Site: New Bedford
Break: 3.4
Other: 52270

52270

A REMEDIAL ACTION PROGRAM
NEW BEDFORD HARBOR
SUPERFUND SITE

PRESENTED TO:

NEW BEDFORD HARBOR SITE
COMMUNITY WORK GROUP

JULY 10, 1989

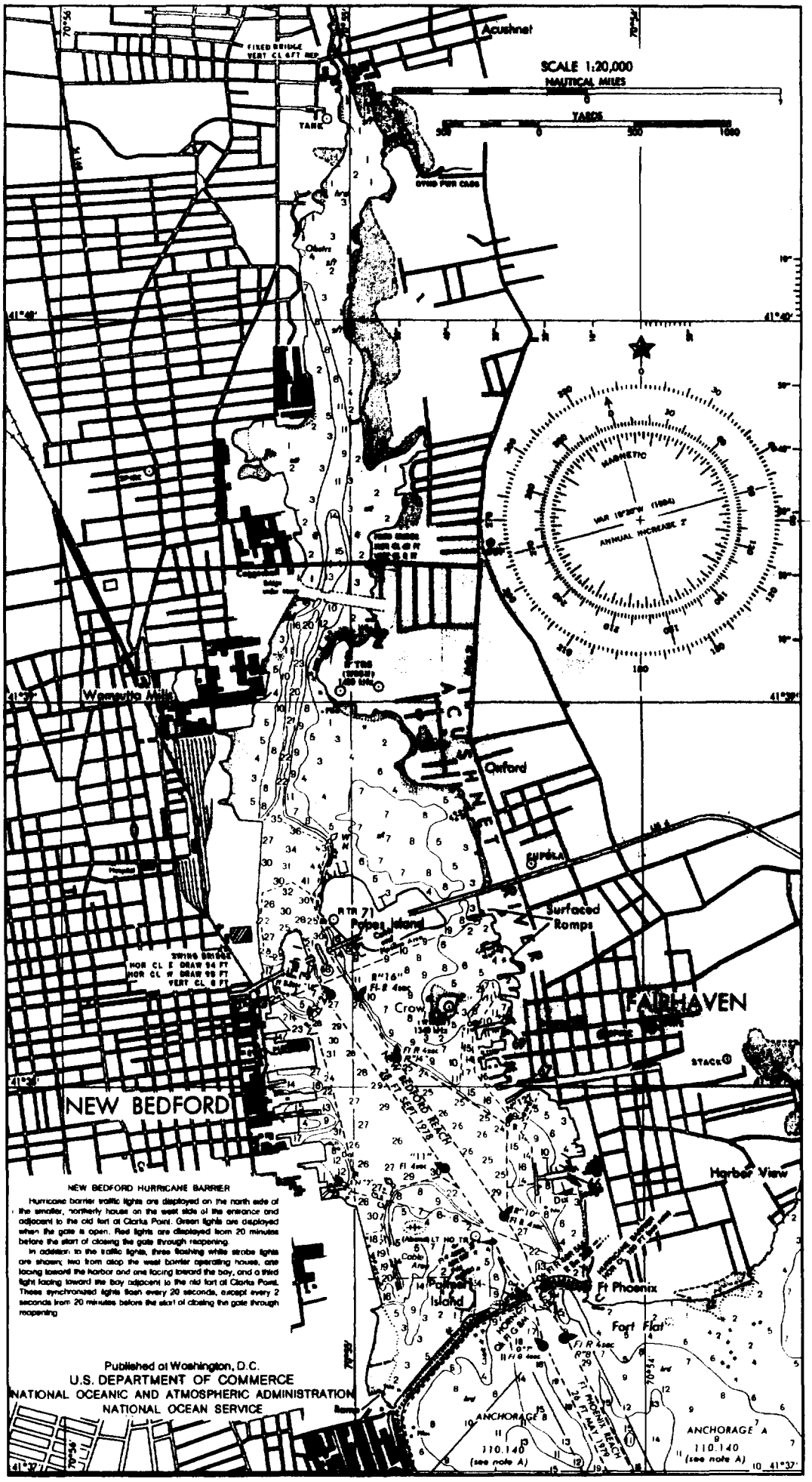
(2038)

SDMS DocID 268628

REMEDIAL ACTION PROGRAM GOALS

- PROTECT HUMAN HEALTH AND THE ENVIRONMENT
- PROTECT ENVIRONMENTAL RESOURCES
- MINIMIZE SITE DISTURBANCE AND CONTAMINANT RELEASE
- COST EFFECTIVE
- CONSISTENT WITH LEGAL REQUIREMENTS
- PROVEN TECHNOLOGY WITH RAPID IMPLEMENTATION

(2038)



NEW BEDFORD HURRICANE BARRIER

Hurricane barrier traffic lights are displayed on the north side of the smaller, northerly house on the west side of the entrance and adjacent to the old fort at Clarks Point. Green lights are displayed when the gate is open. Red lights are displayed from 20 minutes before the start of closing the gate through reopening.

In addition to the traffic lights, three flashing white strobe lights are shown; two from atop the west barrier operating house, one facing toward the harbor and one facing toward the bay, and a third light facing toward the bay adjacent to the old fort at Clarks Point. These synchronized lights flash every 20 seconds, except every 2 seconds from 20 minutes before the start of closing the gate through reopening.

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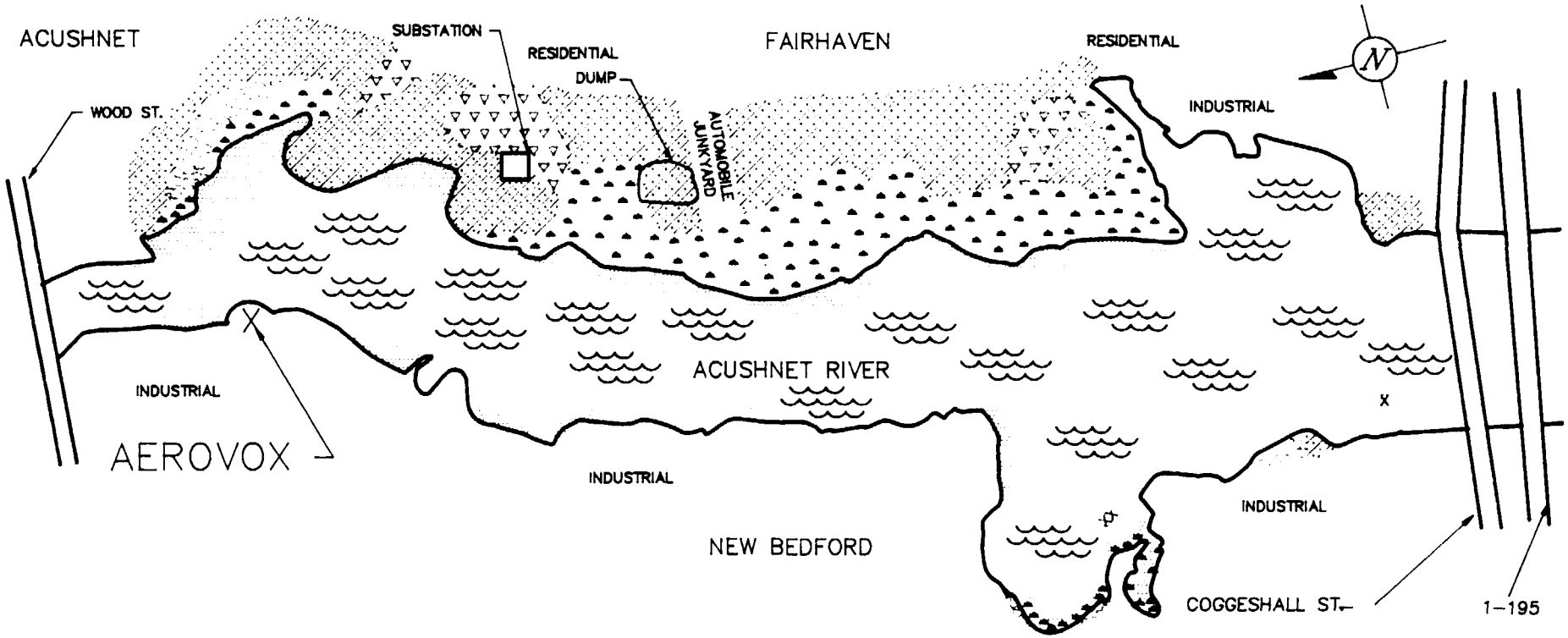
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE



