FLOOD PLAIN MANAGEMENT SERVICES

High Water Marks Halloween Storm October, 1991

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October 1992

US Army Corps
of Engineers
New England Division

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Kedzierski, John

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U.S. Army Corps of Engineers, New England Division
424 Trapelo Road
Waltham, MA 02254-9149

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13. ABSTRACT (Maximum 200 words)

This report documents the location and elevation of approximately 200 high water marks taken after the Halloween "Northeaster" of October 1991 and the high water marks were taken from the coast of Kennebunkport, Maine down to Nantucket, Massachusetts. The report contains photographs, descriptions, and location maps for all of the high water marks which were recovered. The maps show the locations of both the Halloween Storm of 1991 and the Blizzard of 1978 high water marks. High water marks and their corresponding elevations, referenced to either the National Geodetic Vertical Datum (NGVD), or Mean Lower Low Water (MLLW) are listed in Table 1 - Summary of High Water Marks. The high water marks are meant to be an estimation of stillwater elevation; however, some are due to ponding, overtopping, and wave runup which are not representative of ocean stillwater levels.

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HIGH WATER MARKS OF THE HALLOWEEN COASTAL STORM
OCTOBER, 1991

1. Introduction

This report documents the location and elevation of approximately 200 high water marks obtained after the Halloween northeaster of October 1991. High water marks were obtained at various locations along the coast from Kennebunkport, Maine to Nantucket, Massachusetts.

The Halloween Storm was an extratropical event which originally developed east of Nova Scotia and strengthened as it moved westward. The storm was extremely intense, causing flooding, erosion and damage along most of the New England coast. The affects of this storm were observed from regions of Canada to the Atlantic facing shorelines of the Greater Antilles (Cuba, Haiti, Dominican Republic, etc.). The east facing shores of Maine, New Hampshire, and Massachusetts are particularly vulnerable to storms of this nature. Sustained winds from the northeast can produce extreme wave conditions and storm surges, as was observed during both the Halloween Storm of 1991 and the Blizzard of 1978.

The high water marks are meant to be an approximation of stillwater elevations, however, some are due to overtopping, wave runup, and ponding which are not representative of ocean stillwater levels. These are of interest to affected coastal communities, States, and other Federal agencies responsible for defining flood threats and evaluating mitigation measures. Information contained in this report provides historical documentation of the coastal flooding experienced along the New England coast from this event. High water marks and their corresponding elevations, referenced to either the National Geodetic Vertical Datum (NGVD), or Mean Lower Low Water (MLLW) are listed in Table 1 - Summary of High Water Marks. Only the elevations of the most reliable marks are presented in Table 1, however, this report contains photographs, descriptions, and location maps for all of the high water marks which were recovered (Appendix). Those marks not considered reliable estimates of the stillwater level are still an important historical reference of flooding caused by the Halloween event. The elevations and locations of the more reliable high water marks are plotted on the Tidal Flood Profiles - New England Coastline, September 1988 for illustrative purposes only.

Location maps for both the Halloween Storm of 1991 and the Blizzard of 1978 were developed from the United States Geological Survey 7.5 Minute Series Quadrangles. The October 1991 high water marks are represented by squares, and the Blizzard of 1978 marks by circles. The intent of these maps is to use them on a recurring basis for obtaining high water marks from future storm events which can be easily referenced to the 1978 and 1991 marks.

2. Authority

The identification and marking of High Water Marks was coordinated through New England Division's Emergency Operations Branch and accomplished under the Flood Control and Coastal Emergency Act (PL 84-99). The survey effort and the preparation of this report has been

conducted under the Corps of Engineers' Flood Plain Management Services (FPMS) program. The FPMS program is authorized under Section 206 of the Flood Control Act of 1960 (PL 86-645).

3. Data Collection

On November 2-6, 1991, the New England Division mobilized seven 2-person teams to mark and record the locations of identifiable stillwater elevations. Where possible, elevations were identified by debris lines that remained on inland areas or inside structures to avoid areas subjected to wave action. Local residents and public officials were often consulted at many locations for additional assistance in distinguishing high water marks.

Locations were marked with paint, stakes, tape and nails with pertinent information recorded on NED Standard Forms for High Water Mark Data collection. Photographs and sketches of the site were used to aid survey personnel in relocating the marks to determine the elevations. New England Division survey teams were deployed in December, 1991 to measure the high water mark elevations relative to the level of the ocean surface at the time of survey. The survey data was then adjusted using the predicted and actual tide elevations for the date of survey. This allowed the high water mark elevations to be converted to the National Geodetic Vertical Datum (NGVD). The datum used for Nantucket was Mean Lower Low Water (MLLW). A sample calculation of this method follows Table 1.

The final elevations of the high water marks determined as a result of the survey are meant only as a general guide as to the severity of flooding at a particular location. There is a wide range of values associated with the data points representing the highwater mark elevations on the Tidal Flood Profiles. Numerous errors can be introduced when determining the high water mark elevations as a result of coastal storm events. Human error in locating the approximate level of stillwater in areas subjected to wave action is a predominant source of error. The location and elevation of high water marks is in many cases a subjective matter. Another possible source of error is the methodology used in determining the highwater mark elevations. The elevations were based on the approximate stillwater level of the ocean on the particular day the survey was accomplished, but this can be affected by wave action and weather conditions which may lead to errors.

4. Summary

The elevations of high water marks presented in this report were derived from actual observed tide elevations for the appropriate National Oceanic and Atmospheric Administration (NOAA) Station at the time and day of the survey. These marks are best used to indicate high water elevations over a region rather than at a specific site. The elevation of individual marks may not be accurate representations at a particular site. Trends in stillwater levels occurring in a particular region may exist when these marks are evaluated as a group rather than

individually. Only those marks obtained from other storm events taken at locations in the proximity of the Halloween 1991 high water marks can be reasonably compared on an individual basis. The maps contained in this report show the locations of both the Halloween Storm of 1991 and Blizzard of 1978 high water marks. A complete description of the high water mark locations from the Blizzard of 1978 is contained in "Coastal Flood of February 7, 1978 In Maine, Massachusetts, and New Hampshire" prepared by the U.S. Geological Survey.

The raw data of high water marks was reviewed for accuracy based on the observations of personnel in the field. Therefore, only those elevations found to be reasonably accurate are displayed in Table 1 and on the Tidal Flood Profiles - New England Coastline, September 1988. All elevations are displayed in NGVD except for Nantucket which is referenced to MLLW. However, all of the high water mark descriptions and locations were retained in this report for future historical reference. All of the high water marks provide a database of information for referencing the effects of future storm events.

5. Acknowledgments

This report was developed and prepared by John Kedzierski, P.E., with assistance provided by Michael Tarnowski, Duban Montoya, and Christine Davey. The high water mark data collection was conducted through the Operations Directorate, Emergency Operations Branch. Field surveying was completed by Carl Beattie, Joseph Cavanaugh, Fred Perry, and Scott Whitcomb. The report was prepared under the supervision and management of the following New England Division personnel:

Colonel Brink P. Miller, Division Engineer
Joseph L. Ignazio, Director of Planning
John C. Craig, Chief, Basin Management Division
John R. Kennelly, Chief, Long Range Planning Branch

The high water mark location and elevation data was collected by the following New England Division personnel: Scott Acone, Mark Deschenes, Greg Hanlon, Christopher Hatfield, Victor Hom, David Larsen, Wendell Mah, Robert Martin, Duban Montoya, Robert Russo, Karen Schofield, and John Yen.

TABLE 1 - SUMMARY OF HIGH WATER MARKS

SITE NO.	STATE/ TOWN	HIGH WATER MARKS ELEVATION (NGVD)
	MAINE	
E1	ELIOT	8.1
K1	KITTERY	----
K2	KITTERY	9.1
K3	KITTERY	9.2
K4	KITTERY	----
K5	KITTERY	9.4
S1	SEABURY	----
Y1	YORK HARBOR	----
Y2	YORK HARBOR	----
CN1	CAPE NEDDICK	----
CN2	CAPE NEDDICK	10.8
CN3	CAPE NEDDICK	----
O1	OGUNQUIT	----
W1	WELLS	----
W2	WELLS	----
W3	WELLS	9.2
W4	WELLS	----
W5	WELLS	----
W6	WELLS	----
KB1	KENNEBUNK	11.3
KB2	KENNEBUNK	----
KB3	KENNEBUNK	10.8
KP1	KENNEBUNKPORT	----
KP2	KENNEBUNKPORT	9.5
KP3	KENNEBUNKPORT	9.8
KP4	KENNEBUNKPORT	11.9
KP5	KENNEBUNKPORT	10.2
KP6	KENNEBUNKPORT	7.9
KP7	KENNEBUNKPORT	11.0
	NEW HAMPSHIRE	
SB1	SEABROOK	----
SB2	SEABROOK	10.2

TABLE 1 - continued

SITE NO.	STATE/ TOWN	HIGH WATER MARKS ELEVATION (NGVD)
	MASSACHUSETTS	
S1	SALISBURY	8.7
S2	SALISBURY	9.9
S3	SALISBURY	6.8
N1	NEWBURYPORT	10.4
N2	NEWBURYPORT	10.8
N3	NEWBURYPORT	----
N4	NEWBURYPORT	8.1
N5	NEWBURYPORT	----
N6	NEWBURYPORT	9.4
N7	NEWBURYPORT	----
N8	NEWBURYPORT	8.3
N9	NEWBURY	9.5
N10	NEWBURY	----
RY1	ROWLEY	----
RY2	ROWLEY	9.9
I1	IPSWICH	----
I2	IPSWICH	11.3
I3	IPSWICH	9.9
I4	IPSWICH	----
I5	IPSWICH	10.4
I6	IPSWICH	11.1
E1	ESSEX	11.4
E2	ESSEX	11.7
E3	ESSEX	9.6
G1	GLOUCESTER	----
G2	GLOUCESTER	11.4
G3	GLOUCESTER	11.2
G4	GLOUCESTER	10.9
G5	GLOUCESTER	10.6
G6	GLOUCESTER	----
G7	GLOUCESTER	11.7
G8	GLOUCESTER	9.9
G9	GLOUCESTER	----
G10	GLOUCESTER	8.6
G11	GLOUCESTER	7.2
R1	ROCKPORT	10.5
R2	ROCKPORT	9.9
R3	ROCKPORT	9.0
MN1	MANCHESTER	----
MN2	MANCHESTER	----
MN3	MANCHESTER	10.2
MN4	MANCHESTER	----
BV1	BEVERLY	----
BV2	BEVERLY	----
DN1	DANVERS	8.5
DN2	DANVERS	8.6
SL1	SALEM	8.8

TABLE 1 - continued

SITE NO.	STATE/ TOWN	HIGH WATER MARKS ELEVATION (NGVD)
	MASSACHUSETTS	
SL2	SALEM	11.2
SL3	SALEM	11.2
MB1	MARBLEHEAD	12.7
MB2	MARBLEHEAD	----
MB3	MARBLEHEAD	11.4
SW1	SWAMPSCOTT	11.1
SW2	SWAMPSCOTT	10.8
SW3	SWAMPSCOTT	----
SW4	SWAMPSCOTT	11.8
SW5	SWAMPSCOTT	12.9
L1	LYNN	8.9
L2	LYNN	9.0
L3	LYNN	----
L4	LYNN	----
L5	LYNN	----
L6	LYNN	----
L7	LYNN	8.4
L8	LYNN	8.4
L9	LYNN	----
NH1	NAHANT	----
SG1	SAUGUS	----
SG2	SAUGUS	----
SG3	SAUGUS	----
RV1	REVERE	10.1
RV2	REVERE	----
RV3	REVERE	9.4
RV4	REVERE	----
RV5	REVERE	10.2
RV6	REVERE	----
RV7	REVERE	----
RV8	REVERE	9.2
RV9	REVERE	8.4
RV10	REVERE	8.4
RV11	REVERE	8.3
RV12	REVERE	----
RV13	REVERE	9.6
RV14	REVERE	7.8
RV15	REVERE	7.4
RV16	REVERE	8.3
RV17	REVERE	----
RV18	REVERE	----
RV19	REVERE	----
RV20	REVERE	----
RV21	REVERE	----
W1	WINTHROP	----
W2	WINTHROP	10.1

TABLE 1 - continued

SITE NO.	STATE/ TOWN	HIGH WATER MARKS ELEVATION (NGVD)
	MASSACHUSETTS	
H1	HULL	12.9
H2	HULL	----
H3	HULL	----
H4	HULL	10.4
H5	HULL	----
C1	COHASSET	----
C2	COHASSET	----
C3	COHASSET	9.5
S1	SCITUATE	9.6
S2	SCITUATE	11.9
S3	SCITUATE	14.4
S4	SCITUATE	----
S5	SCITUATE	13.3
S6	SCITUATE	----
S7	SCITUATE	----
S8	SCITUATE	----
M1	MARSHFIELD	12.6
M2	MARSHFIELD	----
M3	MARSHFIELD	----
M4	MARSHFIELD	----
D1	DUXBURY	----
D2	DUXBURY	12.7
D3	DUXBURY	11.4
D4	DUXBURY	11.1
D5	DUXBURY	----
K1	KINGSTON	----
P1	PLYMOUTH	----
P2	PLYMOUTH	11.8
P3	PLYMOUTH	11.9
P4	PLYMOUTH	----
P5	PLYMOUTH	----
P6	PLYMOUTH	12.8
P7	PLYMOUTH	----
P8	PLYMOUTH	----
P9	PLYMOUTH	----
SA1	SANDWICH	11.4
CH1	CHATHAM	----
CH2	CHATHAM	4.1
CH3	CHATHAM	3.0
CH4	CHATHAM	7.5
CH5	CHATHAM	----
OR1	ORLEANS	12.4
OR2	ORLEANS	----
OR3	ORLEANS	----
OR4	ORLEANS	9.5
E1	EASTHAM	10.6

TABLE 1 - continued

SITE NO.	STATE/ TOWN	HIGH WATER MARKS ELEVATION (NGVD)
	MASSACHUSETTS	
E2	EASTHAM	----
E3	EASTHAM	10.8
T1	TRURO	7.6
PR1	PROVINCETOWN	12.8

TABLE 1 - continued

SITE NO.	STATE/ TOWN	HIGH WATER MARKS ELEVATION (MLLW)
	MASSACHUSETTS	
1	MADAKET, NANT.	7.1
2	MADAKET, NANT.	8.3
3	MADAKET, NANT.	----
4	NANTUCKET	9.5
5	NANTUCKET	8.6
6	NANTUCKET	8.5
7	NANTUCKET	8.4
8	NANTUCKET	8.2
9	NANTUCKET	7.9
10	NANTUCKET	----
11	NANTUCKET	8.3
12	NANTUCKET	8.4
13	NANTUCKET	----
14	NANTUCKET	7.9
15	NANTUCKET	9.8
16	NANTUCKET	9.3
17	WAUWINET, NANT.	7.3
18	SHAWKEMO, NANT.	8.3
19	SQUAM, NANT.	----
20	QUIDNET, NANT.	----
21	SIASCONSET, NA.	----

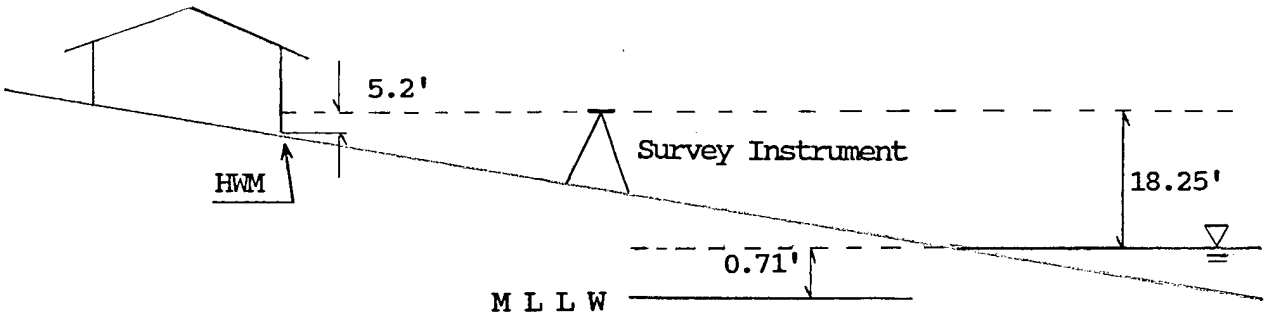
Note: Those points whose elevations have not been recorded were not accurate representations of the stillwater elevation at that location.

EXAMPLE DETERMINATION OF HIGH WATER MARK ELEVATION

For Site L1, Lynn, Massachusetts:

Step 1. After the high water level had been marked, a survey crew determined the elevation of the mark relative to the ocean surface for the date and time of their survey: Survey Date 12/2/91; Survey Time 3:32 PM (1532)

The survey recorded the water surface measured 18.25 feet and the high water mark 5.2 feet relative to the survey instrument. See Figure 1.



F I G U R E 1

Step 2. High and Low tide times and elevations were obtained from National Oceanic and Atmospheric Administration, National Ocean Service (NOAA/NOS) tide gage stations at Portland, Boston, and Nantucket. The high and low tide times and elevations were then determined for the Sub-Station nearest the high water mark using appropriate difference factors contained in "Tide Tables 1992 - East Coast of North and South America, Including Greenland, (NOAA)". The tide characteristics at the high water mark locations were assumed to be the same as at the nearest Sub-Station.

Tidal difference factors for Lynn Harbor are:

Time (min)		Height (ft)	
High Water	Low Water	High Water	Low Water
+10	+06	*0.96	*.096

Step 3. Apply the difference factors to the Boston tide data to estimate tidal information for Lynn on December 2, 1991:

High		Low	
Time (min)	Height (ft)	Time (min)	Height (ft)
1228	9.187	858	-0.182

Step 4. Determine the linear time fraction of the tidal cycle to the time of survey:

The time of survey is 1532 (932 minutes). The time of survey must fall between the time of high and low tides.

High Tide Time - Low Tide Time = 1228 - 858 = 370
(Survey Time - Low Tide Time)/ 370 = .200

Time Fraction = .200

Step 5. Determine the fractional change in tide height at the time of survey. Assume that variations in tide heights between low and high tides follows a sinusoidal relationship:

Use [1 - COS(PI x Time Fraction)] x 0.5
Note: The Linear Time Fraction should be in radians.

[1 - COS(PI x .200 radians)] x 0.5 = 0.096

Height Fraction = 0.096

Step 6. Determine the height of water at time of survey relative to MLLW.

Ht. = Low Tide + [Sinusoidal Height Fraction x (HT - LT heights)]

-.1824 + [0.096 x (9.187 -(-.1824))] = .71 Height of water surface (MLLW)

Step 7. Convert high water mark elevation to NGVD:
Refer to Figure 1.

Height of water mark (MLLW) at time of survey:
.71 + 18.25 - 5.20 = 13.76 MLLW

Convert to NGVD:
13.76 MLLW - 0.34 (MLLW to MLW) - 4.5 (MLW to NGVD) = 8.92 NGVD

Note: MLLW: Mean Lower Low Water
MLW: Mean Low Water
NGVD: National Geodetic Vertical Datum

HIGH WATER MARK

LOCATION MAPS

The following maps show the location of High Water Marks obtained from the Blizzard of 1978 and the Halloween Storm of 1991. The locations are represented on USGS 7.5 Minute Series (Topographic) Quadrangles, produced by the U.S. Department of Interior, Geological Survey.



- Blizzard of 1978

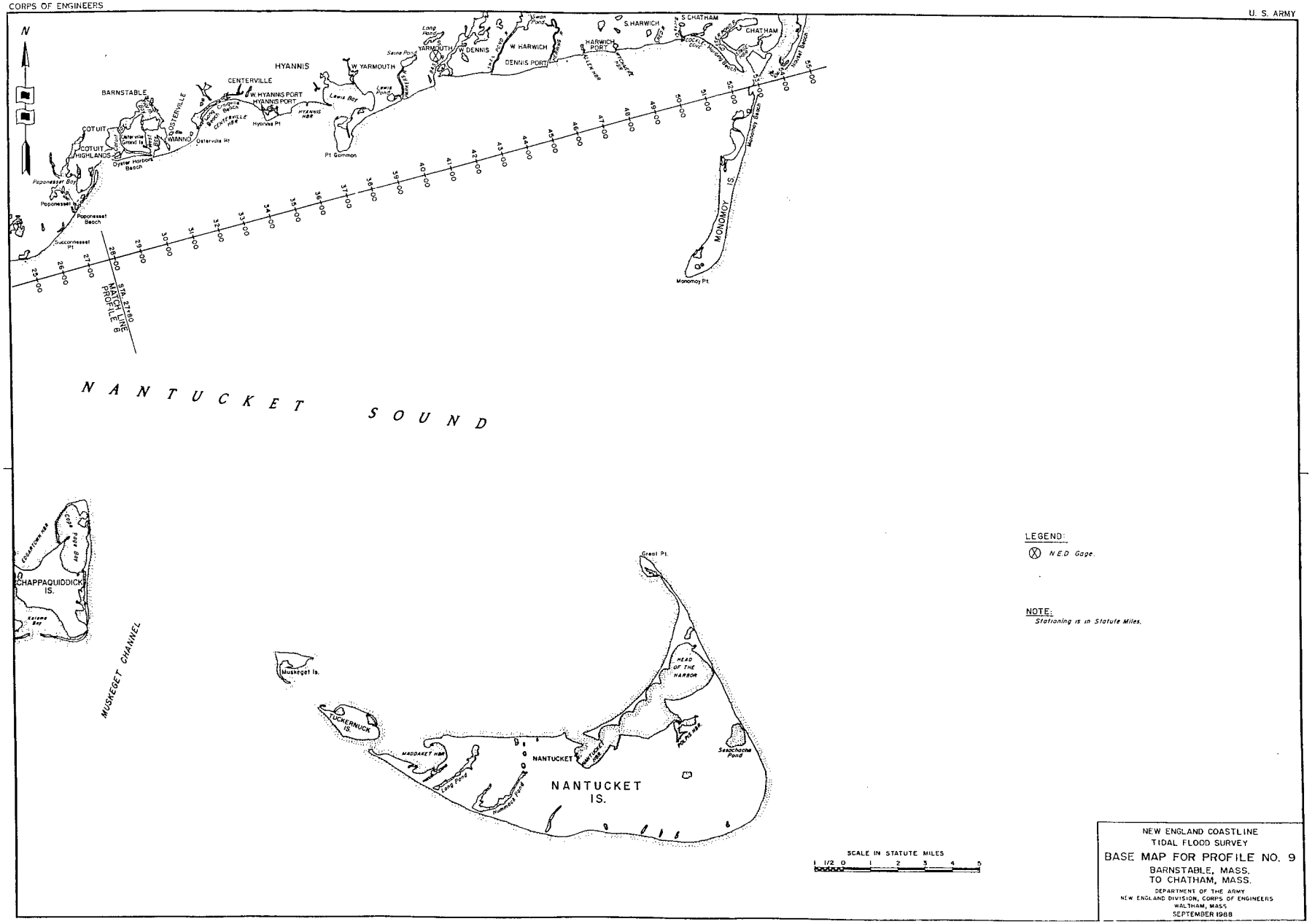
- Halloween Storm of 1991

The elevations and a detailed description of the High Water Marks from the Blizzard of 1978 are contained in the following publication on file at the U.S. Army Corps of Engineers, New England Division, Waltham, Massachusetts:

Coastal Flood of February 7, 1978 In Maine, Massachusetts, and New Hampshire - U.S. Geological Survey, Water Resources Investigation 79-61

CORPS OF ENGINEERS

U. S. ARMY



LEGEND:

⊗ N.E.D. Gage.

NOTE:

Stationing is in Statute Miles.

SCALE IN STATUTE MILES

1 1/2 0 1 2 3 4 5

NEW ENGLAND COASTLINE
TIDAL FLOOD SURVEY

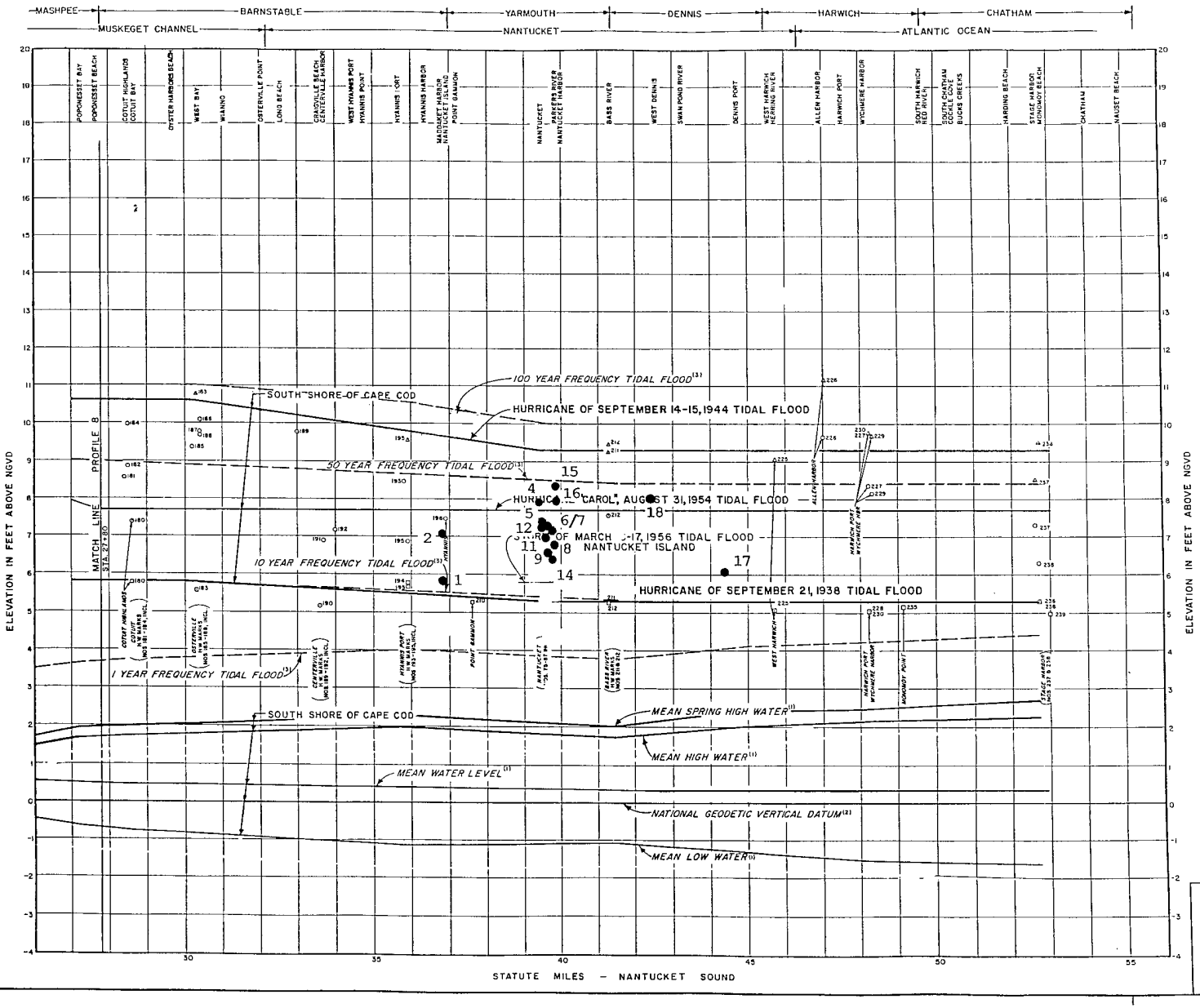
BASE MAP FOR PROFILE NO. 9

BARNSTABLE, MASS.
TO CHATHAM, MASS.

DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS
SEPTEMBER 1968

CORPS OF ENGINEERS

U. S. ARMY



NOTES:

1. VARIES FROM YEAR TO YEAR. VALUE GIVEN HERE BASED ON 19-YEAR SERIES OF TIDE OBSERVATIONS ENDING IN 1978, BY THE NATIONAL OCEAN SURVEY (FORMERLY U.S.C.&G.S.).
2. A FIXED REFERENCE ADOPTED AS A STANDARD GEODETIC DATUM FOR ELEVATIONS IN THE UNITED STATES OF AMERICA. FORMERLY REFERRED TO AS MEAN SEA LEVEL (M.S.L.) DATUM, BUT NOT TO BE CONFUSED WITH LOCAL MEAN SEA LEVEL.
3. BASED ON ANNUAL SERIES DATA ADJUSTED TO PRESENT SEA LEVEL CONDITIONS.

LEGEND

- □ SEPTEMBER 21, 1938 HIGH WATER.
- ○ AUGUST 31, 1954 HIGH WATER.
- △ SEPTEMBER 14-15, 1944 HIGH WATER.
- ▽ MARCH 16-17, 1956 HIGH WATER.
- 190 NUMBER IDENTIFIES HIGH WATER MARK.
- ● HIGH WATERMARK - OCTOBER 1991

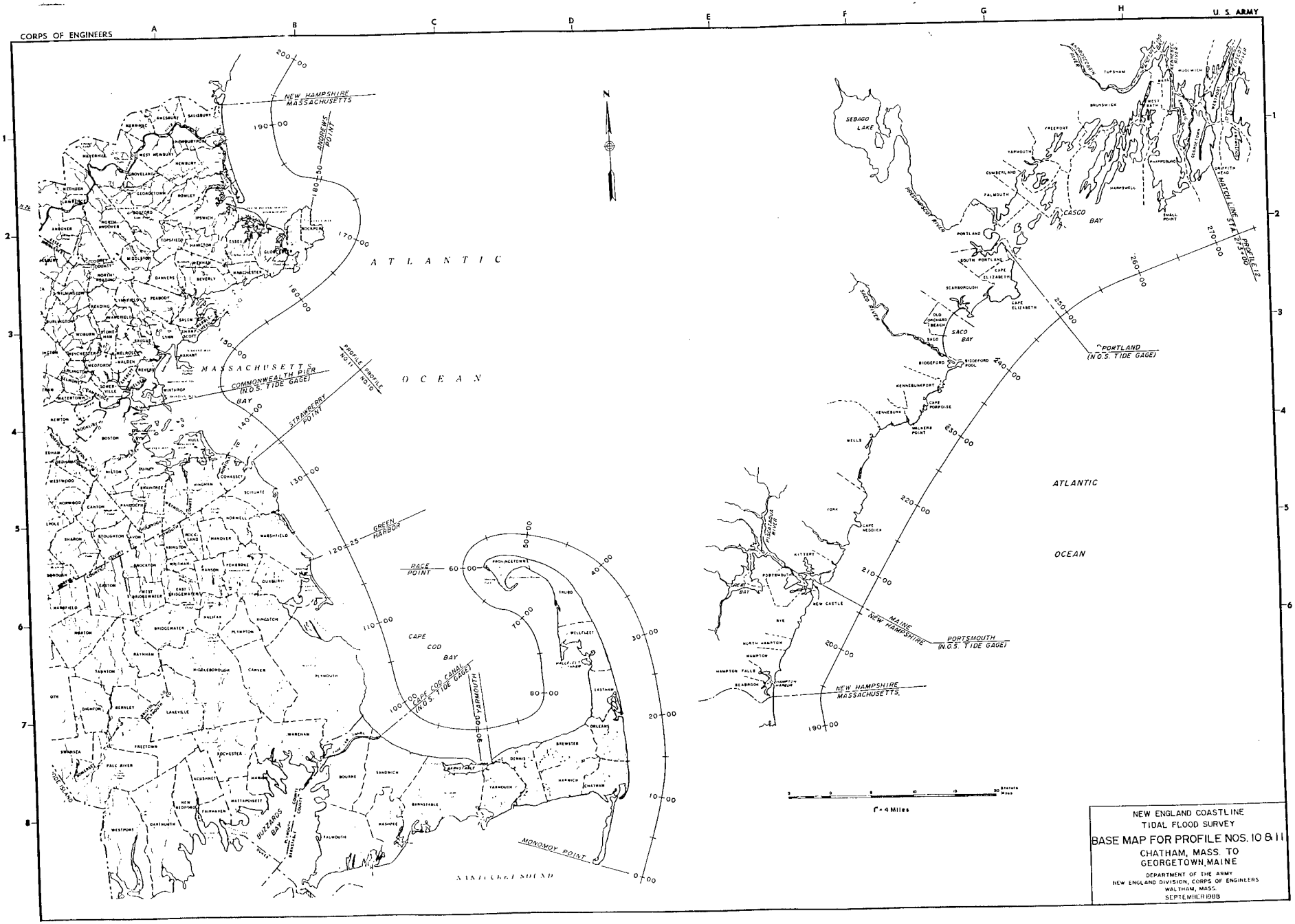
NEW ENGLAND COASTLINE
TIDAL FLOOD SURVEY

TIDAL FLOOD PROFILE NO. 9

BARNSTABLE, MASS.
TO CHATHAM, MASS.

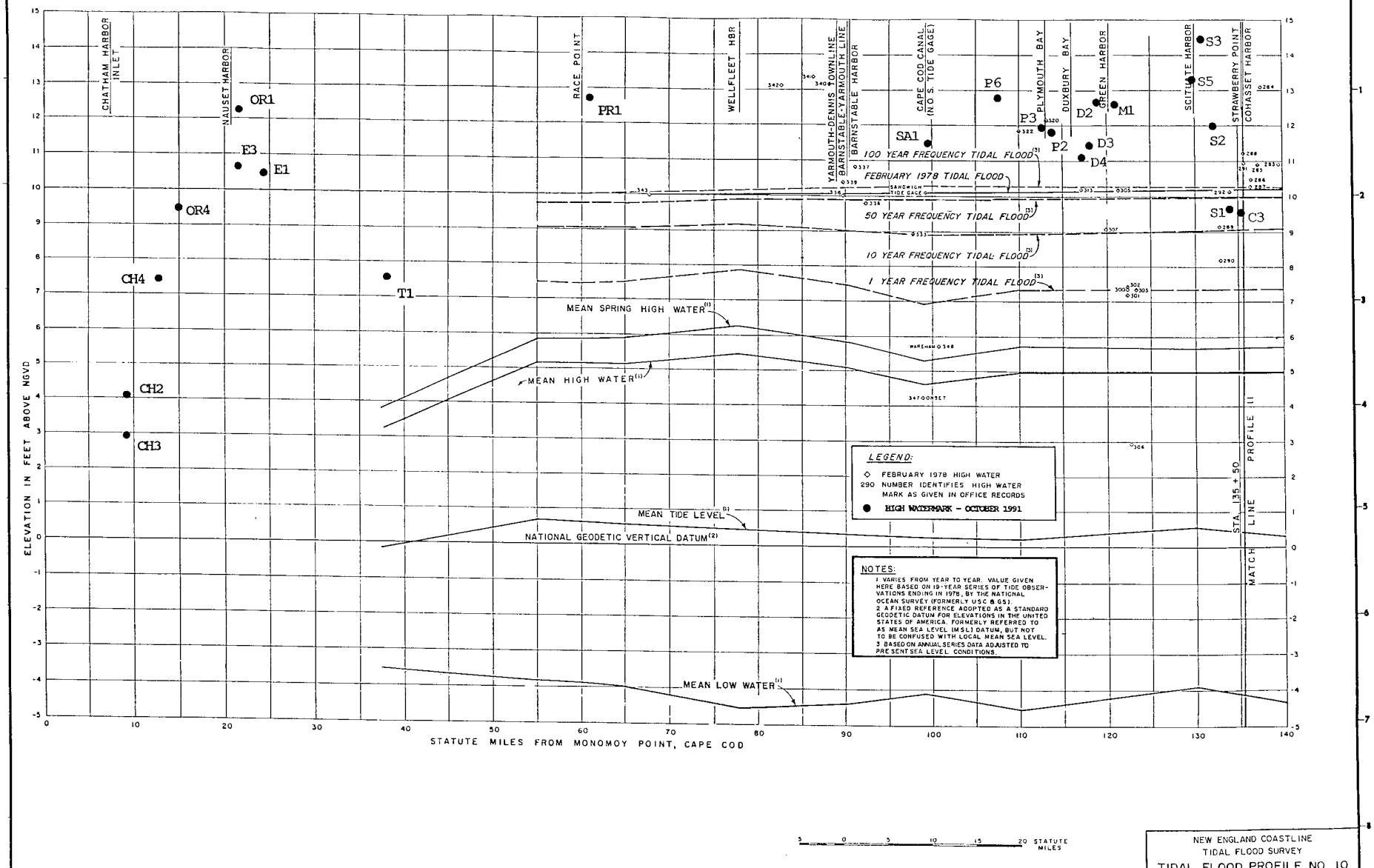
DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS
SEPTEMBER 1992

PLATE 1


CORPS OF ENGINEERS
U. S. ARMY
NEW HAMPSHIRE
MASSACHUSETTS
ANDREWS POINT
ATLANTIC
OCEAN
MASSACHUSETTS
COMMONWEALTH PIER
(N.O.S. TIDE GAGE)
BAY
PROFILE
NO.11
PROFILE
NO.10
STRAWBERRY POINT
GREEN HARBOR
RACE POINT
CAPE COD BAY
CAPE COD CANAL
(N.O.S. TIDE GAGE)
PLYMOUTH
BUZZARDS BAY
MONOMOY POINT
NANTUCKET SOUND
SEBAGO LAKE
CASCO BAY
PORTLAND
(N.O.S. TIDE GAGE)
SACO BAY
ATLANTIC
OCEAN
MAINE
NEW HAMPSHIRE
PORTSMOUTH
(N.O.S. TIDE GAGE)
NEW HAMPSHIRE
MASSACHUSETTS
MATCH LINE STA 271+00
PROFILE 12
1"=4 Miles
NEW ENGLAND COASTLINE
TIDAL FLOOD SURVEY
BASE MAP FOR PROFILE NOS. 10 & 11
CHATHAM, MASS. TO
GEORGETOWN, MAINE
DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS.
SEPTEMBER 1969

CORPS OF ENGINEERS

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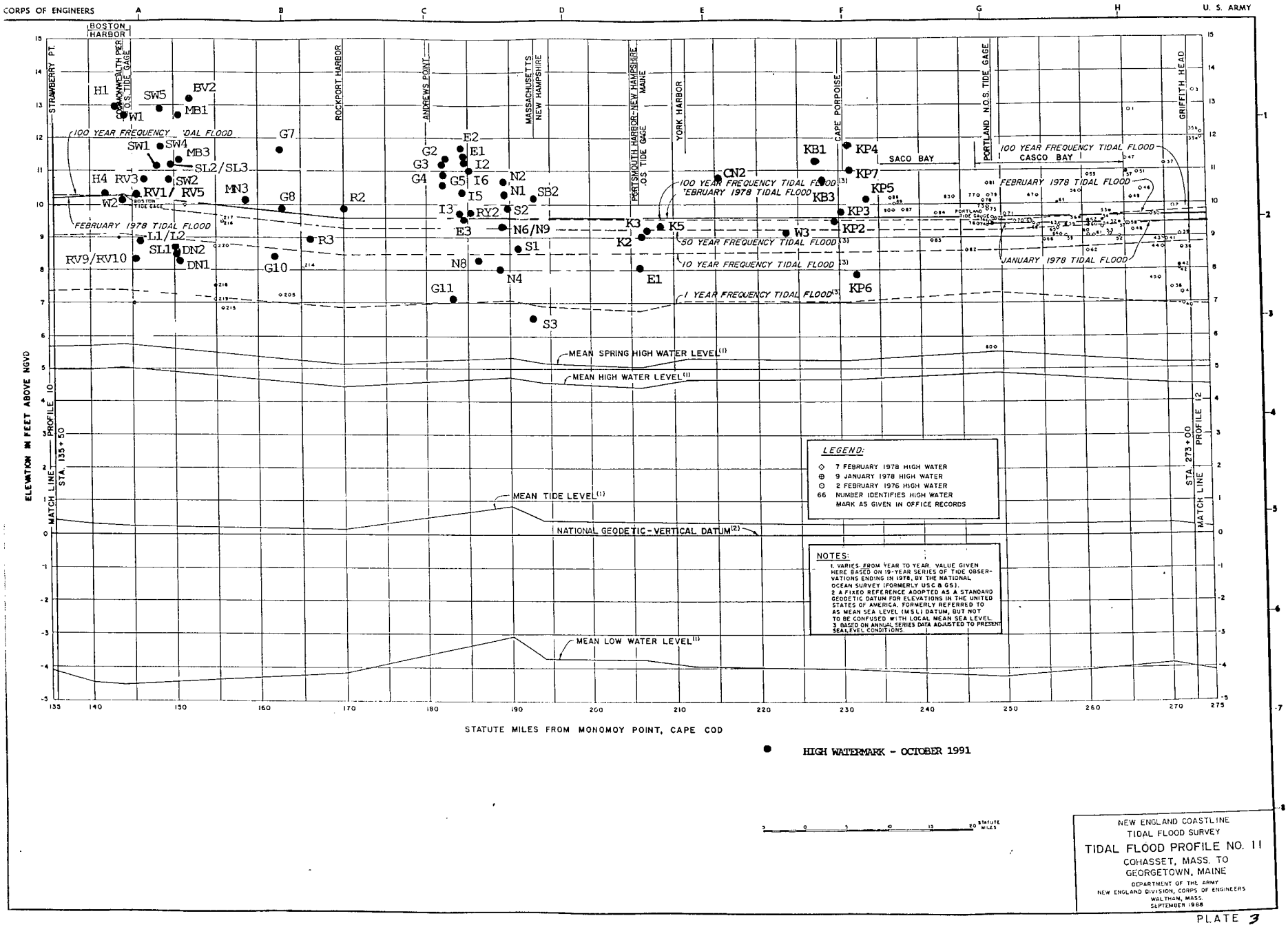
NEW ENGLAND COASTLINE
TIDAL FLOOD SURVEY

TIDAL FLOOD PROFILE NO. 10

CHATHAM, MASS.
TO COHASSET, MASS

DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS.
SEPTEMBER 1988

PLATE 2


CORPS OF ENGINEERS
U. S. ARMY
BOSTON HARBOR
STRAWBERRY PT.
ROCKPORT HARBOR
ANDREWS POINT
MASSACHUSETTS
NEW HAMPSHIRE
PORTSMOUTH HARBOR-NEW HAMPSHIRE
MAINE
YORK HARBOR
CAPE PORPOISE
GRIFFITH HEAD
PORTSMOUTH N.O.S. TIDE GAGE
PORTLAND N.O.S. TIDE GAGE
BOSTON TIDE GAGE
SACO BAY
CASCO BAY
100 YEAR FREQUENCY TIDAL FLOOD
FEBRUARY 1978 TIDAL FLOOD
50 YEAR FREQUENCY TIDAL FLOOD
10 YEAR FREQUENCY TIDAL FLOOD
1 YEAR FREQUENCY TIDAL FLOOD
JANUARY 1978 TIDAL FLOOD
MEAN SPRING HIGH WATER LEVEL(1)
MEAN HIGH WATER LEVEL(1)
MEAN TIDE LEVEL(1)
NATIONAL GEODETIC-VERTICAL DATUM(2)
MEAN LOW WATER LEVEL(1)
MATCH LINE STA. 135+50 PROFILE 10
MATCH LINE STA. 273+00 PROFILE 12
ELEVATION IN FEET ABOVE NGVD
STATUTE MILES FROM MONOMOY POINT, CAPE COD
LEGEND:
◇ 7 FEBRUARY 1978 HIGH WATER
⊕ 9 JANUARY 1978 HIGH WATER
⊙ 2 FEBRUARY 1976 HIGH WATER
66 NUMBER IDENTIFIES HIGH WATER MARK AS GIVEN IN OFFICE RECORDS
NOTES:
1. VARIES FROM YEAR TO YEAR. VALUE GIVEN HERE BASED ON 19-YEAR SERIES OF TIDE OBSERVATIONS ENDING IN 1978, BY THE NATIONAL OCEAN SURVEY (FORMERLY U.S.C.& G.S.).
2. A FIXED REFERENCE ADOPTED AS A STANDARD GEODETIC DATUM FOR ELEVATIONS IN THE UNITED STATES OF AMERICA. FORMERLY REFERRED TO AS MEAN SEA LEVEL (M.S.L.) DATUM, BUT NOT TO BE CONFUSED WITH LOCAL MEAN SEA LEVEL.
3. BASED ON ANNUAL SERIES DATA ADJUSTED TO PRESENT SEA LEVEL CONDITIONS.
● HIGH WATERMARK - OCTOBER 1991
5 0 5 10 15 20 STATUTE MILES
NEW ENGLAND COASTLINE
TIDAL FLOOD SURVEY
TIDAL FLOOD PROFILE NO. 11
COHASSET, MASS. TO
GEORGETOWN, MAINE
DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS.
SEPTEMBER 1988
PLATE 3

APPENDIX

ELLIOT, MAINE

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Piscataqua River		E1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
at Mouth of Spinney Creek	Eliot	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nailed on pile at entrance of boatslips. Physical evidence available from scarring on other piles. Water level not as 1978 nor Hurrican Gloria in 1985.

7 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

Charles Becounski, Great Cove Boat Club Dock Manager, 1 Main St., Eliot, ME
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)

(Date and hour of high watermark)

(Elev. of high watermark) (Datum)

(Benchmark referred to) (Datum)

(Elevation of high watermark above water surface)

(Date & Hour) (Class. of watermark)

(Elevation determined by)

(Date) (Order of levels)

(Nearest dam upstream or downstream)

(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

27 Sept 49 CORPS OF ENGINEERS, U.S. ARMY PAGE

SUBJECT H.W MARKS FOR OCT 91 FLOOD

COMPUTATION ELIOT ME

COMPUTED BY J. HOM & M. DESCHENES CHECKED BY DATE



H.W. 1

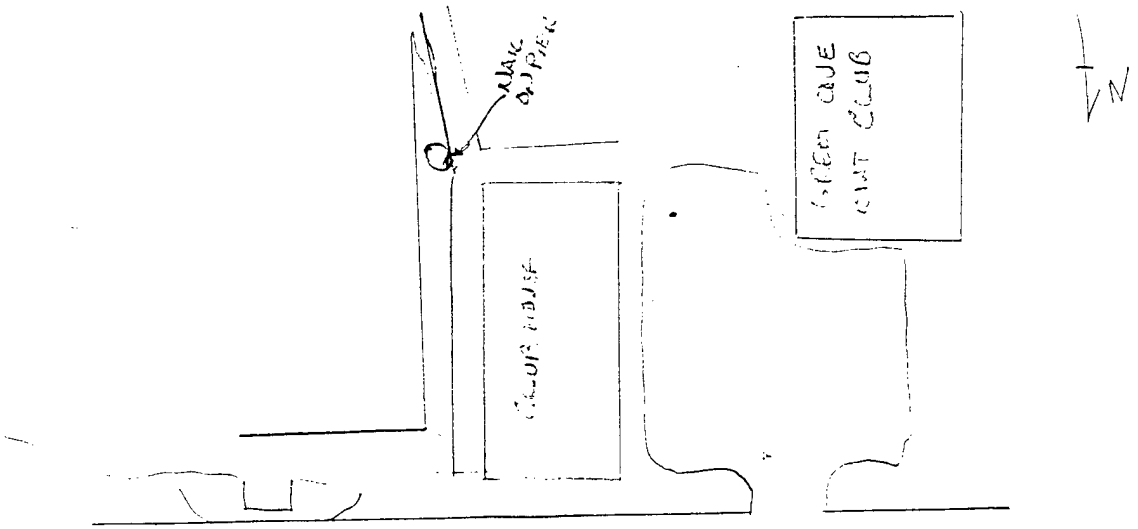
GREAT COVE BOAT CLUB

1 MAIN ST. ELIOT, ME

11/7/91

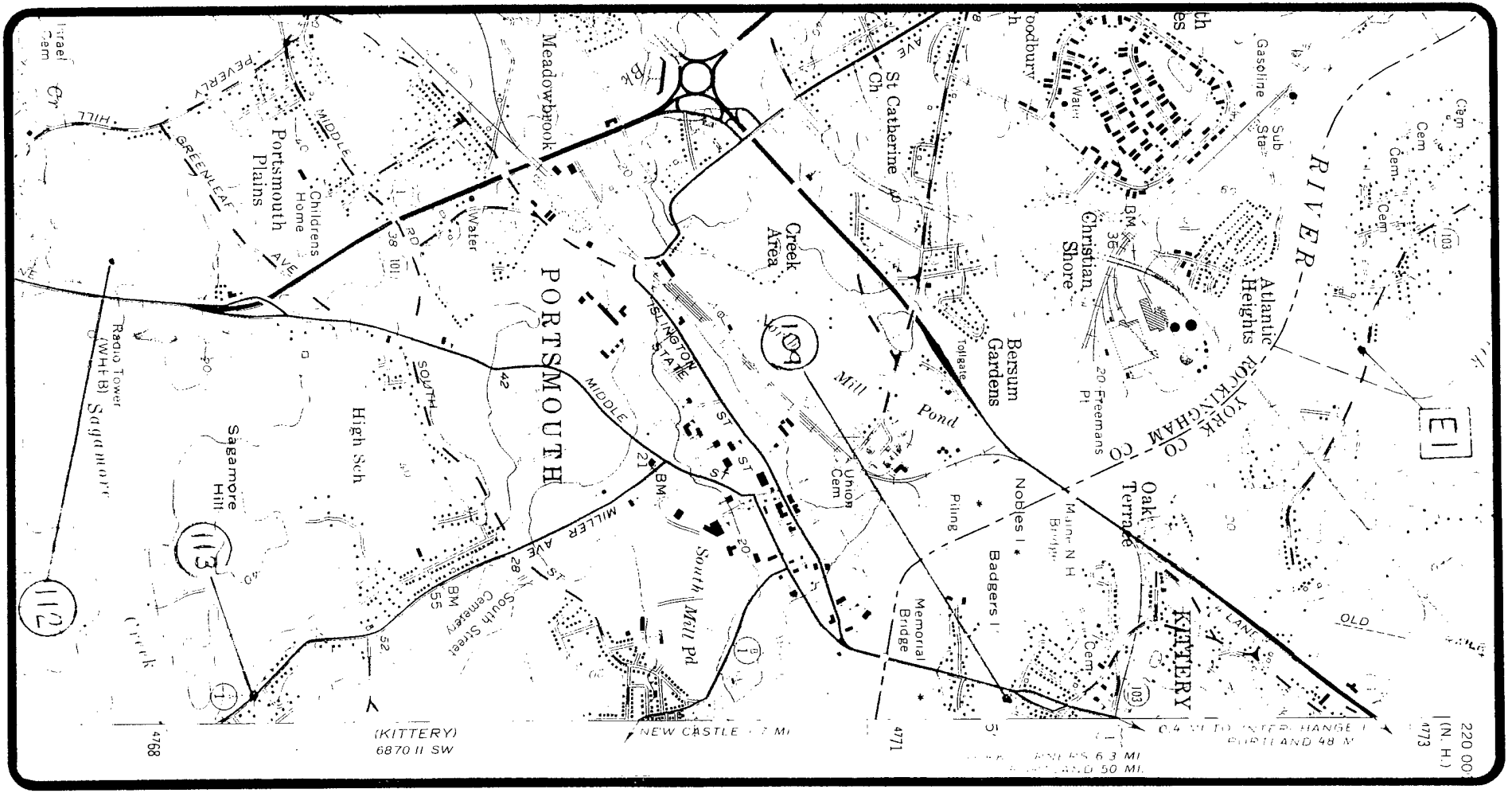
172 + MD

PISCATAQUA RIVER



RTE 103

SPINNEY CREEK



High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Portsmouth, N.H.-M.E.

US Army Corps of Engineers
New England Division

APPENDIX

KITTERY, MAINE

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Piscataqua River		K1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
at Mouth of Spruce Creek	Kittery	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Stake nailed next to tree at front of red house on Rt. 103 heading east (2 Pepperell Street). Highwater is evident as pointed out by observer.

7 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

Jim G. Foley, Foley Boatbuilding, Inc., 5 Seapoint Road
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

27 Sept 49 CORPS OF ENGINEERS, U.S. ARMY PAGE

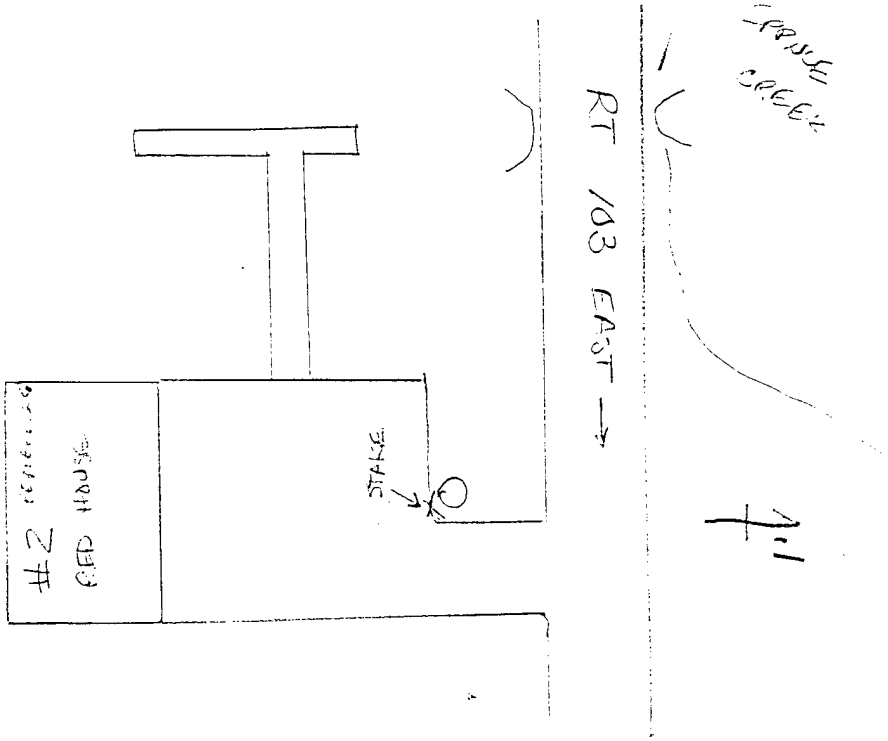
SUBJECT HW MARKS ENG. 27 91 FLOOD

COMPUTATION KITTERY PT, ME

COMPUTED BY W.HAM & P. DESCHENES CHECKED BY DATE



MOUTH OF SPRUCE CREEK WM #2
AND PISCATAQUA NAD
KITTERY PT ME 11/7/91 UH



DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Piscataqua River		K2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
(Frisbee's Wharf)	Kittery	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Debris line in protected cove agrees with mark an observer of fishing boat described. Checked with eye leveller. Confirmed observer's report of water on edge of seawall abutment. Location at Pepperell Yacht Club.

7 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

Frank C. Frisbee, 2 Bellamy Lane, Kittery Point
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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1 APR 78

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SUBJECT HW MARK FOR OCT 91 FLOOD

COMPUTATION FRISBEE'S WHARF KITTERY PT ME

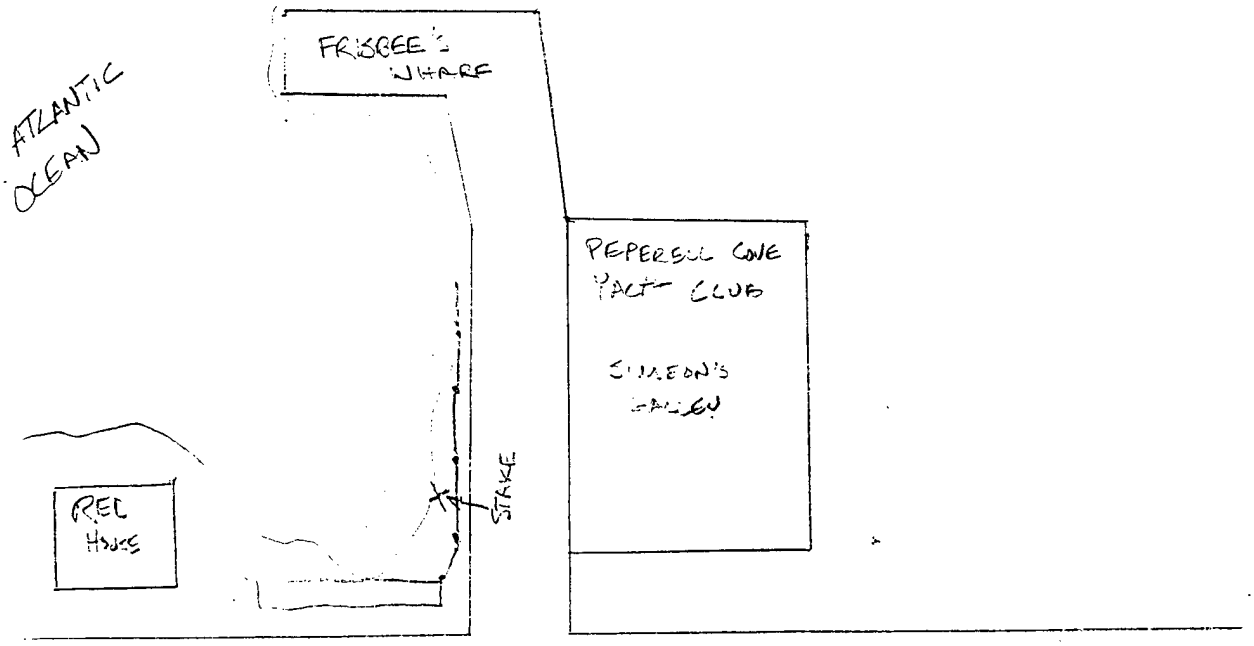
COMPUTED BY M. DESCHENES - V HOM CHECKED BY DATE



FRISBEE WHARF WM 3

HW MARK. KITTERY PT ME MAD VII

11/7/91



RT 103

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Chauncy Creek		K3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Piscataqua River	Kittery	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Debris line near cable conduit on south side of Chauncy Creek along Goodwin Avenue. The mark is located near another stake used as survey point for future Girl Scout quarter.

7 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

See James Barker, Maine Land Surveyor for Benchmark--(207) 846-1432
(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

NED FORM 223
27 Sept 49

NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S ARMY

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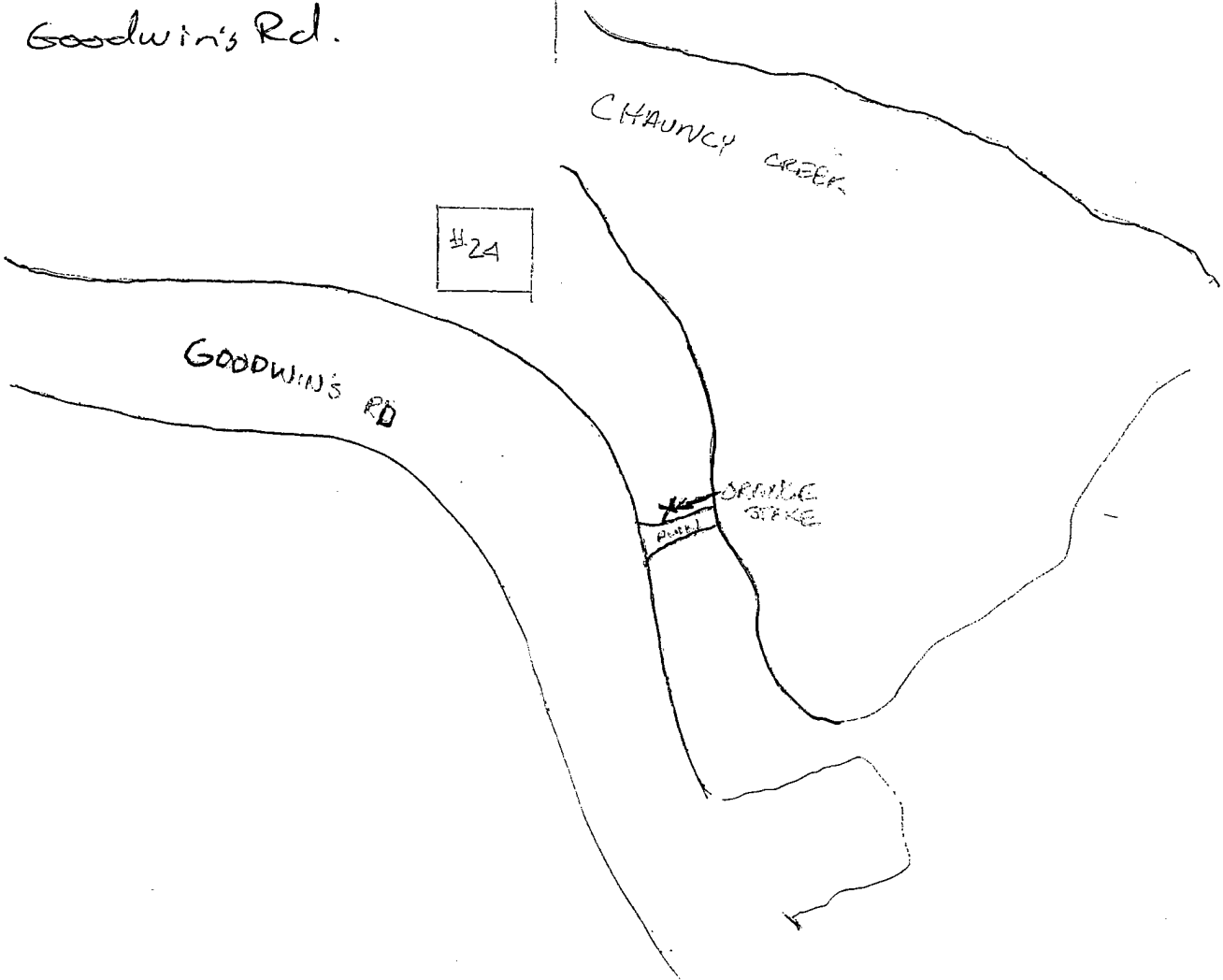
SUBJECT HW MARK FOR OCT 91 FLOOD

COMPUTATION GERRISH ISLAND ME

COMPUTED BY J. HAM & M. DESCHENES CHECKED BY DATE



H.W. K3
Goodwin's Rd.



"Serving the Maine Land Professional"
MAINE
LAND
SURVEYORS, INC.
603B NORTH ELM ST., YARMOUTH, MAINE 04096
(207)-846-1432

JAMES BARKER, RLS
PRESIDENT

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		K4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Kittery	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Suspected wave action pushing tidal surges, thus creating a debris line. Stake marked on east side of Goodwin Road in front of 93 Goodwin Road (tan house).

7 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
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NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY

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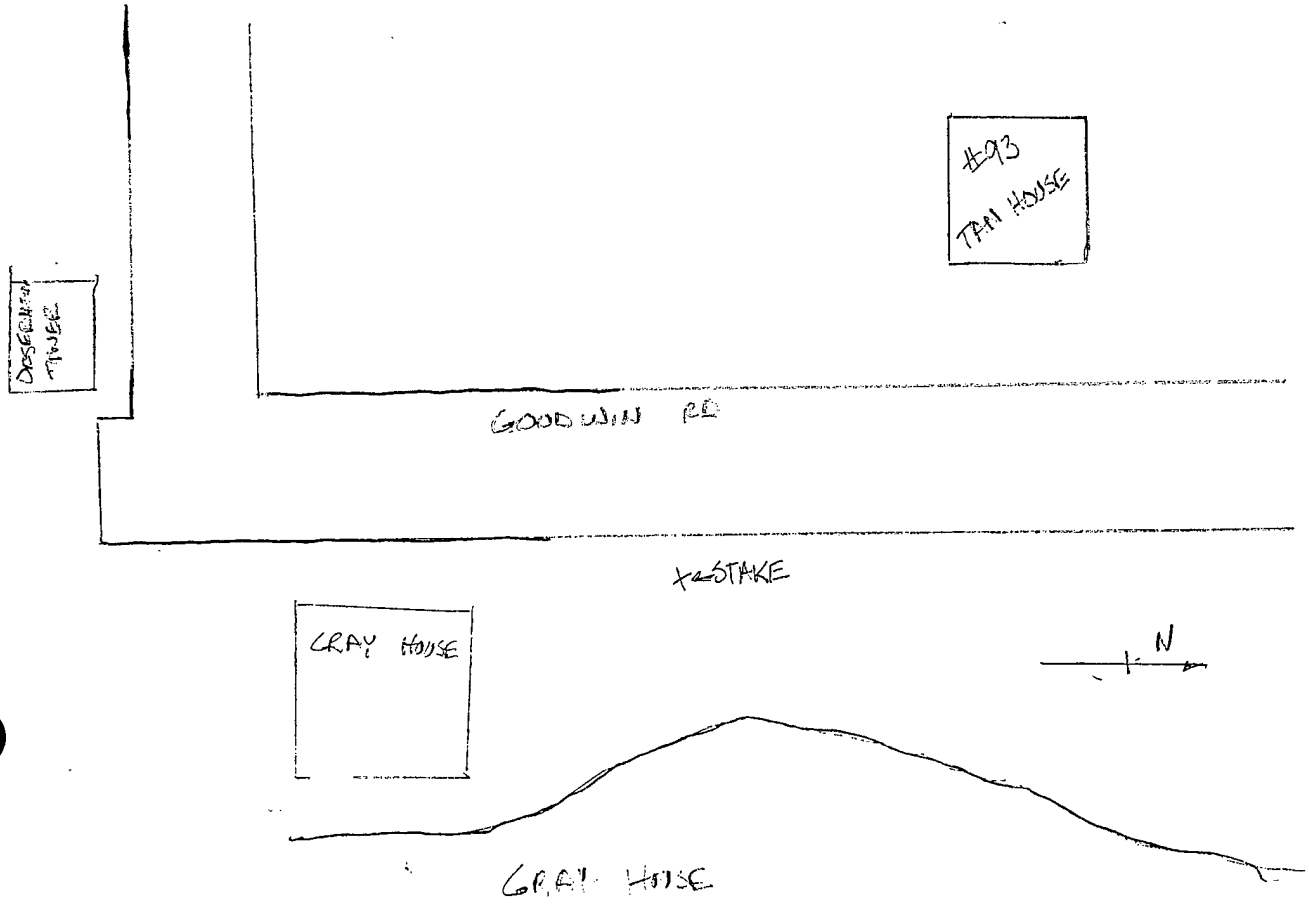
SUBJECT H.W. MARK FOR OCT 91 FLOOD

COMPUTATION GERRISH ISLAND ME

COMPUTED BY J.HOM & M DRENNAN CHECKED BY DATE



K4
#93 Goodwin's Rd.



DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Beave Boat Harbor		K5
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Atlantic Ocean	Kittery/York	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Debris line upstream of bridge, Rt. 103.
Water mark is located across from house at 268 Beave Boat Harbor Road,
Payne property.

7 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
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NED FORM 223
27 Sept 49

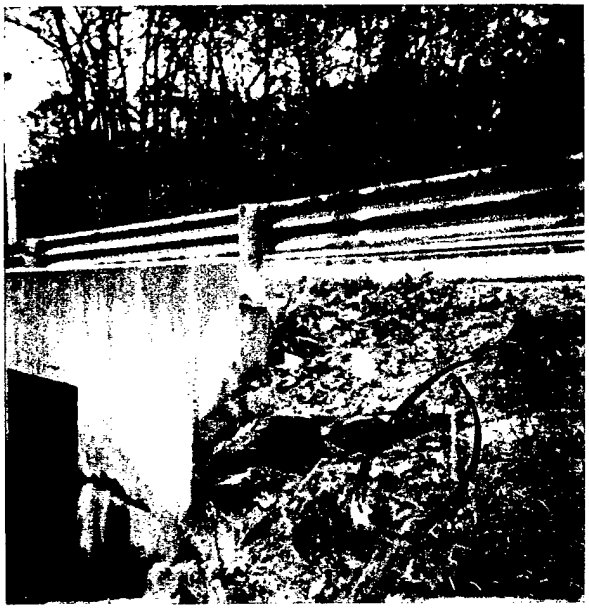
NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY

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SUBJECT H.W MARK FOR OCT 91 FLOOD

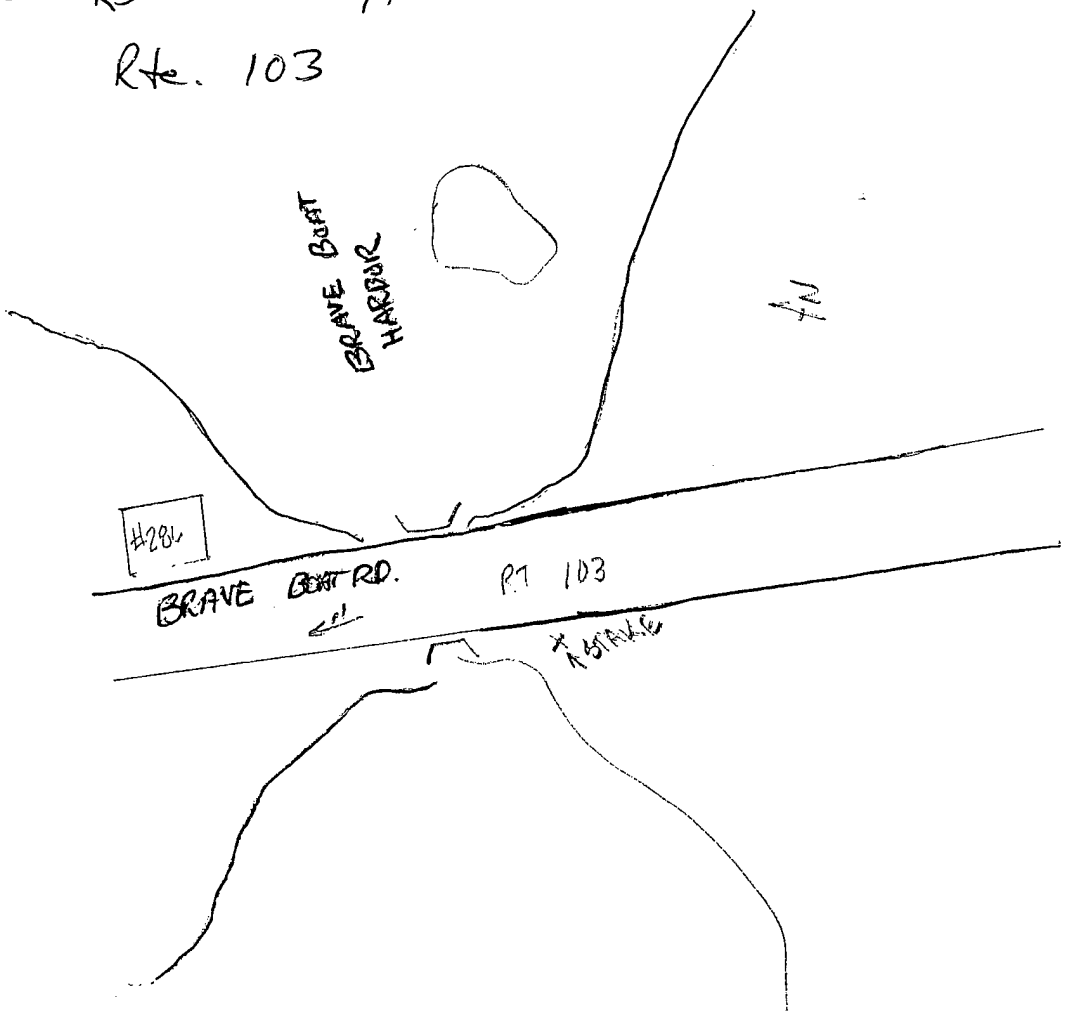
COMPUTATION RT 103 KITTERY ME

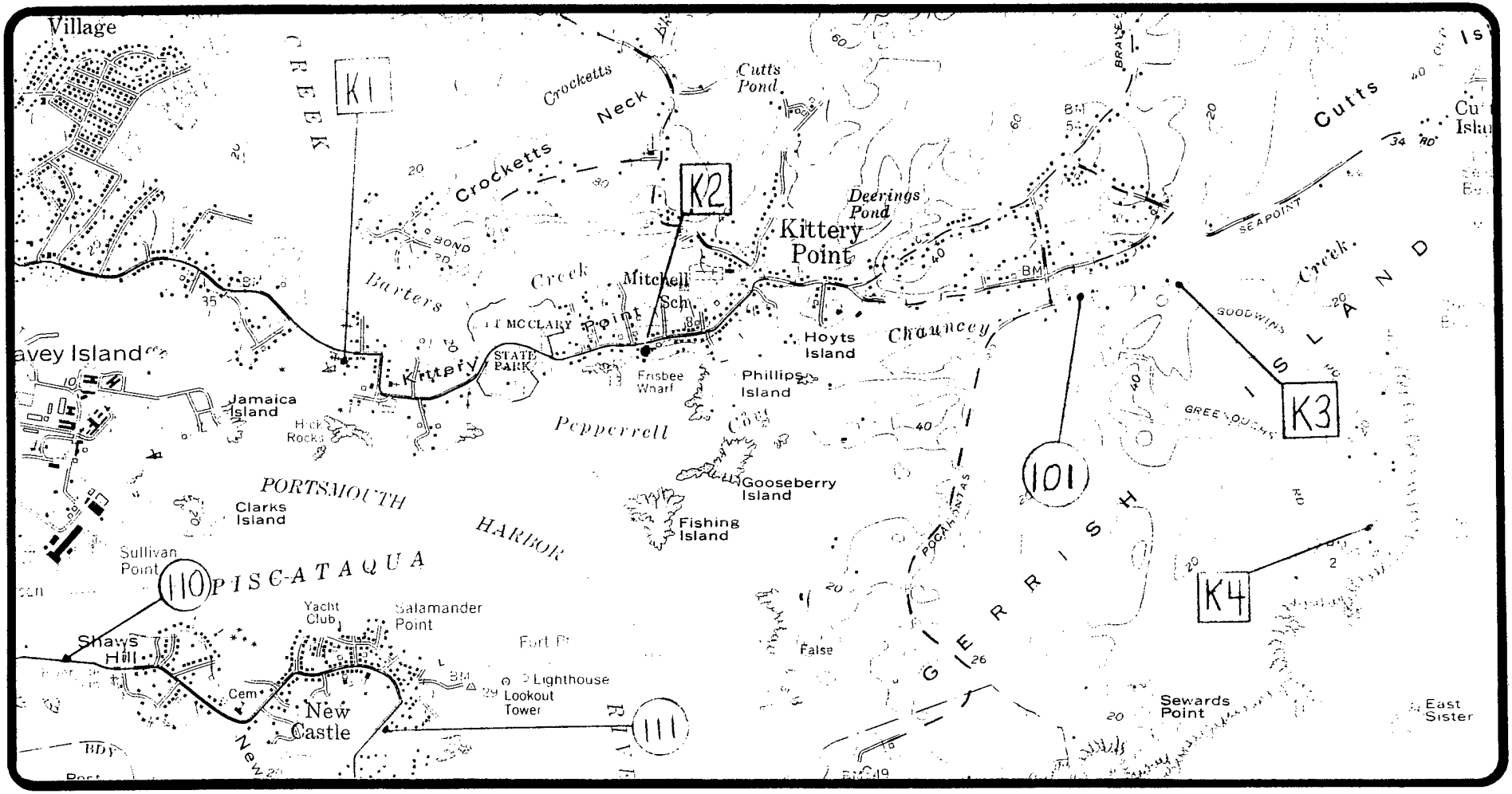
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H.W. K5 Kittery, Me.

Rte. 103

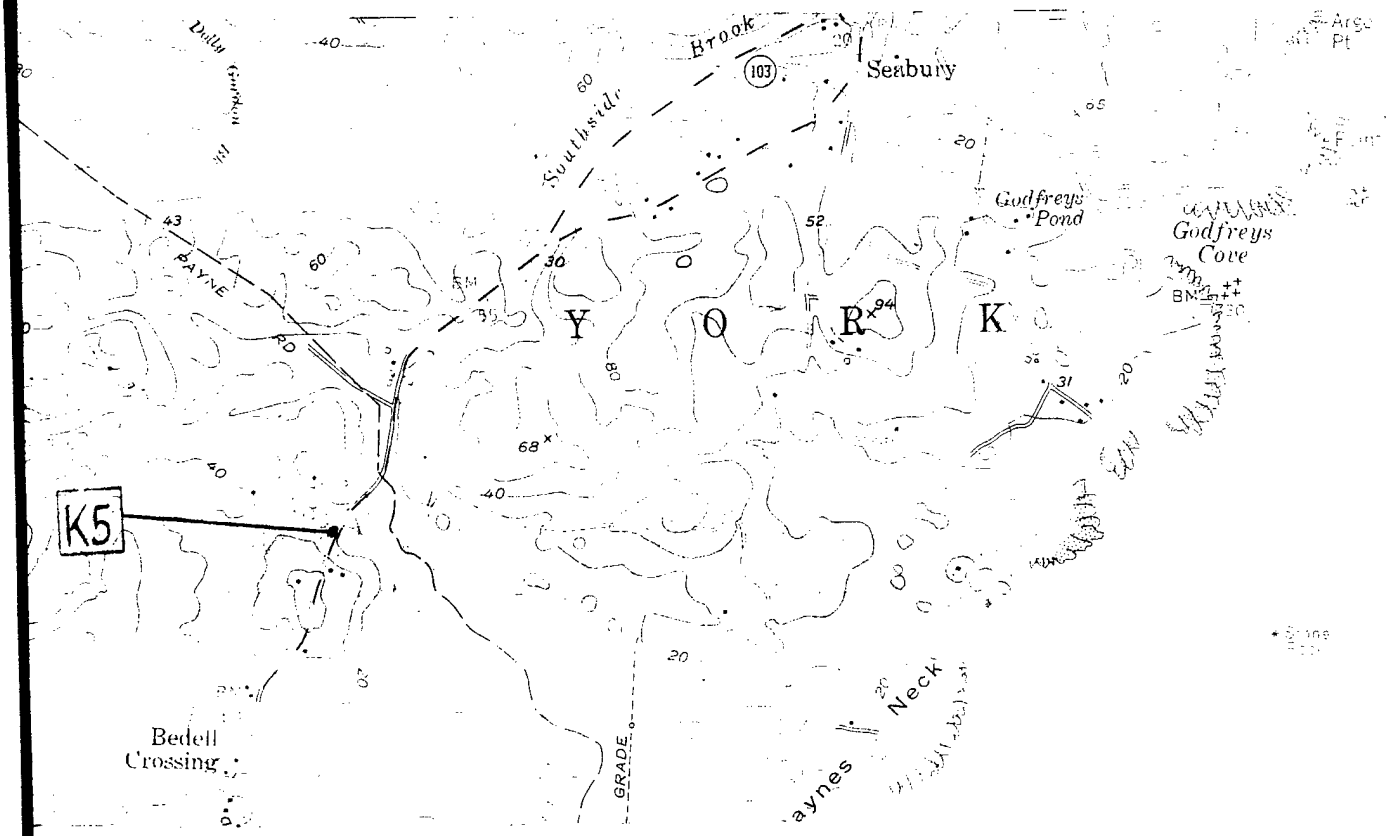




High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Kittery, ME.-N.H.

US Army Corps of Engineers
New England Division



High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Kittery, ME.-N.H.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

APPENDIX

SEABURY AND YORK HARBOR, MAINE

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		S1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Seabury	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Western Point Road, stake at debris line along tidal flats.

7 November 1991 (Date obtained) — Victor Hom and Mark Deschenes (Obtained by)

(Name and address of person pointing out high watermark)

Debris Line (If not pointed out, how obtained?) — (Date and hour of high watermark)

Good

(Elev. of high watermark) (Datum) — (Benchmark referred to) (Datum)

(Elevation of high watermark above water surface) — (Date & Hour) — (Class. of watermark)

(Elevation determined by) — (Date) — (Order of levels)

(Nearest dam upstream or downstream) — (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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27 Sept 49

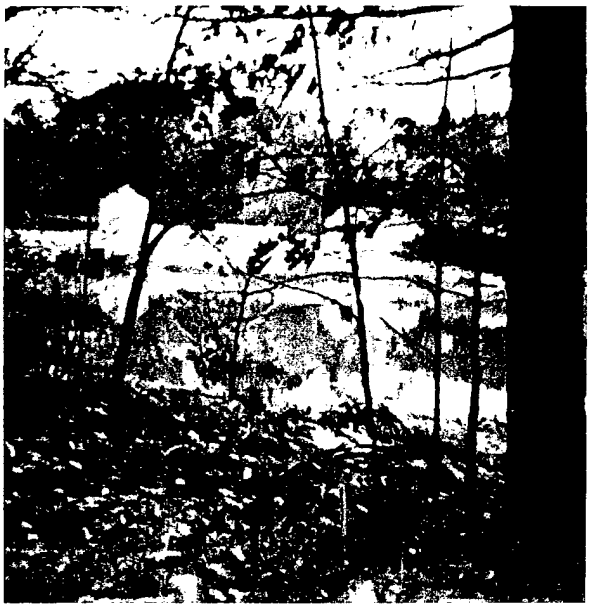
NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY

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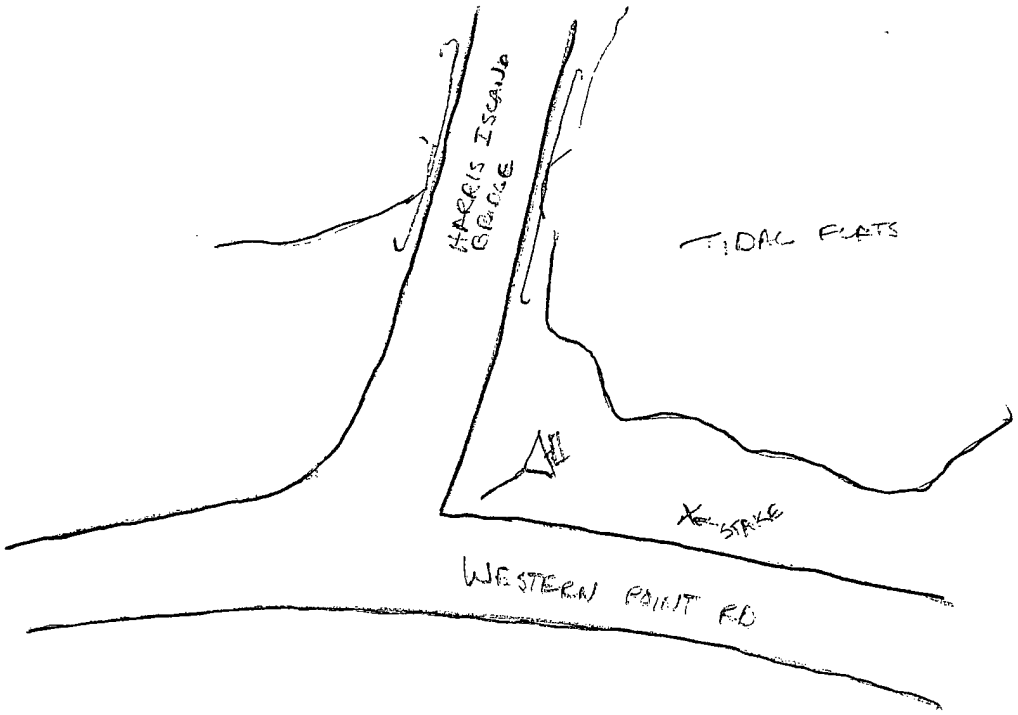
SUBJECT HW MARKS FOR OCT 91 FLOOD

COMPUTATION SELBURY ME

COMPUTED BY V.HOLT & M.DESCHENES CHECKED BY DATE



H.W. 91 Seabury, Me.
Western Point Rd.



DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		Y1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	York Harbor	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Debris line outlining possible high water mark from flow from west side of Stage Neck, Harbor Beach Rd.

7 November 1991	Mark Deschenes and Victor Hom
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
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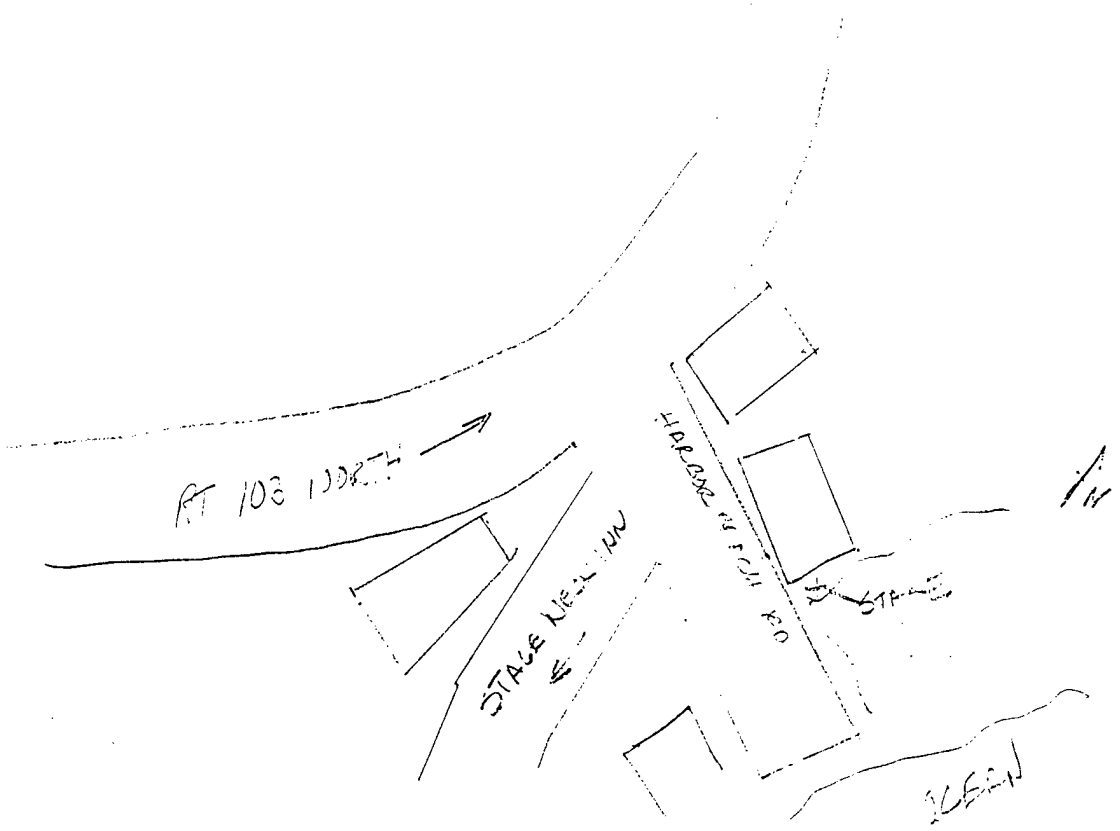
SUBJECT H.W MARKS FOR JCT 2: FLOOD

COMPUTATION YORK HARBOR ME

COMPUTED BY V.HON - P.[illegible] CHECKED BY DATE



H.W. MARK ACROSS FROM STAGE NECK INN ON HARBOR BEACH RD 11/7/91 H.W.S REC AREA @ MD



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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		Y2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	York	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Debris along Rt. 130 where tide rose above road elevation. Orange line painted on telephone pole; nail in pole also.

