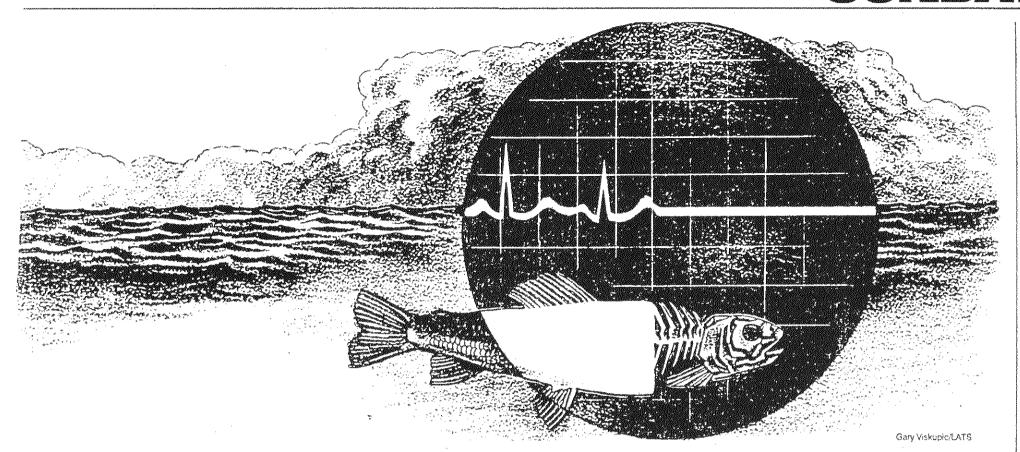
## SUNDAY



## Fouling the nest

## Dumping sewage into the sea defies common sense



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By Hillary Hauser

s I write this, 180 million gallons of sewage is gushing into the sea close to the San Diego shoreline every day.

Big deal, you might say, sewage always goes into the ocean. And what does this have to do with Santa Barbara? Plenty.

Santa Barbara draws much from the sea
beaches that lure tourists, important
university marine research projects, a
commercial fishing fleet in the harbor.
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The sewage that is spewing into the ocean 3,150 feet off Point Loma is not normal. It is a "catastrophic" spill that is being described as "much worse than anyone first believed." Divers, surfers and swimmers are being warned that if they go into the sea in this area they run the risk of contracting a variety of diseases—things—like gastrointestinal disorders, dysentery, hepatitis and typhoid. The sea in this area will pose a "health risk for some time to come," officials are saying.

Normally, the sewage from Point Loma treatment plant is deposited 2.2 miles out to sea at a depth of 220 feet. This is effluent from which 75 to 80 percent of the solids have been removed. Officials don't know what happened. They think the pipes may have shifted with possible settling of the ocean floor. All this stuff is coming out about 100 yards from the beach and people are being warned to

stay away.

Not long ago I did a "sewage roundup" for Santa Barbara and learned that the five sewage plants in this area dump their effluents into the Santa Barbara Channel at the rate of about 16 million gallons a day. Much of this comes out within 1 to 2 miles from shore — that's out there a ways — but the end of the outfall pipes are in less than 100 feet of water. Unbelievably, one outfall comes out in 35 feet of water only 1,500 feet off one of our popular swimming beaches. What happens if our pipes break?

Now, the effluent that goes into the Santa Barbara Channel is given secondary treatment. That means the solids have been removed and the effluent is chlorinated to kill bacteria. (In sewage language, "primary" treatment is basically raw sewage from which the solids have been removed; "tertiary" treatment means the effluent has gone through additional processing that renders it suitable for agricultural use.)

The effluent being dumped into the Santa Barbara Channel is supposed to be safe. It is chlorinated. In some cases, the effluent is also dechlorinated — a good idea because chlorine is not so hot for sea life. But what on earth does all this effluent — of any kind — do to the ocean?

Most forms of sea life exist as plankton in the earliest stages of life. Research at UCSB has shown that dumping things like oil-drilling muds and sewage effluents can block entire generations of sea life (fishes, clams, mussels, all the things we eat) from even being born.

And even those fishes, clams and mussels, etc., that do get to adult stages may run into trouble — or, they'll run us into trouble.

A report from the U.S. Office of Technology Assessment (an investigative arm of Congress) was issued a few years ago with some alarming news: Harmful bacteria occurring in human waste does not die off quickly, as scientists had long believed. Instead, it lies dormant until it finds a suitable medium in which to grow,

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such as the stomachs of fish and shellfish, where it returns to its previous "fully virulent form."

The report noted that with more than I billion gallons of sewage being dumped each day off the California coast, the commercial harvesting of seafood has already been prohibited or partially restricted in about one-third of California's production shellfish areas because of contamination. There was speculation back then that California seafood might be inedible within three years.

Well, we're still alive and people have forgotten about this report, which was highly trumpeted in the news at the time. (A researcher for a Discovery Channel documentary who called me about the subject only last week was aghast when I told him about it.)

I cannot blame the commercial fishermen in the Santa Barbara Harbor who look at stuff like this and wonder why their fishing practices are being targeted by an angry public rather than practices like dumping billions and billions of gallons of sewage into the ocean every day.

What are we doing dumping sewage into the ocean, anyway? We are walking on the moon, investigating the atmosphere of Venus, and living in space stations. We are spending billions to explore Way Over Yonder while we're fouling our own back yards.

I know there will be an outcry from sewage treatment plant managers who will say, "We're safe! We're safe!" This article is not aimed at them. It's aimed at economics and priorities. It's aimed at technology we're certainly capable of.

It's also aimed at attitudes. There was a saying in the 1950s and 1960s that was supposed to be clever but which revealed an astonishing attitude toward the sea: "The solution to pollution is dilution." In other words, take all the waste you do not know what to do with and simply dump it into the ocean. It was thought that the sea was capable of diluting and absorbing vast amounts of liquid and solid waste.

As idiotic as this practice sounds — and as ancient as this "clever" saying is — we are continuing to do this daily. In the shallow waters of the shoreline, where rich fishing industries thrive, it seems inconceivable that we would continue to do this.

In all this depressing news there is one shining light: A pilot sewage treatment plant in the Los Angeles area (Fountain Valley, to be exact) gives its sewage tertiary—treatment. A friend of mine whoworks in this business in Los Angeles told me that at this plant the solids are being compacted and shipped off for agricultural use and the "gray water" is being used for irrigation purposes.

Why are we not doing this everywhere? Money. Attitude.

I cannot help but think that many of us would not mind paying additional fees or taxes for tertiary treatment — for the privilege of knowing that at least what goes down our household pipes is not adding to the ocean's ills. The ocean is capable of feeding a world. Dumping our sewage into it is like, pardon my French, defecating on our groceries.

We can talk all we want about ozone holes and rain forests, but dumping sewage into the sea is something that is going on right in our own back yards.

The solution to pollution is to stop doing it.