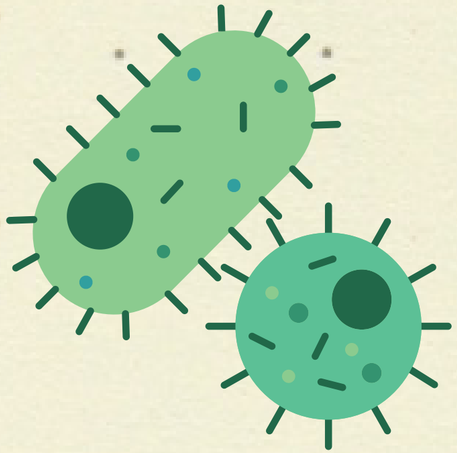


Bio-precipitation

By Edison Ying

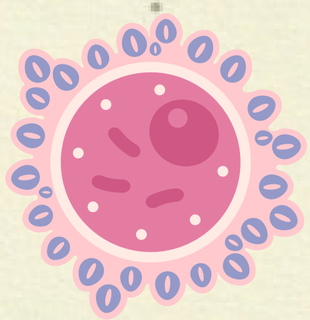
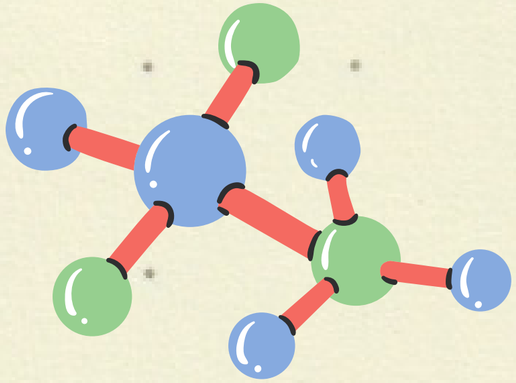
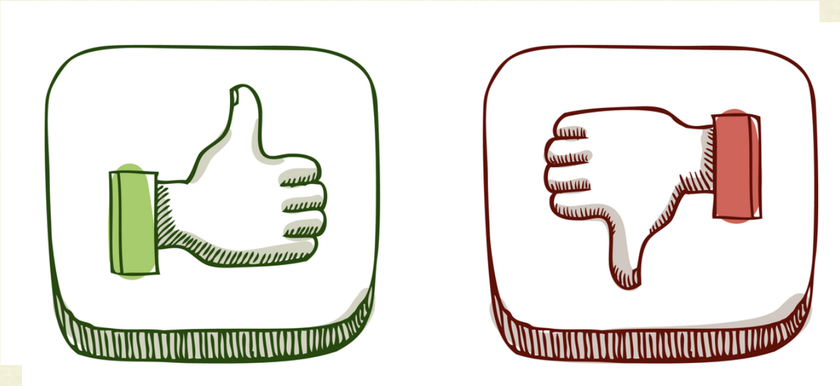


Table Of Contents



What is it?



Benefits and Drawbacks

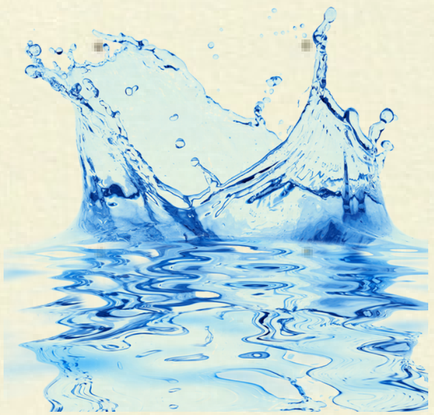
Strategies to reduce negative impacts

01.

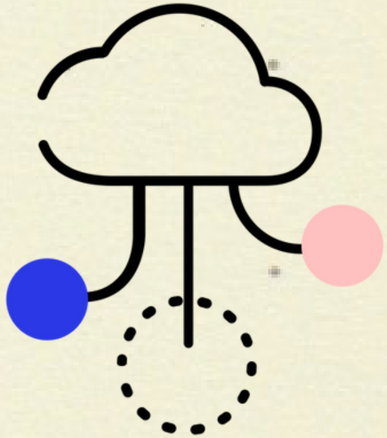
What is Bio-precipitation?