EXISTING HABITATS

HABITAT TYPES

- = OPEN FIELD
- = HARDWOOD WOODLOT
- = SALT MARSH
- = PHRAGMITES
- = TIDAL FLAT (MEAN LOW WATER-MEAN SEA LEVEL)
- = WATER COVERAGE (AT MEAN LOW WATER)
- X X = ROCKS

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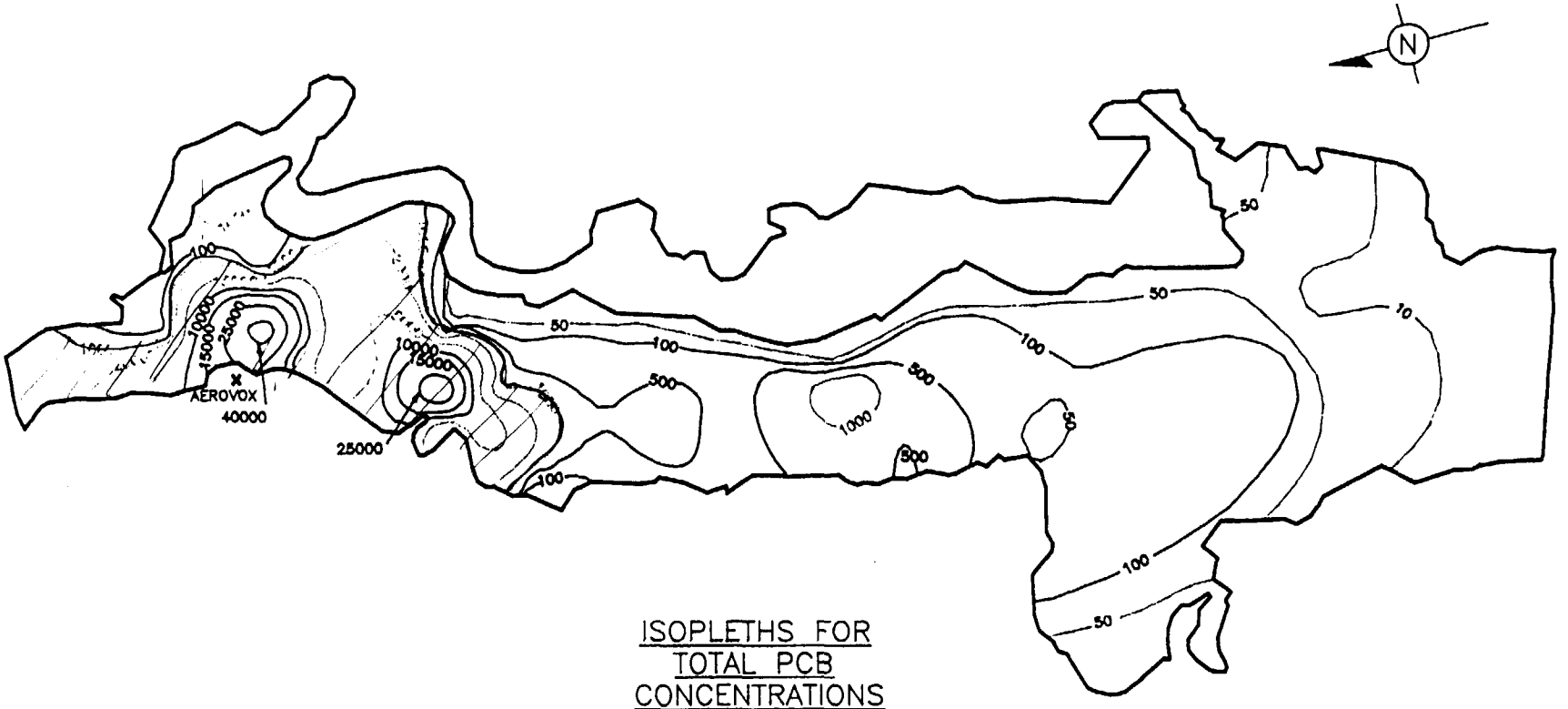
59 STILES RD. SALEM, N.H. 03079

OH6002N 1"=900'



ISOPLETHS FOR TOTAL PCB CONCENTRATIONS 0"–12" INTERVAL

LEGEND

100— = TOTAL PCB CONCENTRATION ISOPLETH (PPM)

NOTES:

1. ISOPLETHS DEVELOPED USING KRIGING & DATA FROM UNITED STATES ARMY CORPS OF ENGINEERS (AUGUST–OCTOBER, 1985 AND AUGUST 1987) AND BATTELLE/NUS (JUNE, 1985)

