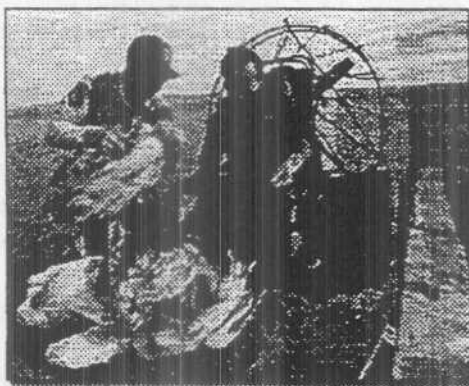


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## Seeking Salvation for Salton Sea

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Ron Thompson, left, and Gary Weiss of the U.S. Fish and Wildlife Service bag dead pelicans from the Salton Sea. (Reuter)

DESERT  
SHORES,  
Calif.—In his  
teenage years,  
Sonny Bono came  
here to the Salton  
Sea on weekends  
to water-ski  
across the limpid

blue of the largest inland lake in the state, back when Jerry Lewis and the Vegas rat pack partied with their high-rolling pals at the swank shoreside yacht clubs.

Those were the good old days -- before the Salton Sea became a fly-infested sinkhole consumed by a downright Biblical plague of botulism-carrying maggots, crazed fish and drowning birds.

"It was a lot of fun," the Republican congressman from Palm Springs remembers of the halcyon days.

But Bono would not don trunks today.

"That would be impossible," he said.

That is because the Salton Sea, has become a stew of contaminants and rising salinity, a lake whose only real sources of water are the runoff from 500,000 acres of industrial farmland and the 25 million gallons a day of often raw sewage flushed down the drain from a Mexican border city 30 miles away.

But Bono and a coalition of California congressmen have a dream: They want to save the sea by flushing it out, and

they are floating plans for a colossal restoration effort that would pump millions of gallons of fresh sea water from Gulf of California into the Salton Sea and then pump out a super-saline distillate back to a dry lake bed in Mexico.

The size and scope of the proposed fix is a striking example of the national trend to attempt to repair some of the most notorious environmental blunders of earlier times.

And it is an audacious plan -- radical and expensive, international in scope, Byzantine in its potential financing, and controversial -- made more so by the fact that few people have even heard of the place, let alone care, including many of the country's environmental groups.

"I've never really heard anyone ever talking about the Salton Sea," confessed Jay Watson of the Wilderness Society, who is based in San Francisco.

It will be controversial, too, because taxpayers may balk at paying for the repair of the sea, only to see the rapid resort development along its shores -- as well as more benefits showered on the powerful agri-businesses to the south, already the recipients of a decade of federal largess in the form of the elaborate waterworks that caused the problem in the first place.

This much, however, is known. The Salton Sea, 30 miles long and up to 10 miles wide, is not just sick, it is dying, according to wildlife biologists. Surrounded by a heat-blasted wasteland of barren rock and abandoned resorts, a landscape that would remind Gulf War veterans of Kuwait, the beaches are lined with mummified remains of thousands of dead corvina fish and clouds of attending white flies.

It is hot enough, in the middle of July, to melt a credit card left on the dashboard. And it stinks, a ripe, cloying, briny sulfurous smell of funk and decay.

"You couldn't pay me enough money to eat the fish," said Clark Bloom, manager of the Salton Sea National Wildlife Refuge.

How about a swim?

Bloom, who was required to get a battery of inoculations to work at the delta where the New River globs into the sea, said, "You've got to be kidding."

Yet, paradoxically, the Salton Sea is a crucial landing strip and refueling station on the great Pacific Flyway that attracts millions of migrating birds, particularly waterfowl. They come, in theory, because so much of the California coastal wetlands have been destroyed. During the winter months, it is a treasured hot spot for bird-watchers, the only place in the country to count more species is the Texas coast. More than 380 species have been recorded at the sea.

But the sea is not killing just the fish. In the last four years, there have been three major bird die-offs. In 1992 and again in 1994, a total of 170,000 eared grebes died on the sea. The cause of deaths remains a mystery.

"Everything going on here points to an ecosystem in big trouble," said U.S. Fish and Wildlife Service biologist Ken Sturm, who works at the refuge.

Last year, more than 14,000 birds expired, including 1,400 endangered brown pelicans. Bloom expects this summer to be a repeat, and last week, the staff of the Salton Sea refuge could be found constructing a new avian hospital right next to its overworked bird incinerator.

"Last year, we had the incinerator going 24 hours a day," Bloom said. "It was terrible."

The bird deaths are not pretty.

The Salton Sea is a mistake. It was an ancient dry lake until 1905, when the Colorado River, rebelling against man's efforts, burst through a dike and tore a new course toward the empty lake, which is 250 feet below sea level. For almost two years, the river filled the dry lake until it re-created the Salton Sea.

