

US EPA ARCHIVE DOCUMENT

# 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 UIC Program

- 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.

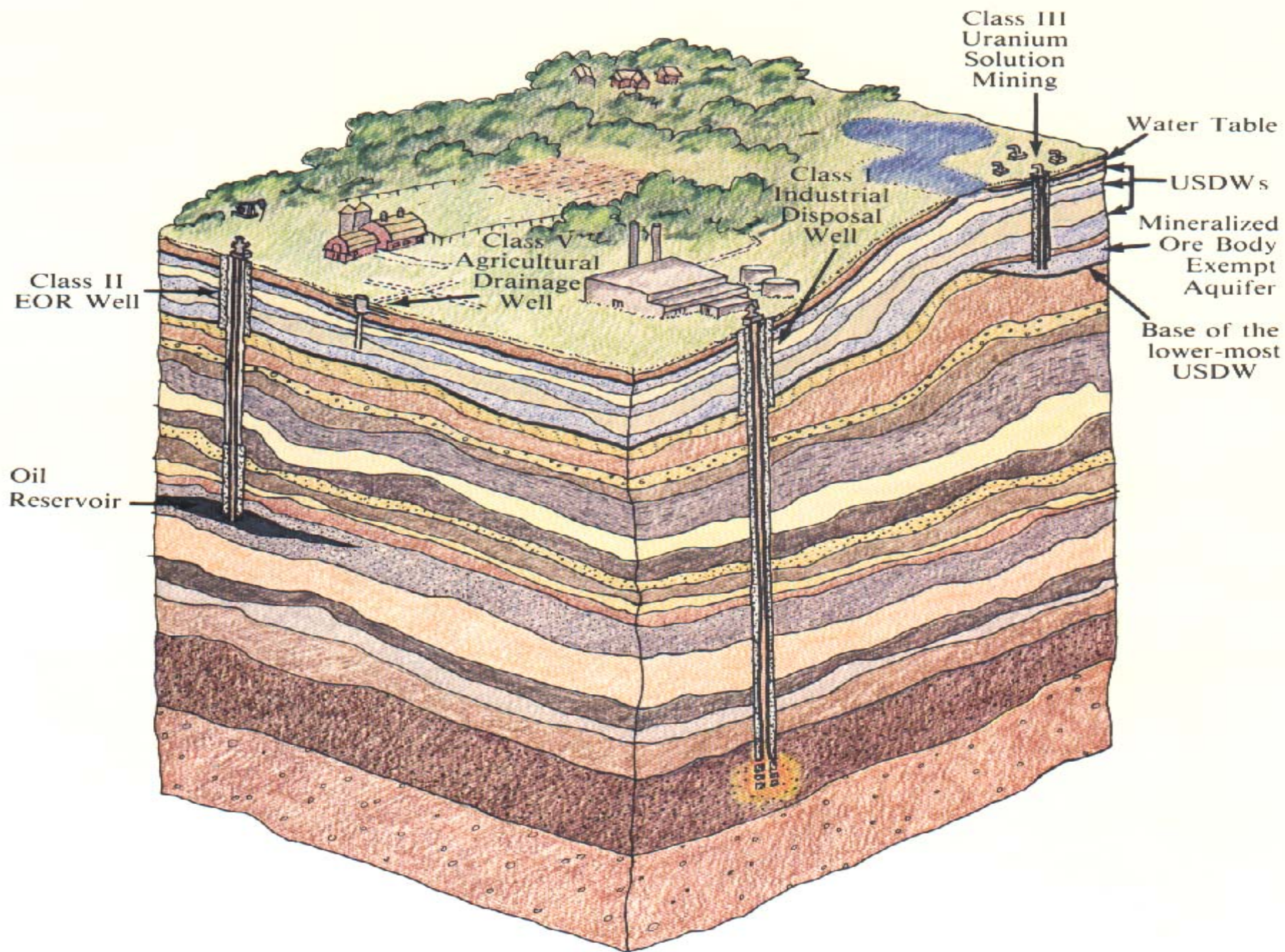
# Underground Injection is...

