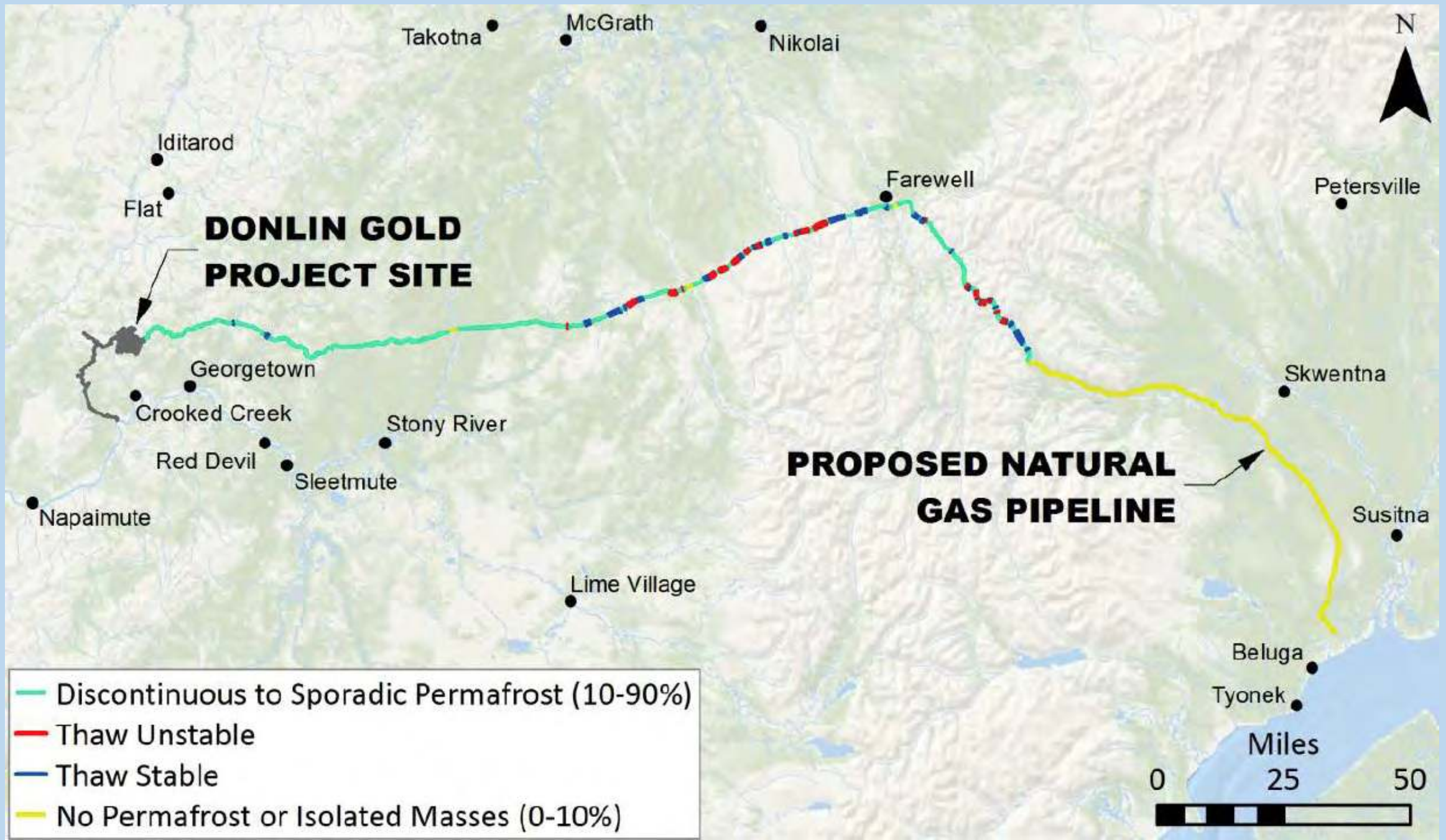


Donlin Mine Potential Environmental Impacts

Potential Environmental Impacts

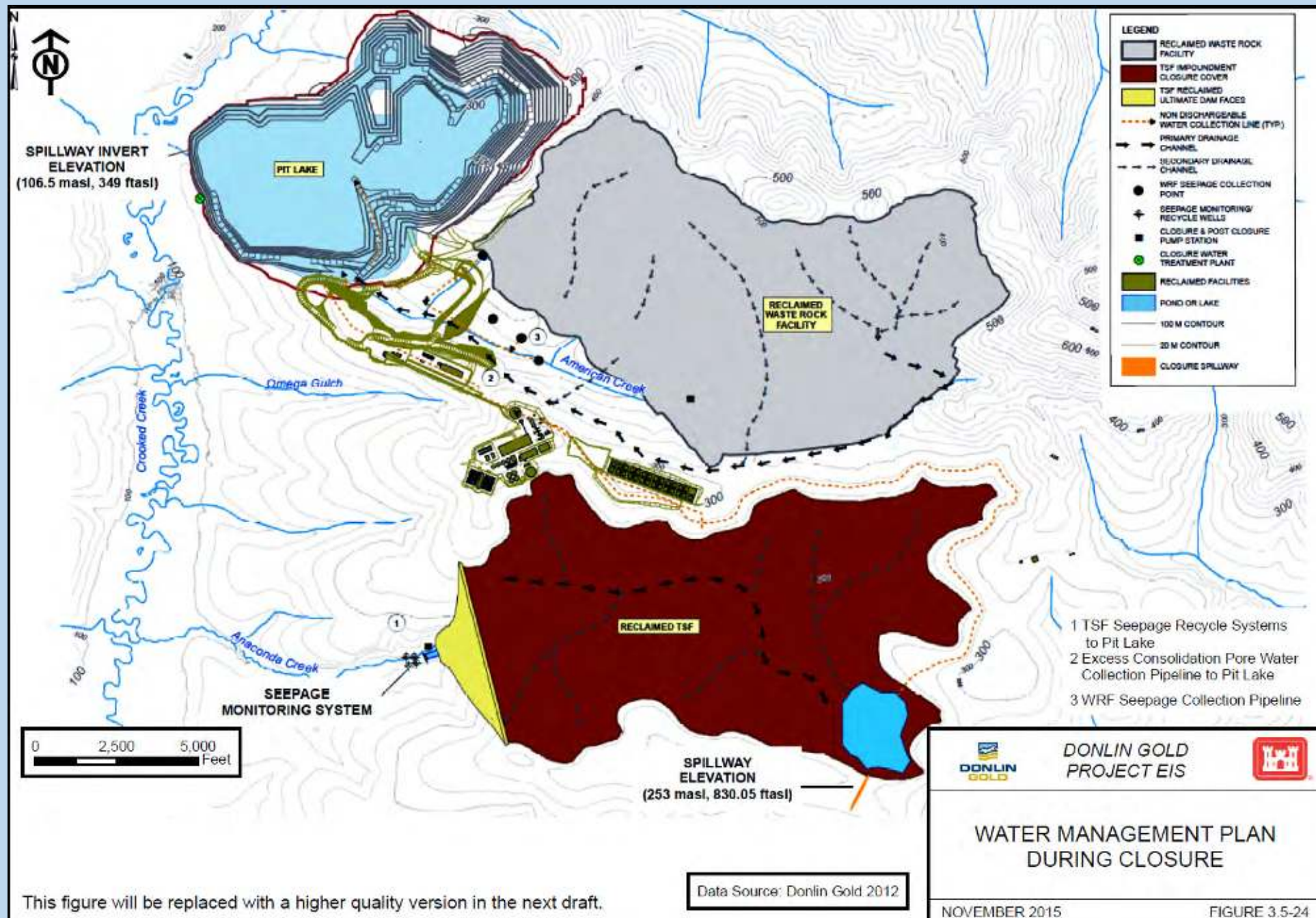
- Stream Disruption/Destruction to Fish Habitat
 - Gas Pipeline
 - Minesite
- Water
 - Tailings
 - Waste Rock
 - Abandoned Pits
- Air
 - Dust (metals, especially mercury)
 - Direct Emission (mercury from electrowinning cells, carbon regeneration kiln, retort, and autoclaves)

