UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J. F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203

DATE: December 20, 1983

SUBJ: New Bedford Superfund

FROM: Gerard Sotolongo, EPA Project Officer GS

TO: Interested Citizens

Attached is an update on the New Bedford Superfund site, including information on:

o funding

o studies to be performed

o recent actions

o results of an initial environmental assessment (conducted May 1982 to March 1983) at Sullivan's Ledge and the New Bedford Landfill.

o an overview of PCB contamination in the Acushnet Estuary

Copies of the complete Remedial Action Master Plan for New Bedford hazardous waste sites and the complete report on existing PCB contamination data are available at the municipal buildings and public libraries of New Bedford and Fairhaven.

Any questions or comments should be directed to:

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FUNDING

In September, 1983, EPA allocated $3.4 million for a comprehensive examination of polychlorinated biphenyl (PCB) contamination in the New Bedford area.

STUDIES TO BE PERFORMED

Approximately $400,000 will be used to carry out an accelerated study of PCB "hot spots" in mudflats in the Acushnet River Estuary. This "fast-tracking" effort will recommend cleanup alternatives and technologies for coping with high concentrations of PCBs in sediment north of the Coggeshall Bridge. In addition to PCBs, heavy metal contaminants also are known to be present in and around the estuary. The "fast track" studies have already begun. A draft feasibility study including proposals for the cleanup will be presented to the public for comment in about six months.

In addition, the Superfund study will include the following:

° Airborne PCBs and other priority pollutants will be monitored. Particular attention will be given to air quality in the vicinity of Sullivan's Ledge, a former granite quarry south of the New Bedford municipal landfill. Sullivan's Ledge has been filled to its aproximate original grade with unknown materials from unknown sources. It is probable that PCB wastes and other hazardous substances were buried at the site.

° An inventory of groundwater resources and principal groundwater uses and users will be developed. Selected sources will be monitored for PCBs and other contaminants. An assessment of impacts to groundwater quality will be prepared and potential public health hazards will be identified.

° A full hydrogeological characterization of Sullivan's Ledge will be initiated. Contamination by PCBs and other wastes will be documented.

° Continued monitoring of groundwater samples near the New Bedford Landfill will be conducted. Results from previous studies indicate that PCBs are not migrating from the landfill into groundwater.

° A comprehensive examination of sediment, water, and living organisms in New Bedford Harbor and Buzzards Bay will be initiated to determine levels of contamination.

° Studies to document other suspected locations of PCB contamination within the New Bedford area will be initiated. There are estimated another 30 potential sources of PCBs in the area not yet fully investigated. Those include public and private landfills and chemical disposal areas, dredge disposal sites, scrap metal dealerships, miscellaneous public and private pro-

perties, including fill areas and properties adjacent to areas of known high PCB concentrations.

° An in-depth evaluation of remedial alternatives will be conducted and cleanup recommendations for each source will be developed.

° Removal of contaminated soil and sediment would require the development of suitable disposal sites or facilities -- shoreline or upland. Therefore, part of the study will focus on identifying, evaluating and selecting disposal sites.

The study leading to final choice of long term remedial action will take about two years and is scheduled to begin in January 1984.

RECENT ACTIONS

° Aerovox, Inc. has begun capping and containing PCB-contaminated soil on its property, as the result of a past EPA enforcement action.

° A recent EPA enforcement action calls for Cornell Dubilier Electronics Corporation to remove PCBs from the New Bedford sewers near its property. Work is expected to begin in February 1984.

RESULTS OF INITIAL ENVIRONMENTAL ASSESSMENT

AT SULLIVAN'S LEDGE AND THE NEW BEDFORD MUNICIPAL LANDFILL

° Municipal Landfill: not currently a source of hazardous contaminants. Volatile and semivolatile organics, and PCBs were not detected in significant amounts in any soil or water samples taken near the landfill.

° Sullivan's Ledge: contaminants typical of the wastes generated by industry within the New Bedford area were found in wells downgradient of groundwater flow from the quarry. Upgradient wells were essentially free of contaminants.

OVERVIEW OF PCB CONTAMINATION IN ACUSHNET ESTUARY

This report organized and evaluated existing information on PCBs in the Acushnet Estuary and identified "data gaps" -- areas that need more study.

Some conclusions:

° Particularly in the Inner Harbor, the Acushnet Estuary is severly contaminated with PCBs.

° Because the concentrations of PCBs in the Acushnet Estuary vary greatly, it is difficult to determine the volume of PCBs in the estuary.

° More than 75% of the existing data is from samples of the Acushnet Estuary itself, as opposed to land-based locations such as the disposal sites, industrial plants, and municipal facilities.

