

DR. MADELINE NYBLADE

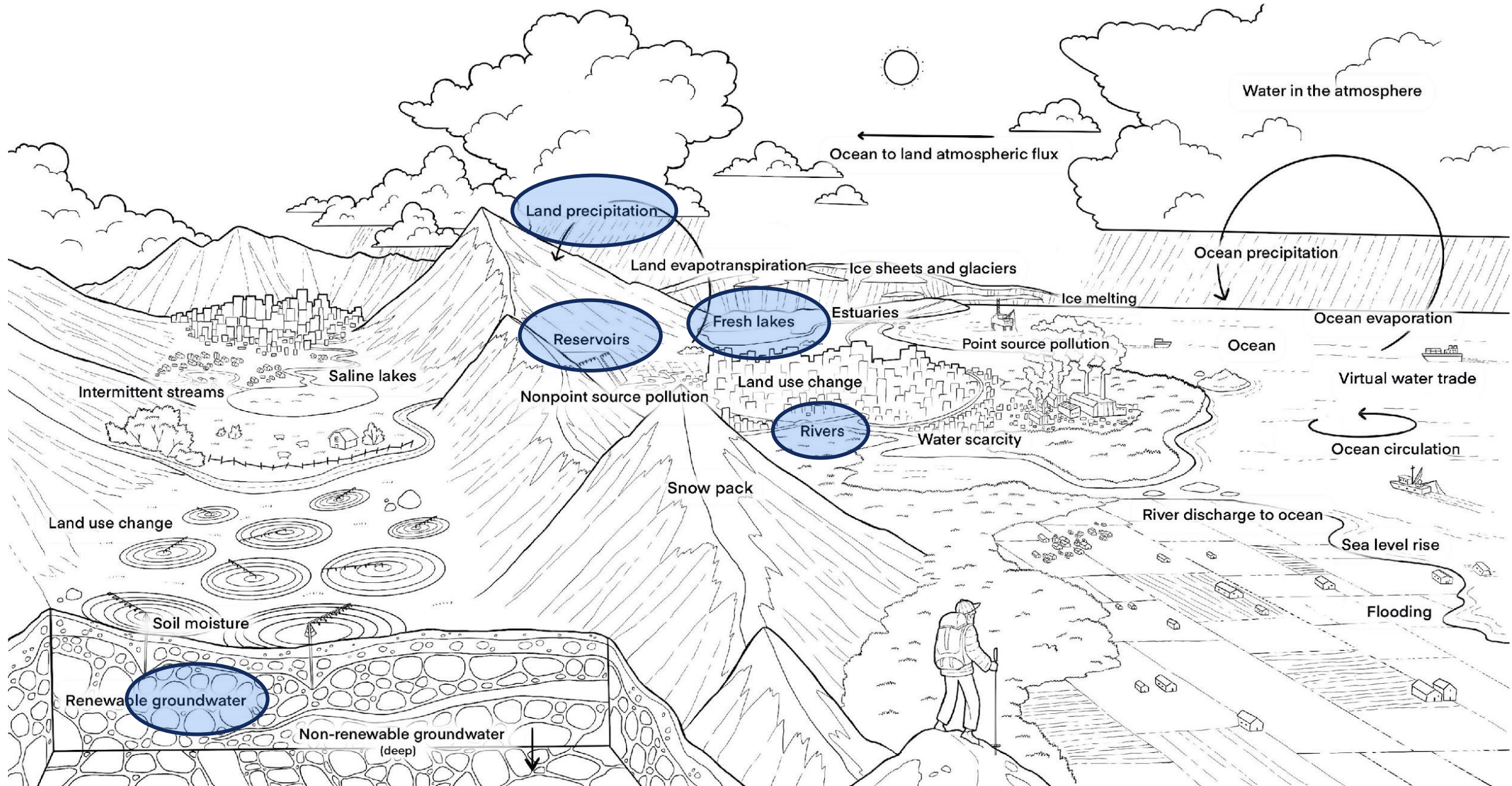
SUNY ESF

Key Environmental Impacts of Water-Intensive Industries



