Generated

Generated

|  |  |
| --- | --- |
| Concentrations of CCA Wood TreatmentsRecommended for Various Uses | |
| Retentions *(lbs./cu.ft.)* | Uses/Exposures |
| 0.10 – 0.25  0.21 – 0.41  0.31– 0.61  2.50 | Above ground  Soil & Freshwater use  Permanent Wood Foundation  Saltwater use |

resuspension. Additionally wave refraction in a downward direction may also resuspend some sediments (Ludwig, 2003, pers. com.).

**Impacts from Boating Uses Associated with Small Docks—**

Most small docks are associated with boat traffic. Being situated at the interface between land and water, at least a portion of each dock is in the intertidal zone and extends into or through shallow areas. In many cases this can lead to environmental impacts. Because docks are in the shallowest areas of an embayment and are the location where refueling may take place and engines are started and stopped, impacts are apt to be particularly significant. Propeller scarring of vegetation and “prop dredging” of sediments are perhaps the most visible impacts in the shallow waters adjacent to docks.

In 1994, a workshop on the impacts of boating was held at the Woods Hole Oceanographic Institution (Crawford *et al*., 1998). A number of potential boating-related impacts were discussed although no differentiation was made between general boating activities and those taking place in the vicinity of docks. While noting that there were adverse impacts, the presentations revealed that there were limited quantitative data available that could be used as the basis for management decisions—although it was agreed that sufficient data exist to “substantiate the inference that recreational … motor boat traffic is far from a benign influence on aquatic and marine environments.” A second symposium on the topic, “Impacts of Small Motorized Watercraft on Shallow Aquatic Systems” was held in 2000 at Rutgers University. The results of this symposium were published in Kennish (2002).

Both workshops identified several issues of concern regarding boating activity including:

Impacts to submerged aquatic vegetation,

Contamination from fuel discharges,

Erosion on shorelines, and

Resuspension of bottom sediments and turbidity.

# *Impacts on submerged vegetation—*

Boat propellers can directly damage submerged aquatic vegetation in shallow waters (Phillips, 1960; Thayer *et al.,*