° PCB concentrations in living organisms in the estuary indicate contamination; however, the data are limited and therefore somewhat inconclusive, particularly for the Inner Harbor. In general, concentrations of PCBs were higher in the Inner Harbor than in the Outer Harbor. Of the organisms sampled, eels had the highest levels.

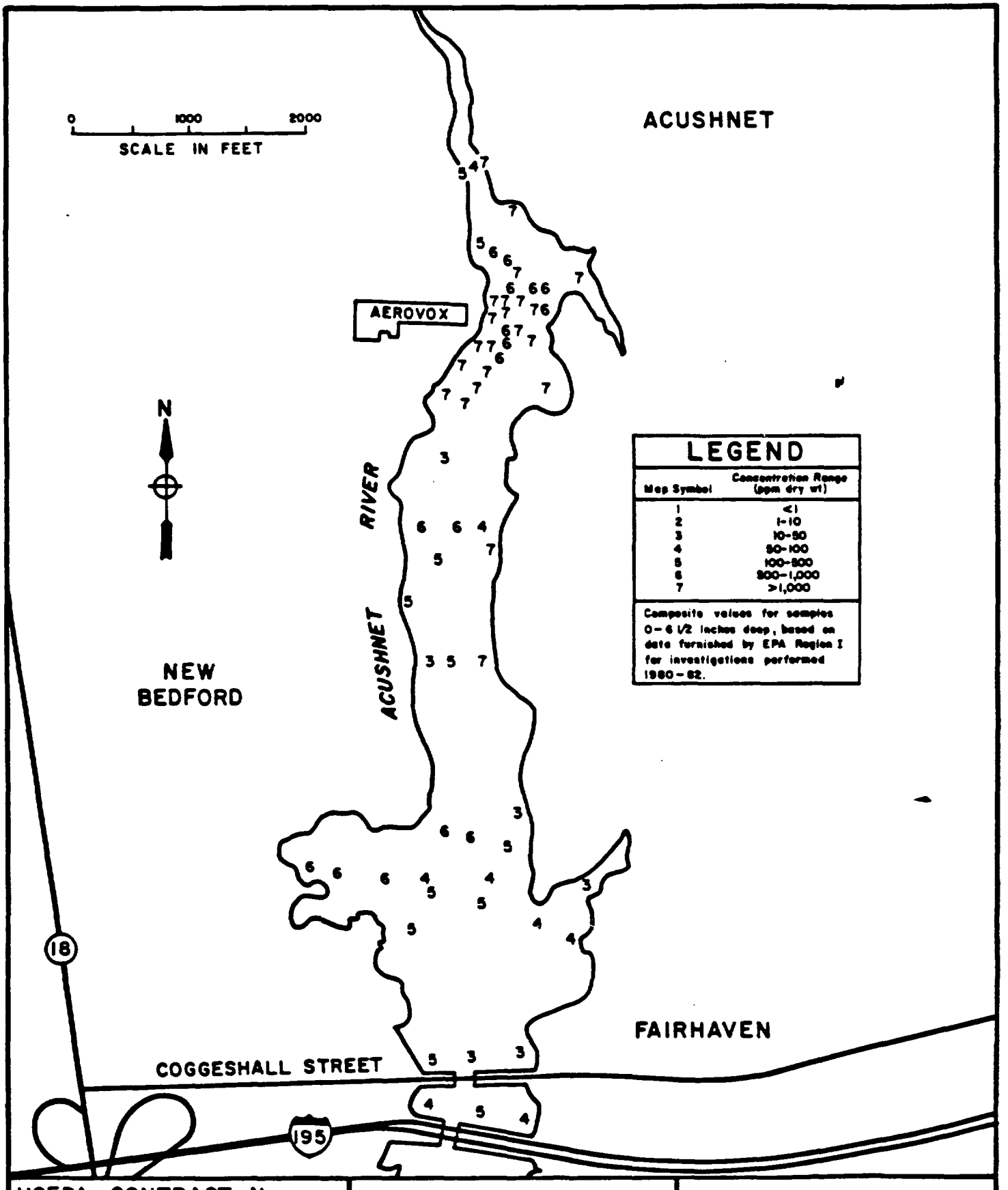
° The highest PCB concentrations occur in the upper end of the estuary, in the vicinity of the Aerovox plant. (see map)

° The highest concentrations in the upper estuary are in the shallow sediments, 4 to 8 cm deep, probably due to the fact that PCB discharge to the estuary was ended in 1977 and most contaminated sediments have since been covered by cleaner sediments.