STREAM DISRUPTION – Pipeline



STREAM DISRUPTION – Minesite

- Anaconda Creek
- American Creek
- Lewis Gulch



This figure will be replaced with a higher quality version in the next draft.

WATER – Contaminants of Concern at Donlin

Metals

- Mercury
- Arsenic*
- Antimony*
- Manganese
- Molybdenum
- Selenium*

*Neutral Drainage metalloids

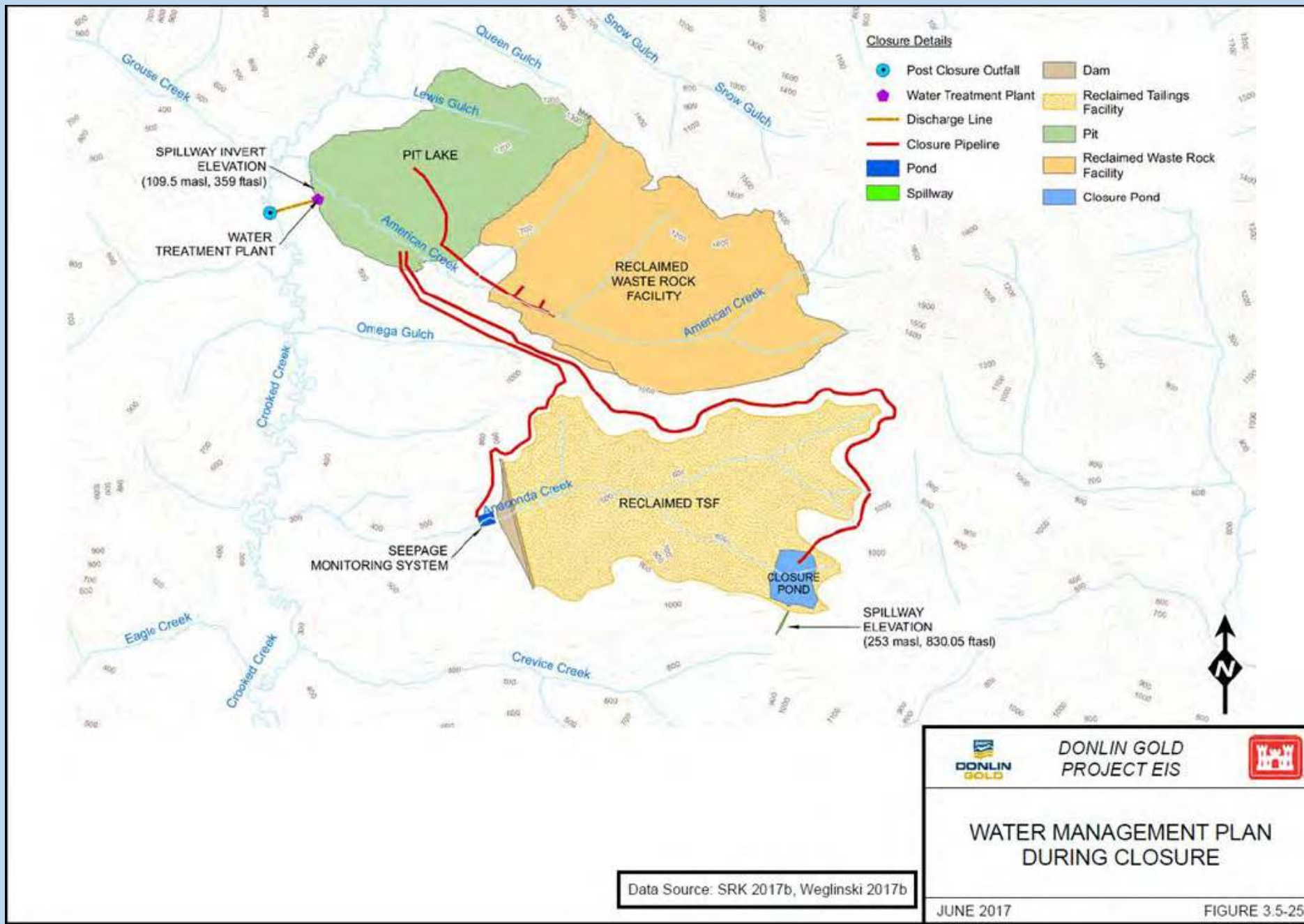
Non-Metals

- Sulfate
- Ammonia

Risks from Mercury

- Mercury does not become an issue unless it methylates (When mercury combines with hydrogen and carbon, it becomes biologically available)
- Most risk if in wetlands and slow-moving water in mucky areas with high dissolved carbon because of methylation
- Less risk in clear, fast, oxygenated streams
- Low risk if mercury deposits on bare ground, rocks.