...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



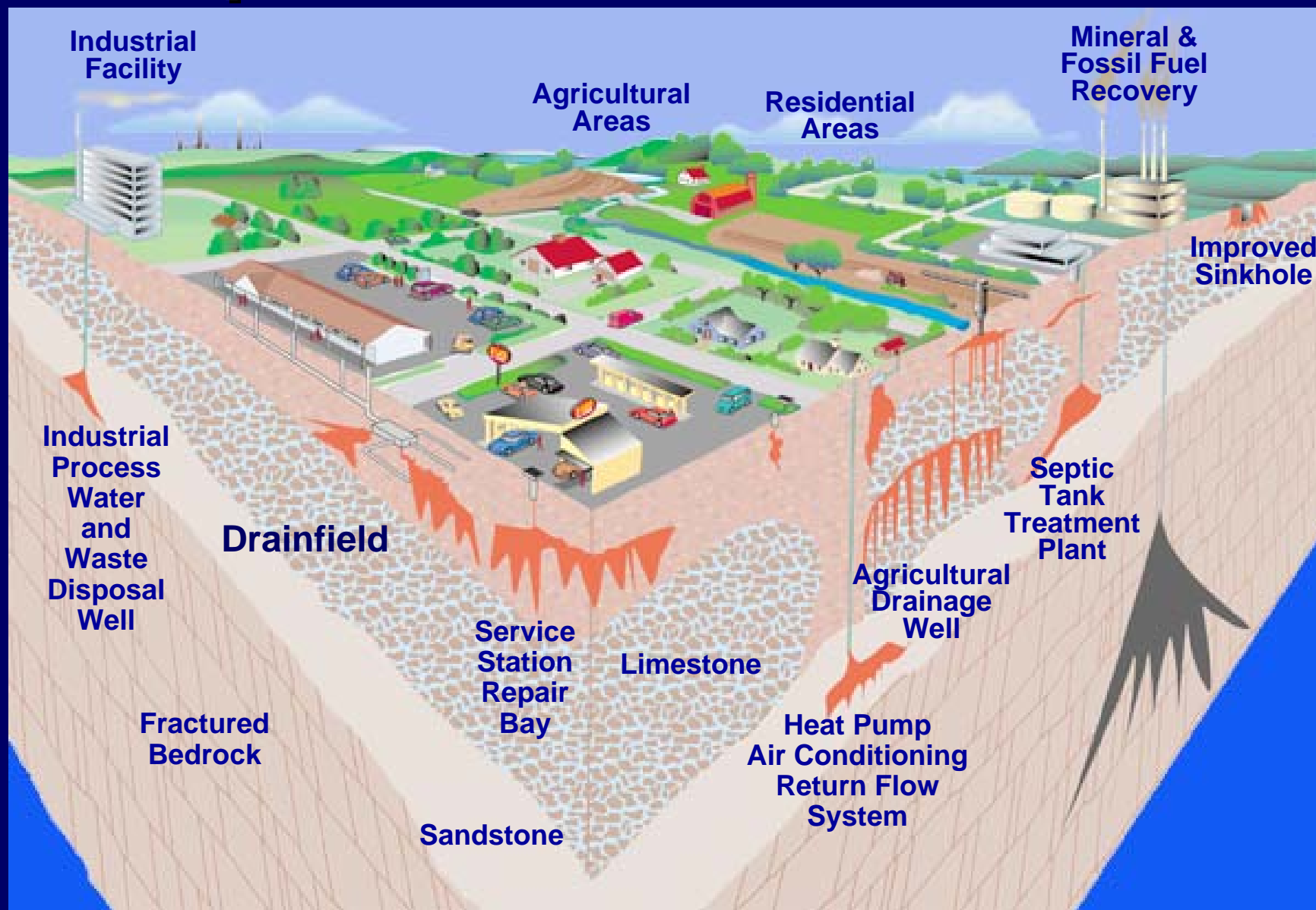




## In this case....

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