7 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

SUBJECT H&W MARKS FOR OCT 2 FLOOD

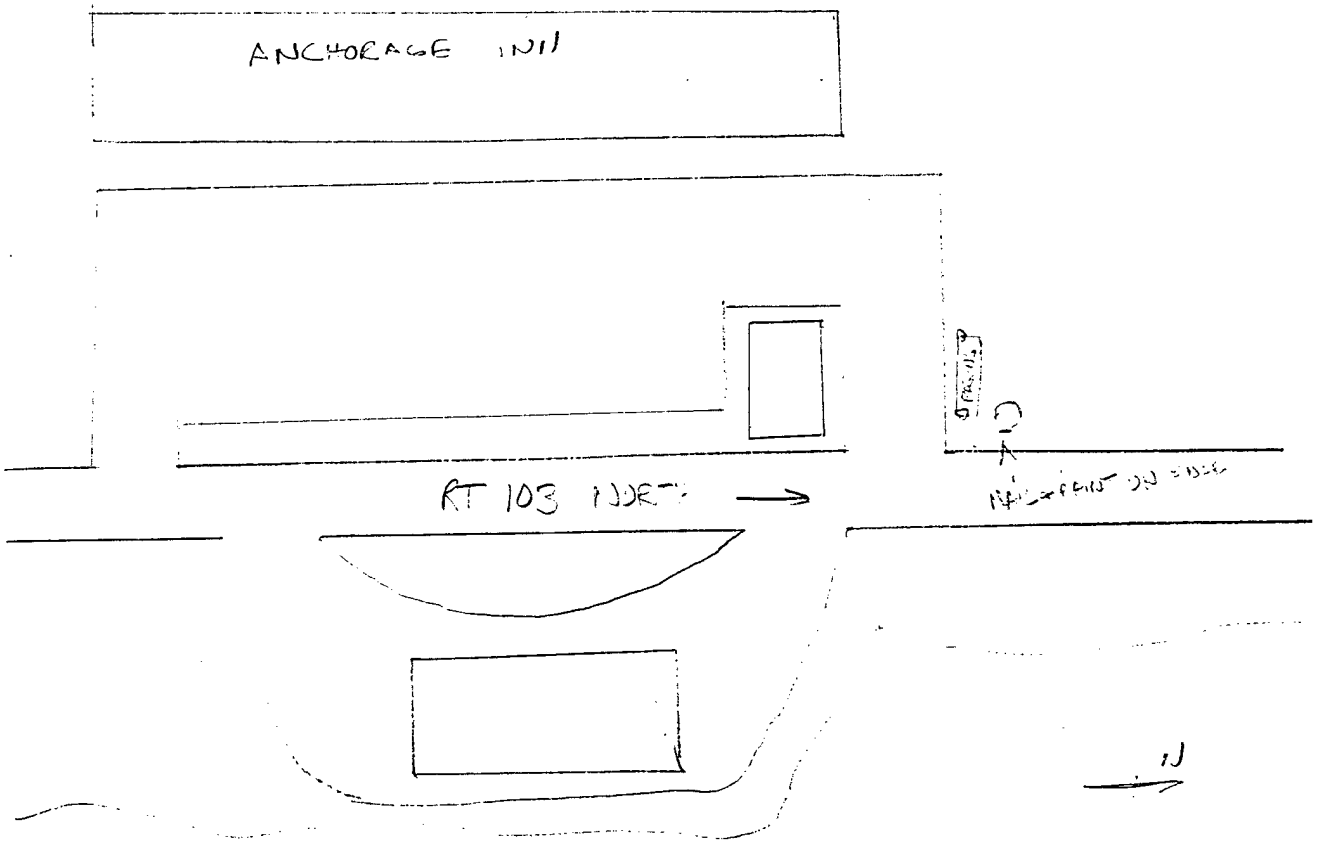
COMPUTATION

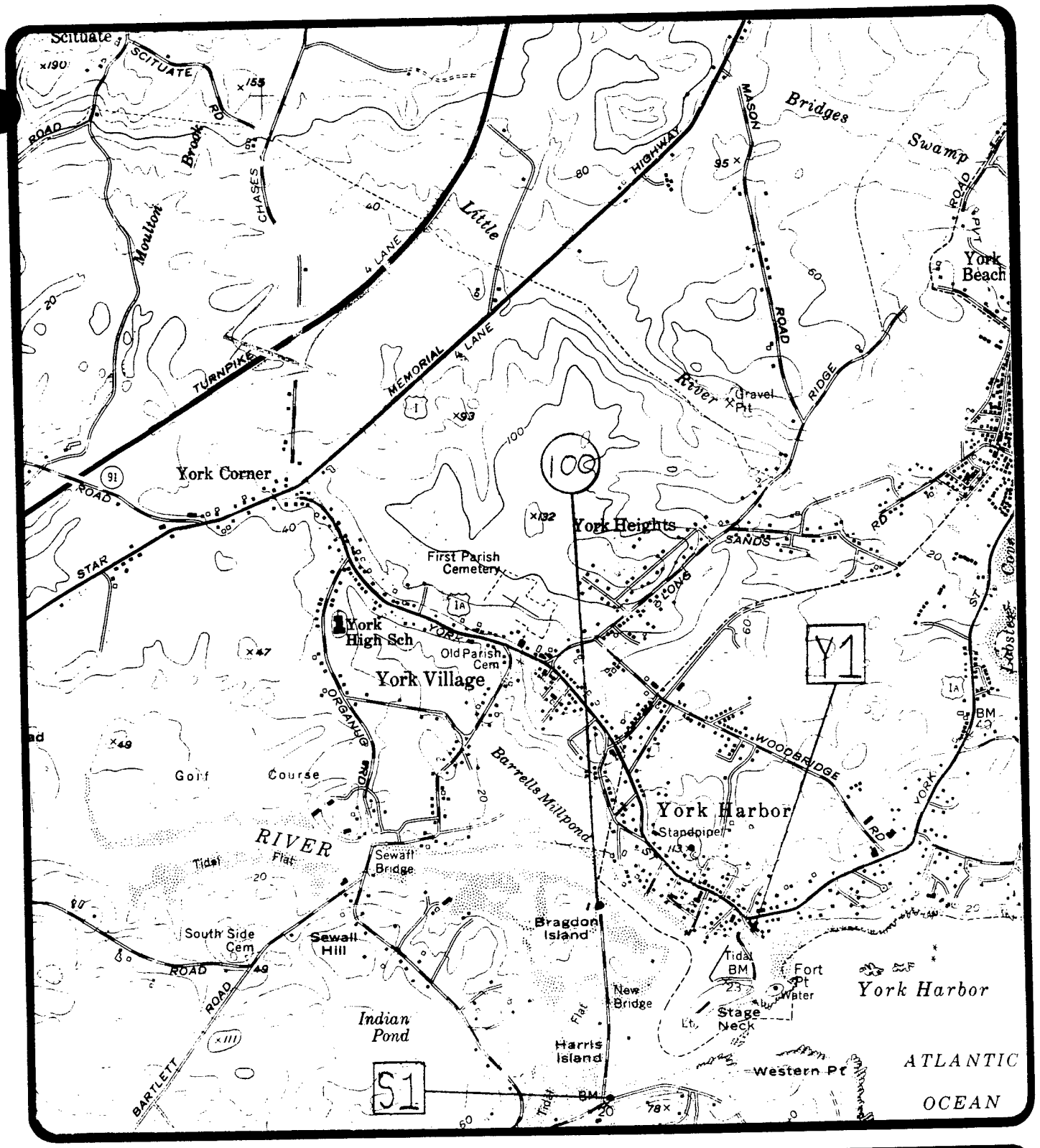
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H.W. MARK ON TELEPHONE POLE 15-20' FROM PARKING ENTRANCE TO ANCHOR INN

MD





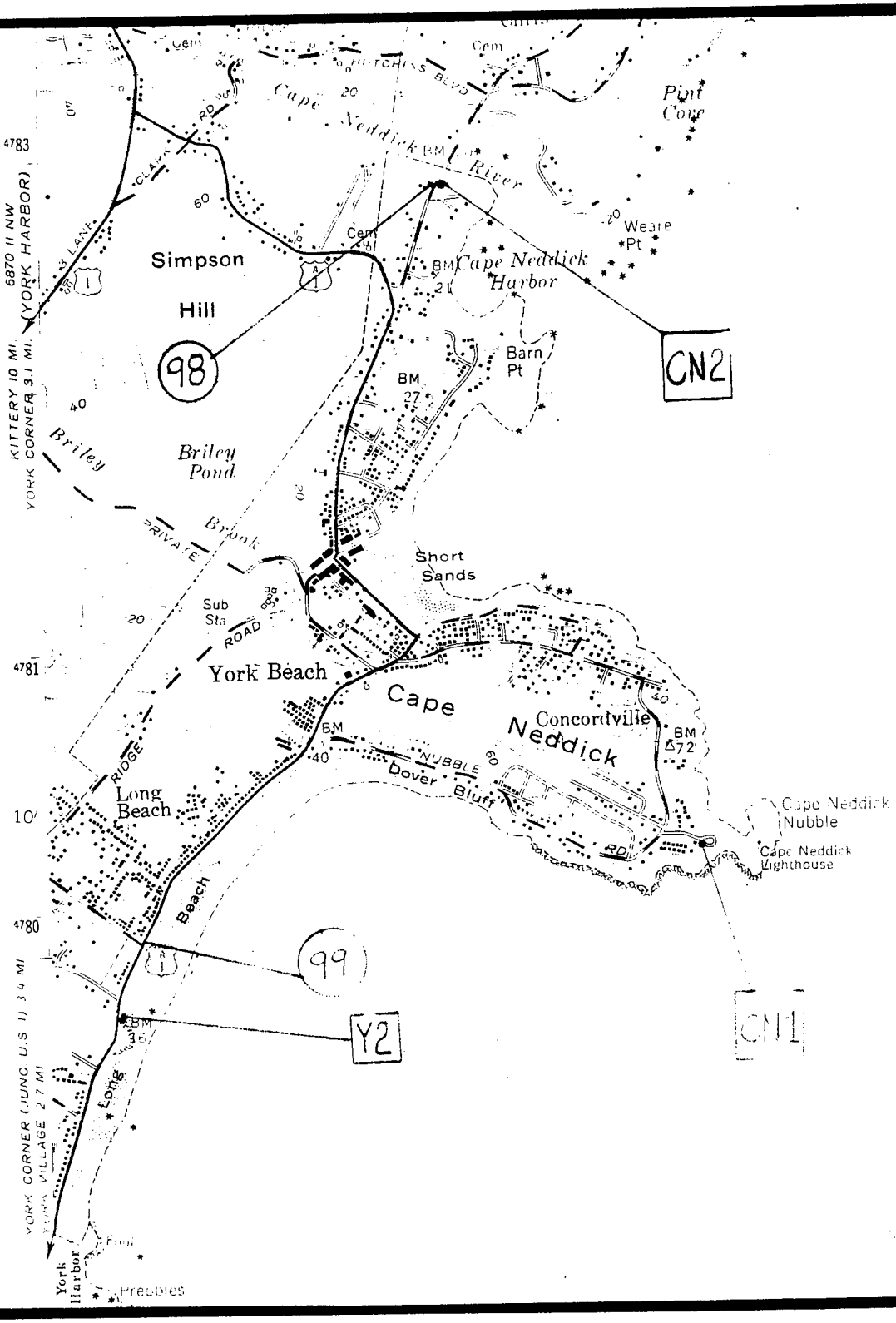
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - York Harbor, Maine

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - York Beach, Maine

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

APPENDIX

CAPE NEDDICK, MAINE

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		CN1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Cape Neddick	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Stake at debris line on interior shelter cove at Cape Neddick.

7 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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1 APR 78

NED FORM 223
27 Sept 49

NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY

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SUBJECT HW MARK FOR OCT 91 FLOOD

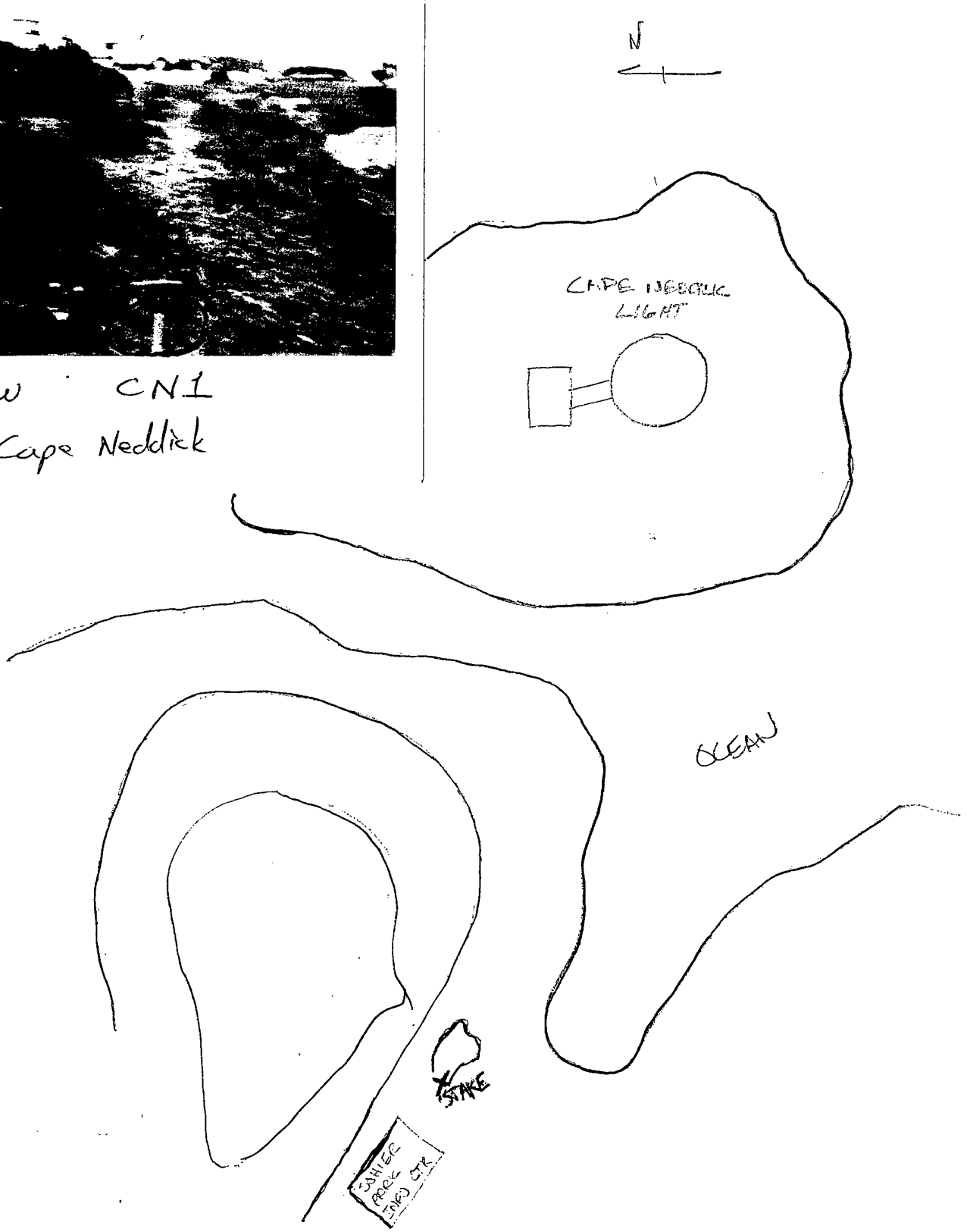
COMPUTATION CAPE NEDDICK ME

COMPUTED BY L. DESCHENES & J. HOM CHECKED BY DATE



H.W CN1

Cape Neddick



DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		CN2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Cape Neddick	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Debris line on banks of Cape Neddick River.

Paint line on tree at camp ground.

7 November 1991	Mark Deschenes and Victor Hom
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

NED FORM 223
27 Sept 49

NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY

PAGE

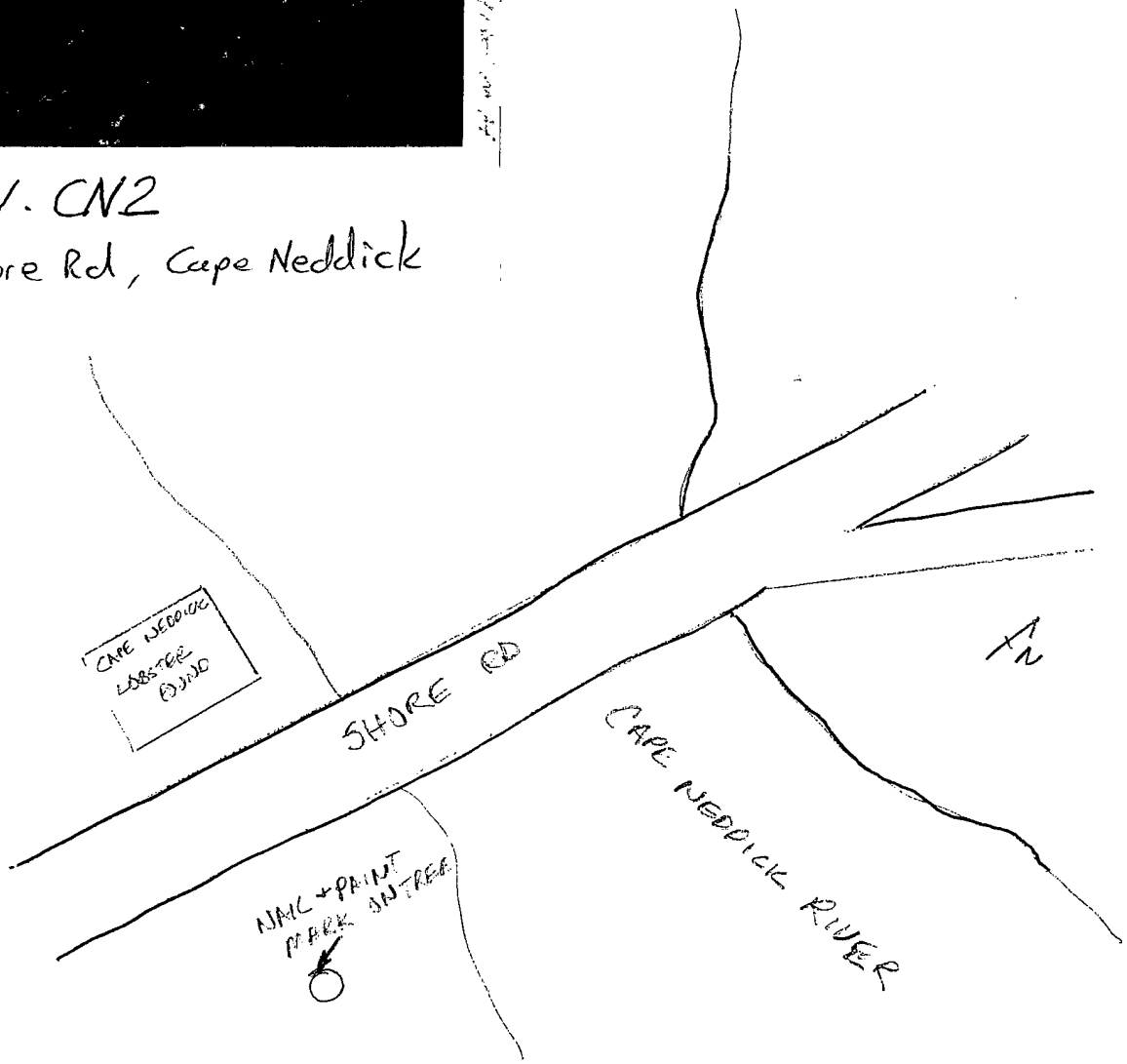
SUBJECT HW MARKS FOR OCT 91 FLOOD

COMPUTATION CAPE NEDDICK ME

COMPUTED BY M. DESCHENES & V. HOM CHECKED BY DATE



H. W. CN2
Shore Rd, Cape Neddick



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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean (Name of River, Bay or Harbor) | (Miles from Mouth) | CN3 (Watermark No.)

(Tributary of) | Cape Neddick (Phillips Cove) (City or Town) | ME (State)

Description of high watermark: Debris line on inside pond at Phillips Cove.

Stake placed at debris line.

7 November 1991 (Date obtained) | Victor Hom and Mark Deschenes (Obtained by)

(Name and address of person pointing out high watermark)

Debris (If not pointed out, how obtained?) | (Date and hour of high watermark)

Good

(Elev. of high watermark) (Datum) | (Benchmark referred to) (Datum)

(Elevation of high watermark above water surface) | (Date & Hour) | (Class. of watermark)

(Elevation determined by) | (Date) | (Order of levels)

(Nearest dam upstream or downstream) | (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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27 Sept 49 CORPS OF ENGINEERS, U.S. ARMY PAGE

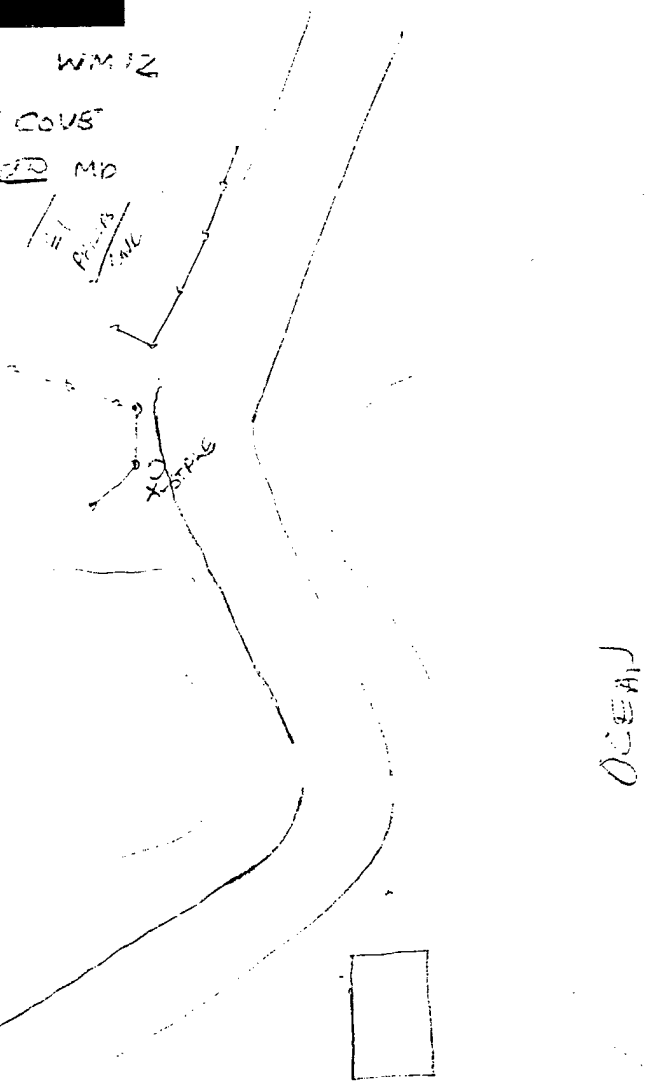
SUBJECT H.W MARKS FOR DET OF FLOOD

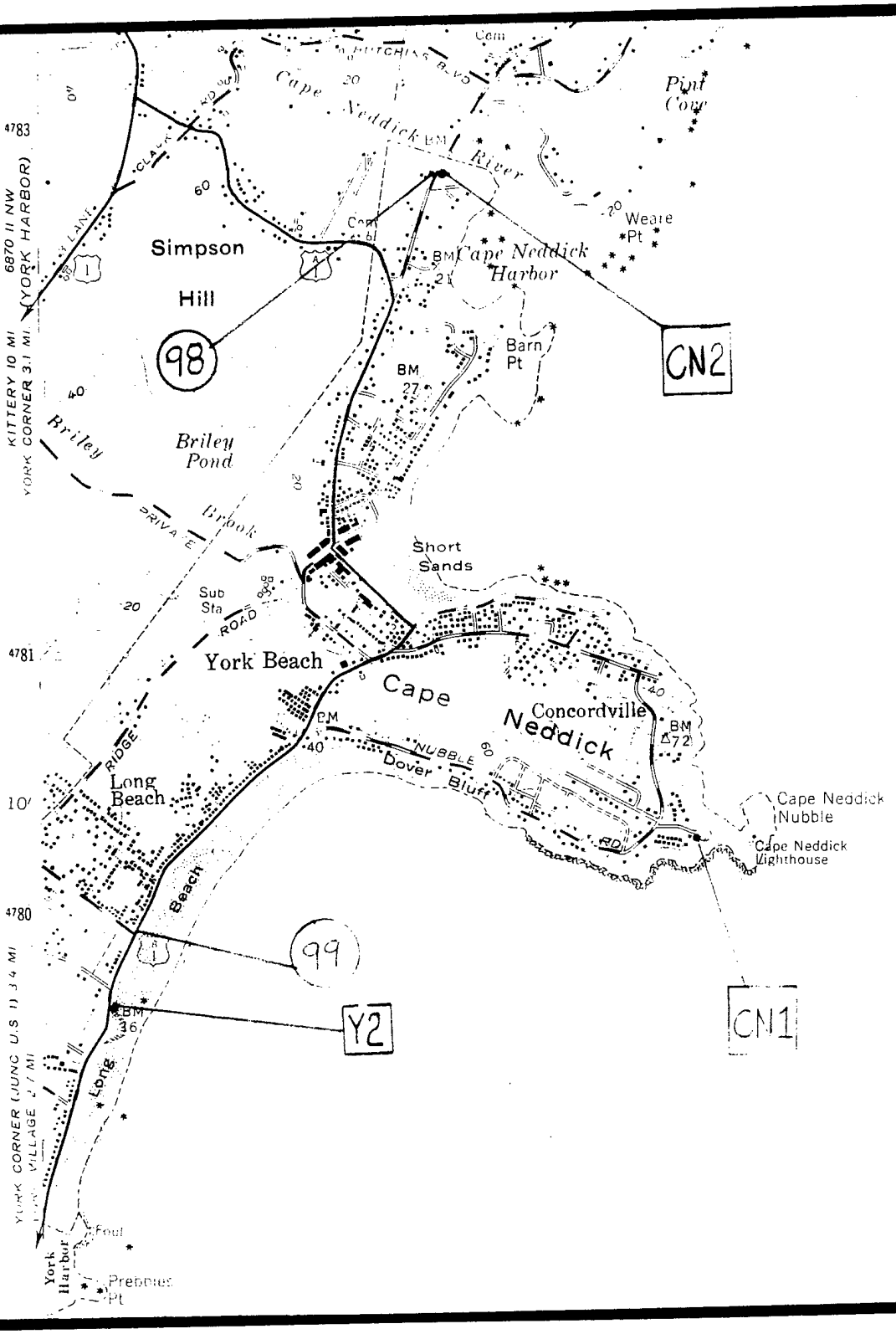
COMPUTATION PHILLIPS COVE (APE INDEP SC.

COMPUTED BY J HON & W LEECHONES CHECKED BY DATE



H.W. MARK STAKED WM 12
IN FRONT OF 1 PHILIPS COVE
PHILIPS COVE 11/7/91 MD





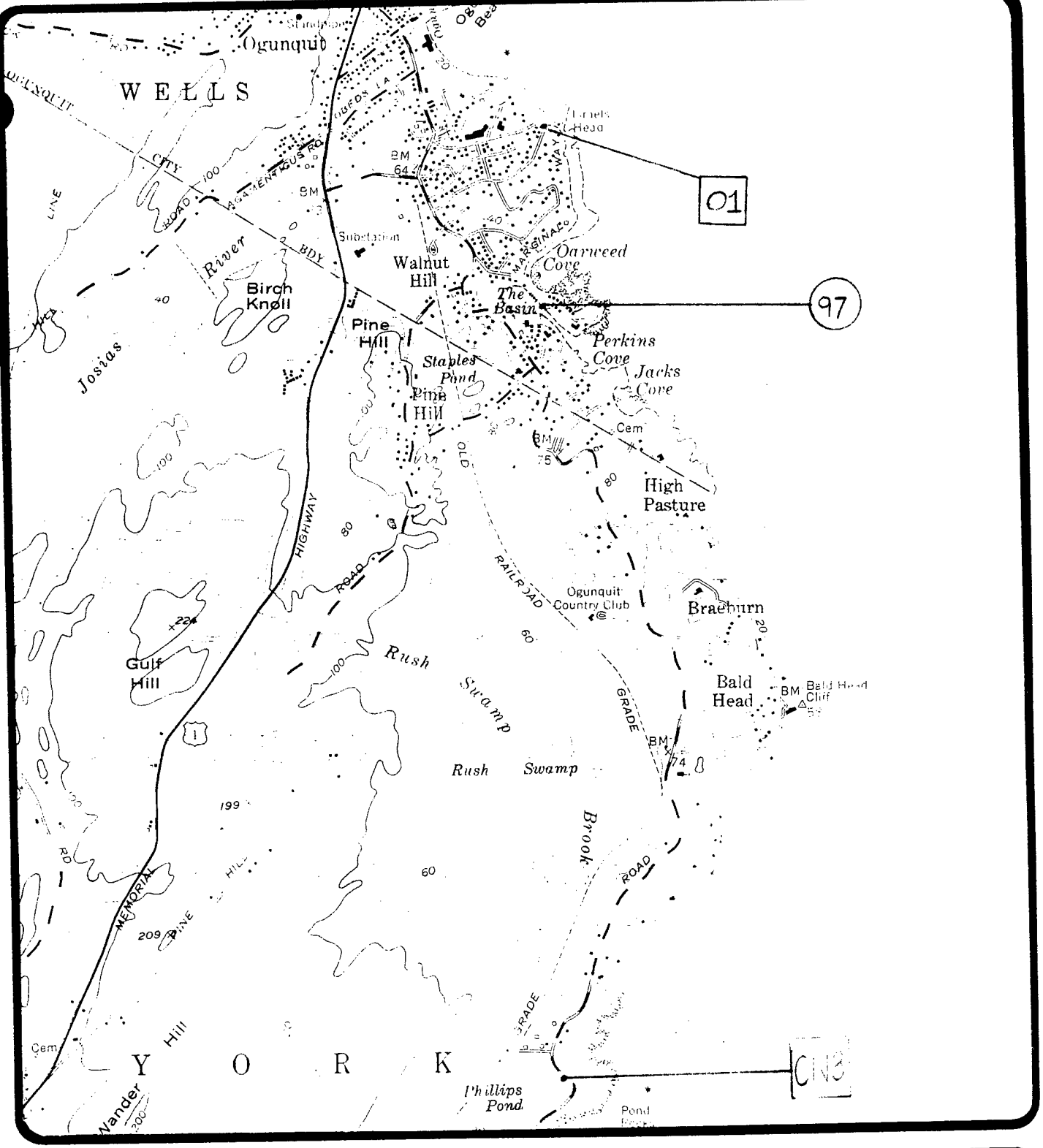
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - York Beach, Maine

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Wells, Maine

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

APPENDIX

OGUNQUIT, MAINE

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		01
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
(Israels Head)	Ogunquit	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Stake at intersection across from small lighthouse in a protected area.

7 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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NED FORM 223
27 Sept 49

NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S ARMY

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SUBJECT H.W MARKS FOR OCT 91 FLOOD

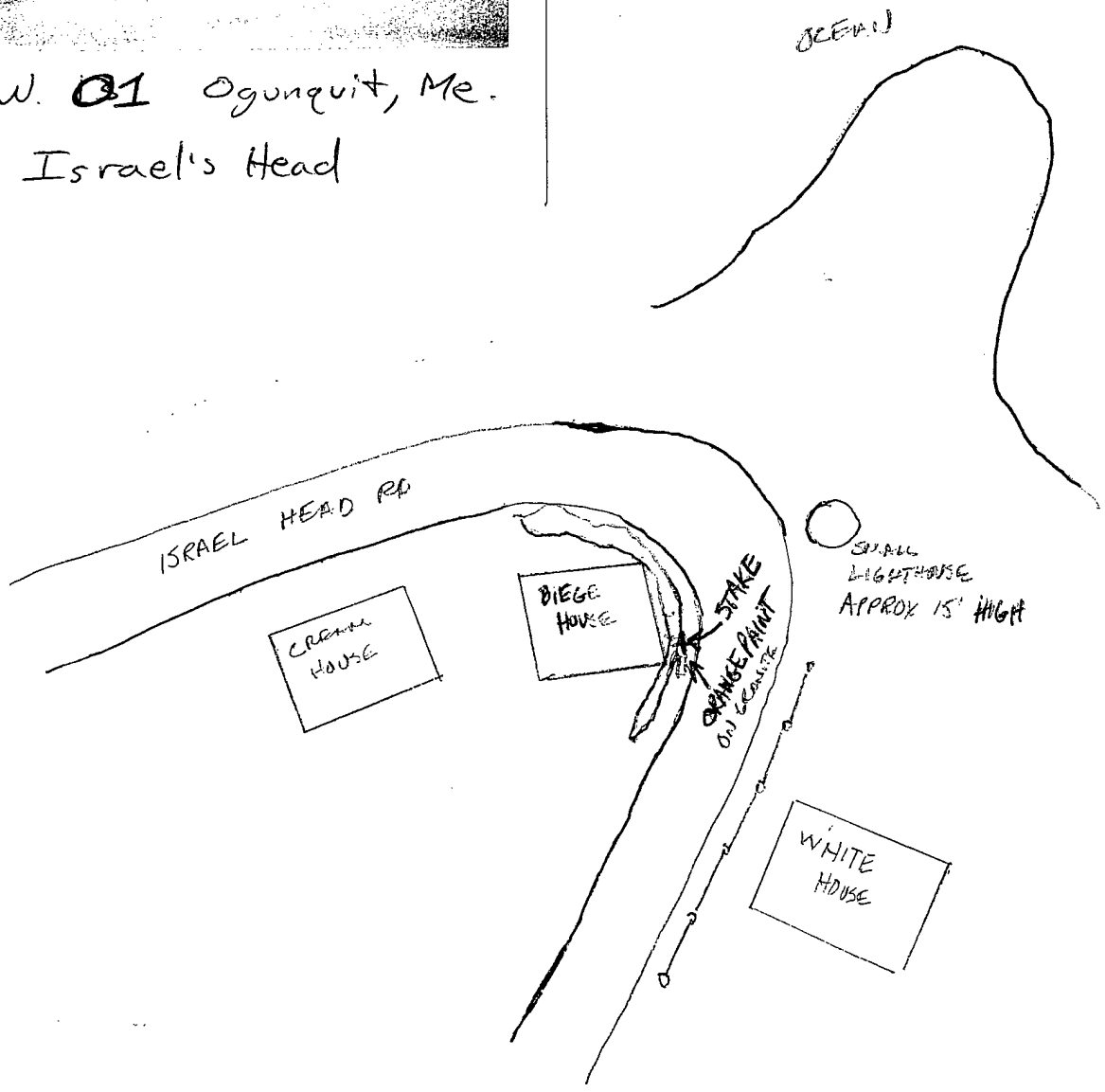
COMPUTATION OGUNQUIT ME

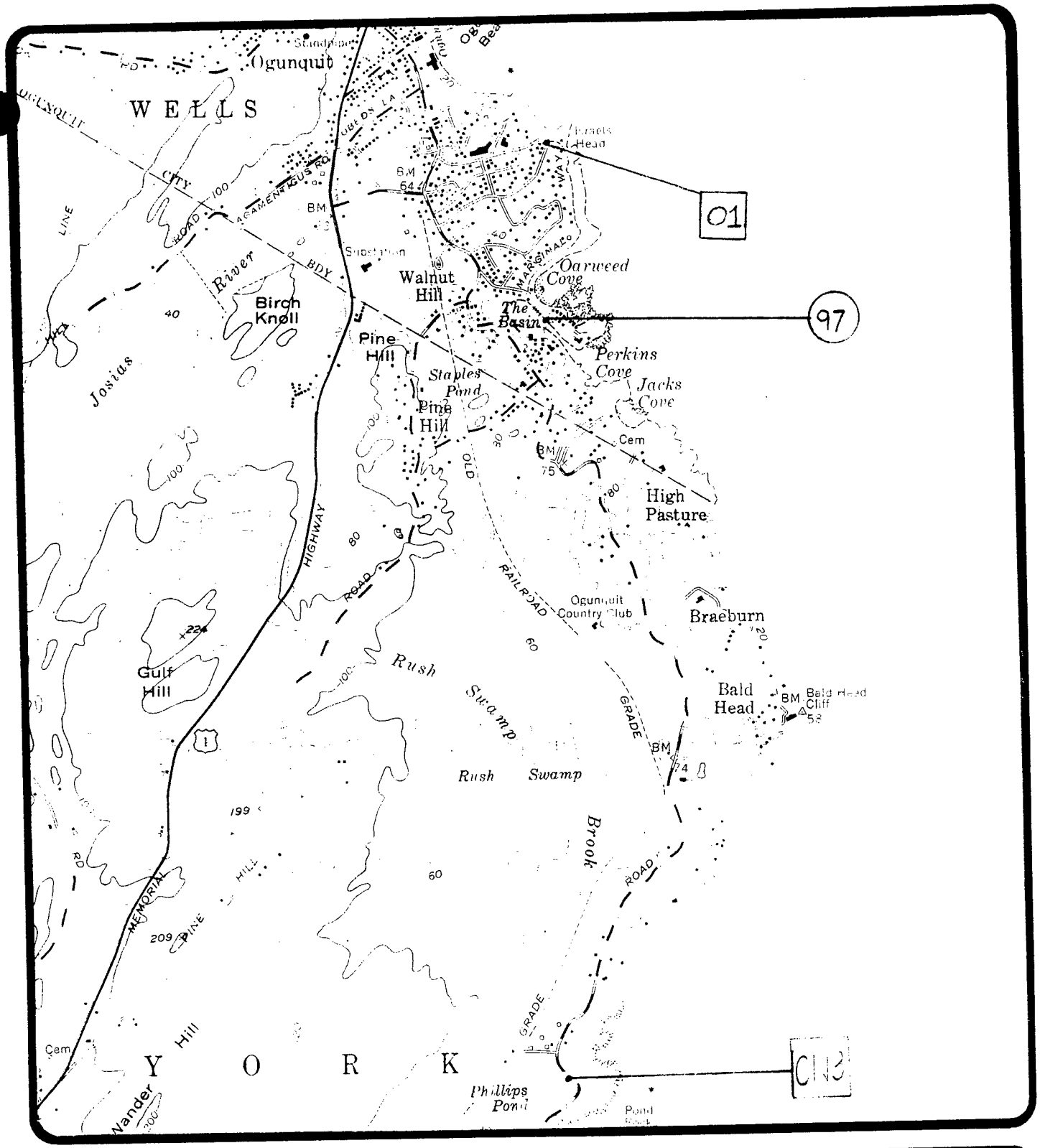
COMPUTED BY N. DESCHENES + W. HOLT CHECKED BY DATE



H.W. 91 Ogunquit, Me.

Israel's Head





High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Wells, Maine

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APPENDIX

WELLS, MAINE

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		W2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Wells	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: PK nail with orange ribbon to the left of the garage door approximately 14 inches above driveway marks height of water.

6 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

Bob Carberry (Mailing: RR4 Box 529 Wells Street) Island Ave.
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

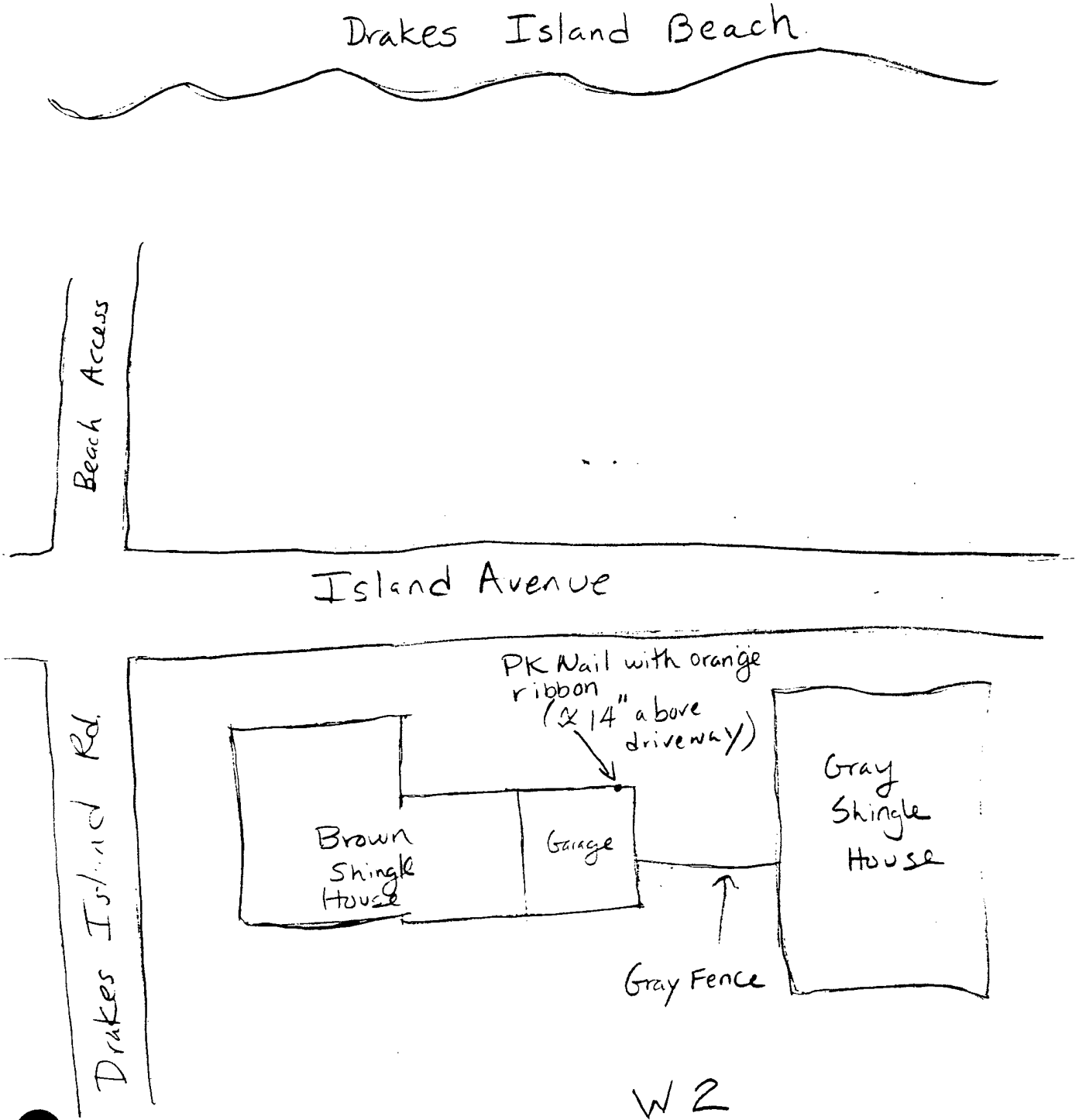
NOTE: Not very confident point. Probable overtopped flooding because beach and houses along the ocean are higher than mark.

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Water mark No. 2 Wells, M.E.






Drakes Island Beach
Beach Access
Island Avenue
Drakes Island Rd.
PK Nail with orange ribbon (± 14" above driveway)
Brown Shingle House
Garage
Gray Shingle House
Gray Fence

W 2

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New England Division, Corps of Engineers
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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean - Webhannet River		W3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Wells	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Wells Harbor Food and Boat. Orange stake marks the debris line location. The stake is near the boat ramp to the right of the parking lot. The stake is on the left of the ramp. Highwater mark is where the stake and the ground meet.

7 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

Worker at Harbor confirmed the debris line as the highwater mark.
(Name and address of person pointing out high watermark)

Distinct Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

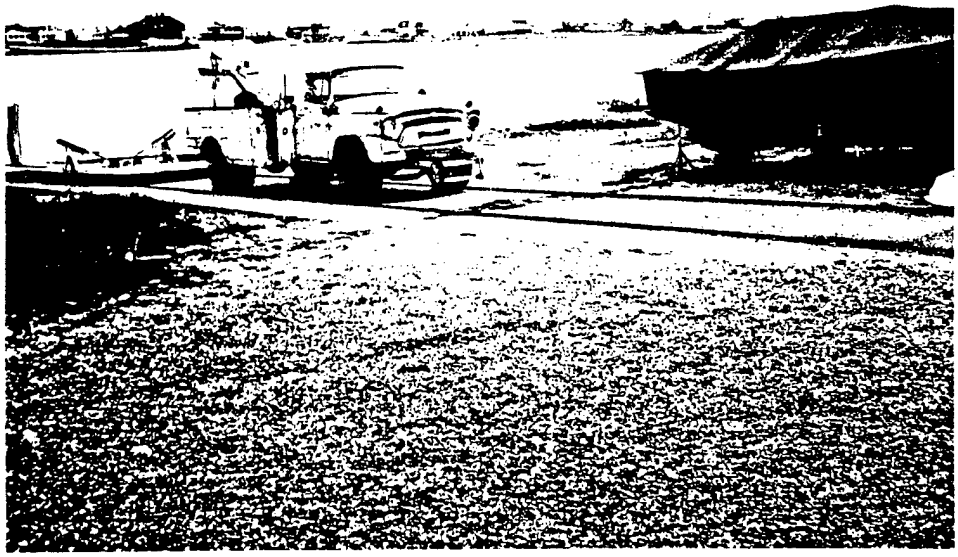
Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Confident Point. Distinct debris line in same location described by worker.

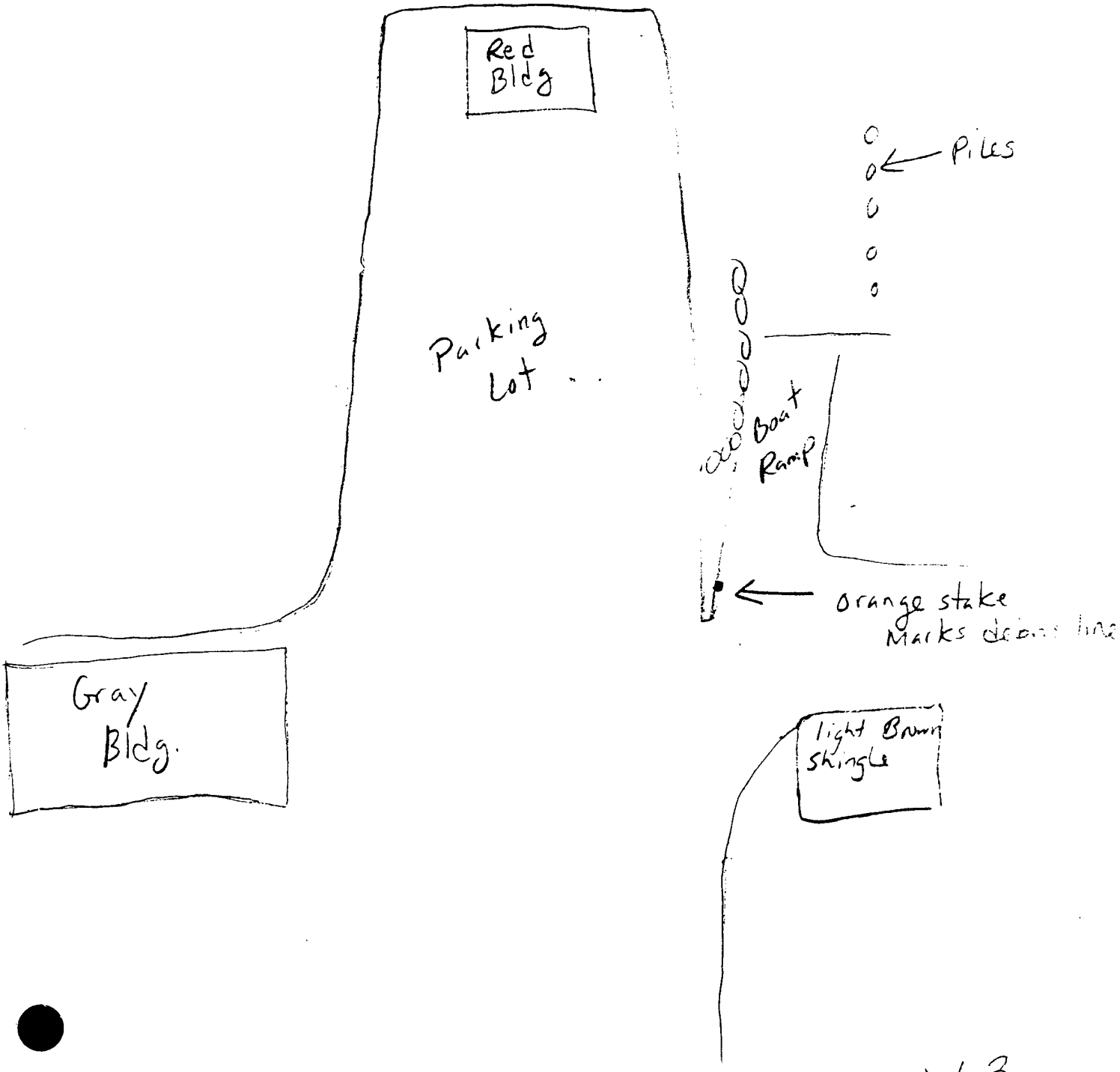
NED FORM 203
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Watermark No 3 Wells, ME





Webhannet River



W 3

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New England Division, Corps of Engineers
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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean (Name of River, Bay or Harbor) | (Miles from Mouth) | W4 (Watermark No.)

(Tributary of) | Wells (City or Town) | ME (State)

Description of high watermark: Two orange ribbons mark debris line on fence. The mark is approximately 1 foot above rim at the bottom of the fence on the 4th pole in from the ocean. There is also a tag on the 3rd pole from the ocean.

7 November 1991 (Date obtained) | Karen Schofield and John Yen (Obtained by)

William Chick, 318 Atlantic Avenue and Theresa Mailhot, 319 Atlantic Ave (owner) (Name and address of person pointing out high watermark)

(If not pointed out, how obtained?) | (Date and hour of high watermark)

(Elev. of high watermark) (Datum) | (Benchmark referred to) (Datum)

(Elevation of high watermark above water surface) | (Date & Hour) | (Class. of watermark)

(Elevation determined by) | (Date) | (Order of levels)

(Nearest dam upstream or downstream) | (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

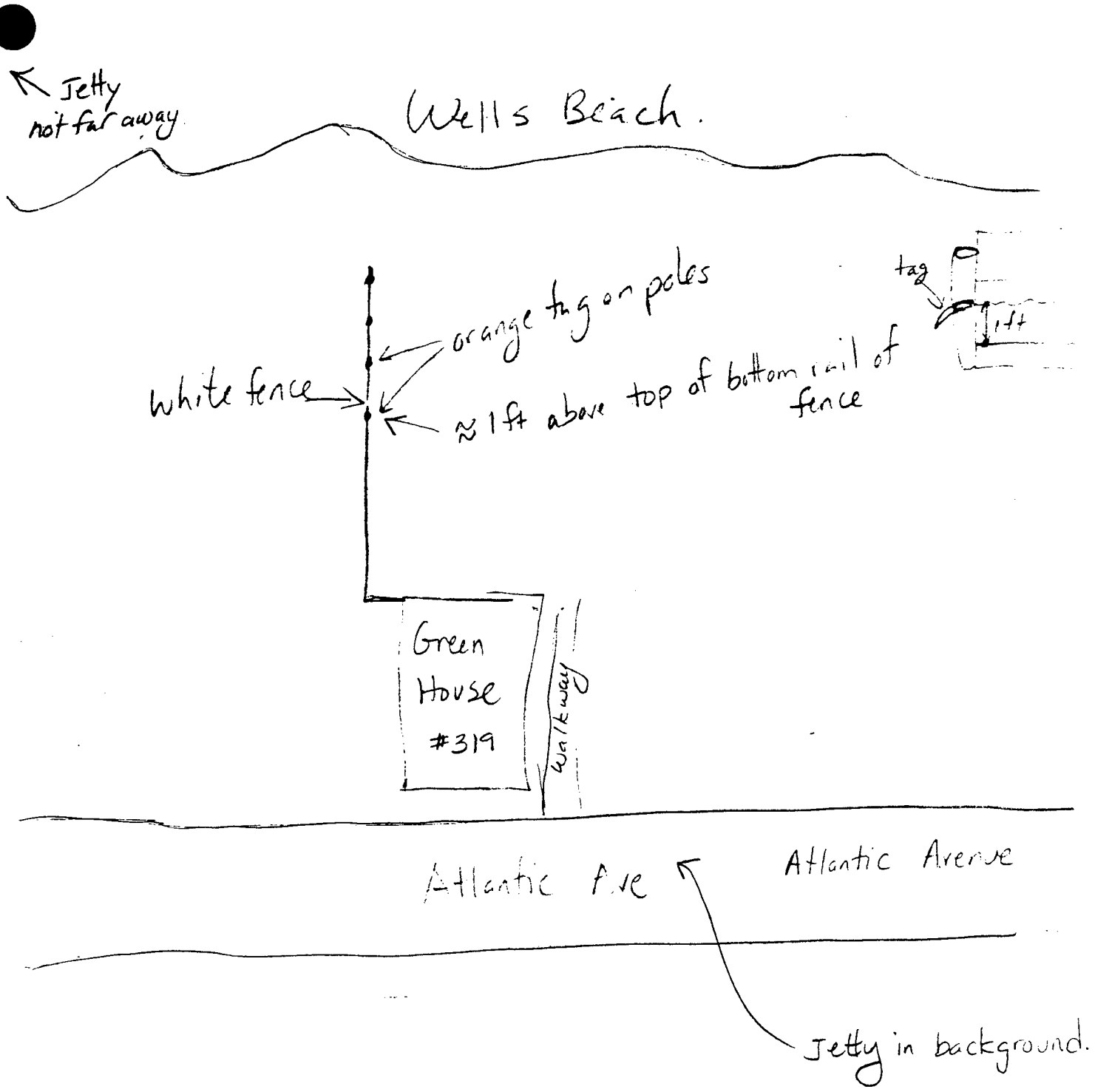
NOTE: Mostly Confident Point. Distinct line along fence. However right on the shore and near jetty.

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Highwater Mark - 4 Wells, NC



Atlantic Ocean.



W 4

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		W5
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Wells	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: PK nail and orange ribbon on stairs on the left side of the house. The mark is approximately 3 feet above the ground at that point.

7 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

Steve Ferguson, 123 Ocean Avenue
(Name and address of person pointing out high watermark)

Debris line in back yard of neighbor substantiates point on stairs	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

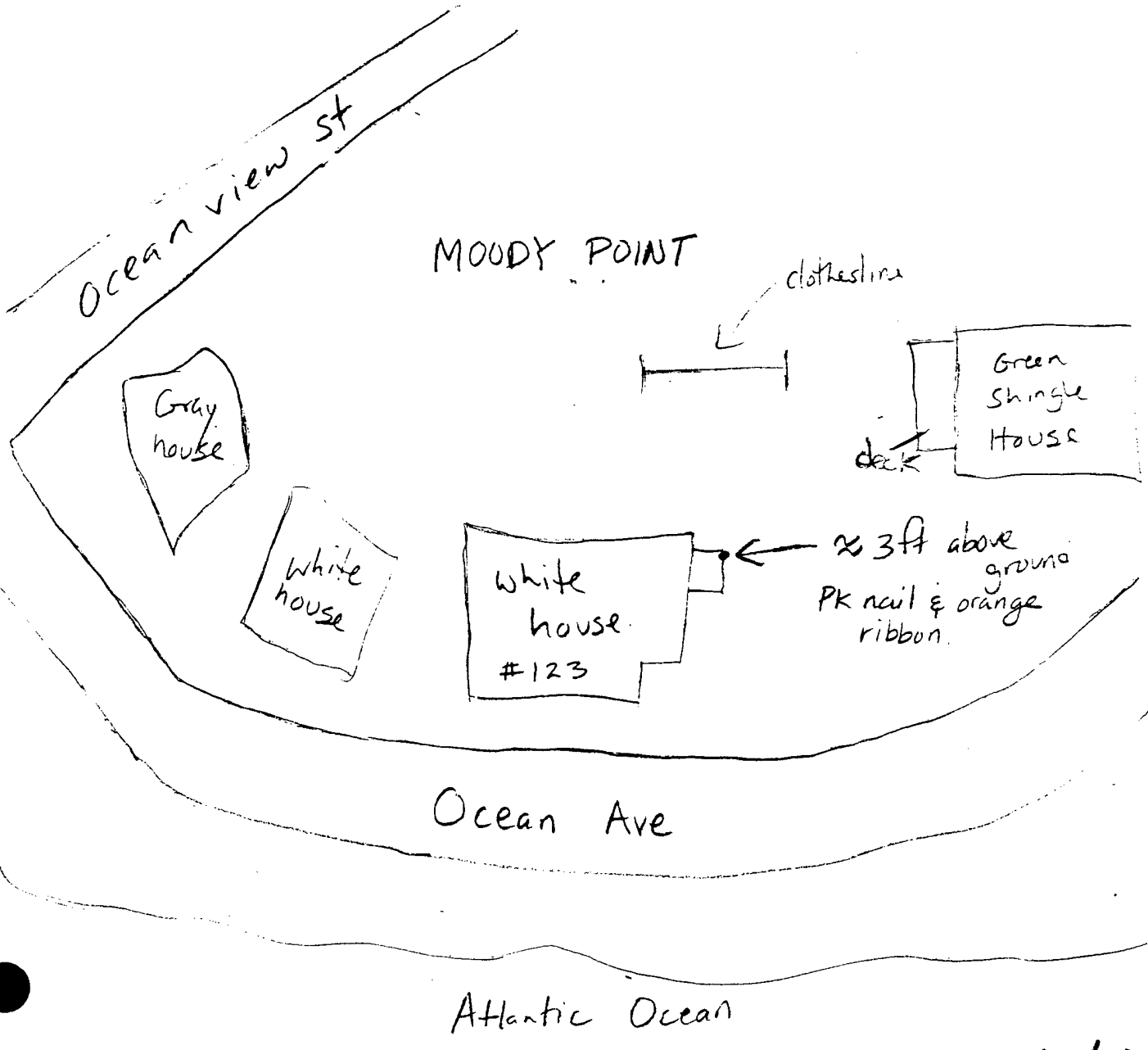
Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Mostly Confident Point. Location given by owner's son. However, close distinct debris line in neighbor's yard which is very confident.

NED FORM 203
1 APR 78






Ocean view St
MOODY POINT
clothesline
Green Shingle House
deck
Gray house
White house
white house #123
≈ 3ft above ground
Pk nail & orange ribbon
Ocean Ave
Atlantic Ocean

W 5

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		W6
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Wells	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Ribbon on stop sign on right side of road at the end of Atlantic Avenue before the parking lot and the Ogunquit Waste Water Treatment Plant. Mark is approx. 1 foot above ground at the stop sign.

7 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

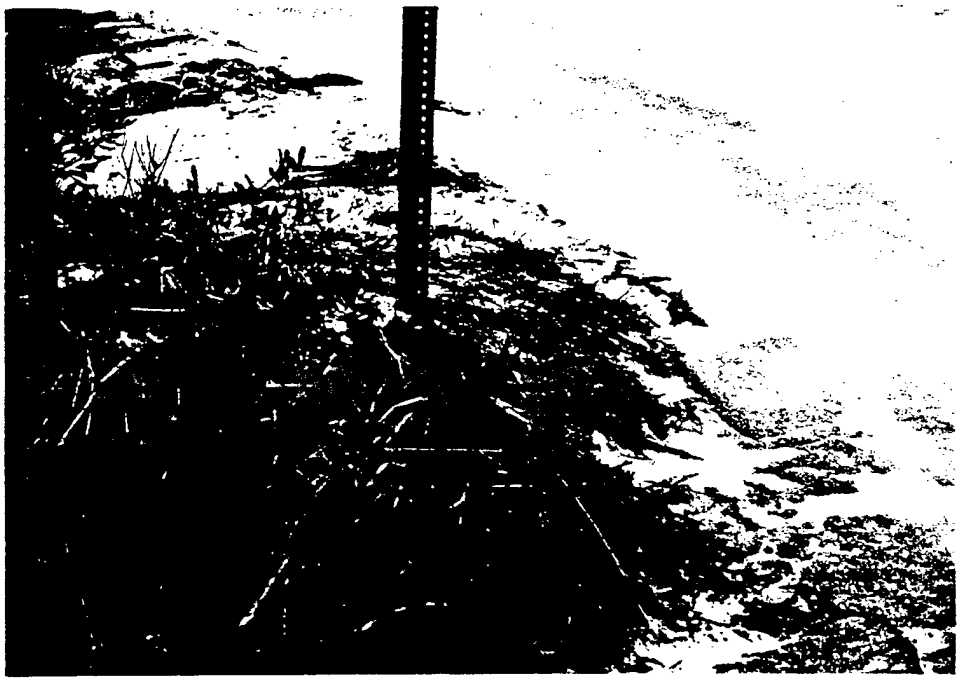
(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

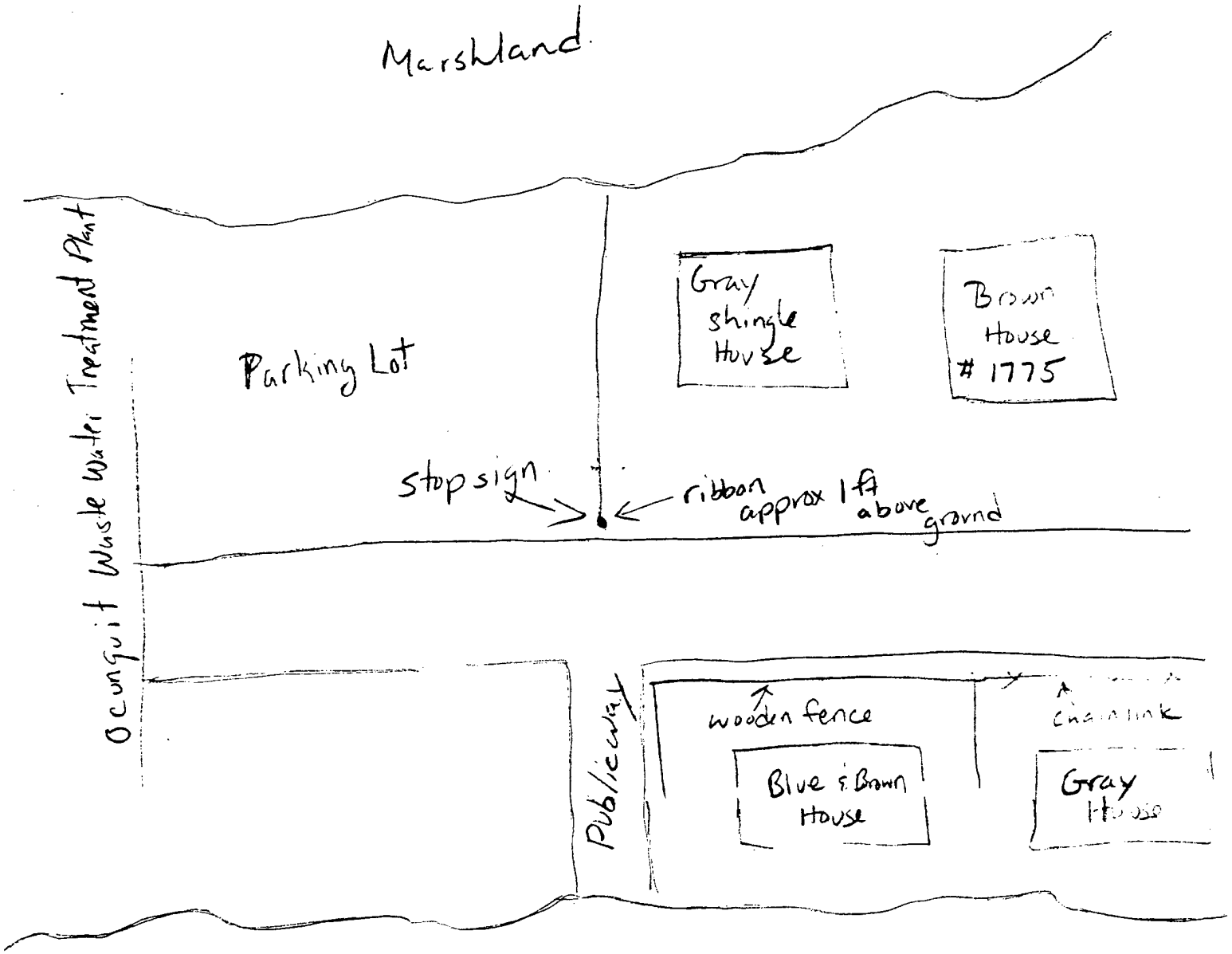
Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Beach access was a low point and parking lot appeared to have been filled with sand, debris and water. Also marsh appeared to have debris. Debris line on the road too. (Pile of plowed sand in parking lot.)

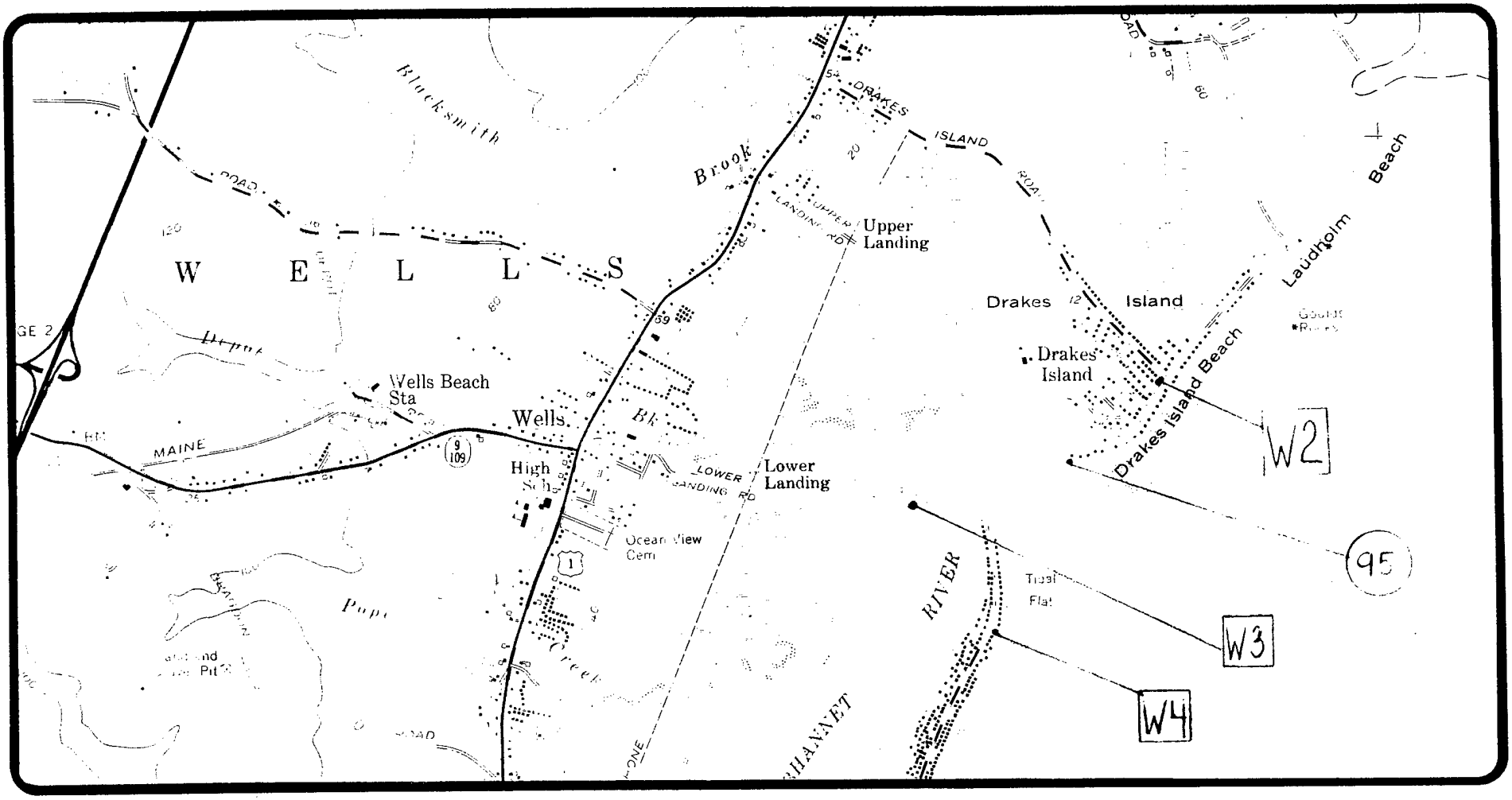
NED FORM 203
1 APR 78






Marshland
Parking Lot
Gray shingle House
Brown House # 1775
stop sign
ribbon approx 1 ft above ground
Ocunquit Waste Water Treatment Plant
Public right
wooden fence
Blue & Brown House
Gray House
Wells Beach
Atlantic Ocean

W 6

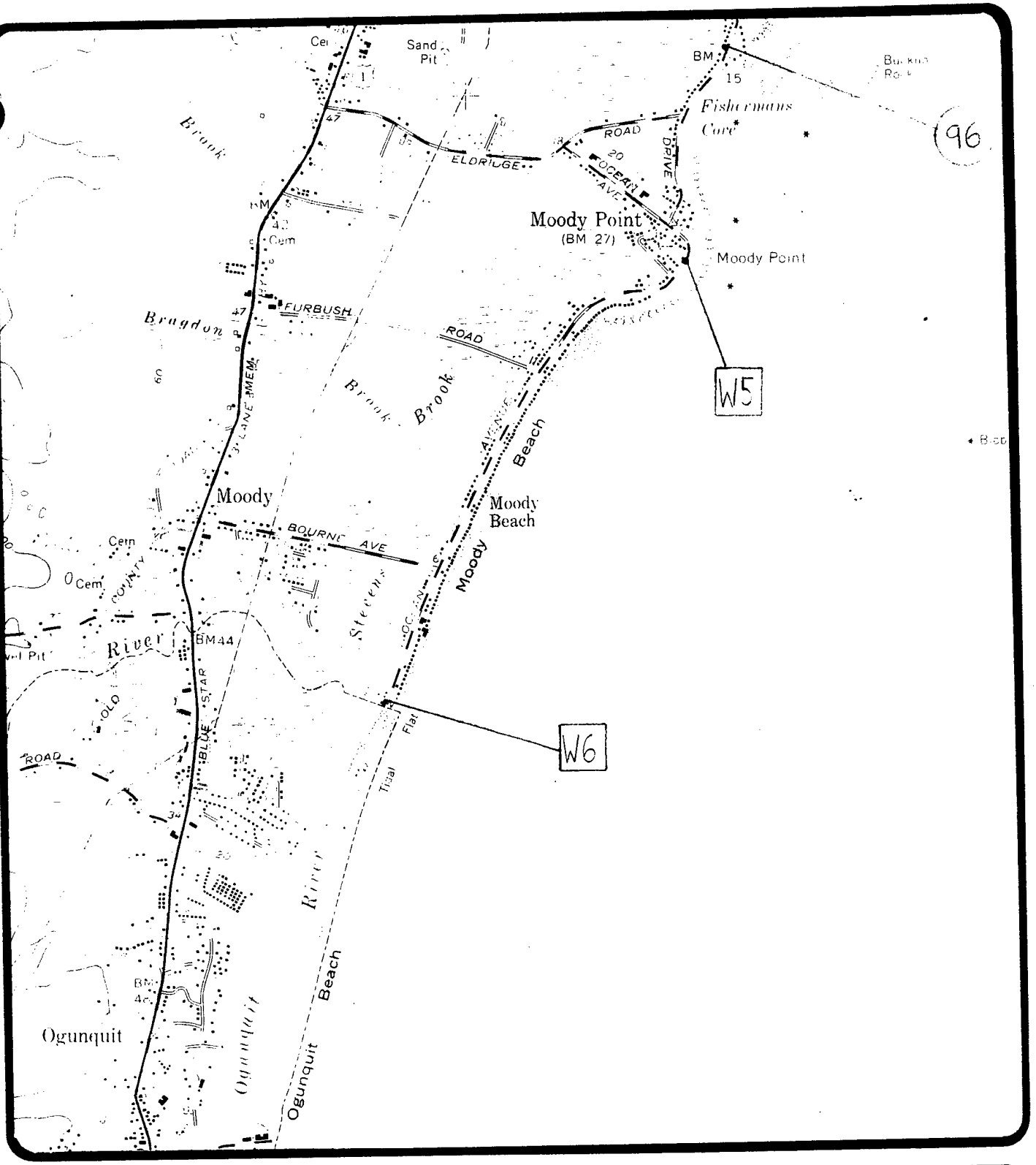


High Water Mark Location Map
Halloween Storm, October, 1991

□ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - **Wells, Maine**

US Army Corps of Engineers
New England Division



High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Wells, Maine

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New England Division

US Army Corps of Engineers

APPENDIX

KENNEBUNK, MAINE

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		KB1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Kennebunk	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange ribbon on "No Parking" sign in front of fence between a gray and a green house on right side of road across from playground. Mark is approximately 14 inches above ground at the sign.

7 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)
Mrs. William Ward	7 Lords Point
(Name and address of person pointing out high watermark)	
Debris line along fence and woman said road was flooded.	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

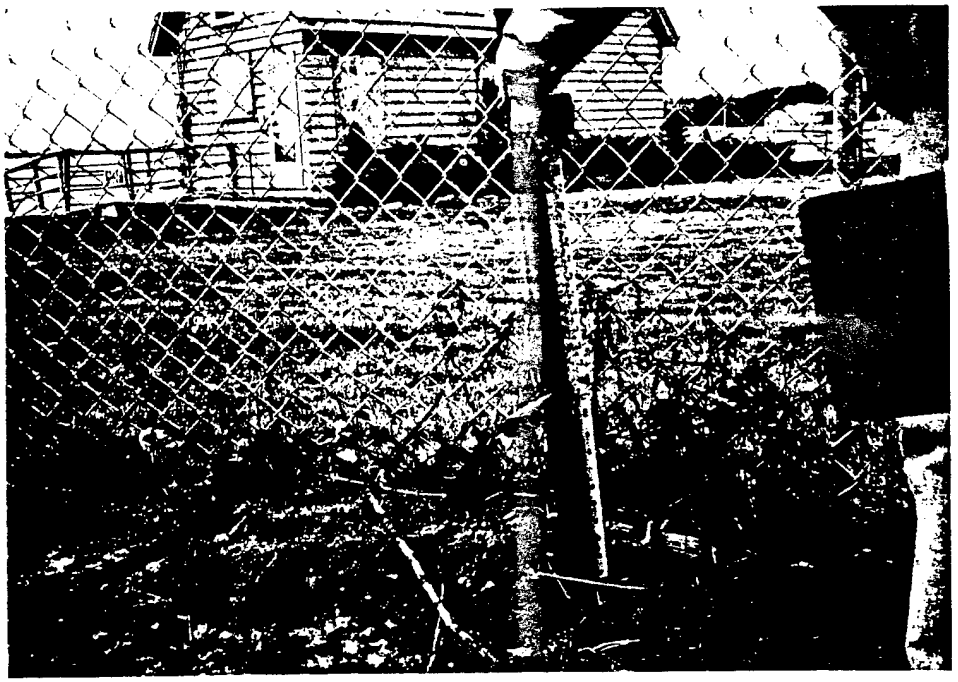
Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Confident Point - Eyewitness confirmed road was flooded backing up the distinct debris line on fence.

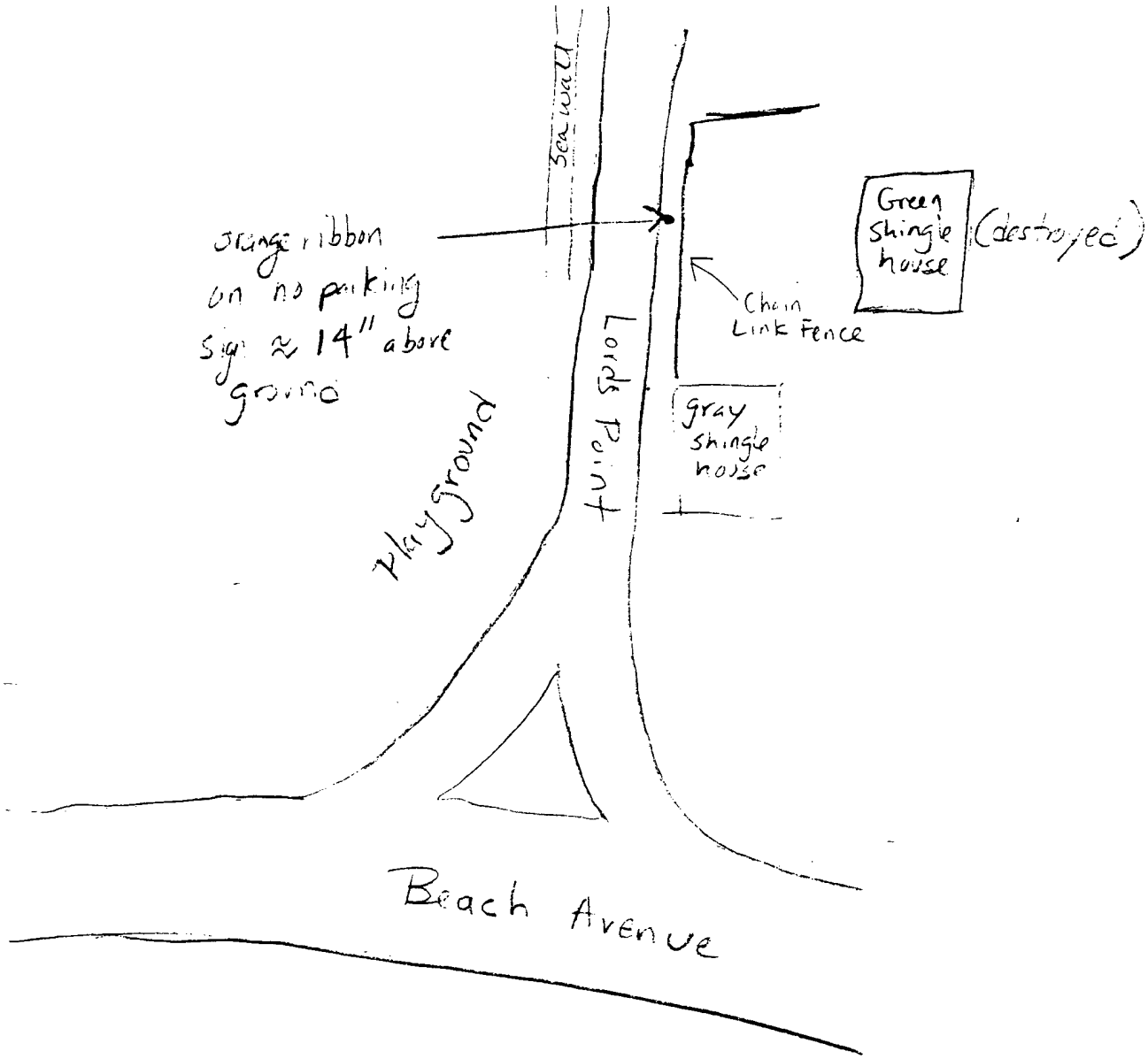
NED FORM 203
1 APR 78

Watermark No. 1 H





7


Seawall
orange ribbon on no parking sign ≈ 14" above ground
Green shingle house (destroyed)
Chain Link Fence
gray shingle house
Lords Point
Playground
Beach Avenue

KB 1

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean (Name of River, Bay or Harbor) | (Miles from Mouth) | KB2 (Watermark No.)

(Tributary of) | Kennebunk (City or Town) | ME (State)

Description of high watermark: Orange ribbon on white fence in back of yellow house approximately 9 inches above the ground. (See drawing)

6 November 1991 (Date obtained) | Karen Schofield and John Yen (Obtained by)

(Name and address of person pointing out high watermark)

Debris line along grass in the area and on the fence. (If not pointed out, how obtained?) | (Date and hour of high watermark)

NOTE: Point is a little questionable. Owner not there. Renter next door allowed us to tag fence but not very cooperative. Access point may not be possible.

(Elev. of high watermark) (Datum) | (Benchmark referred to) (Datum)

(Elevation of high watermark above water surface) | (Date & Hour) | (Class. of watermark)

(Elevation determined by) | (Date) | (Order of levels)

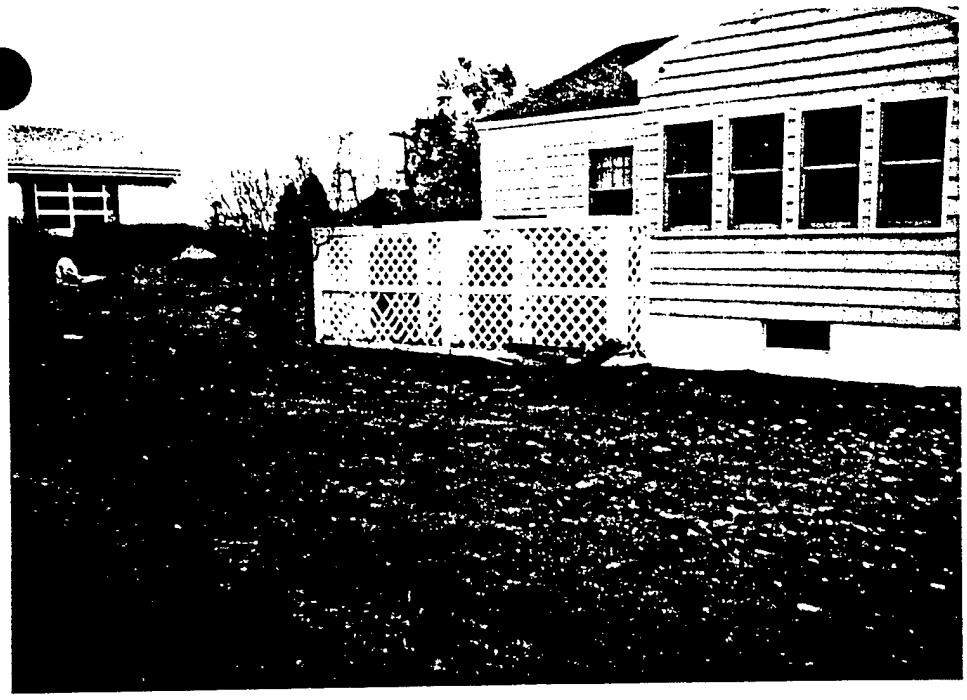
(Nearest dam upstream or downstream) | (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

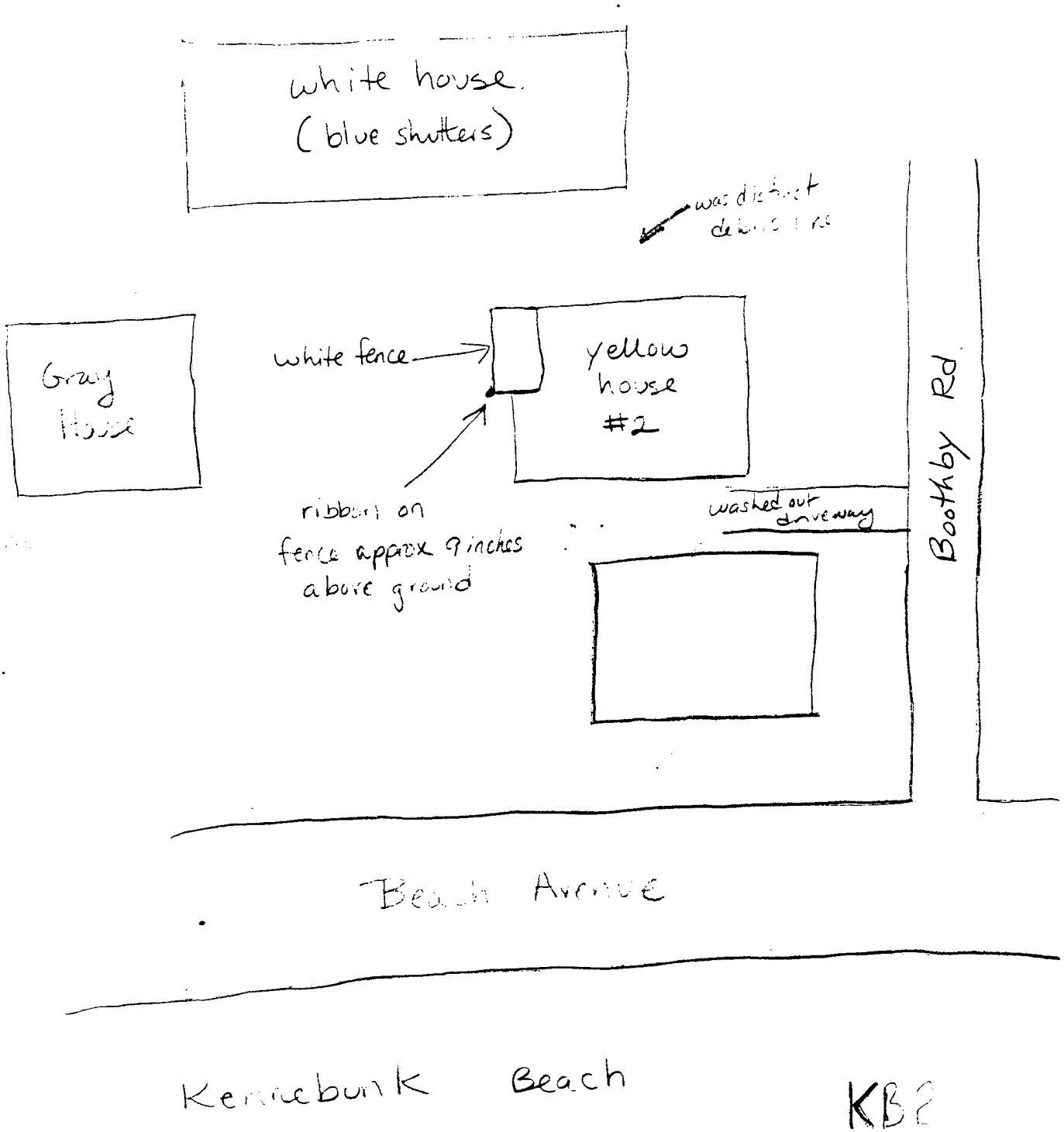
NOTE: Not very confident point. May just be overtopping waves from seawall.

Seawall seems higher than debris line.

NED FORM 203
1 APR 78






white house
(blue shutters)
was direct
Gray
House
white fence
yellow
house
#2
ribbon on
fence approx 9 inches
above ground
washed out driveway
Boothby Rd
Beach Avenue
Kennebunk Beach
KB2

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		KB3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Kennebunk	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: (From front) PK nail with orange ribbon on left side of house (#102) on left side of white basement door approximately 22 inches above the bottom of the door.

6 November 1991	Ken Schofield and John Yen
(Date obtained)	(Obtained by)

Mrs. William Hotra, 102 Beach Avenue (Kennebunk Beach)
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

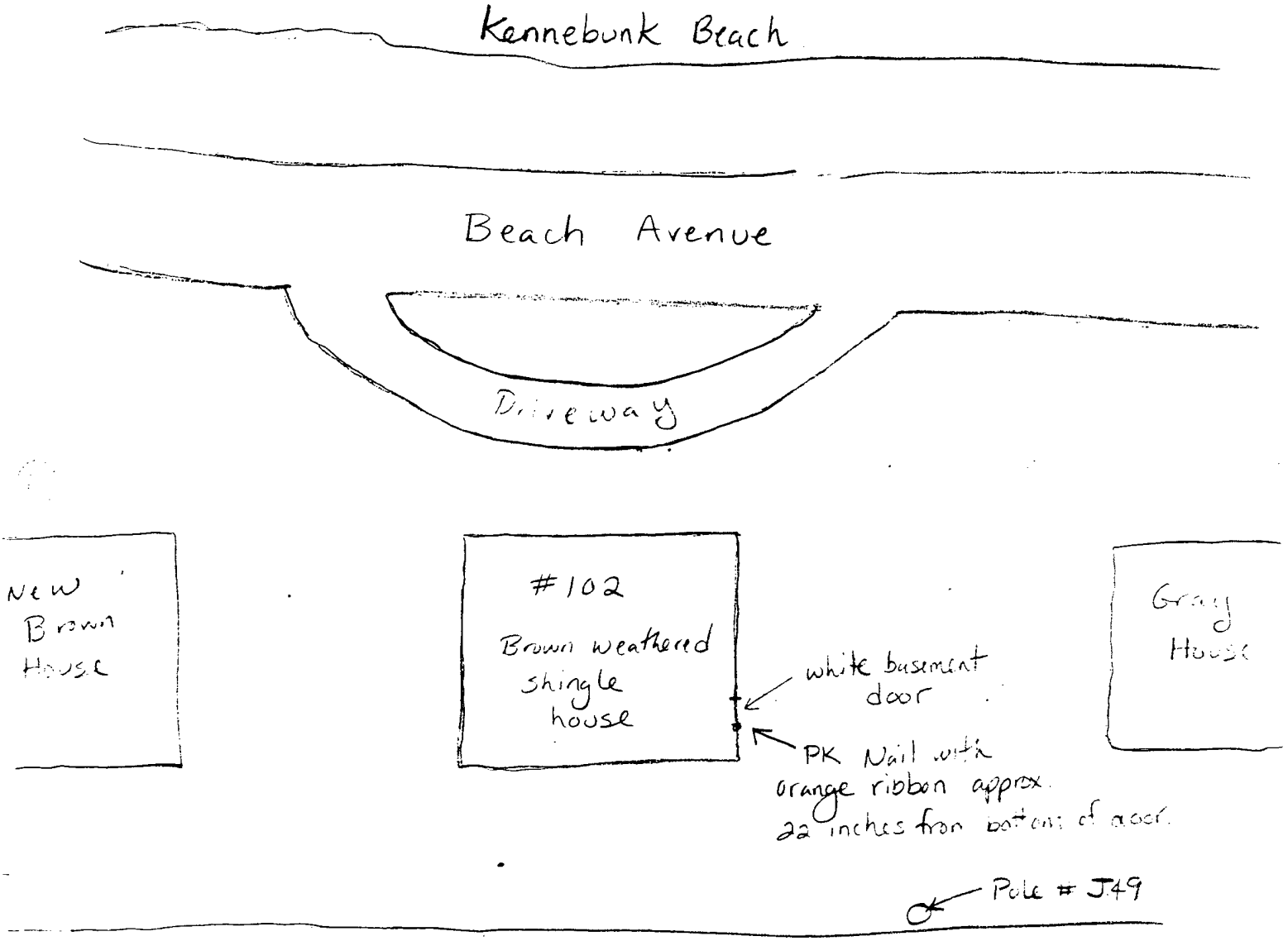
Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Fairly confident point. Definite flooding and distinct line. However, seawall seems almost level if not a little higher than debris line. May be overtopping or may be from a little lower point in seawall farther down the beach.