WATER – Potential Contamination from Mine Facilities

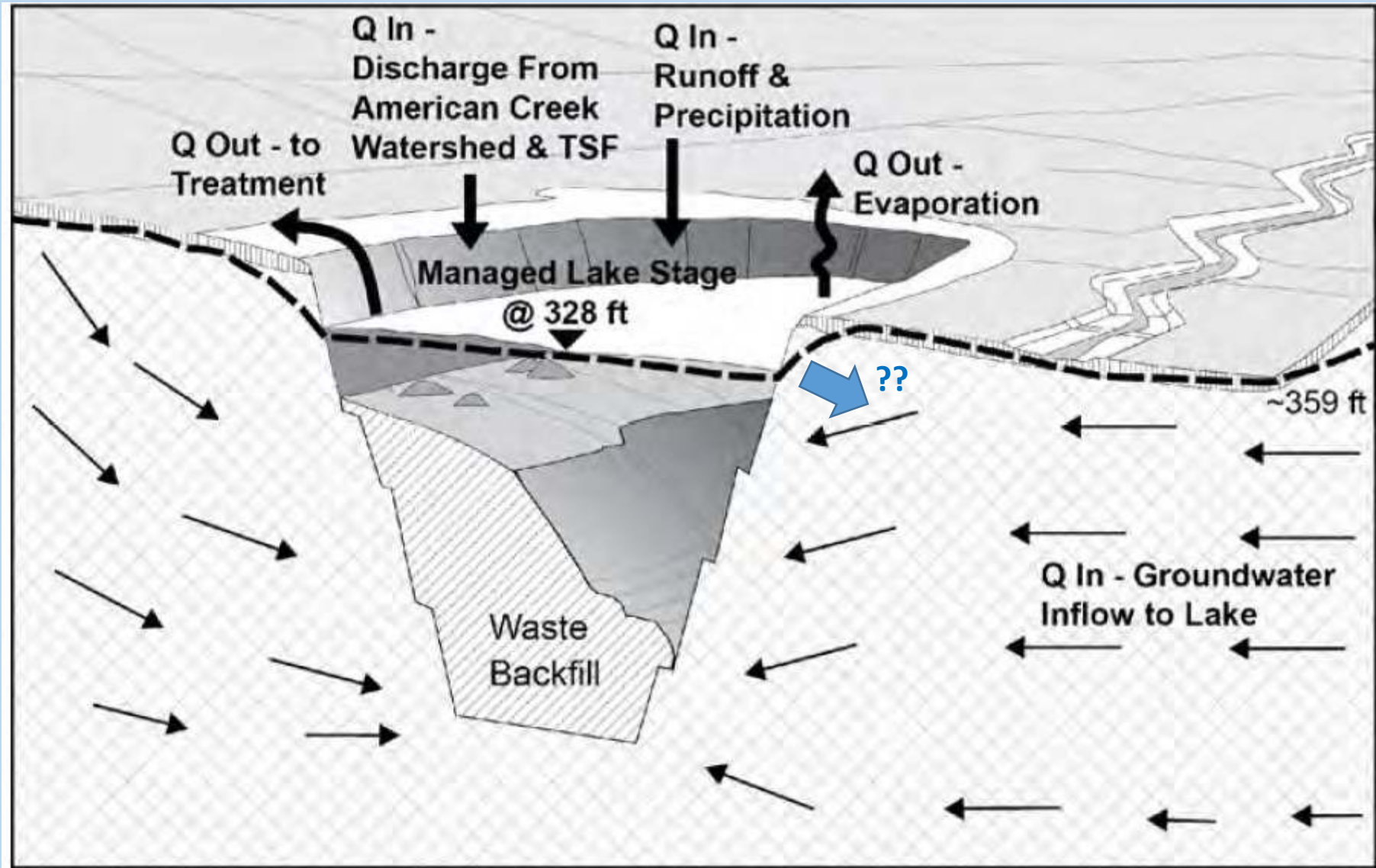




Goldstrike Mine, Nevada

Open pit mine from Donlin EIS





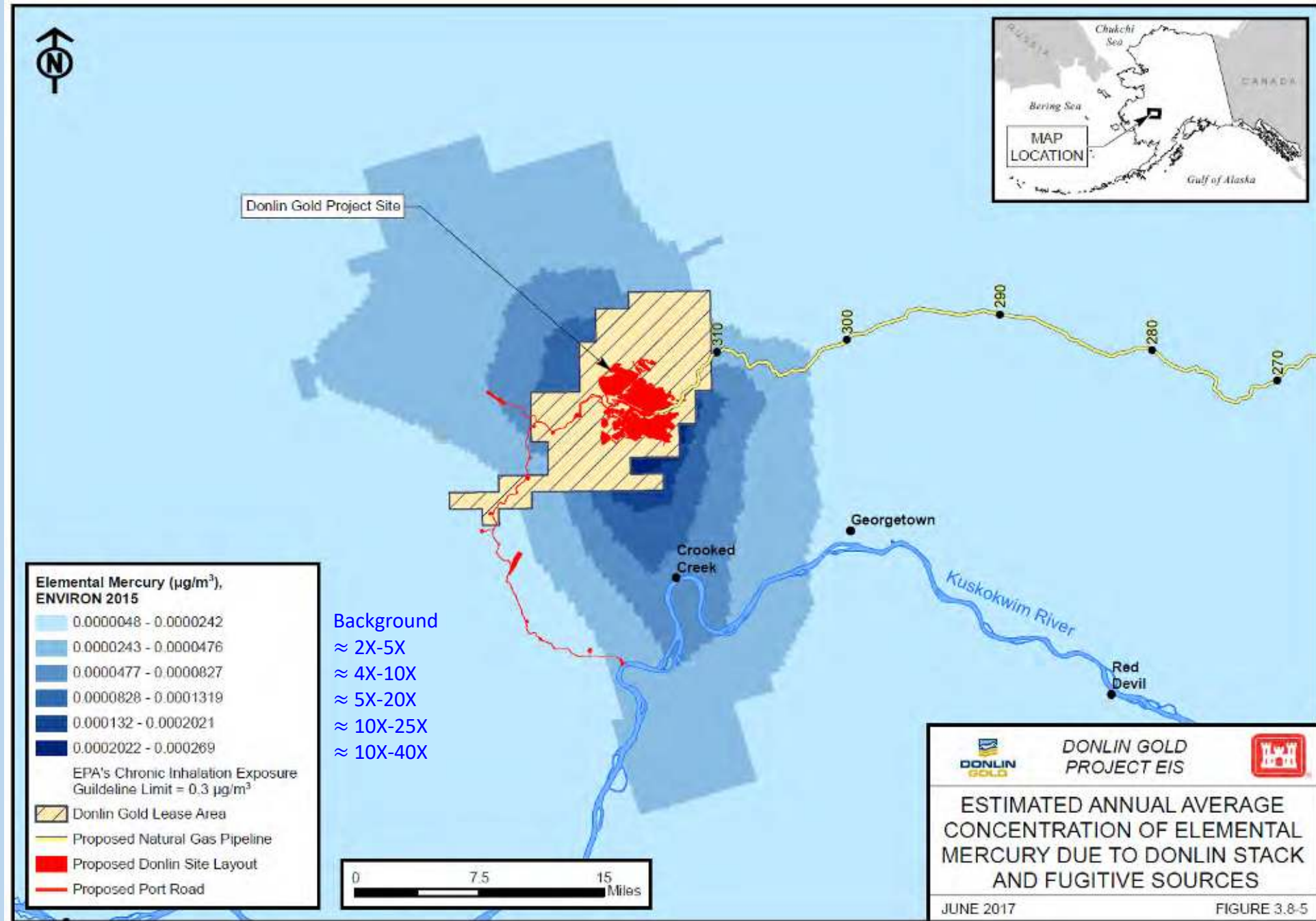
After Pit Lake is Full

