

Towards a Sustainable Salton Sea
GSST 190
Thursday, 9:40-11:00, Geology 1444

Long before the breach in a levee of the Colorado River filled the Salton Basin and created the current Salton Sea, this part of Southern California was filled with natural waters that created lakes many times during the past several thousand years. The Native people called these ephemeral lakes, Lake Cahuilla, an Indian word meaning “master”. Lake Cahuilla has waxed and waned over millennia, offering the people who live on its shores food, a pleasant place to live, and a ready source of water. At the same time, waterfowl migrating from the Arctic to the southern reaches of their range stopped at Lake Cahuilla, once part of a much more extensive group of wetlands which sustained large avian populations.

Recent legal decisions regarding the current Salton Sea have placed this region under scrutiny by environmental groups and government agencies. Based on a court case decided in 2003, water that currently flows into the Salton basin from rivers draining the Imperial and Coachella Valleys will be diverted to San Diego for development, beginning in 2018. The State of California and the US Fish and Wildlife Service have introduced complex plans for managing the Salton Sea, primarily for avian wildlife and toxic dust mitigation from areas of exposed, dried lakebed. It is feared that elevated levels of selenium, resulting from a century of agriculture run-off, will pose a major threat to the neighboring urban population centers.

Consequently, it is planned to spend billions of dollars on engineering solutions, now and on into the future, which may or may not work. The Salton Basin and surrounding Imperial and Coachella Valleys are regions where a large amount of America’s vegetables and fruits are grown. Directly north, Palm Desert, Palm Springs and the other desert cities are home to 350,000 residents who moved there to enjoy clean desert air and a mild climate.

The class will learn about the importance of developing a deeper understanding of how the Salton Sea/Lake Cahuilla system functions which could provide more sustainable approaches to ensure that avian populations continue to have a home in the area, as well as perhaps come up with more natural ways of mitigating toxic dust risk. We will alternate between scientific discussions of the Salton Sea region with gender and social issues facing the people who live in the region. Native people, immigrant farm workers, as well as low-income families juxtaposed with very wealthy people in the Palm Springs/Palm Desert area present unique challenges for figuring out how to create a more sustainable Salton Sea. Students will be responsible for weekly readings, leading discussions, and learning in detail scientific underpinnings. Current Salton Sea politics will be highlighted each week. Students will be assessed on their participation in class, a small group project, and two short essays on “sex and the Salton Sea”.