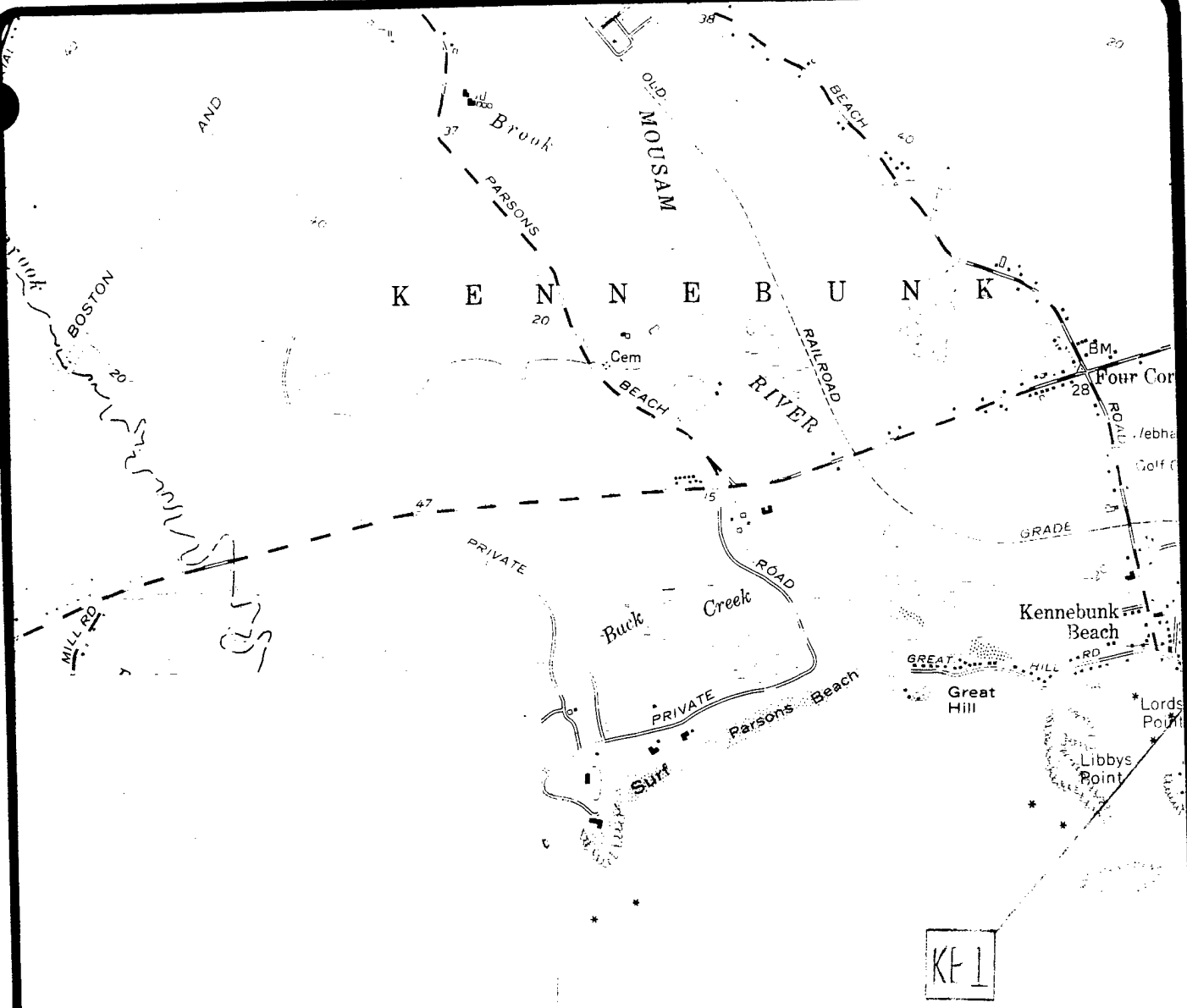
NED FORM 203
1 APR 78






Kennebunk Beach
Beach Avenue
Driveway
New Brown House
#102
Brown weathered shingle house
white basement door
PK Nail with orange ribbon approx. 22 inches from bottom of door.
Gray House
Pole # J49
Roadway

KB3



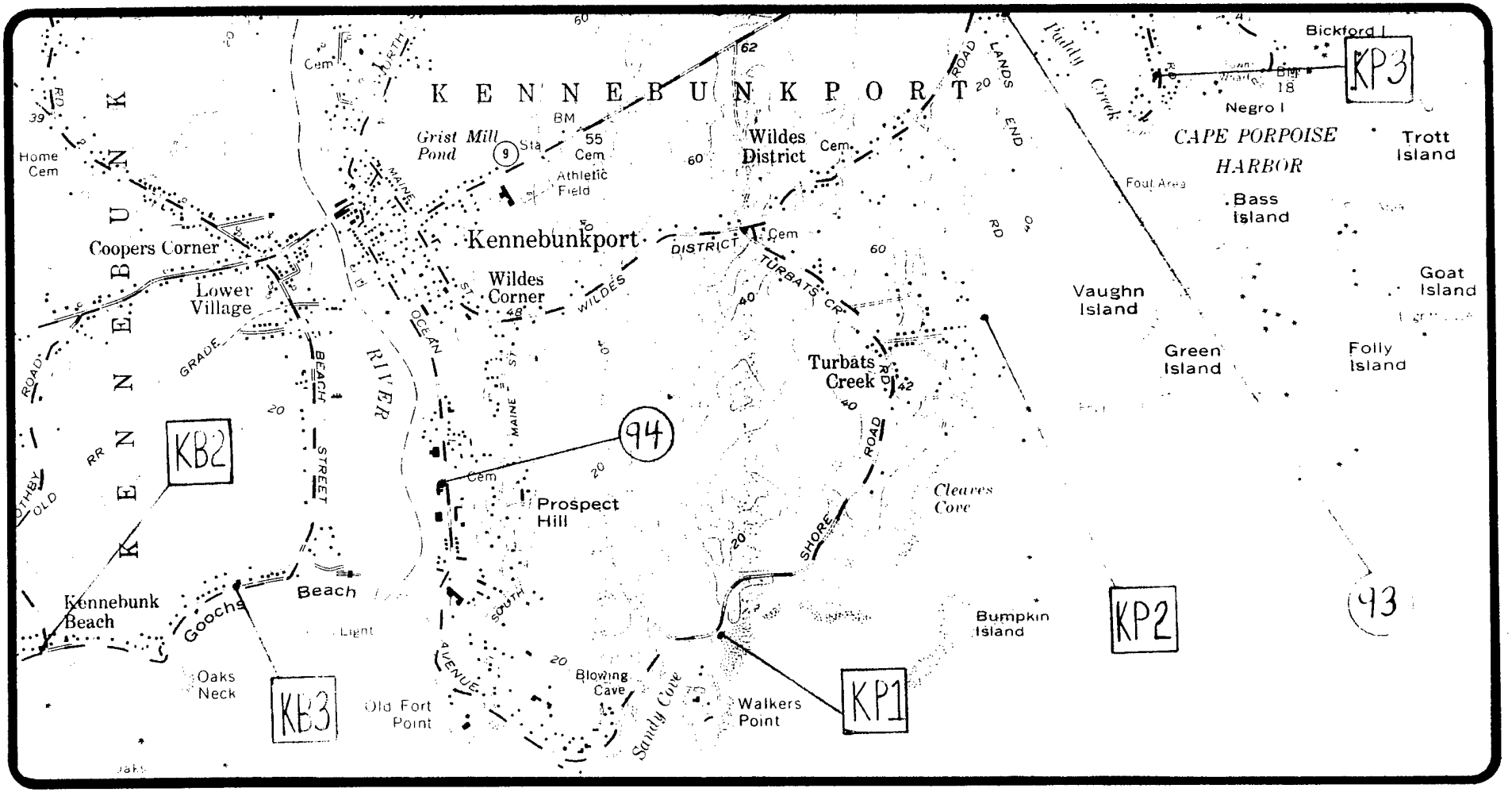
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Wells, Maine

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Kennebunkport, Maine

US Army Corps of Engineers
New England Division

APPENDIX

KENNEBUNKPORT, MAINE

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean (Name of River, Bay or Harbor) | (Miles from Mouth) | KP1 (Watermark No.)

(Tributary of) | Kennebunkport (City or Town) | ME (State)

Description of high watermark: Ribbon on yellow "Hidden Drive" sign on left side of street. Ribbon is approximately 22 inches above the ground. The sign is around the corner after Bush's house.

6 November 1991 (Date obtained) | Karen Schofield and John Yen (Obtained by)

(Name and address of person pointing out high watermark)

Line of debris on side of road and along brush.
Road is washed out and ocean debris within marshland.
(If not pointed out, how obtained?) (Date and hour of high watermark)

(Elev. of high watermark) (Datum) | (Benchmark referred to) (Datum)

(Elevation of high watermark above water surface) | (Date & Hour) | (Class. of watermark)

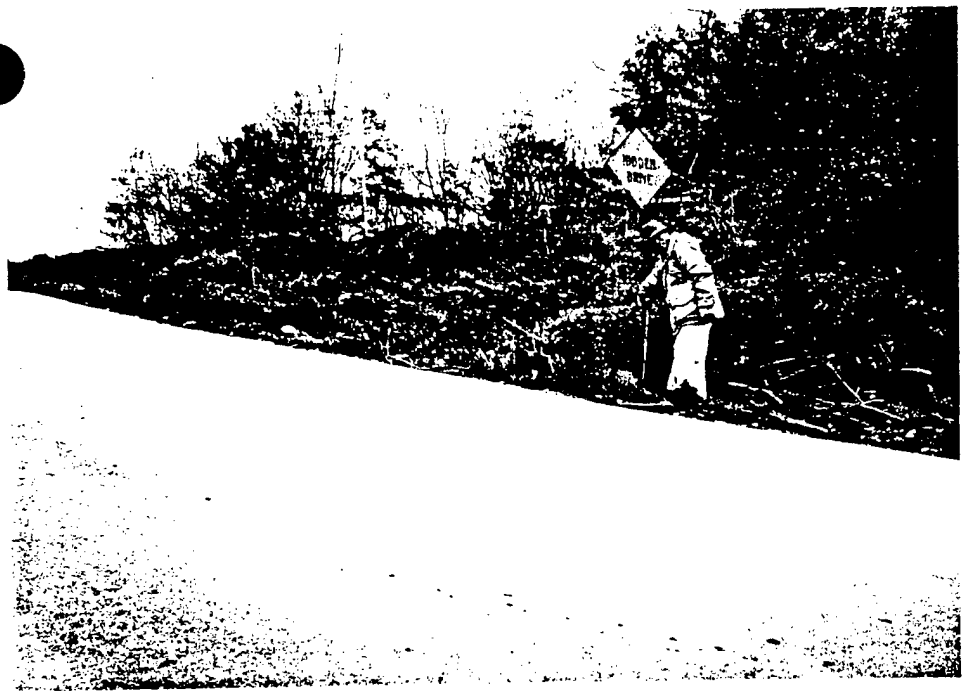
(Elevation determined by) | (Date) | (Order of levels)

(Nearest dam upstream or downstream) | (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

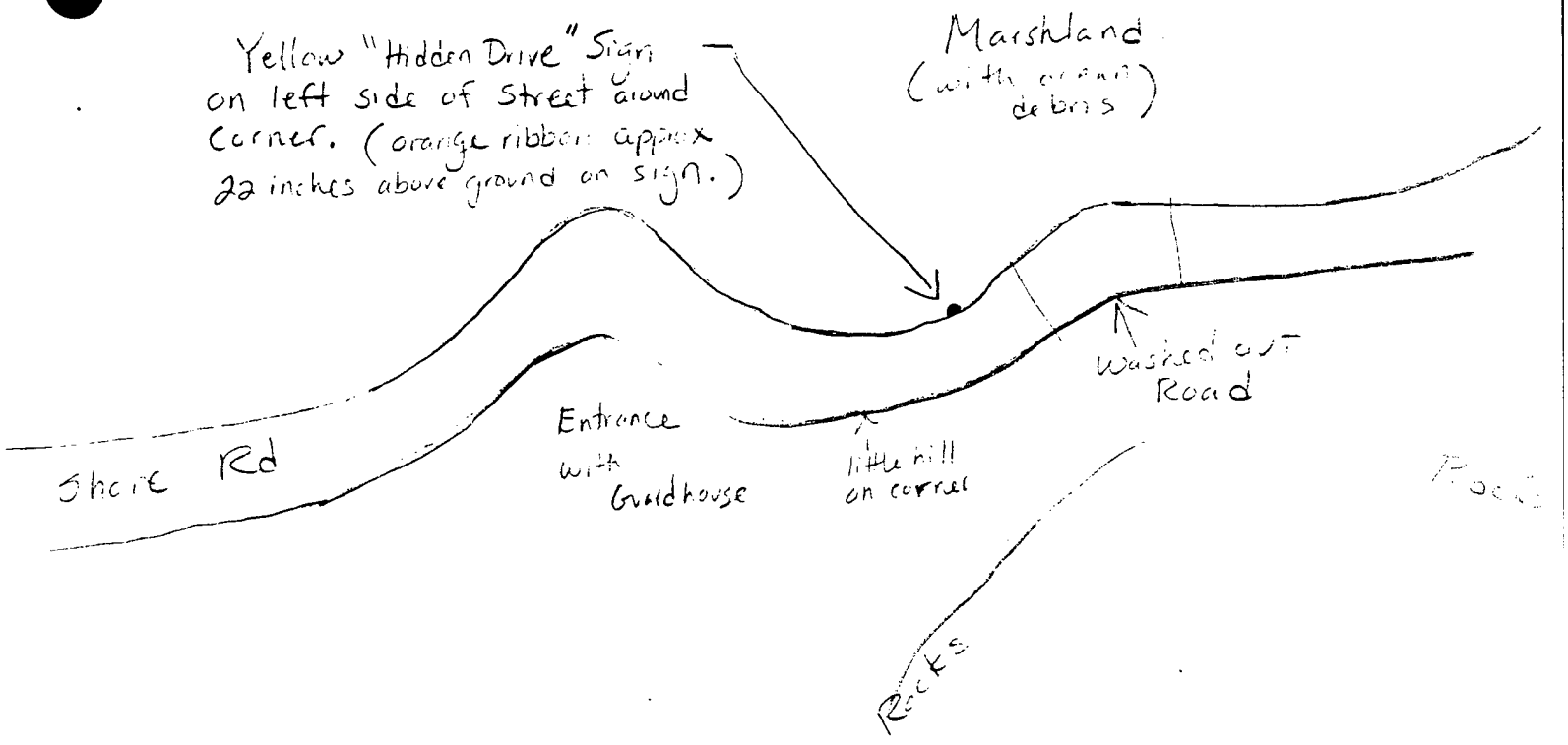
NOTE: Confident Point. Knowledge that road was flooded backed up by marsh on other side full of debris and a distinct line on the shoulder of the road.

NED FORM 203
1 APR 78



TO BUSH'S HOUSE





KP1

Walker's Point

Bush's House

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Turbats Creek (Name of River, Bay or Harbor) | (Miles from Mouth) | KP2 (Watermark No.)

(Tributary of) | Kennebunkport (City or Town) | ME (State)

Description of high watermark: Mr. Fick has a dated line on the back side of the house near the stairs. Orange ribbon also marks location. Mark is approx.

6 November 1991 (Date obtained) | Karen Schofield and John Yen (Obtained by)

Mr. William Fick (at the end of road to Shawmut Inn) (Name and address of person pointing out high watermark)

(If not pointed out, how obtained?) | (Date and hour of high watermark)

(Elev. of high watermark) (Datum) | (Benchmark referred to) (Datum)

(Elevation of high watermark above water surface) | (Date & Hour) | (Class. of watermark)

(Elevation determined by) | (Date) | (Order of levels)

(Nearest dam upstream or downstream) | (Latitude and longitude of watermark)

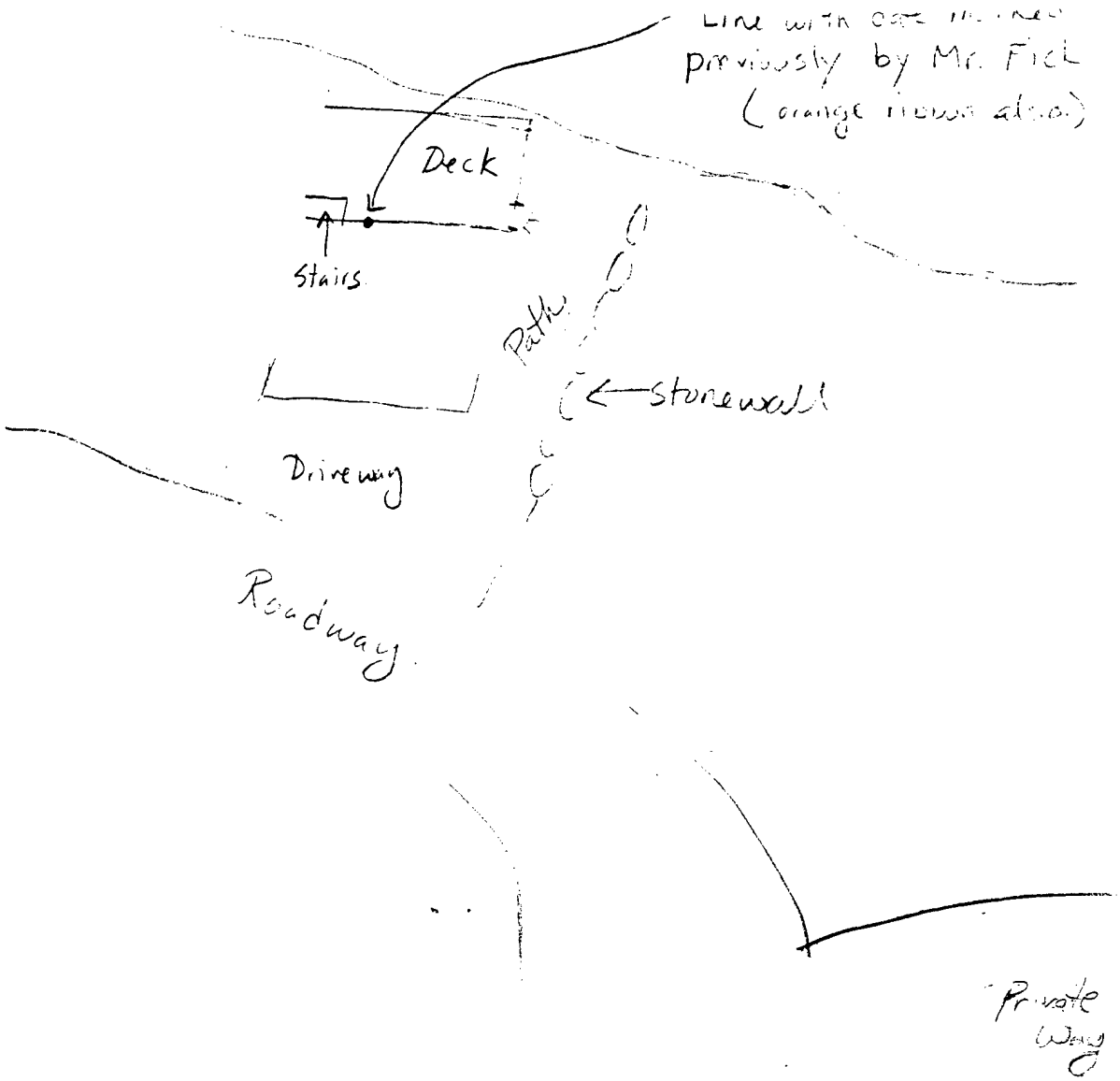
Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Confident Point. Marked and dated by owner. Substantiated by washed out roads and marshland in area.

NED FORM 203
1 APR 78







KP 2

Shawmut Ave

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Cape Porpoise Harbor (Name of River, Bay or Harbor) | (Miles from Mouth) | KP3 (Watermark No.)

(Tributary of) | Kennebunkport (City or Town) | ME (State)

Description of high watermark: Hydrant has orange ribbon around it, BUT the high water mark is approximately 1 inch below bottom of hydrant (not where ribbon indicates). Ribbon only to show hydrant.

6 November 1991 (Date obtained) | Karen Schofield and John Yen (Obtained by)

(Name and address of person pointing out high watermark)

Distinct debris line (If not pointed out, how obtained?) | (Date and hour of high watermark)

(Elev. of high watermark) (Datum) | (Benchmark referred to) (Datum)

(Elevation of high watermark above water surface) | (Date & Hour) | (Class. of watermark)

(Elevation determined by) | (Date) | (Order of levels)

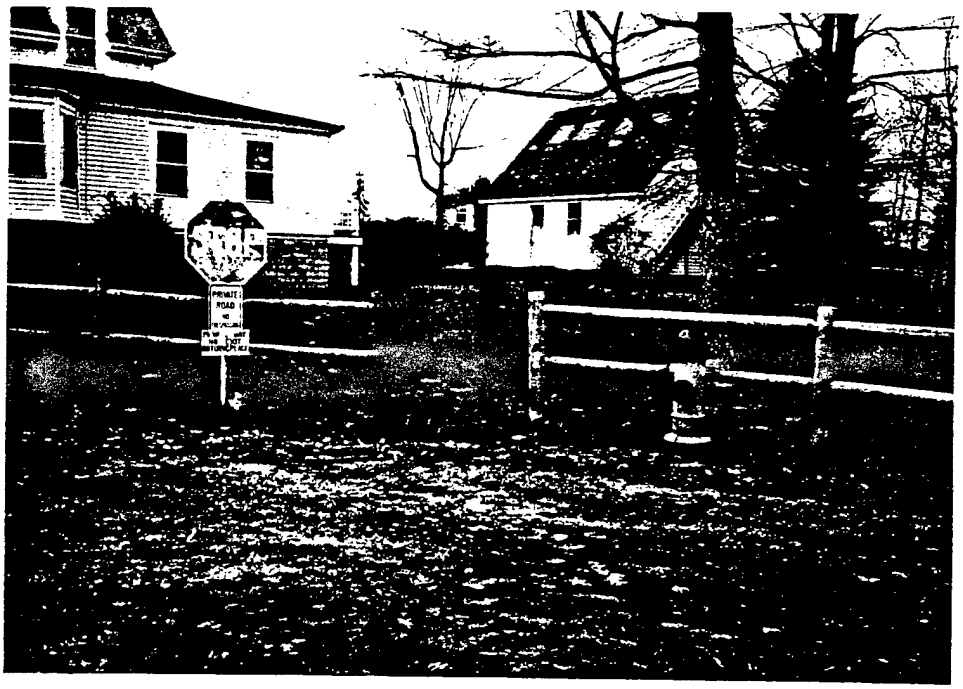
(Nearest dam upstream or downstream) | (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

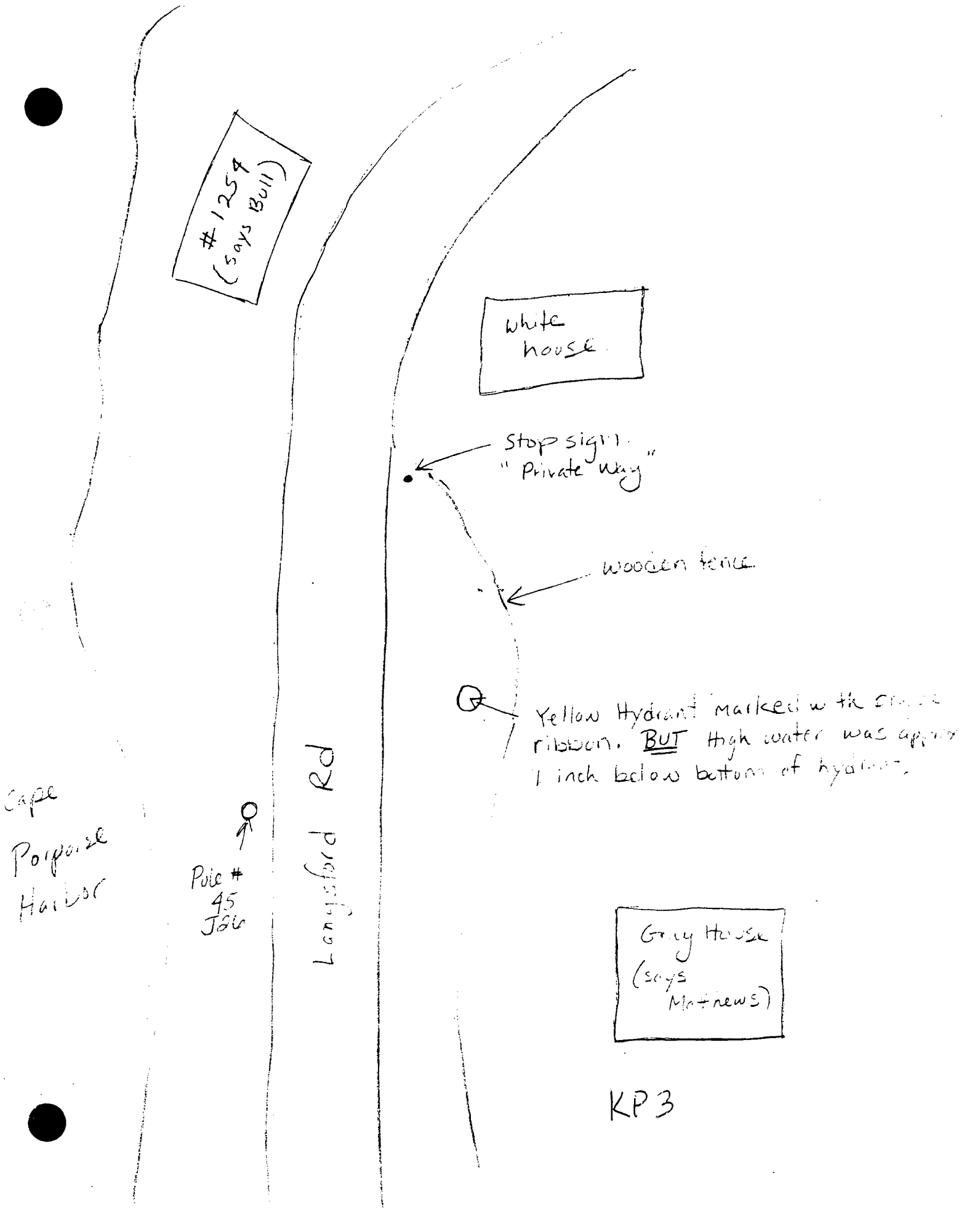
NOTE: Confident Point. Distinct debris line and indications road was flooded. Road is near the harbor.

NED FORM 203
1 APR 78





Highwater at debris line
Below Wyatt


#1254
(says Bull)
white house
Stop sign
"Private Way"
wooden fence
Yellow Hydrant marked w the
ribbon. BUT High water was
1 inch below bottom of hyd
Cape
Porpoise
Harbor
Pole #
45
J&C
Langsford Rd
Gray House
(says
Mathews)
KP 3

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		KP4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Kennebunkport	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: PK nail with orange ribbon to the left of red basement door. Nail is approximately 8 inches above ground.

6 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

Ben Tito, Marshall's Point
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

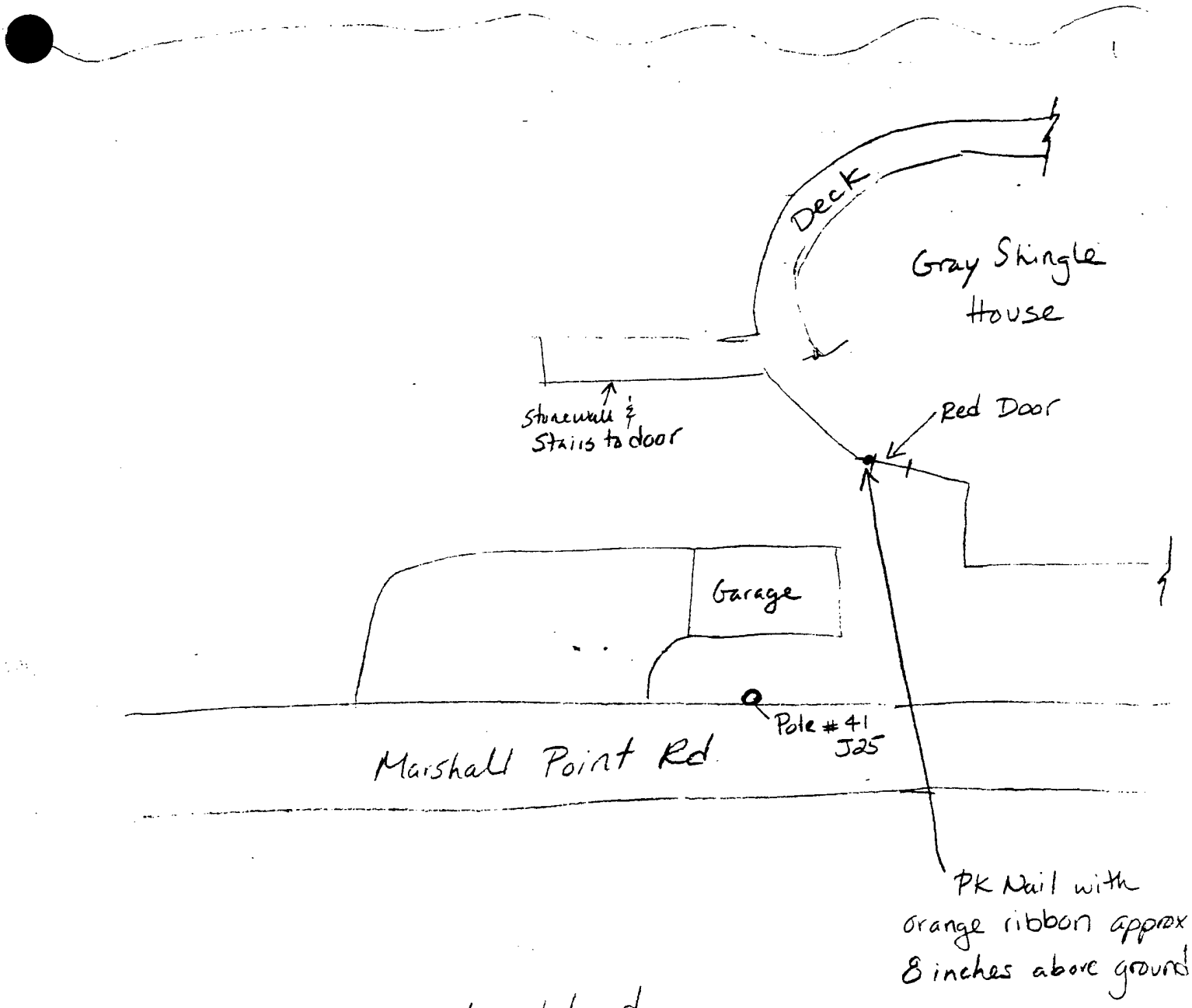
Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Mostly Confident Point. Flooded from marshland on opposite side of road. Distinct line. However, overtopping from other side has slight chance of affecting mark.

NED FORM 203
1 APR 78






Atlantic Ocean
Deck
Gray Shingle House
Stonewall & Stairs to door
Red Door
Garage
Pole #41 J25
Marshall Point Rd
PK Nail with orange ribbon approx 8 inches above ground
Marshland

KP4

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Gooseface Bay (Name of River, Bay or Harbor) | (Miles from Mouth) | KP5 (Watermark No.)

(Tributary of) | Kennebunkport (City or Town) | ME (State)

Description of high watermark: PK nail and orange ribbon on fence beside house (#301) (gray shingle). Mark is approximately 9 inches above bottom of fence.

(See map for location)

6 November 1991 (Date obtained) | Karen Schofield and John Yen (Obtained by)

(Name and address of person pointing out high watermark)

Debris line on fence and in the area.
Access to beach allowed water into low area.
(If not pointed out, how obtained?) | (Date and hour of high watermark)

(Elev. of high watermark) (Datum) | (Benchmark referred to) (Datum)

(Elevation of high watermark above water surface) | (Date & Hour) | (Class. of watermark)

(Elevation determined by) | (Date) | (Order of levels)

(Nearest dam upstream or downstream) | (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

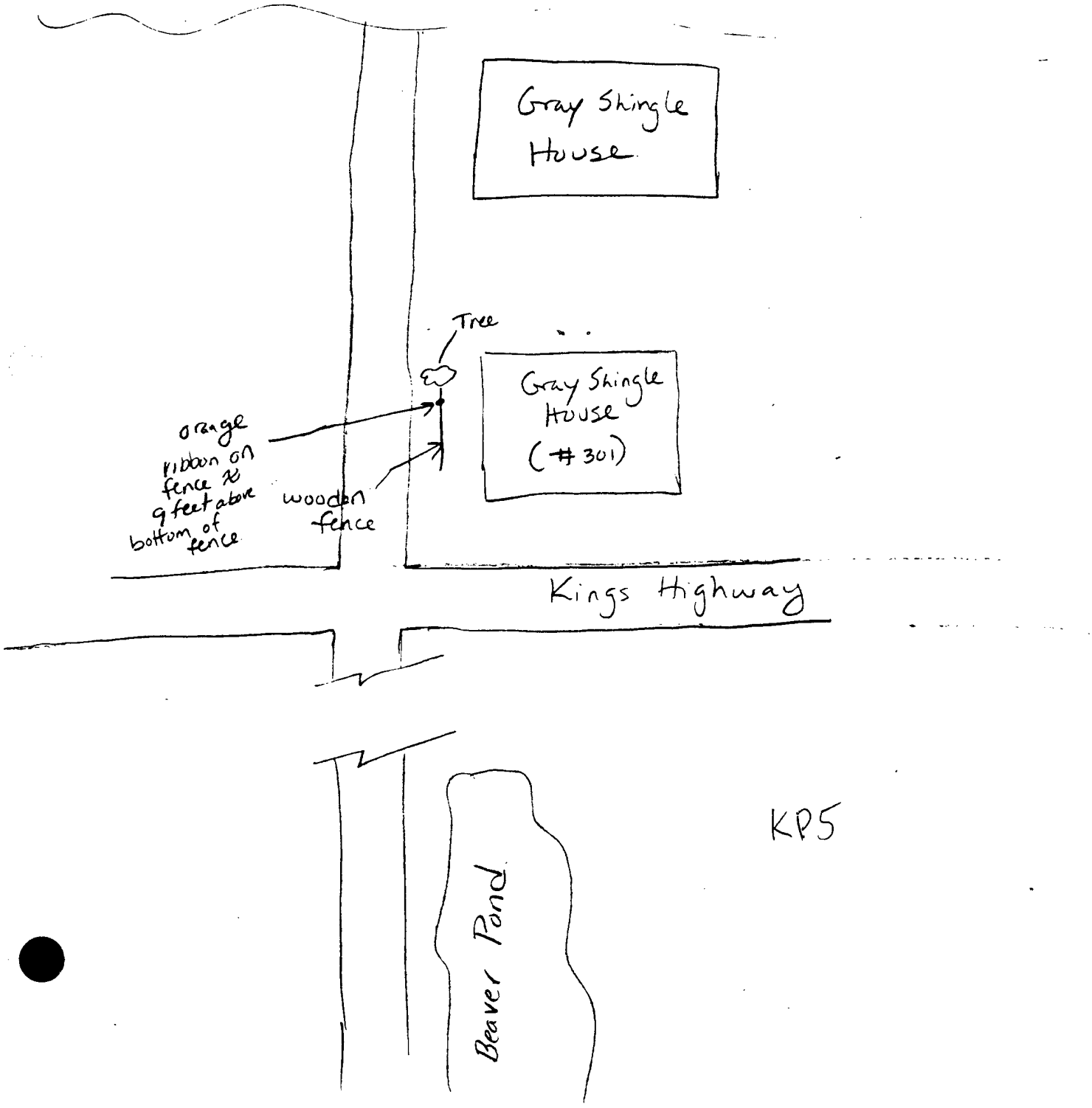
NOTE: Fairly Confident Point. Debris line distinct, however, beach seems almost same height or a little higher than mark, although sand may have been plowed back already.

NED FORM 203
1 APR 78





Goose Rocks Beach.



KP5

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Goosefare Bay (Name of River, Bay or Harbor) | (Miles from Mouth) | KP6 (Watermark No.)

(Tributary of) | Kennebunkport (City or Town) | ME (State)

Description of high watermark: Top of orange stake indicates the height of the water (approximately 2 inches above ground). The stake is at the end of the fence to the right of the last fencepost. High water at this point was from marshland behind house.

6 November 1991 (Date obtained) | Karen Schofield and John Yen (Obtained by)

Charles Wilson (owner) Box 808 Address: House #162 (probably Kings Highway)
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?) | (Date and hour of high watermark)

(Elev. of high watermark) (Datum) | (Benchmark referred to) (Datum)

(Elevation of high watermark above water surface) | (Date & Hour) | (Class. of watermark)

(Elevation determined by) | (Date) | (Order of levels)

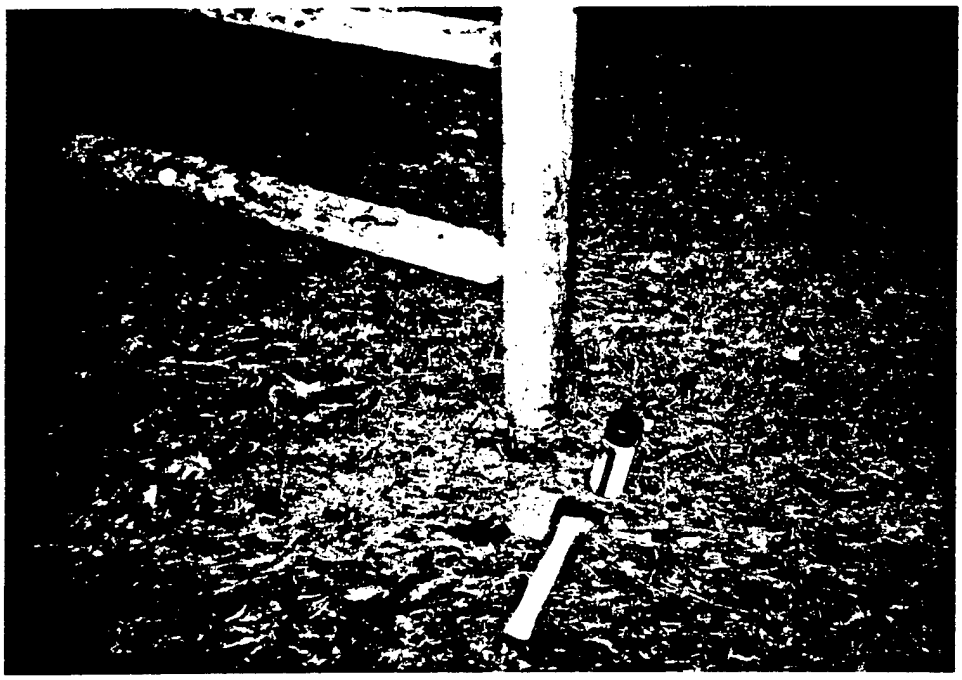
(Nearest dam upstream or downstream) | (Latitude and longitude of watermark)

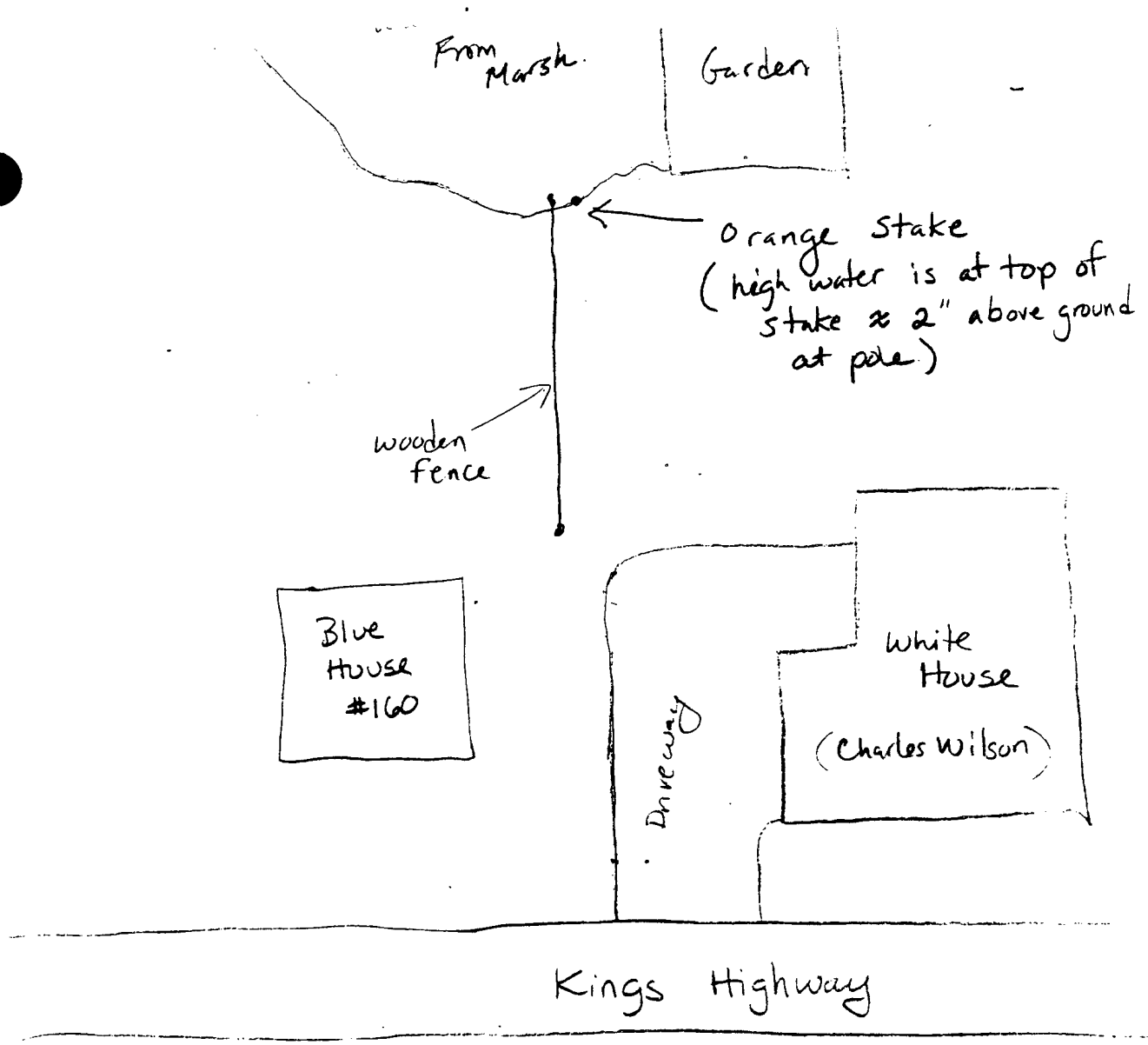
Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Confident Point. Owners described water location which agreed with debris lines in yard. Water from marsh beyond yard.

NED FORM 203
1 APR 78

Highwater Mark #8 Kennebunkport, ME.





KP6

Goose Rocks Beach

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Goosefare Bay		KP7
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Kennebunkport	ME
(Tributary of)	(City or Town)	(State)

Description of high watermark: PK nail and orange ribbon located on Pole #591 on Kings Highway in front of tan house (#158). Mark is approximately 6 inches above the ground at the pole.

6 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Distinct water mark on telephone pole level with sand left by water on driveway.

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

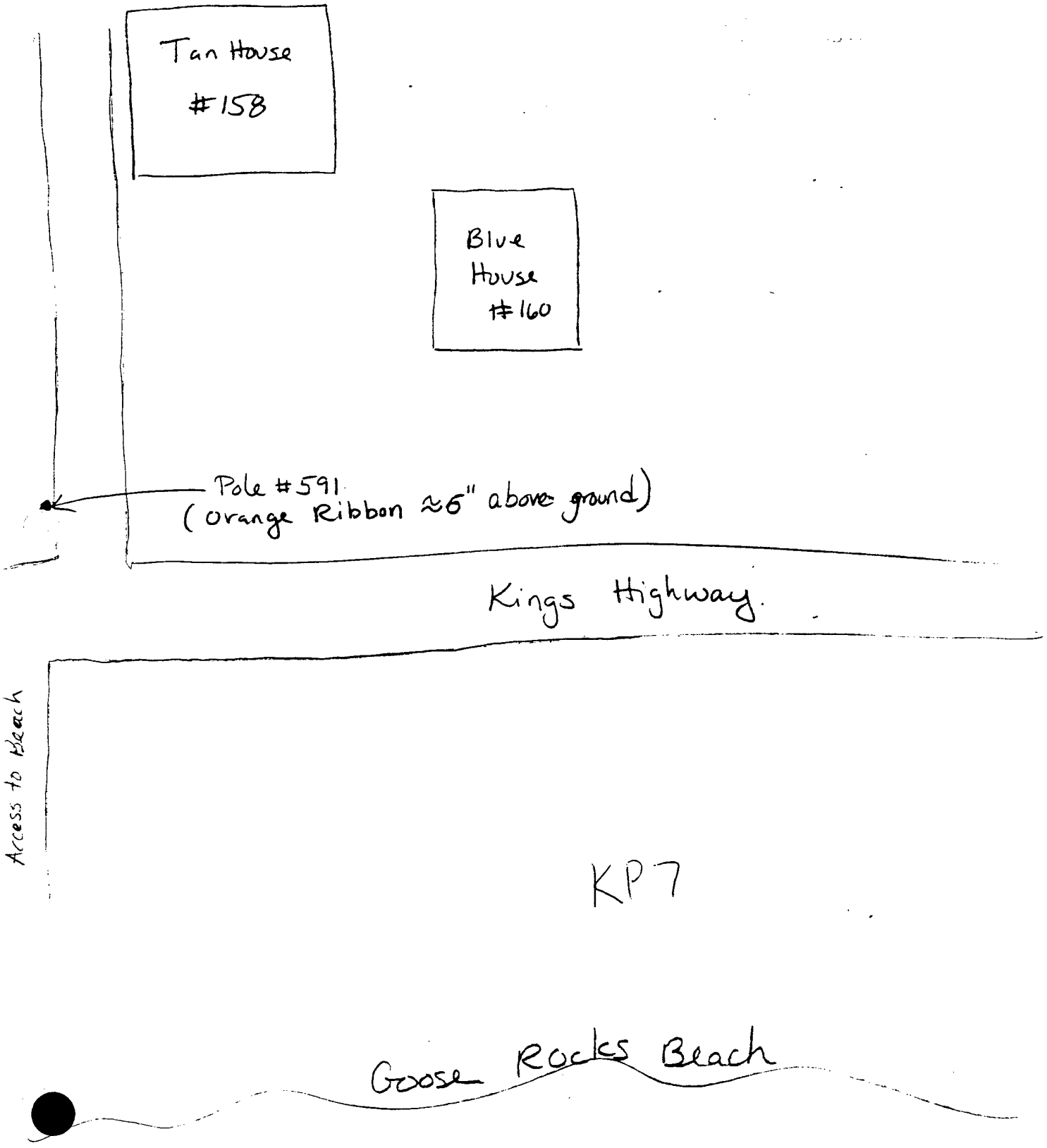
NOTE: Confident Point. Public way allowed surging waters to flood road and make distinct sand lines in yards and driveways.

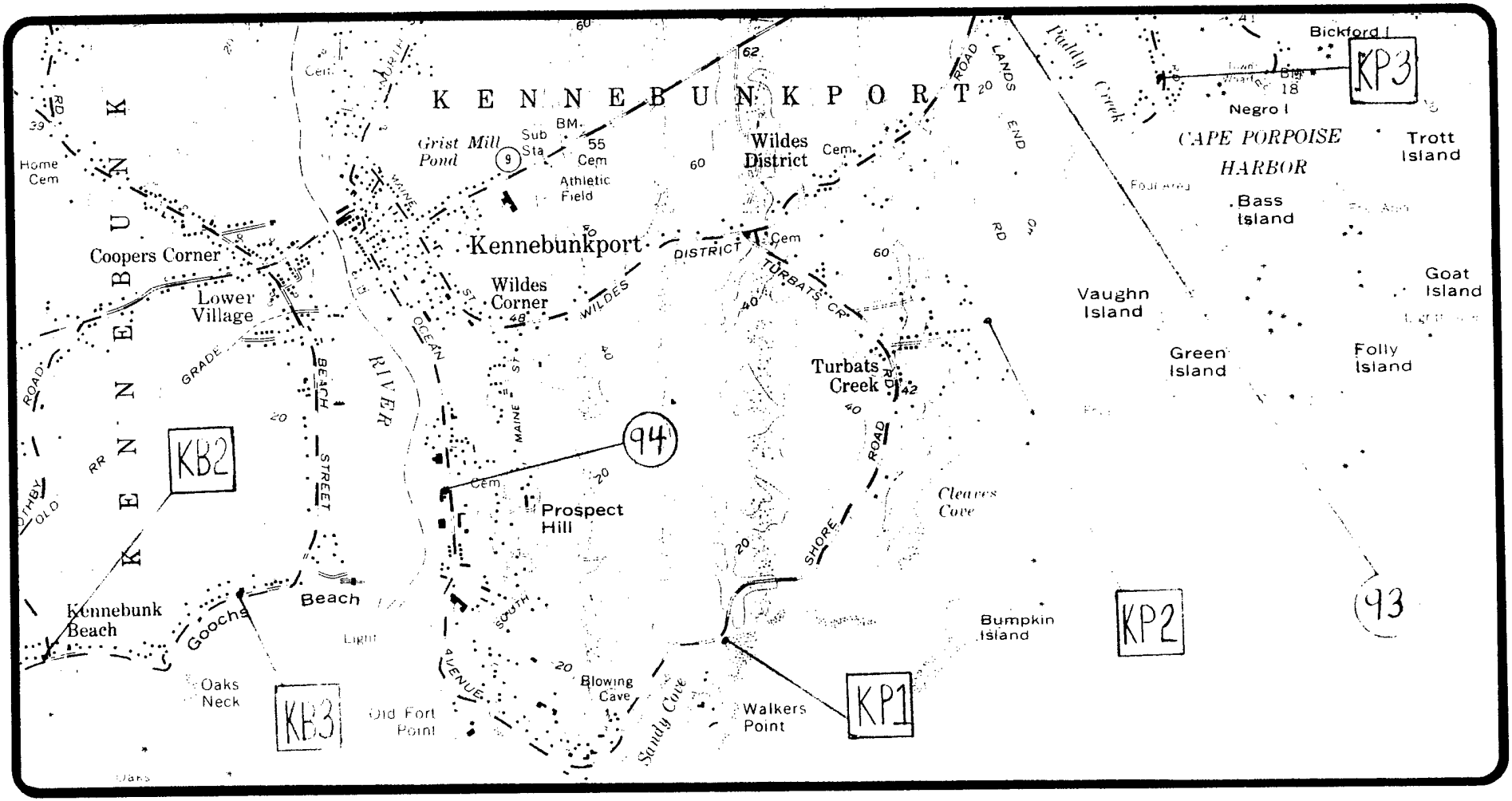
NED FORM 203
1 APR 78

Water Mark No. 1





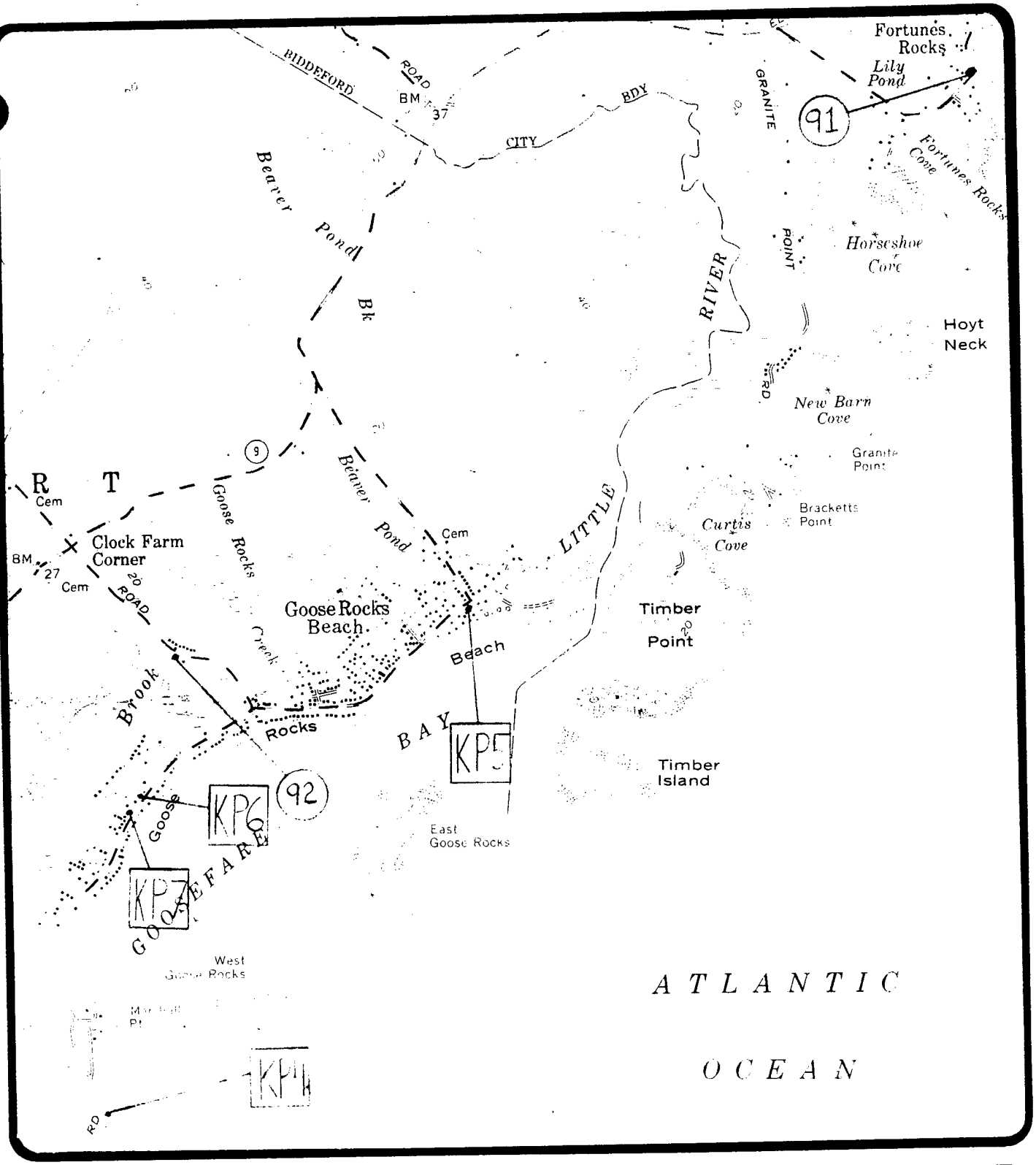

Tan House
#158
Blue House
#160
Pole #591
(Orange Ribbon ≈6" above ground)
Kings Highway.
Access to Beach
KP 7
Goose Rocks Beach



High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Kennebunkport, Maine

US Army Corps of Engineers
New England Division



High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Biddeford, Maine

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

APPENDIX

SEABROOK, NEW HAMPSHIRE

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Blackwater River		SB-1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Seabrook	NH
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange nail in tel. pole #1665, on Riverside on Blackwater River, approx. 2' from ground.

11/6/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Mill Creek	2	SB-2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Hampton River	Seabrook	NH
(Tributary of)	(City or Town)	(State)

Description of high watermark: Approximately 120 feet north of the Causeway Bridge there is an orange mark on the road; three feet off the road, to the east, is an orange stake that marks highwater.

11/6/92	Chris Hatfield and Wendall Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

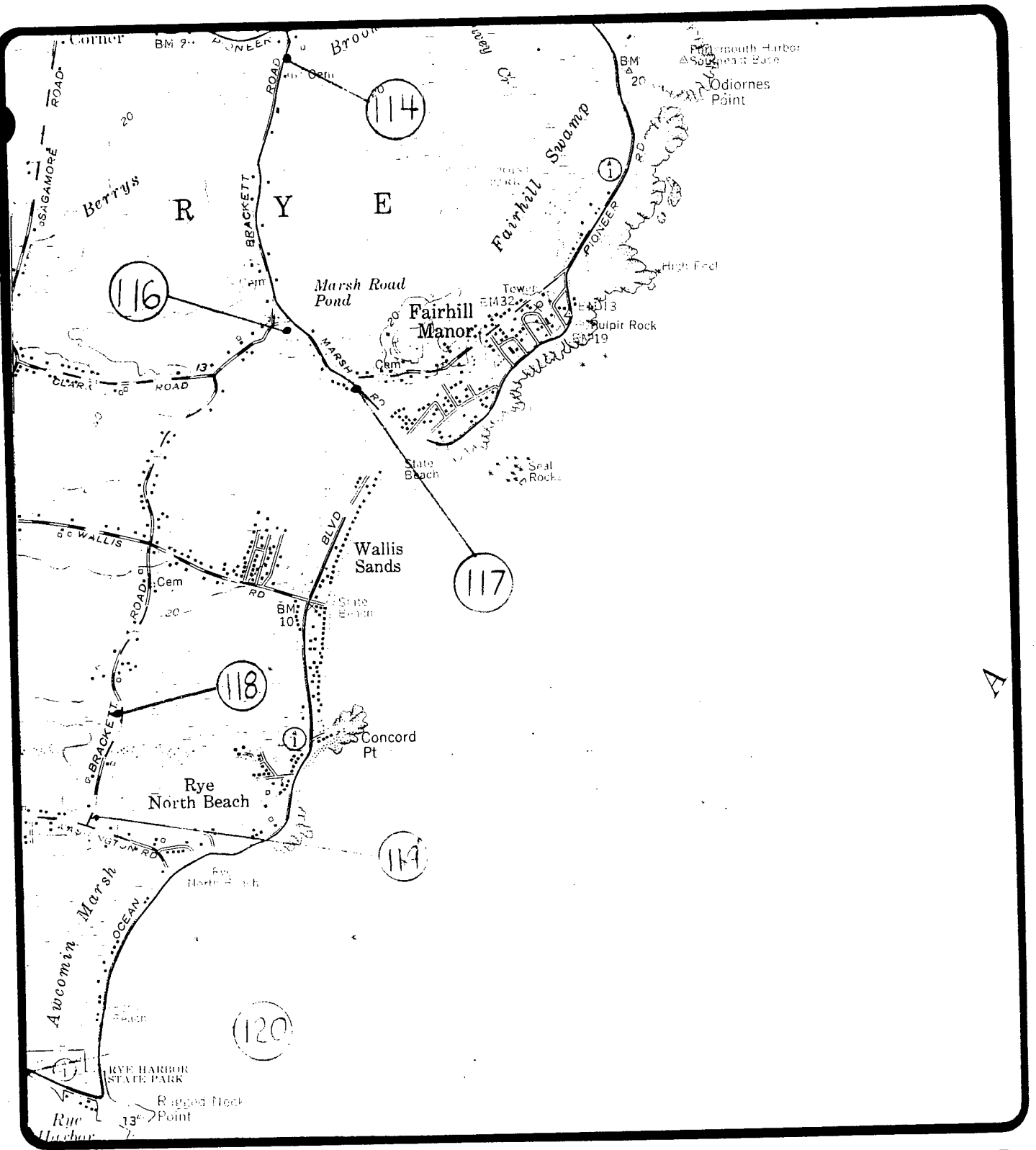
(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78



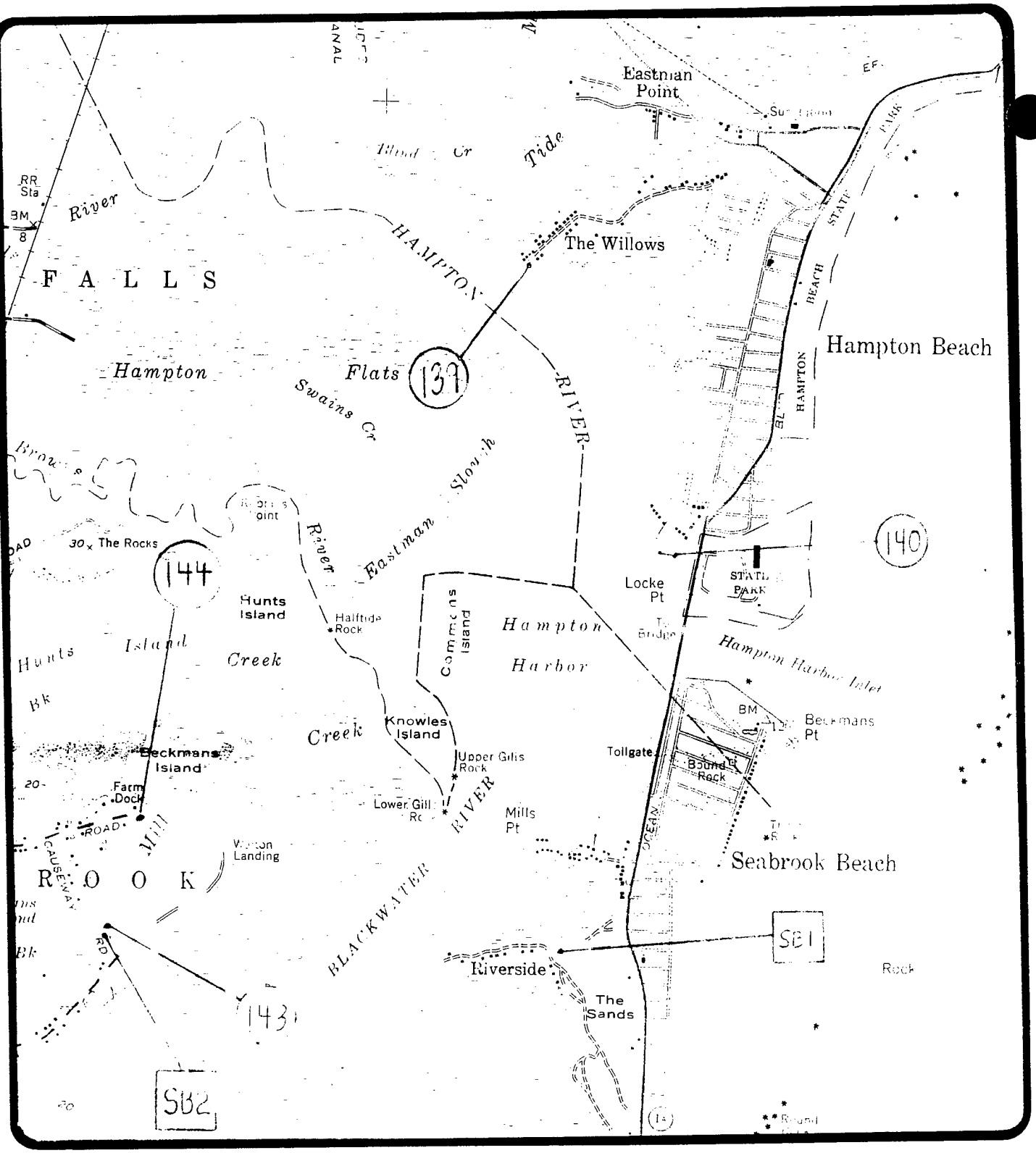
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Kittery, ME.-N.H.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Hampton, N.H.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

APPENDIX

SALISBURY TO ROCKPORT, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Black Rock Creek	1	S-1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Merrimack River	Salisbury	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Approx. 300' south of Salisbury State Park tollgate an orange dot on the side of road marks the spot to go off the road. The highwater point is about 25' to the west of the side of the road.

11/6/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Black Rock Creek		S-2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Salisbury	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange stake 30' off N.side of road to parking area near Black Rocks, 100' before parking lot.

11/6/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

(Name of River, Bay or Harbor)	(Miles from Mouth)	S-3 (Watermark No.)
(Tributary of)	Sailsbury (City or Town)	MA (State)

Description of high watermark: Orange nail in utility pole #4 on Tenth Street, picture is near 19 Tenth Street. Nail is 9" from bottom of pole.

11/6/91 (Date obtained)	Chris Hatfield and Wendell Mah (Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Merrimack River	3	N-1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Newburyport	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nail placed 2 feet from bottom of utility pole #5 across from "Captain's Quarters" restaurant (in parking lot).

11/4/91	Chris Hatfield / Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Merrimack River	2	N-2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Newburyport	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Top of granite curb in front of coast guard station.

11/4/91	Chris Hatfield / Wendell Mah
(Date obtained)	(Obtained by)

From Coast Guard personnel station, Merrimack River
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Merrimack River	2	N-3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Newburyport	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Base of utility pole #63 on Water Street in front of gray house #282.

11/4/91	Chris Hatfield/Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Plumlsland River		N-4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Newburyport	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Toe of slope on southside of west approach, near utility pole #41; Plum Island River Bridge on plum Island Turnpike

11/4/91	Chris Hatfield/Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Plum Island River		N-5
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Newburyport	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Opposite side of N-4 on west approach. Again directly opposite utility pole #41; marked by 3 orange painted stakes.

11/4/91	Chris Hatfield/Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Merrimack River	½	N-6
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Newburyport	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange marked nail in utility pole #254-3 on S-Street at Plum Island.

11/4/91	Chris Hatfield/Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Pine Island Creek		N-7
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Newburyport	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Debris line in south side of Pine Island Road in fornt of white house, possibly #93 or 94 Avery; 13 feet from old well.

11/4/91	Chris Hatfield/Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Parker River		N-8
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Newburyport	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: 73 Cottage road; (marsh solitude)
approx. 8 feet above foundation of garage.

11/4/91	Chris Hatfield/Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Parker River		N-9
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Newbury	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange spray paint line on S.E. bridge abutment; Parker River Bridge Rte 1A

11/4/91	Chris Hatfield/Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Plum Island River		N-10
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Newbury	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange stake on side off Sunset Dr. (Plum Island access Rd. 1.8 mi from maingate)

11/6/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Mud Creek		Ry-1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Rowley	Ma
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange marked stake on NE side of Rte. 1A Main St.; 500ft.from Rowley - Newbury town line, across from utility pole #162

11/4 /91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Rowley River		Ry-2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Rowley	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange nail mark in utility pole near Perley's Marina about 1' up, Warehouse Lane - end of street.

11/4/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Eagle River	3	I-1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Ipswich	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Pink nail approximately 2 feet from the base of pole #7 on Jeffrey's Neck Rd.

11/4/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Eagle River	3	I-2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Ipswich	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: A colored stake and ribbon at the end of Seaview Road. The stake is a couple of feet off of the cul-de-sac on its western side.

11/4/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Fox Creek	2	I-3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Ipswich River	Ipswich	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Painted stake on the northside of Argilla Road around utility pole #5/153. Mark is near bridge over Fox Creek

11/4/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Fox Creek		I-4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Ipswich River	Ipswich	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange stake near Crane Beach Castle Hill sign on eastside of Argilla Rd near pole #518

11/4/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Labor Vain Creek		I-5
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Ipswich River	Ipswich	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange mark nail in tel. pole #41 on Labor Vain Rd 2 feet from bottom of pole, 2nd to last pole before bridge on southside of the Rd.

11/6/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Paine Creek (Name of River, Bay or Harbor)	(Miles from Mouth)	I-6 (Watermark No.)
(Tributary of)	Ipswich (City or Town)	MA (State)

Description of high watermark: Orange circle spray paint around nail on ctr. line of road, 350' before Culvert Town Farm Rd.

11/6/91 (Date obtained)	Chris Hatfield and Wendell Mah (Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Essex River		E-1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Essex	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Pink marked nail in tel. pole #288, Main St. rte. 133 nea
Callahan's restaurant parking, nail is approx. 2' from bottom.

11/4/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Essex River		E-2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Essex	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: A pink nail mark in utility pole # 744 about two feet from its base. The pole is located on Robins Island Rd. in front of resident #12

11/4/91 (Date obtained)

Chris Hatfield and Wendell Mah (Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)

(Date and hour of high watermark)

(Elev. of high watermark) (Datum)

(Benchmark referred to) (Datum)

(Elevation of high watermark above water surface)

(Date & Hour) (Class. of watermark)

(Elevation determined by)

(Date) (Order of levels)

(Nearest dam upstream or downstream)

(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Marsh behind Whiler Hill		E3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Essex	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange stake on NE side of Island Road across from pole #1032

11/6/91	Chris Hatfield and Wendall Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Jones River (Name of River, Bay or Harbor)	(Miles from Mouth)	G-1 (Watermark No.)
(Tributary of)	Gloucester (City or Town)	MA (State)

Description of high watermark: Orange marked stake, 50' down dirt access Rd. off of Atlantic Ave. near pole #1693; 1/10 mi. south of Town Landing Road.

11/4/91 (Date obtained)	Chris Hatfield and Wendell Mah (Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Jones River	2	G-2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Annisquam	Gloucester	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: ~~Pink~~ Pk nail marker about 2' from base of utility pole #7248 on Causeway Street. The pole is located across from Don Sudbay Buick Oldsmobile.

11/4/91	Chris Hatfield and Wendall Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Mill River	1	C-3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Gloucester	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: At the intersection of Rt. 127 and Hodgkins St. High water mark located on utility pole #181 about 1-2' form the base (near granite memorial).

11/5/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Lobster Cove	1	G-4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Gloucester	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: White house behind the Annisquam Village Church on Leonard Street. High water mark begins about 16" below the foundation line on the house's west side

11/5/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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New England Division, Corps of Engineers
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Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

next to Hogkins Cove (Name of River, Bay or Harbor) | (Miles from Mouth) | G-5 (Watermark No.)

(Tributary of) | Gloucester (City or Town) | MA (State)

Description of high watermark: Orange paint mark on rock next to channel on Colburn Avenue. The mark is about 20' from utility pole #2 on Colburn Avenue.

11/5/91 (Date obtained) | Chris Hatfield and Wendell Mah (Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?) | (Date and hour of high watermark)

(Elev. of high watermark) (Datum) | (Benchmark referred to) (Datum)

(Elevation of high watermark above water surface) | (Date & Hour) | (Class. of watermark)

(Elevation determined by) | (Date) | (Order of levels)

(Nearest dam upstream or downstream) | (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Marsh behind Good Harbor Beach		G-6
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Gloucester	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange mark nail in pole # 7591 on Rte. 127A west on westbound side about guard rail level.

11/5/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Gloucester Harbor		G-7
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Gloucester	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: High water mark is about 1' below base of tree (see picture) at entrance to Eastern Point Light Station. Tree is just to the left inside entrance; in front of commemorative bell.

11/5/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Smith Cove		G-8
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Gloucester	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange stake on top of bank between revetment and parking lot 4' off sidewalk

11/5/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Back Bay of Annisquam River	½	G-9
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Gloucester	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange nail marker at the bottom of utility pole #465 on Stuart Rd., Gloucester. The pole is at the bend in the road.

11/5/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Freshwater Cove		G-10
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Gloucester Harbor	Gloucester	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Proceed north on Dolliver Neck Rd.
at the end of the Old House Cove Seawall, go 50' to the west into the marsh.

Nailed ribbon is at the base of an old leaning tree.

11/5/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Essex River Marsh		G-11
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Gloucester	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange stake about 50' off Rd. in marsh at road bend of Concord Street, follow flagged tree across from utility pole #136 just beyond house #200.

11/6/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Folly Cove	3/4 Mi. from end of cove	R-1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Rockport	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange paint mark on stake, 50' from N.E. stone wall of entrance and 50' from pole #1702 of Folly Cove Pier Restaurant parking.

11/5/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?) (Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)

(Nearest dam upstream or downstream) (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Rockport	¼	R-2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Rockport	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange tape and nail in utility pole #1002 on "T" pier; across from the Rockport Forest Fire Dept. The mark is approx. 2' from the base of the pole.

11/5/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark) (Datum)	(Benchmark referred to) (Datum)
(Elevation of high watermark above water surface)	(Date & Hour) (Class. of watermark)
(Elevation determined by)	(Date) (Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Saratogo Creek		R-3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Rockport	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: orange paint mark on west end of north abutment of Saratogo Creek Bridge.

11/5/91	Chris Hatfield and Wendell Mah
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

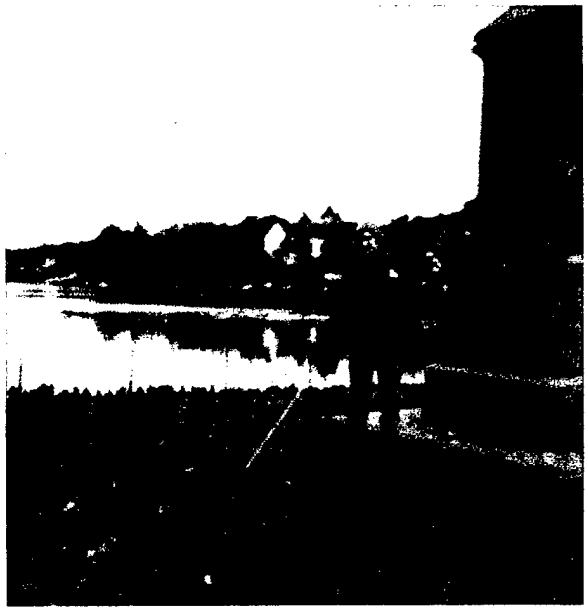
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
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G-1



G-3



G-4



G-6



G-7



G-8



G-9



G-10



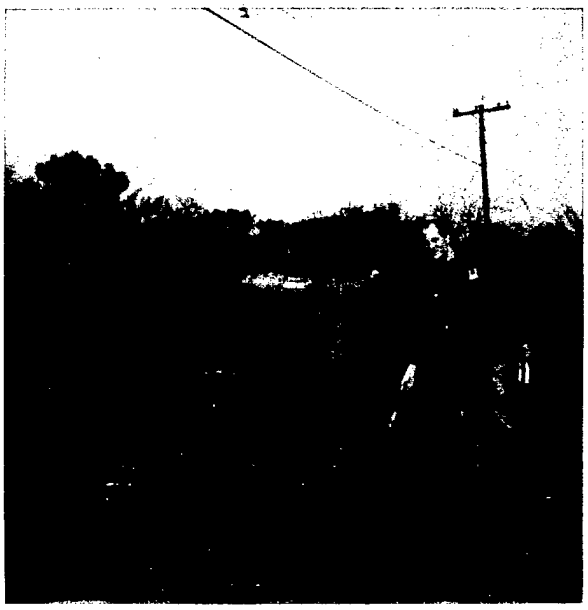
I-1



I-4



I-5



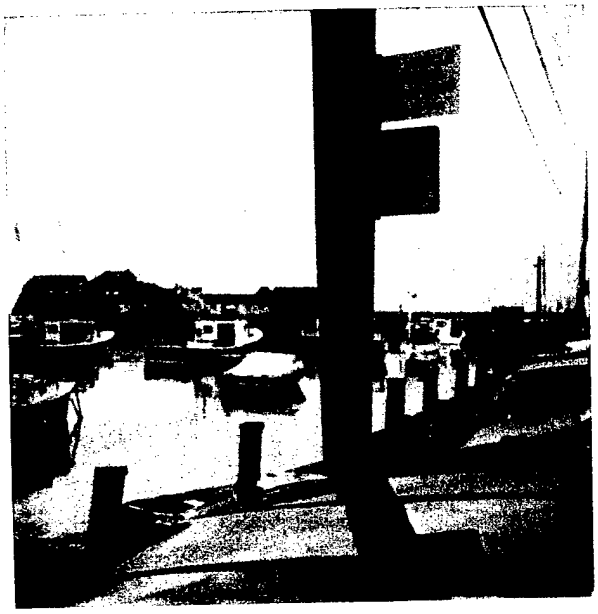
I-6 Town Farm Rd



G-11
Tommy Island in back



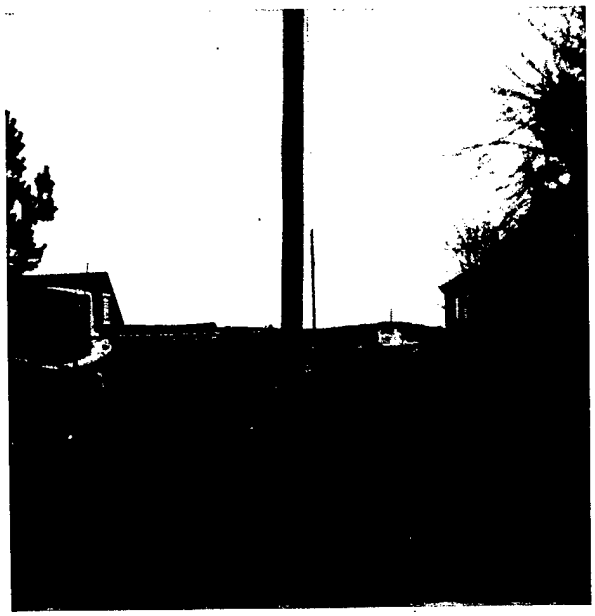
R-1



R-2



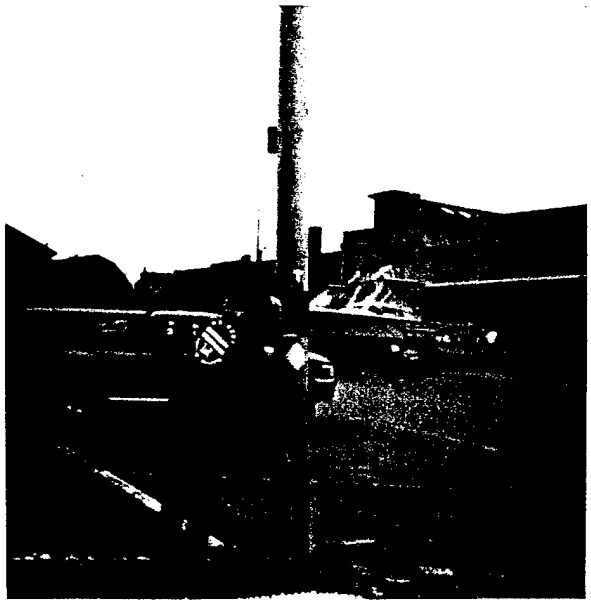
R-3



Ry-2



Ry-2



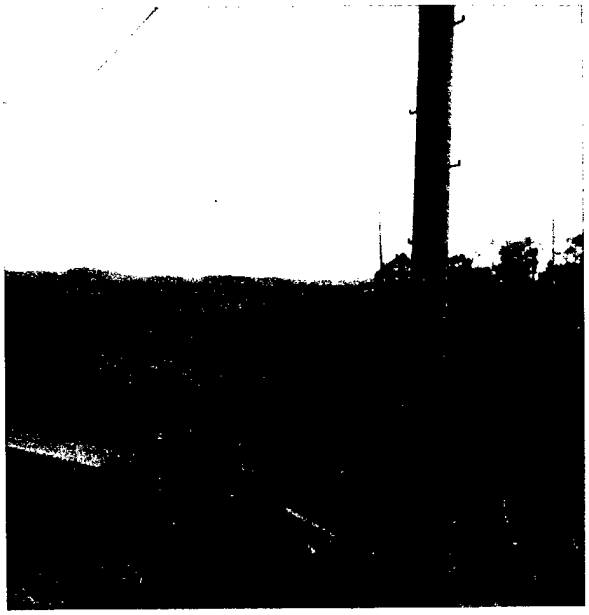
N-1



N-2



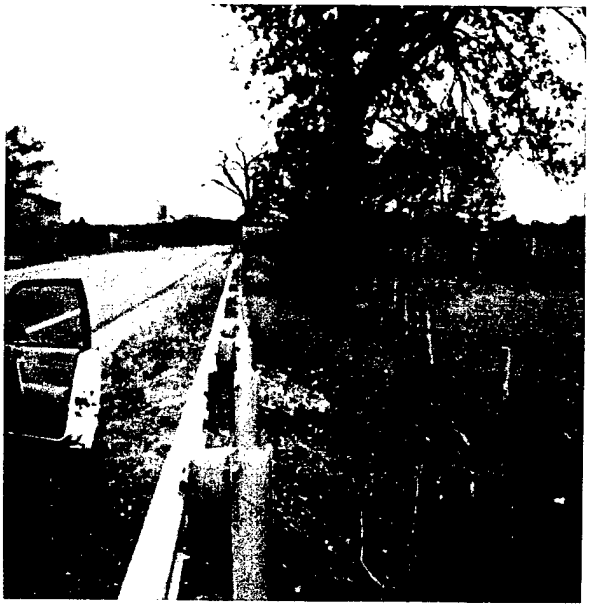
E-1



E-2



E-3



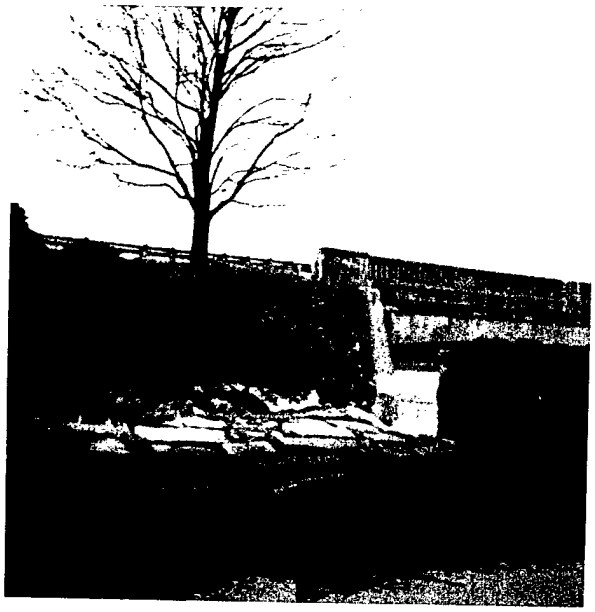
Ry-1



N-7



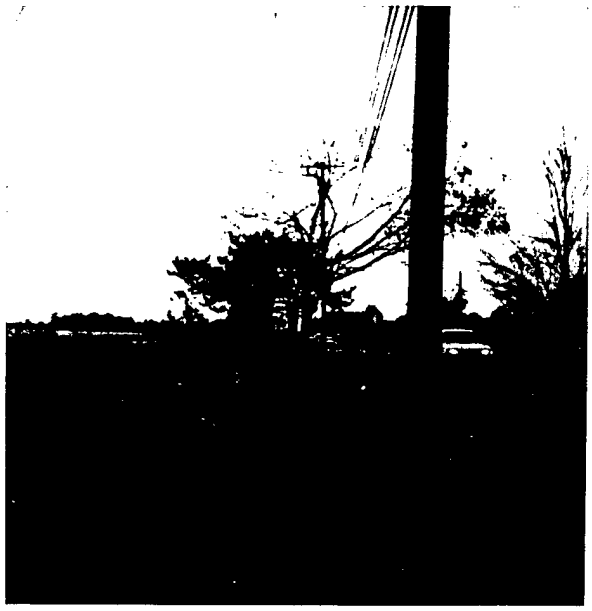
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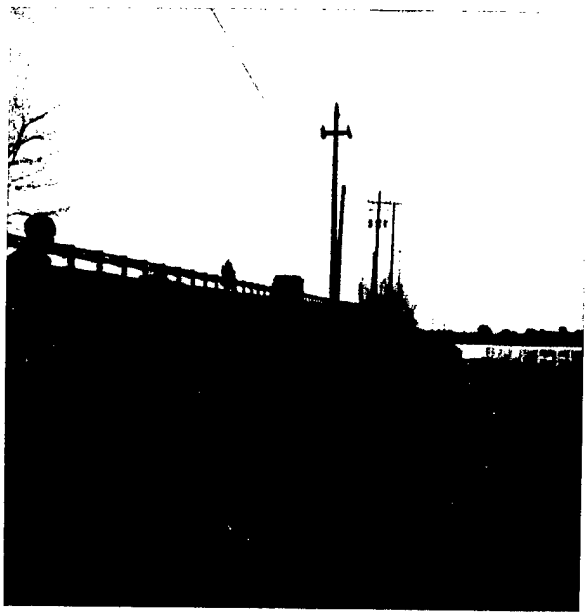
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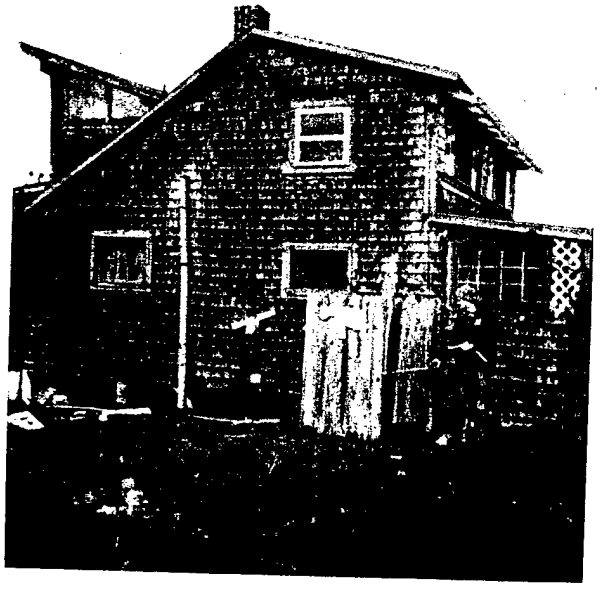
N-10