Biologically creating rain by inserting bacteria into the atmosphere

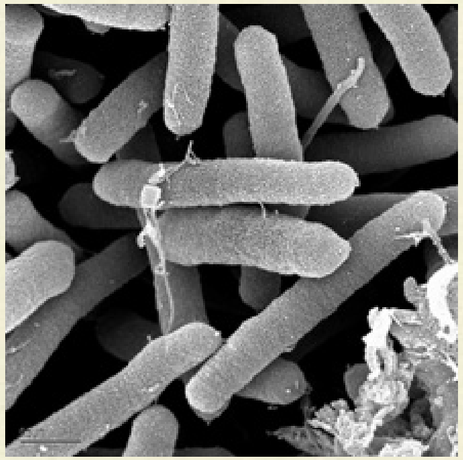
How does it work?



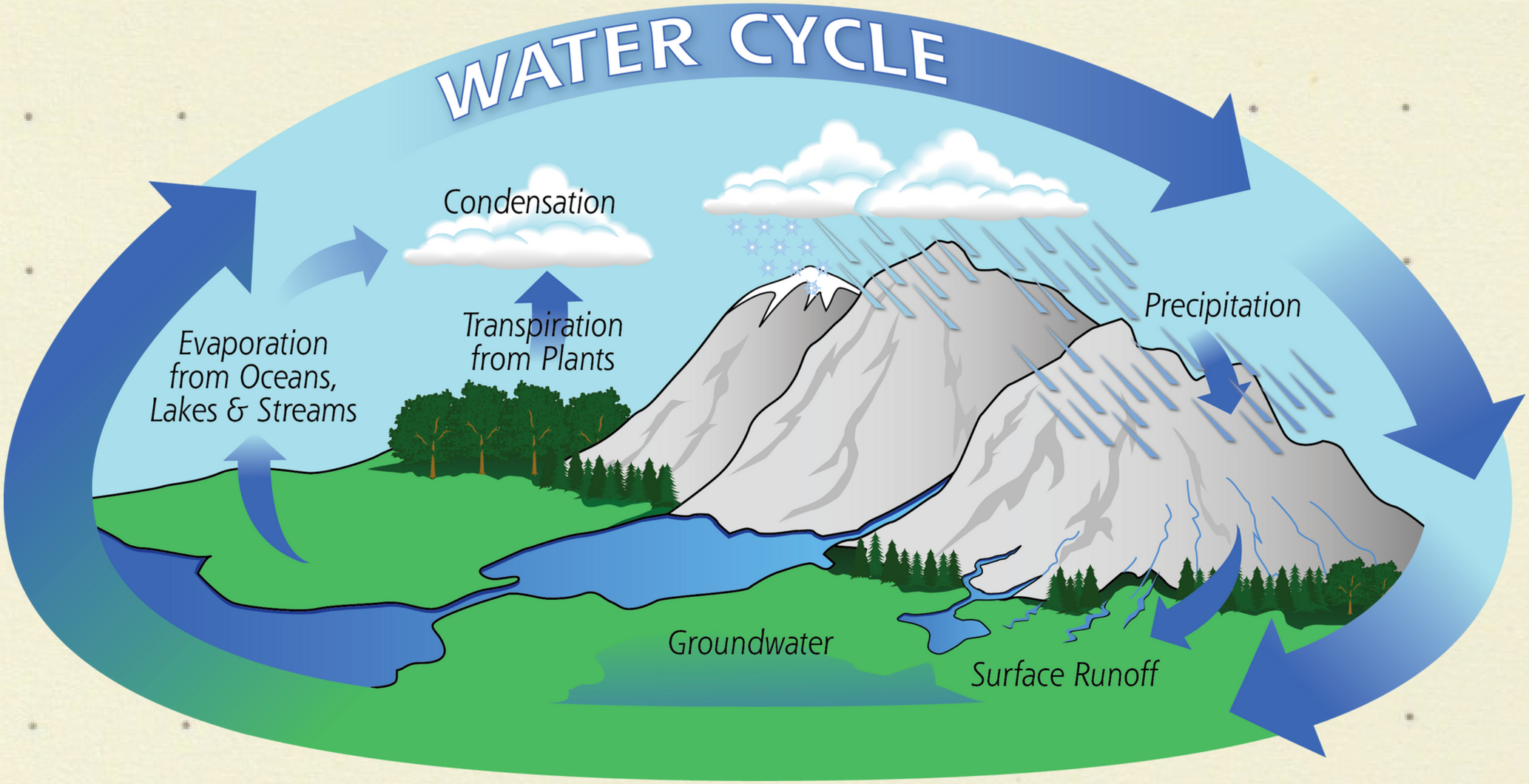
Our Water Cycle



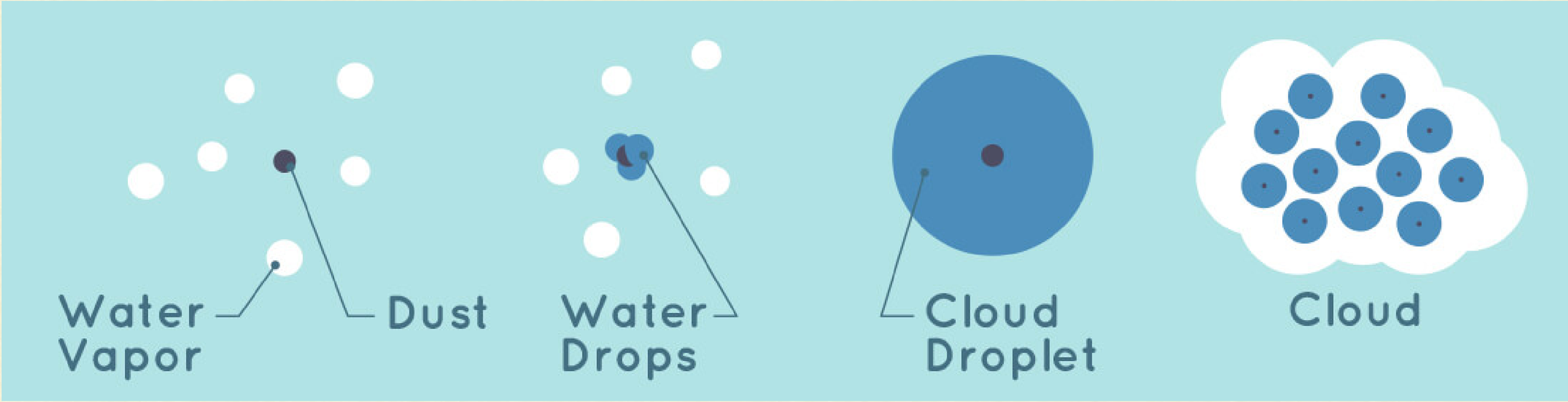
Cloud Seeding



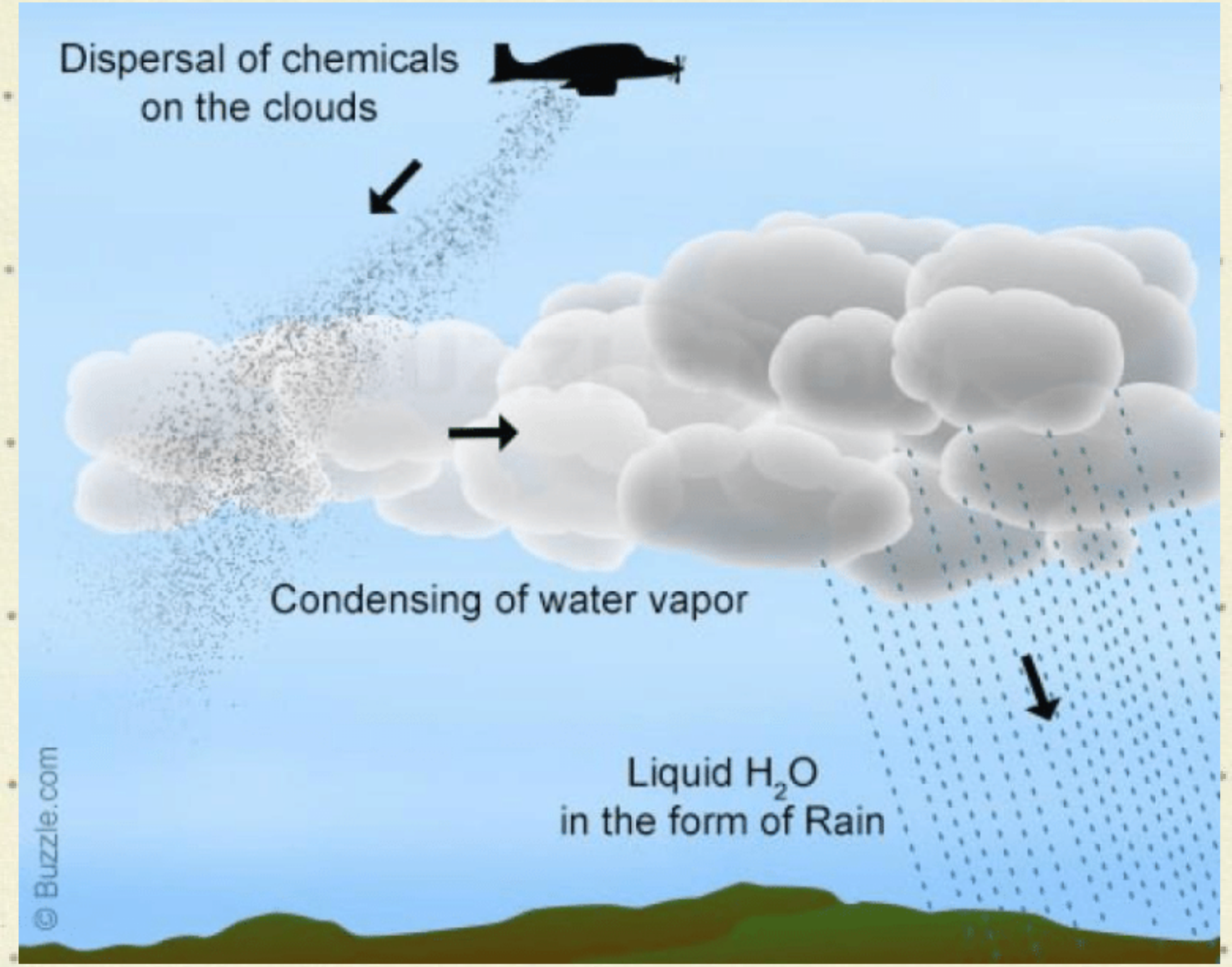
Bio-precipitation