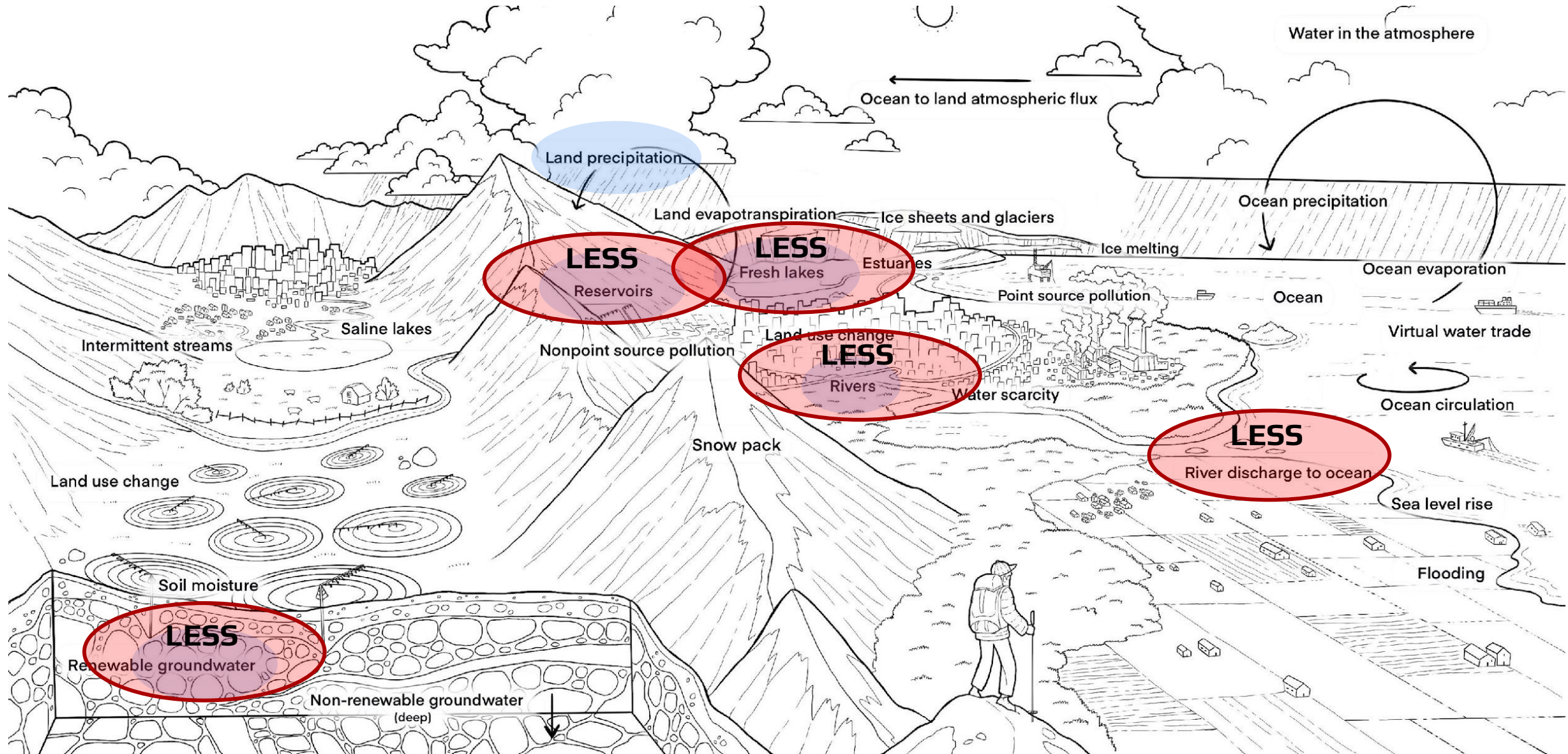


Where is the water coming from?



What is the rate of removal compared with replenishment?

What is the impact of less water?