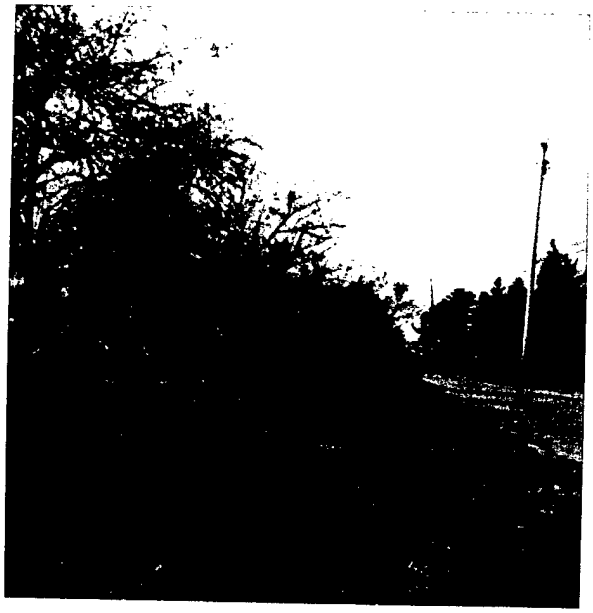
N-3



N-4



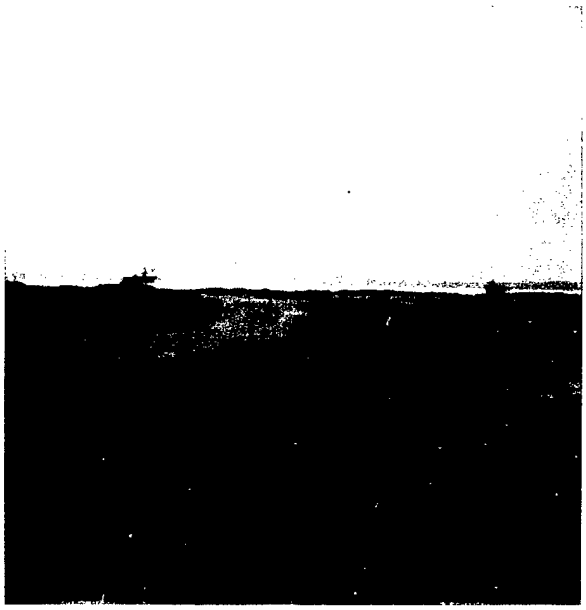
N-6



N-7



S-1



S-2



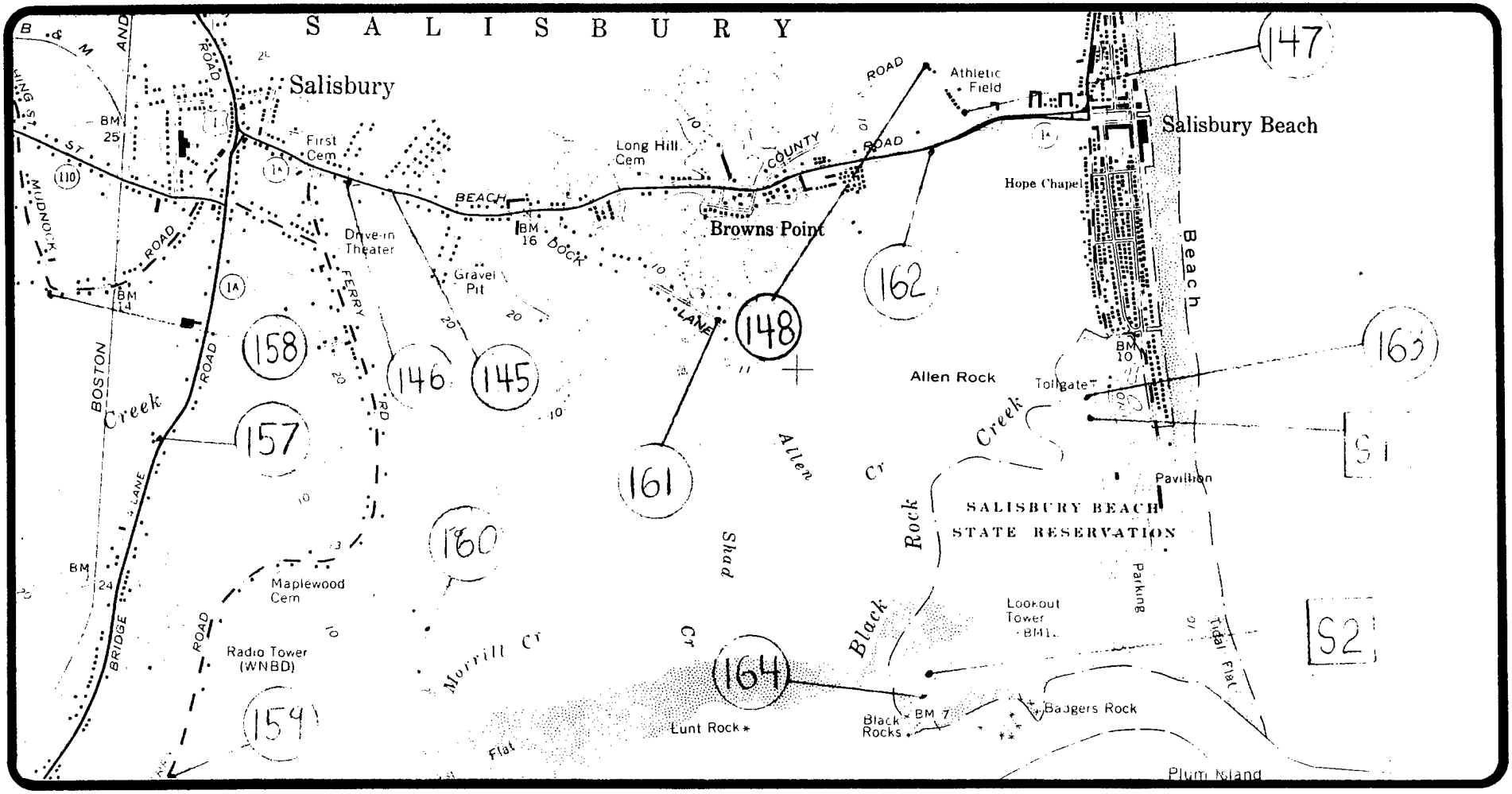
S-3



SB-1



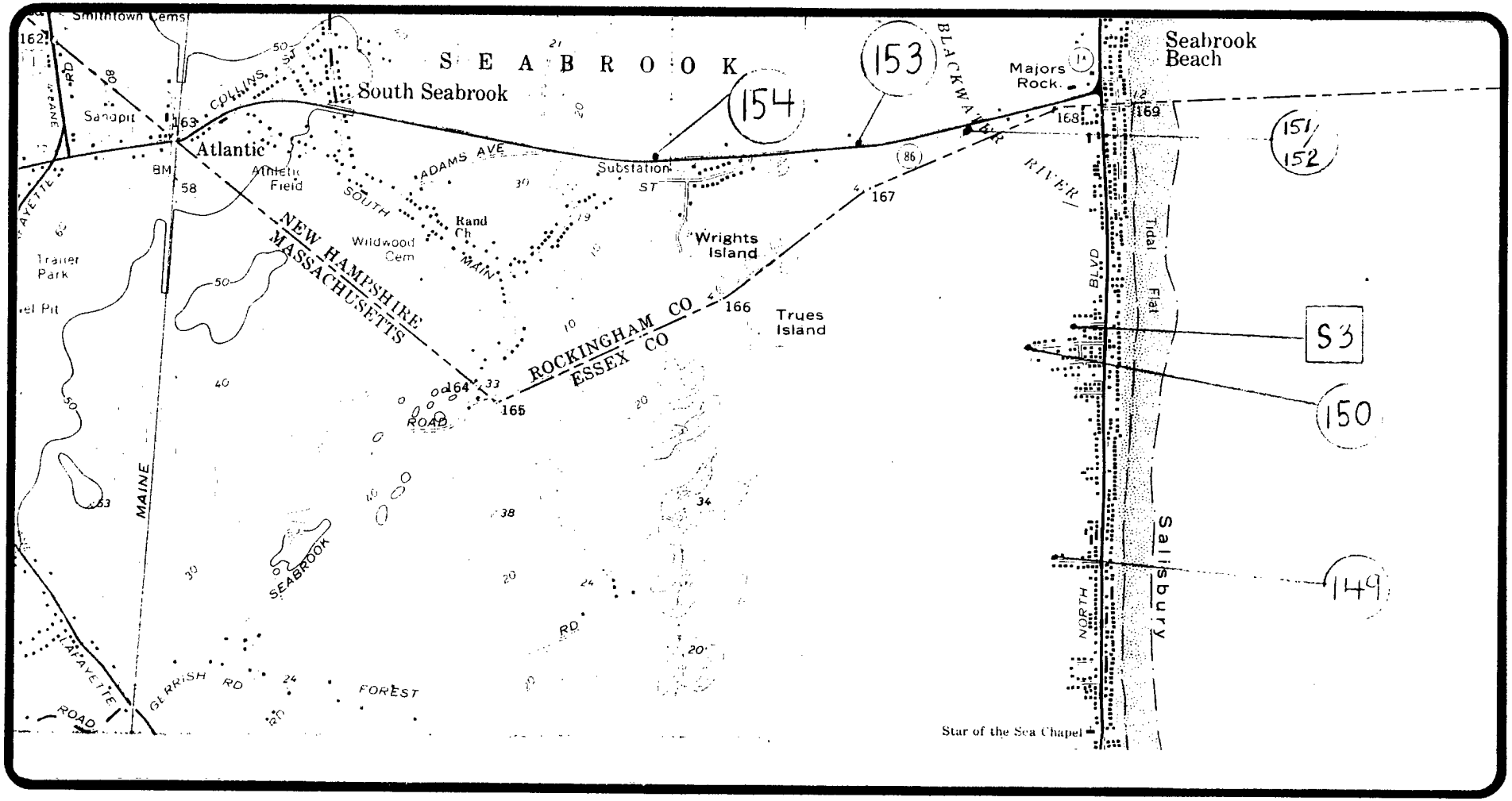
SB-2



High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - **Newburyport East, MA.**

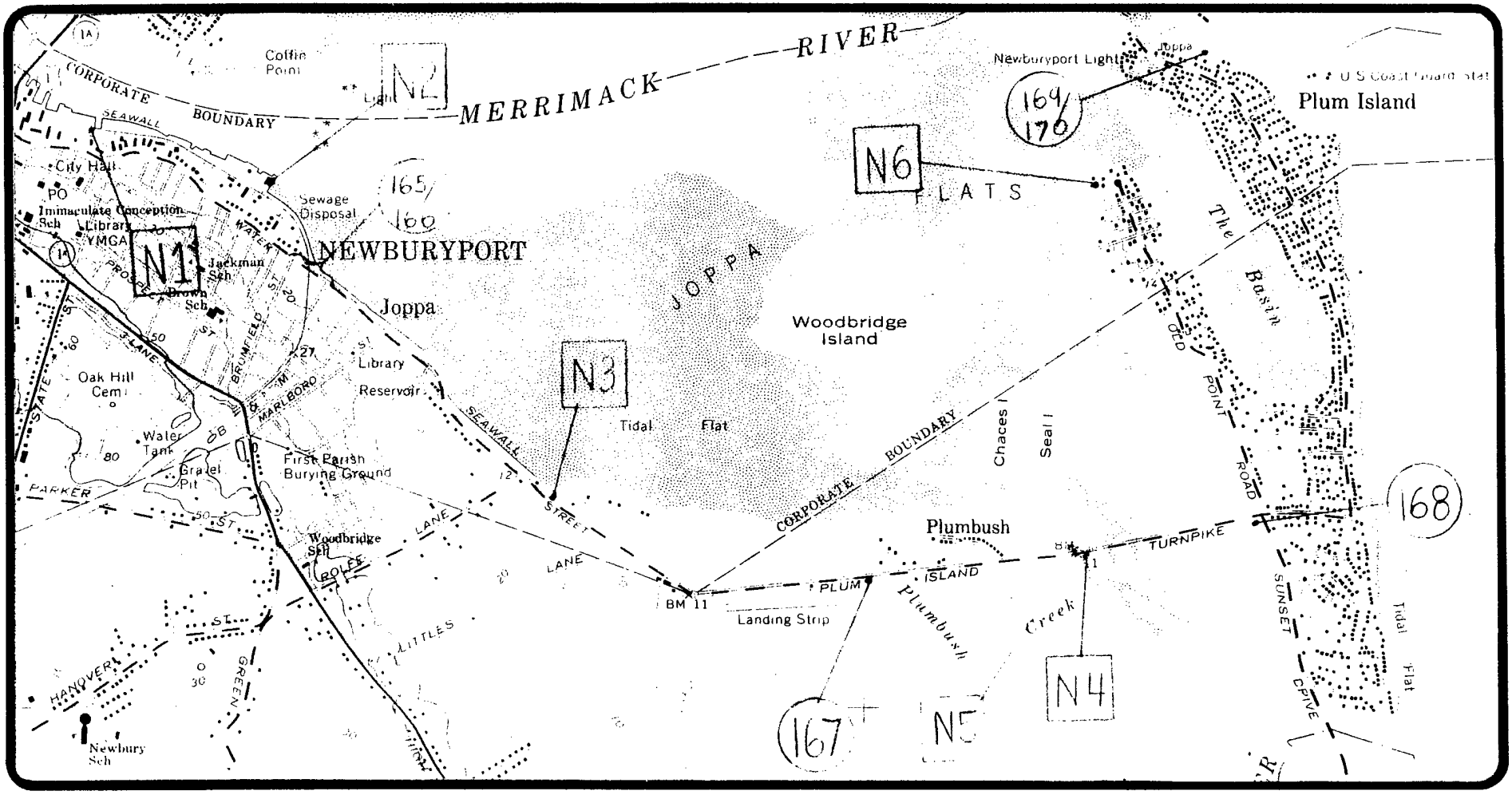
US Army Corps of Engineers
New England Division



High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - **Newburyport East, MA.**

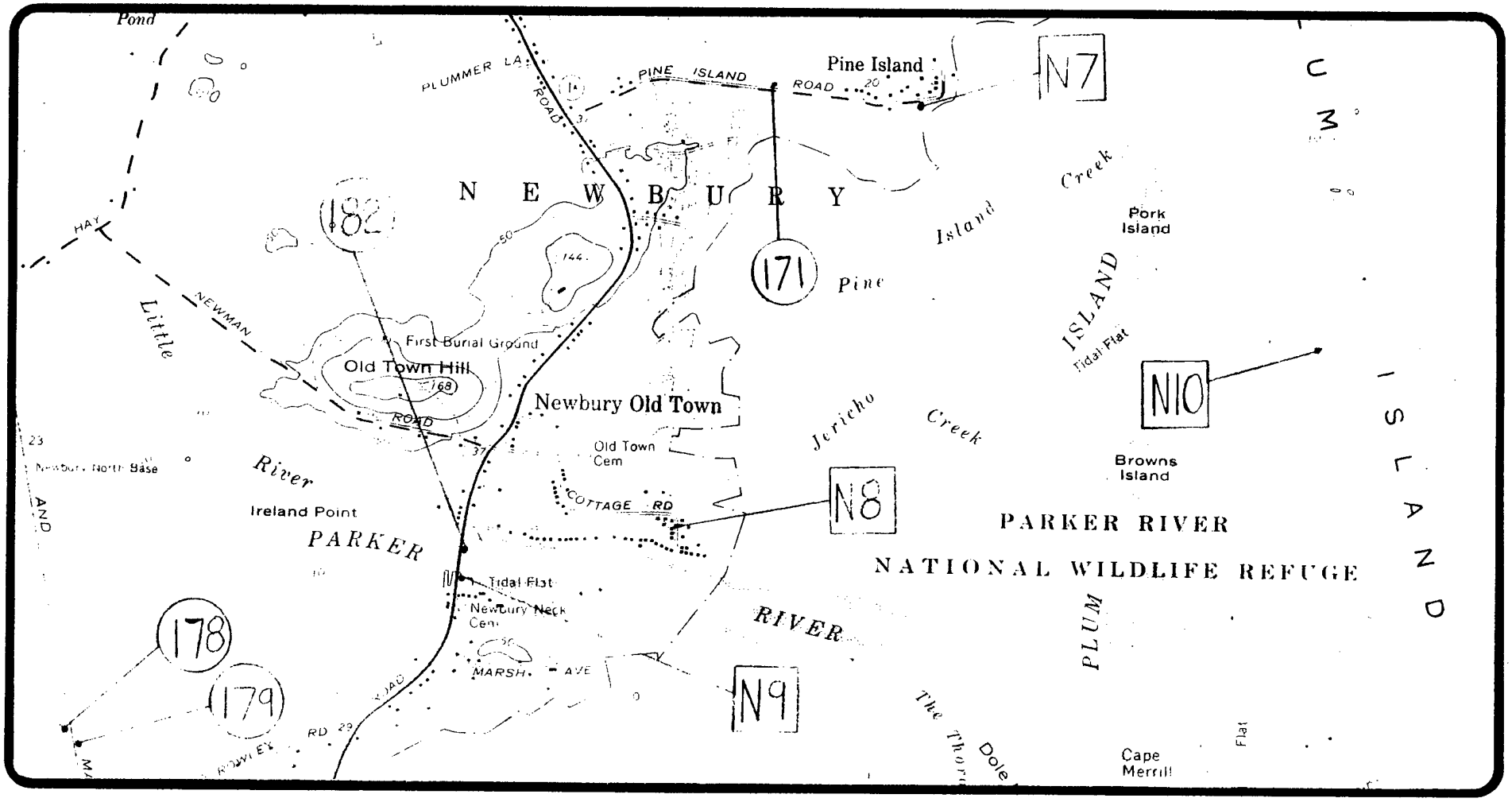
US Army Corps of Engineers
New England Division



High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - **Newburyport East, MA.**

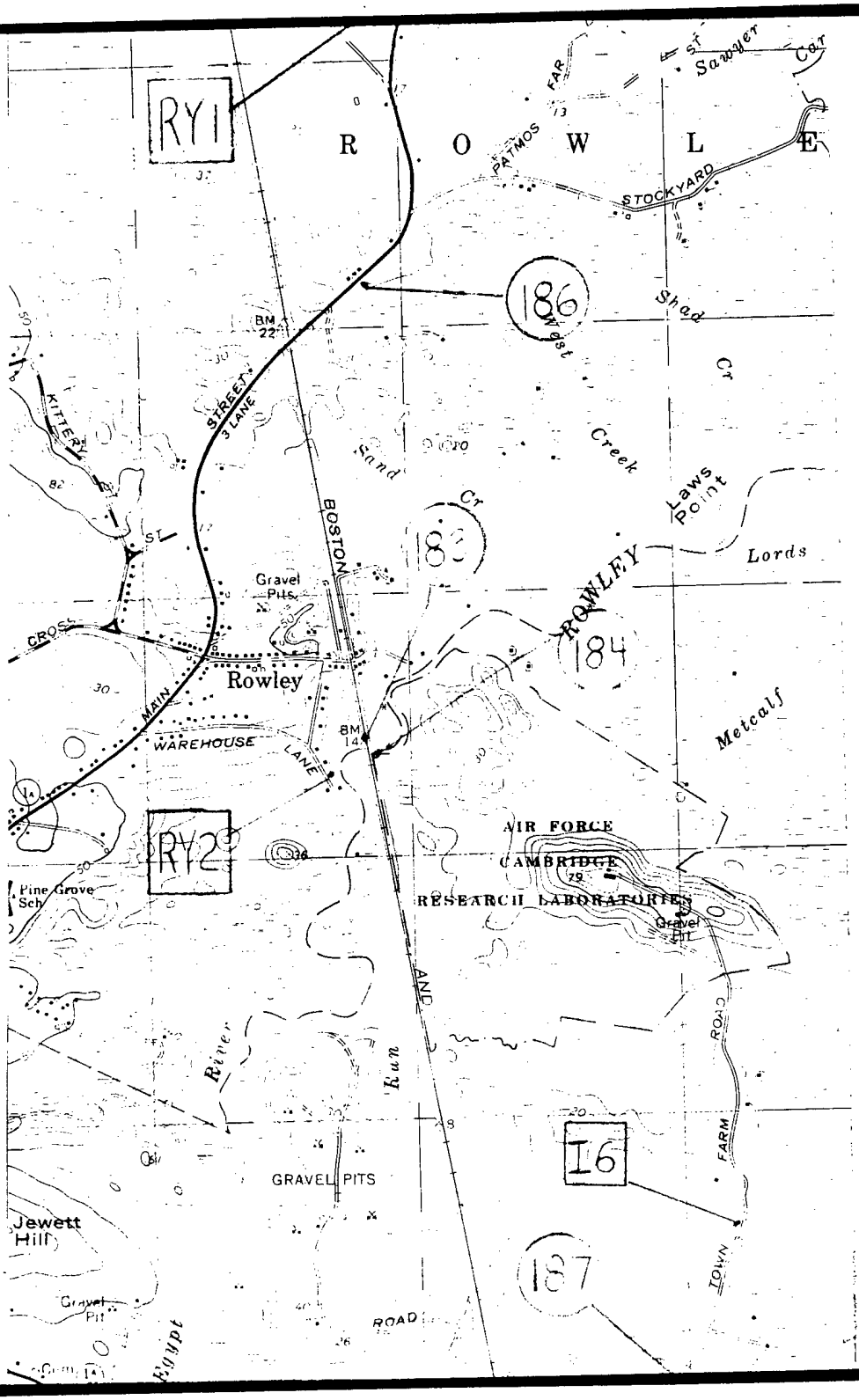
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New England Division



High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - **Newburyport East, MA.**

US Army Corps of Engineers
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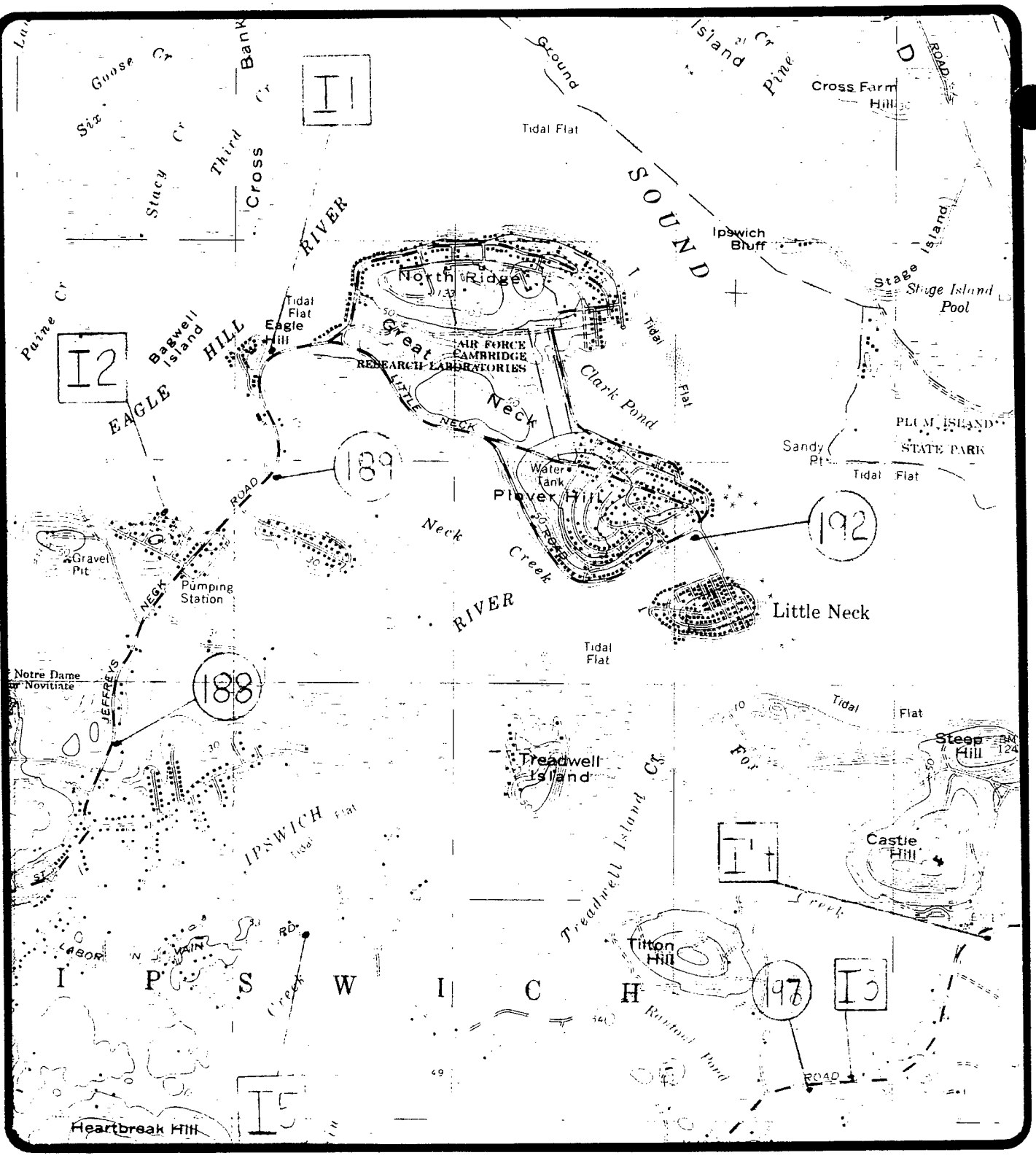
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Ipswich, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



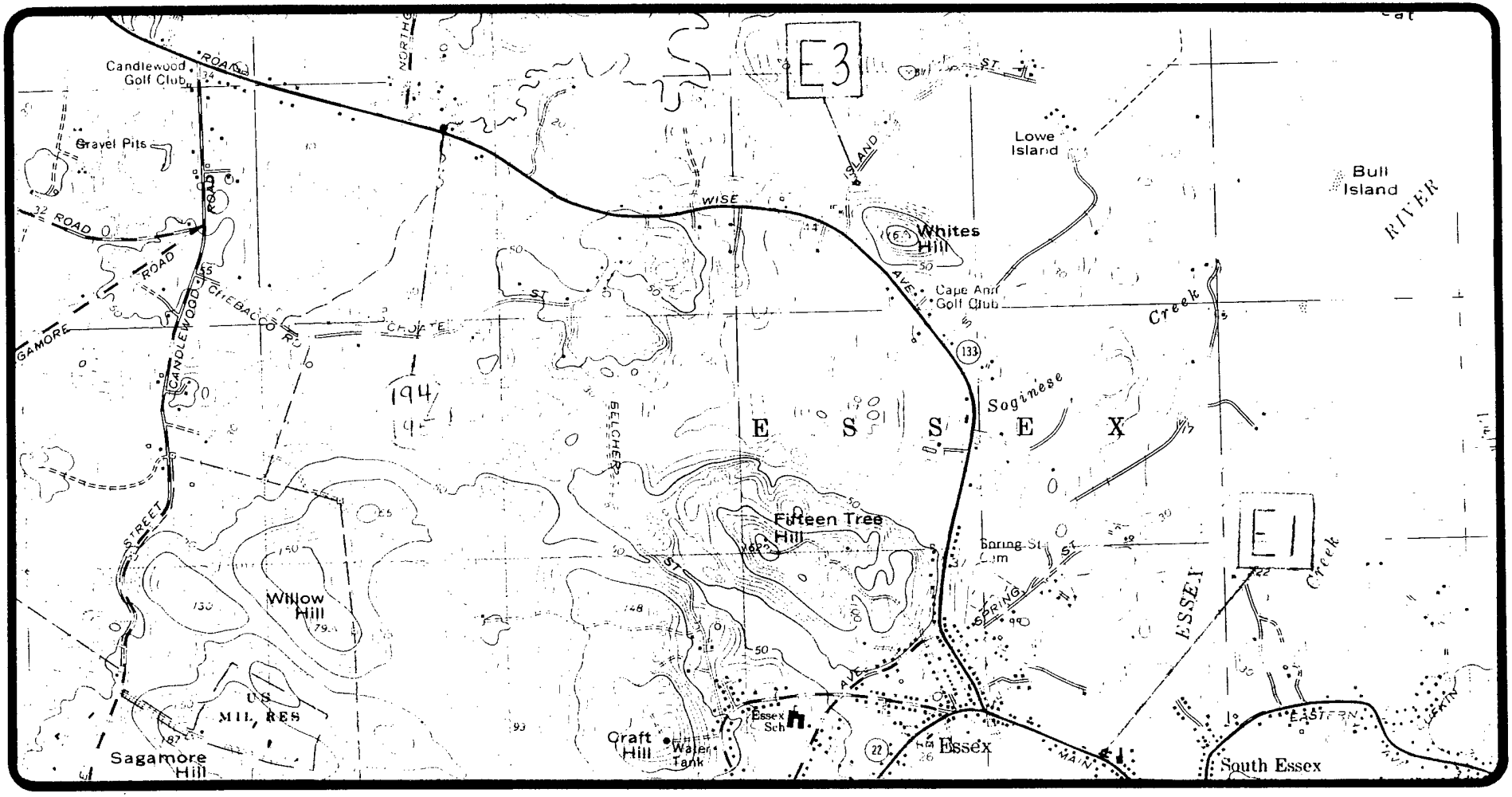
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Ipswich, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

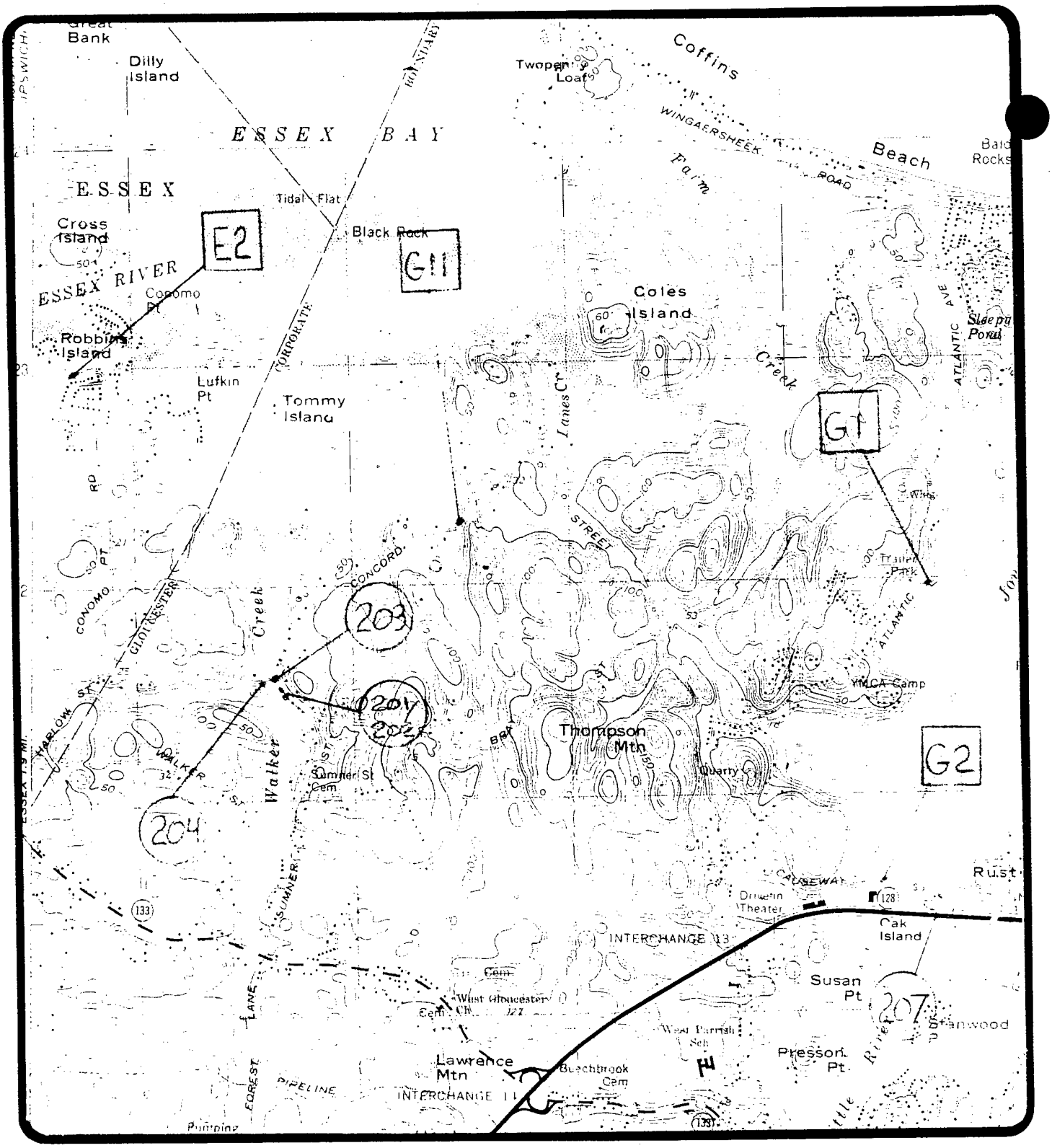


High Water Mark Location Map
Halloween Storm, October, 1991

□ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Ipswich, MA.

US Army Corps of Engineers
New England Division



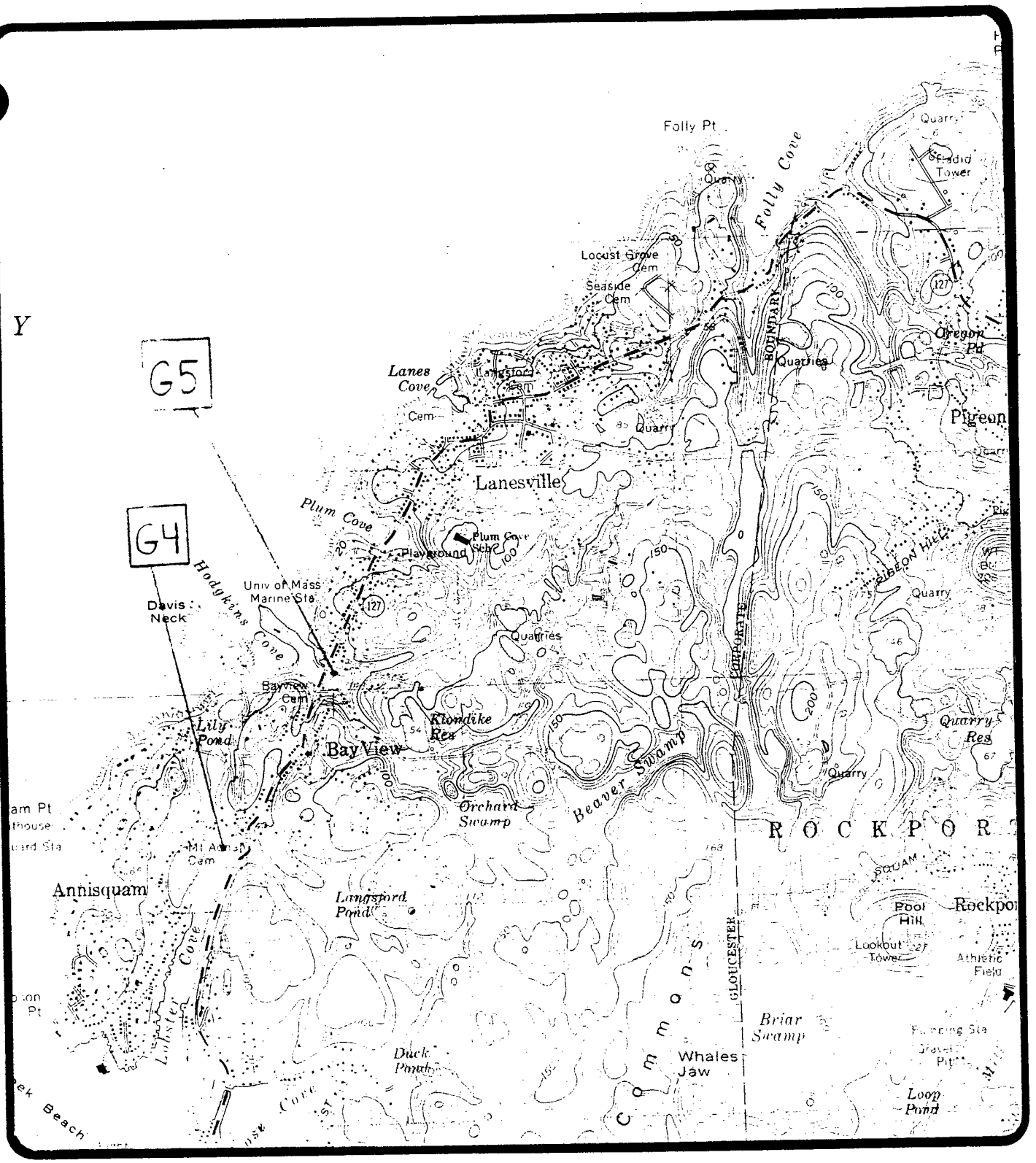
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Gloucester, MA.

□ - 1991 ○ - 1978

New England Division

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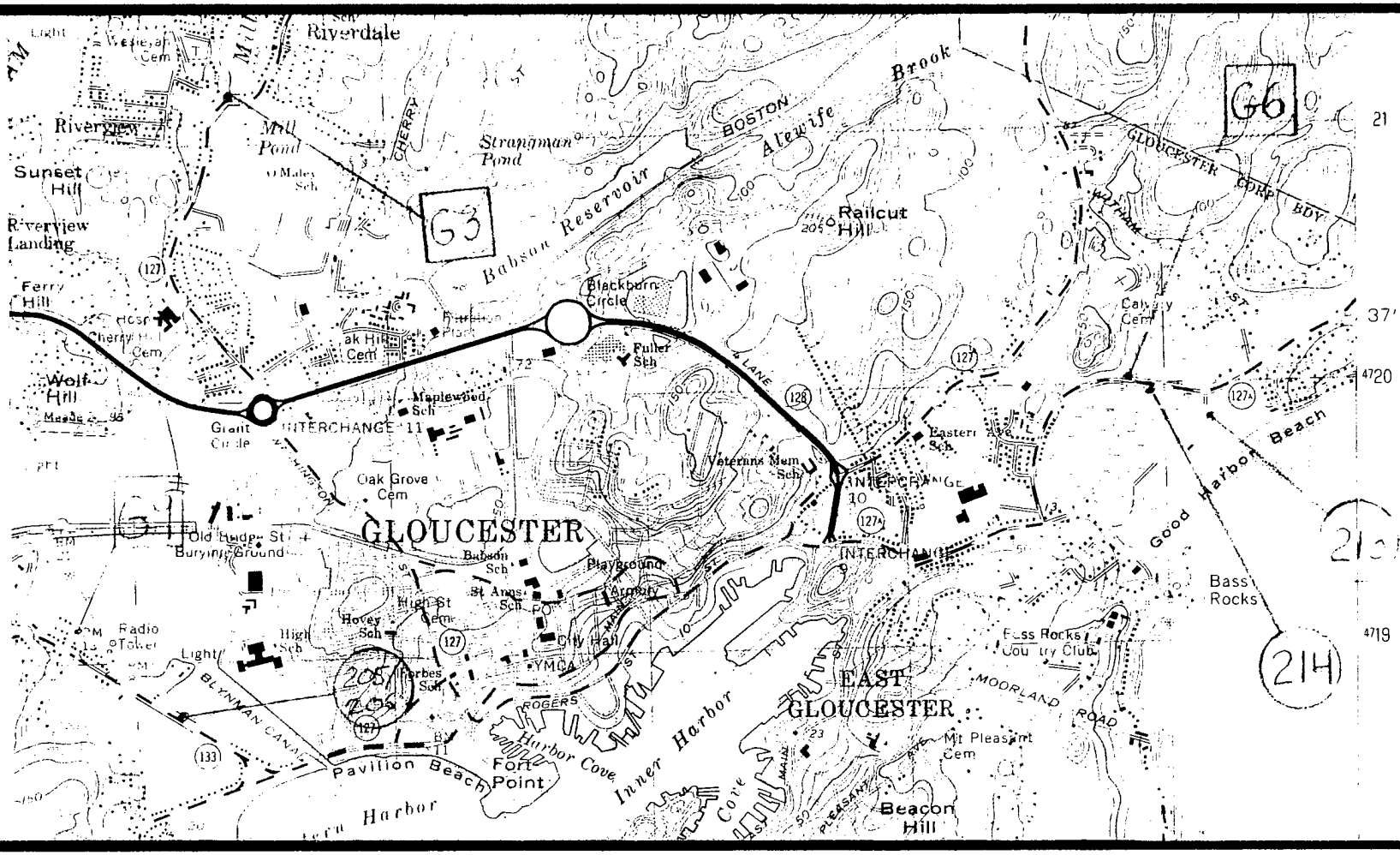
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Gloucester, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

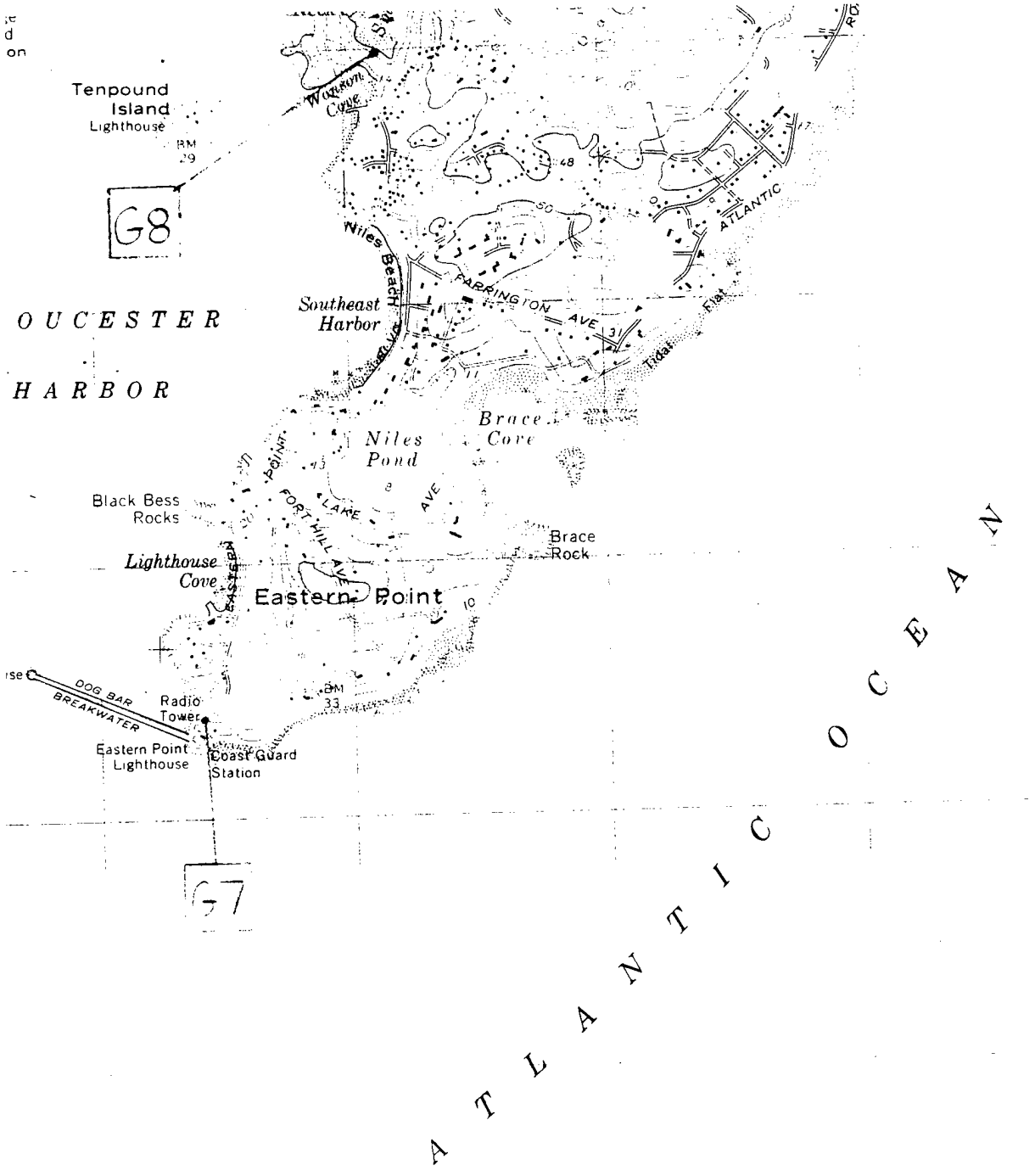


High Water Mark Location Map
Halloween Storm, October, 1991

□ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Gloucester, MA

US Army Corps of Engineers
New England Division



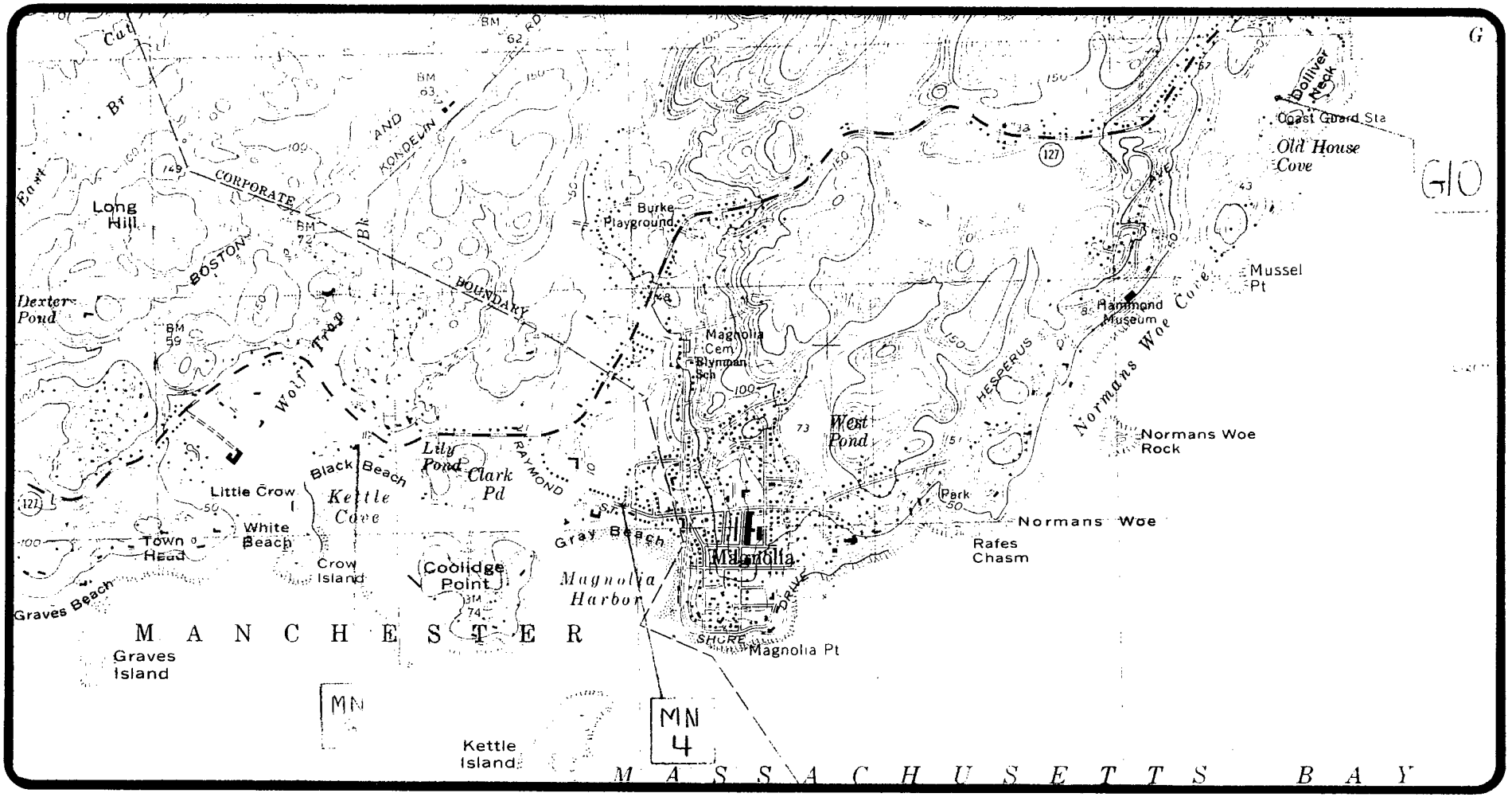
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Gloucester, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

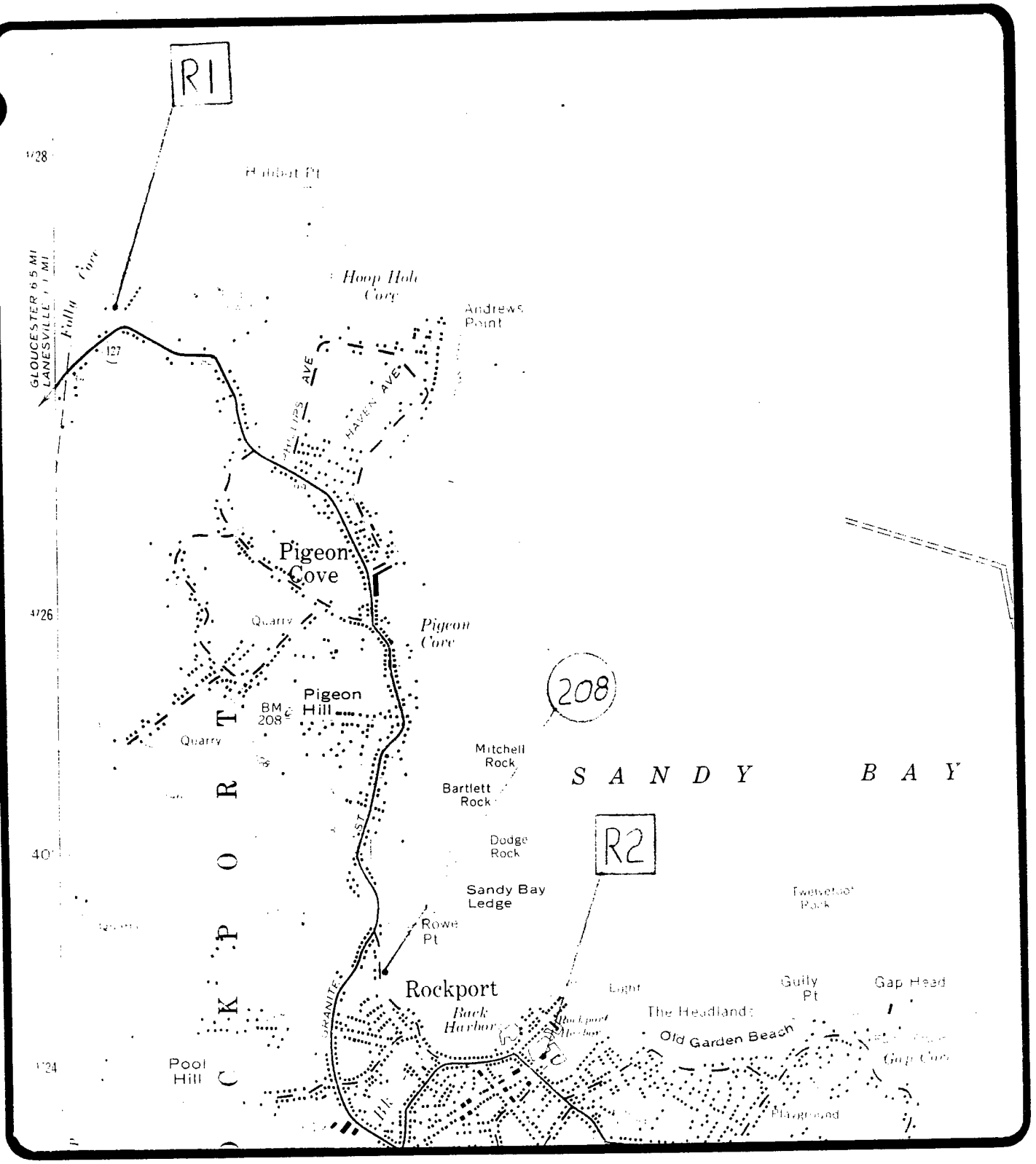


High Water Mark Location Map
Halloween Storm, October, 1991

□ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Gloucester, MA

US Army Corps of Engineers
New England Division



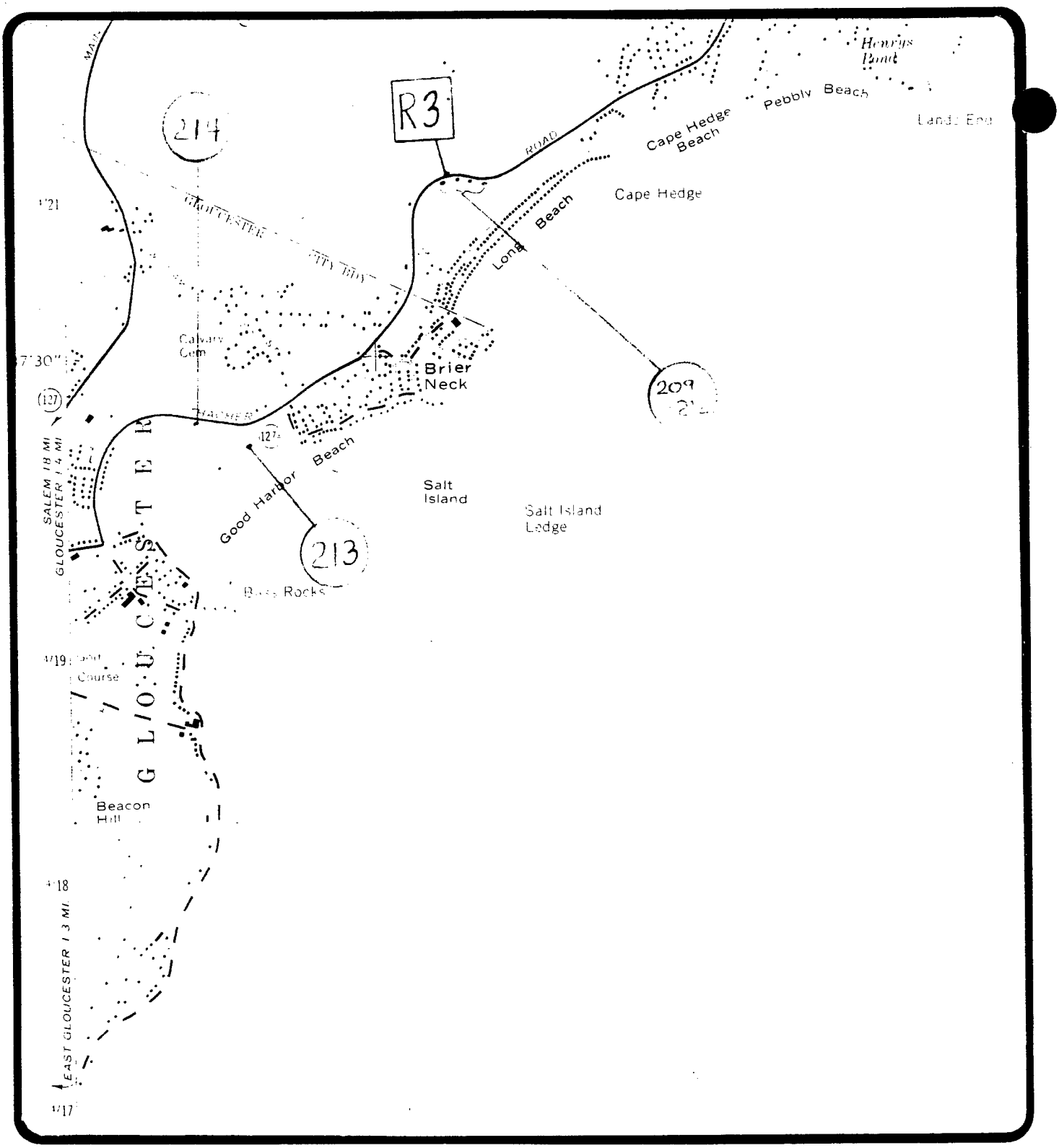
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Rockport, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Rockport, MA.

☐ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

APPENDIX

MANCHESTER, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Black Cove (Manchester Harbor)		MN1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Manchester	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Stake with orange ribbon denotes debris line. Stake is across from seawall near concrete slab between tan and light brown house (#73). Close to the road off the corner of a stonewall in yard. High water is where the stake meets the ground.

5 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

Joseph Falzone, 73 Harbor Street
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

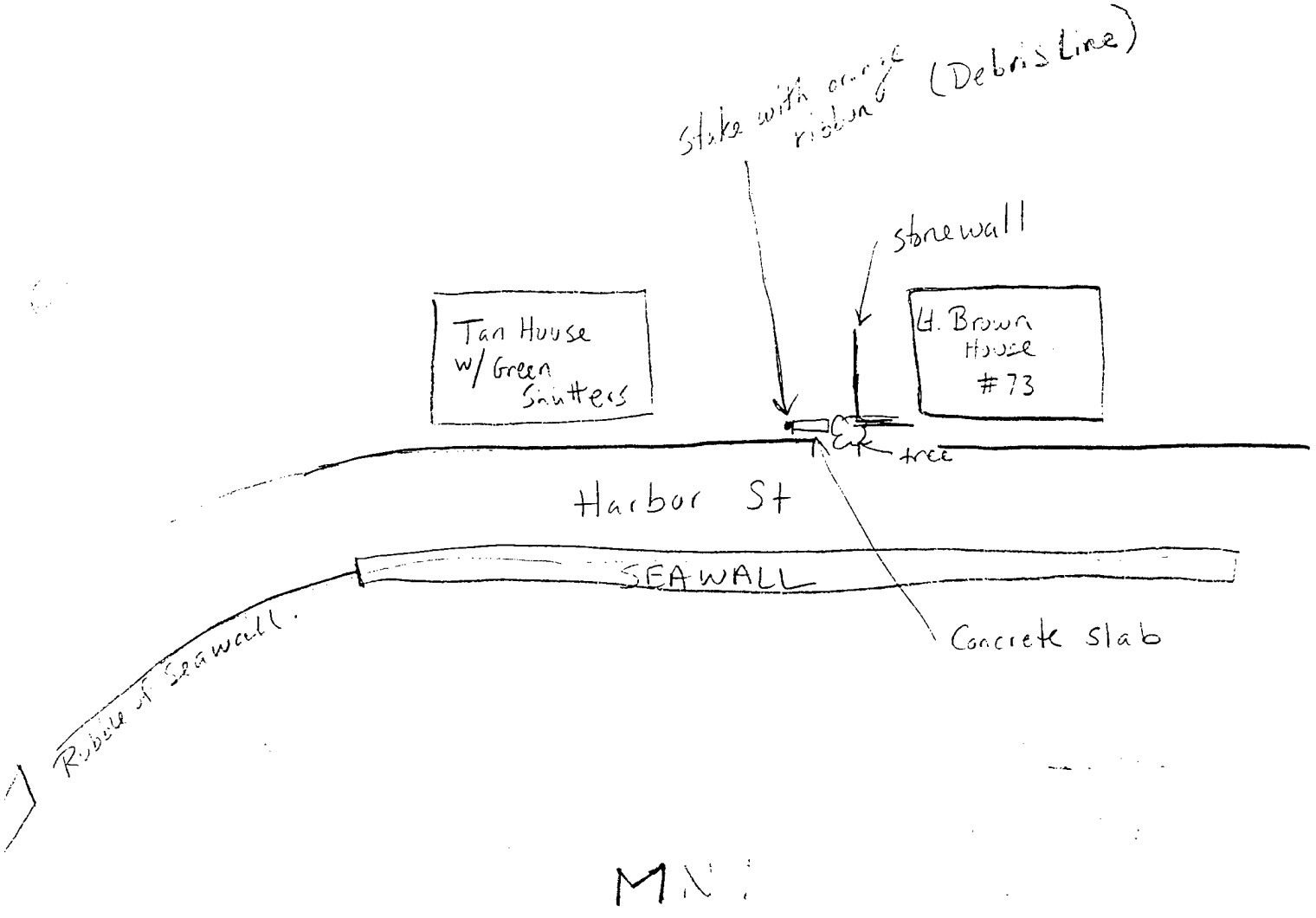
(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Confident Point. Eyewitness pointed out debris line. Broken seawall also indicated flooding in the area.

NED FORM 203
1 APR 78


Stake with orange ribbon (Debris Line)
stonewall
Tan House w/ Green Shutters
H. Brown House #73
tree
Harbor St
SEAWALL
Concrete slab
Ribble of Seawall.

MN

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Singing Beach (Northeast of Ballarach Cove) | MN2
(Name of River, Bay or Harbor) | (Miles from Mouth) | (Watermark No.)

(Tributary of) | Manchester | MA
(City or Town) | (State)

Description of high watermark: Ribbon on front right corner of beach house at Singing Beach. Mark is approximately 1 foot above sidewalk.

5 November 1991 | Karen Schofield and John Yen
(Date obtained) | (Obtained by)

(Name and address of person pointing out high watermark)

Debris Line along beach house and fence | (Date and hour of high watermark)
(If not pointed out, how obtained?)

(Elev. of high watermark) | (Datum) | (Benchmark referred to) | (Datum)

(Elevation of high watermark above water surface) | (Date & Hour) | (Class. of watermark)

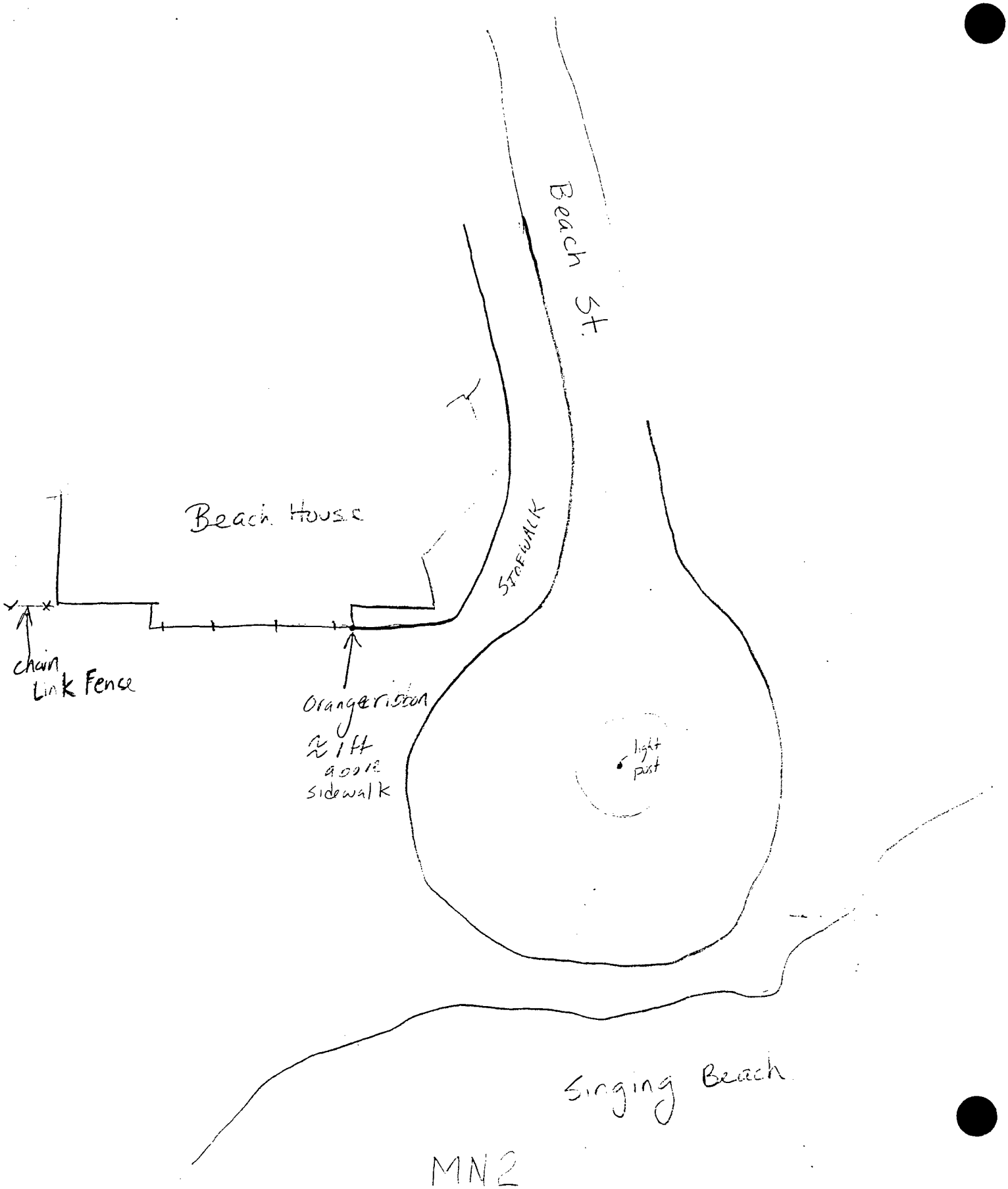
(Elevation determined by) | (Date) | (Order of levels)

(Nearest dam upstream or downstream) | (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Fairly Confident Point. Distinct line with flooding indications in back of house but distinct line only along front of beach house where wave action was.

NED FORM 203
1 APR 78


Beach St.
Beach House
SEAWALK
chain Link Fence
Orangeriston
≈ 1 ft
above
sidewalk
light post
Singing Beach

MN2

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Kettle Cove		MN3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Manchester	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange stake marks debris line. Stake is near the left front corner of the garage beside the stone wall. High water mark is where the stake meets the ground.

5 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

Talked to Bill Hatcher (Hatcher Landscaping). Owner: Mrs. Traverse
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

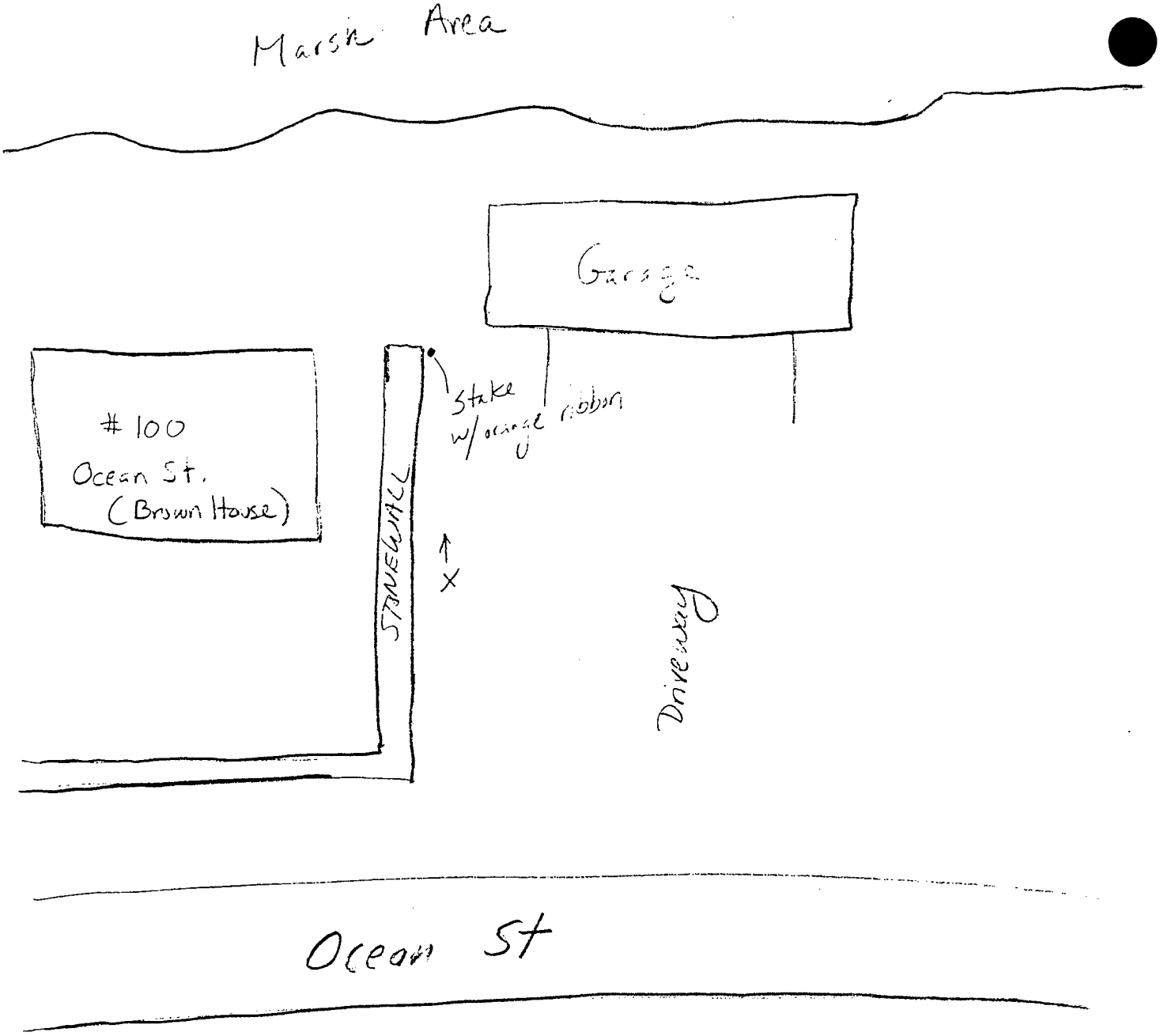
(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Mostly Confident Point. Distinct debris line on both sides of house and flooding in neighbor's basement which is lower.

NED FORM 203
1 APR 78


Marsh Area
Garage
#100
Ocean St.
(Brown House)
Stake w/ orange ribbon
STONEWALL
Driveway
Ocean St
Kettle Cove

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Magnolia Harbor		MN4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Manchester	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: PK nail and orange ribbon fence post near pole #9. The fence is gray and has tennis courts behind it. Nail is on 4th fence post from driveway approximately 2 feet from ground.

5 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

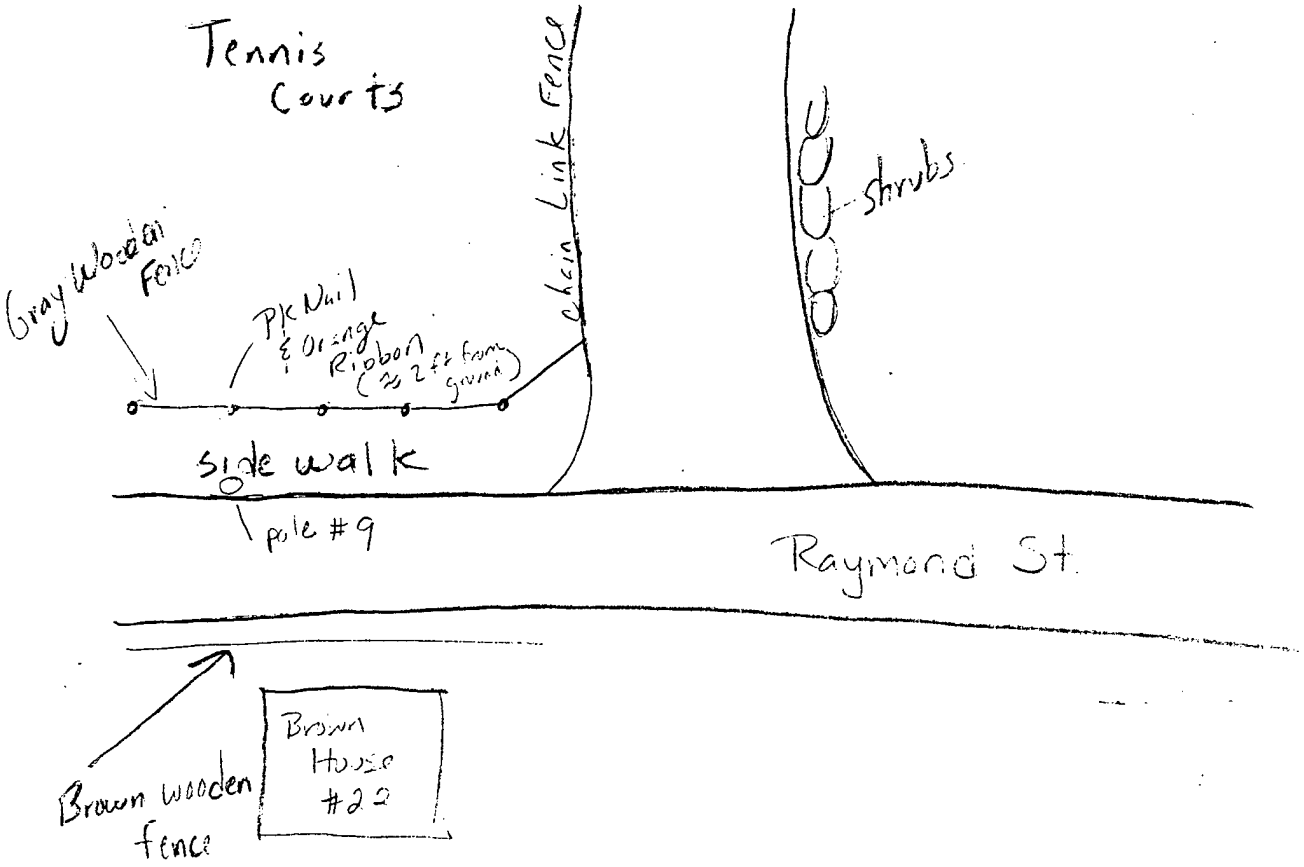
Distinct dirt line on fence and in the area	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)	
(Elevation determined by)	(Date)	(Order of levels)	
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)		

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Not Very Confident Point. Land at ocean seen higher than this point. Therefore, possible overtopped flooding.

NED FORM 203
1 APR 78


Tennis Courts
Chain Link Fence
Shrubs
Gray Wooden Fence
Pk Nail & Orange Ribbon (≈ 2 ft from ground)
side walk
pole #9
Raymond St.
Brown wooden fence
Brown House #20

MN4

ARCHIVAL PRESERVERS
STYLE 35-8P



MN2



MN1



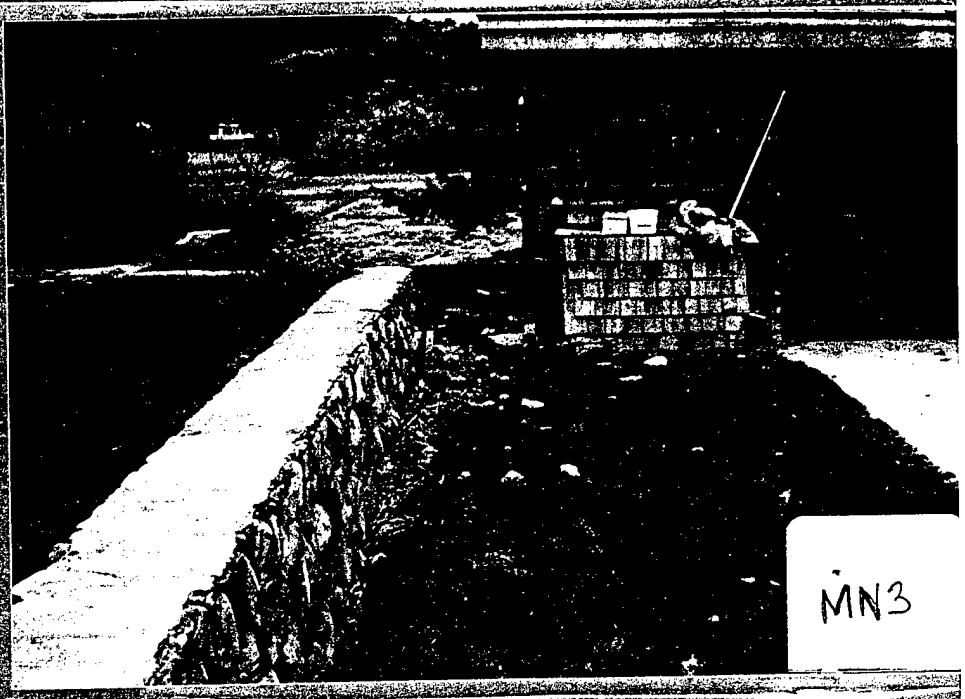
MN2



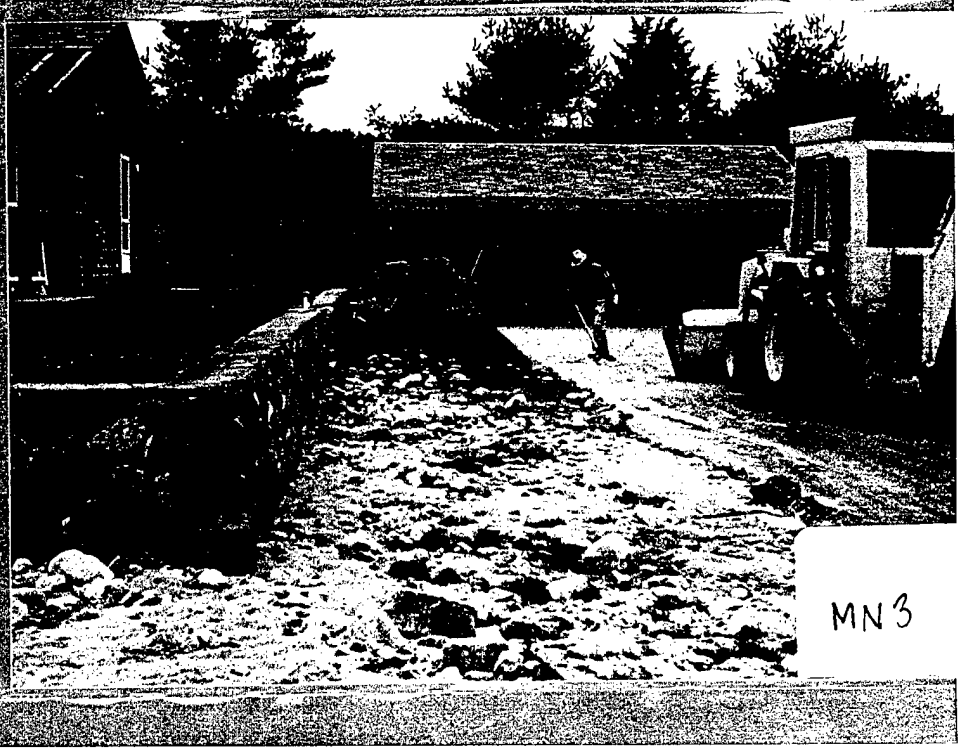
MN1

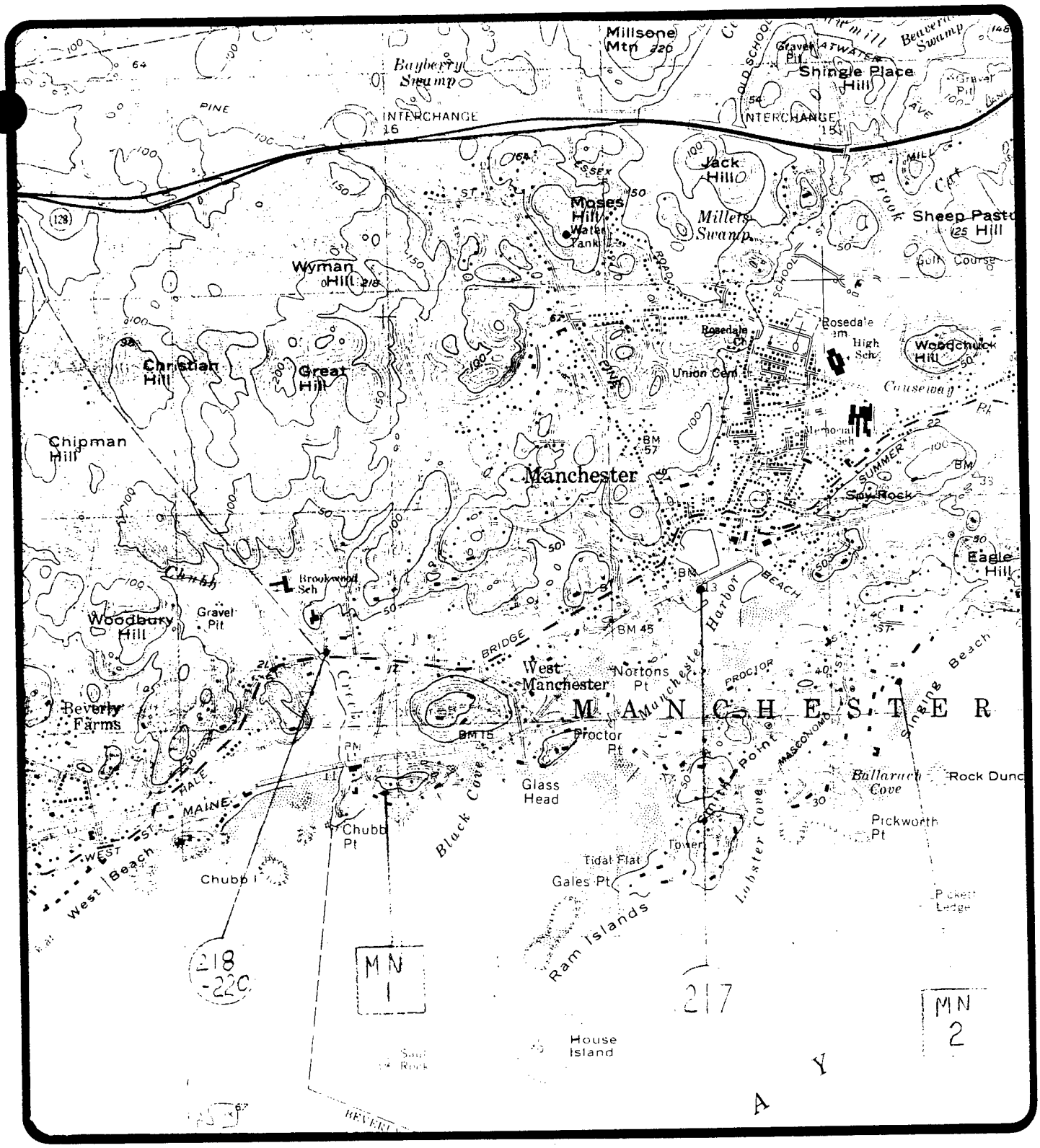
ARCHIVAL PRESERVERS
STYLE 35-8P











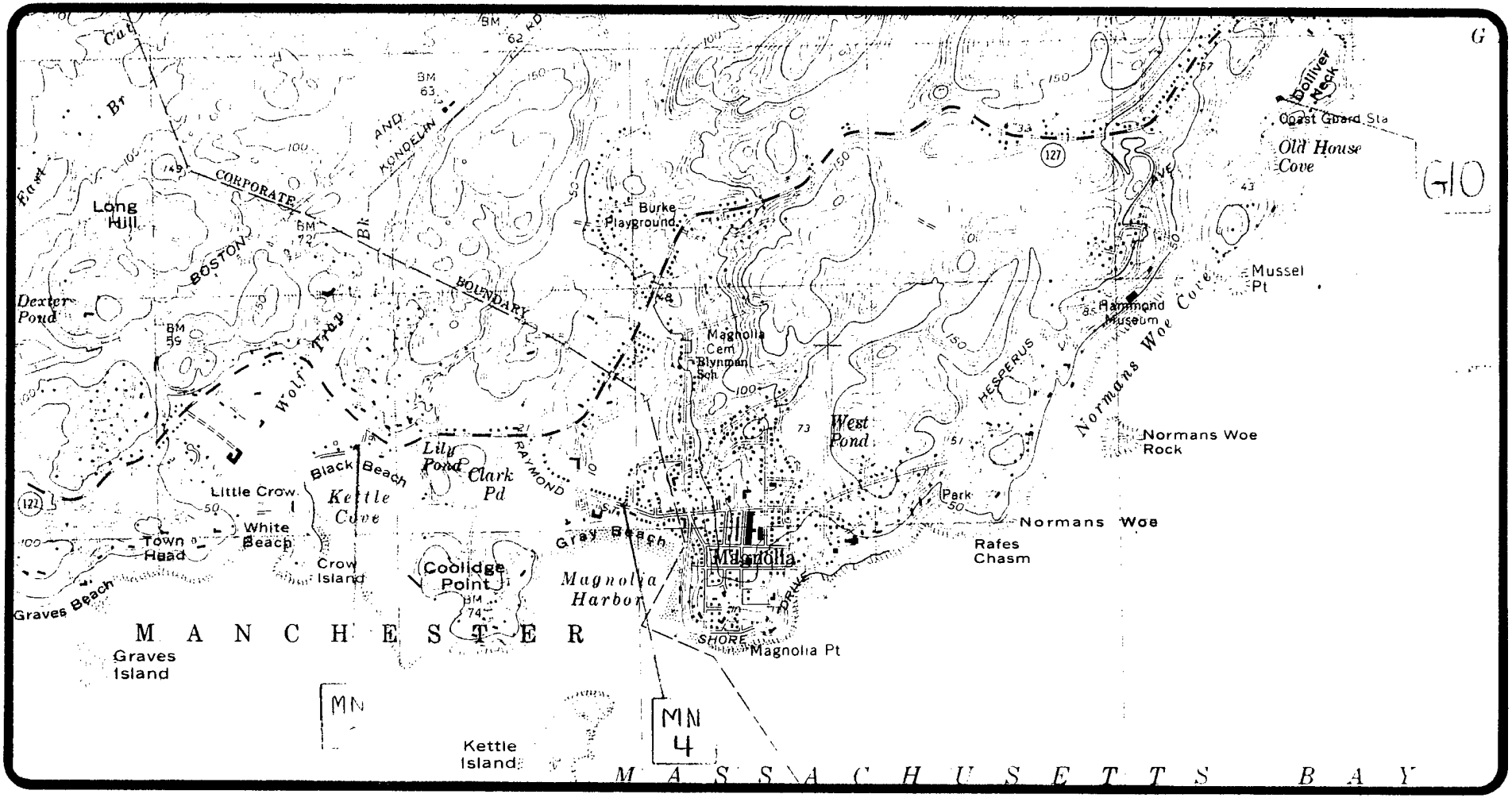
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Marblehead North, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



High Water Mark Location Map
Halloween Storm, October, 1991

□ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Gloucester, MA

US Army Corps of Engineers
New England Division

APPENDIX

BEVERLY, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Beverly Harbor		BV1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Beverly	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: PK nail with orange tag in telephone pole #5770 approximately 16 inches above sidewalk. The pole is near the chain link fence across from yellow house (#132).

5 November 1991	Karen Schofield
(Date obtained)	(Obtained by)

Police Officer Smith (Badge #54)
(Name and address of person pointing out high watermark)

Officer estimated height, but also added that water didn't flood past yacht club entrance.
(If not pointed out, how obtained?)

(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)

(Latitude and longitude of watermark)

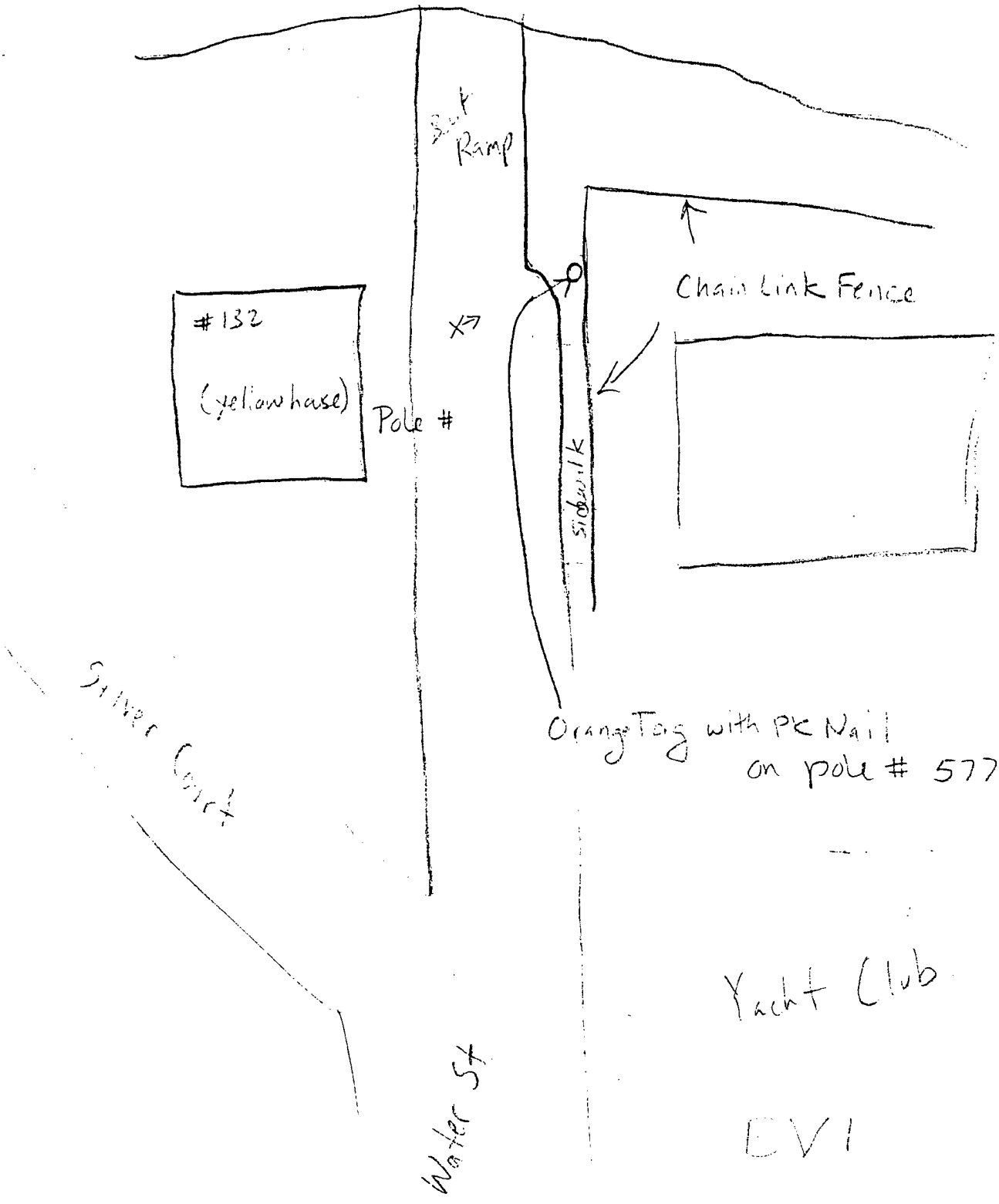
Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Fairly confident. Police Officer gave us the approximate height, but compared to roadway height, estimate may be a little high.

NED FORM 203
1 APR 78

X→ direction & picture approx.

Beverly Harbor



CV1

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Beverly Harbor		BV2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Beverly	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Stake with orange ribbon marks the debris line near left corner of beach house. The beach is part of Percy Lyons Park on Lothrop Avenue. Highwater mark is where the stake meets the ground.

