

Vernal Pools

CA, west of Sierra Nevadas, S. to Mexico

Shallow - intermittently flooded wet meadows - vernal pools

50 m² - 0.5 ha, 10% of landscape

Wet in cool winter/spring - plants, inverts

migratory waterfowl - dry in summer

Mediterranean climate - wet winters - dry summers (chaparral)

No connection to water table, wetlands dependant on rainfall

Inland Salt Marshes

Nebraska - Saline seeps

Great Salt Lake marshes

Wilcox Playa and similar playas

Representative flora - distichlis, salicornia, suaeda, ruppia, atriplex, scirpus

Man-made - Salton Sea

1914 - filled when Colorado River flow redirected

1928 - designated a sump and National Wildlife Reserve

1930s - 50s - filling, salinity increases, corvina and croaker stocked from the Gulf, yacht club, retirement homes

1970s - 1980s - Tilapia became dominant, environmental problems began

New River - from Mexicali, polluted

1990s-2000 - major fish, bird die-offs began

Bird deaths due to unique avian botulism and avian cholera, Newcastle disease

Carried as a host through pileworms on the bottom of the sea, eaten by tilapia, then eaten by birds

4,000 brown pelicans and over 100,000 grebes

Solutions ?

1. Let nature take its course like the Great Salt Lake

2. "Fix"

Salt works

Desalinization plant

Water connection to the Gulf of California (a biosphere reserve)

Dike a brackish area apart from the rest, which would become hyper saline