Resolving Coastal Water Quality Protection and Invasive Species Prevention Issues

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The UC Sea Grant Extension Program in San Diego has been working on programs to prevent hull transport of aquatic invasive species (AIS) by recreational vessels and to protect water quality by reducing use of toxic antifoulants. The California Ocean Protection Council's strategic plan and the California Ocean Protection Act address these issues.

Antifouling paints are under regulatory scrutiny in California due to elevated levels of dissolved copper in crowded boat basins. Total Maximum Daily Load (TMDL) programs to regulate copper from antifouling paints are complete or are underway in a few, southern California coastal areas. Other areas have been recommended for addition to the list of waterbodies impaired by dissolved copper. The approved TMDL for Shelter Island Yacht Basin in San Diego Bay encourages boat owners to use nontoxic or less toxic hull coatings.

The entire California coast has experienced invasion by species not native to the state or to the area of the coast where they have been discovered. Often, AIS introduced as hull fouling have caused ecological damage and millions of dollars worth of structural damage. The National Aquatic Invasive Species Act of 2005 prescribes antifouling paints to control AIS, yet they simply slow fouling instead of preventing it. The Act discourages in-water hull cleaning, yet frequent cleaning is needed to manage fouling growth on nontoxic hull coatings. Hauling and cleaning is nine times the cost of in-water hull cleaning in San Diego.

Based on findings from a 2005 workshop on managing hull transport of AIS, policies developed by the Australian government, our projects involving nontoxic coatings and our experience with stakeholders, we will present recommendations to protect water quality while preventing hull-borne AIS.

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