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### ***In-situ* measurements of polychlorinated biphenyls in the waters of San Diego Bay**

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#### **ABSTRACT**

Sediments of San Diego Bay (SDB) are known to contain elevated levels of polychlorinated biphenyls (PCBs), but no studies have been directed toward assessing water column contamination. Measurements of PCB concentrations in the water column of SDB were taken with an *in situ* sampling system. Except for one sample collected near the bay mouth, all samples contained higher PCB concentrations than the 30-d average discharge limit established by the California Ocean Plan. The highest concentrations of water column PCBs occurred in the central bay area (Central Bay), consistent with the previous findings that sediments in the Central Bay contain higher PCB levels than those in the northern and southern bay areas (North and South Bay, respectively). Based on the water volume of  $2.2 \times 10^8 \text{ cm}^3$  at a lower water level, it was estimated that approximately 1,000 grams of PCBs are transported out of SDB via tidal exchange annually. This indicates that water column transport driven by tidal exchange is a viable mechanism reducing PCB contamination within SDB.

#### **Full Text**

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