5 November 1991	Karen Schofield
(Date obtained)	(Obtained by)

Officer Smith (from point #5) said road was flooded and debris line indicates that to be true.
(Name and address of person pointing out high watermark)

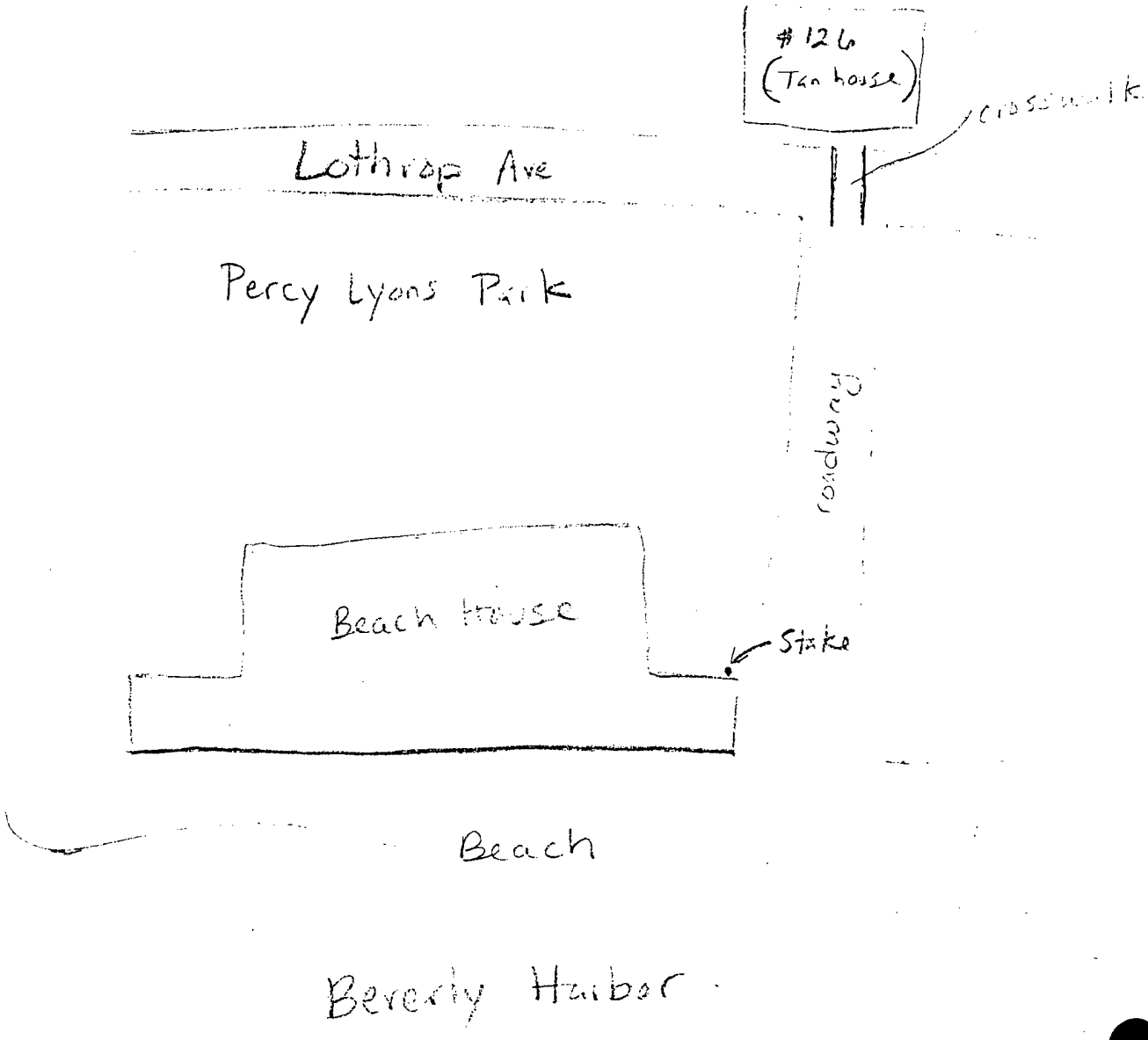
Distinct Debris Line found	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

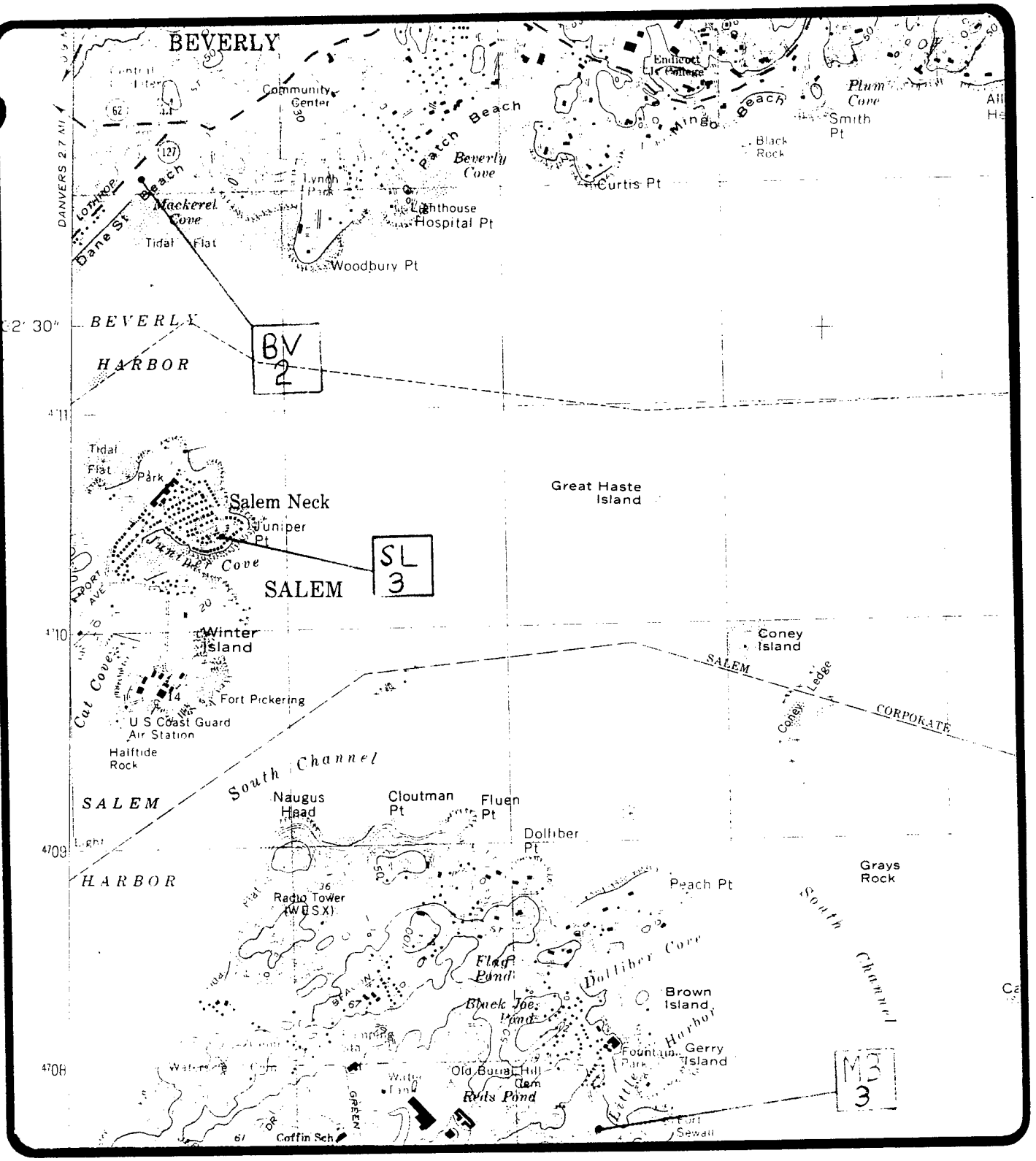
NOTE: Mostly Confident Point. Distinct debris lines and road was known to be flooded. Slight chance beach was too high to indicate continuous surge waters and not just ponding.

NED FORM 203
1 APR 78


#126
(Tan house)
crosswalk
Lothrop Ave
Percy Lyons Park
roadway
Beach House
Stake
Beach
Beverly Harbor

EVE

ARCHIVAL PRESERVERS
STYLE 35-8P



High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Marblehead North, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

APPENDIX

DANVERS, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Porter River		DN1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Danvers	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Ribbon tied on pier on the right of boat ramp at Pope's Landing. The boat ramp is near the Harbormaster Building and the ribbon is on the first pier on the right side of walkway approximately 16" down top of pier walkway.

5 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

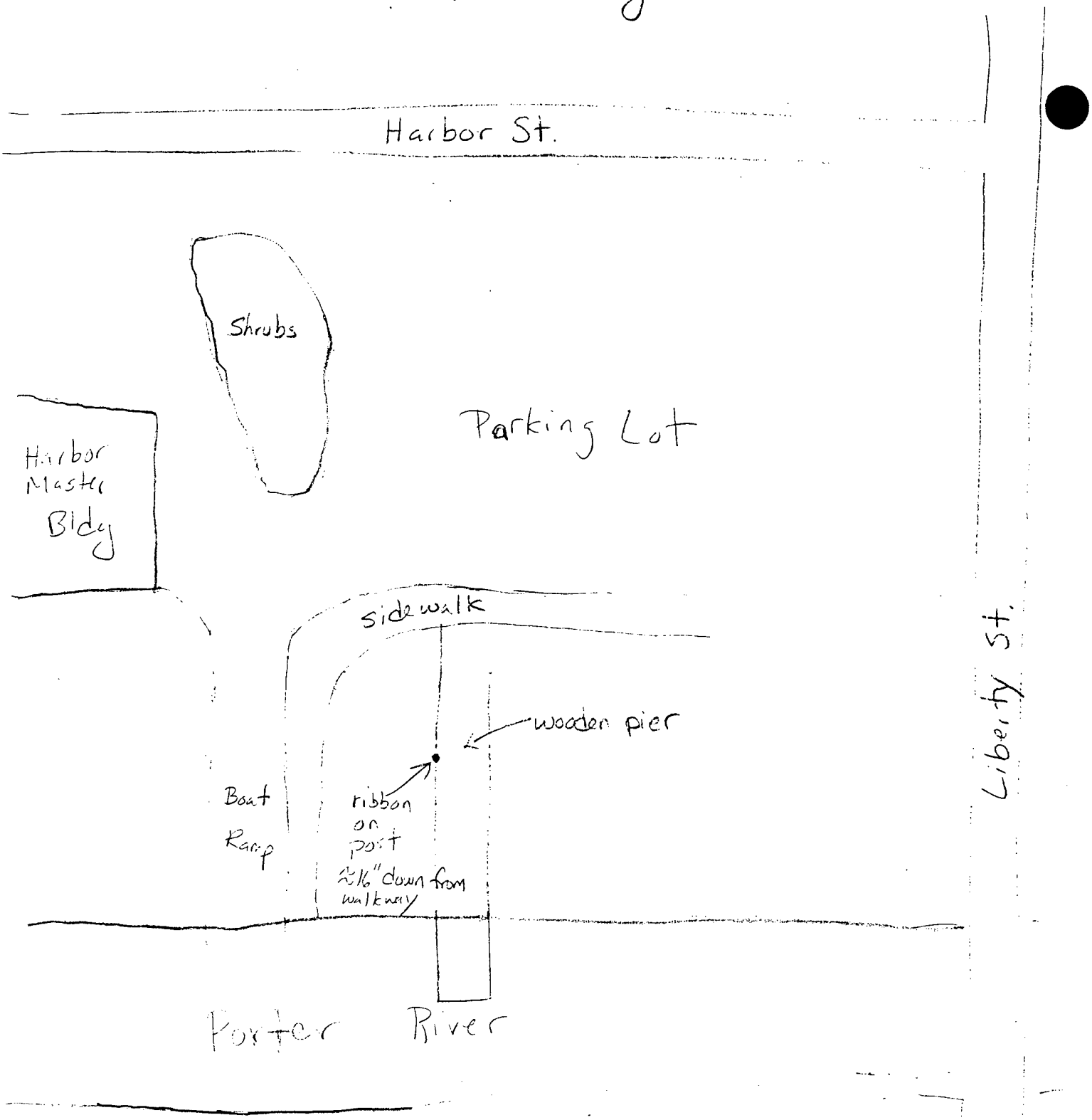
Distinct Debris Line along river and pier	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Confident Point. Distinct Debris Line around the general area and right on the shoreline.

NED FORM 203
1 APR 78


Harbor St.
Shrubs
Parking Lot
Harbor Master Bldg
sidewalk
wooden pier
Boat Ramp
ribbon on post ≈16" down from walkway
Liberty St.
Porter River

DNI

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Danvers River		DN2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Danvers	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Debris line marked with stake near beach at wooden fence beside gray house (#35). Access to stake is grassy "roadway" between the two fences as shown on map. Highwater is where the stake and ground meet.

5 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

James Tutko, 35 Bates Street
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

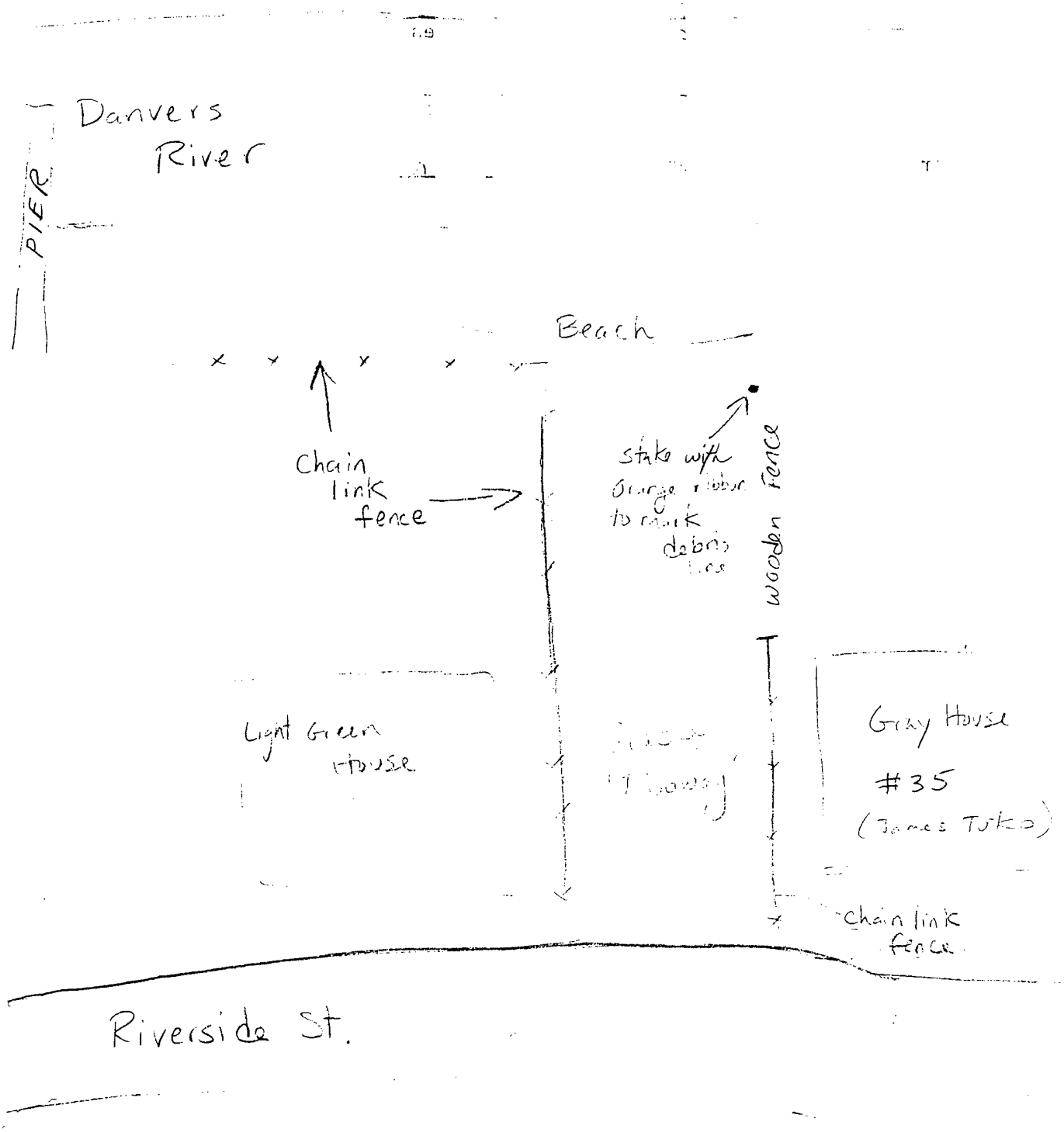
(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Confident Point. Distinct debris line here and in the area. Also eyewitness description. Location right on the shore.

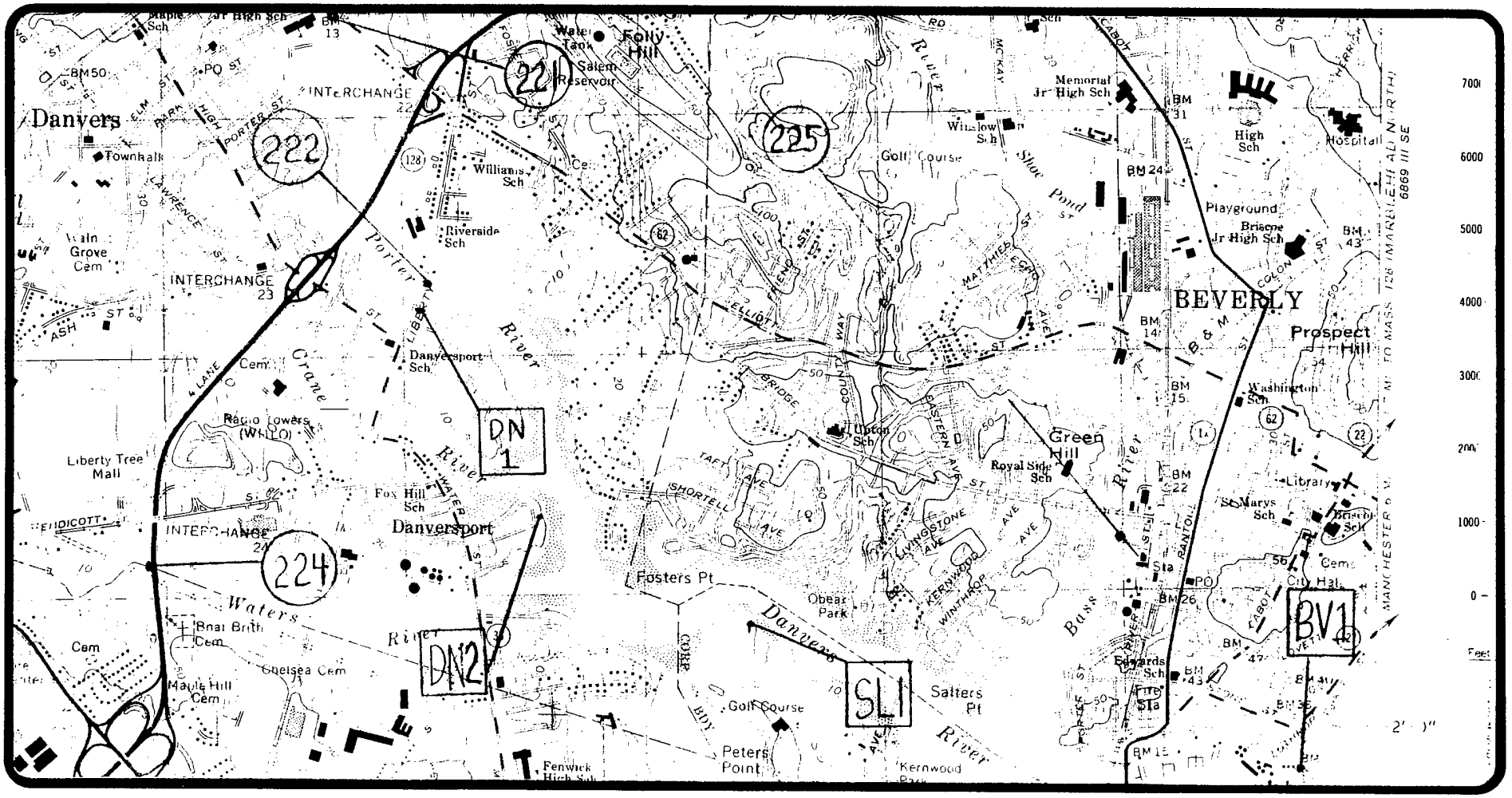
NED FORM 203
1 APR 78



DN2

Riverside & Bates are off of Rt 35.

ARCHIVAL PRESERVERS
STYLE 35-8P



High Water Mark Location Map
Halloween Storm, October, 1991

□ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Salem, MA.

US Army Corps of Engineers
New England Division

APPENDIX

SALEM, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Danvers River		SL1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Salem	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Debris Line marked with stake and orange ribbon near the 6th hole ladies' tee at Kernwood Country Club. (This point is better than #1.) Highwater elevation is where the stake meets the ground.

5 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

Dean Robertson, Golf Course Superintendent (745-7289)
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

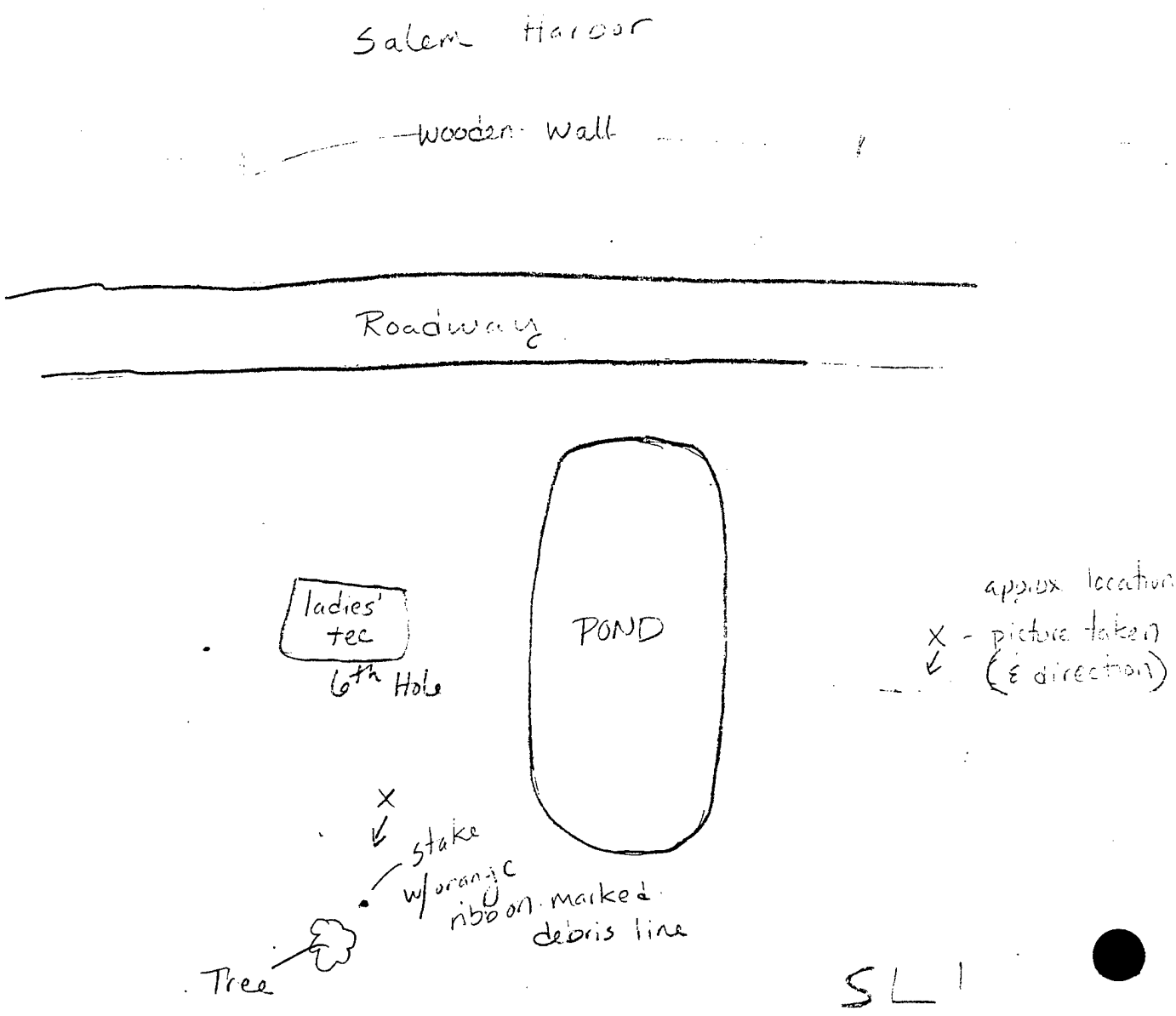
(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Confident Point. Distinct debris line and area is fairly close to shoreline.

NED FORM 203
1 APR 78


Salem Harbor
wooden wall
Roadway
ladies' tee
6th Hole
POND
approx location
X - picture taken
(E direction)
X
stake w/ orange ribbon marked debris line
Tree

SL1

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Salem Harbor		SL2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Salem	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Two orange tags along chainlink fence along road by harbor in Pioneer Village Park. Entrance to park is at the end of West Avenue. The chainlink fence is at the back of the park. Second orange tag approximately 22 inches from ground.

5 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

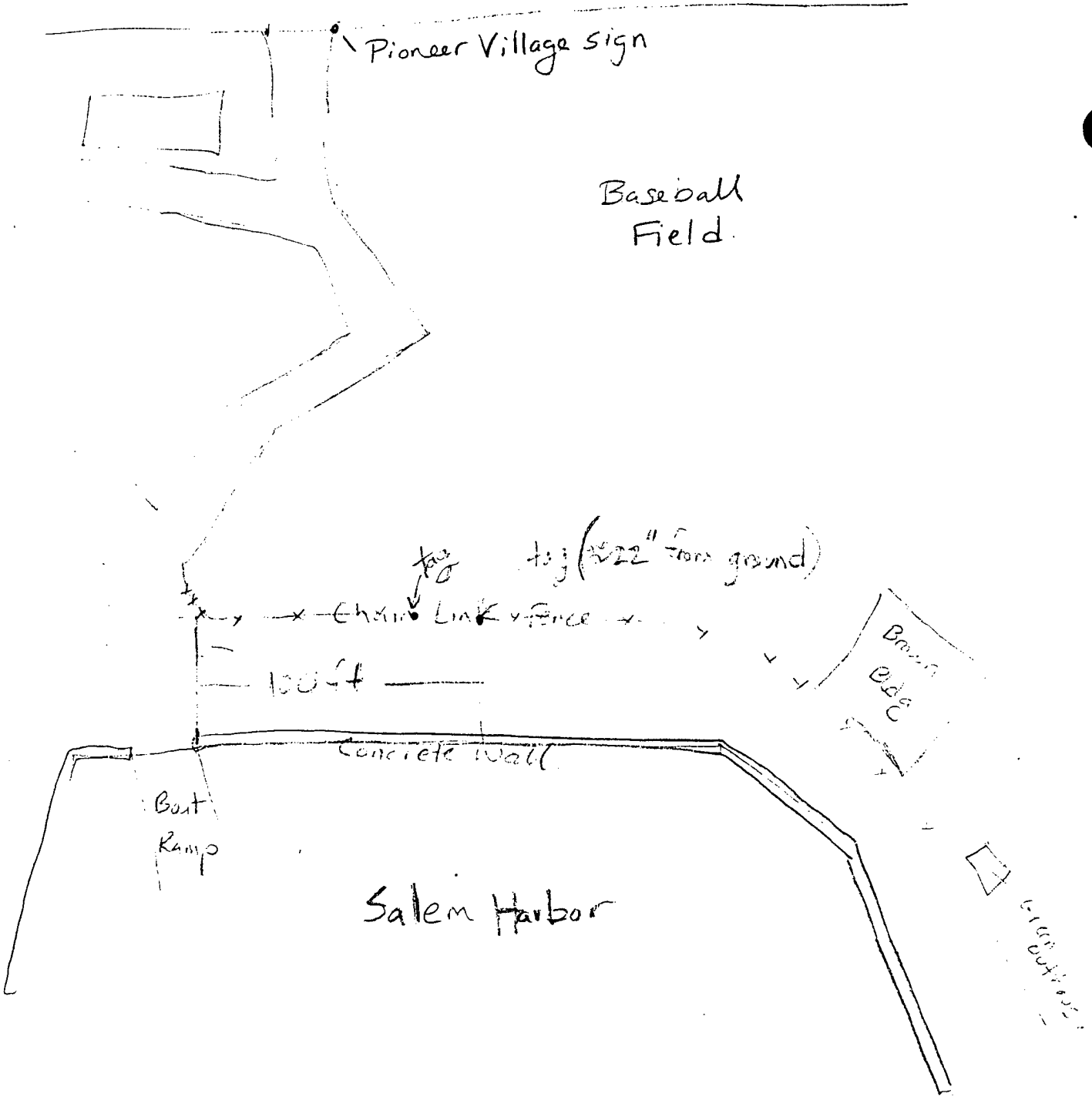
Distinct Debris Line on fence	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Confident Point. Distinct Line on fence right near shoreline.

NED FORM 203
1 APR 78


Pioneer Village sign
Baseball Field
tag
tag (~22" from ground)
Chain Link Fence
100 ft
Concrete Wall
Boat Ramp
Salem Harbor

SL-2

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Salem Harbor (Juniper Point)		SL3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Salem	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Dirt line along garage doors along Cheval Street and across from #14 (white house). There's an orange ribbon and PK nail on the pole between the 6th and 7th garage doors (from right).

5 November 1991 (Date obtained) — Karen Schofield and John Yen (Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?) Distinct mark on garage doors and similar debris lines in the area. — (Date and hour of high watermark)

(Elev. of high watermark) (Datum) — (Benchmark referred to) (Datum)

(Elevation of high watermark above water surface) — (Date & Hour) — (Class. of watermark)

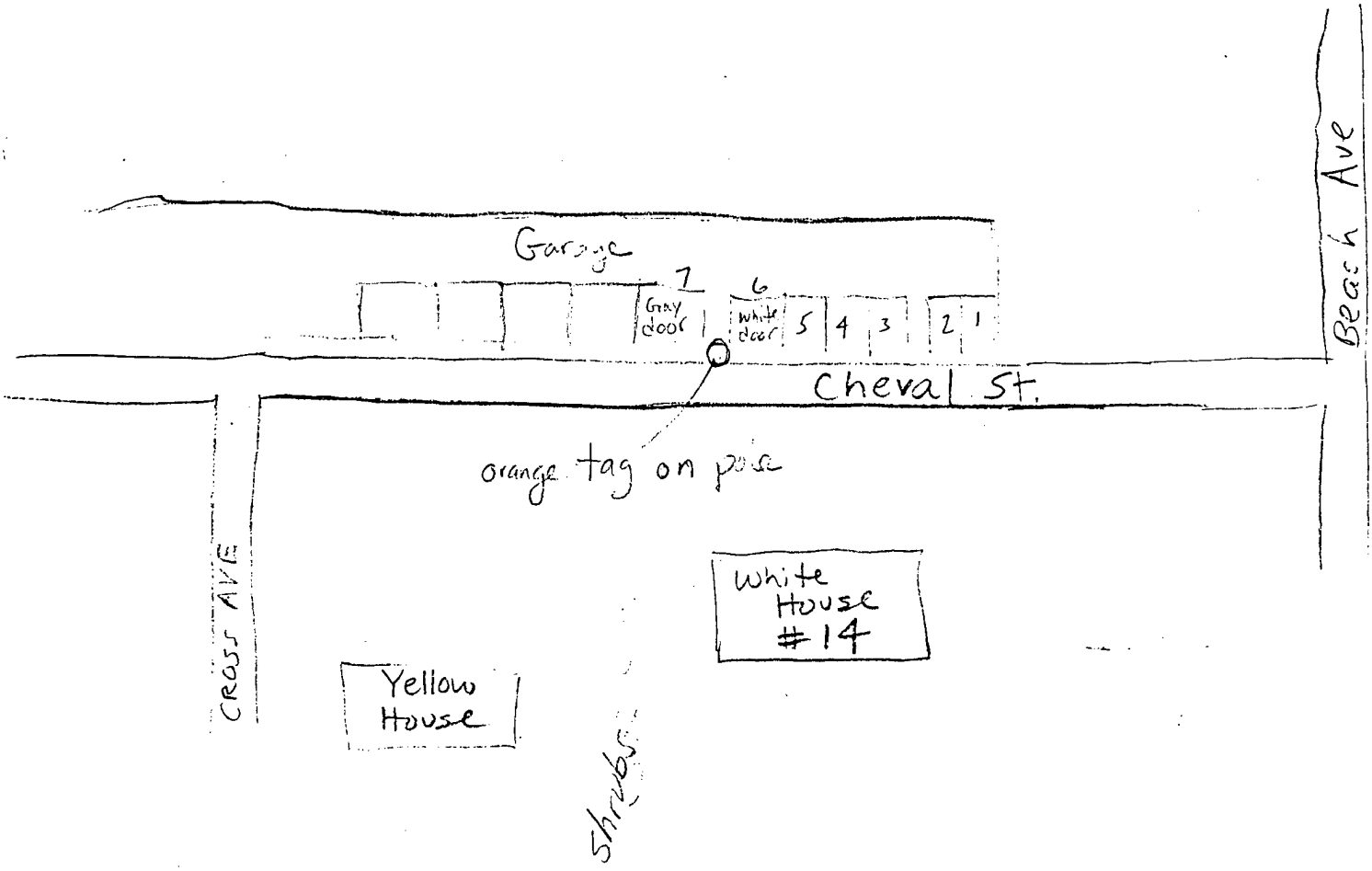
(Elevation determined by) — (Date) — (Order of levels)

(Nearest dam upstream or downstream) — (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Fairly Confident Point. Distinct line and flooding in the area, but there's a chance it could be from overtopping.

NED FORM 203
1 APR 78


Garage
7
6
Gray door
white door
5
4
3
2
1
Beach Ave
Cheval St.
orange tag on pole
White House #14
Yellow House
Cross AVE
shrubs

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Print File

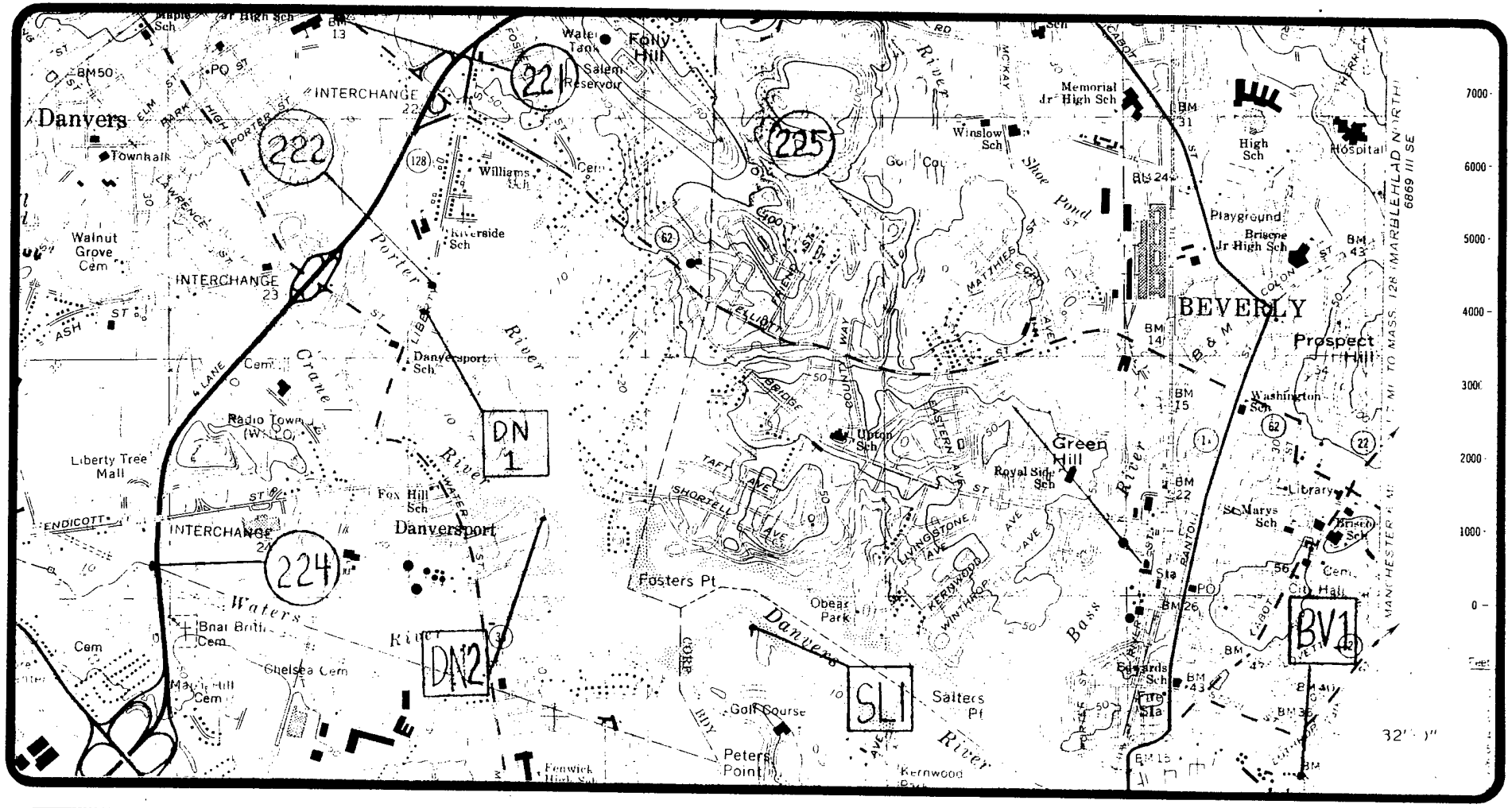
STYLE 35-8P









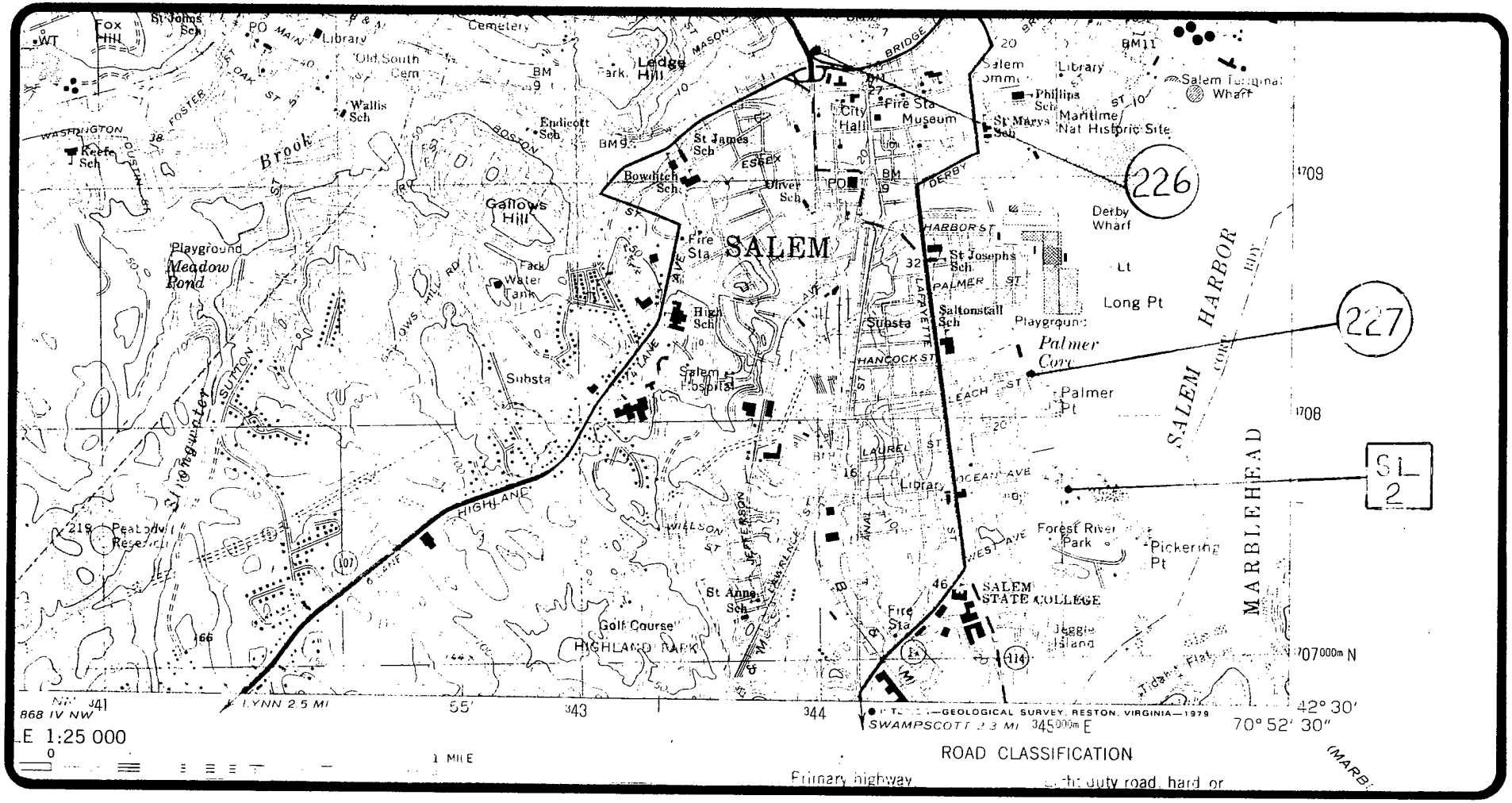


High Water Mark Location Map
Halloween Storm, October, 1991

□ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Salem, MA.

US Army Corps of Engineers
New England Division

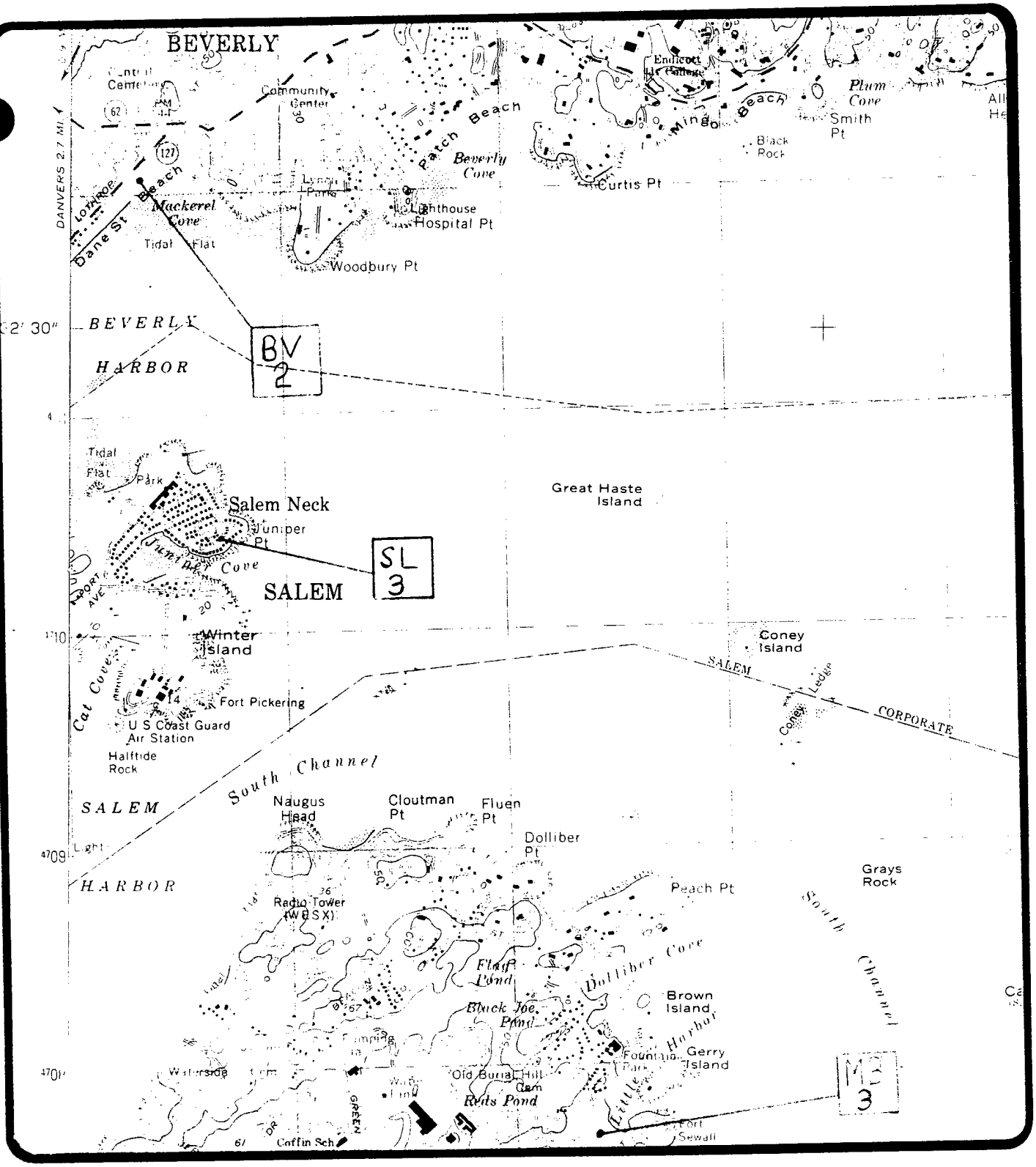


High Water Mark Location Map
Halloween Storm, October, 1991

□ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Salem, MA.

US Army Corps of Engineers
New England Division



High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Marblehead North, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

APPENDIX

MARBLEHEAD, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		MB1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Marblehead	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Devereux Beach. Two orange ribbons on chainlink fence along right side of road near beach. The 4th and 5th pole from the turnaround are marked behind guardrail (see orange spray paint). Tag on 4th pole is about two feet above sidewalk.

4 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

Mr. Robert Hammond, Superintendent Recreation and Parks
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

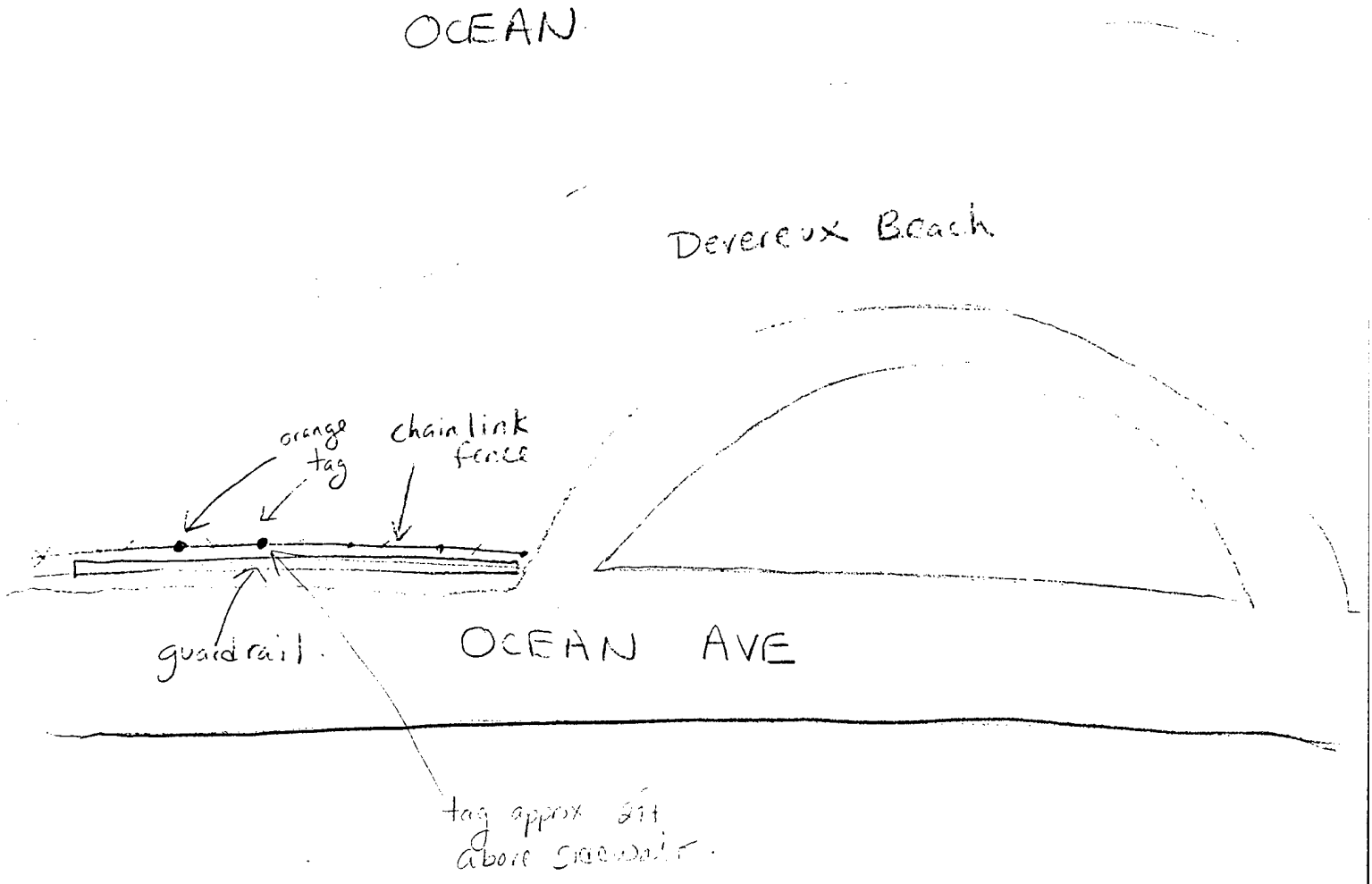
(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Confident Point. Distinct Debris Line on fence and road was known to have been flooded.

NED FORM 203
1 APR 78


OCEAN
Devereux Beach
orange tag
chain link fence
guardrail
OCEAN AVE
tag approx 2ft above sidewalk

MB

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		MB2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Marblehead	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Scum line along house marked by orange ribbon around tree near the left front corner of house at the intersection of Ocean Avenue and Flint Street. Line approximately 14 inches from house slab.

4 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

John P. Mulderia, 236 Ocean Avenue (owner)
(Name and address of person pointing out high watermark)

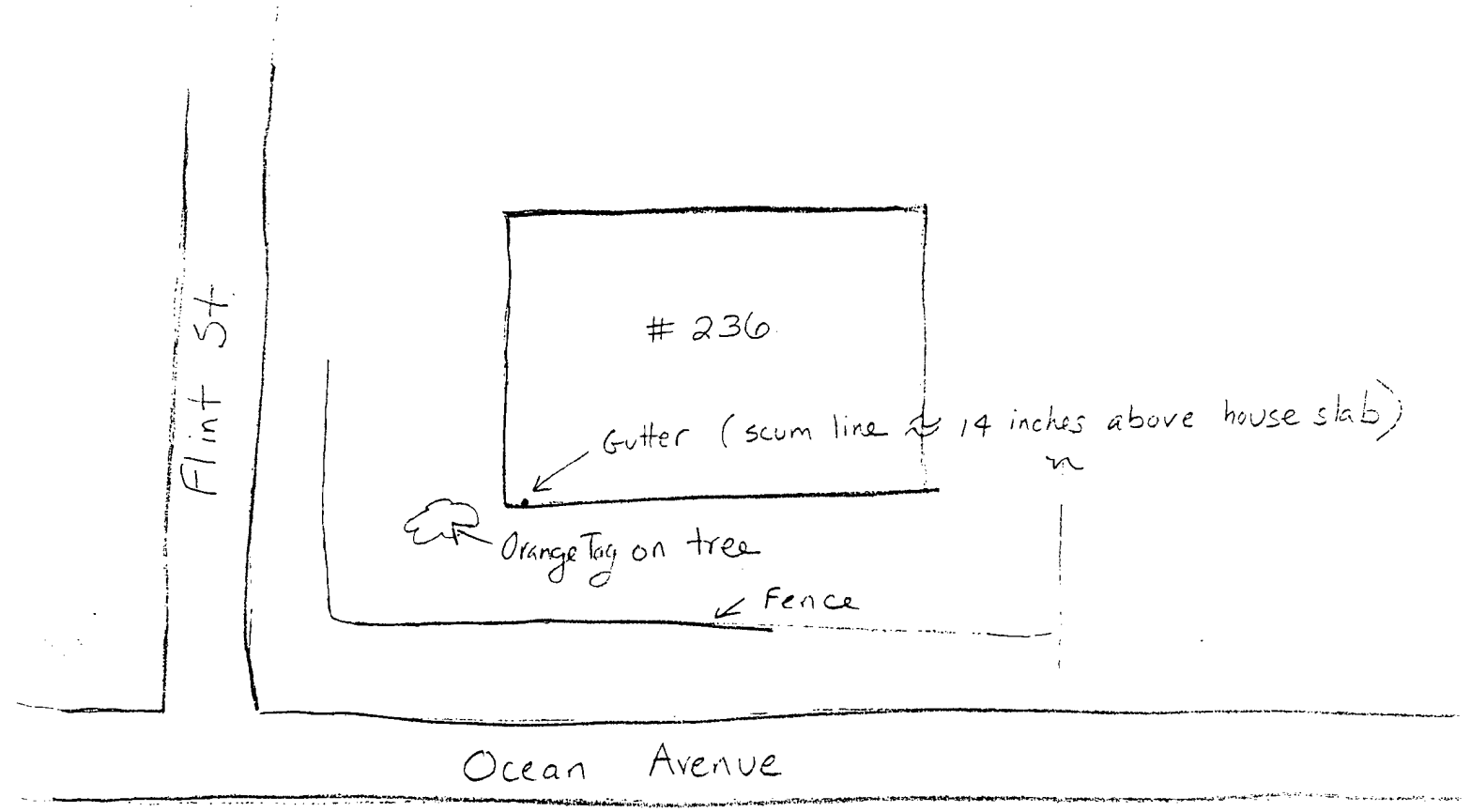
	30 October 1991
(If not pointed out, how obtained?)	(Date and hour of high watermark)

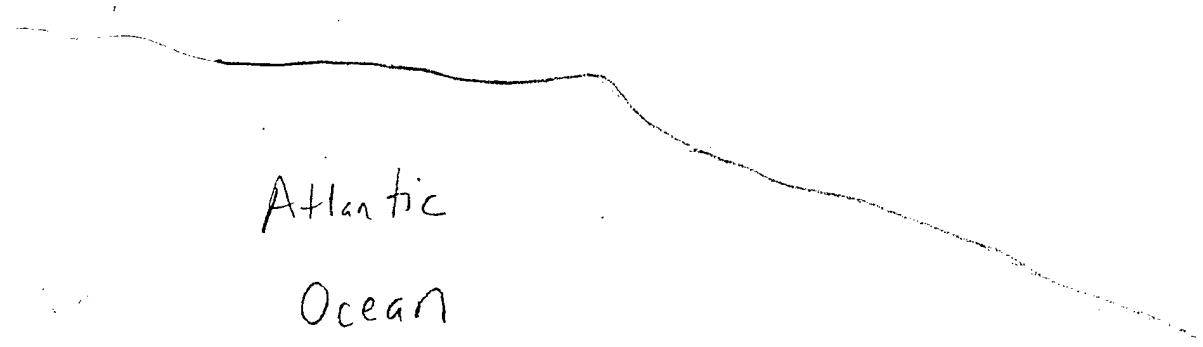
(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Confident Point. Near shoreline and road appeared to have been flooded.

NED FORM 203
1 APR 78


Flint St.
236
Gutter (scum line ≈ 14 inches above house slab)
Orange Tag on tree
Fence
Ocean Avenue


Atlantic
Ocean

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Little Harbor		MB3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Marblehead	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Water height was height of first step in front of lavender house (approx. 7 inches above walkway). Top of spray paint on stone wall to left of steps leading to house marks the height.

4 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

Mrs. Twaalfhoven (renter), 19 Doaks Lane. Owner: Glover Realty.
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

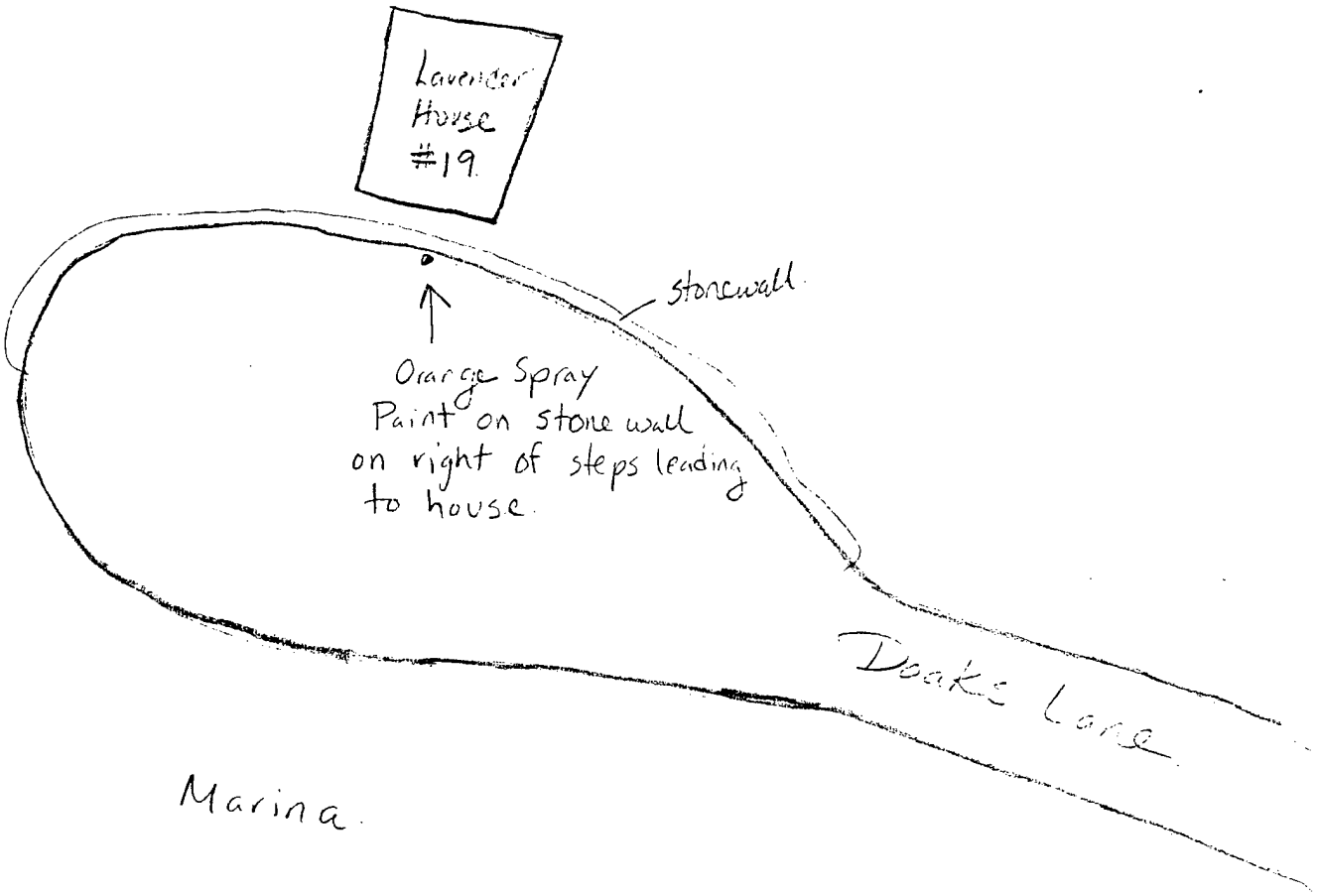
(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Fairly Confident Point. Renter's word on height but seemed reasonable as compared to low ground of marina nearby.

NED FORM 203
1 APR 78

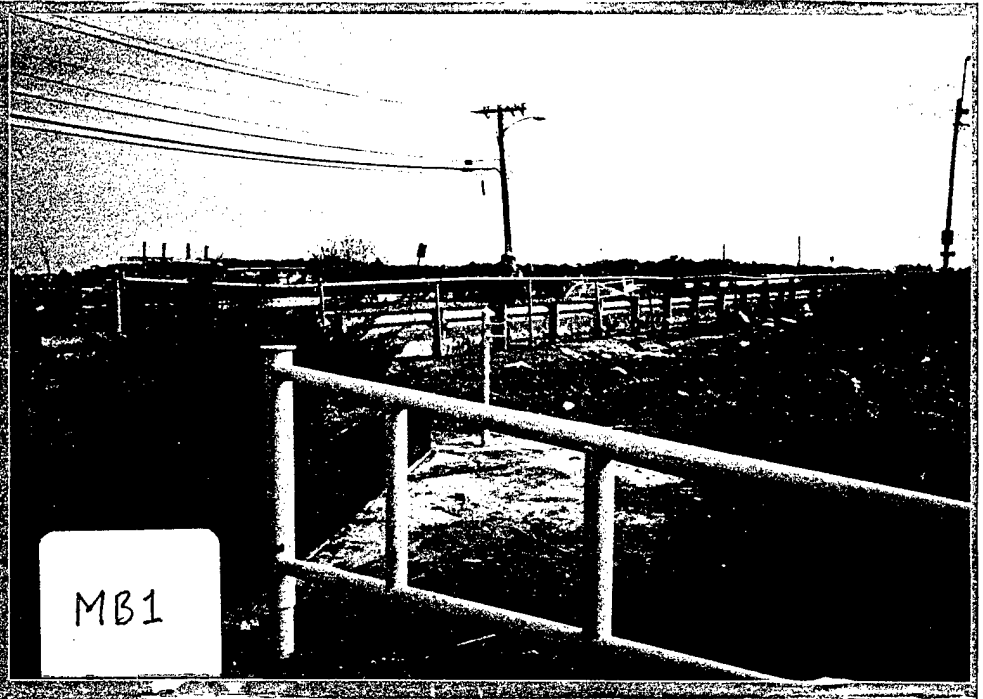


Little Harbor

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MB1



MB1

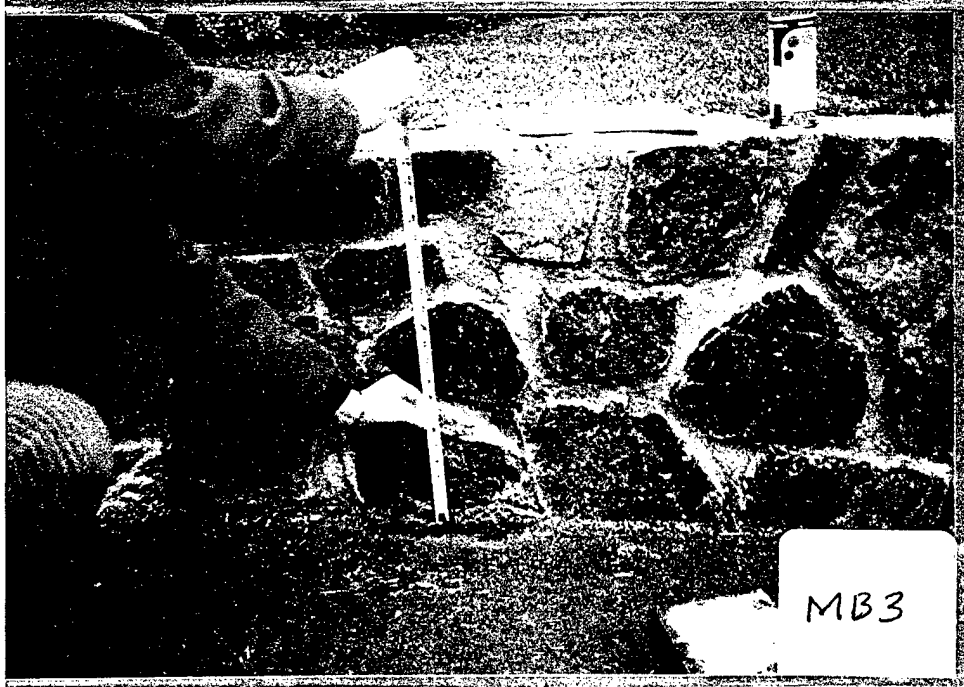


MB1

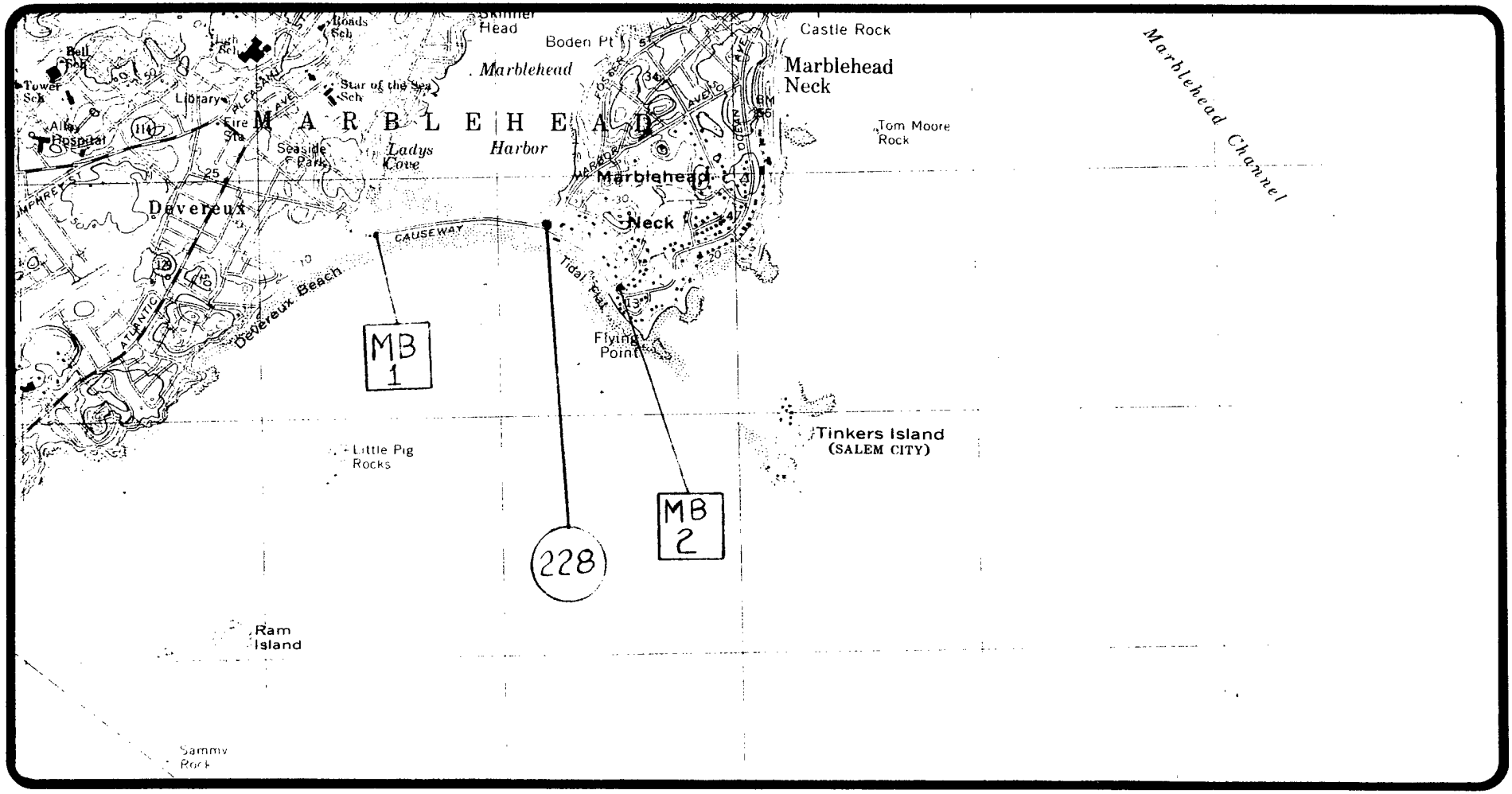
STYLE
35-8P







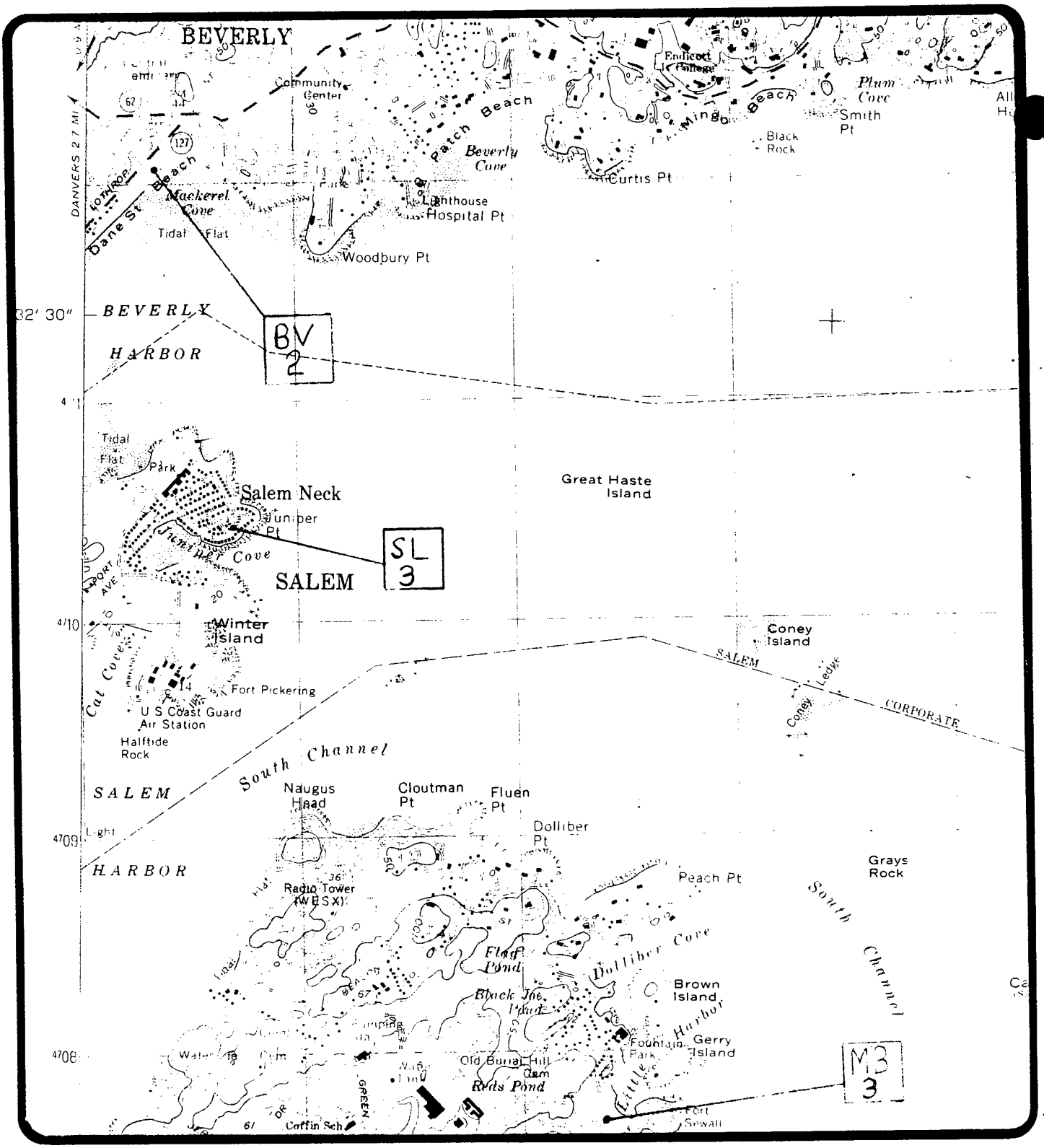




High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Marblehead South, MA.

US Army Corps of Engineers
New England Division



High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Marblehead North, MA.

☐ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

APPENDIX

SWAMPSCOTT AND NAHANT, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nahant Bay		SW1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Swampscott	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: PK nail with orange ribbon in left side of 2nd garage door (from left). The mark is approximately 17 inches above concrete slab.

4 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

James Dawson, 460 Humphrey Street (garage)
(Name and address of person pointing out high watermark)

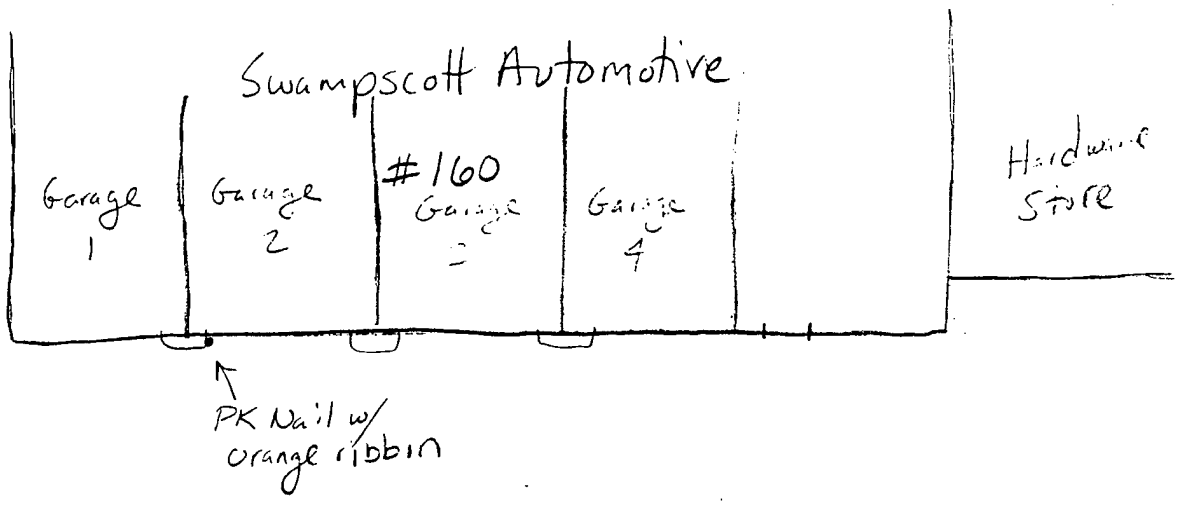
Distinct Debris Line inside garage as well as outside.	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Confident Point. Distinct debris line and eyewitness of road flooding.

NED FORM 203
1 APR 78



Humphrey St.

Citgo Gas Station

Puritan Rd.

Nahant Bay

SW1

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Massachusetts Bay		SW2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Swampscott	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange ribbons along chainlink fence marks debris line. At point "A" type of chainlink changes. At 3rd ribbon from point "A" debris line was approximately 35 inches above sidewalk.

4 November 1991	Karen Schofield and John Yen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

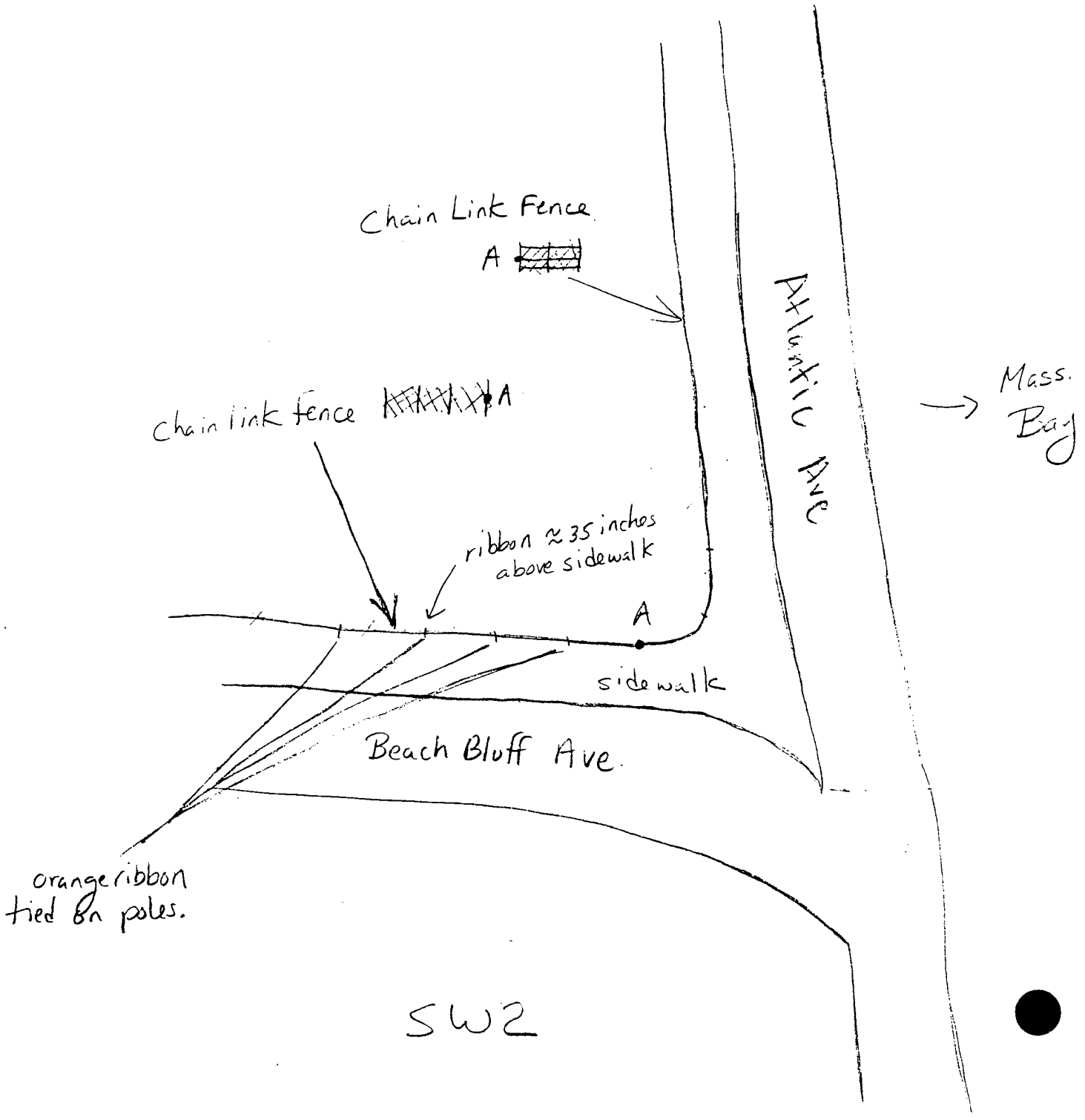
Distinct Debris Line along fence	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Fairly Confident Point. Distinct line and flooding but there's a chance it could be from overtopping nearby seawall.

NED FORM 203
1 APR 78


Chain Link Fence
A
Chain link fence
A
ribbon ≈ 35 inches above sidewalk
A
sidewalk
Beach Bluff Ave.
Atlantic Ave
Mass. Bay
orange ribbon tied on poles.

SW2

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nahant Bay		SW3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Swampscott	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: PK nail and orange ribbon marks scum line on stockade fence in back yard. The nail is on the 2nd pole from right corner of fence. (Water may only be from overtopping and not surge elevation.)

2 November 1991	Karen Schofield and Mark Deschenes
(Date obtained)	(Obtained by)

Richard Cohen, 172 Puritan Road
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

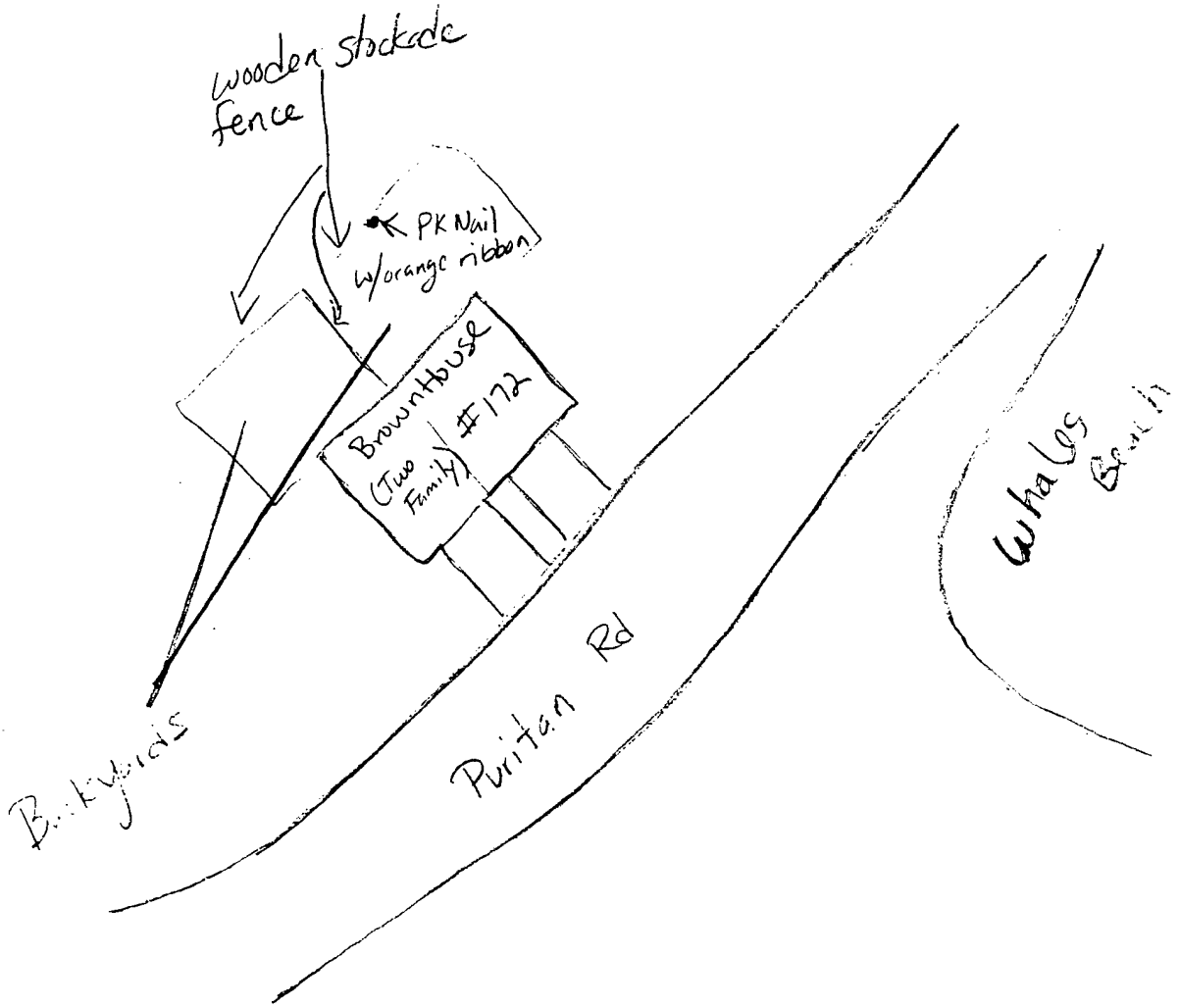
(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Not Very Confident Point. Possible overtopping waters instead of surge waters.

NED FORM 203
1 APR 78


wooden stockade fence
PK Nail w/orange ribbon
Brownhouse (Two Family) #172
Puritan Rd
Whales Beach

SW3

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Massachusetts Bay		SW4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Swampscott	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Orange stake in between two rocks along roadway near driveway off the corner of Littles Point Road (across from new construction) marks debris line. Highwater mark where stake meets the ground.

2 November 1991	Karen Schofield and Mark Deschenes
(Date obtained)	(Obtained by)

Builder from Timberline Construction pointed to general area of water. There was a distinct debris line.
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

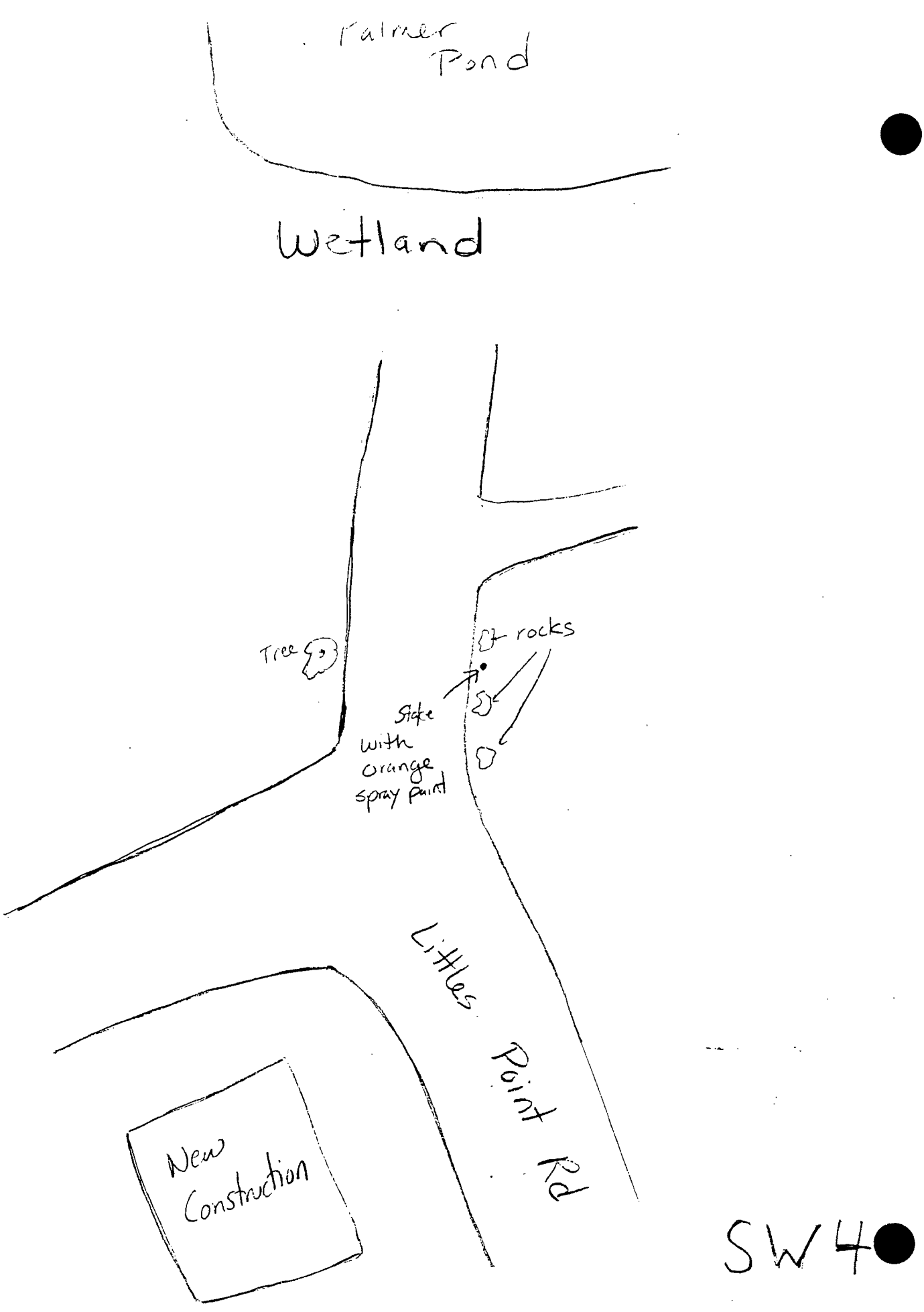
(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Fairly Confident Point. Distinct line with previous flooding.

NED FORM 203
1 APR 78


Palmer Pond
Wetland
Tree
rocks
Site with orange spray paint
Littles Point Rd
New Construction

SW4

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Massachusetts Bay		SW5
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Swampscott	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Scum line on green cement blockwall was marked by orange ribbon on chainlink fence in front of wall. The wall is on the corner of Shepard Avenue near beach entrance. Ribbon is approximately 75 feet from corner and approximately 4 feet above sidewalk.

