

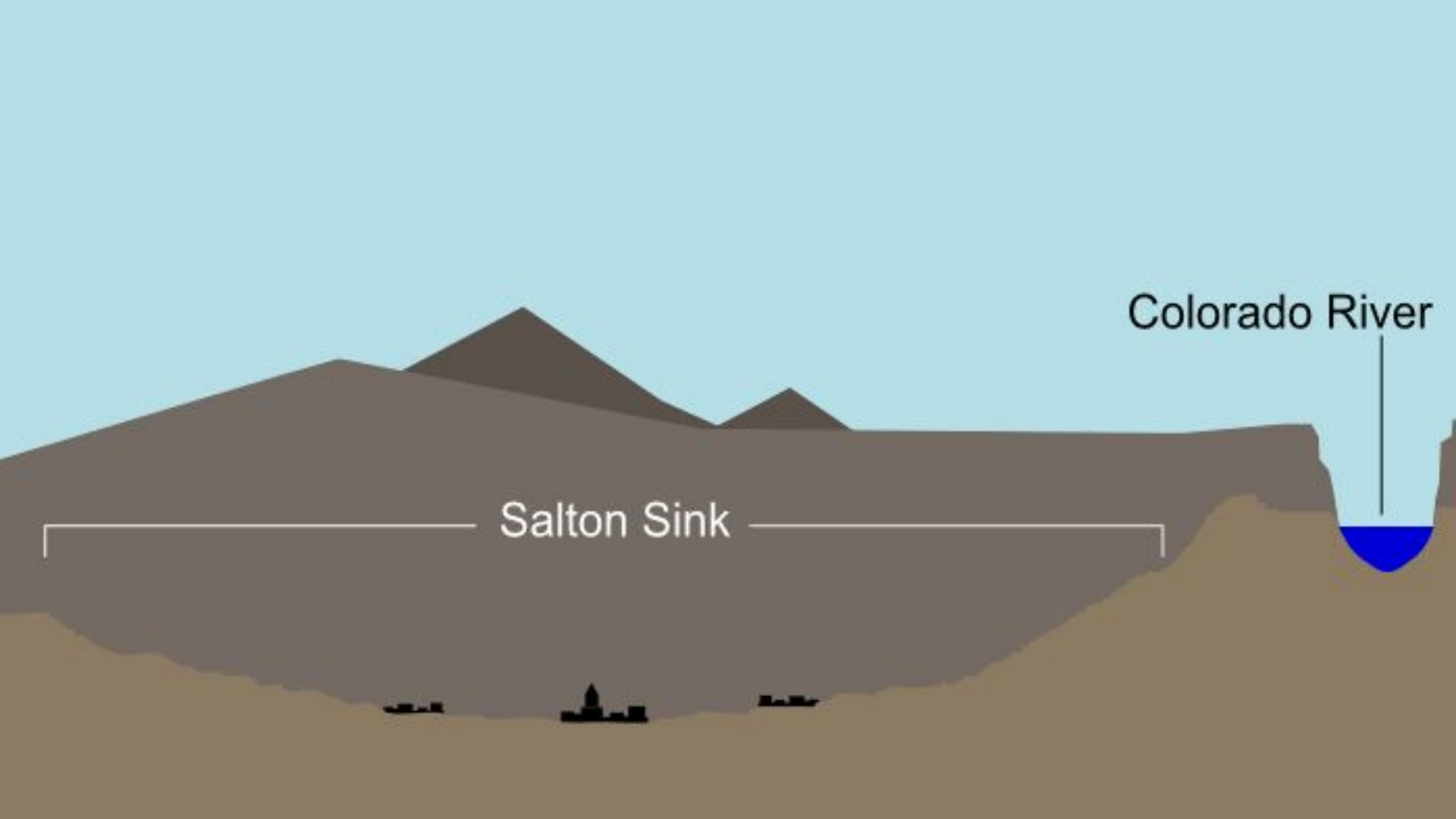
A photograph of a dead fish lying on a sandy beach. The fish is positioned horizontally, with its head to the left and tail to the right. Its mouth is wide open, and its body appears lifeless. The sand is dark and textured. Overlaid on the image is the text 'The Salton sea' in a bold, red, sans-serif font. Each word is underlined with a red line. The text is centered vertically and horizontally over the fish's body.