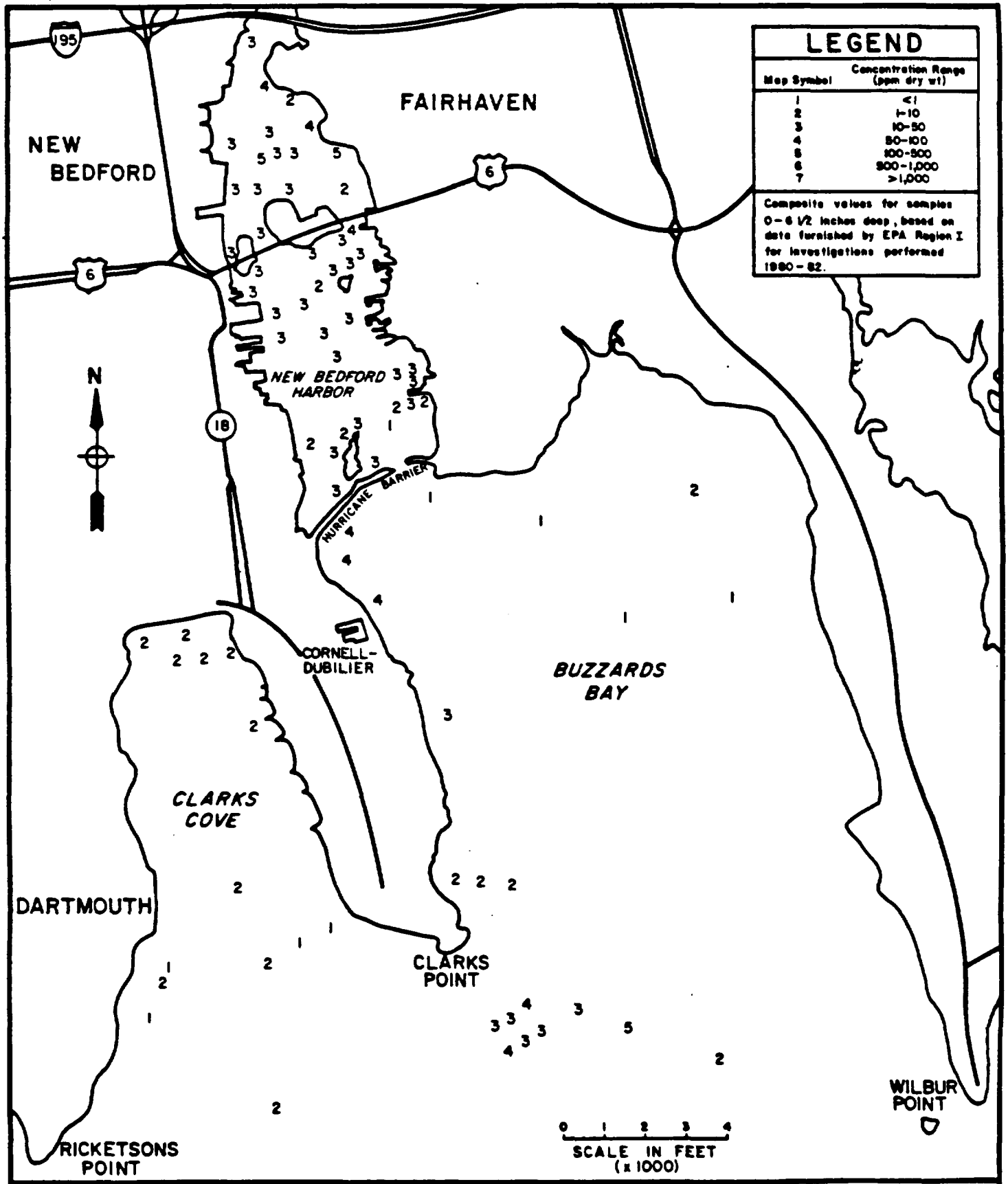
° The Acushnet Estuary has significantly high levels of toxic metals, particularly chromium, copper, lead and zinc. However, information on the metals is limited. More study is needed to determine whether the locations of metal contamination coincide with the PCB hot spots, a necessary piece of information for evaluating cleanup alternatives.

° The biggest "data gap" remaining is a thorough understanding of the pathways that PCBs travel and their fate in the estuary. PCB contamination of the estuary is dynamic and everchanging. In order to evaluate the contamination, it is necessary to identify the processes by which the contamination is changing.

° There is a lack of information on how PCBs enter and are transported in the water column. Additional water sampling is needed to determine whether bottom sediments are "leaking" PCBs to the water column, or whether they are being effectively capped by cleaner sediments.



USEPA CONTRACT No. 68-03-1613 WORK ASSIGNMENT No. Z-2-14.11 WESTON DESIGNERS CONSULTANTS	NEW BEDFORD REMEDIAL ACTION MASTER PLAN	FIGURE 2-1a PCBs IN BOTTOM SEDIMENTS (UPPER ESTUARY)



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WESTON DESIGNERS CONSULTANTS

NEW BEDFORD
REMEDIAL ACTION MASTER PLAN

FIGURE 2-1b
PCBs IN BOTTOM SEDIMENTS (LOWER ESTUARY)