2 November 1991	Karen Schofield and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?) Distinct scum line along chainlink fence and on cement block wall.	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

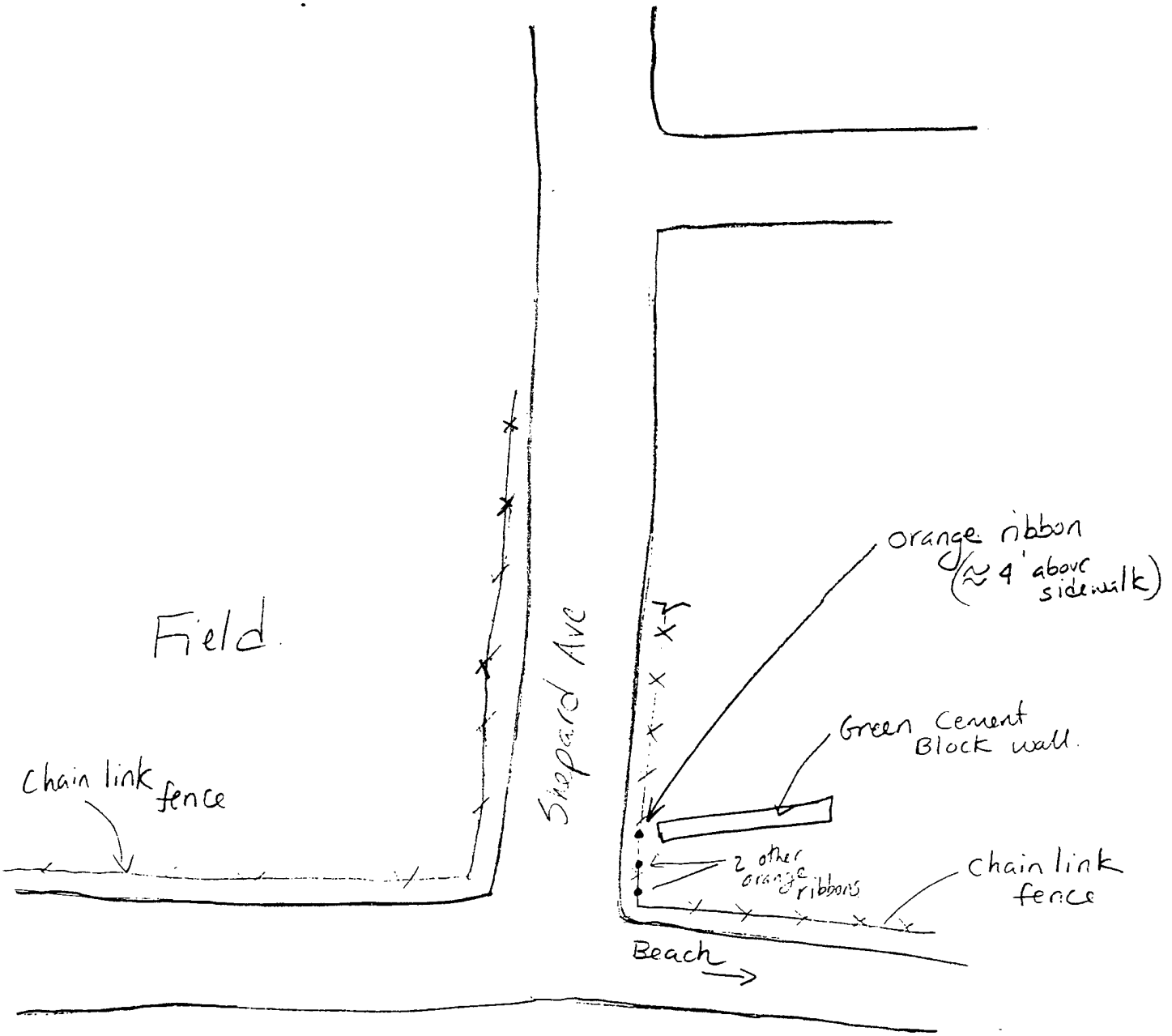
(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NOTE: Confident Point. Near beach and all fences in the area showed some height of debris line.

NED FORM 203
1 APR 78


Field
Chain link fence
Shepard Ave
orange ribbon
(≈ 4' above sidewalk)
Green Cement Block wall
2 other orange ribbons
chain link fence
Beach

SW5

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Lynn Harbor		NH1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nahant	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Stake on wall on right side of driveway shows debris line. (However, may only be ponding of water due to overtopping waves rather than tide height.) The stake is approx. 30 feet from edge of road along stonewall.

2 November 1991	Karen Schofield and Mark Deschenes
(Date obtained)	(Obtained by)

Talked to: Craig Mosher Home owner: Anthony Callerco (Craig's wife's cousin)
(Name and address of person pointing out high watermark)

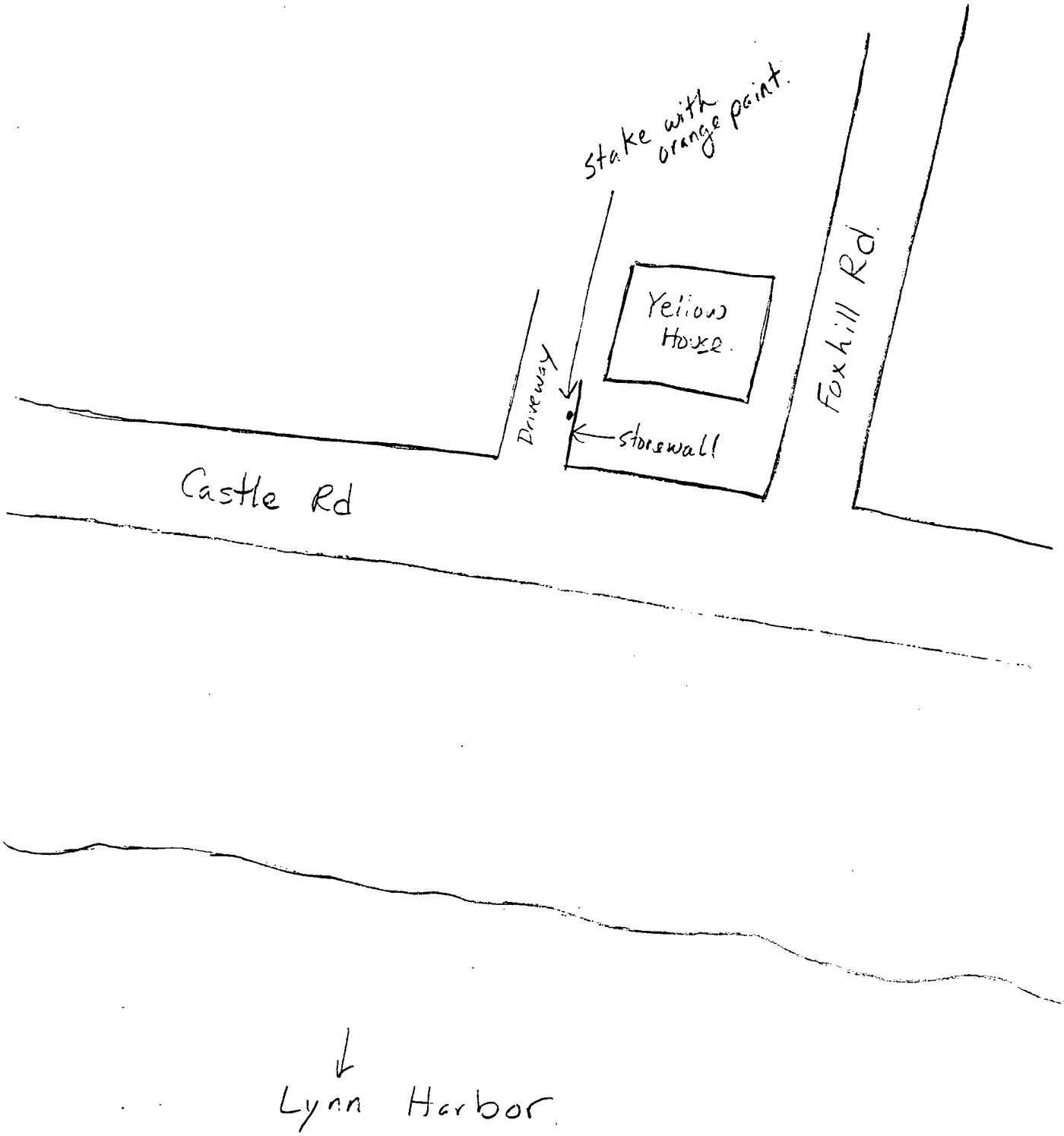
Debris Line along grass	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

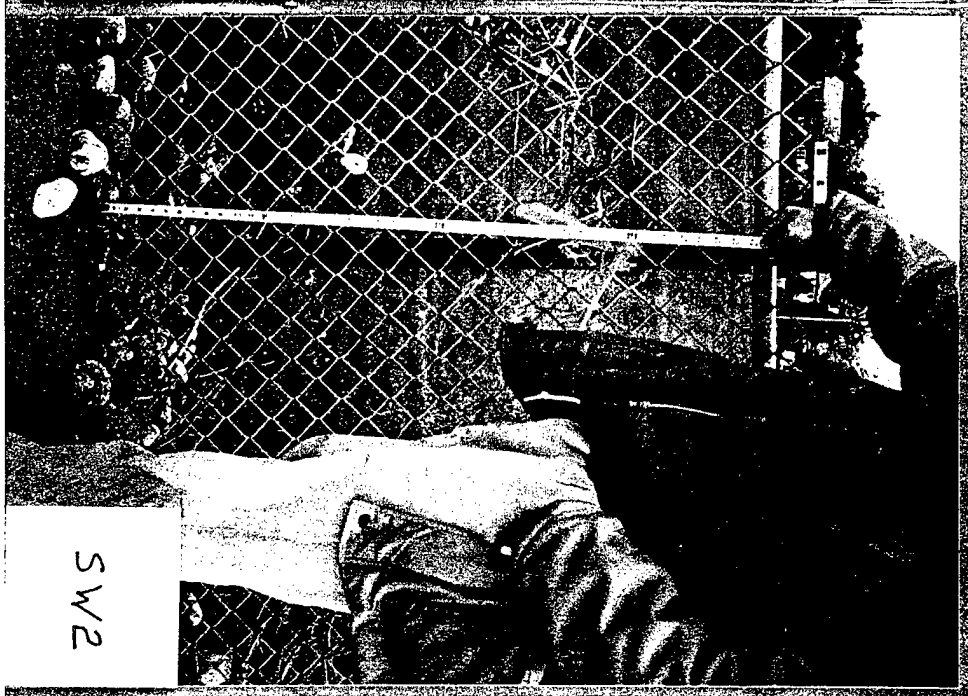
NOTE: Not Very Confident Point. Probable overtopped flooding instead of surge waters. Much lower than seawall.

NED FORM 203
1 APR 78

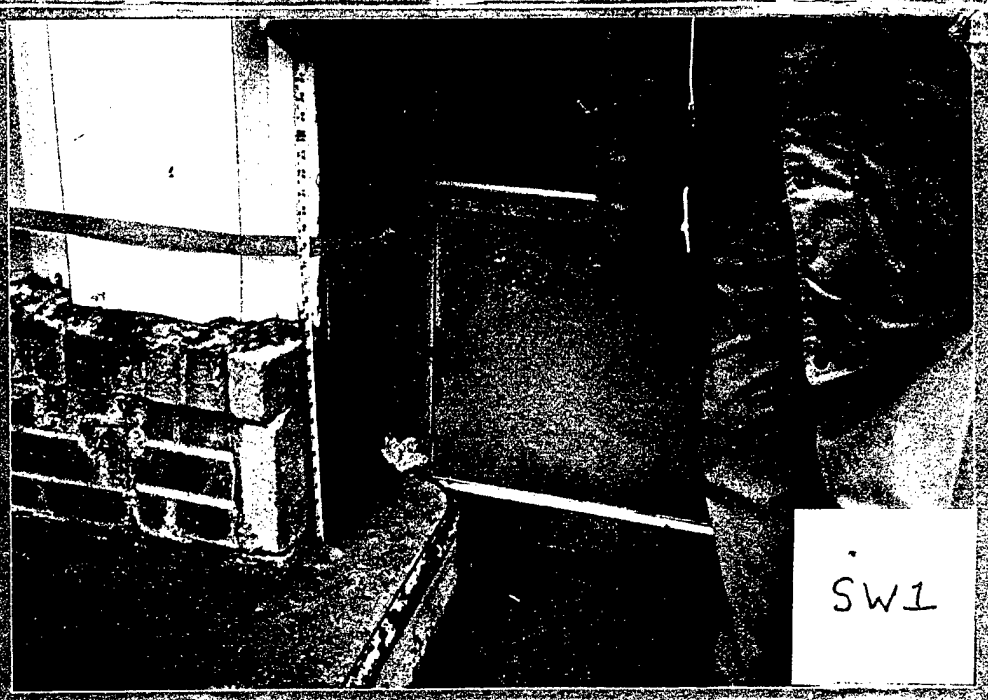

stake with orange paint.
Yellow House
Driveway
stonewall
Foxhill Rd
Castle Rd
Lynn Harbor
NH1

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STYLE 35-8P

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SW2



SW1



SW2



SW1

SW3

SW3

SW4

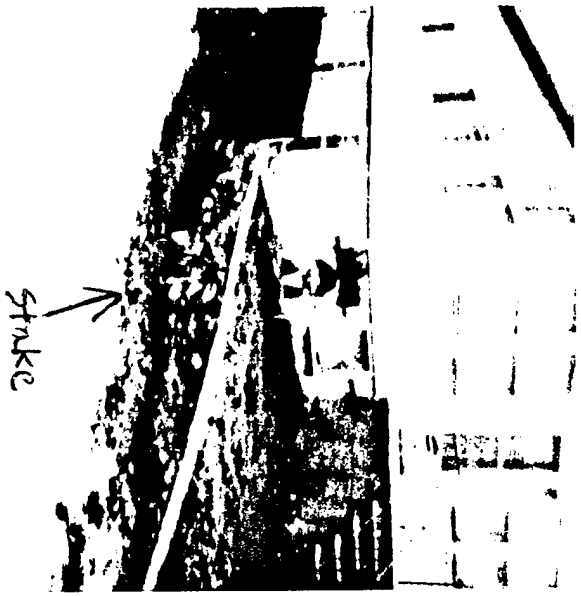
SW4

ARCHIVAL PRESERVERS
STYLE 35-8P

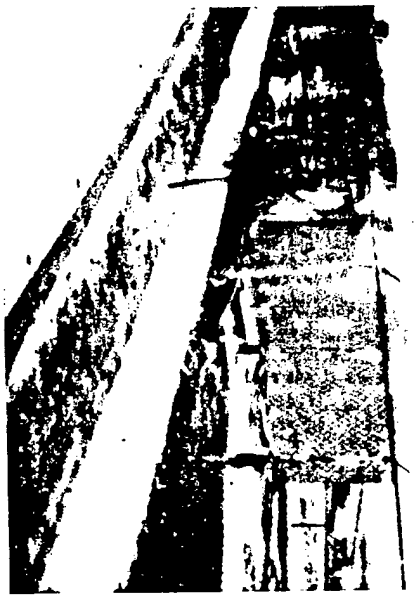
Print Pal®
ARCHIVAL PRESERVERS
STYLE 35-8P

PHOTO PLASTIC PRODUCTS, INC. P.O. BOX 607639 ORLANDO, FL 32860-7639

1 HN

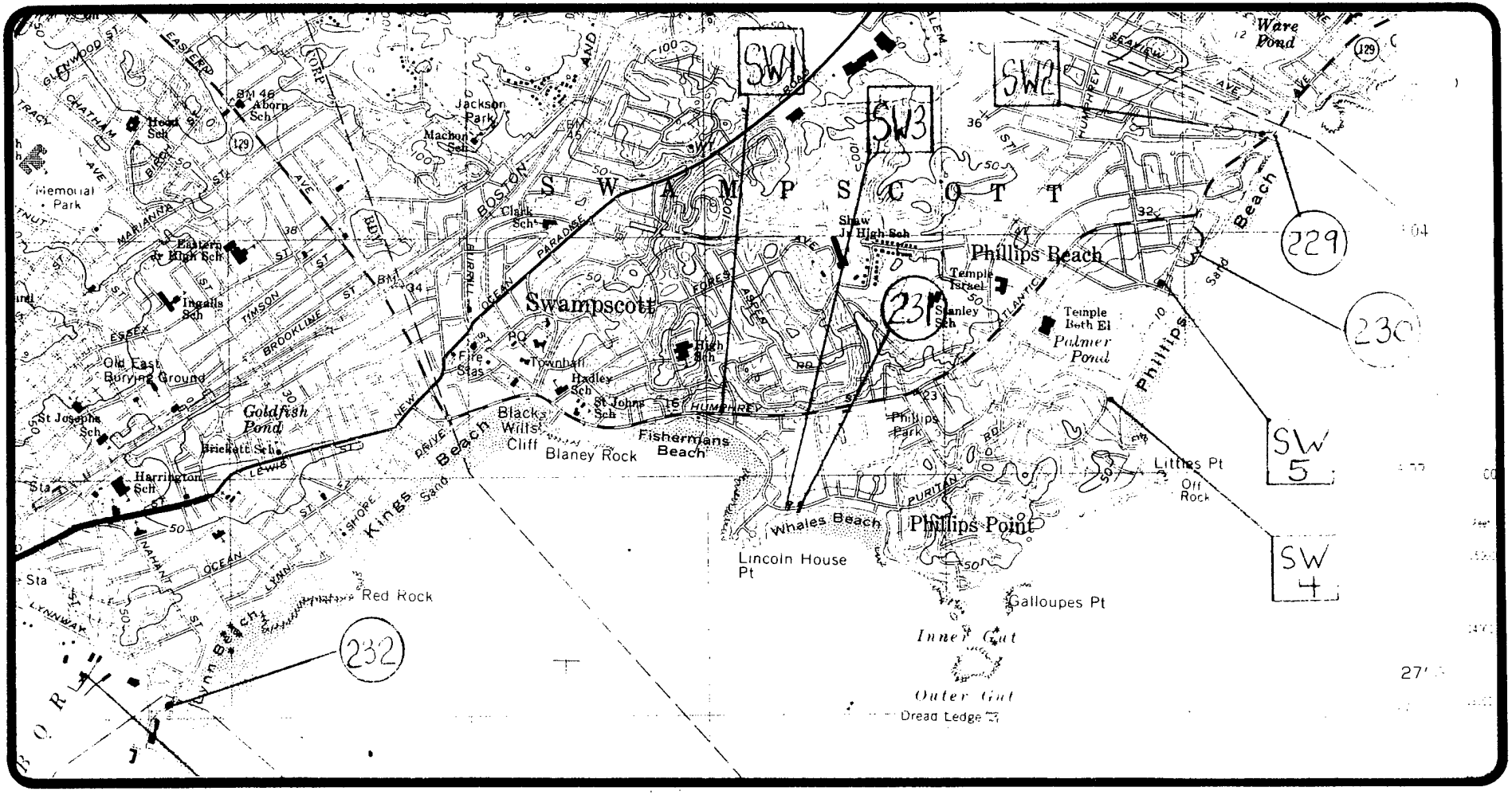


SE5



SE5

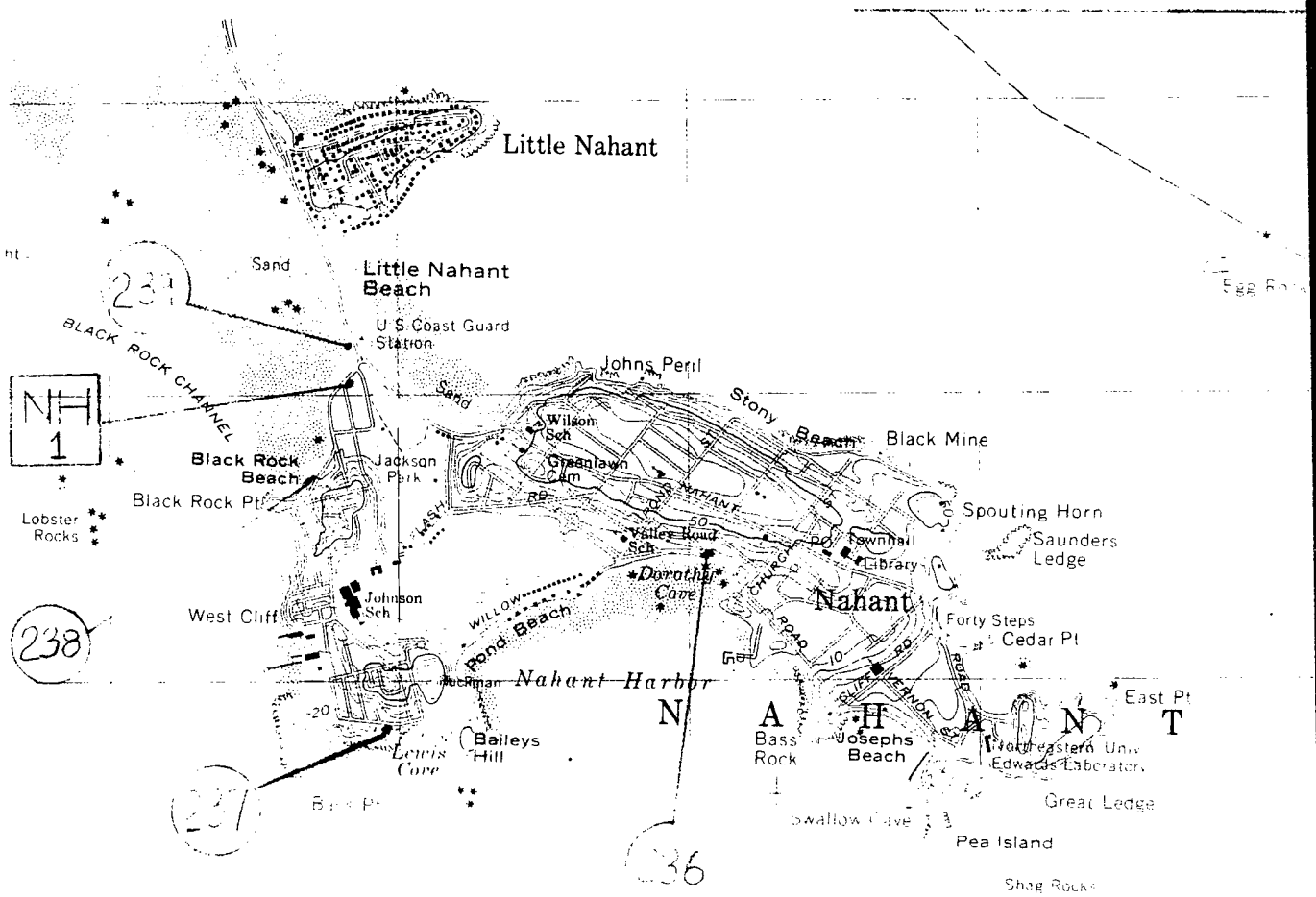




High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Lynn, MA.

US Army Corps of Engineers
New England Division



High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Lynn, MA.

☐ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

APPENDIX

LYNN, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		L1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Near Mouth of Saugus River	Lynn	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Suspected wave action along east bank near Frederick B. Willis Pier behind Days Inn Hotel. Area staked out, debris line is inconsistent. Location near Gen. Edwards Bridge.

5 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)
Good	

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		L2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Mouth of Saugus River	Lynn	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Noticeable debris line running parallel to bank and existing piles. Suspected tide levels. Three sets of stakes are located behind Days Inn Hotel in front of Frederick B. Willis Pier on Rt. 107 (General Edwards Bridge).

5 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Saugus River		L3 & L4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Mouth of Saugus River	Lynn	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: High water mark located under billboard on southbound side of Rt. 107 right before General Edwards Bridge heading toward Revere. Ribbon attached to fence and stake on ground under billboard.

5 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

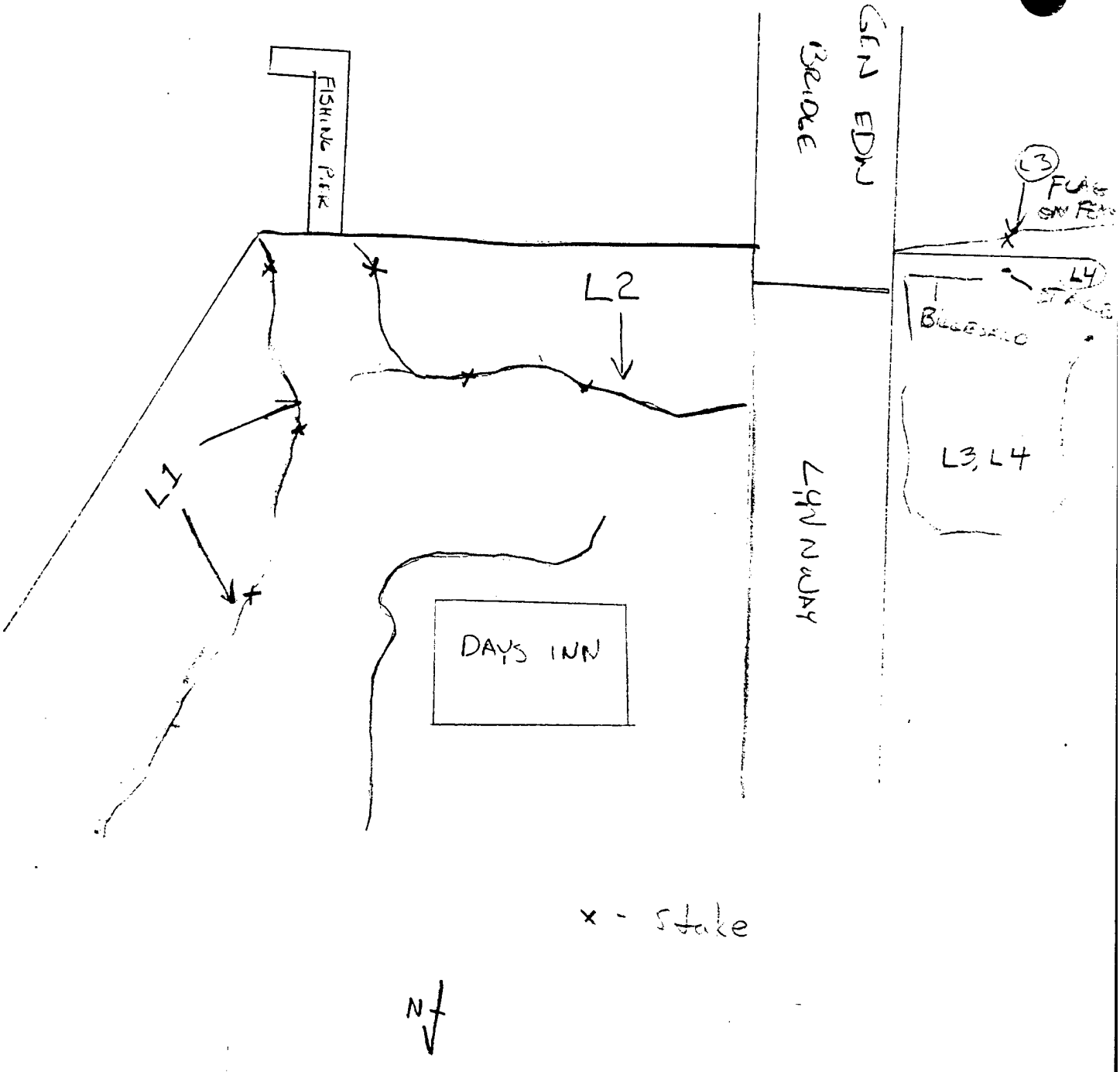
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1 APR 76

CORPS OF ENGINEERS, U.S. ARMY

SUBJECT H.W MARK DUE TO OCT 91 FLOOD PAGE

COMPUTATION SAUGUS RIVER (JAN)

COMPUTED BY M. DESCHENES & V. HOM CHECKED BY DATE



DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Saugus River		L5 & L6
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Lynn	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: High water marks at end of Cooper Street.
Debris line noticeable along river bank. Total of 4 stacks and paint line.

5 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Saugus River		L7 & L8
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Lynn	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Saugus Yacht Club paint mark on entrance guardrail and rear left corner of building.

5 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

Paul Sekenski, 95 Dearborne Avenue
(Name and address of person pointing out high watermark)

Scum Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Lynn Harbor		L9
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Lynn	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: 68 Lynnway, Volunteer-Yacht Club. Bill, said that the water was about 1 foot above yellow curb to the right of yacht club building. PK nail on dock section to the right of crane.

2 November 1991	Karen Schofield and Mark Deschenes
(Date obtained)	(Obtained by)

Bill Henry (Float Chairman at 68 Lynnway)
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

NED FORM 223
27 Sept 49

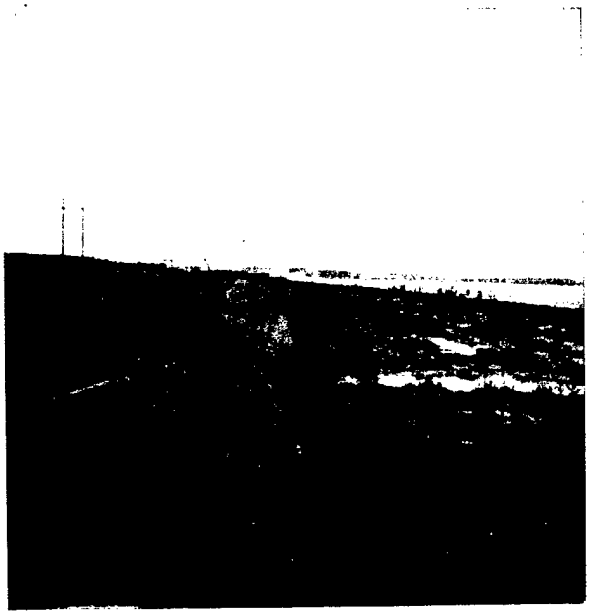
NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY

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SUBJECT H.W MARK DUE TO OCT 91 FLOOD

COMPUTATION SAUGUS RIVER LYNN

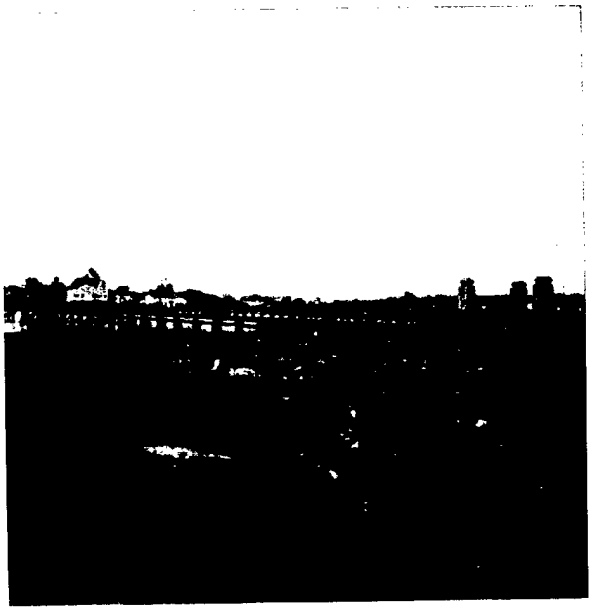
COMPUTED BY M. DESCHENES & V. HOM CHECKED BY DATE



L1
Days Inn / Club Morgan



L2
Days Inn / Club Morgan



L1
Days Inn / Club Morgan



L2
Days Inn / Club Morgan

NED FORM 223
27 Sept 49

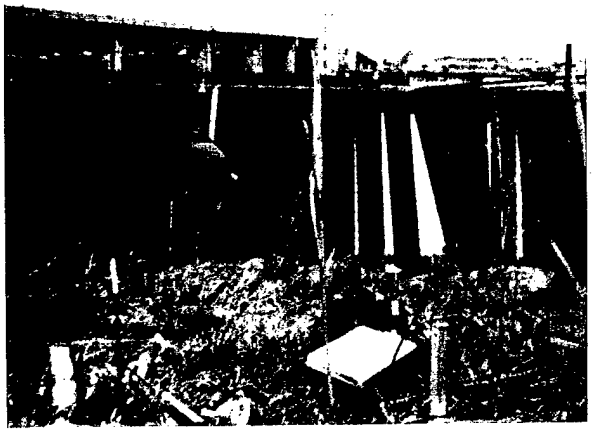
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SUBJECT H.W MARK DUE TO OCT 91 FLOOD

COMPUTATION SAUGUS RIVER LYNN

COMPUTED BY M. DESCHENES & V. HOM CHECKED BY _____ DATE _____



L3 & L4
Field under bridge @ Rte. 109

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27 Sept 49

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CORPS OF ENGINEERS, U.S. ARMY

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SUBJECT H.W MARK DUE TO OCT 91 FLOOD

COMPUTATION SAUGUS RIVER LYNN

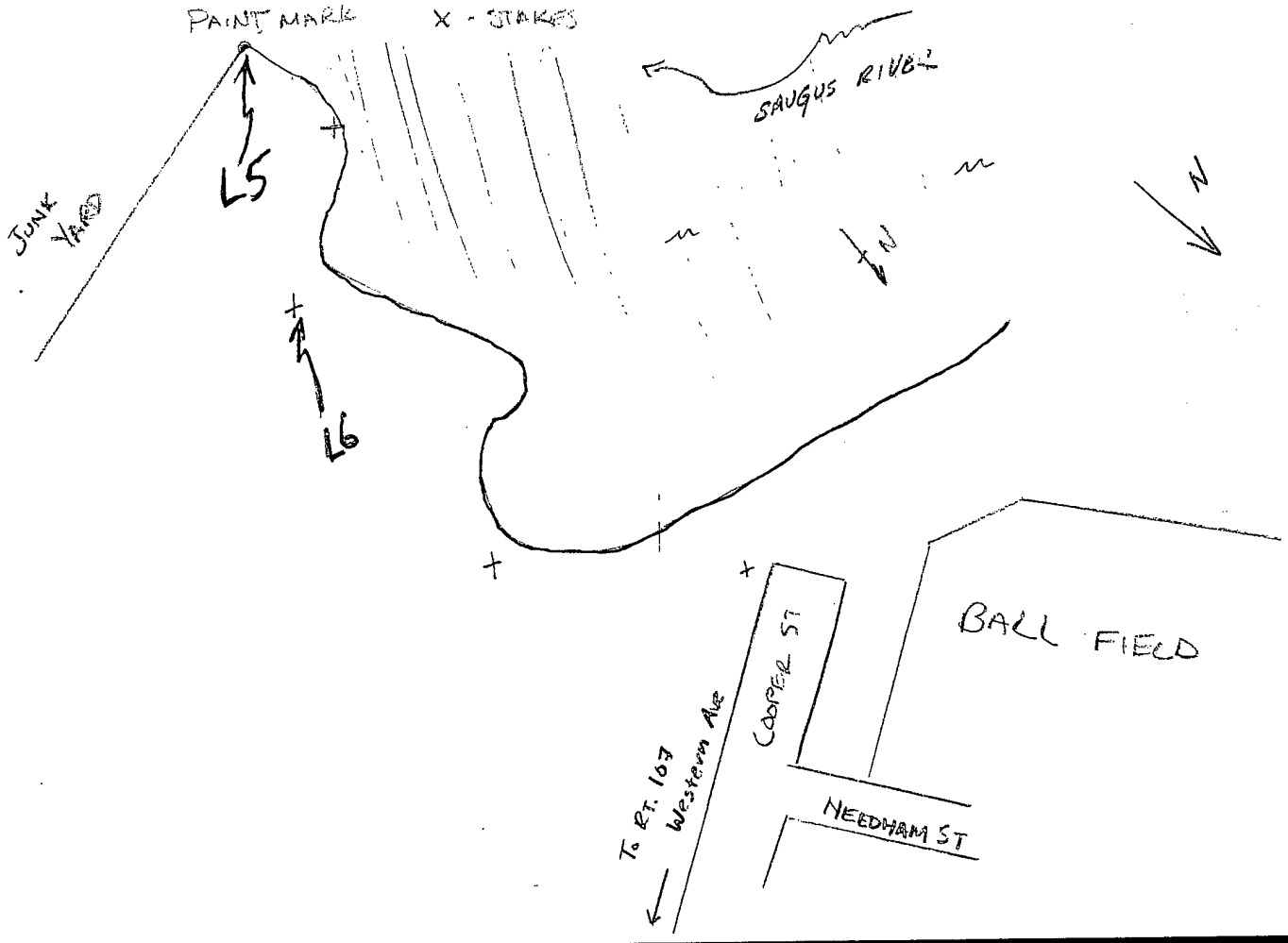
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L6
End of Cooper St.



L6
End of Cooper St.



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27 Sept 49

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CORPS OF ENGINEERS, U.S. ARMY

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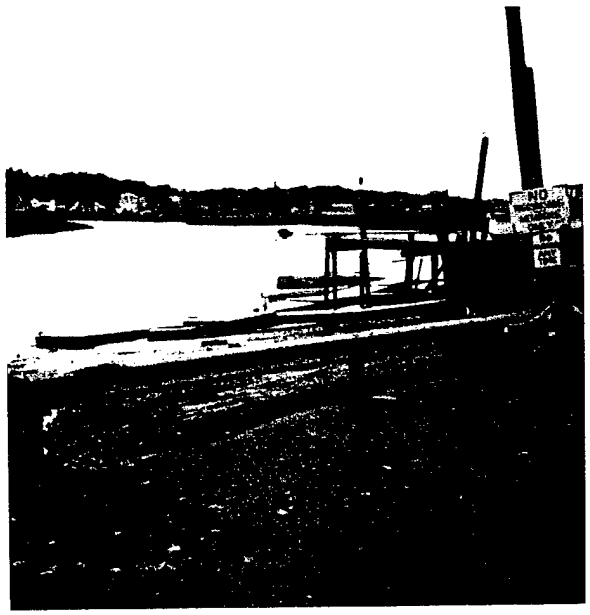
SUBJECT H.W MARK DUE TO OCT 91 FLOOD

COMPUTATION SAUGUS RIVER LYNN

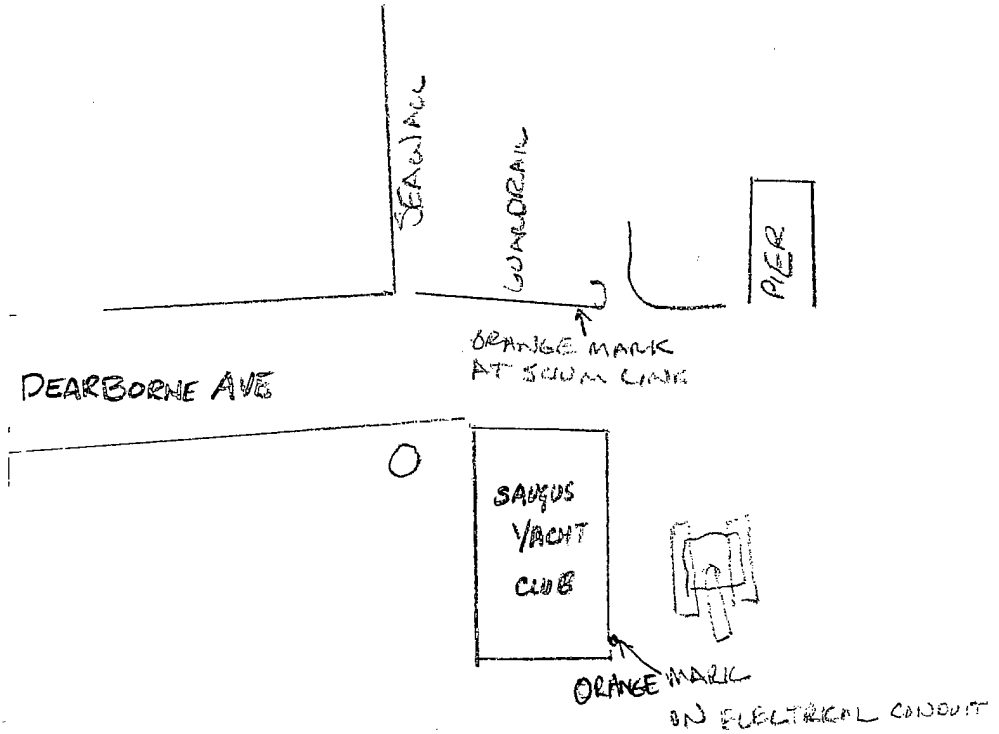
COMPUTED BY M. DESCHENES & V. HOM CHECKED BY _____ DATE _____



L7
Saugus Yacht Club



L8
Saugus Yacht Club



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27 Sept 49

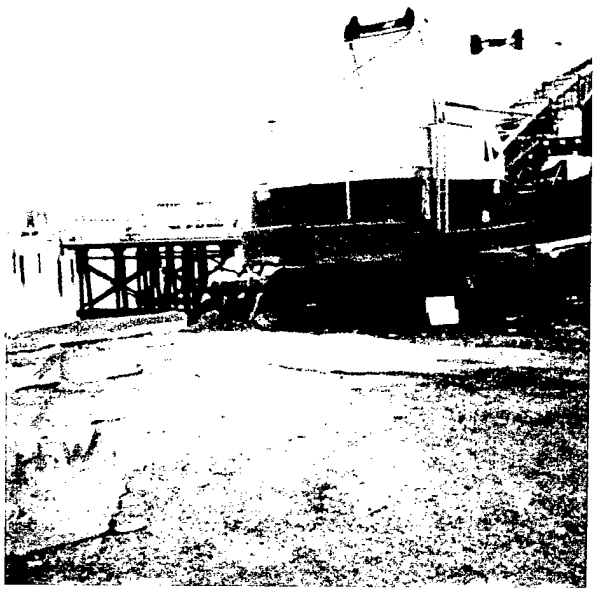
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CORPS OF ENGINEERS, U.S. ARMY

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SUBJECT H.W MARK DUE TO OCT 91 FLOOD

COMPUTATION LYNN HARBOR LYNN

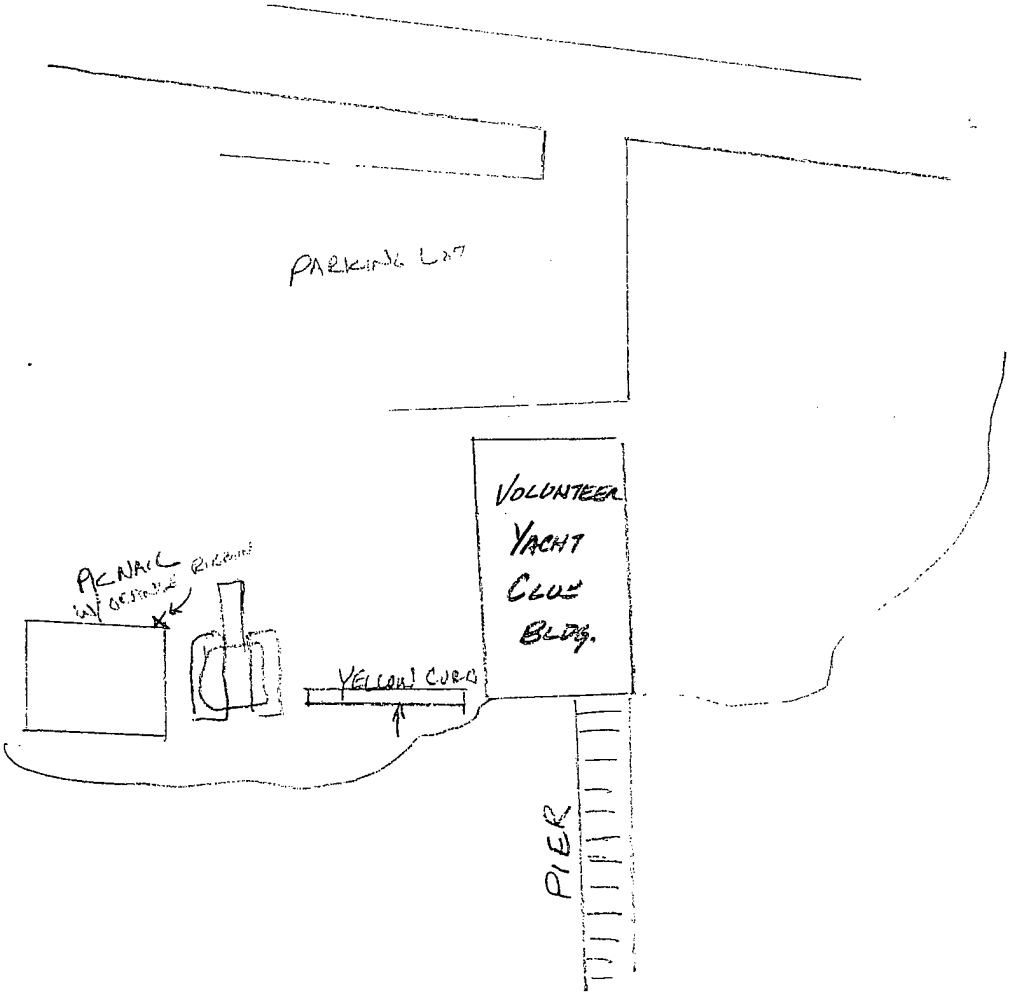
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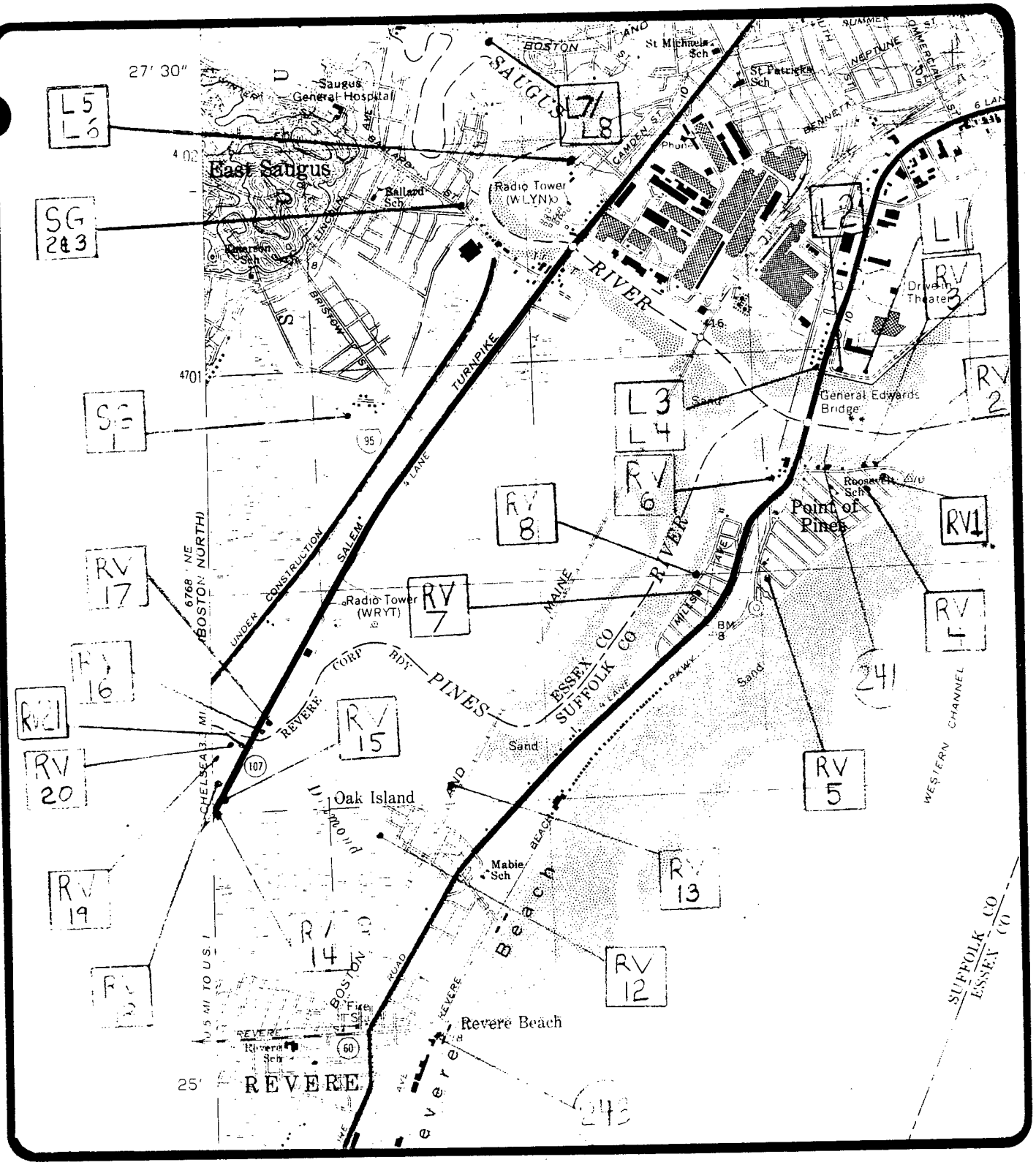


L9 Lynn Harbor
Volunteer Yacht Club Bldg.



L9 Lynn Harbor
Volunteer Yacht Club Bldg.





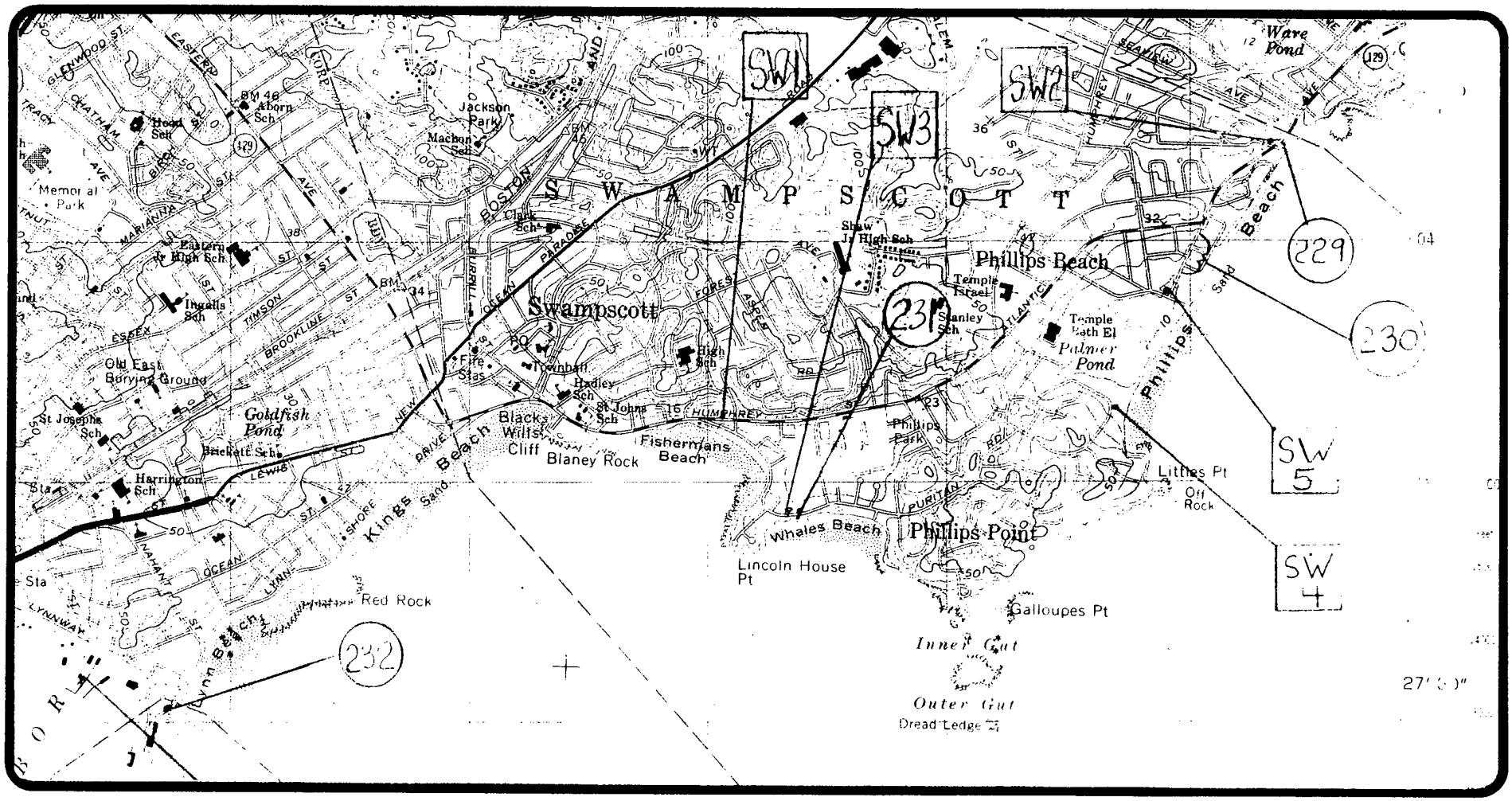
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Lynn, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Lynn, MA.

US Army Corps of Engineers
New England Division

APPENDIX

SAUGUS, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Pines River, Inland Estuary		SG1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Saugus	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nailed on garage door frame. Highwater mark due to tidal flow. Site is located at Allstar Fuel Company at end of Hewlett St.

6 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Scum Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Saugus River		SG2 and SG3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Saugus	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Highwater mark nailed on piles, two marks with orange ribbon--one on pier off of, and one on pile along Harvard Avenue. Mark checked with level and obvious scum line.

5 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

NED FORM 223
27 Sept 49

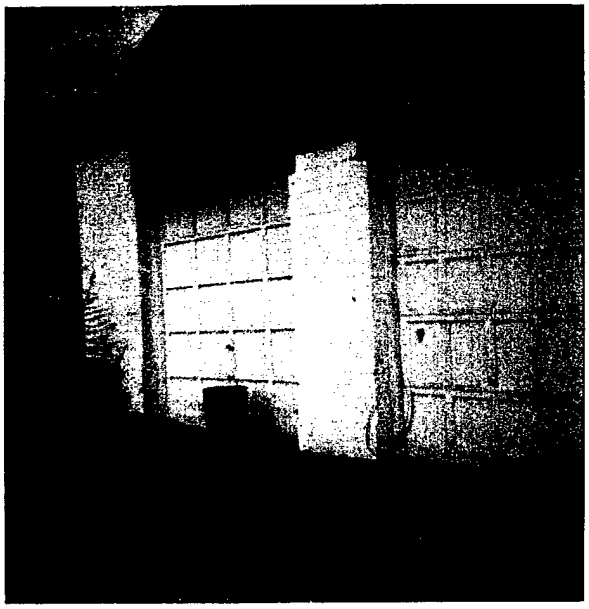
NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY

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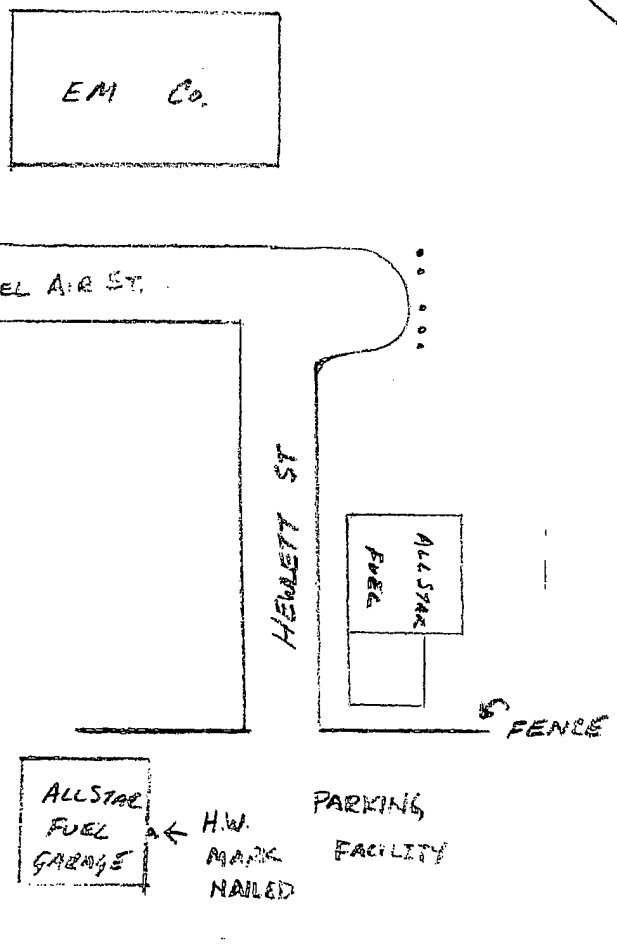
SUBJECT H.W MARK DUE TO OCT 91 FLOOD

COMPUTATION PINES RIVER HW 1A-3

COMPUTED BY M. DESCHENES & J. HOM CHECKED BY _____ DATE _____



SG1
Allstar Fuel - Hewlett St.



NED FORM 223
27 Sept 49

NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY

PAGE

SUBJECT H.W MARK DUE TO OCT 91 FLOOD

COMPUTATION SAUGUS RIVER W.O. #80-1

COMPUTED BY M. DESCHENES & V. HOM CHECKED BY DATE



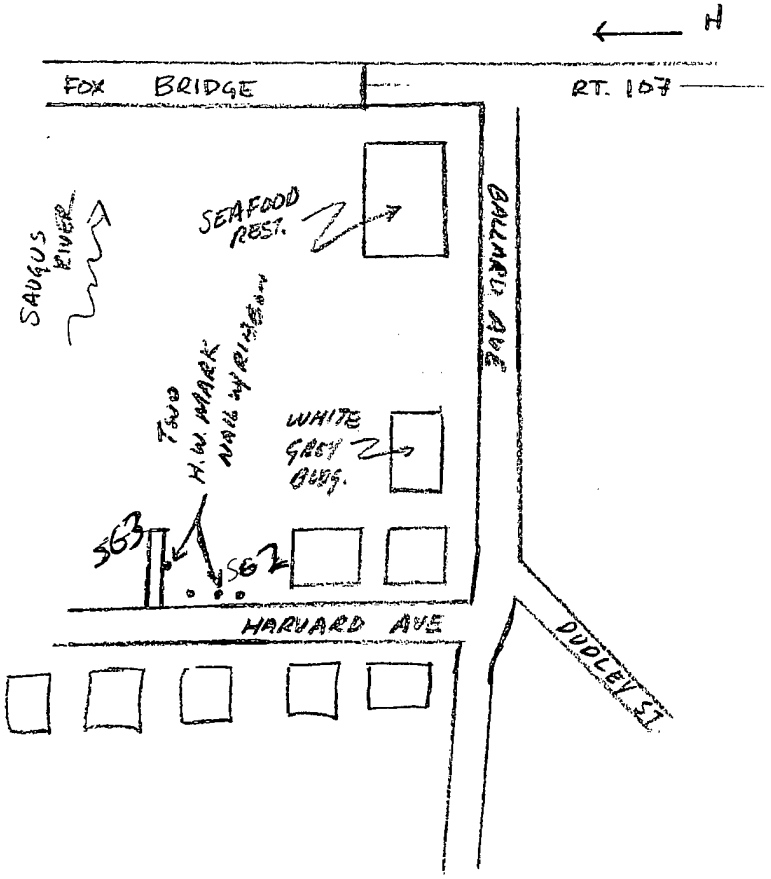
SG2 & SG3

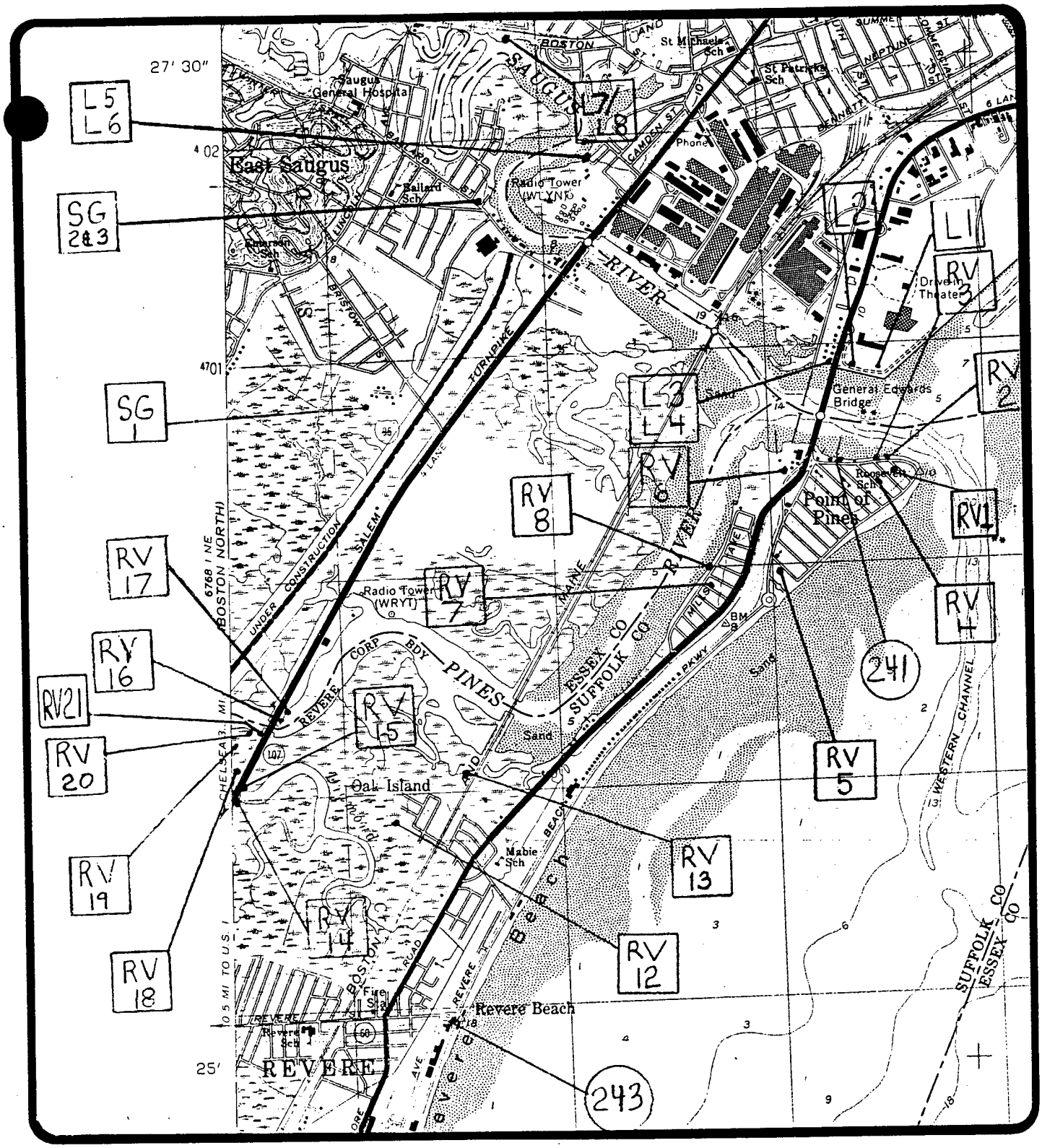
Pier Piling @ Harvard Ave.



SG2 & SG3

Looking SE @ Harvard Ave.





High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Lynn, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

APPENDIX

REVERE, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		RV1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Revere (Point of Pines)	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: 21 Wadsworth Avenue, definite scum line along back of foundation. Orange paint mark on left rear corner of foundation approx. 2' above driveway elevation.

2 November 1991	M. Deschenes and Karen Schofield
(Date obtained)	(Obtained by)

Daniel Kinsella, 21 Wadsworth Avenue
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)
Good Mark	

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Mouth of Saugus River		RV2 & RV3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Revere (Point of Pines)	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Debris line along backside of seawall on Rice Avenue at Point of Pines. Stakes along debris with paint lines along seawall starting from Bateman Avenue to Wadsworth Avenue.

4 November 1991	Mark Deschenes and Victor Hom
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Noticed debris along wall	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		RV4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Revere (Point of Pines)	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: 22 Fowler St, PK nail on stockade fence in backyard. 5th pole from right corner, approx. 2' above ground elevation, definitive scum line.

2 November 1991	Mark Deschenes and Karen Schofield
(Date obtained)	(Obtained by)

Brian Redholz, 22 Fowler Street
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)
Good Mark	

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		RV5
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Revere (Point of Pines)	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: 21 Harrington Avenue, PK nail in post of stockade fence at definitive scum line. Behind the house 2nd pole from the front corner on the right hand side, approx 16" above ground elevation.

2 November 1991	Mark Deschenes and Karen Schofield
(Date obtained)	(Obtained by)

Levitt, 21 Harrington Avenue
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)
Good Mark	

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Pines River		RV6
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Revere (Point of Pines)	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Lynnway Rt. 1A, Fowler Marine, PK nail at front corner of fence in parking lot. Nail on post next to small light house.

2 November 1991	M. Deschenes and Karen Schofield
(Date obtained)	(Obtained by)

Bill, Fowler Marine
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Pines River		RV7
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Revere	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: 29 Gilbert Avenue, mark on curbstone below telephone pole 3816. Scum line along curb. Owner says water never topped curbstone.

2 November 1991 (Date obtained)

Mark Deschenes and Karen Schofield (Obtained by)

Rob Lauro, 29 Gilbert Avenue
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)

(Date and hour of high watermark)

Good

(Elev. of high watermark) (Datum)

(Benchmark referred to) (Datum)

(Elevation of high watermark above water surface)

(Date & Hour) (Class. of watermark)

(Elevation determined by)

(Date) (Order of levels)

(Nearest dam upstream or downstream)

(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
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Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Pines River		RV8
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Revere	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Debris line along Mill Street and Saugus River.

6 November 1991	Vic Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
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424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		RV9
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Revere (Roughans Pt.)	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nail indicating top of definite scum line at 176 Broadsound Avenue. Nail located in center column at front stairs.

4 November 1991	Victor Hom
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Noticed while surveying area	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		RV10
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Revere (Roughans Pt.)	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: 125 Broadsound Avenue, scum line along side of building. Ribbon was placed on the gutter pipe on the front left corner of the house.

2 November 1991	Mark Deschenes and Karen Schofield
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good Point

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		RV11
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Revere (Roughans Pt.)	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: 86 Broadsound Avenue, orange paint mark on corner of house foundation indicating top scum line approx. 41" from (street elevation) driveway.

2 November 1991	Mark Deschenes and Karen Schofield
(Date obtained)	(Obtained by)

Stephen Kramer, 86 Broadsound Avenue
(Name and address of person pointing out high watermark)

Good	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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NED FORM 223
27 Sept 49

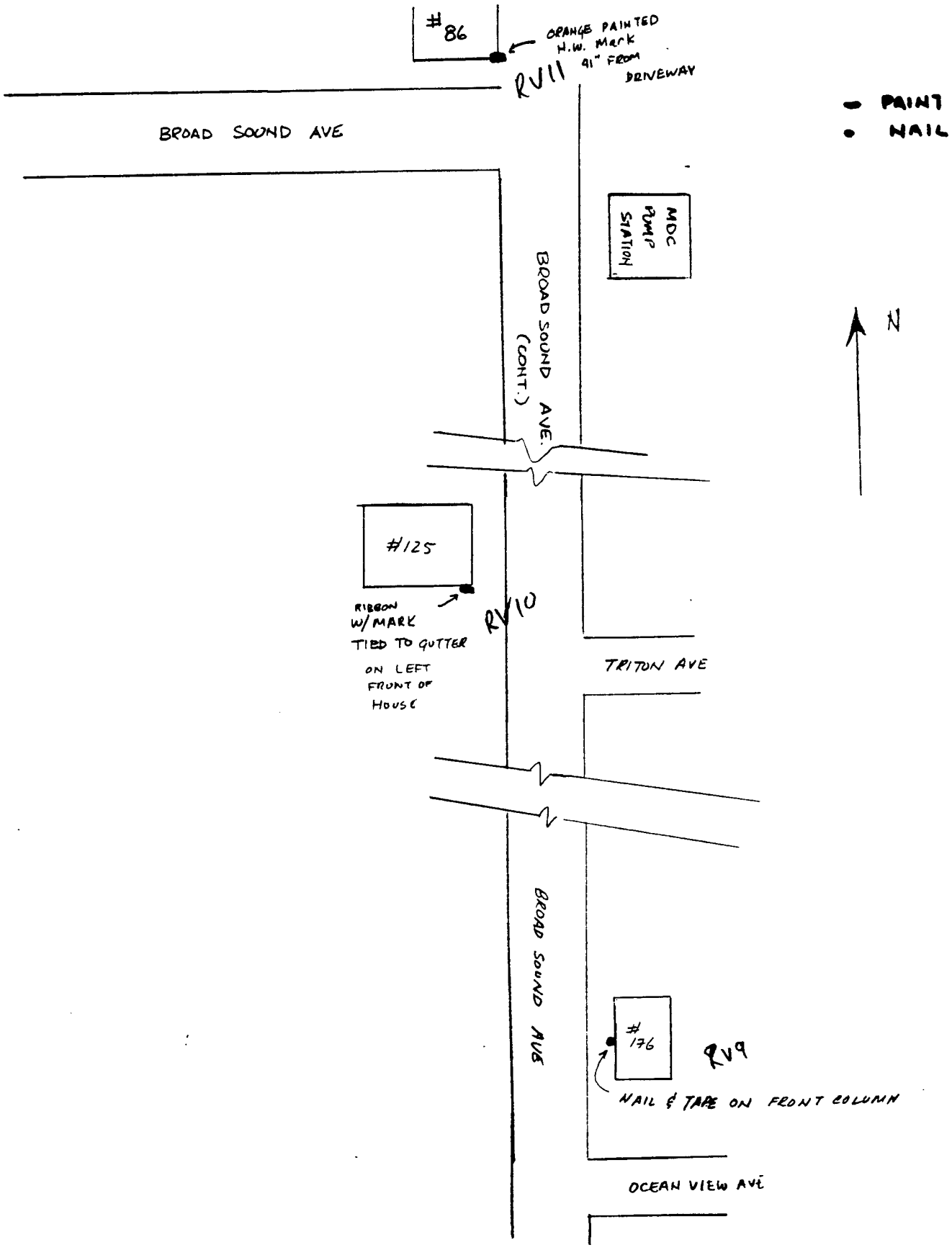
NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY

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SUBJECT HIGHWATER MARK DUE TO OCT. 1991

COMPUTATION ROUGHANS POINT

COMPUTED BY Victor Ham & Mark Desjardins CHECKED BY DATE 11/5/91



DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Pines River		RV12
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Revere	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Debris line along salt marsh. Stake driven at debris line behind abandoned house at corner of Bridge Street and Flint Street.

6 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Saugus River		RV13
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Revere	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Paint mark on railroad fence. Highwater mark at top of paint line. Location accessible at end of Woodland Road.

7 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Scum Line on fence	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Diamond Creek		RV14 & RV15
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Pines River	Revere	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Highwater line marked on bridge abutment facing east. Debris line is a definitive marker Rt. 107 Northbound.

4 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Pines River		RV16 & RV17
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Saugus/Revere Line	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Debris line along estuary on east bank of Rt. 107. Stakes along waterline. Rt. 107 Northbound, south of Atlantic Lobster Company.

4 November 1991	Victor Hom, Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Lines	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Diamond Creek		RV18, RV19, & RV20
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Pines River	Revere/Saugus	
(Tributary of)	(City or Town)	(State)

Description of high watermark: Definitive debris line along grass and abutment structure on Rt. 107 South near H. C. Troll Lobster. Highwater line is formed by marks including nail, spray painted guard rail and stakes (see map).

4 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

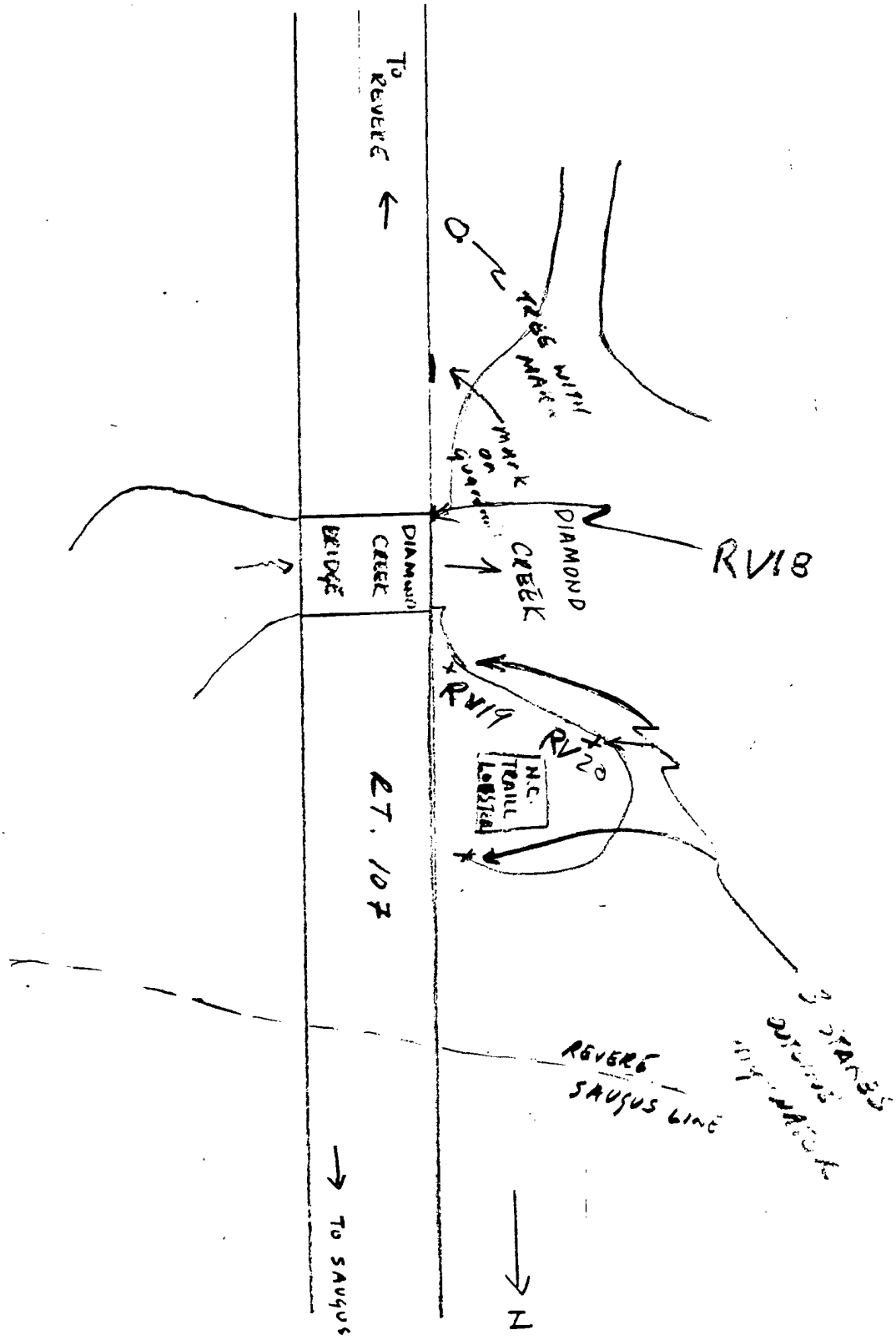
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SUBJECT H.W MARK DUE TO OCT 91 FLOOD

COMPUTATION DIAMOND CREEK

COMPUTED BY M. DESCHENES & V. HOM CHECKED BY DATE



DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Pines River		RV21
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Saugus/Revere	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Definitive high water mark, debris line along stone rip rap, abutment, and grass along Rt. 107 South. Stakes and paint on guard rail.

4 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris Line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

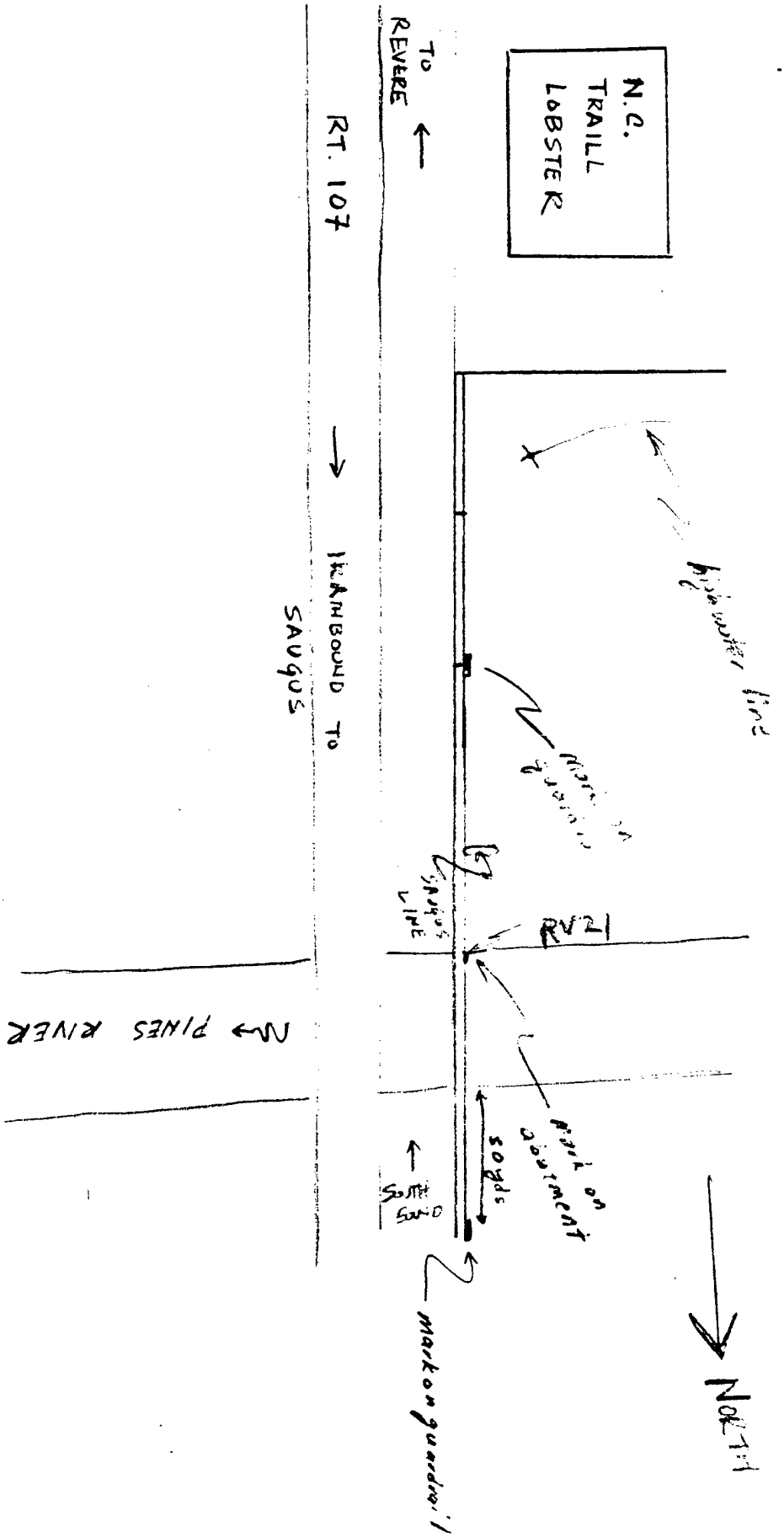
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SUBJECT H.W MARK DUE TO OCT 91 FLOOD

COMPUTATION RT 107 SOUTHBOUND ON REVERE/SAUGUS -1N2

COMPUTED BY N. DESCHENES & V. HOM CHECKED BY DATE 11/4/91



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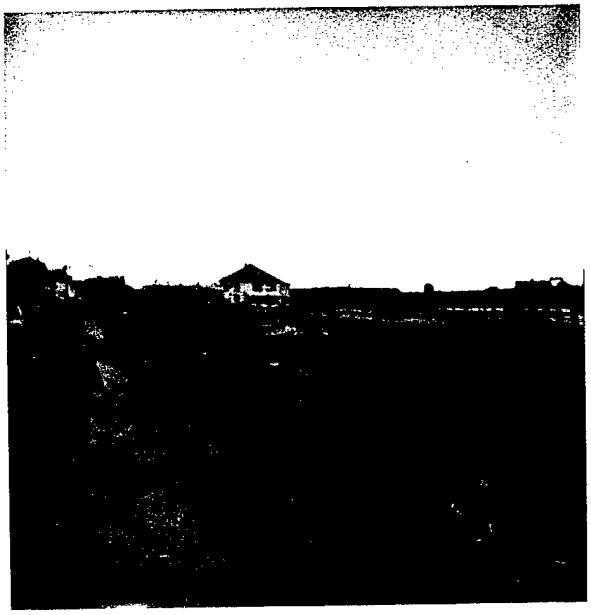
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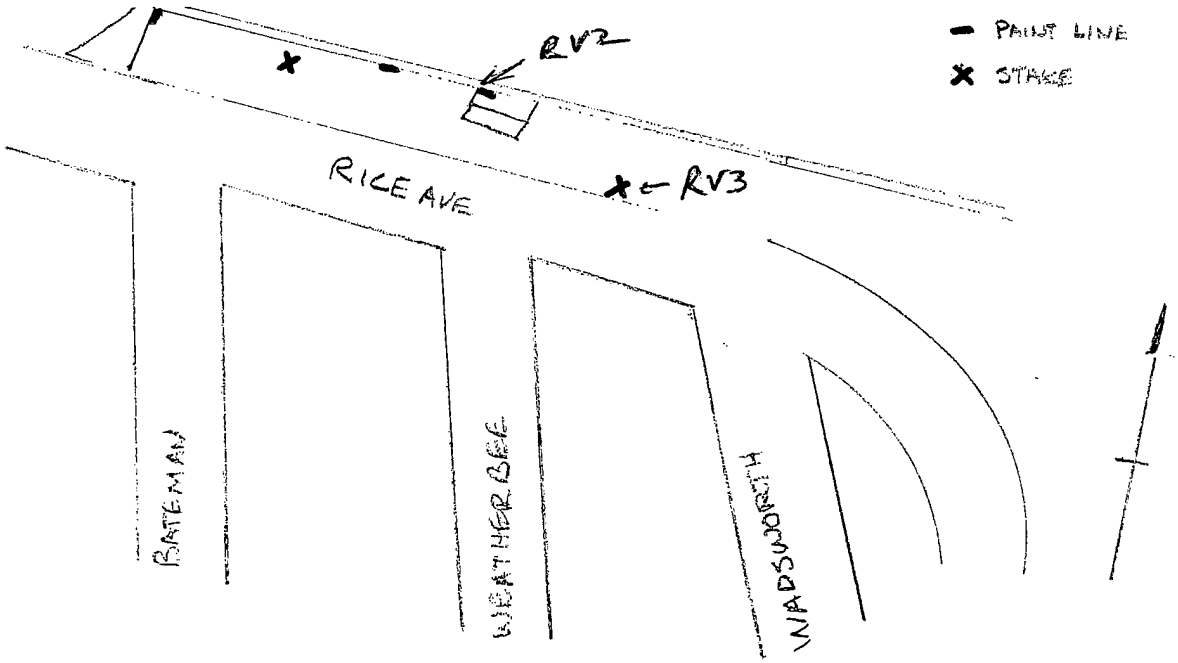
SUBJECT HIGHWATER MARKS DUE TO OCT 9: STORM
COMPUTATION REVERE (POINT OF PINES)
COMPUTED BY VICTOR HOM & AL. DESCIENES CHECKED BY DATE



RV2 Revere/Pt. of Pines
Rice Ave.



RV3 Revere/Pt. of Pines
Rice Ave.



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SUBJECT HIGHWATER MARKS DUE TO OCT 91 FLOOD

COMPUTATION REVERE (POINT OF PINES)

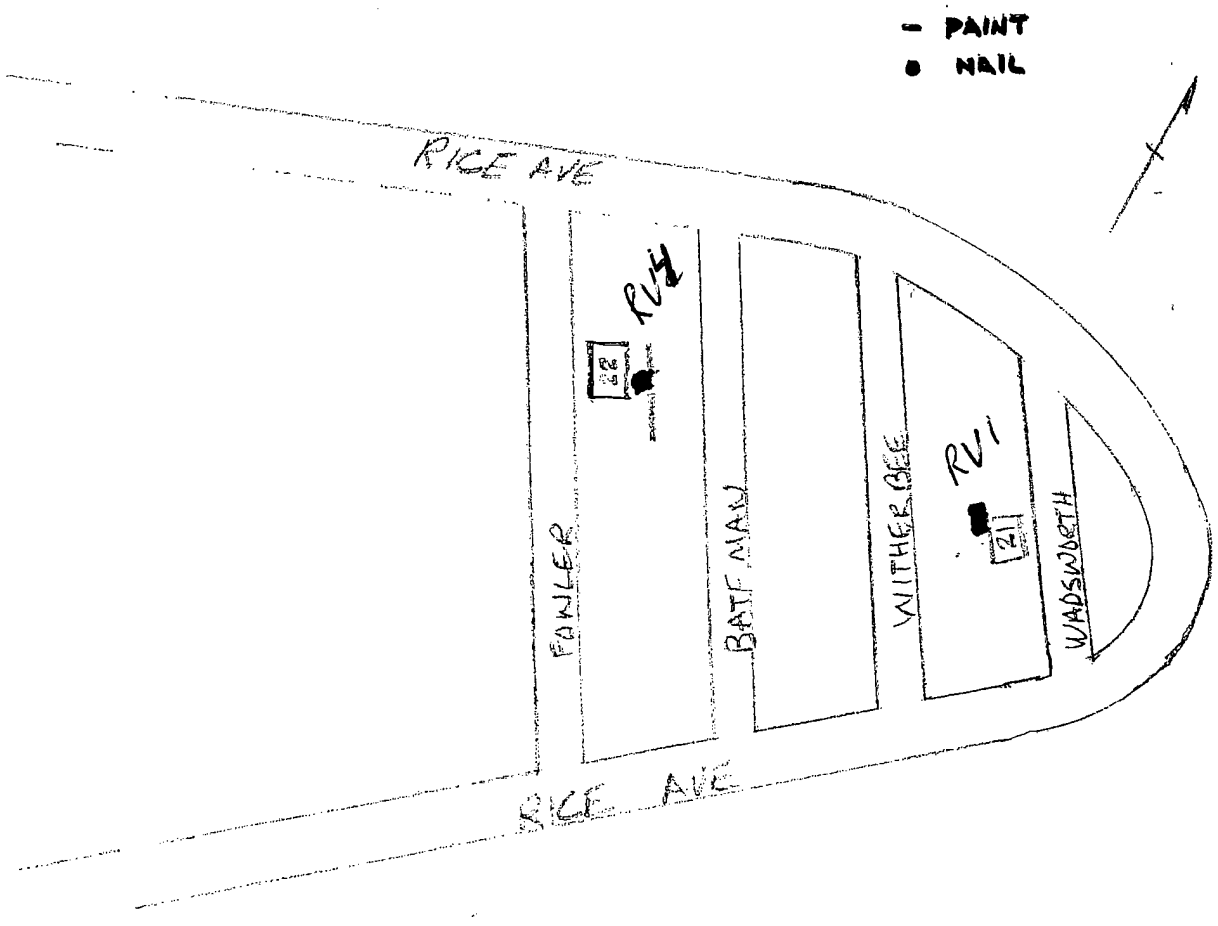
COMPUTED BY V. HOM & N. DESCHENES CHECKED BY DATE



RV1 Revere/Pt. of Pines
21 Wadsworth Ave.



RV4 Revere/Pt. of Pines
22 Fowler St.