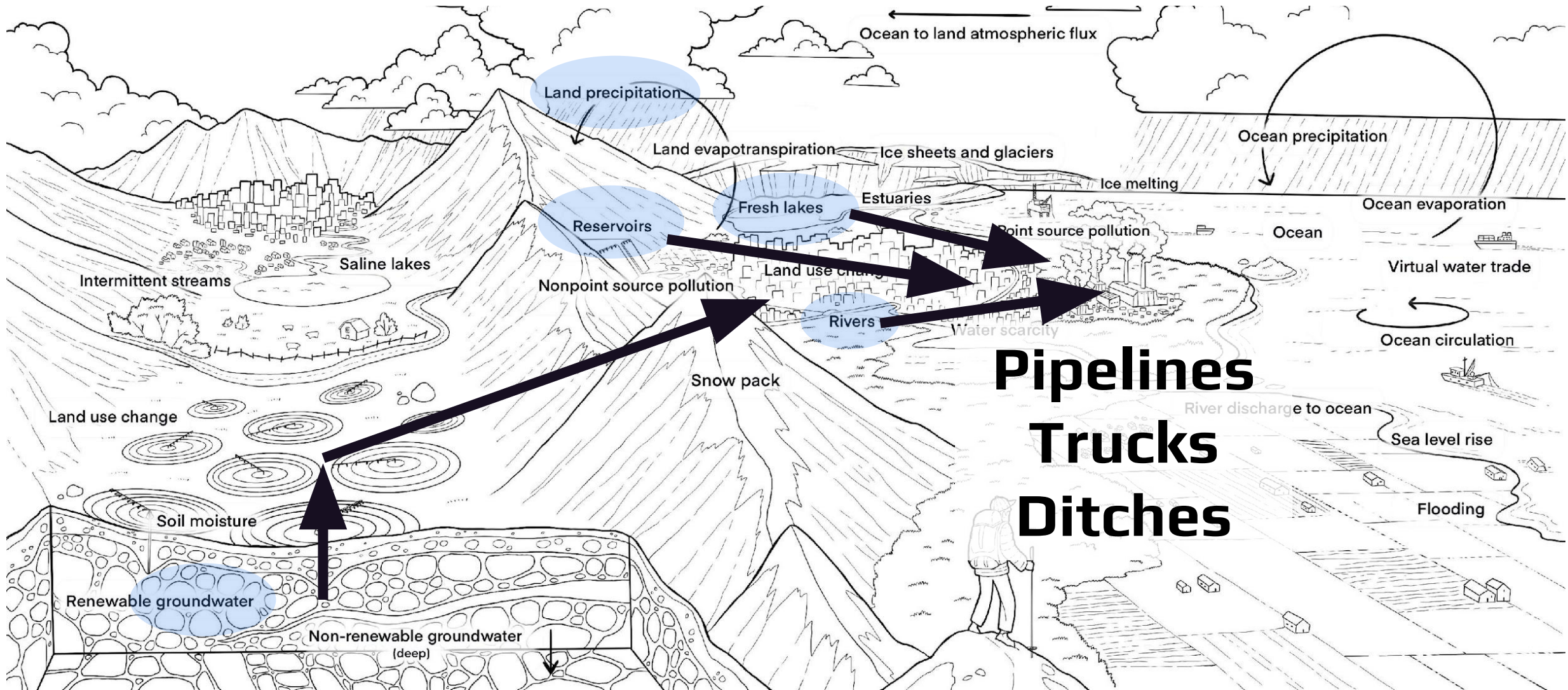


Water Quantity

- Inflows and outflows of water
source: Is this renewable?
- What about climate change?
- Water rights and what happens in a drought
- Industries that dig into the ground
can change groundwater flows



How is water transported to the facility? What is the impact of creating the transportation pathway? Impact of transportation itself? What if it spills?