AIR IMPACTS

Mercury Emissions

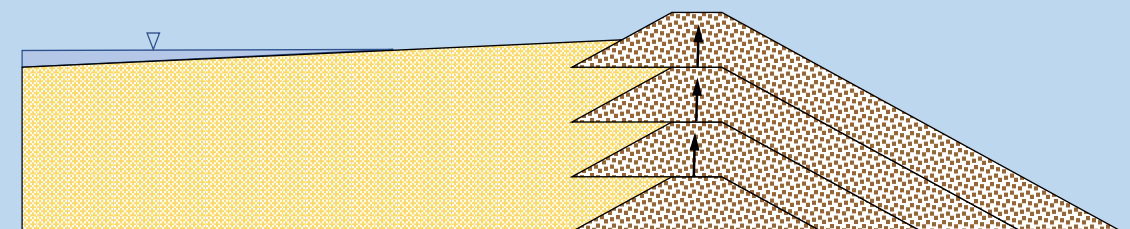
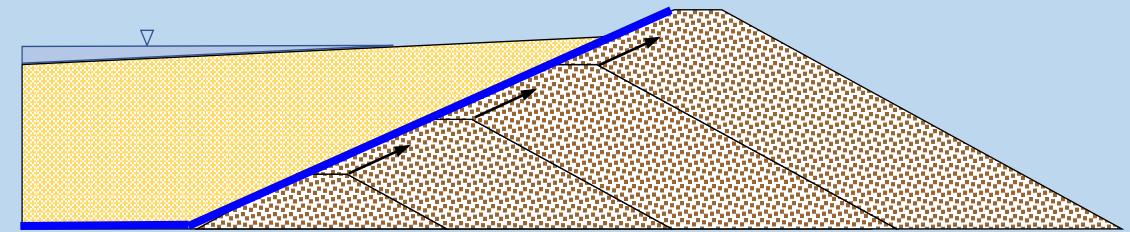
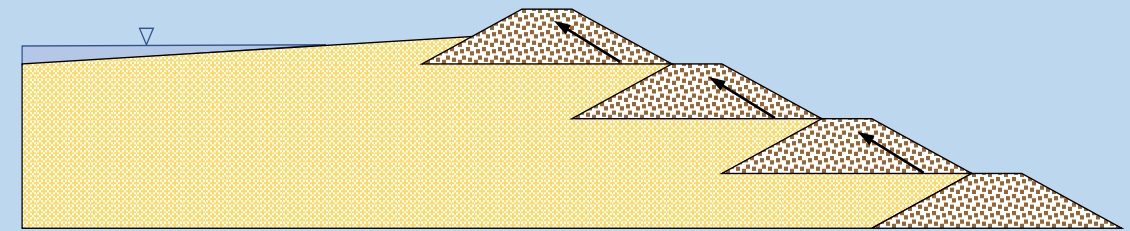
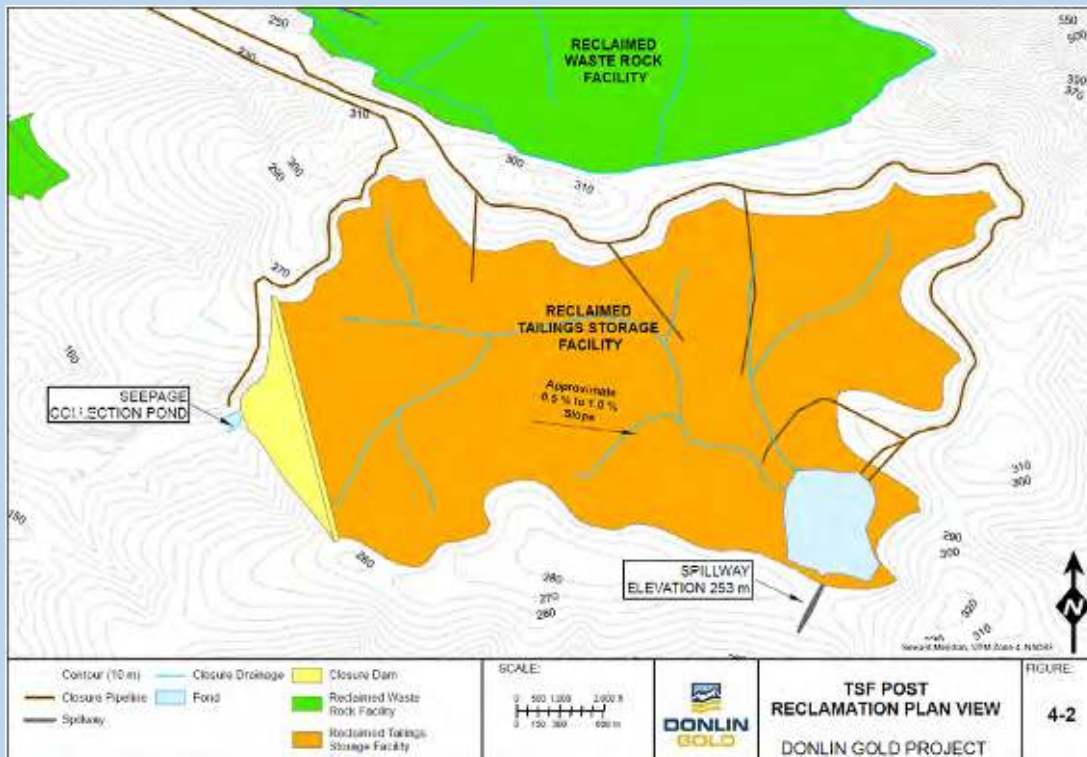
- 197 lbs/yr* (EIS – 2018)
- 66 lbs/yr* (Donlin Gold – 2021)

*Draft Report: Donlin Gold Mine Supplemental Mercury Modeling and Mass Balance Analysis, Ramboll Consulting, October 22, 2021



Donlin Tailings Dam

- ✓ Downstream-type dam construction
- ✓ Full bottom liner
- ✓ Seepage collection system under the liner
- x Closure top cover is permeable, and will allow some precipitation to infiltrate
- x This results in partially or fully saturated tailings