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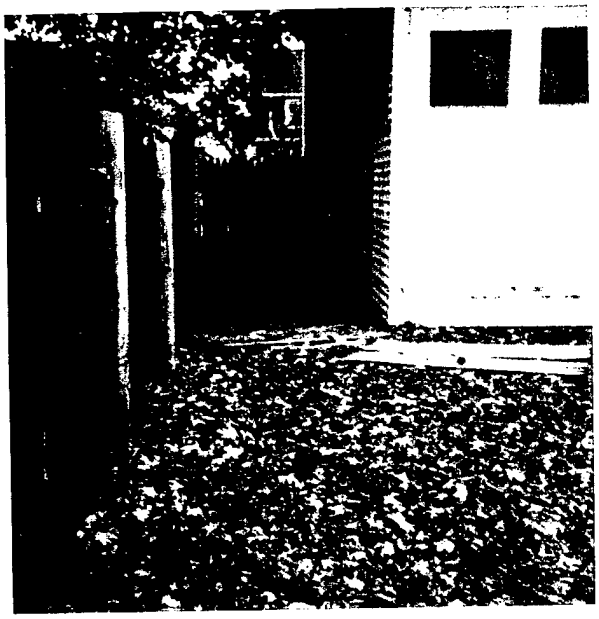
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SUBJECT HIGHWATER MARKS DUE TO OCT 91 FLOOD

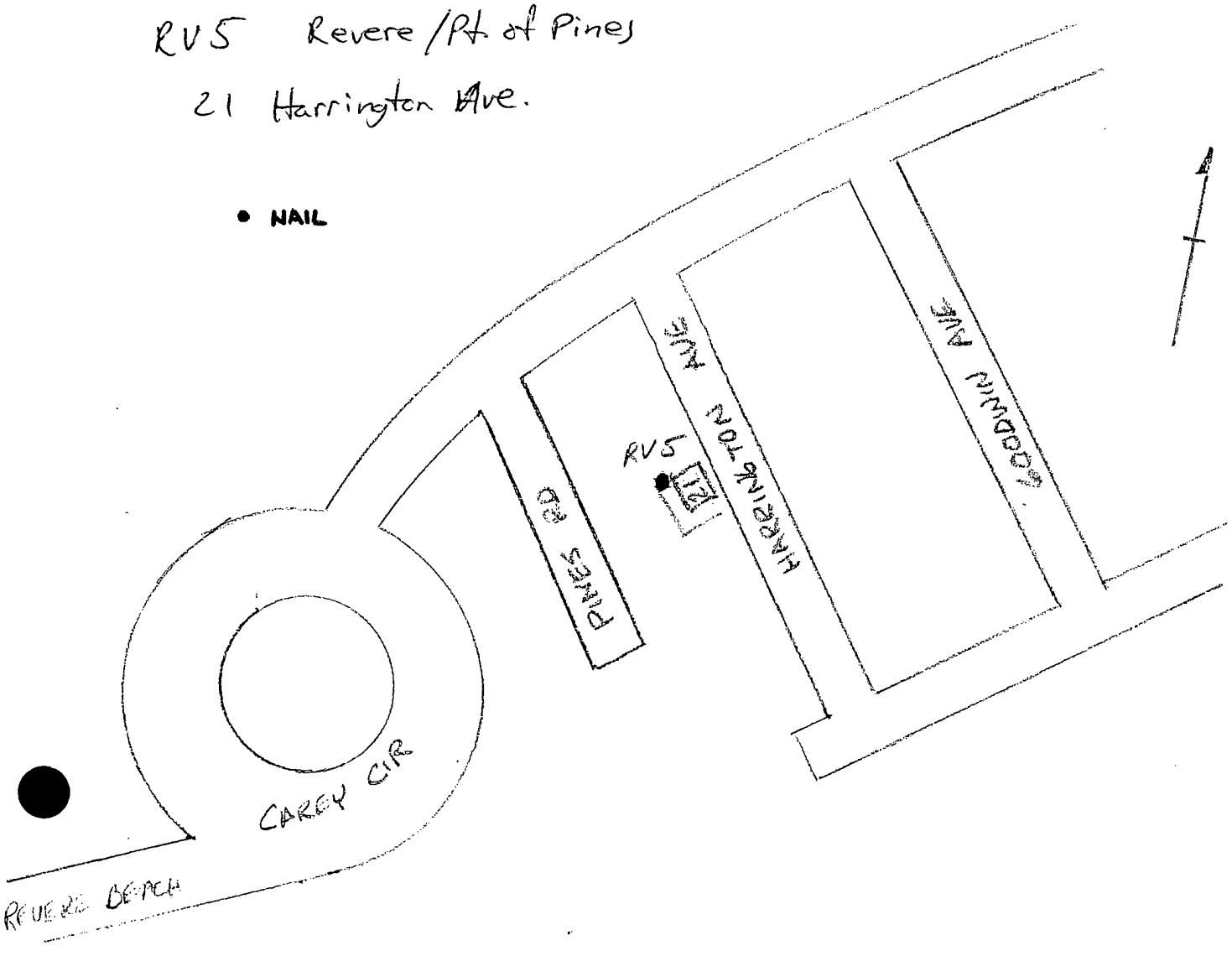
COMPUTATION REVERE (POINT OF PINES)

COMPUTED BY V. HOM & N. DESCHENES CHECKED BY DATE



RV5 Revere / Pt. of Pines

21 Harrington Ave.



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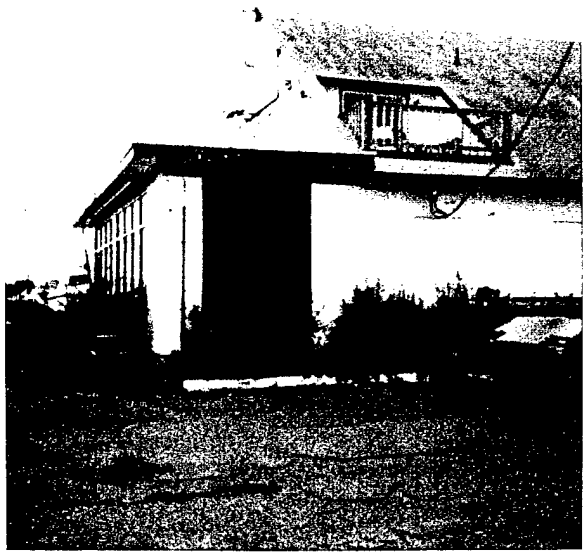
SUBJECT HIGH WATER SURVEY OF OCT 91 FLOOD

COMPUTATION PINE'S RIVER BRIDGE

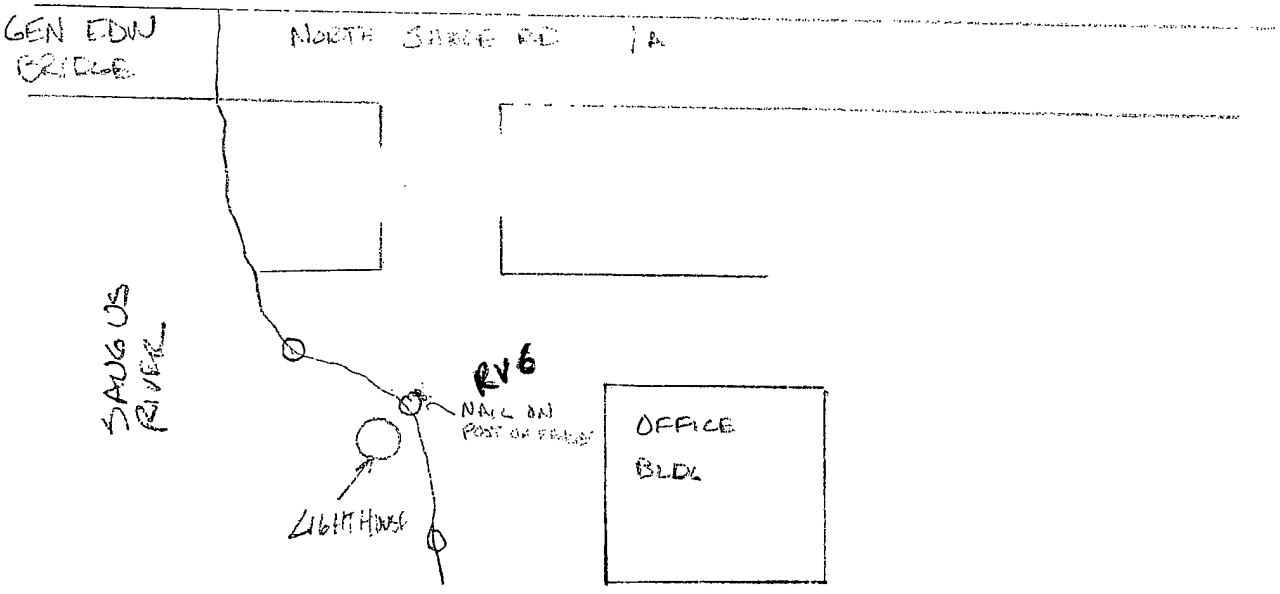
COMPUTED BY M DESCHENES & V. HOM CHECKED BY _____ DATE _____



RV6 Revere
Off southbound 1A



RV6 Revere
Nr. General Edwards Bridge



NED FORM 223
27 Sept 49

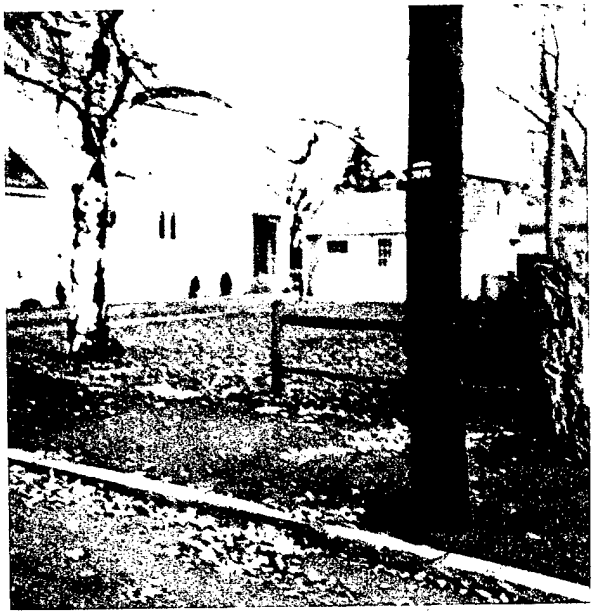
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SUBJECT H.W MARK DUE TO OCT 91 FLOOD

COMPUTATION PINES RIVER REVERE

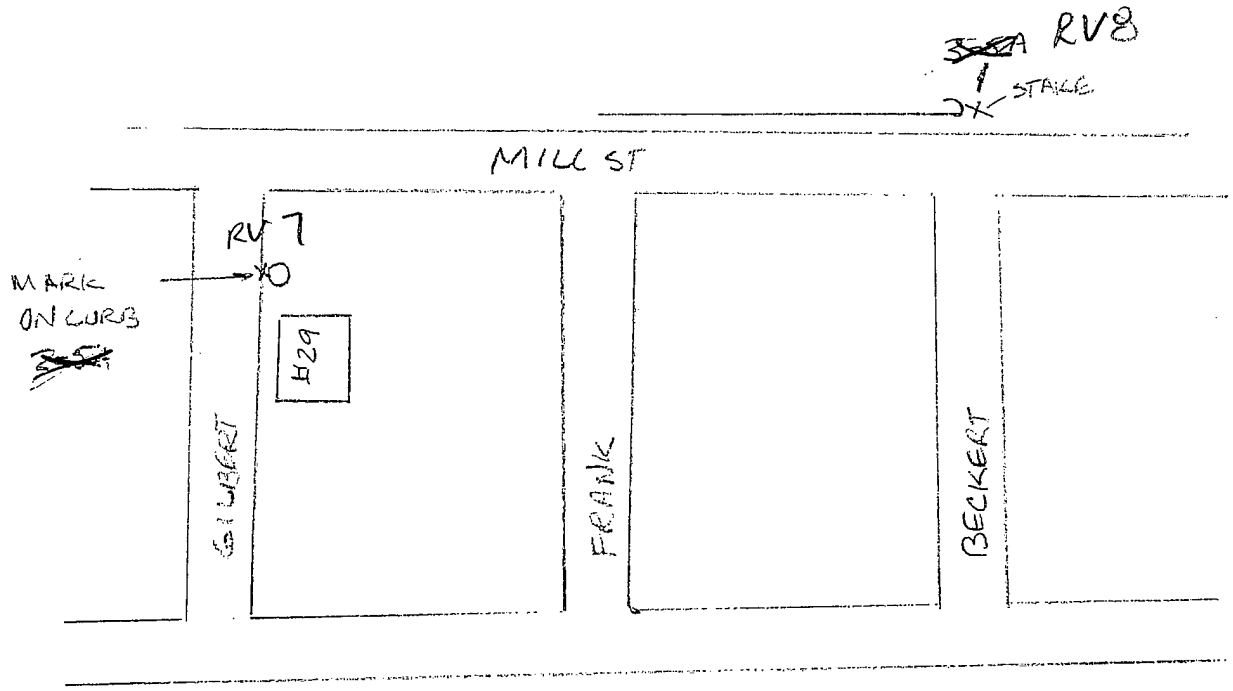
COMPUTED BY M. DESCHENES & V. HOM CHECKED BY _____ DATE _____



RV7 Revere, Ma.
28 Gilbert Ave.



RV8 Revere, Ma.
Across from 157 Mill St.



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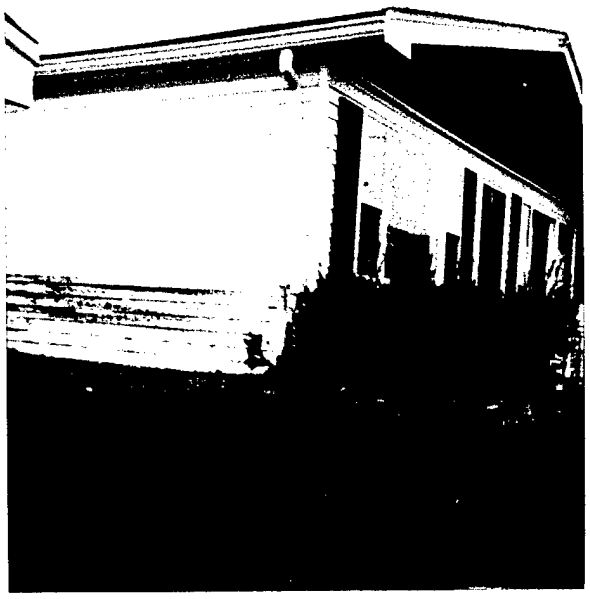
SUBJECT HIGHWATER MARK DUE TO OCT 91 STORM

COMPUTATION REVERE (ROUGHANS PT.)

COMPUTED BY VICTOR HOM & MARK DESCHENES CHECKED BY DATE 11/5/91



RV9 Revere/Roughan's Pt.
176 Broad Sound Ave.



RV10 Revere/Roughan's Pt.
125 Broadsound Ave.



RV11 Revere/Roughan's Pt.
86 Broad Sound Ave.

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SUBJECT HIGH WATER MARK SURVEY [illegible] FLOOD

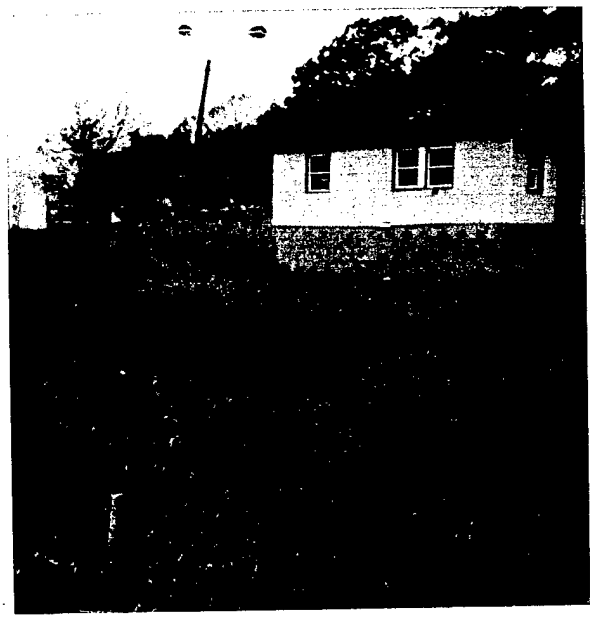
COMPUTATION REVERE

COMPUTED BY _____ CHECKED BY _____ DATE _____



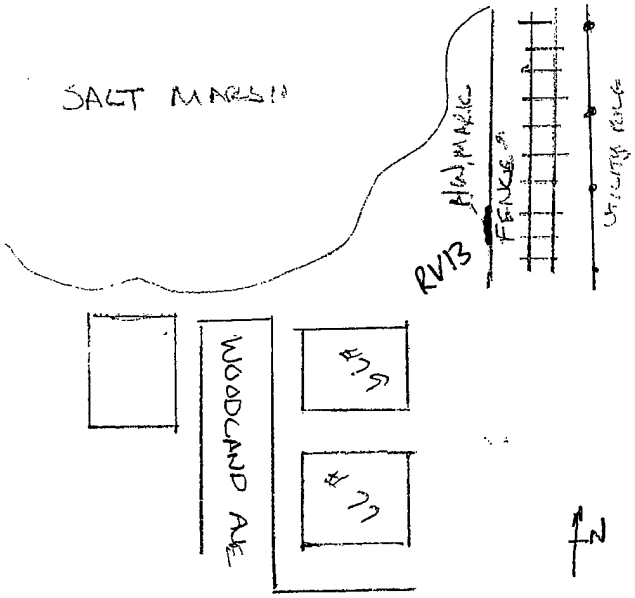
RV13 Revere, Ma.

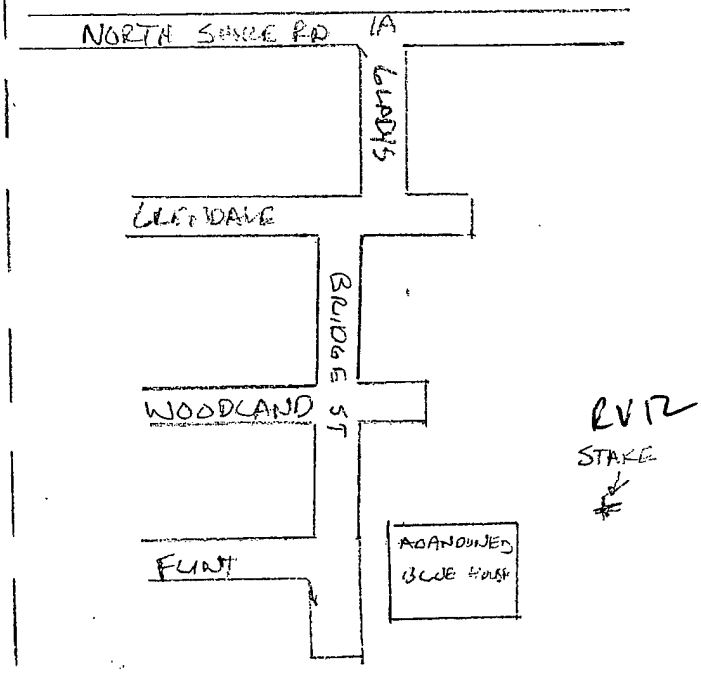
MBTA Fence



RV12 Revere, Ma.

Intersection Flint & Bridge Sts.





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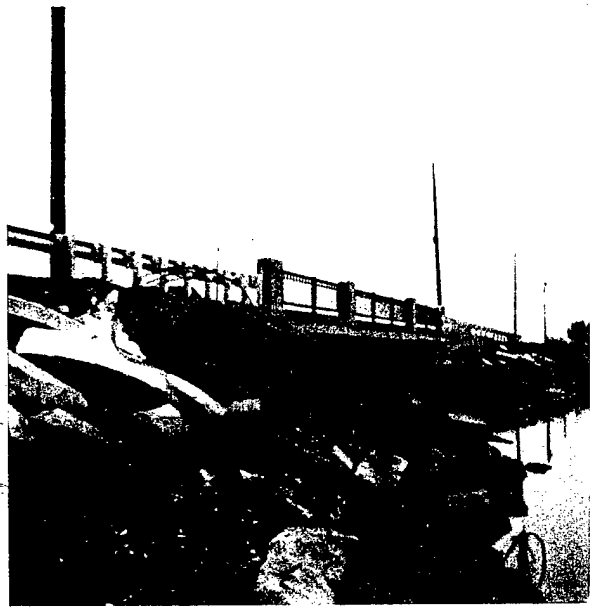
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SUBJECT H.W MARK DUE TO OCT 91 FLOOD

COMPUTATION DIAMOND CREEK REVERE, MA (RT. 107 NORTHBOUND)

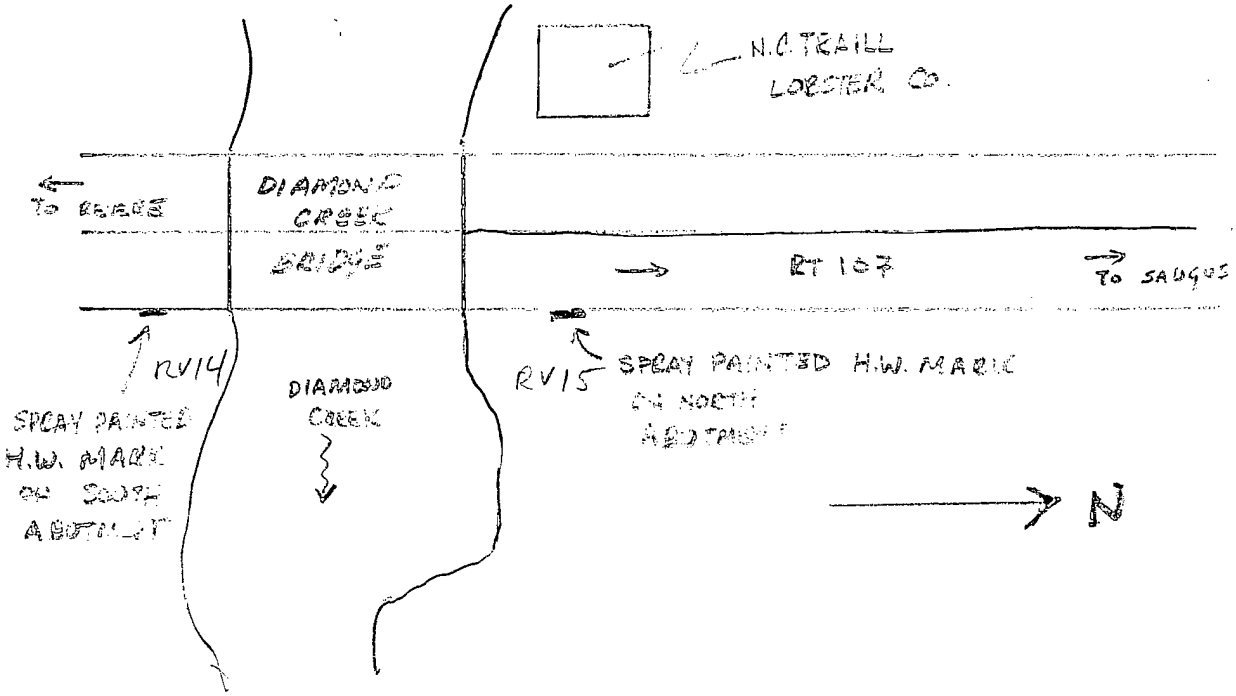
COMPUTED BY M DESCHENES & V. HOM CHECKED BY DATE



RV14 Revere, Ma.
Diamond Creek (facing east)



RV15 Revere, Ma.
Diamond Creek, North abutment of Rte. 107



NED FORM 223
27 Sept 49

NEW ENGLAND DIVISION
CORPS OF ENGINEERS, U.S. ARMY

PAGE

SUBJECT H.W MARK DUE TO OCT 91 FLOOD

COMPUTATION

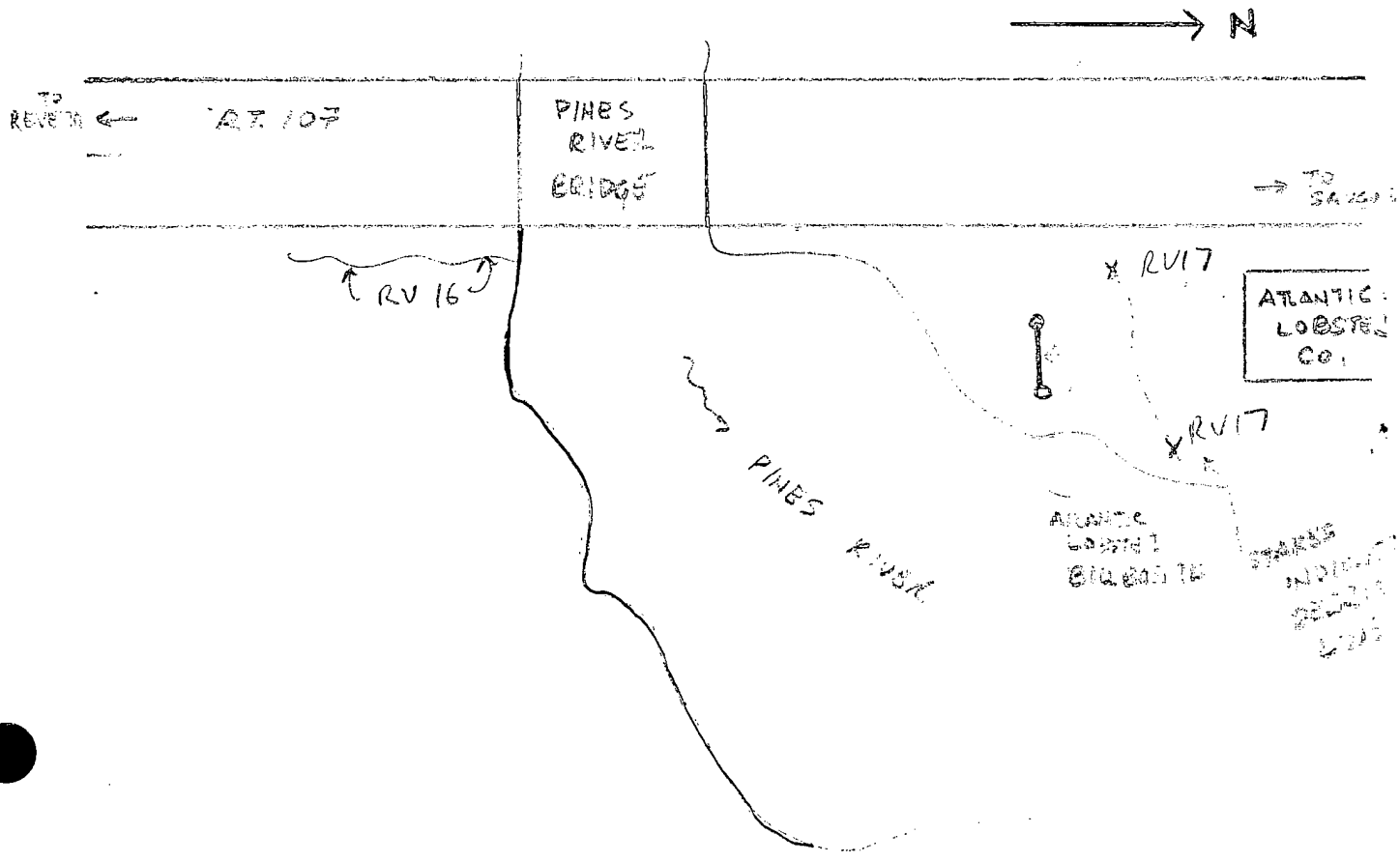
COMPUTED BY M DESCHENES & V. HOM CHECKED BY DATE



RV16 Revere, Ma.
Pines River / Rte. 107



RV17 Revere, Ma.
Pines River / Rte. 107



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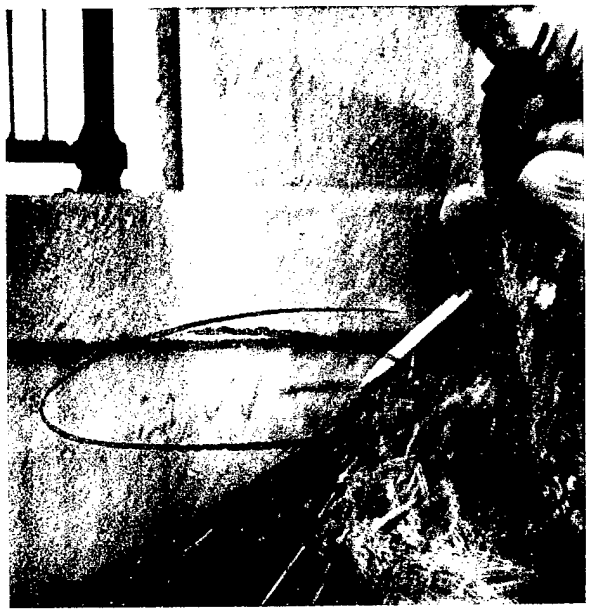
COMPUTATION

COMPUTED BY M. DESCHENES & V. HOM CHECKED BY DATE



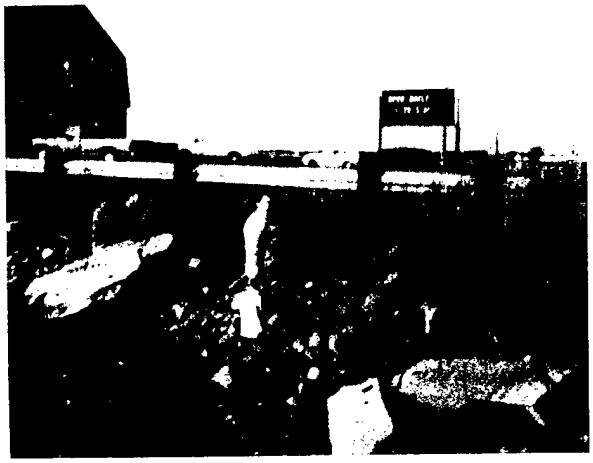
Revere, Ma.

South of M.C. Traill
Lobster Company



RV18 Revere, Ma.

S. abutment over Diamond Ck.



RV19 Revere, Ma.

South of M.C. Traill



RV20 Revere, Ma.

North of M.C. Traill

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COMPUTATION

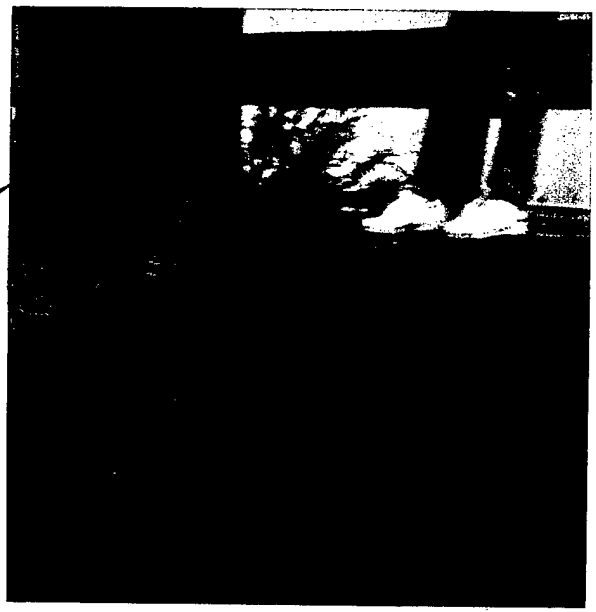
COMPUTED BY M. DESCHENES & V. HOM CHECKED BY DATE



stake
South of Pines River
bridge abutment



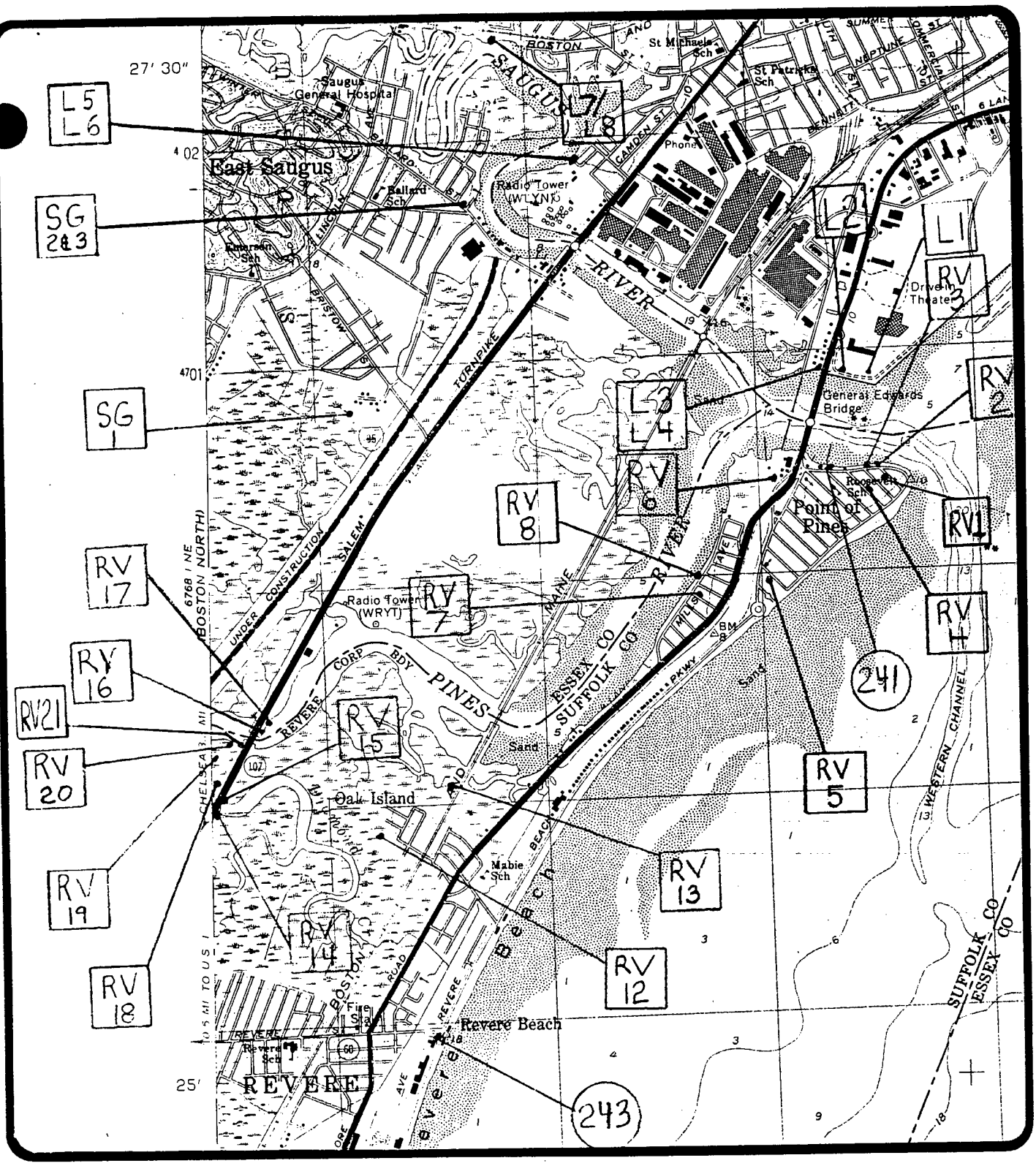
Hwmark btwn. MC Trails
and Pines River



RV21
S. abutment @ Pines River Bridge



150' North of Pines River
bridge abutment.



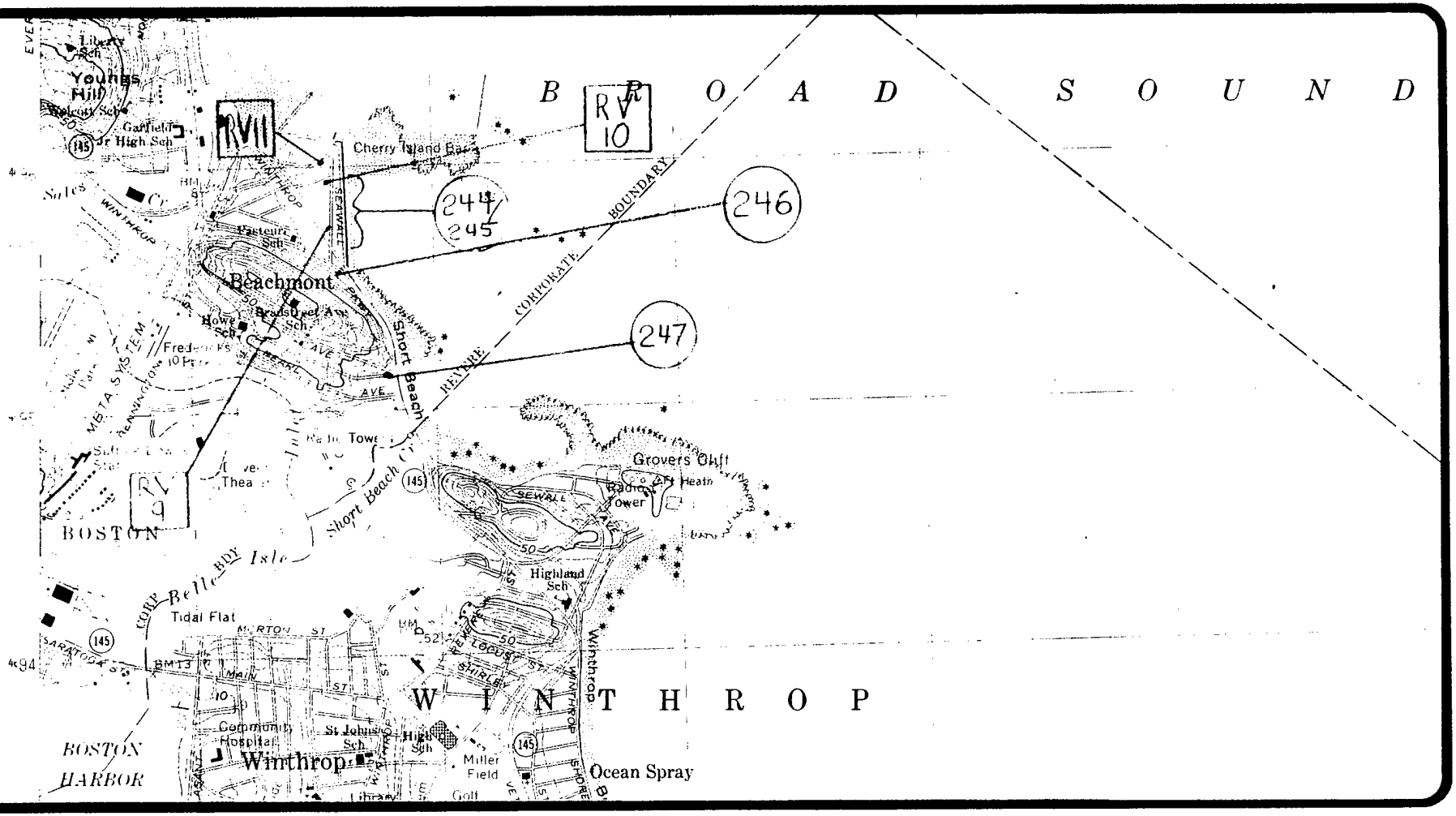
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Lynn, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



High Water Mark Location Map
Halloween Storm, October, 1991

□ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Lynn, MA.

US Army Corps of Engineers
New England Division

APPENDIX

WINTHROP, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		W1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Winthrop	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nail on a telephone pole with orange ribbon, 84 Taft Street opposite Townsend Avenue. Pointed out by a fireman speculating on the approximate height. No scum lines noticable. Nail approximately 3 feet above street level.

4 November 1991	Mark Deschenes and Karen Schofield
(Date obtained)	(Obtained by)

Bob Donohue, 26 Townsend Street
(Name and address of person pointing out high watermark)

Medium	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		W2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Winthrop	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: 49 Townsend Street. Car in driveway with debris on windshield indicating height of debris during high water. Debris also evident on top of bushes. Highwater mark at top of stone masonry fence (east front corner).

4 November 1991	Victor Hom and Mark Deschenes
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Noticed by Victor Howe	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Medium

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

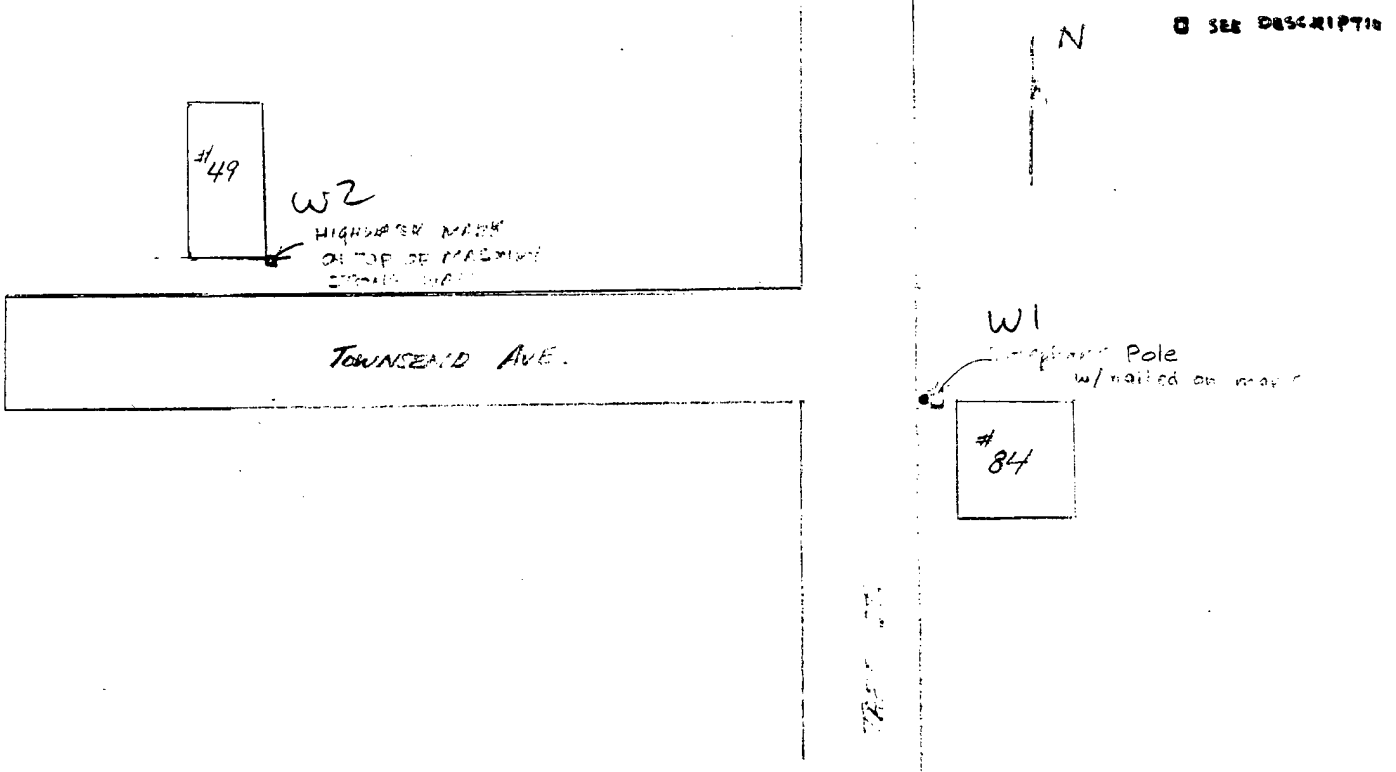
HIGH WATER MARKS DUE TO · OCT. 91 STORM
WINTHROP

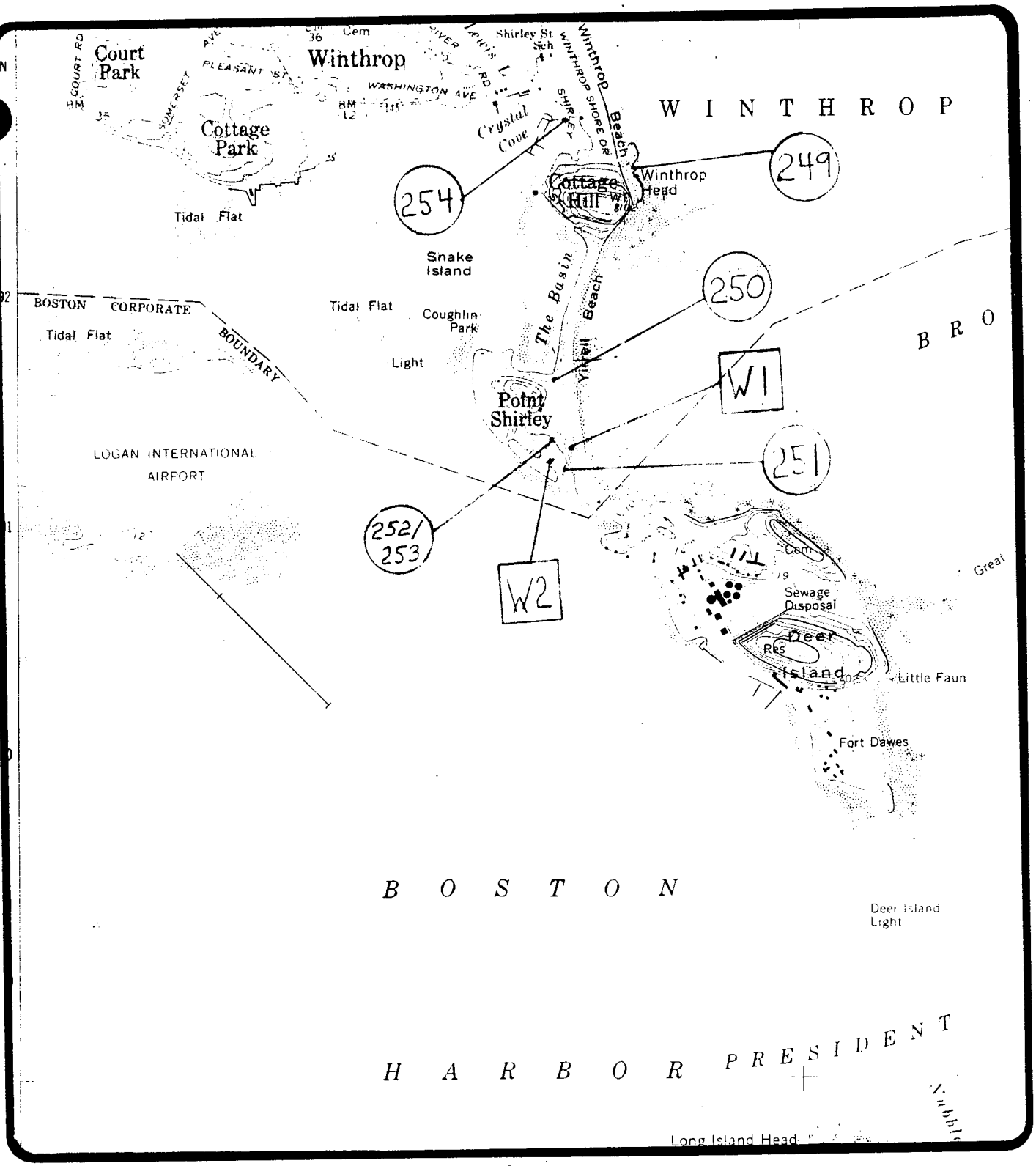


W1 Winthrop, Ma.
84 Taft St.



W2 Winthrop, Ma.
49 Townsend St.





High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Hull, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

APPENDIX

HULL TO SANDWICH, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean (Nantasket Beach) (Name of River, Bay or Harbor)	(Miles from Mouth)	H1 (Watermark No.)
(Tributary of)	Hull (City or Town)	MA (State)

Description of high watermark: Nantasket Avenue House #1143, 3rd shingle up from top of front porch floor.

11/2/91 (Date obtained)	Robert Russo and Duban Montoya (Obtained by)

(Name and address of person pointing out high watermark)

Visual (If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		H2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Hull	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: JPC 166/1 utility pole, Pt. Allerton Avenue.

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean (Name of River, Bay or Harbor)	(Miles from Mouth)	H3 (Watermark No.)
(Tributary of)	Hull (City or Town)	MA (State)

Description of high watermark: 2nd shingle up from concrete porch, #337 Beach Avenue at U Street

11/2/91 (Date obtained)	Robert Russo and Duban Montoya (Obtained by)

(Name and address of person pointing out high watermark)

Visual (If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		H4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Hull	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #4 -Warren Street

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		H5
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Hull	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #90/I,5th Street

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Mass. Bay		C1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Cohasset	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: corner of Forest Avenue Ext. and Jerusalem Road.

Black Rock Beach.

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Mass. Bay		C2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Cohasset	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole 7-90/SPP/38A/3-40 corner of Nicholas Road and Atlantic Avenue. Near Sandy Beach.

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Cohasset Harbor		C3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Cohasset	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #4
Fire alarm #232
Stockbridge Street/Margin Street
Near the Yacht Club.

11/3/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)	
(Elevation determined by)	(Date)	(Order of levels)	
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)		

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean (Name of River, Bay or Harbor)	(Miles from Mouth)	S1 (Watermark No.)
(Tributary of)	Scituate (City or Town)	MA (State)

Description of high watermark: Utility pole #3-Bailys Causeway/near Glades Road. Scituate Neck

11/2/91 (Date obtained)	Robert Russo and Duban Montoya (Obtained by)

(Name and address of person pointing out high watermark)

Visual (If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		S2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Scituate	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Surf Side Road utility pole #19

North Scituate Beach

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Mass. Bay		S3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Scituate	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Egypt Beach Road utility pole #81/15 near Egypt Beach.

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
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424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Scituate Harbor		S4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Scituate	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #A3 next to Scituate Harbormaster Bldg.

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		S5
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Scituate	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #18

Light House Park

(Cedar Point) near light house

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		S6
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Scituate	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility Pole #6, Town Way near Dickens Row, Peggotty Beach

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark) (Datum)	(Benchmark referred to) (Datum)
(Elevation of high watermark above water surface)	(Date & Hour) (Class. of watermark)
(Elevation determined by)	(Date) (Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		S7
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Scituate	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #230/13 intersection of Central Avenue and Cliff Road. Near 4th Cliff

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		S8
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Scituate	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility Pole #259/4 at 21 Oldmouth Road, Scituate

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
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424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		M1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Marshfield	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole 2/100/CP - near concrete tower at 21 South Street near Brant Rock.

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		M2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Rexhame	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility Pole #58/I Abbey Street off of Winslow Road near Beadles Rocks

11/2/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic		M3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Fieldston	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #256/4 at the end of Hartford Road.

Unsure of high water mark - best guess.

3 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Green Harbor Atlantic Ocean		M4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Marshfield	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Half way between utility poles #25/15 and #25/16 at the end of Beach Street

3 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		D1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Duxbury	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #18 next to 142 Gurnet Road

3 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		D2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Duxbury	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility Pole #41 across from conscession stand (Bldg) Gurnet Road (Duxbury Beach)

3 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Duxbury Bay		D3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Duxbury	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Bolt on support beam of Powder Point Bridge at Powder Point--south side

3 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Duxbury Bay		D4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Duxbury	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Duxbury Boat Launch Ramp at end of Ship Yard Lane, last post along boat ramp.

11/4/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Duxbury Bay/Kingston Bay-Goose Point		D5
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Duxbury	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #9 next to house at the end of Goose Pond Lane.

11/4/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Kingston Bay/Rocky Nook Park		K1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Kingston	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #6 at the intersection of West Ave. and Rocky Nook Lane.

4 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Mass Bay — (Name of River, Bay or Harbor)
(Miles from Mouth)
P1 — (Watermark No.)

(Tributary of)
Plymouth — (City or Town)
MA — (State)

Description of high watermark: House owned by Brown Wade and Burrows. First house on Gurnet Point (about 3/4 mile from Duxbury, Plymouth Town Line). The most northerly house on Gurnet Point. H.W.M. 2 shingles up.

4 November 1991 — (Date obtained)
Robert Russo and Duban Montoya — (Obtained by)

(Name and address of person pointing out high watermark)

Visual — (If not pointed out, how obtained?)
(Date and hour of high watermark)

(Elev. of high watermark) (Datum)
(Benchmark referred to) (Datum)

(Elevation of high watermark above water surface)
(Date & Hour)
(Class. of watermark)

(Elevation determined by)
(Date)
(Order of levels)

(Nearest dam upstream or downstream)
(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

High Cliff, Plymouth Harbor		P2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	High Cliff	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #536/15 at end of Hedge Road

4 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Plymouth Harbor		P3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Plymouth	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: "Pilgrim Memorial State Park" sign next to "Plymouth Rock ". 4 inches off of ground.

4 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Plymouth Bay (Warren Cove)		P4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Plymouth	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #1 in front of Bert's Dining House

4 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Cape Cod Bay-near Rocky Point		P5
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Plymouth	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nature trail sign Plymouth Pilgrim Powder Plant.

(note: no red marker left) 2 inches off ground

4 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Cape Cod Bay-White Horse Beach		P6
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Plymouth	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #19 on 36 Taylor Ave. next to Barlett Pond in/outlet

4 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

DPW Worker Description	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Cape Cod Bay		P7
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Plymouth	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Entrance to Association Beach access, end of Sea View Drive and Senator Way

4 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

Resident observation
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Cape Cod Bay		P8
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Plymouth	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Utility pole #X86325 Y31778 in front of 19 Bayberry Road near Bayside Beach.

4 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Ellisville Harbor (Salt Pond)		P9
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Cape Cod Bay	Plymouth	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Wood stake at end of Lookout Point Rd (near private beach Lookout Pt. Improvement Assoc next to dirt road, 1/4 mile south of Ellisville Harbor).

4 November 1991	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Cape Cod Bay		B1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Bourne	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Concrete pile next to concrete stairs going to beach, near Shawmut and Sagamore Street intersection.

Sagamore Beach

11/4/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Cape Cod Bay		SA1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Sandwich	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: North Jetty, Cape Cod Canal. Approximately 3' down from the top of the jetty. Approximate location of high water mark- near MHW line on beach.

11/4/91	Robert Russo and Duban Montoya
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Visual	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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S 1



H4



H1



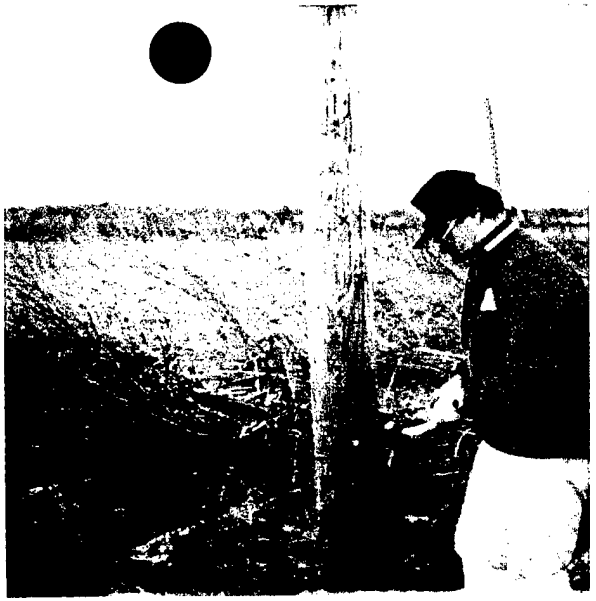
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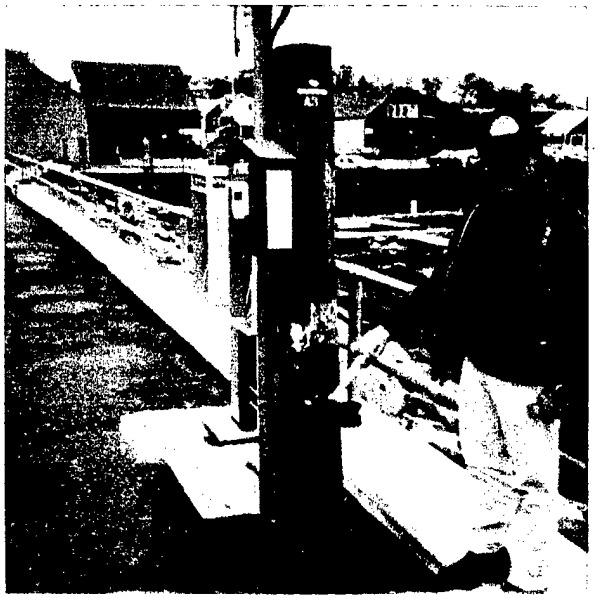
H3



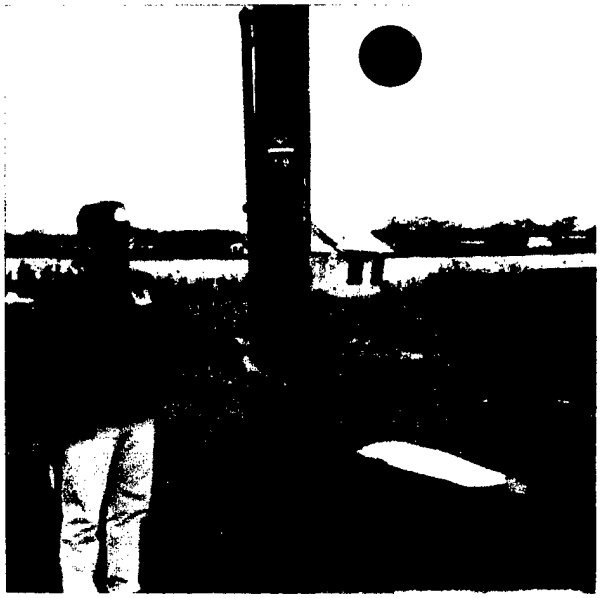
H2



S6



S4



S2



S7



S5



S3



C 1



D 4



D 2



C 2



D 5



D 3



M4



MZ



S8



D1



M3



M1



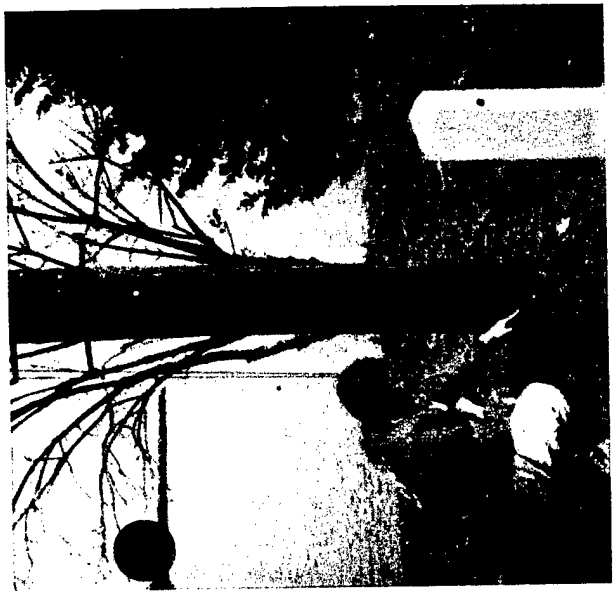
C3



P1



P3



K1



P2



P6

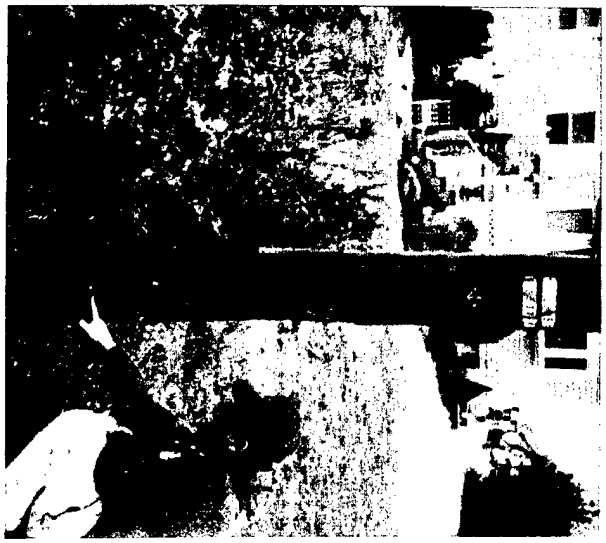


P5



P4

P8



P7





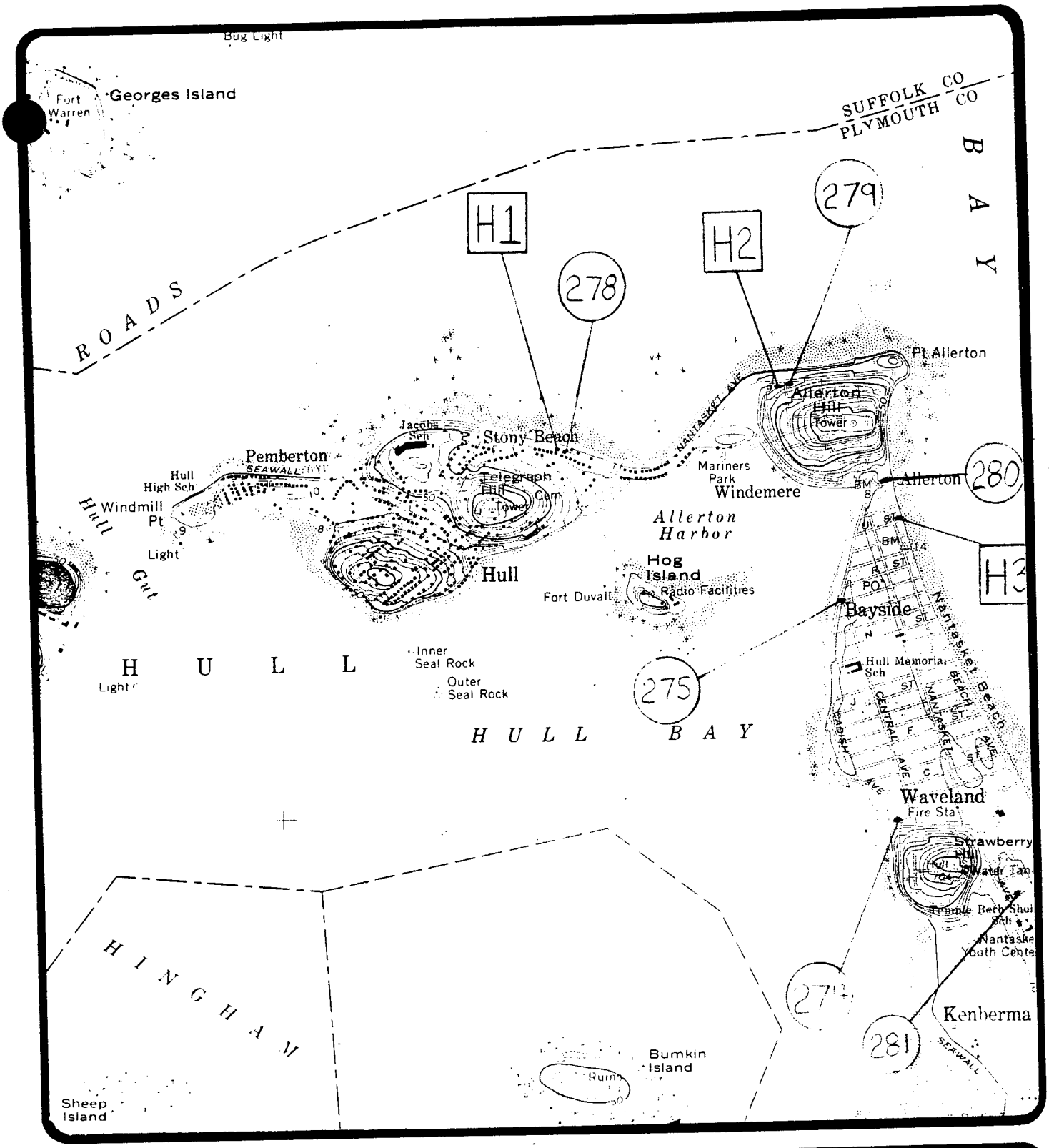
B 1



SA 1



P9



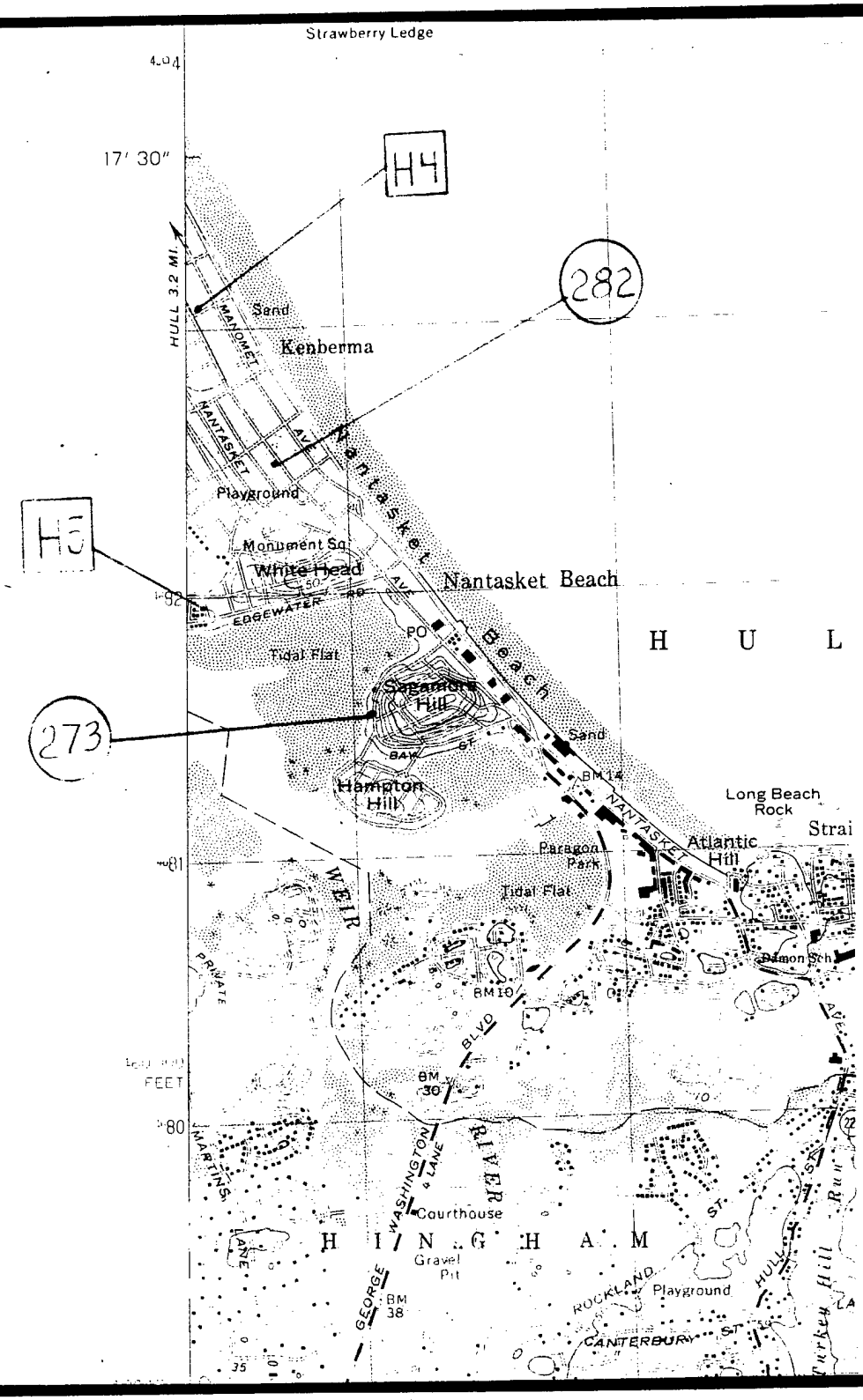
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Hull, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



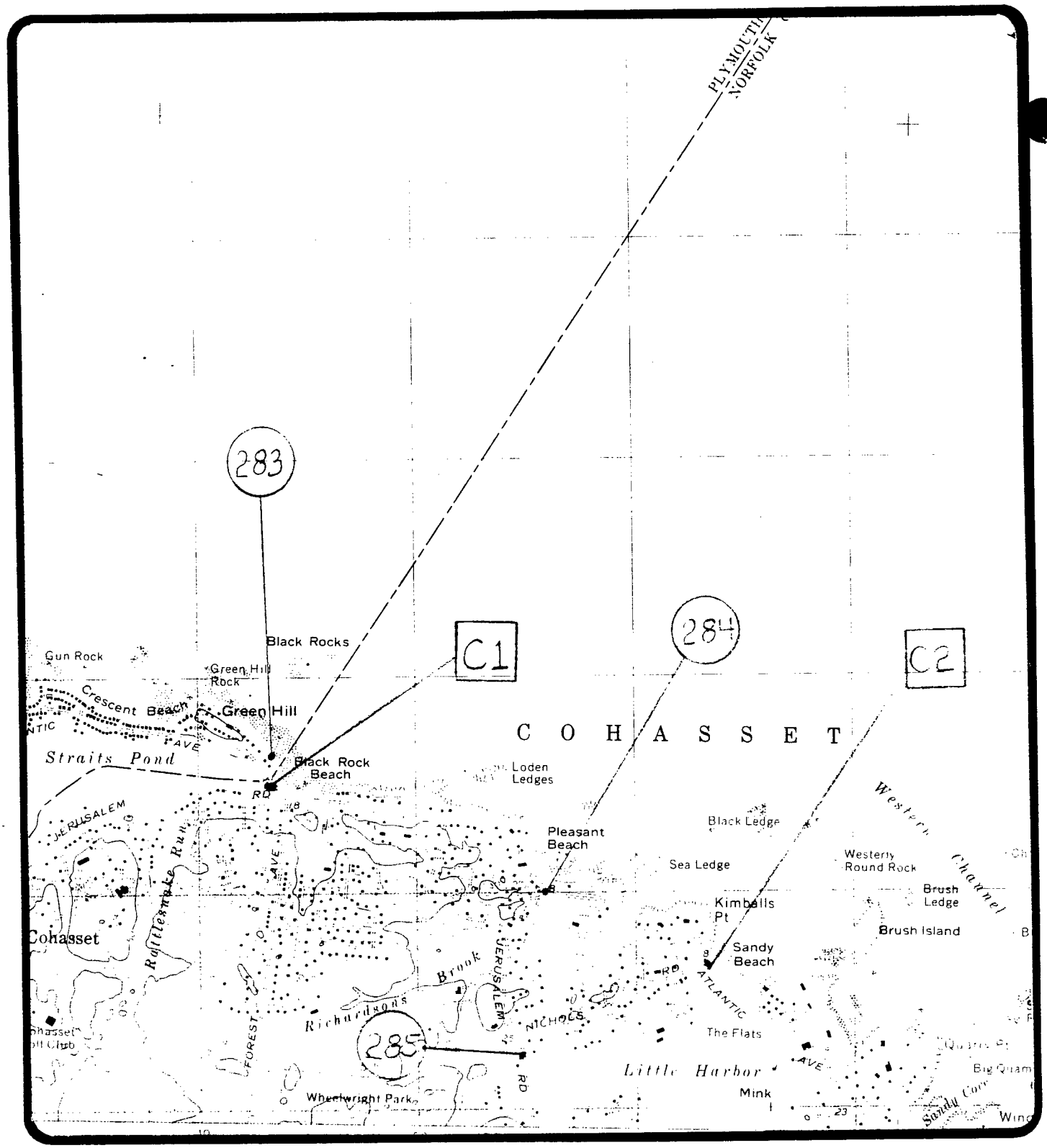
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Nantasket Beach, MA.

☐ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



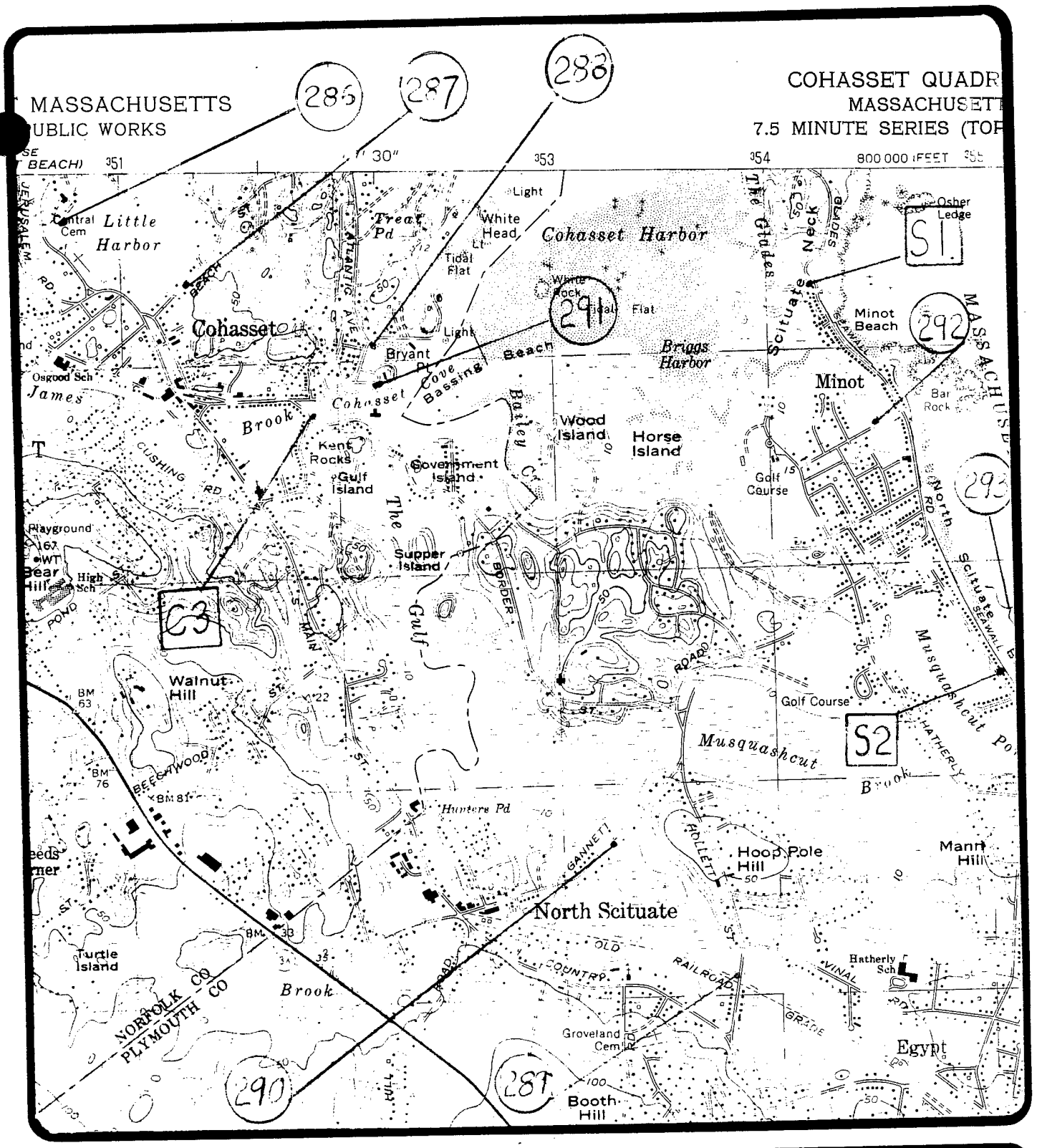
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Nantasket Beach, MA.

☐ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



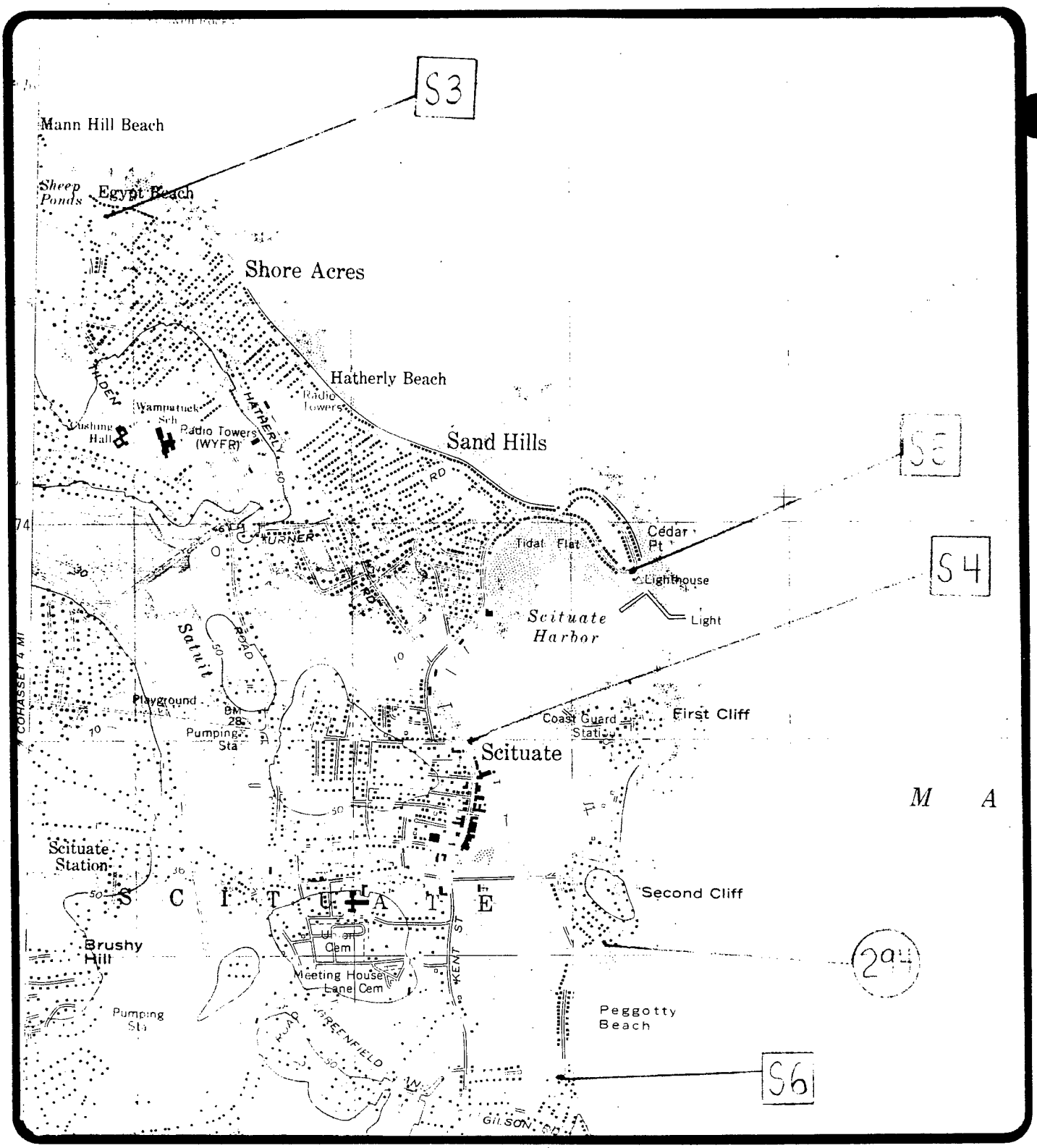
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Cohasset, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



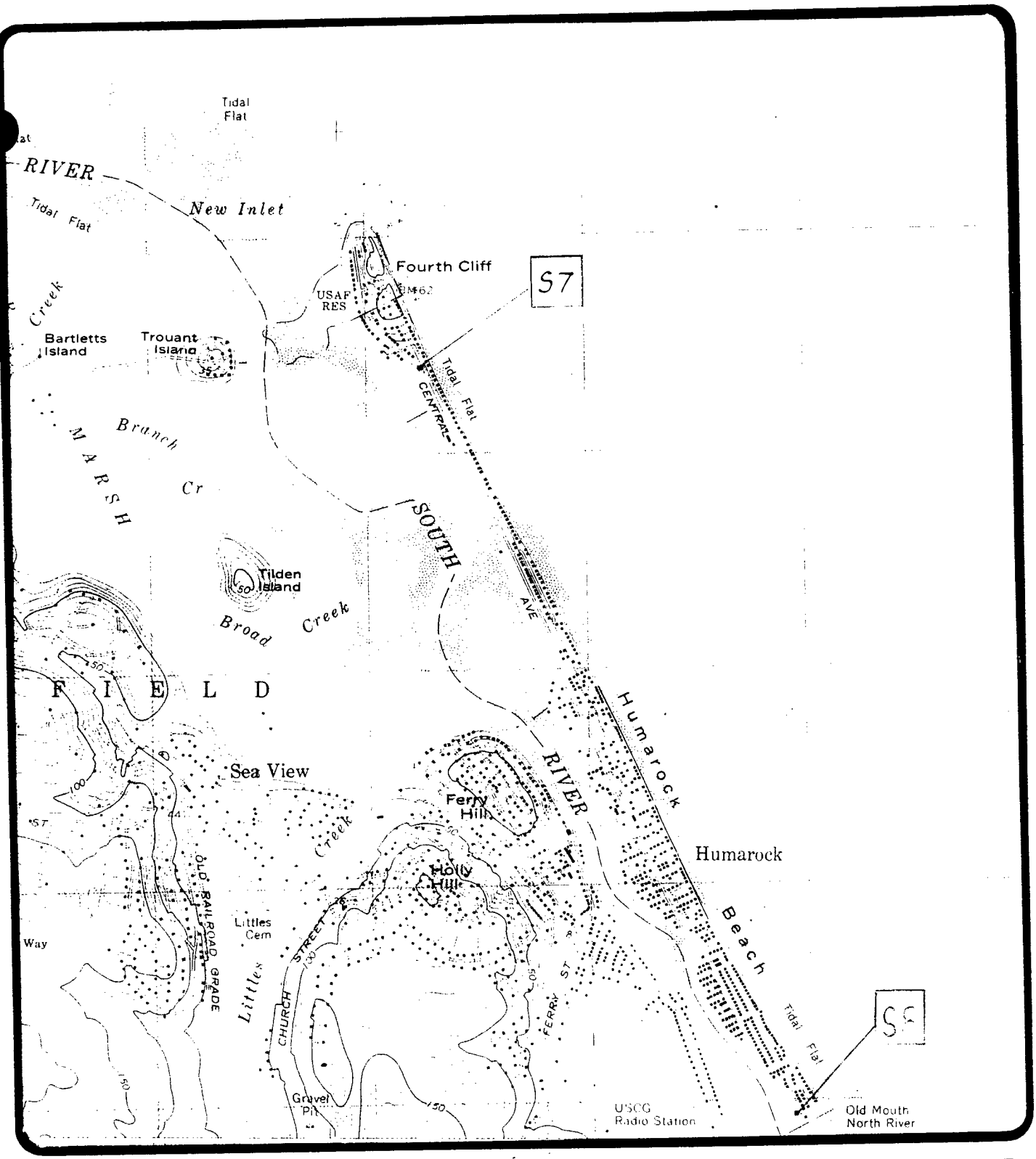
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Scituate, MA.