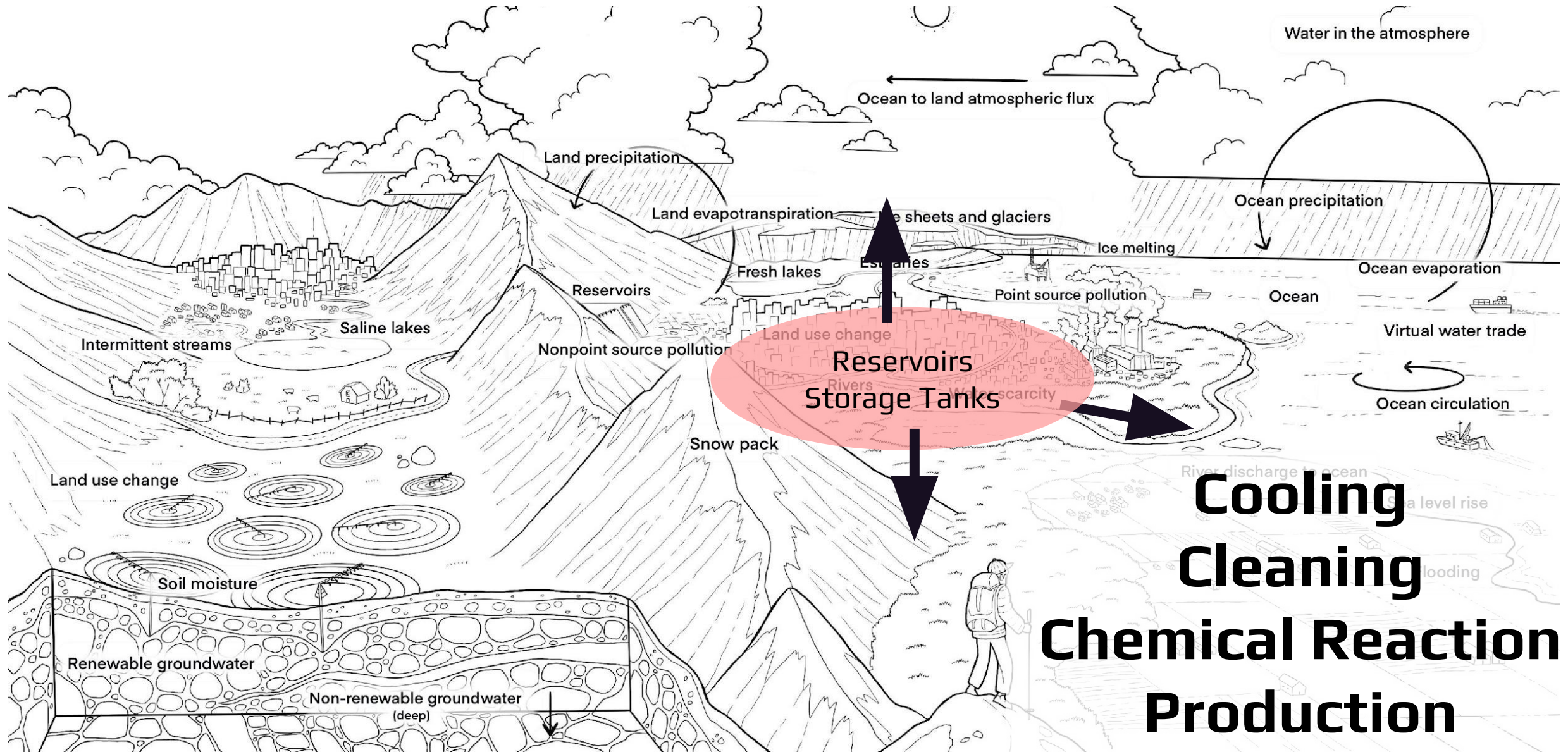


Water Transport

- Pipeline construction has major impacts
- Truck emissions and road wear
- Hydrologic alterations of ditches, dams, and canals



How is water used at the facility? How is it stored? What if it spills? Who is downstream? Who is monitoring it?



Water Storage

- Reservoirs: How are they connected to the groundwater?
- Holding tanks: What happens if they leak?
- What happens during a flood?