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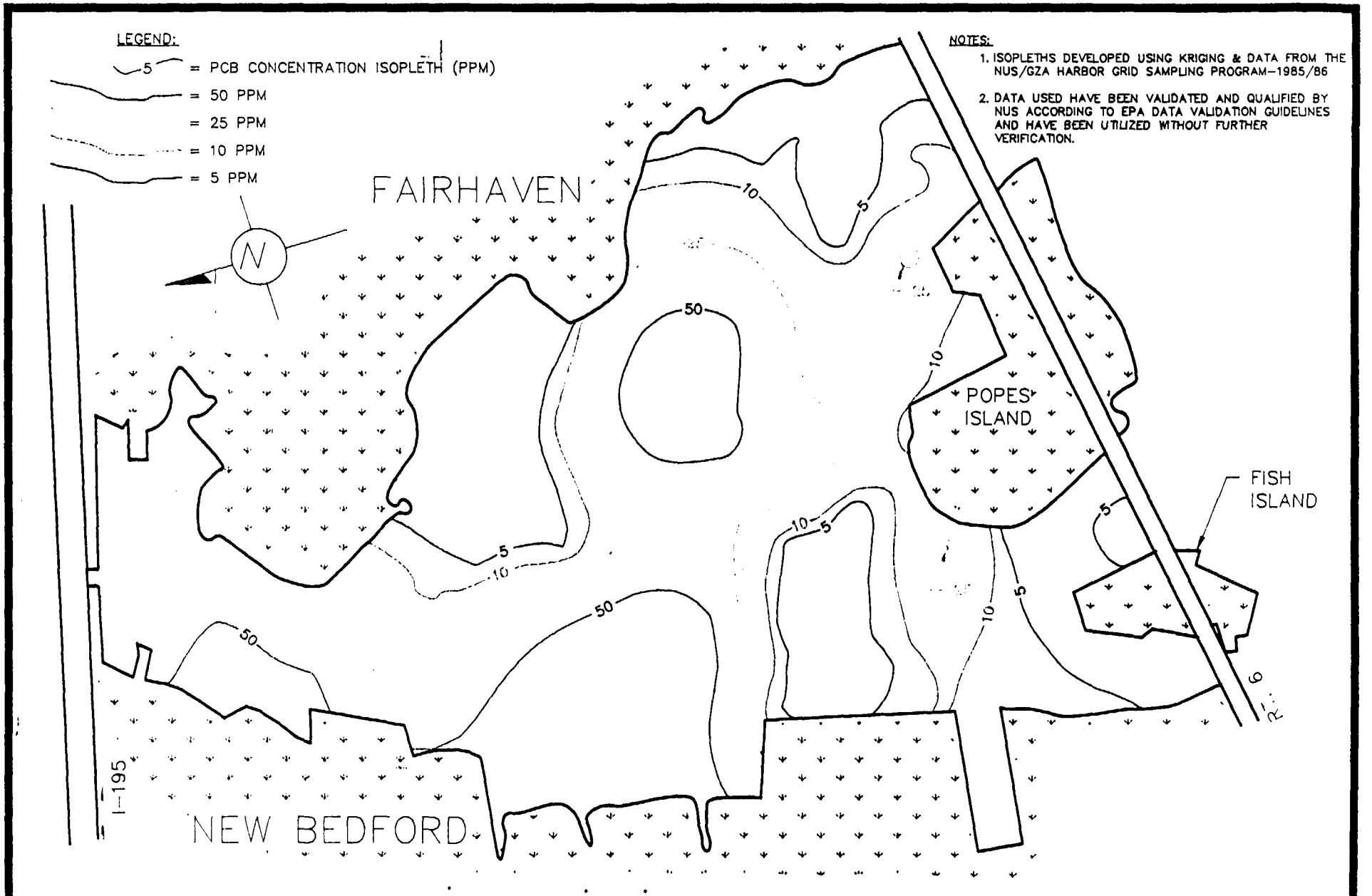
sh8002a 1=1



ISOPLETHS FOR

TOTAL PCBs

0–6" INTERVAL

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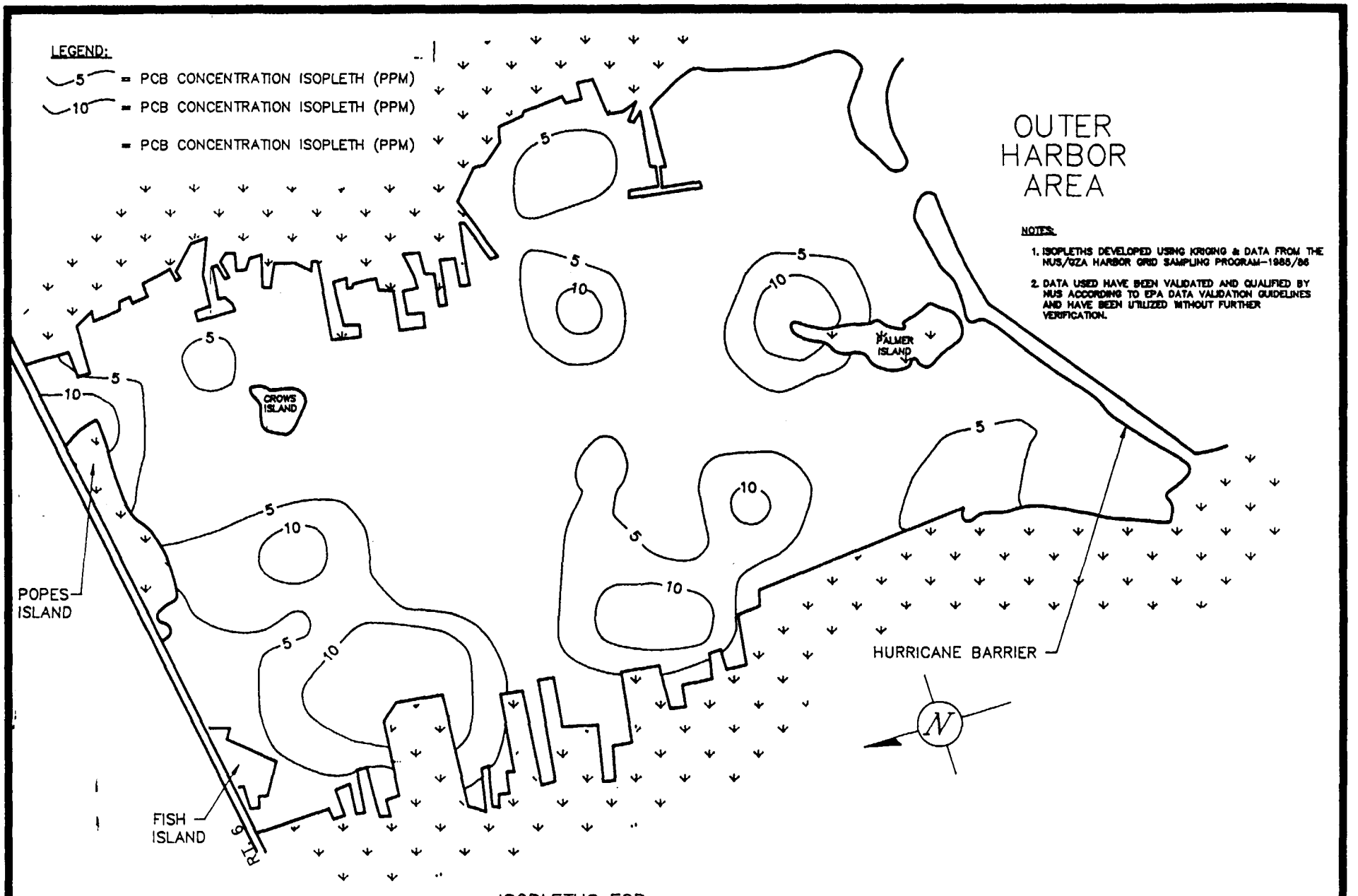
oh6002m 1"=1050'