In the early years, the sea was filled with fresh water, but over time, as the water evaporated and the basin's primordial salts leached into the lake it became an inland sea. Its salinity is now increasing about one percent a year and it is currently about 20 percent saltier than sea water.

Researchers suspect that this high salinity, combined with the heated water (which can reach the low 90s), lack of oxygen, the algal blooms and contaminants, all combine to stress the fish, particularly the tilapia -- exotic escapees that farmers imported to clear their nearby canals of weeds, but which have become the dominant fish in the sea.

The stressed-out tilapia, the current theory goes, are then more susceptible to vibrio bacteria, which is present worldwide and likes hot, salty water. The vibrio makes the fish sick, and allows botulism spores that are in the fish's guts to flourish. Their alimentary canals, the tubular passage from mouth to anus, becomes plugged. The dying fish bloat and weave -- enticingly -- at the sea's surface, where they are gobbled down by waterfowl, particularly pelicans, who feast.

The pelicans then succumb to avian botulism. "It short-circuits their brains," said Bloom, the refuge manager. "First, they lose their ability to fly. Then they can't swim and so they crawl up on shore. They know they're in trouble. But they can't hold their heads up. We call it limber neck. If you approach them, some birds will drop off the mud banks and try to swim, but their heads are underwater. And then they drown."

Drowning might be preferable. Some weakened but still-living birds are attacked and plucked apart by gulls on the shoreline. And so the cycle continues. "The rotting birds have to be removed as quickly as possible," Bloom explained. "They become maggot factories and the maggots are filled with botulism. And the ducks, for some reason, eat the maggots like it's ice cream."

The massive bird mortalities, along with the increasing salinity and the ruin of shoreside development, appear to have finally pushed enough players to the table to begin thinking about a fix. Currently, two proposals -- both very different and very extreme -- are under discussion.

The Salton Sea Authority, whose leadership is drawn from the two counties and two water districts surrounding the sea, favors the creation of a gigantic salt pond somewhere within the sea itself. This would require the construction of a massive diked impoundment around at least one-fourth, if not half, of the sea. Water would flow into the "pond" through a series of dikes, and would evaporate in the heat, leaving the salt behind. Fresh water would continue to enter the sea from the New and the Alamo rivers.

But there are potential problems. How, for example, will sick fish and the birds that feed upon them be kept away from the giant salt pond? Many water watchers in California remember the debacle of the Kesterson Reservoir in the Sacramento Valley, which also served as an agricultural sink, but was poisoned with selenium, a naturally occurring mineral that runs off farmlands and,

when concentrated, is deadly. In the mid-1980s, biologists were dispatched to the reservoir to scare the migrating waterfowl away from the reservoir with noisemakers, shotguns and flares. It was memorable.

Also problematic is this: The water that feeds the Salton Sea from the New River comes from Mexicali, Mexico. At present, Mexico does not want the water -- because it is filled with raw and partially treated sewage. But the U.S. government is building Mexicali a treatment plant -- at a cost of some \$100 million -- and many water observers suspect that after the water is cleaned up, Mexico will want to keep it, thereby denying the Salton Sea more than one-third of its water, which would lower sea levels and dramatically increase salinity.

The so-called pump-in-pump-out proposal offered by California's congressional delegation, which includes not only Bono, but Rep. George Miller (D-Calif.), has its own daunting complications.

First, Mexico would have to agree to let the United States suck millions of gallons of salt water from its Gulf of California -- and then agree to allow the U.S. government to pump super-salty water back into a partially dried-up salt bed, also in Mexico.

"It is a workable solution, except it would be very expensive," conceded Patrick Quinlan, an engineer on Miller's staff who has studied possible fixes.

No one knows what the pumping would cost, but rough estimates generated by Quinlan call for \$1.75 billion in construction, plus another \$50 million per year in operation costs.

Who would pay? In a white paper prepared for the congressional delegation, Quinlan offered an interesting option. The Imperial Irrigation District sits south of the sea and dumps its runoff into it. With its water rights from the Colorado River the district supports a billion-dollar agricultural empire. It is now in negotiations to sell, or "wheel" as it is called in water-talk, millions of gallons of "conserved" and surplus water to the San Diego County Water Authority. San Diego will be paying a lot of money for the wheeled water, and so Quinlan suggests that some of the profits be used to repair the Salton Sea.

Not so fast. Paul Cunningham of the Imperial Irrigation District, which supports the salt pond proposal, but not the

pumping, says the money is not there.

"The proceeds from the water transfers to San Diego would be used to pay for conservation efforts on the farms" in his district, Cunningham said. "There is no extra money."

For his part, Cunningham says his constituents envision the federal taxpayers would pick up some 85 percent of any tab for the Salton Sea.

This is going to be a lively debate.

All sides, however, know the Salton Sea is probably going to get worse before it gets better. The Salton Sea wildlife refuge is currently building a second incinerator to handle this summer's harvest of dead birds.