

# The Nation's Imperiled Estuaries

by Kenn Oberrecht

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*Eventually, the waters of all the nation's streams reach the ocean, most by way of partly enclosed bodies of brackish water near the river mouths known as estuaries. Many of our rivers and creeks rise far inland and drain thousands of square miles of agricultural lands, forests, mining operations, construction sites, densely populated cities and suburbs, and highly developed industrial areas.*

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Consequently, these waters enter the estuaries bearing the silt and sediments eroded from the land, as well as treated and untreated sewage, animal wastes, pesticides, chemical fertilizers, heavy metals, caustic acids, poisons of various kinds, and every manner of industrial discard. The estuaries themselves, particularly the large ones, are usually flanked by dense populations, industry, farmlands, or some combination of all these.

Estuaries are our most vital, productive, and important environments; yet, they're also among our most threatened habitats. Years of abuse have seriously degraded them: a fact few politicians and bureaucrats seemed aware of or concerned with until 1970. That year, the U.S. Department of Interior released a report entitled The National Estuary Study, which documented how rapidly and vastly our estuaries were being damaged or destroyed.

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Subsequently, Congress passed a slew of related legislation, including the Federal Pollution Control Act; the Marine Protection, Research, and Sanctuaries Act; and the Coastal Zone Management Act. One result of the last-named was the establishment of the National Estuarine Research Reserve System, under the auspices of the National Oceanic and Atmospheric Administration (NOAA). The purpose of the system is to safeguard our estuarine resources and provide educational and research facilities, that we might learn to better protect these critical habitats, perhaps restore some of the wetlands and tidelands we've abused and degraded, and even create new habitats in place of those we've destroyed.

The South Slough National Estuarine Research Reserve in Charleston, Oregon--created in 1974--was the first such sanctuary in the nation. There are now 22 others along the Pacific, Atlantic, and Gulf coasts, as well as in the Great Lakes, Hawaii, and Puerto Rico, with four proposed sites under consideration.

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South Slough's sister facilities on the West Coast are at Padilla Bay on Puget Sound; Elkhorn Slough, between Monterey and Santa Cruz, California; and the Tijuana River, south of San Diego. San Francisco Bay is one of the proposed sites.

The Clean Water Act of 1987 established a National Estuary Program, administered by the Environmental Protection Agency (EPA), with the purpose of identifying nationally significant estuaries and improving their quality and vitality. To date, EPA has given "priority consideration" to 11 of the nation's major estuaries and has initiated programs on six of those.

More than 20 years after the Department of Interior released The National Estuary Study, our estuaries are scarcely improved. In fact, most are in the worst shape ever. A framework has been established, however, and legislative tools put at our disposal, that we might begin to reverse some of the processes that have deteriorated the quality of the nation's most valuable waterways.

Perhaps one day we'll be able to look with pride at all the estuaries we helped bring back from the brink of destruction.

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