Source: Ohio EPA

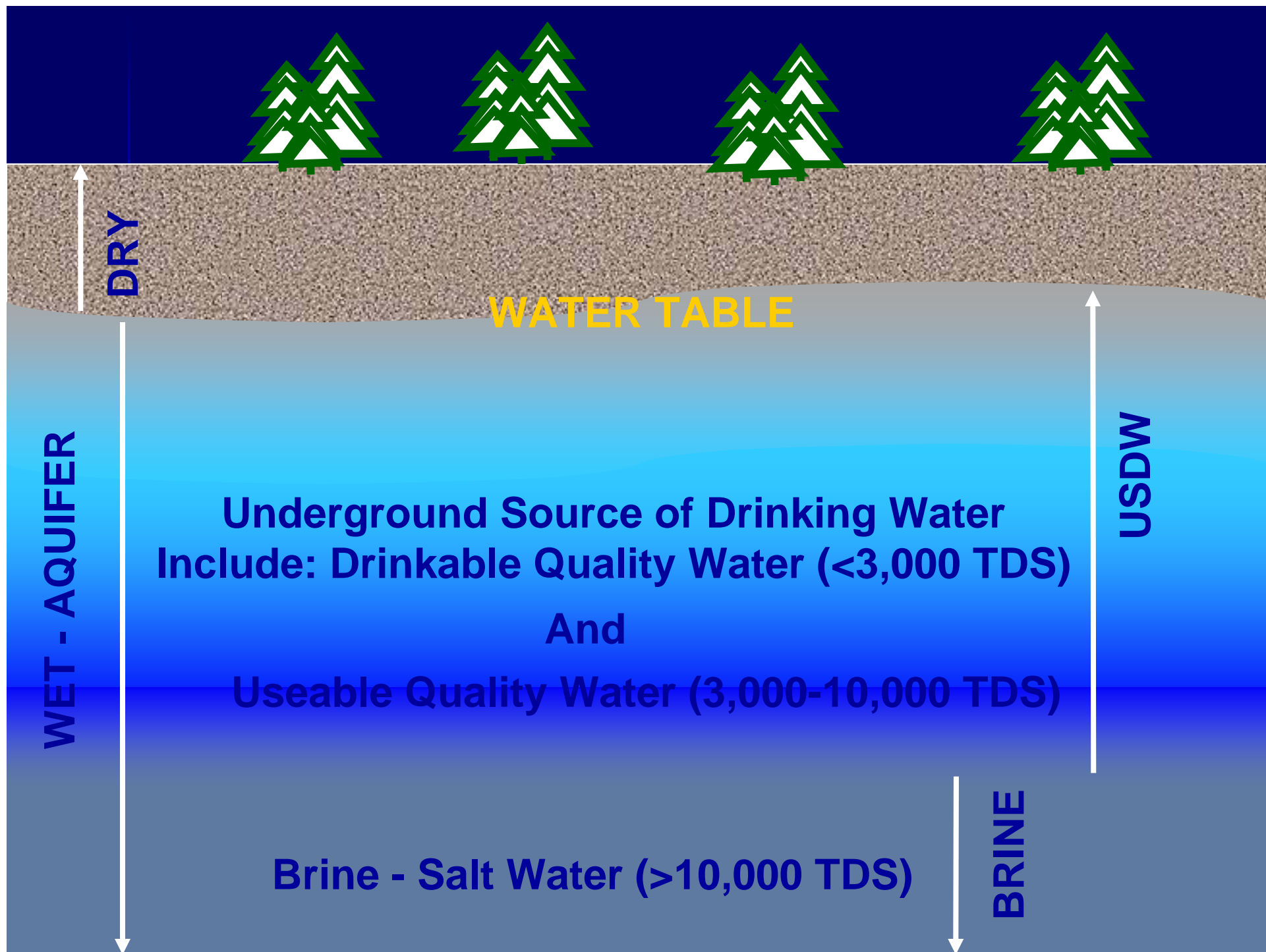
**An aquifer is...**

... a geologic formation capable of yielding a significant amount of water to a well or spring

