

Nearly All LO Coastal Lagoons

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tion, pollution and a mysteriously high bacterial content.

In the summer, Singer explained, the salt water content of the lake becomes higher than the ocean. Water coming in from the ocean crosses a beach berm during high tides or large waves and then enters the lake through a seven-foot concrete pipe.

This pipe is inadequate, Singer points out, getting clogged up with sand, leaves and garbage that keep ocean water from flowing in and out. The salt water then sits in the lake, evaporating and leaving large deposits of concentrated salt behind.

"In the summer, little, if any, fresh water is added to the lagoon," he states.

To solve this problem, the watershed report suggests the replacement of the pipe under East Cliff Drive with a bridge or other structure that provides for free exchange of tidal waters. The report further suggests reshaping of the lagoon to aid this tidal flushing.

Singer pointed out that Corcoran has a bridge, like the one the report suggests for Moran, that allows the sea water to enter.

"If Moran was in a totally natural state, we wouldn't have to do this. The water table has dropped so much from heavy development that little fresh water is entering Moran any longer. That's probably what did Moran in," Singer lamented.

There is plenty of fresh water in Schwan Lake year round, Singer explained, because it is probably fed by underwater springs. Bonita Lagoon also has fresh water, but the source is unknown.

Another reason Bonita and Schwan may have become fresh-water lagoons is because coastal waterways go through a natural aging process in which an older stage involves conversion to fresh water, Singer said.

Corcoran gets its fresh-water supply from Rodeo Gulch and small creeks, but there also might be some underwater springs because the lagoon has water even when the gulch is dry and the beach blocks the sea water.

In the winter, fresh water does enter Moran after heavy rains, but urbanization of Live Oak has caused this water on its way to the lagoon to collect oil, grease, heavy metals and organic pollutants from streets and parking lots.

Singer also mentioned that construction in Live Oak causes a lot of dirt to be washed down into the lagoon.

To control this urban run-off, the watershed report suggests a staged process which includes street sweeping, grease traps for parking lots and gas stations, the dredging of the lake to remove sedimentation and the development of a settling pond where the run-off could be collected and pollutants would settle before the water reaches Moran.

The report further suggests studies of the quality and quantity of the run-off during these stages to see if the possible construction of a treatment facility to treat the run-off for pollutants would be necessary.

Another pollutant that affects all the coastal lagoons is human or animal waste coming from undetermined sources. The fresh water in Schwan and Bonita lagoons is totally undrinkable because of this contamination, Singer said.

Sewage overflows from the recently closed East Cliff Sewage Treatment Plant near Moran are known to be the cause of some of the fecal bacteria present in the lagoon.

The replacement of a gravity sewer line by the County Sanitation District along the west shore of Moran Lake would help eliminate periodic sewage overflows caused when the existing pipeline can't handle peak winter flows, the report states.

The construction of the line, however, would cause a temporary increase in the sedimentation and turbidity in Moran, the report notes.

The County Parks, Open Space and Cultural Services

Commission (POSCS) currently is reviewing the Watershed Department's suggestions for the restoration of Moran in conjunction with the POSCS park plans for the lagoon.

Singer sees the fate of Moran as affecting the entire future of the four lagoons left in Live Oak.

"Live Oak is one of the most rapidly growing areas. What's

happening to Moran will probably happen to the other areas unless man other areas unless man improves on what he is doing. The water areas are all the natural spots Live Oak really has got.

"At one time, California's coastal lagoons were known as wastelands and people just wanted to go in and drain them and fill them in before the value

of wildlife was really known," Singer said.

He pointed out that since 1955, about three acres of Moran lake have been replaced by landfill.

He said, "The greatest environmental tragedy in California is the loss of coastal wetlands to development. They are the only place wildlife can go for winter resting."