

DDT off California Coast

ISSUE: In fall 2020, the *Los Angeles Times* reported that UC Santa Barbara scientists discovered industrial waste barrels in varying states of decay on the ocean floor, about 12 miles off the California coast. Based on historical records and the UC Santa Barbara data, it is likely that these barrels - some estimates in the hundreds of thousands - were dumped in the ocean by the nation's largest pesticide manufacture of dichlorodiphenyltrichloroethane (DDT), Montrose Chemical Corporation, from 1947 to 1982. Video evidence showed that some of the barrels had been punctured or degraded and appeared to be leaking. DDT was banned in the U.S. in 1972. Additionally, the "Ocean Dumping Act" was enacted in 1972 and prohibits disposal of toxic or harmful material in to the ocean. Prior to 1972, California issued permits for this type of deep water ocean disposal. DDT, and other toxic substances, are still intact and remain harmful despite depths of 3000 feet below the ocean's surface.

ACTION: Sen. Dianne Feinstein (D-Calif.) immediately took action with calls to the Environmental Protection Agency (EPA) and the Commerce Department, which oversees the National Oceanic and Atmospheric Administration (NOAA). She asked these agencies to prioritize cleaning up DDT and other toxic chemicals that were dumped off the coast of California regardless of whether it was legal at the time. The Senator's staff has had multiple briefings from the federal agencies on the ocean dumping and the clean up of the Palos Verdes Superfund site in coastal California, which is the result of Montrose disposing of DDT waste through the wastewater treatment facility in to nearshore areas. This superfund site was established in 2000. The letter to the EPA is available here. The letter to the Commerce Department is available here.

RESULTS: In March 2021, at the request of Senator Feinstein, UC San Diego's Scripps Institution of Oceanography and NOAA, with assistance from the Department of Defense, UC Santa Barbara and other partners, launched a mission to map the area where UC Santa Barbara scientists discovered the barrels on the sea floor at 3,000 feet of depth. This was the first step toward understanding the scope and scale of the problem in order to develop solutions to resolve it.

Information about the mapping expedition:

- The expedition mapped more than 36,000 acres of the seafloor between Santa Catalina Island and the Los Angeles coast in a region previously found to contain high levels of the toxic chemical DDT in sediment and the ecosystem. The target area was selected based on historical records of companies conducting deep-water ocean dumping and US Santa Barbara's discovery.
- The purpose of the expedition was to determine exactly how many barrels containing DDT were dumped on the seafloor and their precise locations in the target area.
- The survey on the R/V Sally Ride, one of the most technologically advanced vessels in the U.S. Academic Research Fleet, identified more than 25,000 barrels and more than 100,000 total debris objects on the seafloor in the target area.

- The expedition included a team of 31 scientists, engineers, and crew conducting 24-hour operations from March 10-24 to deploy two autonomous underwater vehicles used for the expedition from R/V Sally Ride. The search entailed work at depths of up to 3,000 feet below the surface.

CONGRESSIONAL BRIEFING: In April 2021, Senator Dianne Feinstein hosted a briefing with UC San Diego’s Scripps Institution of Oceanography and scientists from UC Santa Barbara and San Diego State University to review critical findings from ocean floor mapping expedition of a DDT dumping site 12 miles off the coast of California. Senator’s statement after the briefing:

“The expedition’s findings confirm fears that a large number of barrels containing DDT-laced industrial waste were dumped off the coast of California and are now impacting marine life and potentially public health. This expedition looked at just one of more than 10 total dump sites. Within the 36,000 acres examined, more than 25,000 barrels were identified, with tens of thousands of additional debris objects that could be more barrels. This is a massive and potentially very dangerous problem.

“Simply put, this is one of the biggest environmental threats on the West Coast. It’s also one of the most challenging because these barrels are 3,000 feet below the ocean’s surface and there aren’t many records of who did the dumping, where exactly it occurred or how many barrels were dumped.

“The information gathered by the scientists on the research vessel Sally Ride is critical to finding a solution to this serious problem. But it’s just a first step, and I will be following up to ensure that additional research is conducted to determine the best way to address the problem. It’s going to take a whole-of-government approach to solve a problem of this scale.”

NEXT STEPS: Based on the results of the March survey, a second mission must occur as soon as possible to finish the mapping for what is known as “Dumpsite 2” and conduct sampling of the sediment, water and barrel contents. Senator Feinstein supports additional inter-agency collaboration and solutions to better understand the ecological and environmental impacts from decades of hazardous waste dumping. As a member of the Commerce, Justice, Science Appropriations subcommittee, Senator Feinstein will take all measures to support and fund development plans for next steps as quickly as possible. Results from this seafloor survey of a DDT dumpsite make it clear that a highly toxic chemical continues to threaten California oceans and marine life; the Senator and her staff will remain in close contact with stakeholder groups and federal agencies to address this environmental threat.

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