The
Salton
sea

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Quick History

- The Salton Sea was created by accident in 1905 when the Colorado River flood water breached an irrigation canal being constructed in the imperial valley; leading it to the Salton sink.
- It lies 227 feet below sea level; it's not a sea but a lake
- Later on as years pass even to this day the lake has become very toxic to the point that it is affecting the ecosystem



Colorado River

Salton Sink

So, why is this lake so toxic ?



- The water in this lake has no flow (outlet) due to the tension within faults that are pushing in opposite directions, therefore forming a sunken basin.
- Which leads to the water to evaporate; drying up the lake while leaving behind accumulated toxic waste
- The Alamo river carries runoff from nearby farms which end up in the salton sea
- the runoff water carries pesticides, banned chemicals like DDT, as well as fertilized nitrates
- All of this salt from all these chemicals and waste has accumulated throughout the years that the salinity of the water is rising and is even higher than the pacific ocean

How is this toxicity affecting the ecosystem ?





Ecosystem at Salton Sea

It's one of the top three birder destinations in the United States; in which about more than 70 species of fish-eating birds have stopped to migrate each year over winter.

Five endangered species inhabit this ecosystem such as the southern Bald Eagle, the desert pupfish, Yuma clapper rail, California brown pelican and lastly the peregrine falcon.

A variety of fish live in this lake, such as tilapia, carp, rainbow trout, striped mullet, humpback sucker.


Affects :

1996 8,400 white pelicans and 1100 California brown pelicans died from botulism.

The salinity of the lake is so high that even fish were dying off in massive amounts. Tilapia recently has been stocked up in the lake but due to all the salt content in the lake that even they are becoming scarce.

The desert pupfish while present in the sea is rarely seen therefore considered endangered in March of 1986.

December 1991- April 1992 150,000 eared grebes died on the Salton Sea and then in 1994 another 20,000 die.



Here is a satellite view of the impact on the lake due to loss of water throughout the years.

Since 2000, the Salton Sea's surface elevation has dropped more than 10 feet, and more than 15,000 net acres of dry lakebed, known as playa, have been exposed.

As the salton sea is shrinking the health toll on humans rises.

- Asthma becomes the number one indicator on how if the lake continues to dry up it can worsen and cause a huge respiratory endemic.
- Imperial county has had about double the amount of emergency visit due to asthma compared to the rest of california. Mainly affecting ages 5-17.
- This is happening due to toxic dust storms. As the lake continues to shrink it will expose more and more of its toxic-coated bottom to wind storms. Causing a major air pollution hazard for eastern Riverside county and Imperial valley.

The real question is, is there any way to save the Salton Sea ?



- The state is investing more than \$200 million dollars to help restore the salton sea. They will have projects that create flooded ponds and habitat on the exposed lakebed at the southern side of the shore.
- They plan to finish this restoration in two and a half years so by 2023 salton sea could possibly be saved according to Wade Crowfoot who is secretary of the California Natural Resource Agency.
- The main goal of this restoration is to limit the amount of dust coming up from the seabed.
- California also committed to this restoration effort as part of their responsibility in the signing of the Quantification Settlement Agreement. In which it cleared the way for rural water agencies like the Imperial Irrigation District to sell water to the city.
- California hopes to cover or change up to 40,000 acres of the exposed lakebed.

I got the opportunity to visit the salton sea with on of my geology classes back in October 2019. I can 100 percent agree that the smell is very strong and it was also very hard to walk towards the lake. The whole floor was fully covered in barnacle; a girl in my class actually ended up cutting her ankle with some of the barnacle. Overall this place is very interesting and really polluted. Go at your own risk and be safe!





Upclose picture of the barnacle thats all over the ground. I took this October 19,2019.

References

[A Shrinking Sea Mean Toxic Dust](#)

[As the Salton Sea shrinks, it leaves behind a toxic reminder of the cost of making a desert bloom](#)

[Massive Bird Die-Off at Salton Sea Raises Environmental Concerns](#)

[State Launches Salton Sea Restoration Effort](#)

[Salton Sea is in decline. Can proposed infrastructure projects help?](#)

[Salton Sea Ecosystem Initiative Workshop](#)