ISOPLETHS FOR

TOTAL PCBs

0"-6" INTERVAL

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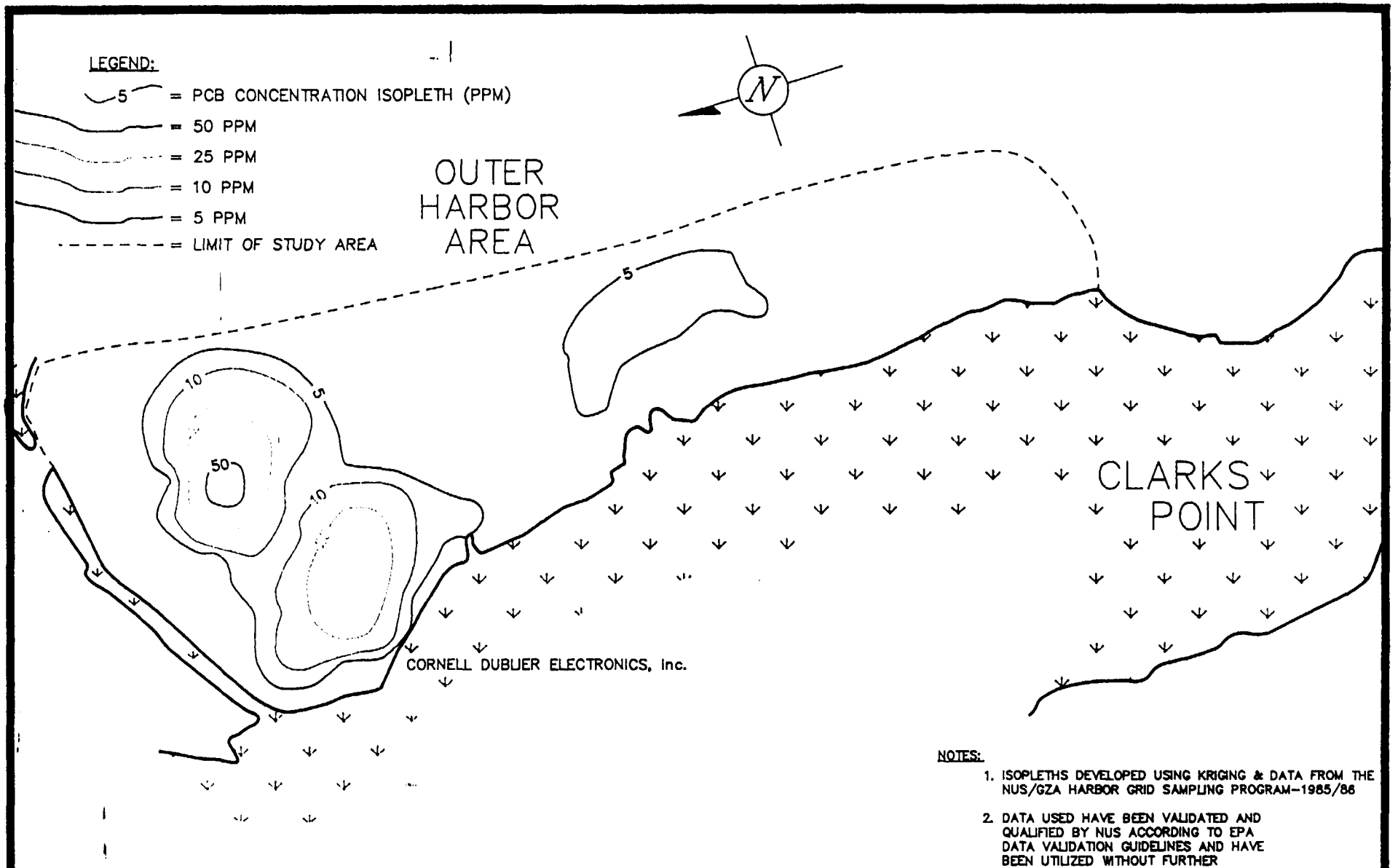
OH60021 1"=1300'



NOTES:

1. ISOPLETHS DEVELOPED USING KRIGING & DATA FROM THE NUS/GZA HARBOR GRID SAMPLING PROGRAM–1985/86
2. DATA USED HAVE BEEN VALIDATED AND QUALIFIED BY NUS ACCORDING TO EPA DATA VALIDATION GUIDELINES AND HAVE BEEN UTILIZED WITHOUT FURTHER VERIFICATION.

ISOPLETHS FOR
TOTAL PCBs
0"–6" INTERVAL

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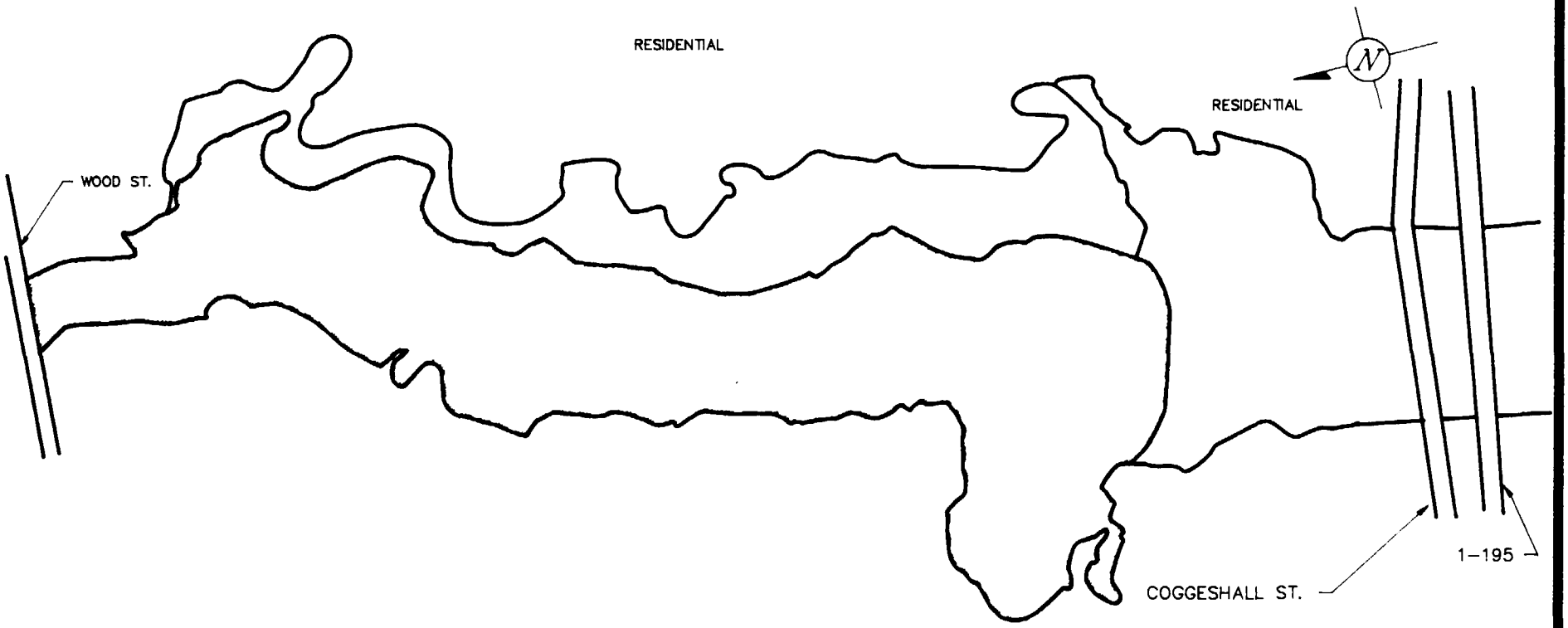
ch8002k 1"=1200'

REMEDIAL PROGRAM COMPONENTS

- HYDRAULIC CONTROLS
- GEOFABRIC INSTALLATION
- SEDIMENT CAP PLACEMENT
- ARMORED CAP PLACEMENT
- PLANT NEW SALT MARSH
- INITIATE MONITORING PROGRAM

(2038)



