Injection Control (UIC) Program.

In Michigan the UIC program is implemented by EPA.

EPA’s role is to ensure federal environmental regulations are followed.
The mission of the UIC program is...

...to protect underground sources of drinking water from contamination by regulating construction and operation of injection wells.
Underground Injection is...

...Discharge of fluids through a well below the earth’s surface.
A “well” is...

...A bored, drilled, or driven shaft, or a dug hole where the depth is greater than the largest surface dimension; or an improved sinkhole; or a subsurface fluid distribution system.
In this case....

The well is a grid-like series of buried pipes that will slowly release treated liquid from the proposed wastewater treatment plant.
Examples of Class V Wells

- Industrial Facility
- Agricultural Areas
- Residential Areas
- Drainfield
- Service Station
- Repair Bay
- Limestone
- Sandstone
- Fractured Bedrock
- Agricultural Drainage Well
- Heat Pump Air Conditioning Return Flow System
- Septic Tank Treatment Plant
- Mineral & Fossil Fuel Recovery
- Improved Sinkhole
- Industrial Process Water and Waste Disposal Well
- Sandstone

Source: Ohio EPA
An aquifer is...

... a geologic formation capable of yielding a significant amount of water to a well or spring
An aquifer (or part of one) that supplies water or has enough water to supply a public water system, and currently supplies drinking water for human consumption, or

Contains fewer than 10,000 mg/L total dissolved solids and is not an exempted aquifer
Underground Source of Drinking Water
Include: Drinkable Quality Water (<3,000 TDS)

And

Useable Quality Water (3,000-10,000 TDS)

Brine - Salt Water (>10,000 TDS)
In order to operate a well

- Owners must submit inventory data
- The well must not endanger an underground source of drinking water
- Some well owners must apply for permits
UI C Permit Process

- Permit application review
- Proposed (draft) decision
- Public comment period
- Public hearing
- Response to all public comments and final decision
Permit application review includes

- Assessing siting
- Construction
- Operation
- Maintenance and closure
Federal Laws Considered

- Wild and Scenic Rivers Act
- National Historic Preservation Act
- Endangered Species Act
- Coastal Zone Management Act
- Fish and Wildlife Coordination Act
- Tribal policies
How to get more information

The complete permit application and other documents are available at:

www.epa.gov/region5/water/uic/kennecott
UI C Permit Process

We are here

Receipt of UIC Permit Application → Completeness Review & Technical Evaluation → Make Draft permit decision once all information received → Announce draft decision and Public Comment Period

Accept public input by mail and at public hearing → Prepare responses to comments → Issue Final Decision and distribute response to comments → Decision may be appealed