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New rules sought for tiny invaders

PANEL: SHIPS' BALLAST SHOULD BE TREATED

By Paul Rogers
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Exotic species of plants and animals stowing away in ships are doing so much damage to San Francisco Bay -- killing native species, clogging water pipes and disrupting the food chain -- that California should take dramatic new actions, an expert panel recommended Monday.

The panel said state laws requiring ships to empty their ballast water in the open ocean before coming into the bay and other harbors aren't working.

Instead, the panel recommended to the Schwarzenegger administration that California require all commercial ships to treat the millions of gallons of water in their holds, either with chemicals, ultraviolet light or other methods to kill invasive critters. The ships could discharge no living organisms larger than 50 microns -- the size of a grain of salt.

"These are the strongest proposed standards in the world. They are almost certainly going to shift the debate," said biologist Andrew Cohen, with the San Francisco Estuary Institute in Oakland, a member of the panel.

The recommendations by the California Advisory Panel on Ballast Water Performance Standards were endorsed by environmentalists, urban water agencies and the California Farm Bureau Federation, a powerful trio that rarely agrees on anything.

That could provide significant political momentum if the administration or a state lawmaker, as expected, attempts to pass new rules next year.

The shipping industry disagreed with the report, saying California should wait for international standards instead.

"We also agree our goal should be zero discharge eventually," said Paul Berge, vice president of the Pacific Merchant Shipping Association, in San Francisco. But "the technology is still in its infancy. And we felt we should align our standards with others being developed internationally."

Berge acknowledged those standards are not as strict as the ones proposed Monday.

Most people don't think of living organisms as water pollution. But in many areas, they have the same effect.

In San Francisco Bay or around its shores, there are at least 234 species of foreign plants, crabs, fish and other animals, according to a study Cohen published in 1998. Some have no natural predators and crowd out native species for food and habitat.

The Asian clam, for example, has carpeted the bottom of northern San Francisco Bay. Filtering massive amounts of water, the clam is believed by scientists to have contributed to an 80 percent drop in the amount of phytoplankton -- microscopic plants that delta smelt and other bay fish rely on for food.

"It has crashed the entire food web in the North Bay," said Marc Holmes, program director for the Bay Institute in Novato.

Some species, such as the Chinese mitten crab, also have been costly to remove from water treatment systems and pipes at the Central Valley Project facilities near Tracy. Mitten crabs also have burrowed into levees around the bay and delta, increasing flood risks.

"Invasive species in general are a huge problem for farms and ranches, from the Mediterranean fruit fly to all kinds of weeds and pests," said Dave Kranz, a spokesman for the California Farm Bureau in Sacramento. "Species coming in on ballast water have been a long-term concern for us."

Many exotic invaders have been introduced in ballast water pumped from ships from Japan, China, Australia and other distant locales. A 750-foot-long cargo ship might have a dozen or more ballast tanks below deck, each the size of a gymnasium.

Water is sucked in at one port and used to keep the ship low, allowing for greater stability. When the ship's cargo is transferred, its ballast water is released, dumping millions of foreign organisms. Even though California required all big ships to exchange their ballast water in the open ocean in 1999 -- a rule the United States copied last year for all ports -- about 10 to 20 percent of small creatures, even viruses and bacteria that can cause disease such as cholera, remain in the tanks, Cohen said.

Monday's report was required under a law signed by Gov. Gray Davis in 2003. The recommendations now go to the State

Lands Commission, which has until Jan. 31 to send its own recommendations to the state Legislature.

``Our view has been that the exchange program was a first step," said Paul Thayer, executive officer of the commission. ``We think in the long run, California and the rest of the U.S. and the world are going to be turning to stronger standards."

The report said that for \$8 million a year, the shipping industry could pump ballast tanks out at docks to small treatment plants.

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