CAP EXTENT

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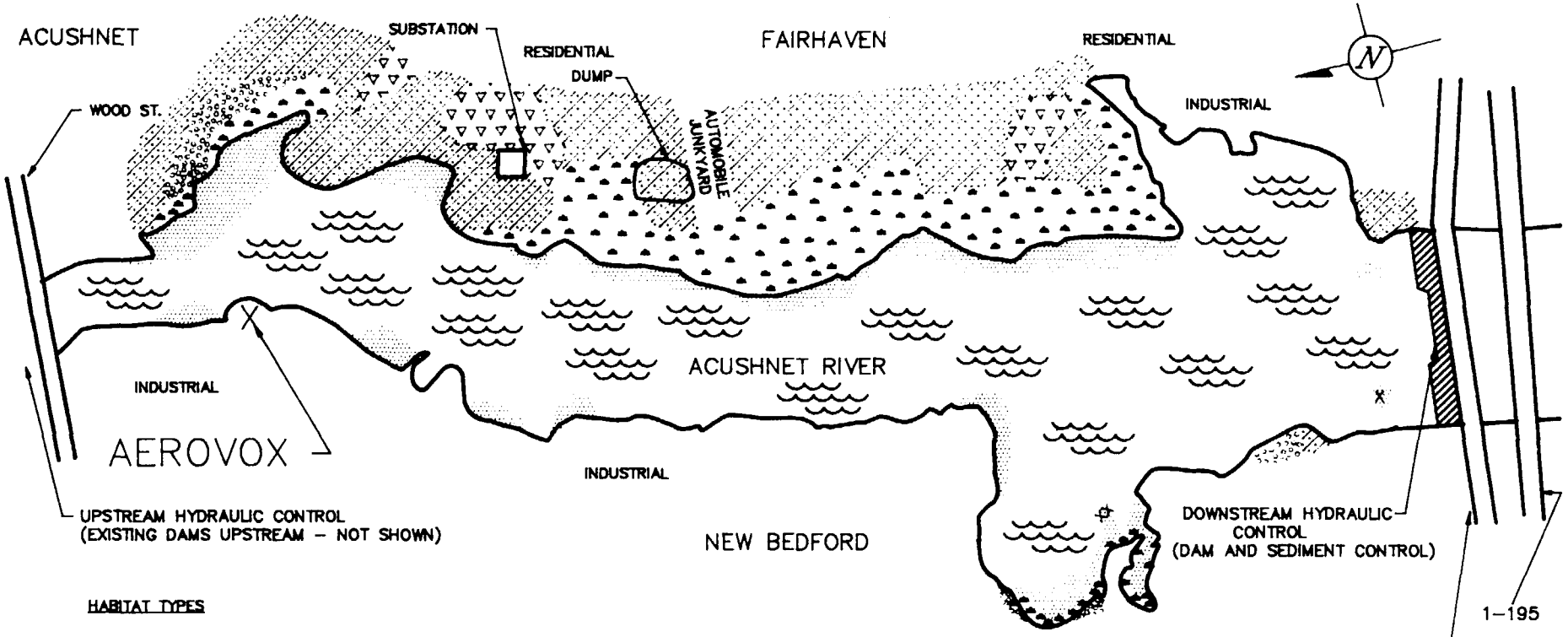
oh6002b 1"=900'



HABITAT TYPES

- = OPEN FIELD
- = HARDWOOD WOODLOT
- = SALT MARSH
- = PHRAGMITES
- = TIDAL FLAT (MEAN LOW WATER–MEAN SEA LEVEL)
- = WATER COVERAGE (AT MEAN LOW WATER)
- X X = ROCKS

HYDRAULIC CONTROLS

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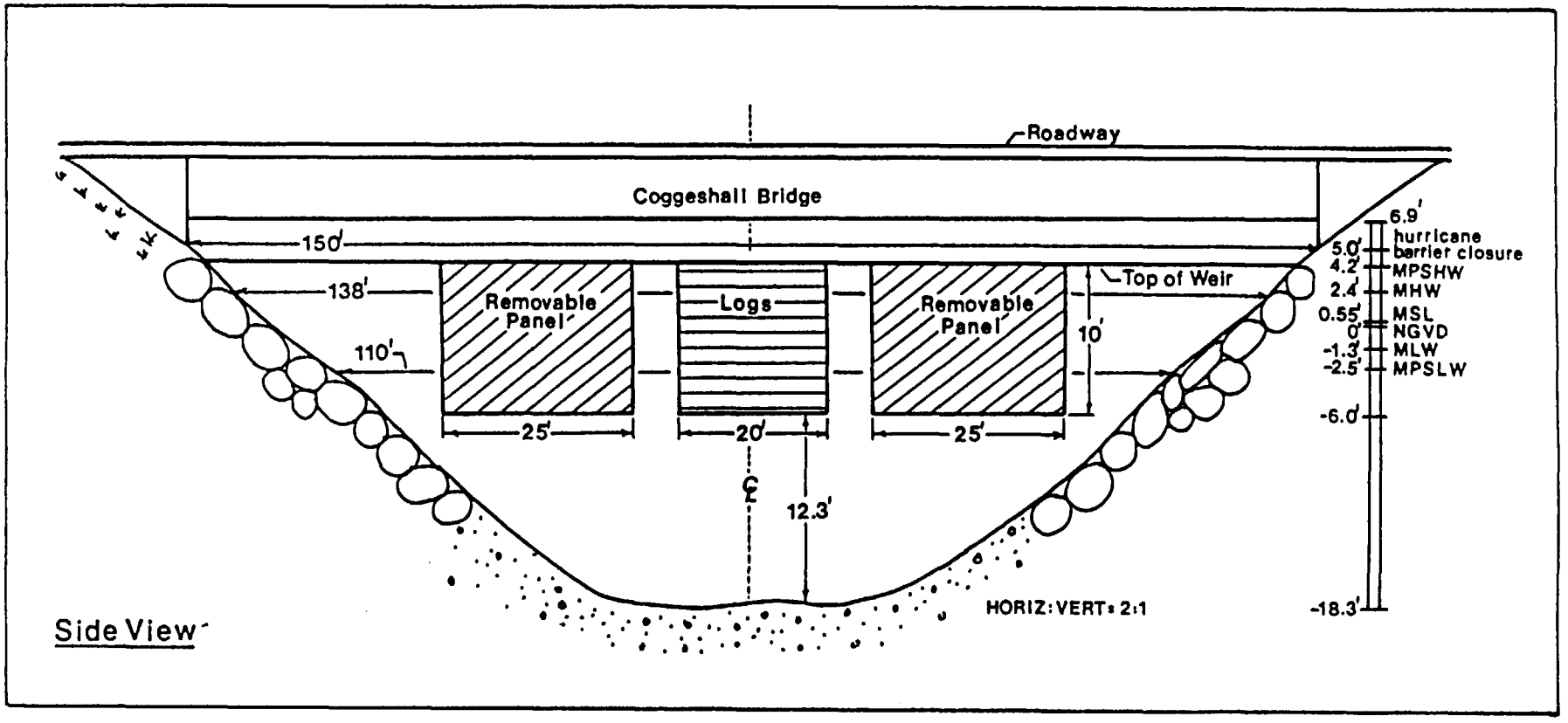
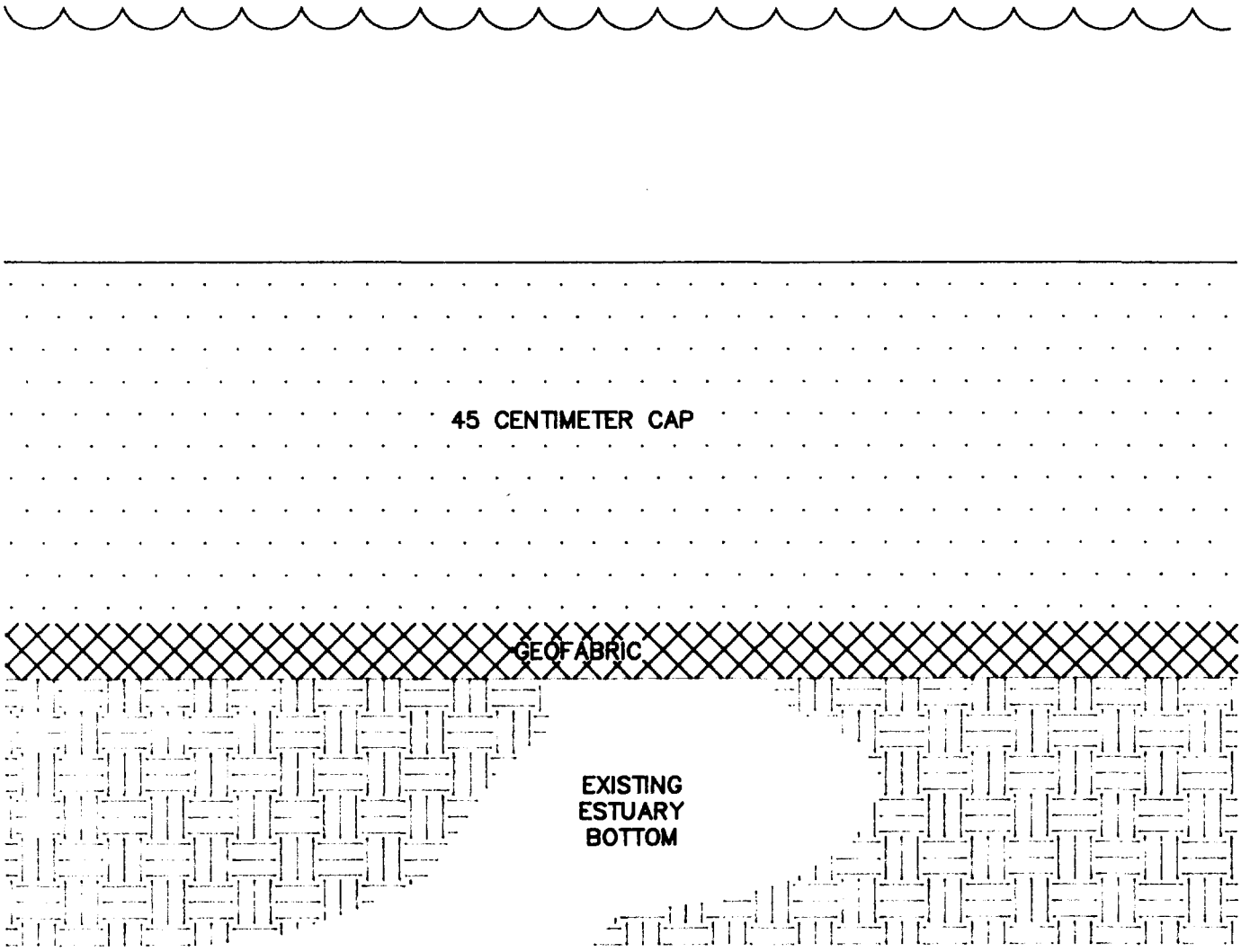
ch6002j 1"=900'



