

Marine and estuarine pollution

D. J. Reish, T. J. Kawling, A. J. Mearns

¹*California State University, Long Beach, Long Beach, CA*

²*University of Southern California, Los Angeles, Los Angeles, CA*

³*Southern California Coastal Water Research Project, El Segundo, CA*

ABSTRACT

Chlorinated hydrocarbons are significant contaminants of the marine ecosystem off southern California (Figure 1). By far the most important of these synthetic organics in this region is DDT and its metabolites (total ppr). The dominant source of the DDT contamination has been identified as industrial wastes from one of the largest manufactures of this pesticide. An undermined but apparently very large quantity of these wastes was released to the sewer system of the County Sanitation Districts of Los Angeles County (CSDLAC) for up to two decades prior to 1970, when the input to the system was discovered and stopped.

Municipal and industrial wastewaters of this system undergo primary treatment at the Joint Water Pollution Control Plant (JWPCP) before being discharged near Whites Point off Palos Verdes Peninsula. Unfortunately, reliable monitoring for DDT residues in JWPCP effluent did not begin until December 1970, after the release of these industrial wastes to the sewer system had ceased. Despite source control, significant discharge of DDT compounds to the marine environment continued as the result of the heavy contamination of sediment deposits in the collection system. Here findings made during the last several years on major wastewater inputs of this contaminant, and on its spatial and temporal distributions in ocean bottom sediments, crabs, and flatfish collected near Los Angeles, are summarized.

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