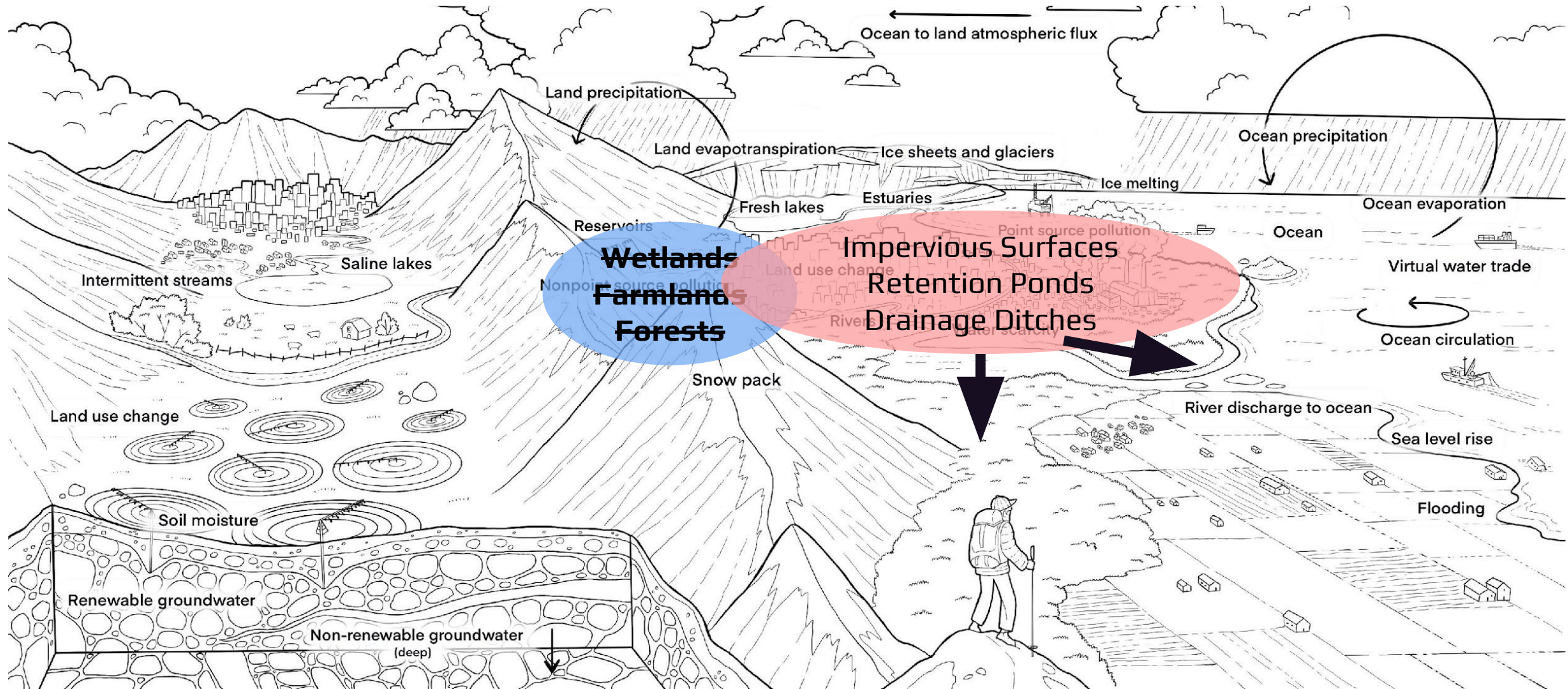
Water Usage

- Cooling: Increased evaporation will cause concentration of contaminants
- Cleaning: What is the water coming in contact with? Is it regulated, monitored? If so how, by whom?
 - PFAS?
- Chemical Reaction: What are the waste product? How are they handled? Where do they go?



How did the land interact with water prior to the facility?

How is rainwater handled at the facility? Who and what is downstream?