Side and plan views of the proposed dam with adjustable weir.

TYPICAL CAP

CROSS SECTION



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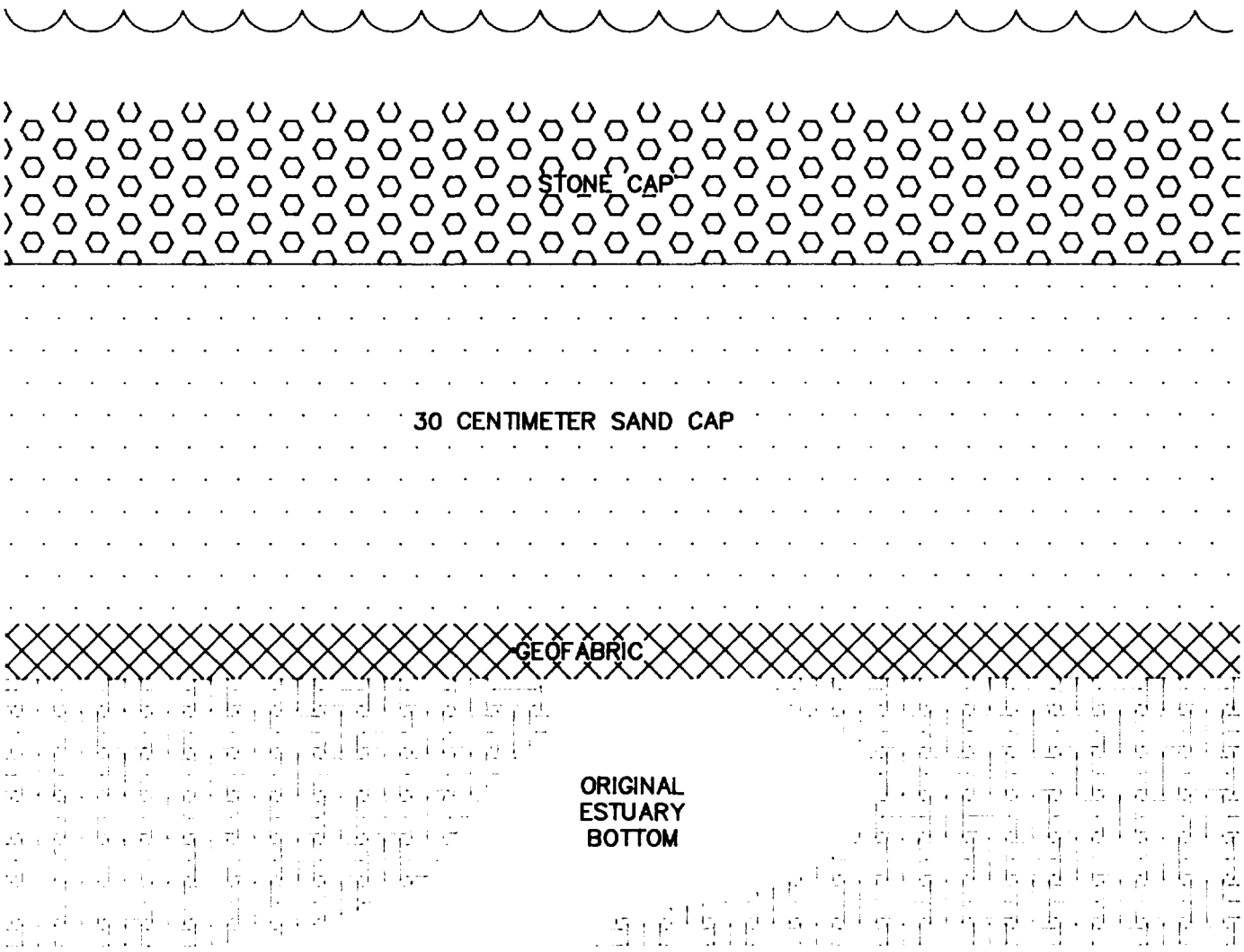
ch6002e