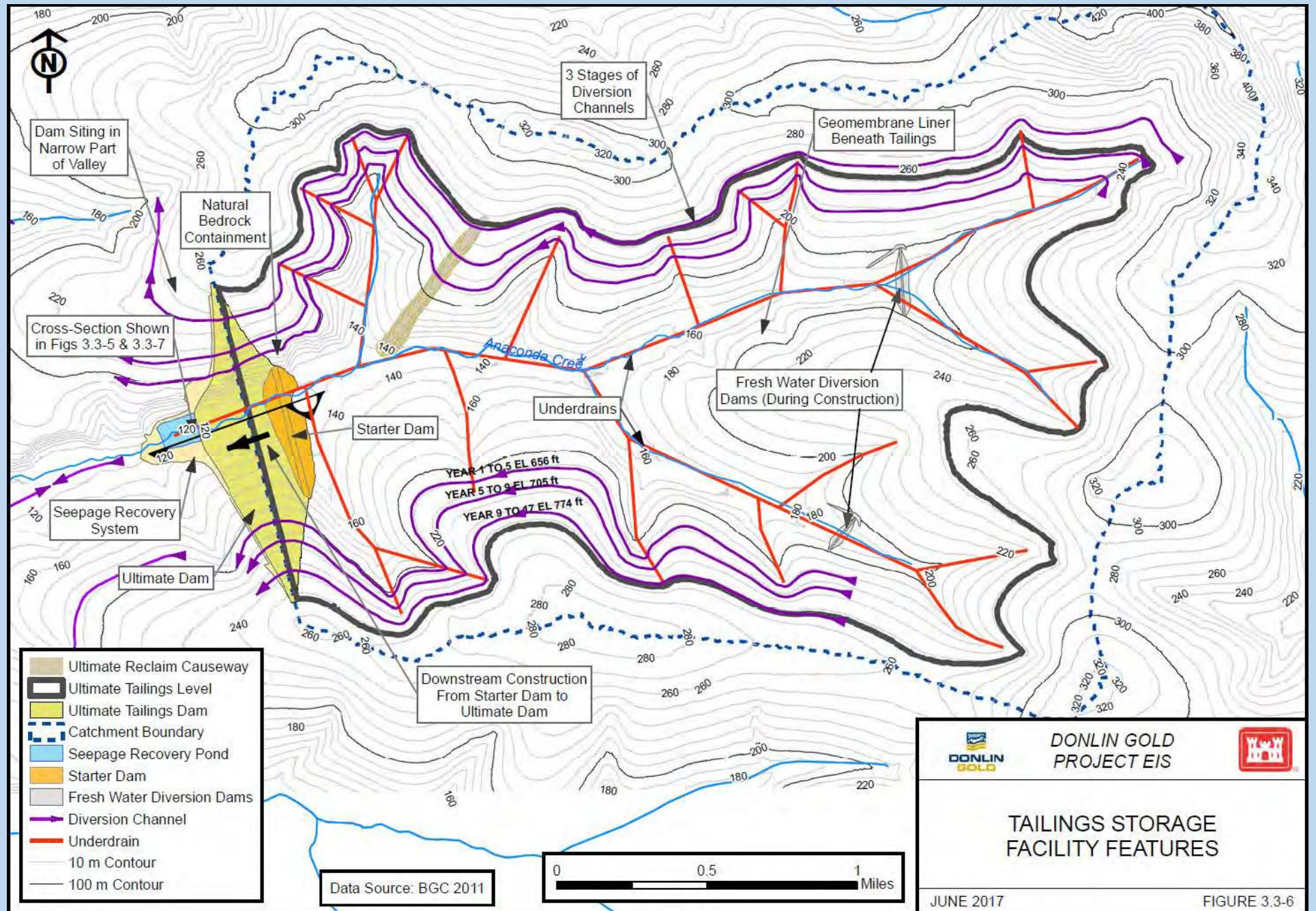
Gold Quarry Waste Rock Failure (Nevada)



Mount Polley Tailings Dam Failure (British Columbia)



Donlin TSF Seepage Collection System



DONLIN GOLD PROJECT EIS

TAILINGS STORAGE FACILITY FEATURES

JUNE 2017

FIGURE 3.3-6

QUESTIONS