WATER CYCLE
Condensation
Evaporation from Oceans, Lakes & Streams
Transpiration from Plants
Precipitation
Groundwater
Surface Runoff

During Condensation...



Cloud seeding



- Injects Silver Iodide (AgI) into clouds
- Acts as nuclei to create more rain

Key Issues:

- Requires Clouds
- Uses chemicals

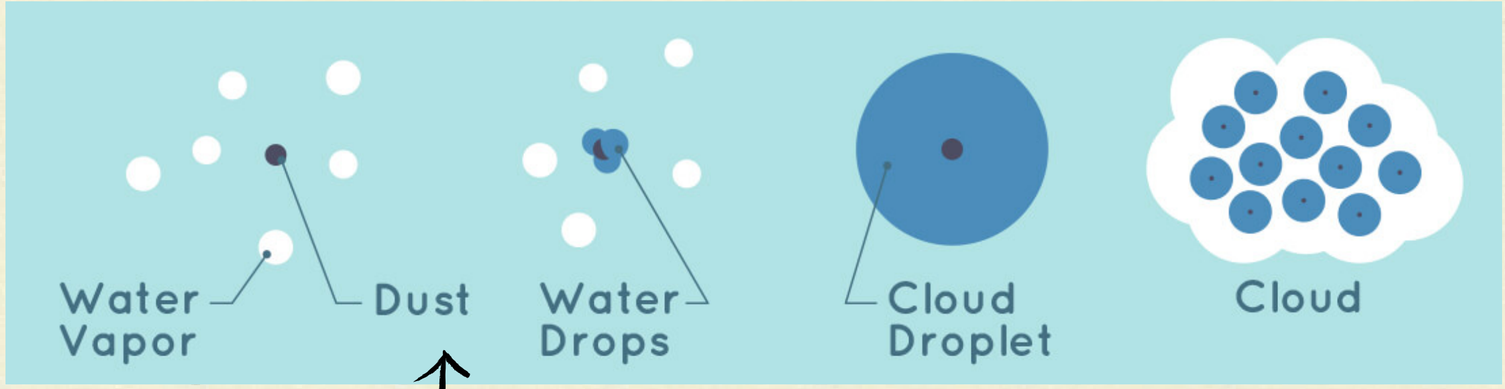
02.

How does Bio-precipitation Work?

Bio-Precipitation

Pseudomonas Syringae Bacteria

- The bacteria forms colonies on plants
- Gets into the atmosphere through natural water cycle



This dust would be the Pseudomonas Syringae Bacteria

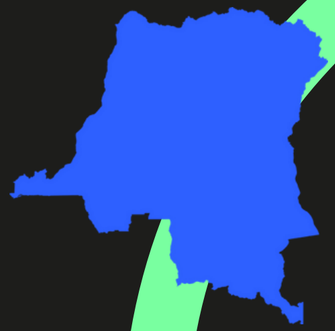
03.

