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Salt pond restoration tests for hidden danger

Carolyn Jones, Chronicle Staff Writer Thursday, February 18, 2010



Liz Hafalia / The Chronicle An egret wades in marshland adjacent to an old Cargill salt pond about to be restored.

A wide swath of the South Bay's moonscape of salt flats will see its first tidal waters in generations as a long-awaited restoration project gets under way near San Jose.

The South Bay Salt Pond Restoration Project recently kicked off its 50-year plan to convert 15,000 acres of shoreline into natural marsh, providing habitat for birds, fish and other critters, including people, who've been banned from the area for decades.

"We'll love it if it means we can see more wildlife," said Anhtuan Truang, a car dealer from Milpitas who was photographing hummingbirds at the shoreline Tuesday. "It'll be great if people can finally get out here to see nature."

The first portion of the \$400 million project began last month when work crews started demolishing an 80-year-old levee at Cargill's former pond A8, a 450-acre watery expanse near the mouth of the Guadalupe River.

Crews are installing a 40-foot floodgate that will allow tidal water to enter in small increments, so scientists can monitor the water's effect on plants and wildlife and adjust the flow accordingly. Once tidal water begins pouring in and draining out, the salt will dissolve naturally, and pickleweed, algae and heath will eventually return. Scientists expect the endangered clapper rail and salt marsh harvest mouse to thrive in the renewed environment.

Crucial yardsticks

As the tidal waters enter the pond, scientists will be watching for two possible developments. One is the restoration's effect on a handful of birds, including the threatened snowy plover, that have come to depend on the salt ponds for nesting and food.

The other yardstick is so critical it could potentially derail the entire project. Buried below much of the salt flats is mercury, runoff from the Gold Rush-era Almaden quicksilver mines.

Tidal waters could churn up the long-encased mercury, creating a possibly lethal environment for wildlife.

"We're starting with just one pond - A8 - because we want to answer the tough questions first," said John Bourgeois, project manager. "We need to find out if this will be a show-stopper." Scientists will take tissue samples from birds, fish and insects to check for mercury poisoning. If the mercury level turns out to be harmful, officials will consider either removing it or keeping the salt ponds intact.

The A8 project is costing \$1.2 million, funded mostly by the Santa Clara Valley Water District and the National Oceanic and Atmospheric Administration. Dozens of public and private agencies are contributing to the overall restoration project.

Improved flood control

Another benefit to marsh restoration is flood control, a major concern in the community of Alviso, which is about 13 feet below sea level. With fewer levees, water will flow in and out with the tides, scouring away sediments, and the creeks will return to their natural paths, Bourgeois said. Alviso has been sinking for decades, partly because the water district once pumped groundwater from beneath the community. The tall dirt levees encircling Alviso will remain, but the adjacent waterways and salt ponds will be restored to wetlands.

Residents are anxious for the marsh restoration to get under way, in hopes it will keep their town dry and open up the waterways for boats.

"Putting these wetlands back to their original state is the very best thing that can happen, not just for Alviso, but for the whole area," said longtime Alviso shrimper Thomas Laine. "Mother Nature did not make a mistake down here."

Effect on rivers

Flood control is also a primary concern for the water district, which has contributed more than \$1 million to the A8 restoration.

"We'd like to see most of these levees melt back into the bay because they keep the rivers from moving the way they used to move," said Beth Dyer, senior project manager for the district. "It's like the difference between an all-terrain vehicle and a train that's constricted to a track." The salt pond restoration project encompasses land Cargill, a Midwestern agricultural company,

The salt pond restoration project encompasses land Cargill, a Midwestern agricultural company, sold to the state in 2003. Cargill still owns several thousand acres around the bay, and also harvests salt from ponds within the Don Edwards San Francisco Bay National Wildlife Refuge.



Liz Hafalia / The Chronicle Bird watchers home in above the New Chicago Marsh, which is adjacent to Cargill salt pond A8, the first to be restored to marshland.



Liz Hafalia / The Chronicle Workers transform a levee into a 40-foot floodgate for the marsh.

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