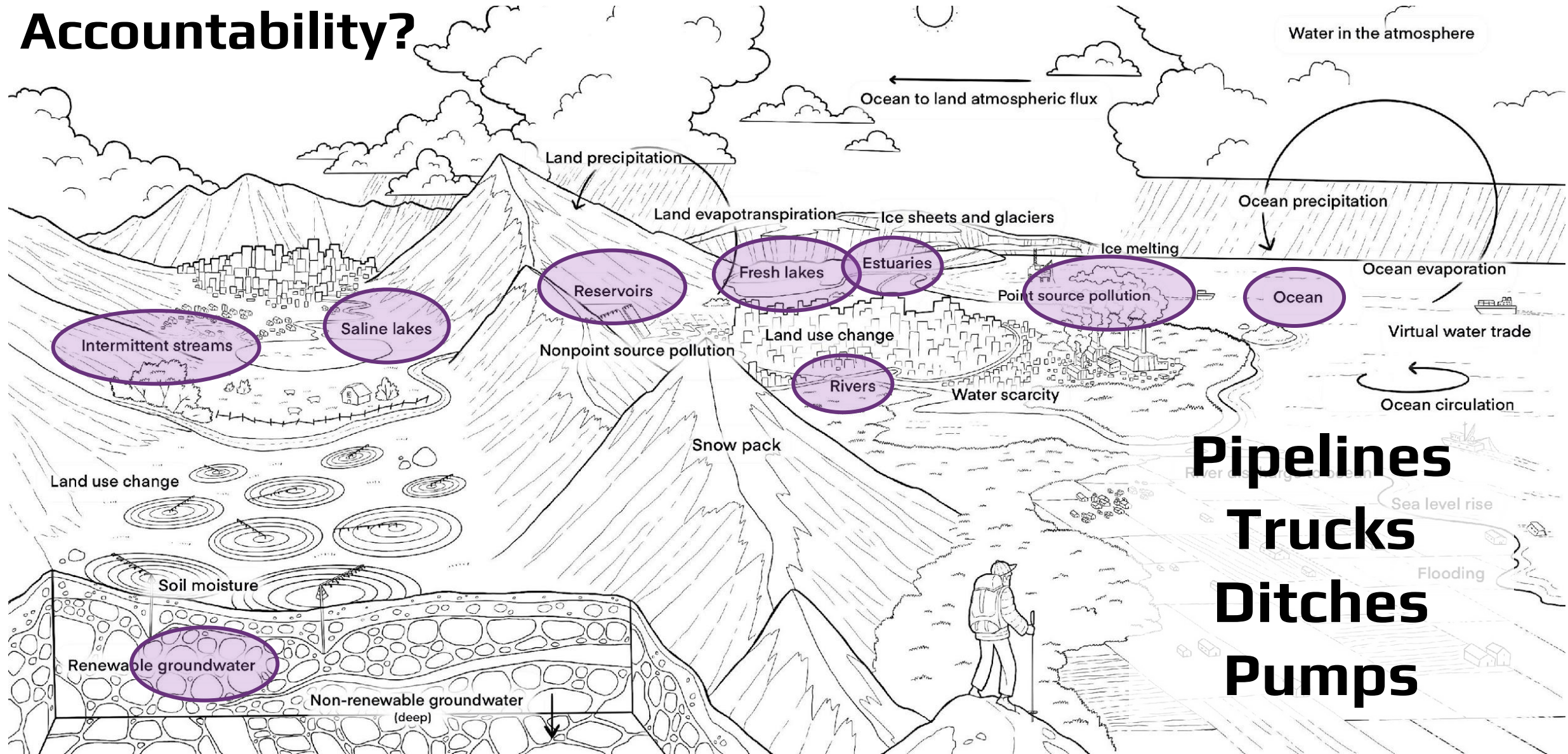


Land Use Change

- Farmlands: what was the land cover before farmlands?
- Impervious surface: decrease infiltration to groundwater, increase storm water runoff
 - Where is the storm water going? How is this connected to the surrounding waters?
- Loss of wetlands:
 - Increased downstream flooding,
 - Less filtration of pollutants
 - Less habitat