TYPICAL ARMORED CAP

CROSS SECTION



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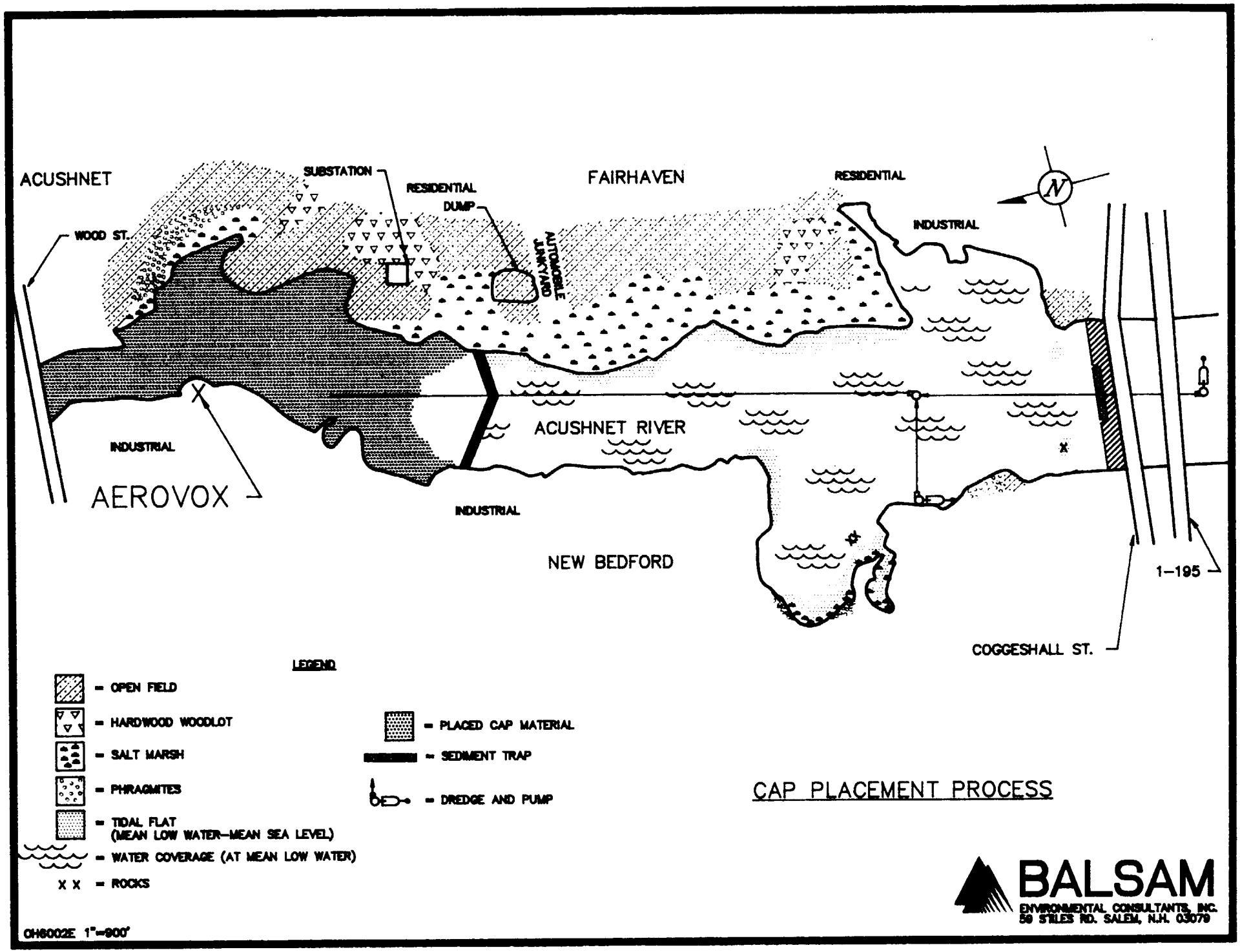
ch60024


ACUSHNET
SUBSTATION
RESIDENTIAL
DUMP
FAIRHAVEN
RESIDENTIAL
INDUSTRIAL
WOOD ST.
AUTOMOBILE JUNKYARD
N
ACUSHNET RIVER
INDUSTRIAL
AEROVOX
INDUSTRIAL
NEW BEDFORD
1-195
COGGESHALL ST.
LEGEND
= OPEN FIELD
= HARDWOOD WOODLOT
= SALT MARSH
= PHRAGMITES
= TIDAL FLAT (MEAN LOW WATER-MEAN SEA LEVEL)
= WATER COVERAGE (AT MEAN LOW WATER)
X X = ROCKS
= PLACED CAP MATERIAL
= SEDIMENT TRAP
= DREDGE AND PUMP
CAP PLACEMENT PROCESS
BALSAM
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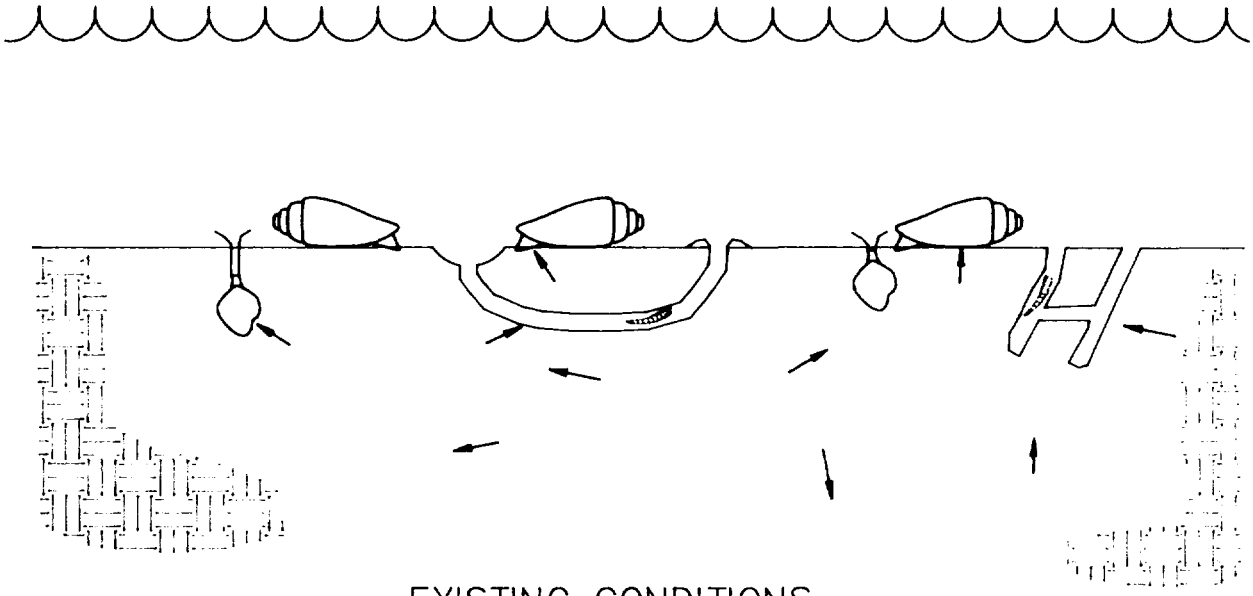
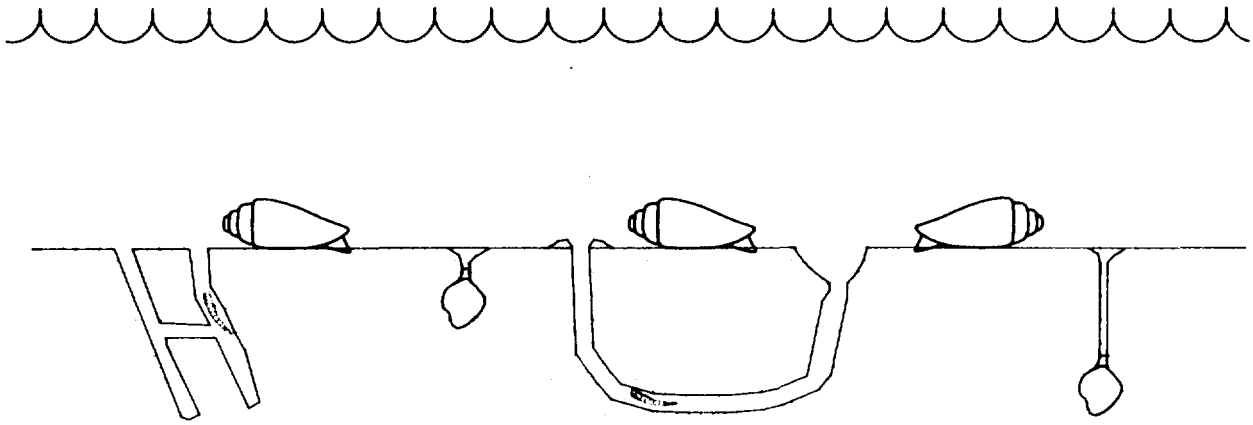
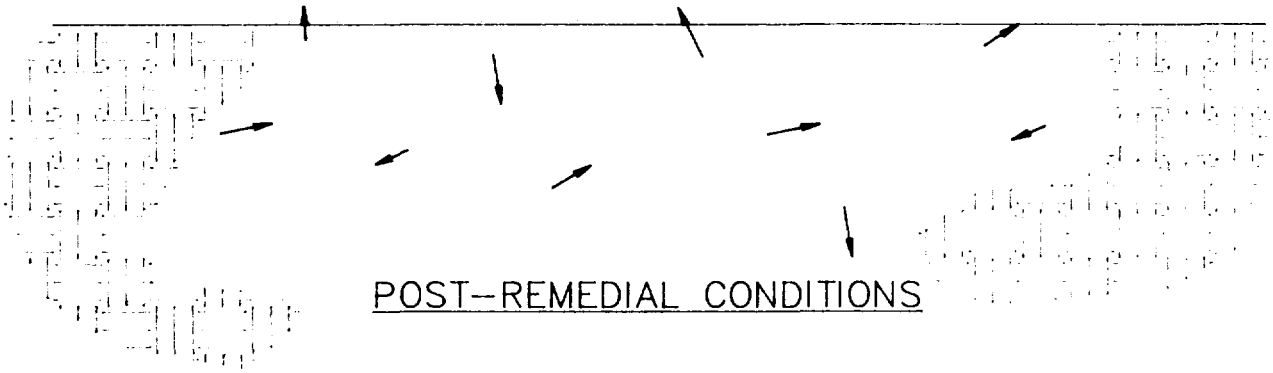
OH6002E 1"=900'



