NEW HAVEN LAND TRUST
COMMUNITY FOUNDATION
FOR GREATER NEW HAVEN
QUINNIPIAC RIVER FUND
GRANT NO. 961214/LM
FINAL REPORT
January, 1999

In 1994, Buckey Pipeline Company experienced a leak of oil from its pipeline near the Little River. To repair the damage done by the leak, Buckeye filled - with Department of Environmental Protection approval - a small amount of tidal wetland. As mitigation for this filling, Buckeye was directed by the Department to remove degrading debris - creosote-treated telephone poles and the like - from the tidal wetland at the New Haven Land Trust's Fargeorge Preserve. This debris, on the edge of the upland fill, had presumably been placed there with the rest of the fill, perhaps in connection with construction of I-91. The New Haven Land Trust was awarded a $5,000 grant from the Community Foundation Quinnipiac River Fund to monitor the removal of the debris and subsequent revegetation of the marsh.

The debris was removed in December, 1997 by Land-Tech Remedial (photos enclosed). The material, which consisted mainly of telephone poles, filled three large dumpsters. In addition to removing the poles, Land-Tech cut through dense upland vegetation and laid down gravel to create a trail from our property line to Hemingway Creek. This was much appreciated since before then, the vegetation on this preserve was practically impenetrable in the summer, and presented a high danger of contact with Lyme Disease carrying ticks.

Since then, the Land Trust has been monitoring the recovery of the work area. Flagging was set up along the boundaries of the bare spots and the site was checked periodically to see if the plants had grown inside of the flags. The final check was in January, 1999. Selected photographs are attached.

The vegetation immediately surrounding these bare areas consists mainly of tall cord grass, *Spartina alterniflora,* and spike grass, *Distichlis spicata,* with small fringes of reed grass, *Phragmites australis.* Since all of these species spread by rhizomes, and since *Spartina alterniflora* has also shown itself to colonize readily from seed, we hoped that revegetation would occur

quickly under nature's hand. In restoration projects performed by the Department of Environmental Protection and other agencies, *Spartina* has usually seeded in the first season and achieved complete colonization within three years. So far, however, the process has been slower than might have been expected, and we think the reason is simple: the heavy poles had been in the marsh for so long that they had sunk considerably, and their removal resulted in the creation of little trenches, mostly about six inches deep. The trenches of course quickly filled with water. Since the elevation is lower, and the microenvironment different from that of a "normal" marsh surface where these plants usually grow, their reintroduction has been slow.

Some revegetation has occurred, however, as the enclosed photographs will show, and we are confident that full revegetation will take place eventually. Our basis for this belief is observation of the mosquito ditches, which fill in over time and in the past were periodically redredged by the state. What needs to happen on the Fargeorge Preserve is for the edges of the trenches, which are rigid and straight, to slump in. A natural agent that can cause this to happen is ice, which rarely formed in the winter of 1998. In the winter of 1998-99, however, mild as it has been overall, there has been some ice in the trenches, so perhaps this slumping process will accelerate. If the Land Trust were to deem it advisable to improve upon nature's work, our recommendation would be simply to loosen the edges with hand tools and then to let the marsh plants recolonize on their own.

The New Haven Land Trust appreciates this funding from the Quinnipiac River Fund and is grateful for the improvement in the tidal wetland of the Fargeorge Preserve.