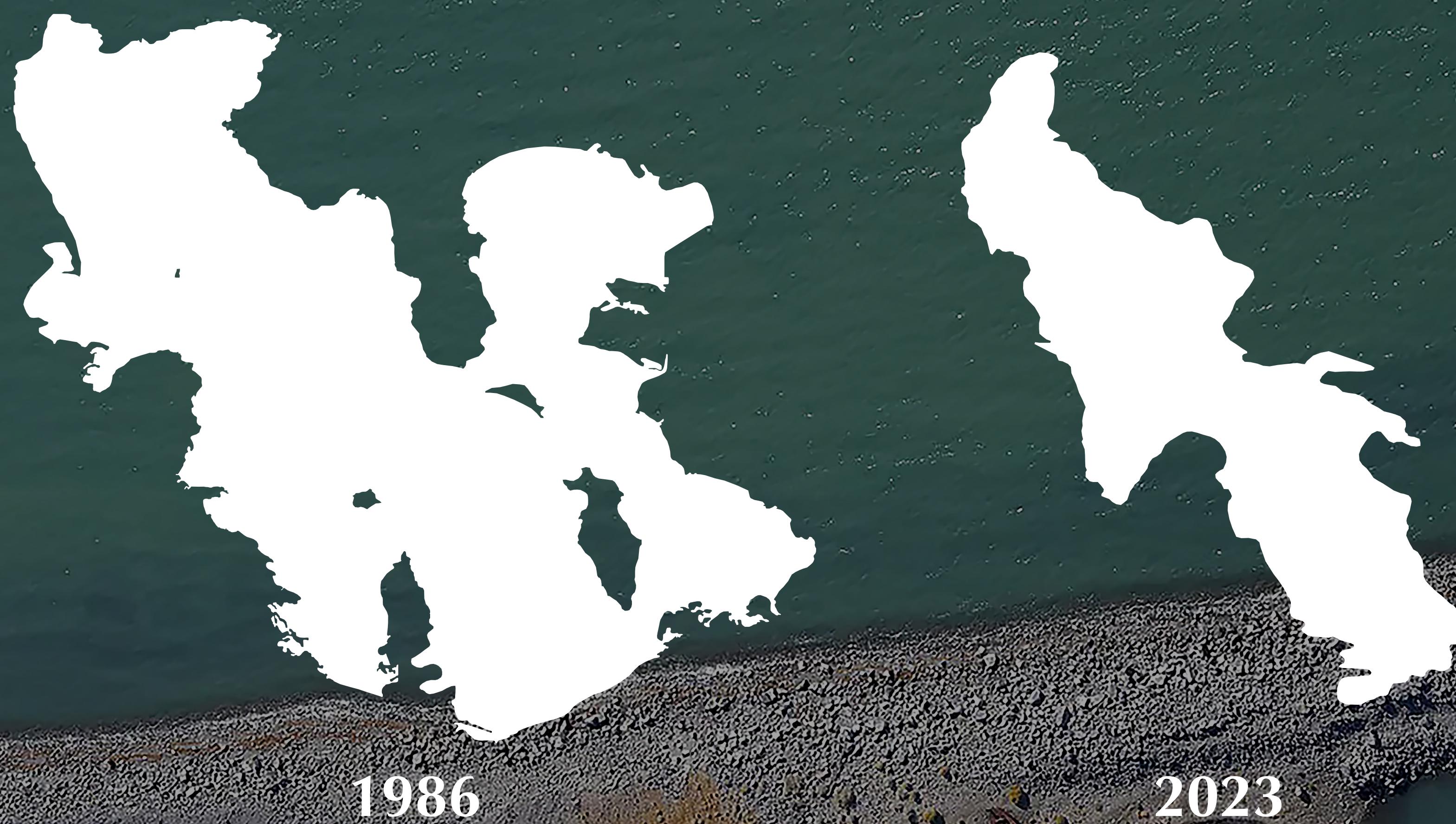


# Decline of the Great Salt Lake

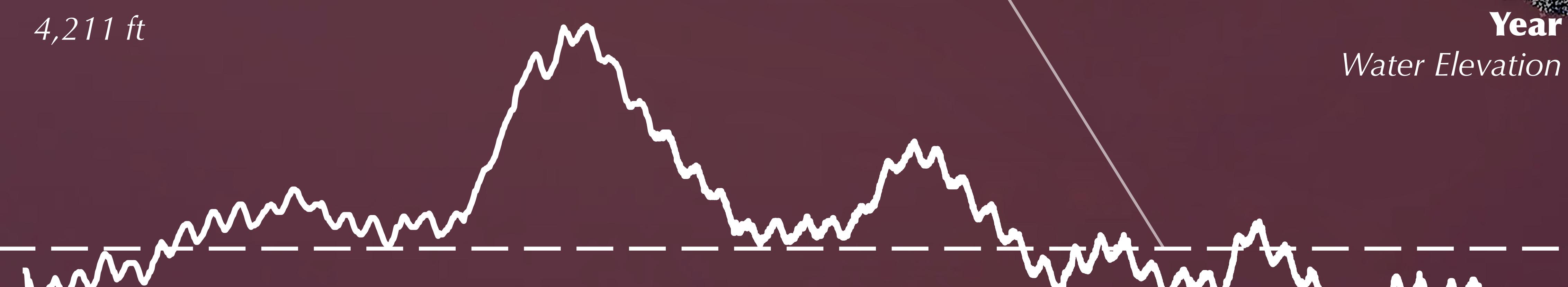
Joshua Gladwell

Over the past forty years, Utah's Great Salt Lake has steadily receded.<sup>1</sup> The growing demand for water fueled by agriculture and the growing local population has claimed more and more of the runoff that refills the lake after each dry season.<sup>2</sup>

This has posed several unforeseen consequences for the Salt Lake City metropolitan area including the threat of toxic dust and sediment from the dried lakebed blowing into the city and the loss of a longstanding brine shrimp ecosystem.



**Toxic Dust:** Years of pollution from local factories have led to high levels of toxic chemicals such as arsenic and mercury in the lake. As the lake shrinks below roughly 4,196 ft,<sup>3</sup> leaving these chemicals in the dry dust that remains, sediment-filled winds threaten to inflict severe health risks on the local population.



**Brine Shrimp:** The Great Salt Lake has historically sustained a \$60 million brine shrimp industry,<sup>4</sup> but as the lake shrinks to below 4,191 ft in water elevation, an increased concentration of salinity threatens the brine shrimp ecosystem.<sup>5</sup>



References: [1]: Jewell. 2021. [2]: Blakowski, M.A. et al. 2022. [3]: Lozada. 2022. [4]: GSLEP. 2023. [5]: Penrod. 2022.

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