EXISTING CONDITIONS





POST-REMEDIAL CONDITIONS

CONTAMINANT MOVEMENT

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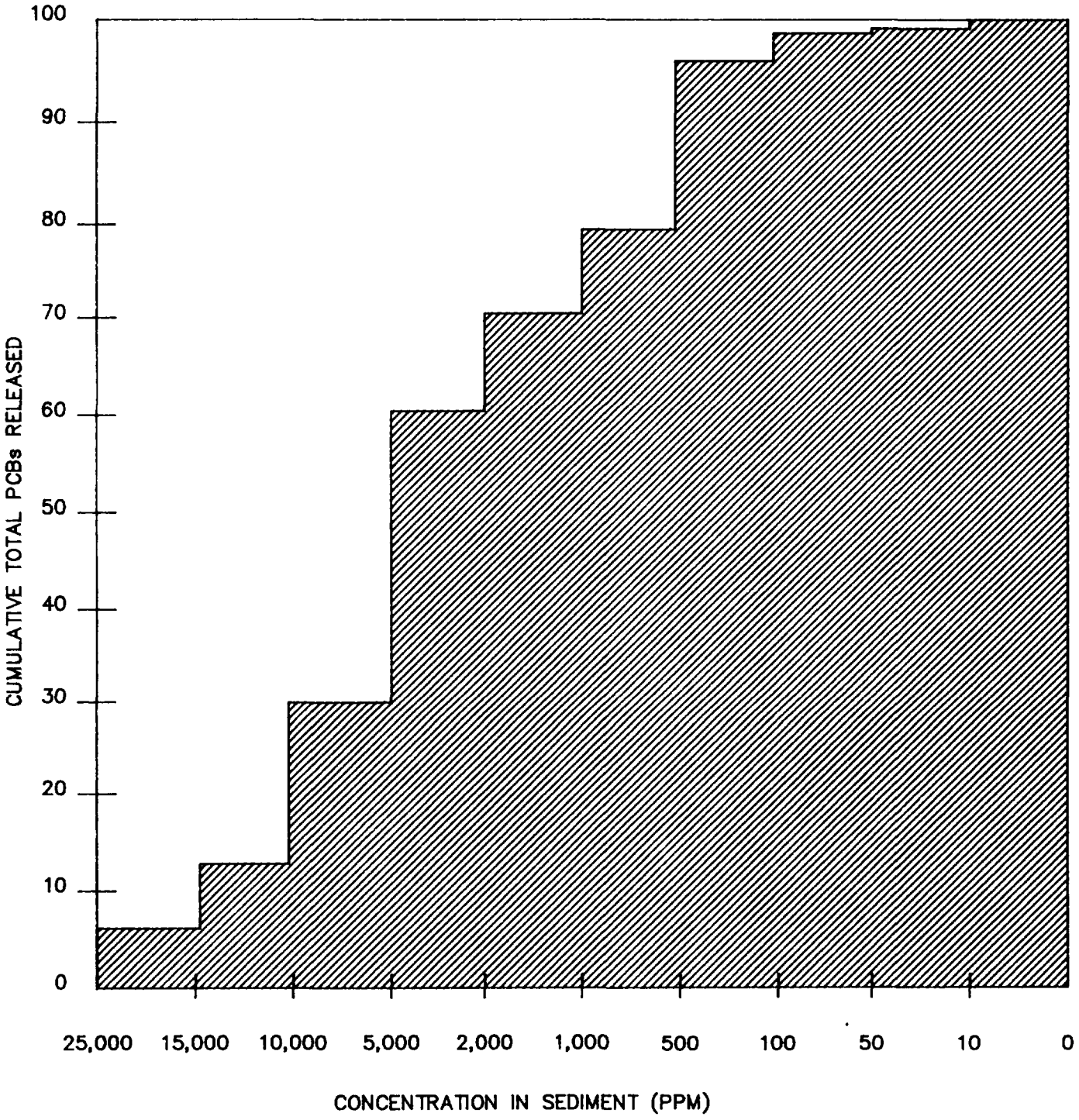
ch8002g

CUMULATIVE PERCENTAGE OF PCBs RELEASED FROM UPPER ESTUARY



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ch80021

SUMMARY OF CAPPING EFFECTIVENESS

PRE-REMEDIAL PCB FLUX

PCB Concentration	Area	Percentage of PCB Flux
500 ppm and above	57 acres (30%)	78
100 ppm and above	110 acres (58%)	97
50 ppm and above	130 acres (68%)	99

POST-REMEDIAL PCB FLUX

PCB breakthrough time - 1,000 to 60,000 years

PCB breakthrough sediment concentration - 0.2 ppm

PCB flux through cap after breakthrough - 1/2 pound per year

(2038)