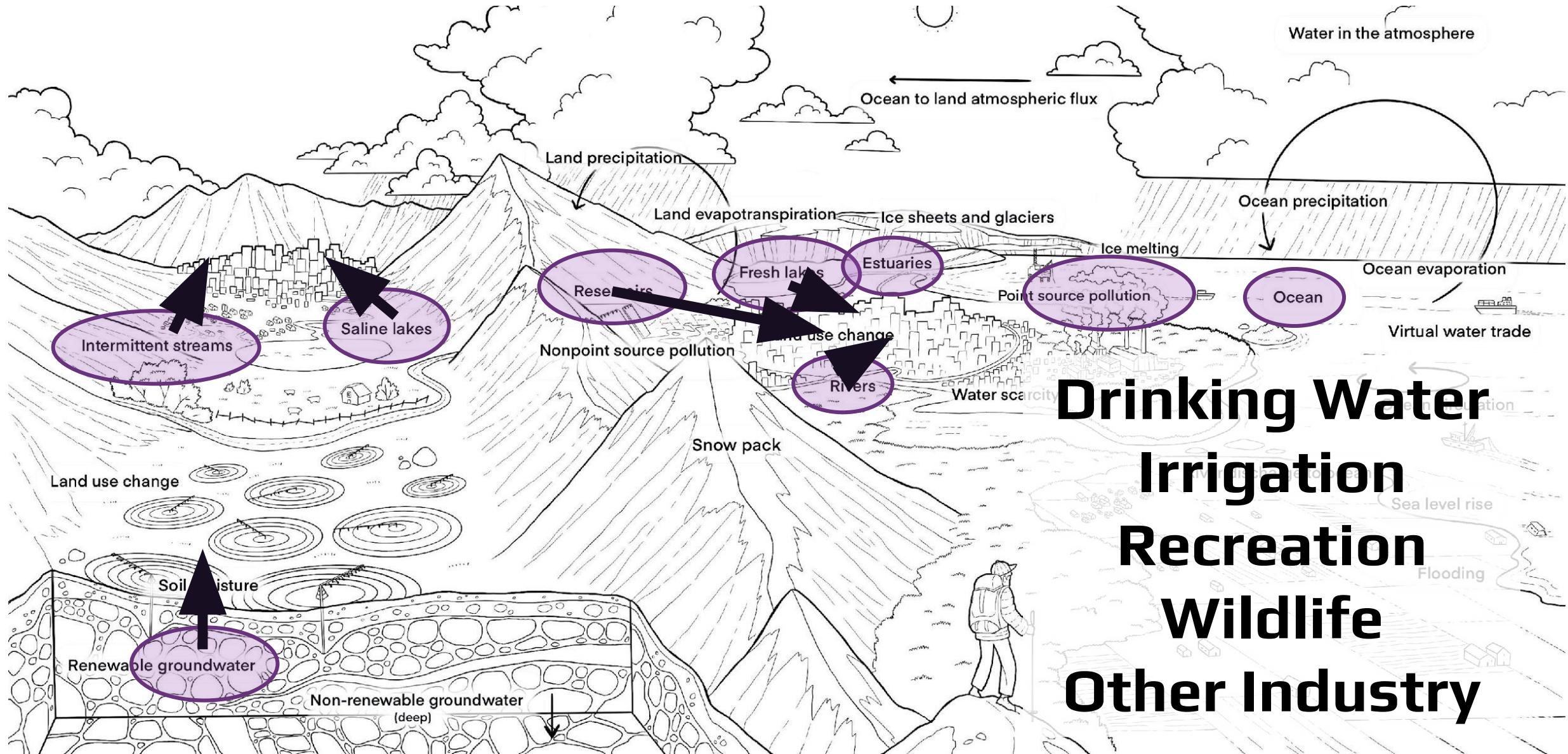


Where and how is the water discharged? How and where is it cleaned? To what standards? Who monitors? Accountability?



Who else uses the water where the facility is discharging?

What are the impacts of pollution on this water source?



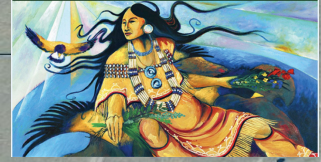
Water Quality

- What is in the water being discharged?
- Point-source and non-point source pollution
- Where does the water go to get cleaned? Who pays for this?
- Temperature pollution



Supporting Onondaga Nation's caretaking of returned lands: Water quality and wetland restoration

Center for Native Peoples
and the Environment



South Parcel of
Returned Land to
Onondaga Nation

Water level & quality
monitoring points

Wetlands

Watersheds that flow
onto returned lands

Gravel Mine
Expansion Area

Gravel
Mine



Mia Glover



0 750 1,500 m

