

The industrial plants at Henderson use these ponds to evaporate their poisonous waste water instead of simply dumping it into Lake Mead. Las Vegas and Clark County could stop pollution of Lake Mead in the same manner. The lack of aquatic vegetation attests to the poisonous nature of this waste water.



Parts of Las Vegas Wash are even now good wildlife habitat. At the time this picture was snapped, a mallard duck was talking to us from somewhere in the tules. Such lush vegetation affords nesting waterfowl better protection than rules, fences and signs. Their greatest menace is from uncontrolled dogs, and these pay no attention to any of the above means for protecting waterfowl.

We Can Stop Polluting Lake Mead Now

There is no need for the people of Las Vegas to continue to drink their own sewage. We are not that hard up for water. Water can be made safe to drink and still not be fit to drink, for that is more or less a personal judgment. The sewage we drink every day is diluted with lake water and with well water, but it is still sewage. It is made safe to drink by adding chlorine to kill the coli bacteria (named for their home, the colons), and copper sulfate to kill the algae. Both of these chemicals are toxic to humans; it's just that we are bigger and tougher and can survive concentration of these poisons that are fatal to small organisms.

You may have been led to believe that the pollution problem in Lake Mead is horribly complex and that its solution is frightfully expensive. This is pure bunk. More money was recently budgeted for yet another study of Lake Mead pollution than it would take to stop it completely.

By Vernon Bostick

The problem is very simple. Las Vegas and the Clark County dump their sewage into Las Vegas Wash. Teeming with coli bacteria and loaded with the fertilizer elements, phosphorus and nitrogen, this sewage flows into Las Vegas Bay. This fertilizes the water in the bay and promotes the growth of stinking algae.

It doesn't take much of this kind of water to dirty up a lot of good, clean water. And we are dumping ten million gallons of sewage a day into Las Vegas Bay. At the mouth of the bay (Saddle Island) this diluted sewage is pumped back to Las Vegas to be used again. A lot of people in the United States do like to drink such polluted water, but we don't.

Henderson gives us a good example of how to solve the pollution problem. The industrial complex discharges three million gallons of dirty water daily. It rooks of chlorine and pro-

bably contains several other toxic substances. But they have the decency to refrain from dumping their poisonous wastes into our drinking water. They retain it in ponds until it evaporates. Las Vegas and Clark county could do the same with their sewage.

Every surface acre in a pond will evaporate ten acre-feet of water in a year. Twelve hundred acres in ponds would evaporate all of the sewage now dumped into Las Vegas Wash with extra capacity to handle run-off from normal storms. It would require about 12 miles of dikes to impound this much water.

If these dikes are made with a dragline to minimum specifications, pollution of Lake Mead could be stopped for as little as \$25,000. Water spreading dams could be built to standard specifications for about \$90,000. These estimates are based on a five-foot five board placed at right angles to the wash at each drop of five feet in the stream's grade.

The simple and cheap solution to the pollution problem in Lake Mead is to stop dumping that polluted water into the Lake. The other approach to the problem is to purify the sewage until it is so pure it can be returned to Lake Mead without deteriorating the quality of the lake water. This solution will cost millions of dollars; the means or methods for accomplishing this degree of purification are not known and the engineer studies alone run to six figures. Also, we will continue to pollute Lake Mead for years while the problem is studied, the means of re-

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moving all of the undesirable impurities in the sewage discovered, equipment developed, contracts let, facilities constructed, etc. Instead of going this expensive route, it is much more economical to put this contaminated water to uses for which it is already suitable.

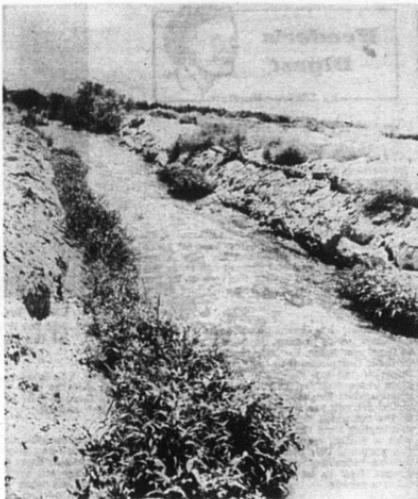
At the present time waste water from the sewage plants is far in excess of any uses that have been developed. Until such time as better uses can be made of this contaminated water, we can put it to good use irrigating and fertilizing the meadows that gave Las Vegas its name.

Sportsmen have been buying "Duck Stamps" for 35 years. The stated purpose for this tax, at the time the act was passed was to stop unwise drainage of marshes and restore these wet lands to productive habitats for wildlife. Draining the Las Vegas marshes was certainly unwise.

I am sure the Fish and Wildlife Service would welcome the opportunity to develop Las Vegas Wash for wildlife. It has more water, more land, and, with all that fertilizer added, would be far more productive than their Paranagant Refuge.

A marsh is a fascinating place for youngsters and oddsters and something we have little of in southern Nevada. Recreational use could be permitted without undue interference with wildlife. The lush vegetation will provide sufficient sanctuary for wild fowl. Shade could be provided by planting native palms along the dikes. These trees grow rapidly, are tolerant of the extremely alkali soil, and love to have their feet in water. Some of the lower ponds would be flooded only intermittently (all the better for producing such wildlife foods as duck millet). The more permanent upper ponds could be stocked with fish and bull frogs.

The question arises as to whether fish and frogs from such ponds are safe to eat. The contamination, coli bacteria, would be on these fish not within their tissues. Property cleaned, washed and cooked, they would be safe to eat. Whether they would be fit to eat is a personal judgment. But many people in the United States are fishing in waters just about as polluted.

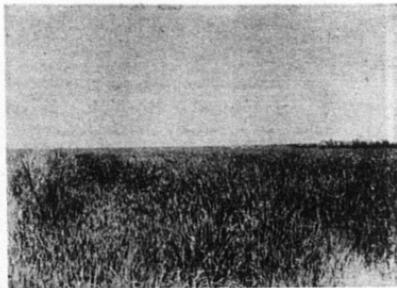


The trouble with engineers is they can't leave nature alone. Apparently this channel was dug to rush the contaminated sewage water back to Lake Mead with minimum loss and maximum pollution effect. That is what it accomplishes, anyway. The vegetation at the edge of the white, foamy water is duck millet, an excellent wildlife food plant.

We've got good, clean water in Lake Mead to fish in (and let's keep it that way by stopping this pollution). But kids who have no way to get to Lake Mead could pedal their bikes down to Las Vegas Wash. They could catch bullfrogs, fish for bluegills, or watch birds and pollywogs. This would give them something to do that is fun and keep them out of mischief.



Another view of the channel in the preceding photograph. The foreground shows vegetation dug out to keep the channel open and the water moving rapidly. The background shows the dying vegetation of a dying marsh. The only thing accomplished by destroying this wildlife habitat is more pollution in Las Vegas Bay.



Cattails in Las Vegas Wash attain a height of 12 feet. Sewage waste is rich in plant nutrients and produces lush growth of marsh vegetation. Figures are not available on the combined transpiration-evaporation rate of such vegetation under our climate. Because of the large leaf surface it could be higher than evaporation from open water. Riparian vegetation is notorious as a "waster" of water.