Benefits and Drawbacks of Bio-Precipitation

SOCIETAL IMPACTS

POSITIVE IMPACTS

More land can be habitable and usable for agriculture



Weather modification to account for droughts

NEGATIVE IMPACTS

How ethical is this?

Working with bacteria can be dangerous

Can it be used as a weapon?

ECONOMICAL IMPACTS

POSITIVE IMPACTS

Food and water will be more abundant

More water and food can allow more money into the economy

Global imports and exports will also be affected

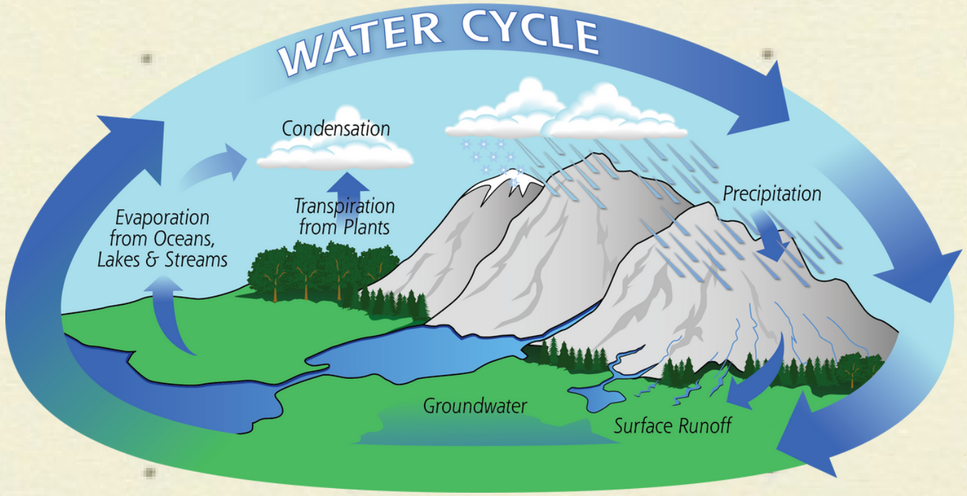
NEGATIVE IMPACTS

Flooding can cause damages

Negative changes in climate can result in more money being spent on fixing it

Negative Impacts on Environment

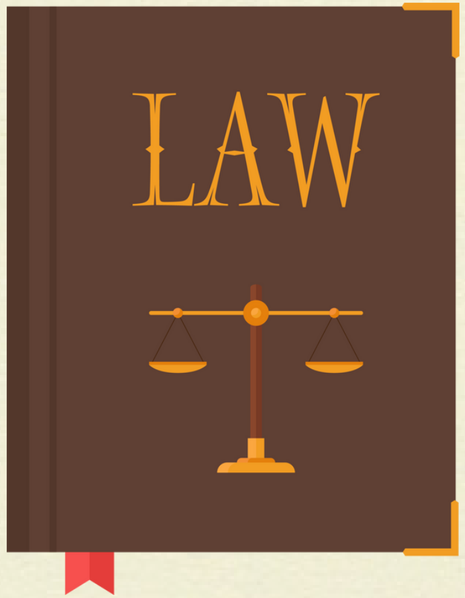
The effects on animals & other species



Altering the natural water cycle

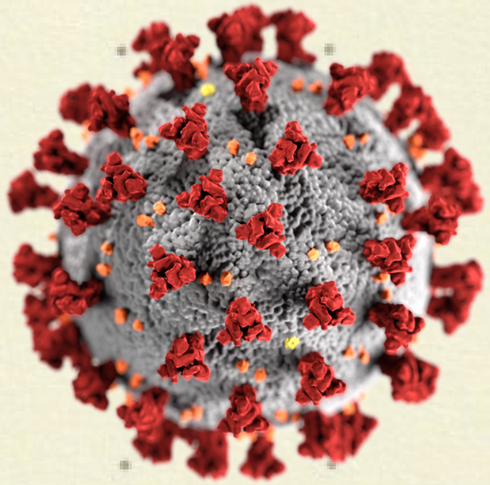
Strategies to Reduce these Impacts

Thorough testing



Having international law on the proper use of this technology

Negative Impacts on Human Health



Can it spread disease?

Could it Worsen climate change?

Neglecting groups with less money

Strategies to Reduce these Impacts

Thorough testing

Limitations on how often it is used

Using it to benefit regions and society

Thank you!

Any Questions?