

**TABLE 8**  
**WATER QUALITY / BENEFICIAL USE PROBLEMS AND THREATS**

1/25/02

	<b>WATER QUALITY / BENEFICIAL USE PROBLEMS AND THREATS</b>	<b>TYPICAL SOURCES / CAUSES</b>
<b>Surface Water</b>		
1	Trash	Littering; dumping; inadequately covered trash trucks
2	Increased salinity	Irrigation; imported water; brine discharges; dams / water diversions
3	Reduced salinity	Hydrology changes resulting from conversion of pervious to impervious surfaces, use of imported water, and wastewater discharges upstream of naturally brackish, estuarine, or saltwater wetlands
4	Sedimentation	Erosion of cleared land, disturbed soils, stream beds, flood plains, etc.
5	Stream bed / flood plain instability ( <i>downtcutting, erosion, flood plain dessication, etc.</i> )	Hydrology changes resulting from conversion of pervious to impervious surfaces; sand & gravel extraction; dams
6	Human pathogens	Sewage spills & leaks; unsewered sanitary waste; vessel discharges of sewage & gray water; septic systems; animal waste
7	Nutrients / eutrophication	Fertilizer and green waste from nurseries, golf courses, agriculture, landscaping, gardening, etc.; animal waste; septic systems; sewage spills & leaks; unsewered sanitary waste; treated sewage; coastal lagoon fragmentation; loss of riparian canopy
8	Non-native invasive species	<u>Marine</u> : vessel ballast water discharges; aquaria <u>Riparian</u> : historical introductions; nurseries; landscaping; erosion control plantings; soil disturbance <u>Freshwater</u> : historical introductions; stocking; transplants; reservoir and pond overflows; aquaria
9	Habitat degradation and loss	Streambed / floodplain instability; physical modification (e.g. dredging, wetland / tideland filling, flood plain development, stream bed channelization, channel lining, dams, etc.); non-native invasive species; decreased salinity; hydrology changes
10	Benthic community degradation	Nutrients; organic enrichment; toxic substances
11	Metals ( <i>copper, lead, zinc, etc.</i> )	Vessel hull paint; vessel maintenance and repair; vehicles; algae control
12	Pesticides ( <i>including herbicides</i> )	Nurseries; golf courses; agriculture; landscaping/gardening; termite, ant & flea control
13	PCBs ( <i>polychlorinated biphenyls</i> )	Industrial activities
14	PAHs ( <i>polynuclear aromatic hydrocarbons</i> )	Creosote-treated pilings; groundwater extraction discharges; combustion
15	Petroleum	Vessel discharges; spills and leaks; tank farms; underground tank leaks; service stations; vehicles; groundwater extraction discharges; waste oil disposal
16	Other toxic substances	Military, industrial, and urban activities; golf courses; groundwater extraction discharges
17	Toxicity	Toxic substances (metals, pesticides, chlorine, PCBs, PAHs, etc.)
18	Reduced natural light penetration	Cooling water intake and discharge
19	Elevated temperature	Cooling water discharges; loss of riparian canopy
20	Lowered dissolved oxygen	Eutrophication; elevated temperature
21	Increased wastewater volume	Population increase
22	Beach erosion	Sand & gravel extraction; dams, coastal structures (jetties, groins, etc.); coastal lagoon fragmentation
<b>Ground Water</b>		
1	Increased salinity	Irrigation; imported water; animal waste; groundwater overdraft
2	Nitrates	Fertilizer; animal waste; septic systems
3	Petroleum ( <i>gasoline, diesel, fuel oil</i> )	Underground tank leaks
4	MTBE ( <i>methyl tertiary butyl ether</i> )	Underground tank leaks
5	Solvents ( <i>TCE, PCE, DCE</i> )	Dry cleaners; service stations; plating shops
6	Other toxic substances	Military, industrial & urban activities