# Underground Source of Drinking Water is....

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



## In order to operate a well

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



# UIC 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:

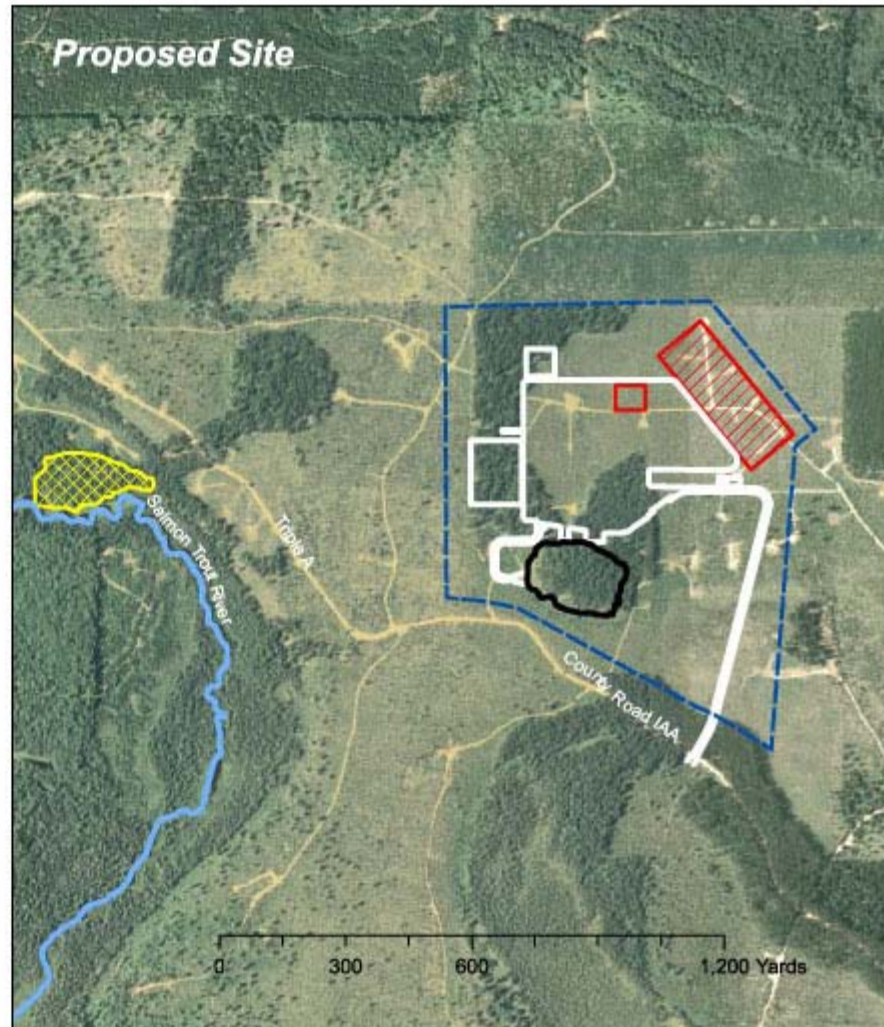
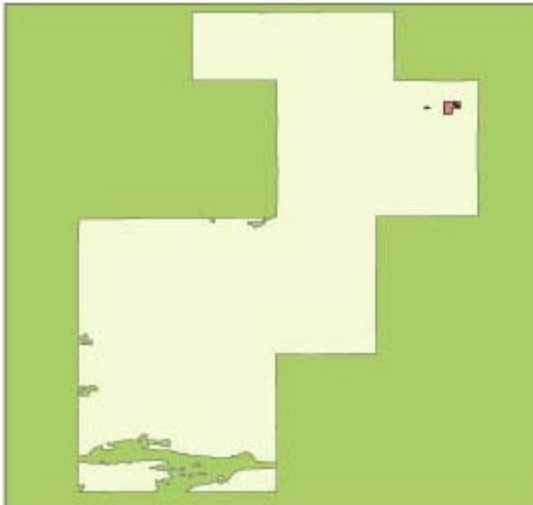
[www.epa.gov/region5/water/uic/kennecott](http://www.epa.gov/region5/water/uic/kennecott)

## Kennecott Eagle Project

### Structures

- Perimeter Fence
- Eagle Rock Outcrop
- Proposed Facility
- Rivers
- Septic System
- ▨ Treated Water Infiltration System
- ▨ Ore Body

Project Site - Michigamme Twp



# UIC Permit Process

