Plankton Immobilized by Diesel Spill in Lake Union, Washington

Alan J. Mearns
Senior Staff Scientist
NOAA HazMat
National Oceanic and Atmospheric Administration
Seattle, Washington 98115

During early October 1999, NOAA HazMat provided response assistance to the appearance of slicks and sheen in Fisherman's Terminal, Lake Union, Washington. The material was composed of a brown-colored material and accompanied by a strong diesel odor. Sorbent pads and booms failed to pick up the material. On examination, the surface material was not a chemical but composed of mats of zooplankton, principally cladocerans (*Daphnia spp.*). After careful examination of impacted and non-impacted areas, it was hypothesized that a small diesel spill occurred at night, coinciding with the upward migration of a bloom of *Daphnia*. Upon reaching the surface, the zooplankton became trapped and narcotized by the fuel, resulting in large accumulations of floating biomass over several days.