

SCCWRP #0284

Toxicity of Dry Weather Flow from the Santa Monica Bay Watershed

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ABSTRACT

A significant source of contaminants to Santa Monica Bay is the daily discharge of 10-25 million gallons of urban runoff from approximately 70 storm drains. Research conducted in 1990-93 examined the toxicity of dry weather flow from Ballona Creek and three other drains discharging into Santa Monica bay. Toxicity tests were conducted using sensitive life stages of purple sea urchins, red abalone, and giant kelp. Spatial and temporal variations in toxicity were observed. Sea urchin sperm and abalone embryos were more sensitive than kelp spores, with toxic effects produced by $\geq 5.6\%$ dry weather flow. Preliminary toxicity identification evaluations indicated that the constituents causing toxicity in dry weather flow are variable.

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