☐ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



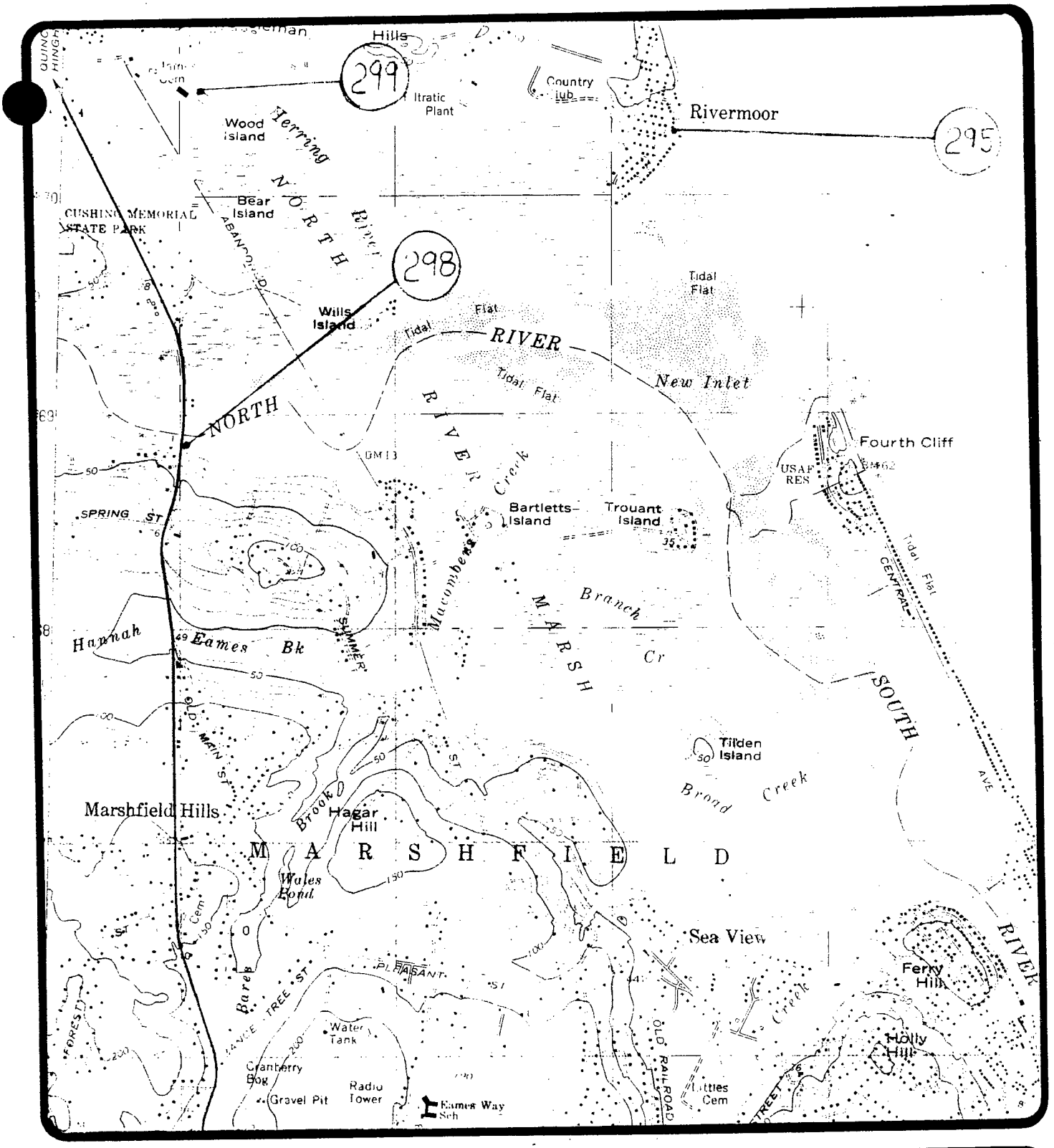
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Scituate, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



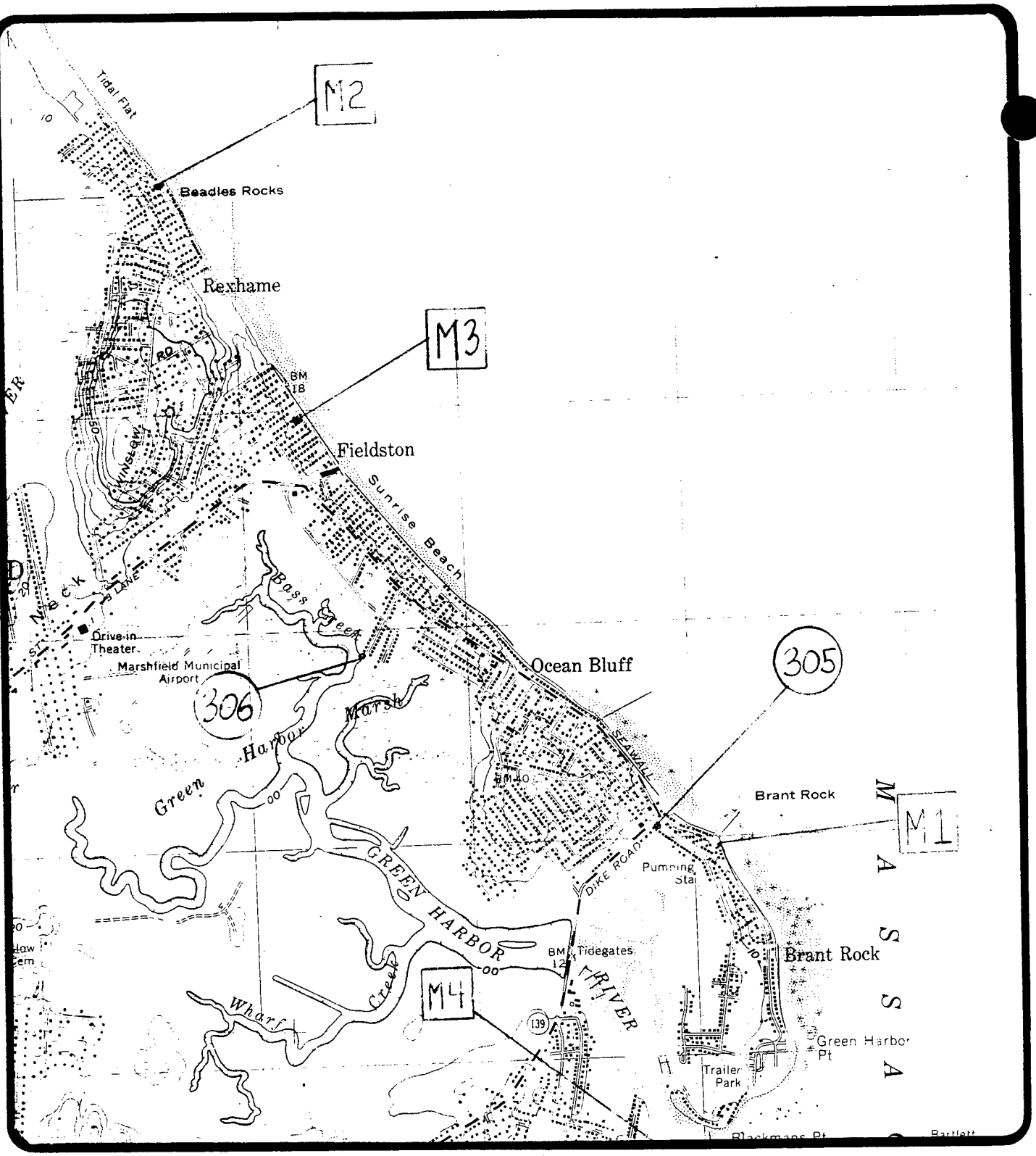
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Scituate, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



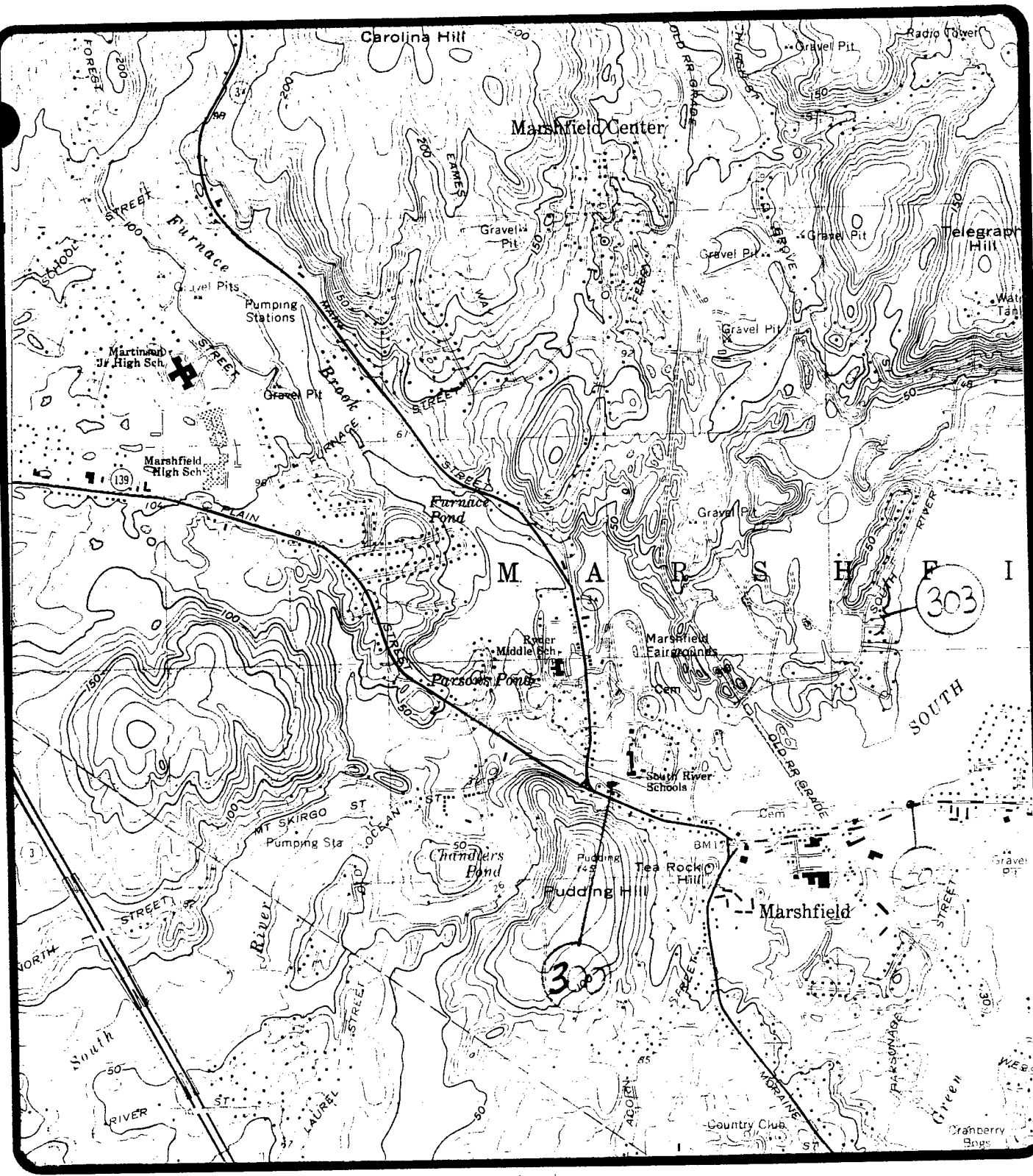
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Duxbury, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



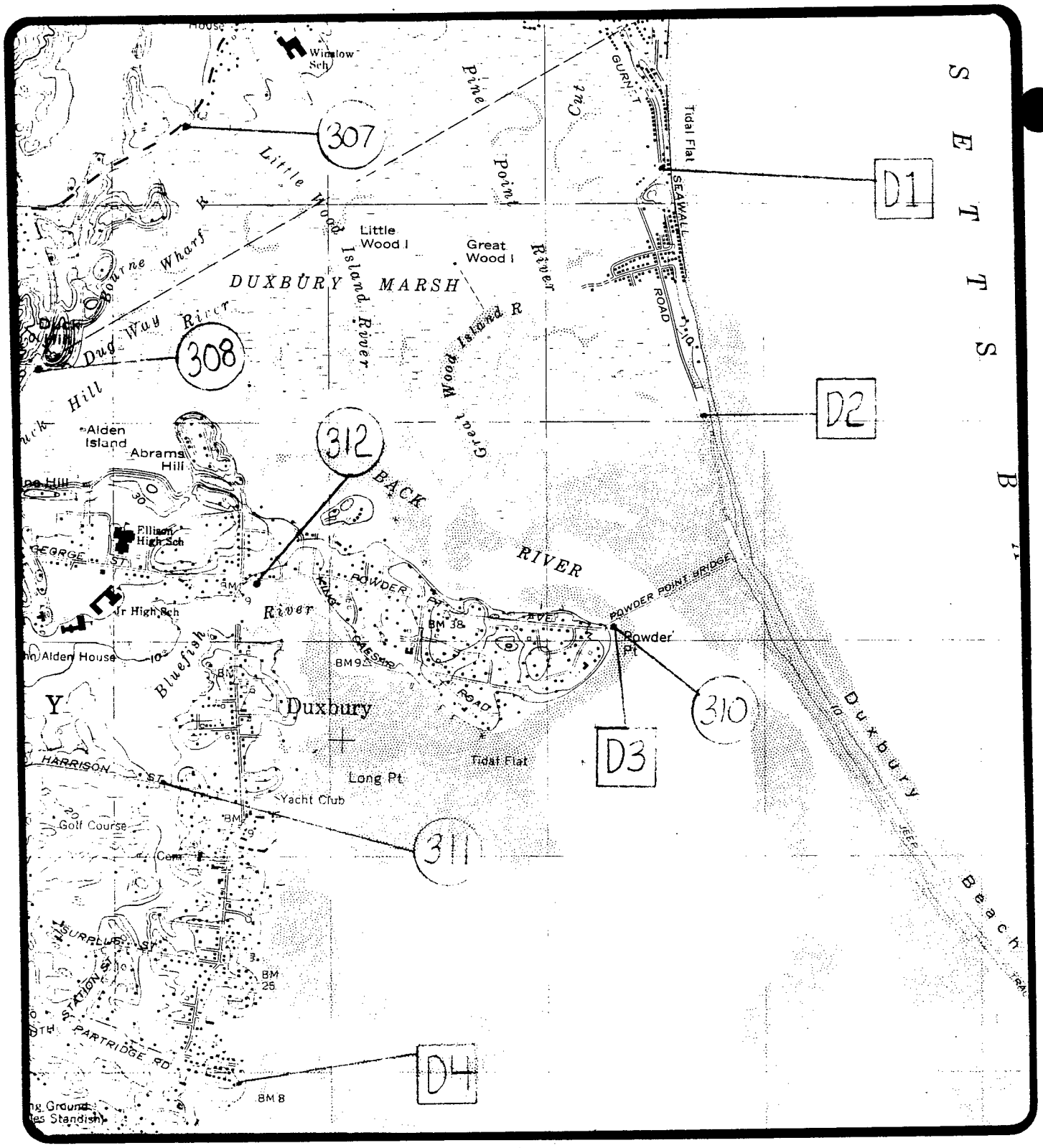
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Duxbury, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



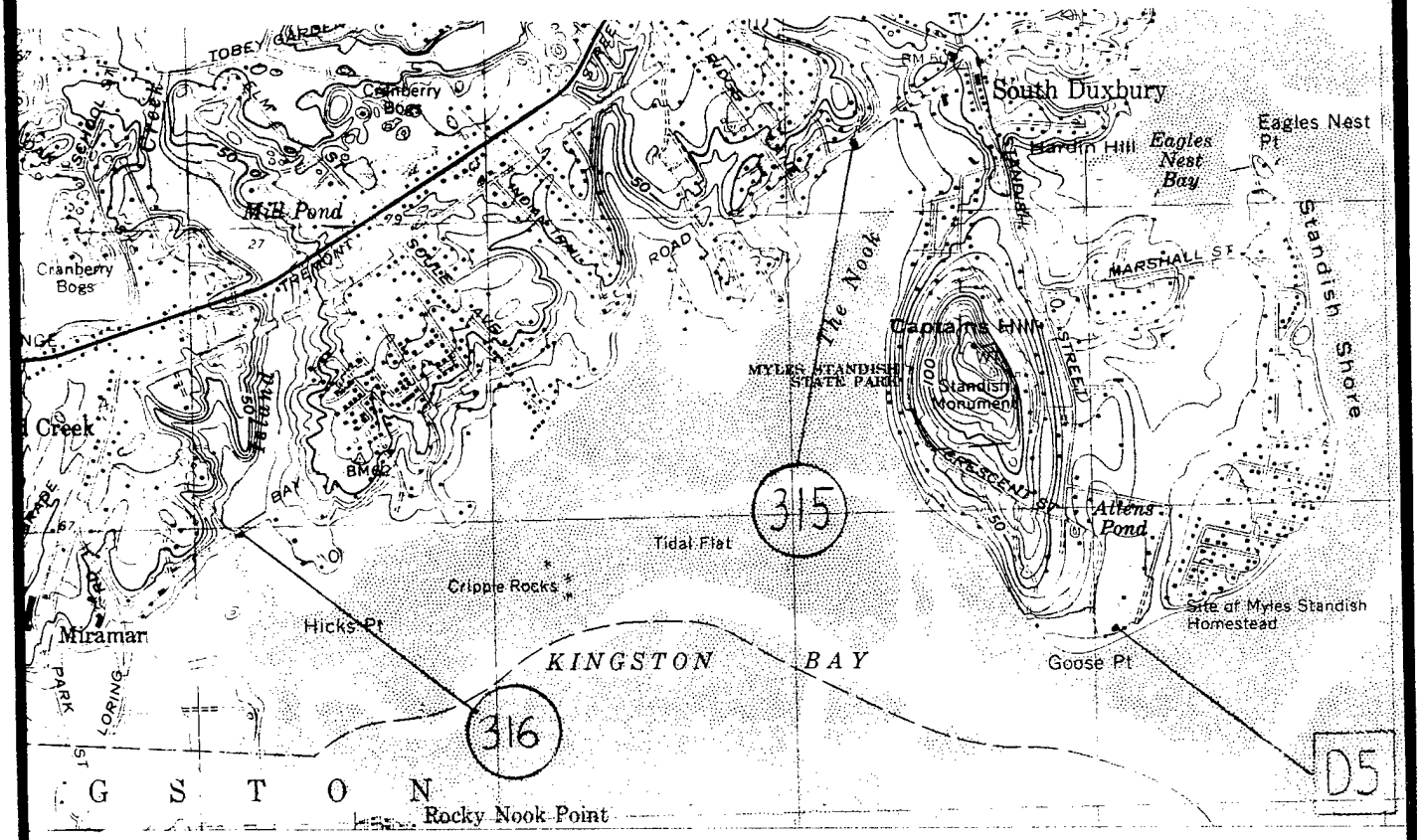
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Duxbury, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



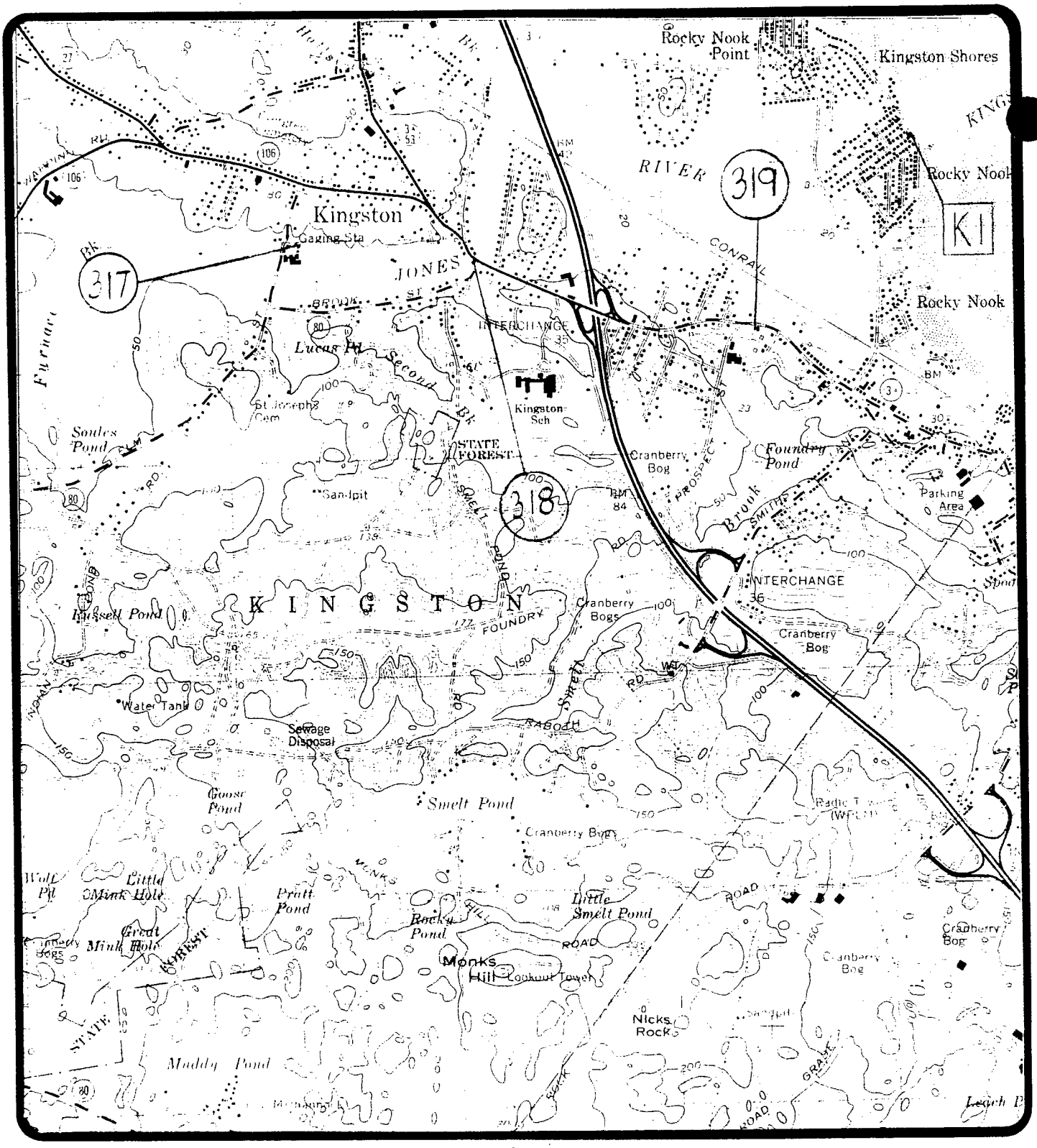
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Duxbury, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



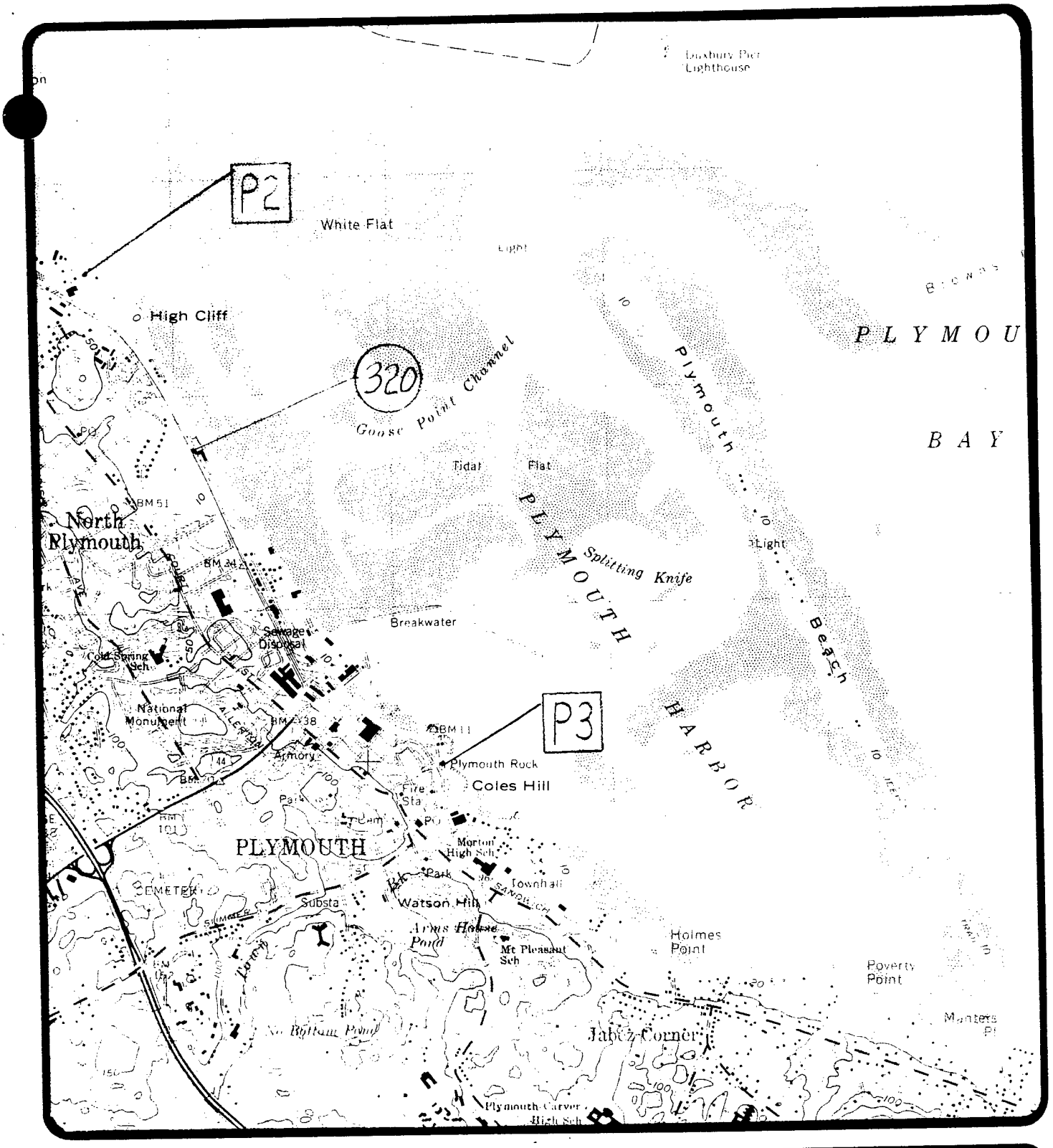
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Plymouth, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



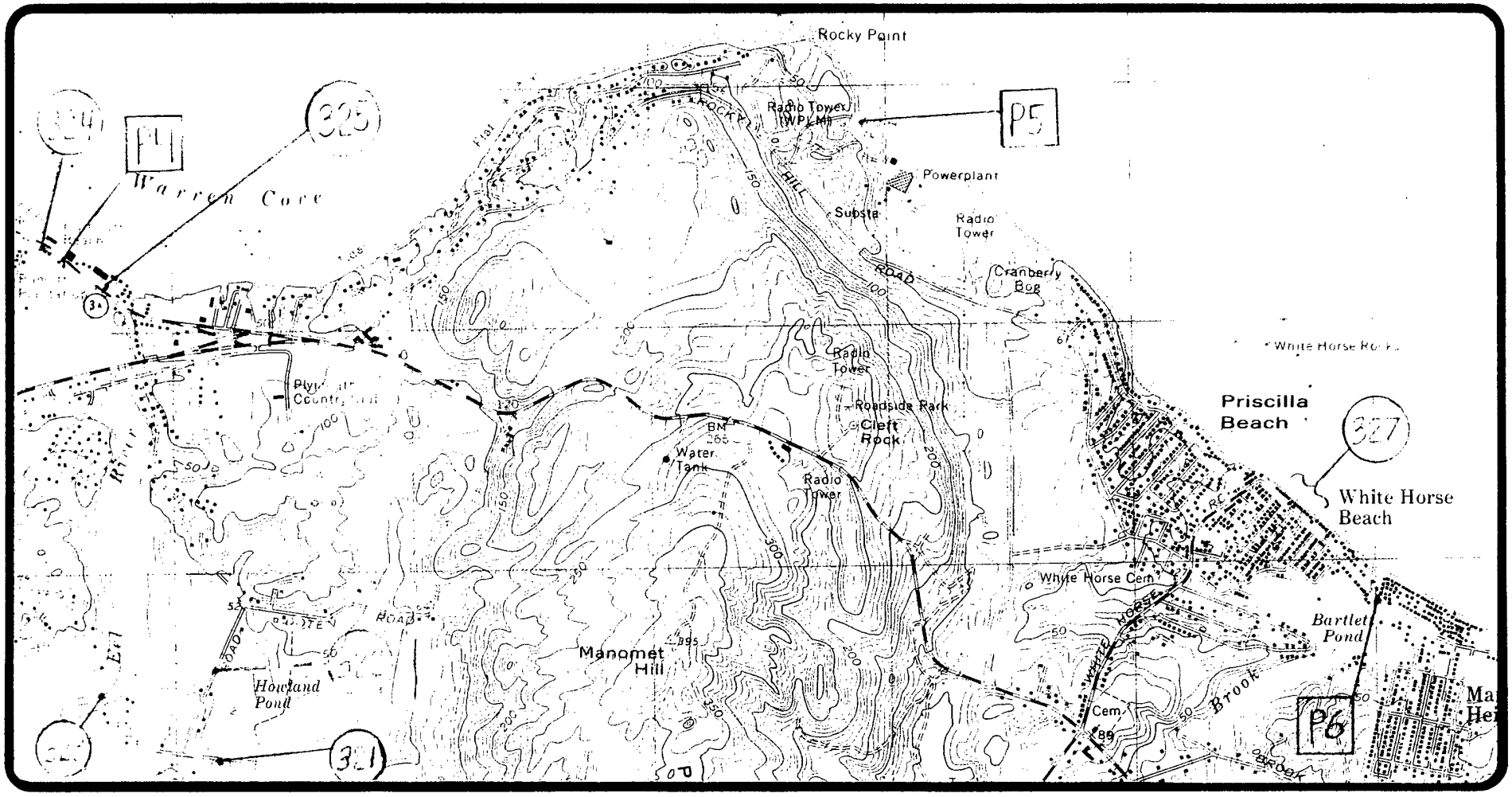
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Plymouth, MA.

□ - 1991 ○ - 1978

New England Division

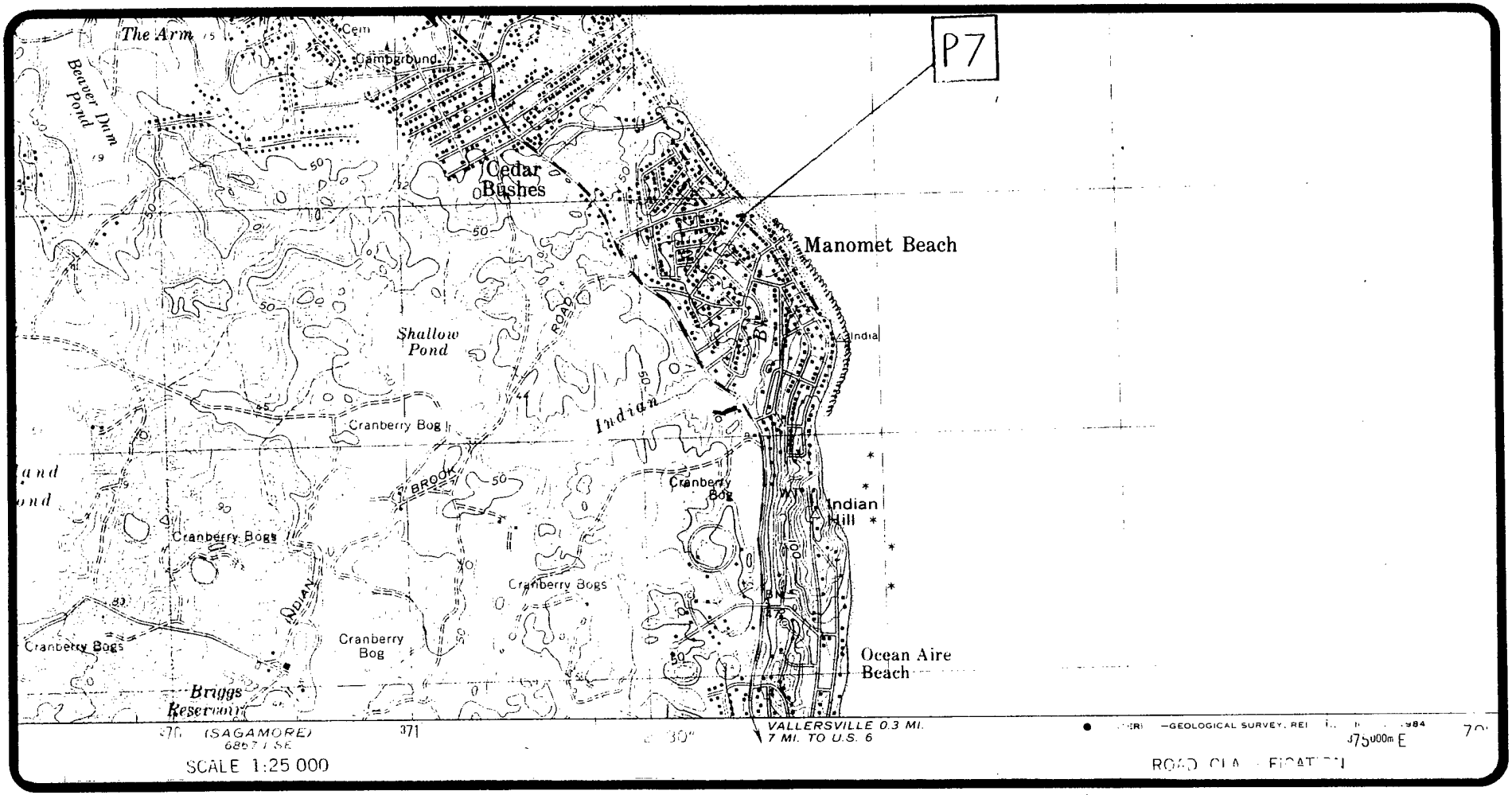
US Army Corps of Engineers



High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Manomet, MA.

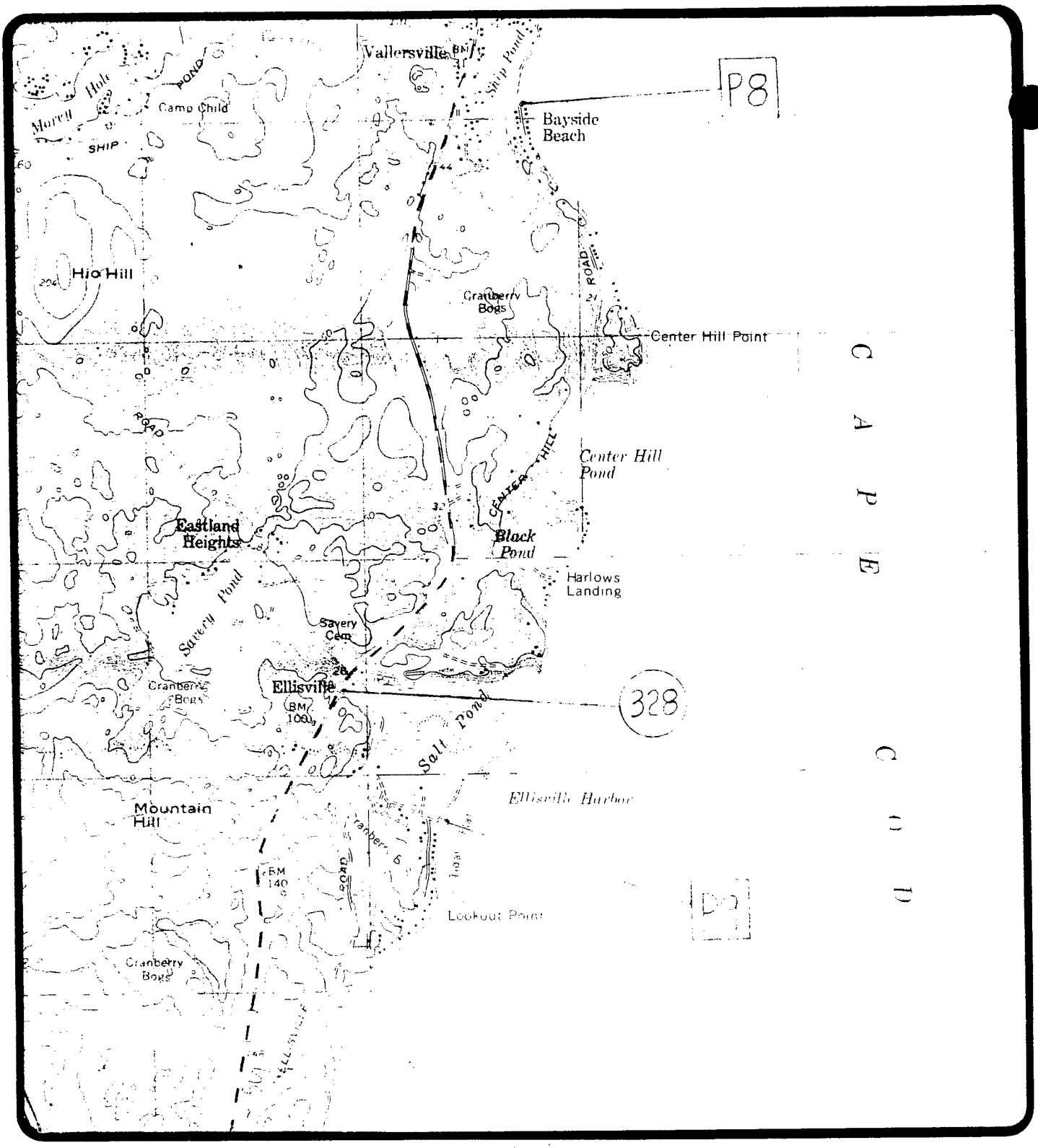
US Army Corps of Engineers
New England Division



High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - **Manomet, MA.**

US Army Corps of Engineers
New England Division



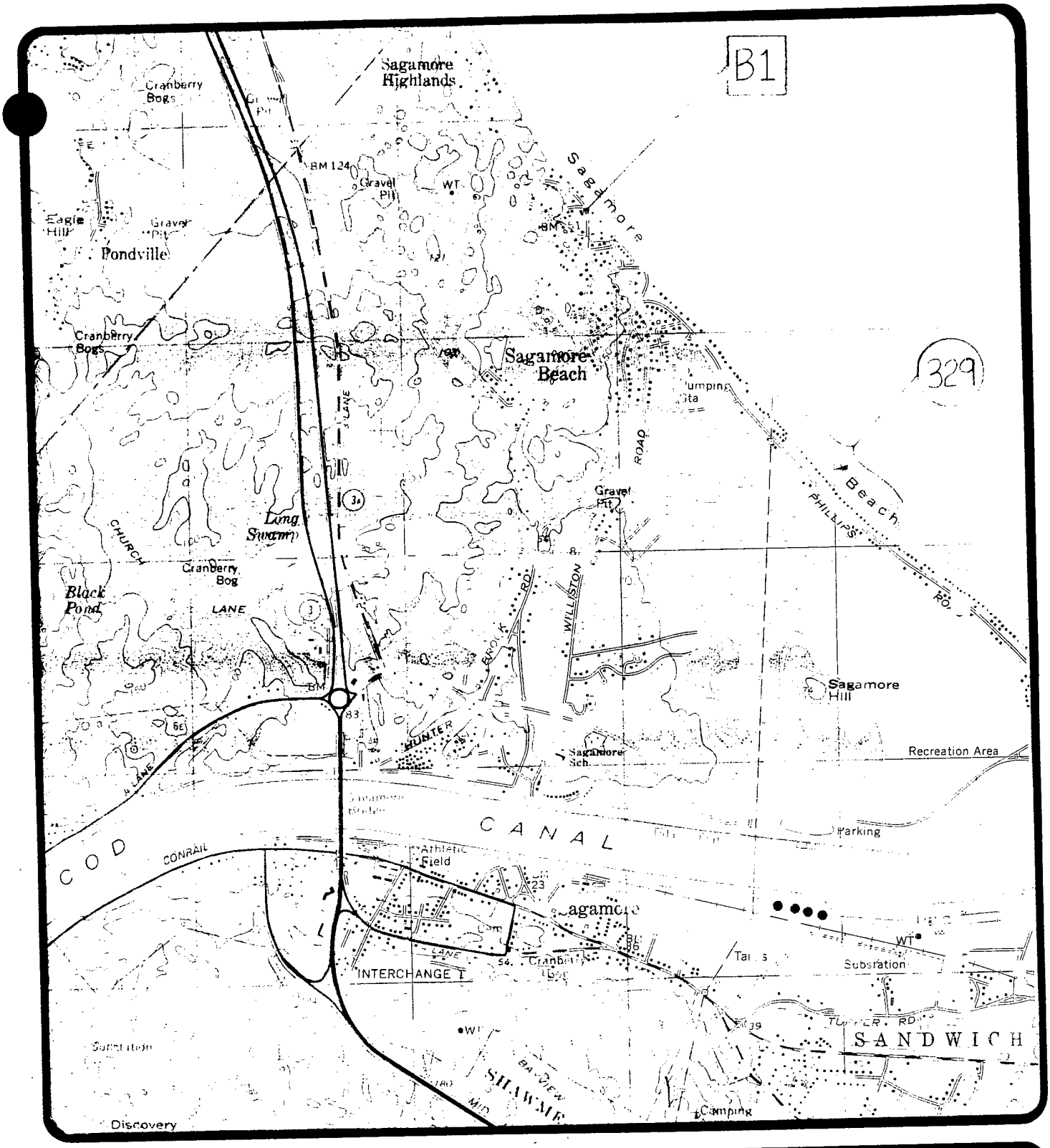
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Sagamore, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



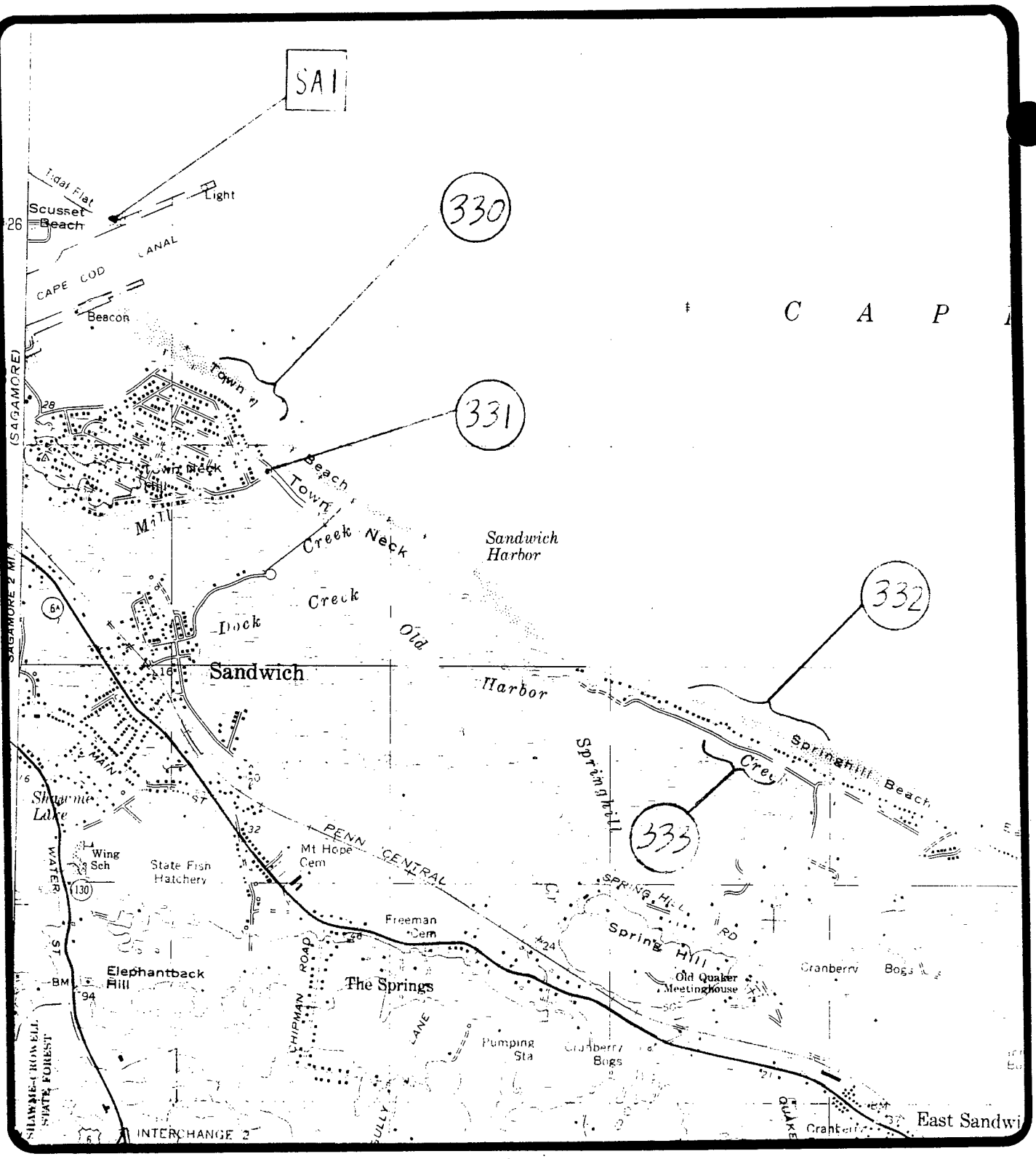
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Sagamore, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



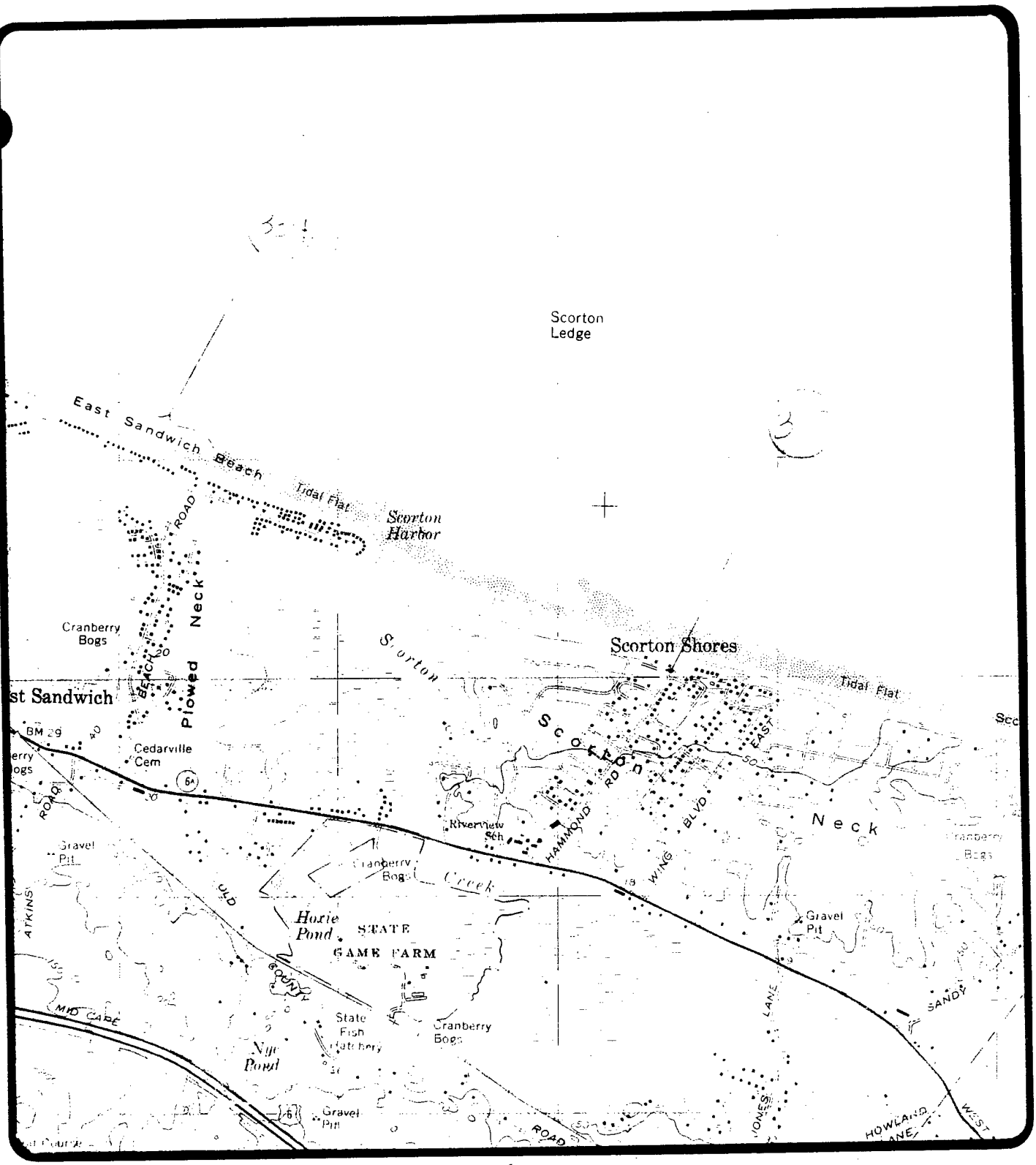
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Sandwich, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Sandwich, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers

APPENDIX

CHATHAM TO PROVINCETOWN, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Coastguard Beach, Nauset Bay		E 1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Eastham	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nail in tree about 40' from east end of foot-bridge along the southerly path (see sketch on back)

11/5/91	Bob Martin and Dave Larsen
(Date obtained)	(Obtained by)

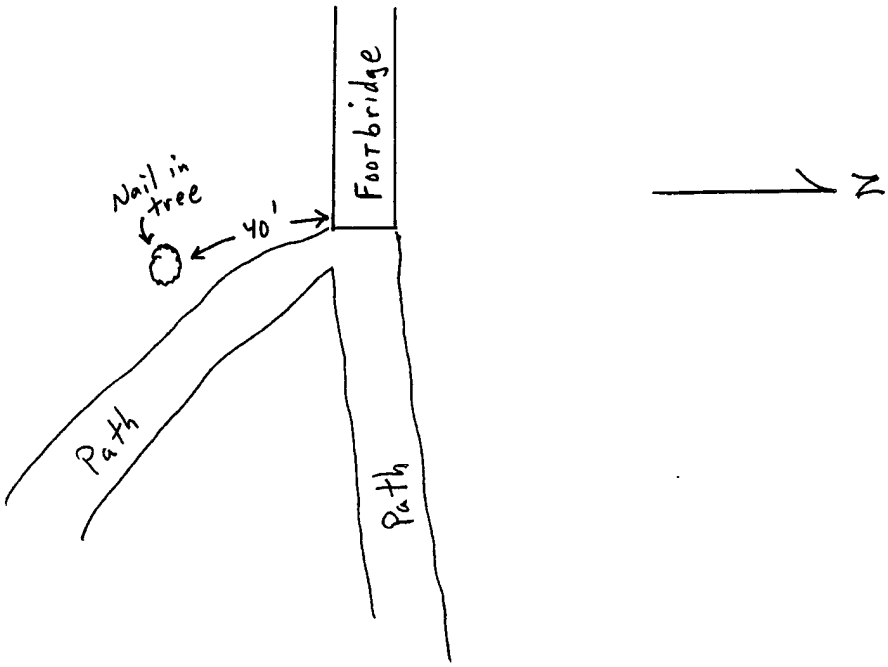
Frank Ackerman-Cape Cod National Seashore-Maintenance
(Name and address of person pointing out high watermark)

observed	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78



E1

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Coastguard Beach		E 2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Eastham	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nail in wood support pile southwest edge of bridge on Doane Road (see on back).

11/5/91	Bob Martin and Dave Larsen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

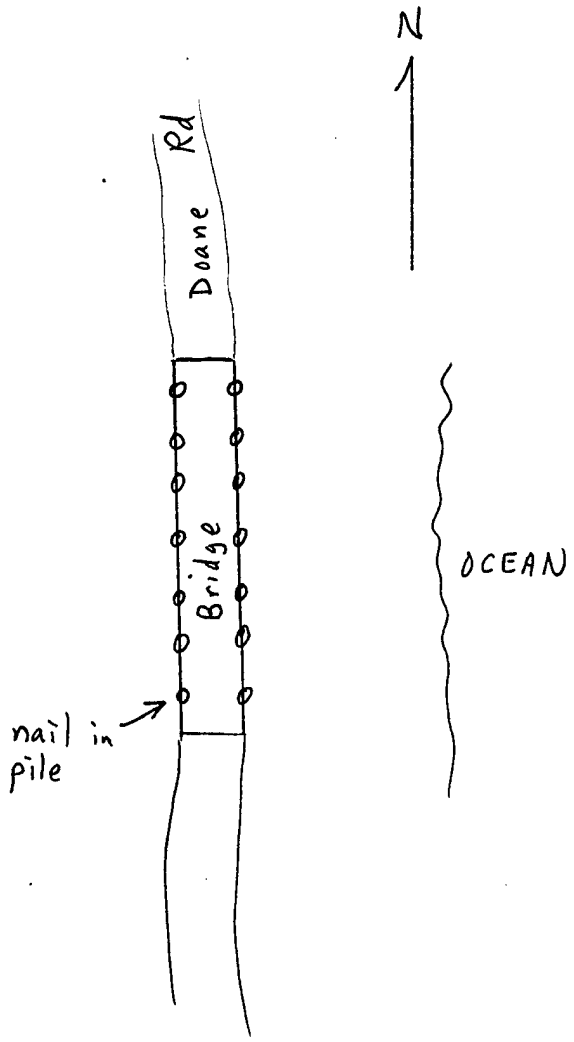
observed	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
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E2

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Town Cove		E3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Eastham	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nail in Osmose pole #3 on Ellis Road in front of house #6 about 3' above ground.

11/5/91	Bob Martin and Dave Larsen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

observed	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Town Cove		OR 1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Orleans	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nail in Osmose pole #25 on Cove Road near the town landing, nail is at the base of the pole.

11/5/91	Bob Maritn and Dave Larsen
(Date obtained)	(Obtained by)

Gardner Jameson, Asst. Harbor Master
(Name and address of person pointing out high watermark)

observed	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nauset Harbor		OR2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Roberts Cove	Orleans	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nail in tree at east end of cul-de-sac on Mill Pond Road on Rocky Point.

11/5/91	Bob Martin and Dave Larsen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

observed	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Meeting House Pond		OR3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Little Pleasant Bay	Orleans	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nail in NET + T CO. pole #21 on River Road at the town landing.

11/5/91	Bob MArtin and Dave Larsen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

observed	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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New England Division, Corps of Engineers
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Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Pleasant Bay (Name of River, Bay or Harbor) | (Miles from Mouth) | OR4 (Watermark No.)

(Tributary of) | Orleans (City or Town) | MA (State)

Description of high watermark: Nail in NET + T CO. pole #216 on Rte. 28 (So. Orleans Rd.) near Tap Kiln Road

~~11/5/91~~ (Date obtained) | Bob Martin and Dave Larsen (Obtained by)

(Name and address of person pointing out high watermark)

observed (If not pointed out, how obtained?) | (Date and hour of high watermark)

(Elev. of high watermark) (Datum) | (Benchmark referred to) (Datum)

(Elevation of high watermark above water surface) | (Date & Hour) | (Class. of watermark)

(Elevation determined by) | (Date) | (Order of levels)

(Nearest dam upstream or downstream) | (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Pamet River (headwater)		T1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Ballston Beach	Truro	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nail in road north of breach in dunes (see sketch).

11/5/91	Bob Martin and Dave Larsen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

observed	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark) (Datum)	(Benchmark referred to) (Datum)

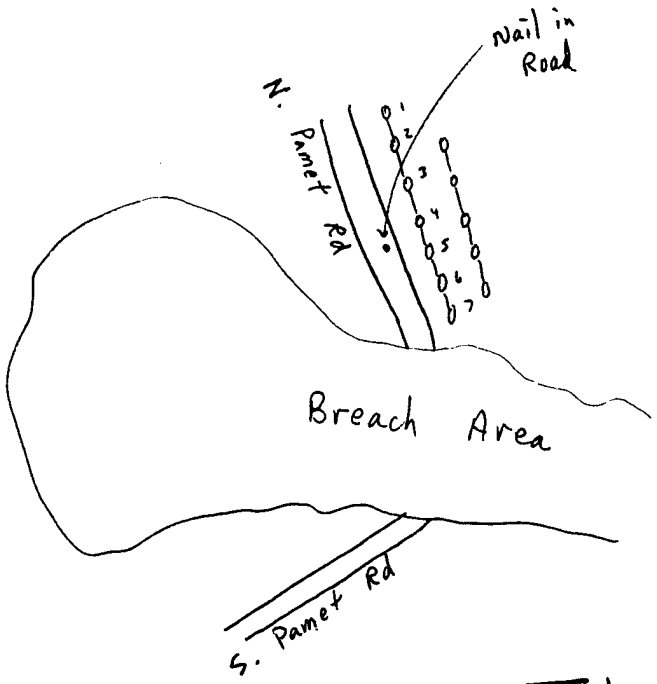
(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78



T1

N

Nail located
7'7" from 4th fence post
8' from 5th fence post

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424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Cape Cod Bay		PR1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Herring Cove Beach	Provincetown	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nail in road in Herring Cove Beach National Park area (see sketch on back)

11/5/91	Bob Martin and Dave Larsen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

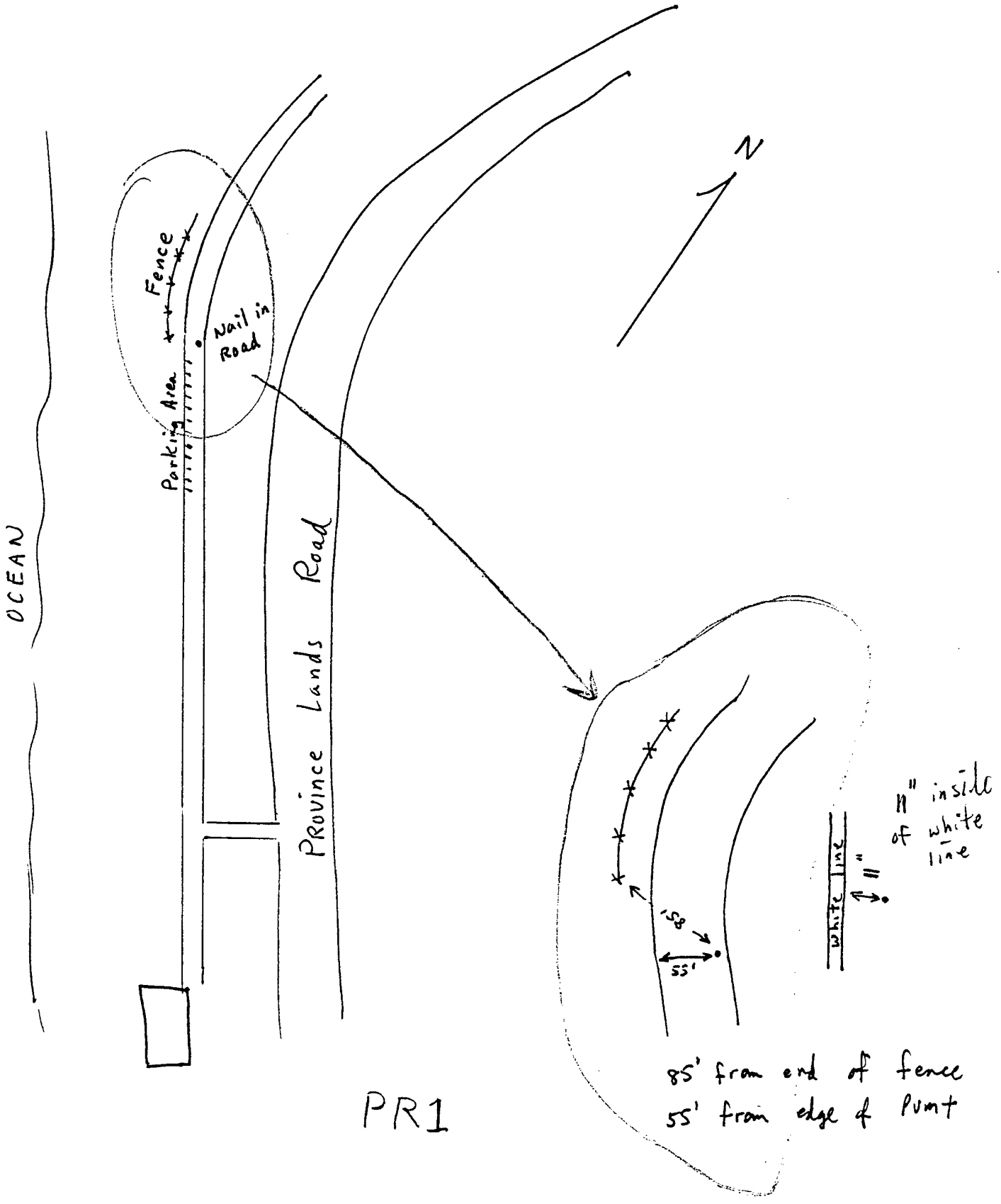
observed	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78


OCEAN
Fence
Nail in Road
Parking Area
Province Lands Road
N
11" inside of white line
White line
58'
55'
85' from end of fence
55' from edge of Pvmt

PR1

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Stage Harbor		CH1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Chatham	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Stake in ground under fence from NET + T CO.

POLE #1 on Champlain Rd. near Marsh Lane

11/6/91	Bob Martin and Dave Larsen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

observed	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Mitchell River		CH2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Chatham	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Metal bar on south side of the east abutment of the Bridge Street bridge over the Mitchell River.

11/6/91	Bob Martin and Dave Larsen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

observed	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
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Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Chatham River		CH3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Chatham	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Nail in NET + T CO. pole #72/3 on Little Beach Road about 3' above ground.

11/6/91	Bob Martin and Dave Larsen
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

observed	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Chatham Harbor (Name of River, Bay or Harbor) | (Miles from Mouth) | CH4 (Watermark No.)

(Tributary of) | Chatham (City or Town) | MA (State)

Description of high watermark: Paint mark on concrete post at town landing on Cowyard Lane. Mark is 6" below top of last post on right looking toward harbor.

11/6/91 (Date obtained) | Bob Martin and Dave Larsen (Obtained by)

(Name and address of person pointing out high watermark)

observed (If not pointed out, how obtained?) | (Date and hour of high watermark)

(Elev. of high watermark) (Datum) | (Benchmark referred to) (Datum)

(Elevation of high watermark above water surface) | (Date & Hour) | (Class. of watermark)

(Elevation determined by) | (Date) | (Order of levels)

(Nearest dam upstream or downstream) | (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Ryders Cove | | CHS
(Name of River, Bay or Harbor) | (Miles from Mouth) | (Watermark No.)

| Chatham | MA
(Tributary of) | (City or Town) | (State)

Description of high watermark: 40" above sill on building located on town landing at Ryders Cove

11/6/91 (Date obtained) | Bob Martin and Dave Larsen (Obtained by)

(Name and address of person pointing out high watermark)

observed (If not pointed out, how obtained?) | (Date and hour of high watermark)

(Elev. of high watermark) | (Datum) | (Benchmark referred to) | (Datum)

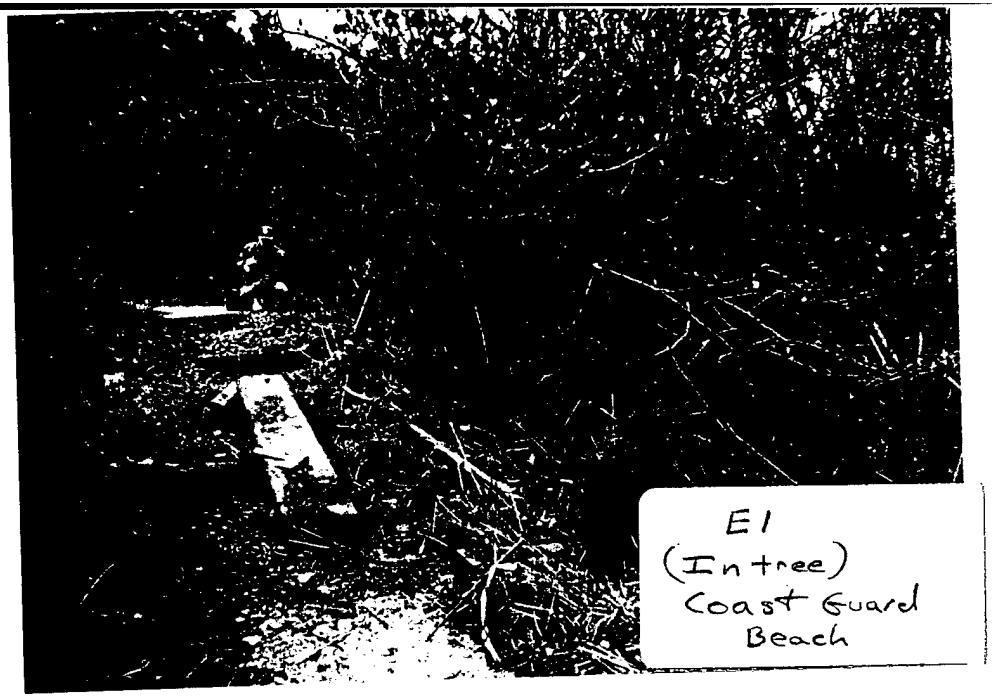
(Elevation of high watermark above water surface) | (Date & Hour) | (Class. of watermark)

(Elevation determined by) | (Date) | (Order of levels)

(Nearest dam upstream or downstream) | (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
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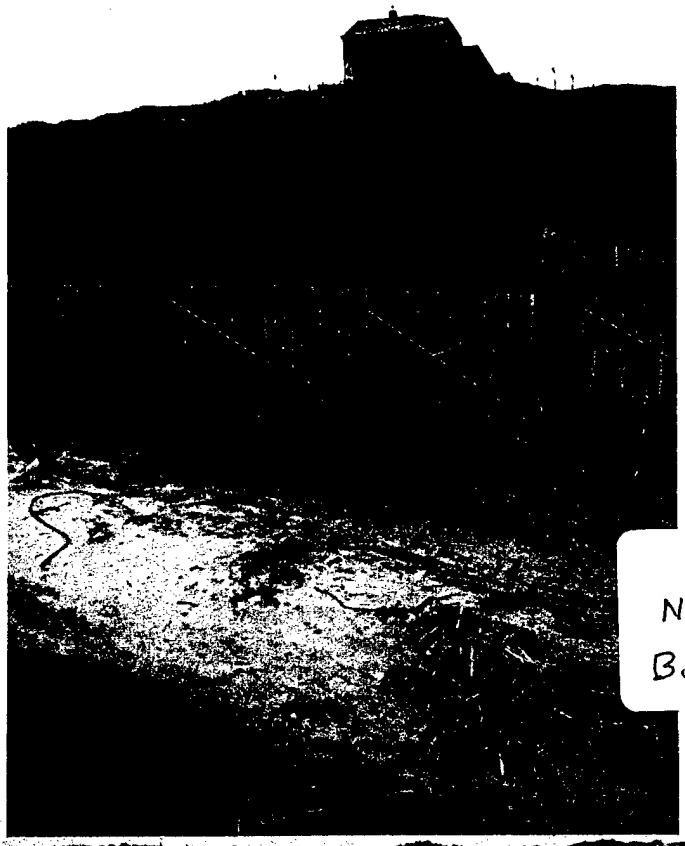
E1
(In tree)
Coast Guard
Beach



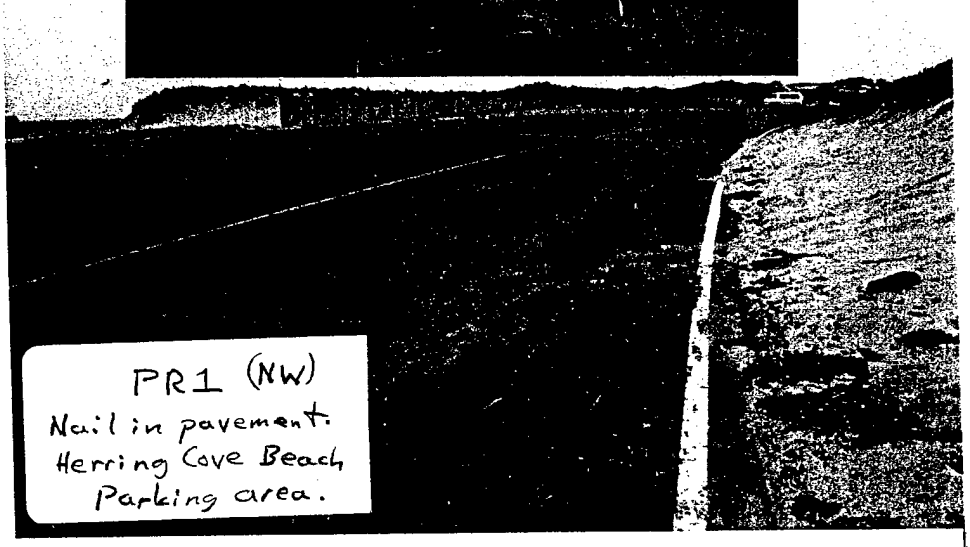
E2



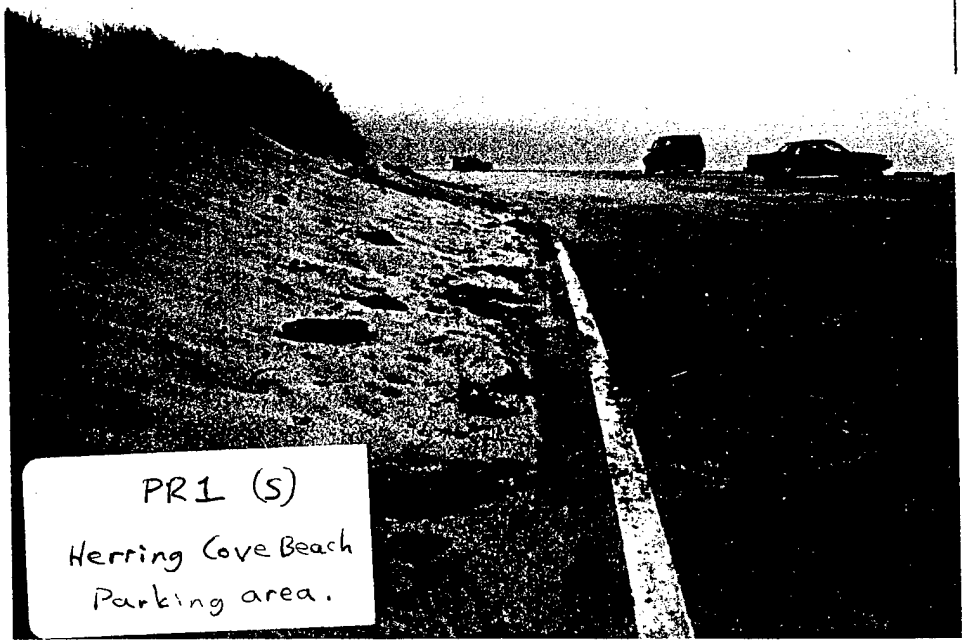
E2
On bridge pier,
Doane Rd.



T1
Nail in pavement.
Ballston Beach



PR1 (NW)
Nail in pavement.
Herring Cove Beach
Parking area.



PR1 (S)
Herring Cove Beach
Parking area.

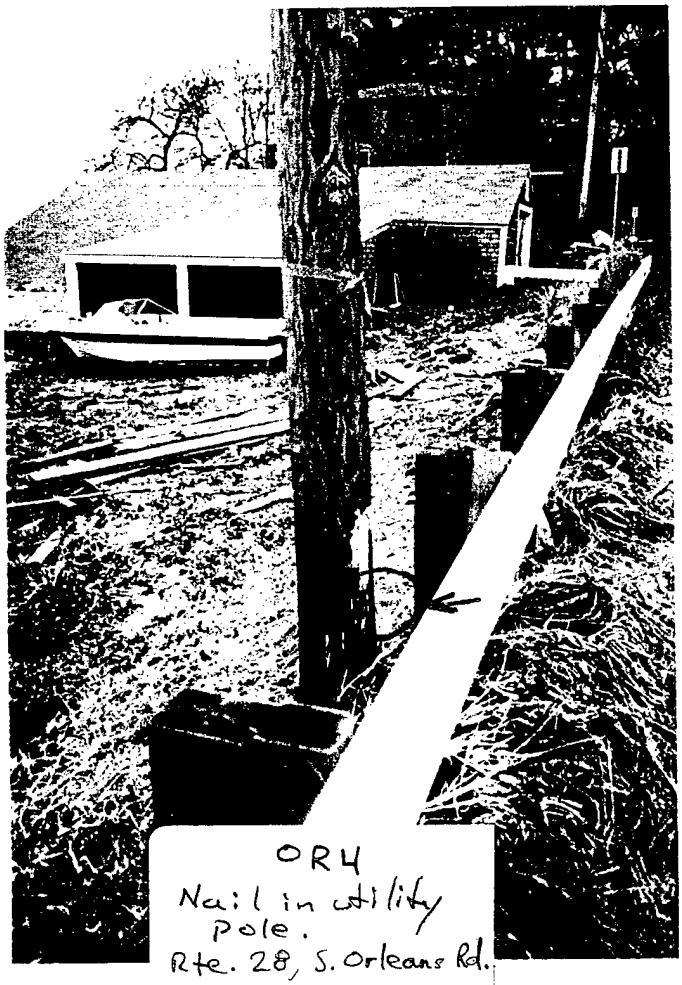
OR1
@ end of Cove Rd.
near Orleans
Yacht Club

E3
Ellis Road

OR2
Mill Pond Rd.,
@ Robert's Cove



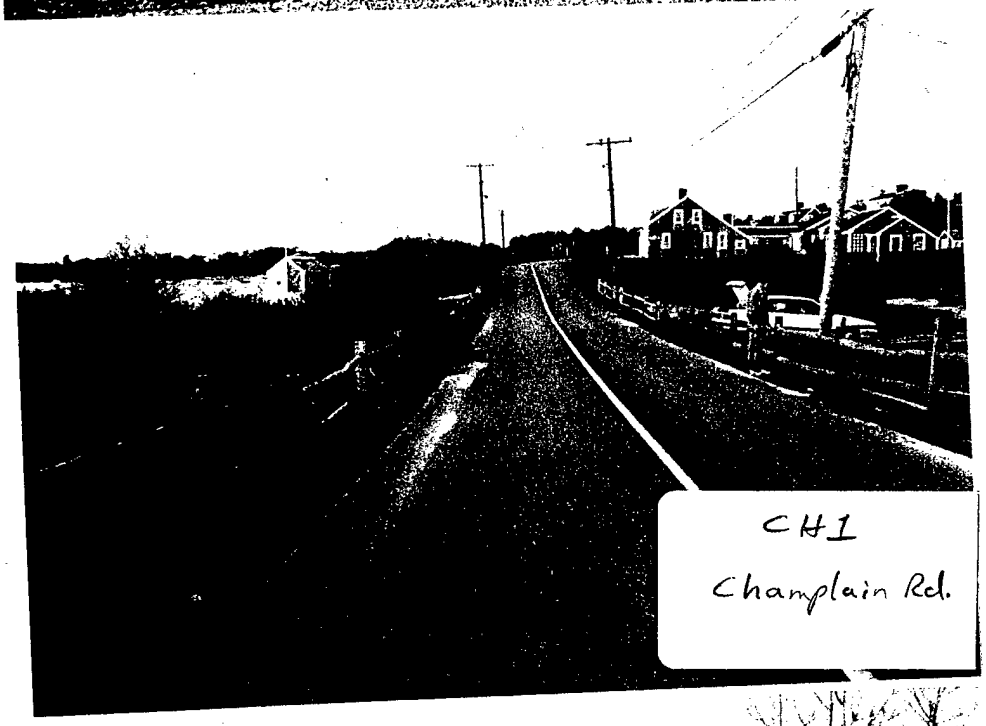
OR3
Nail in utility pole near ground level.
River Rd. @ Town Landing



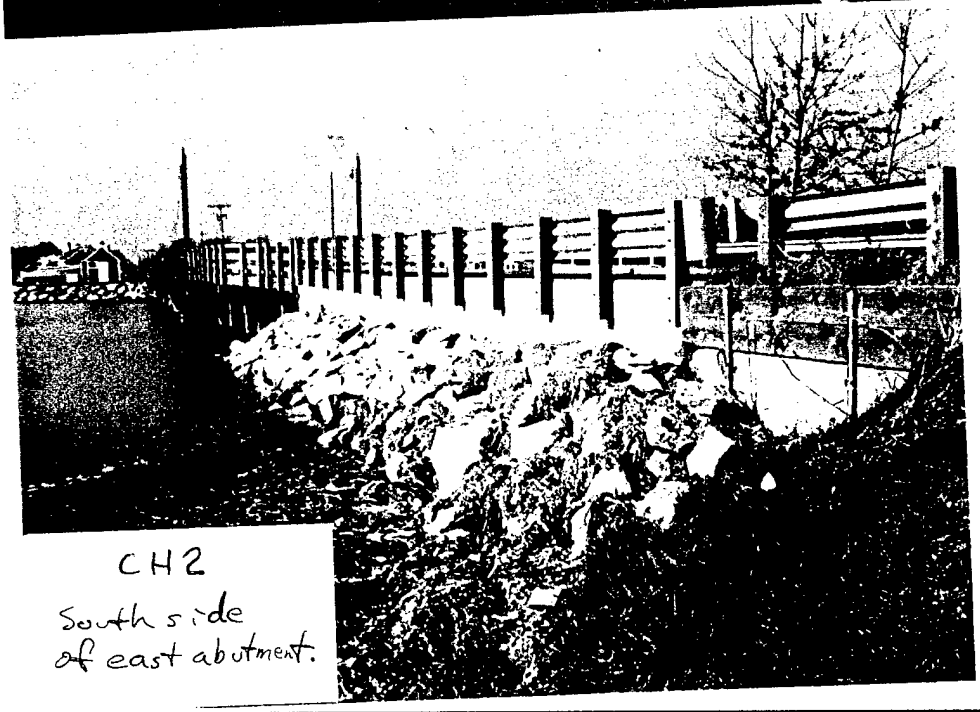
OR4
Nail in utility pole.
Rte. 28, S. Orleans Rd.



CH1
Under fence along Champlain Road.



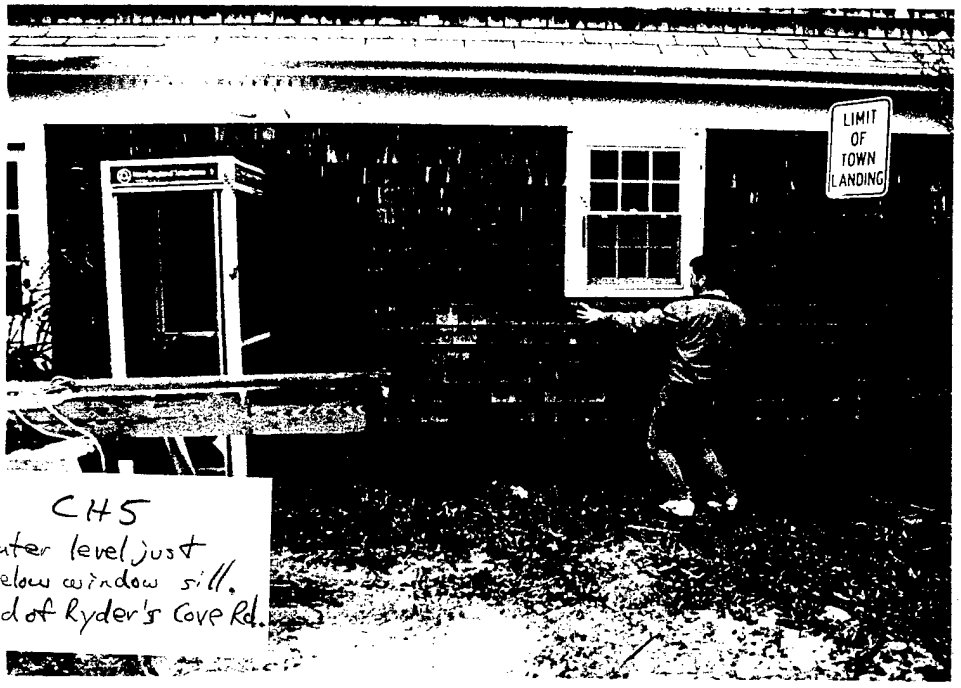
CH1
Champlain Rd.



CH2
South side of east abutment.



CH3
Little Beach
Road



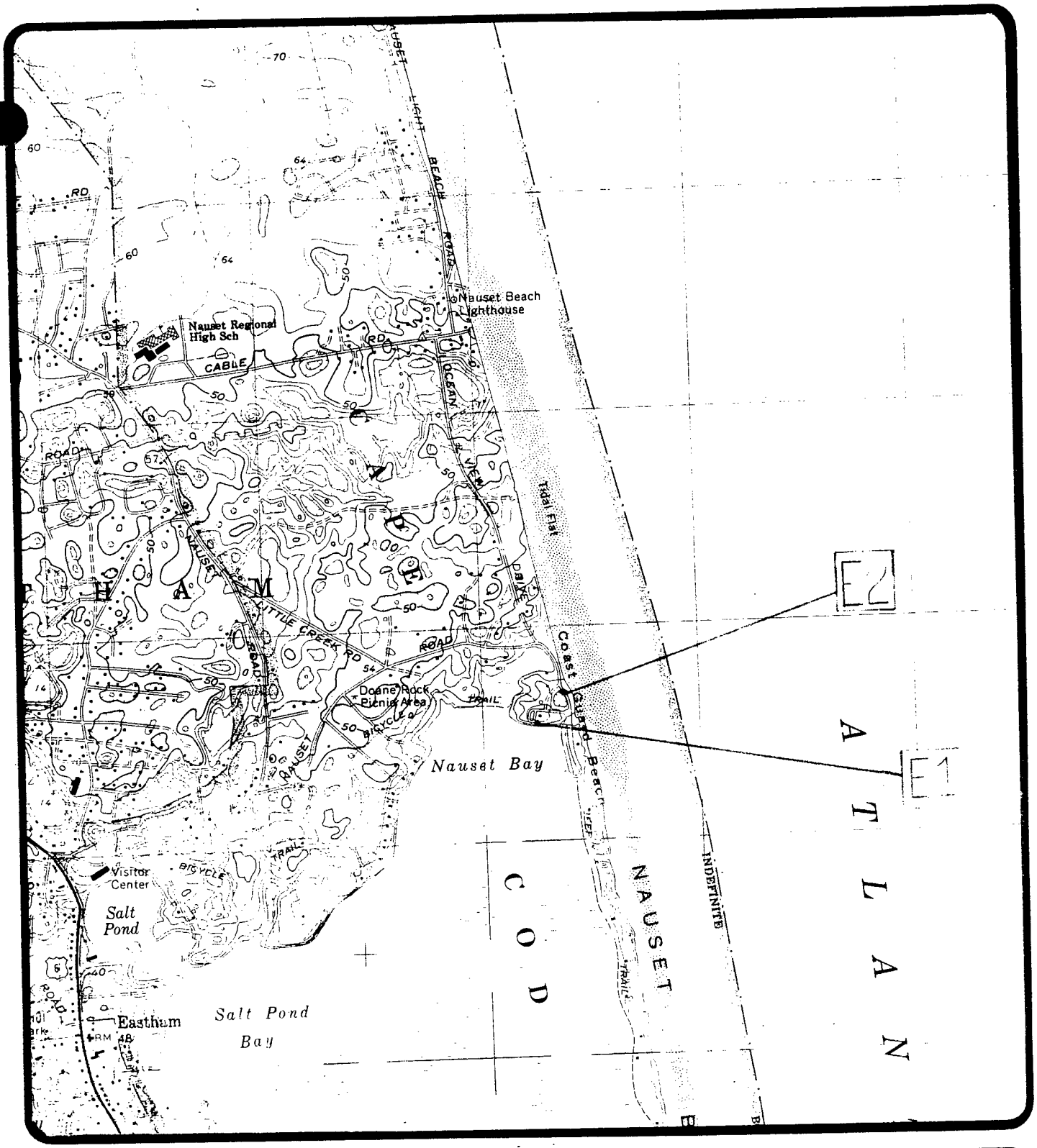
CH5
Water level just
below window sill.
End of Ryder's Cove Rd.

CH4

End of
Cowyard Lane







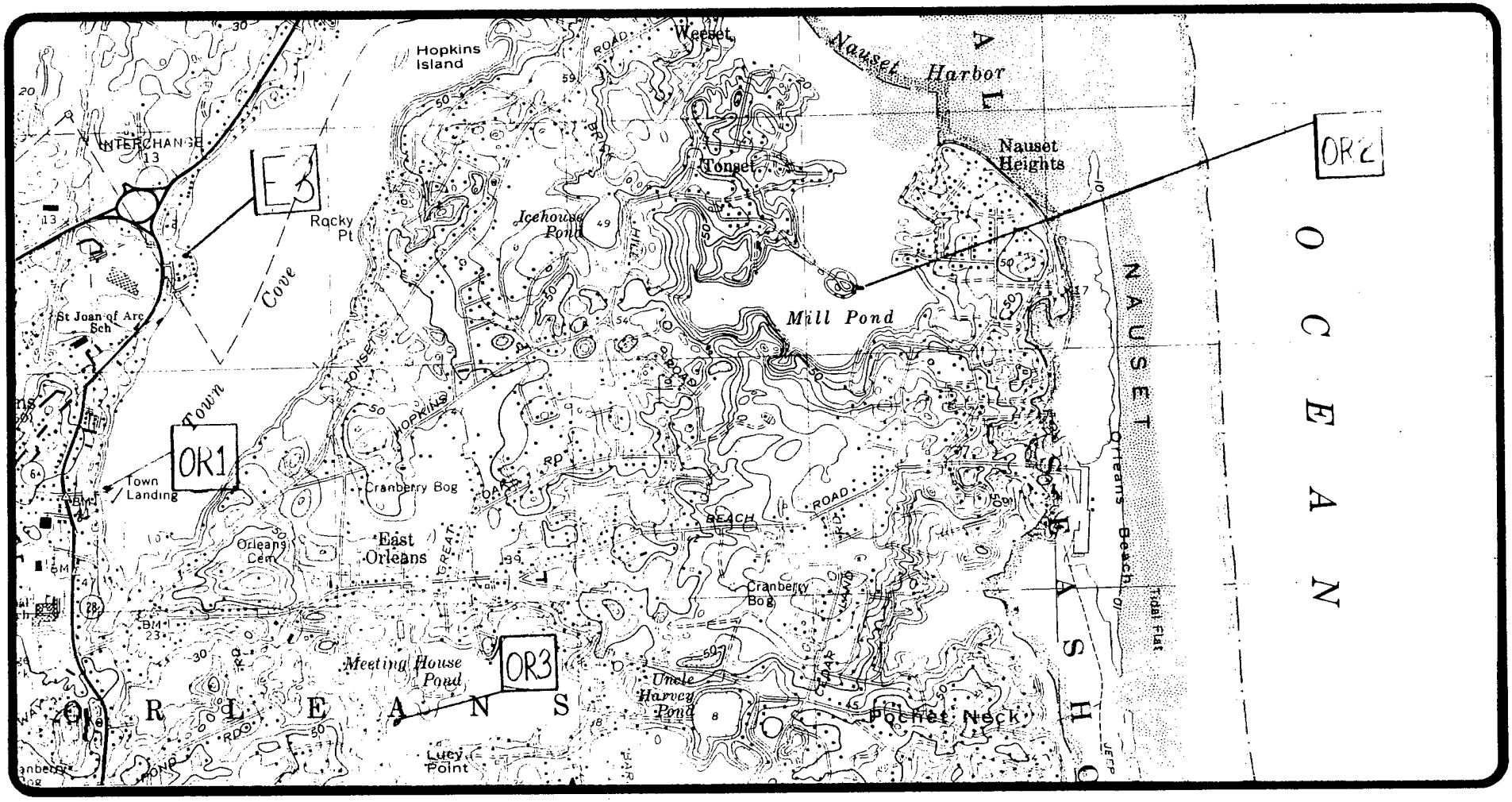
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Orleans, MA.

□ - 1991 ○ - 1978

New England Division

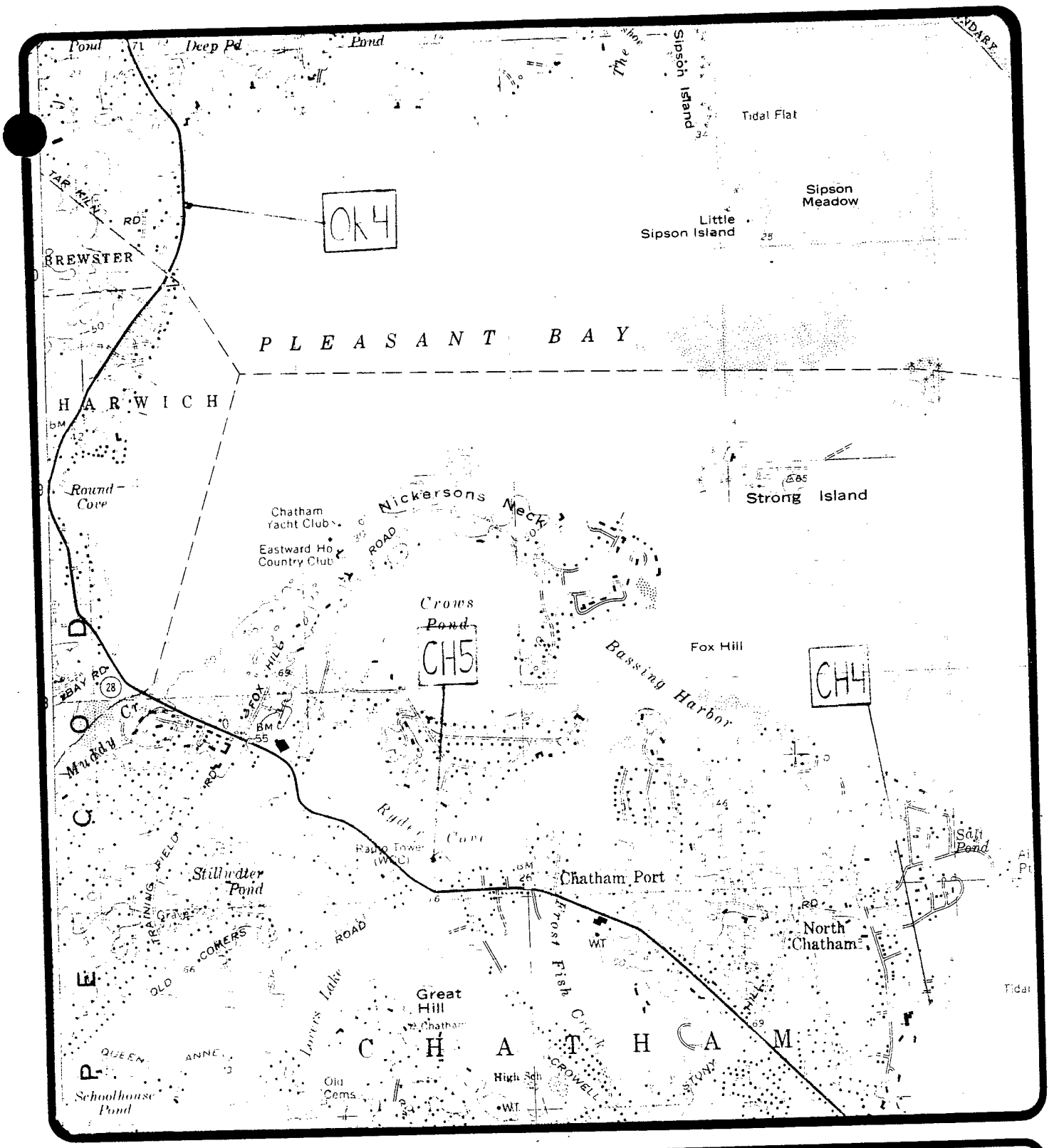
US Army Corps of Engineers



High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Orleans, MA.

US Army Corps of Engineers
New England Division



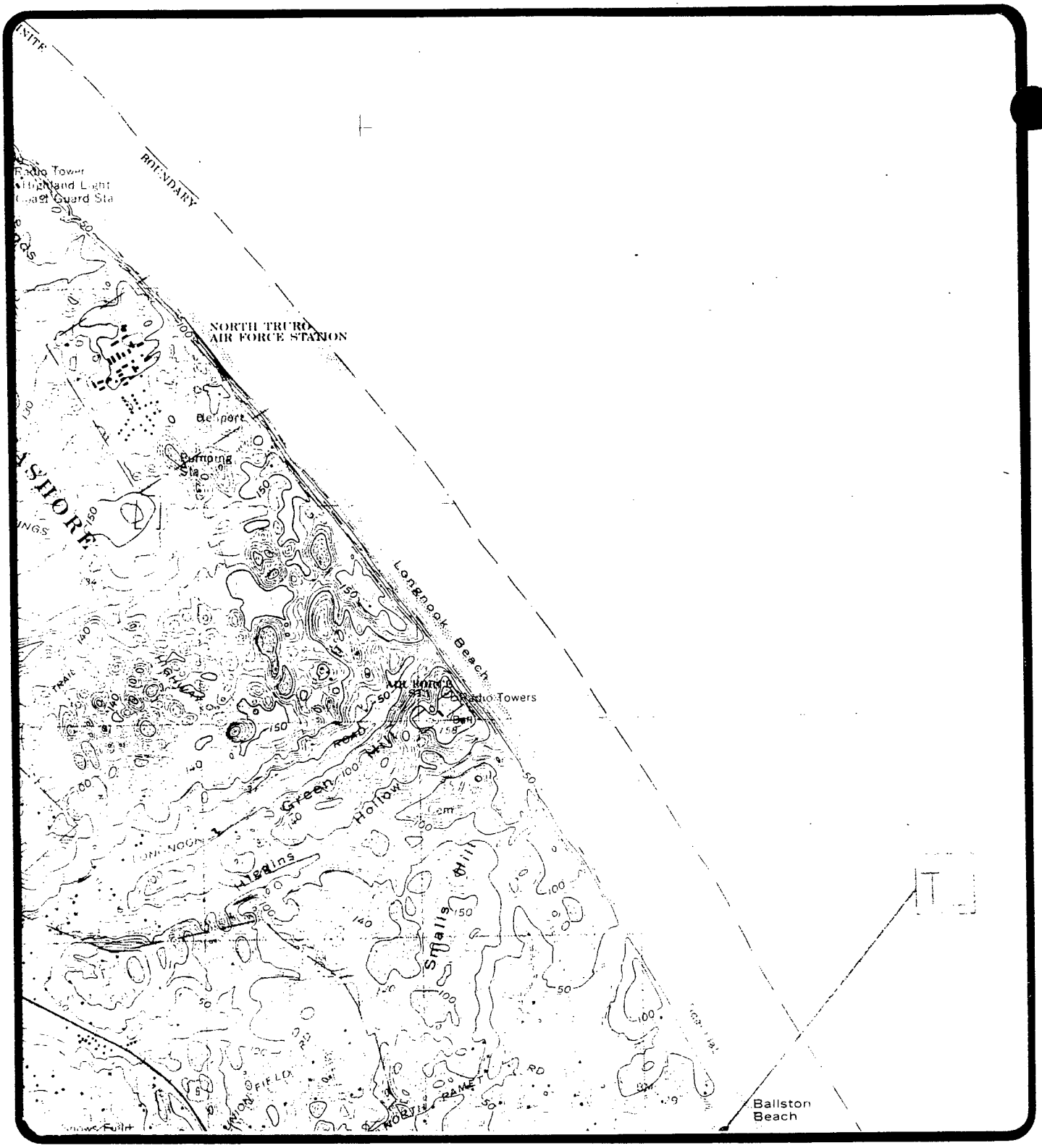
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Chatham, MA.

□ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



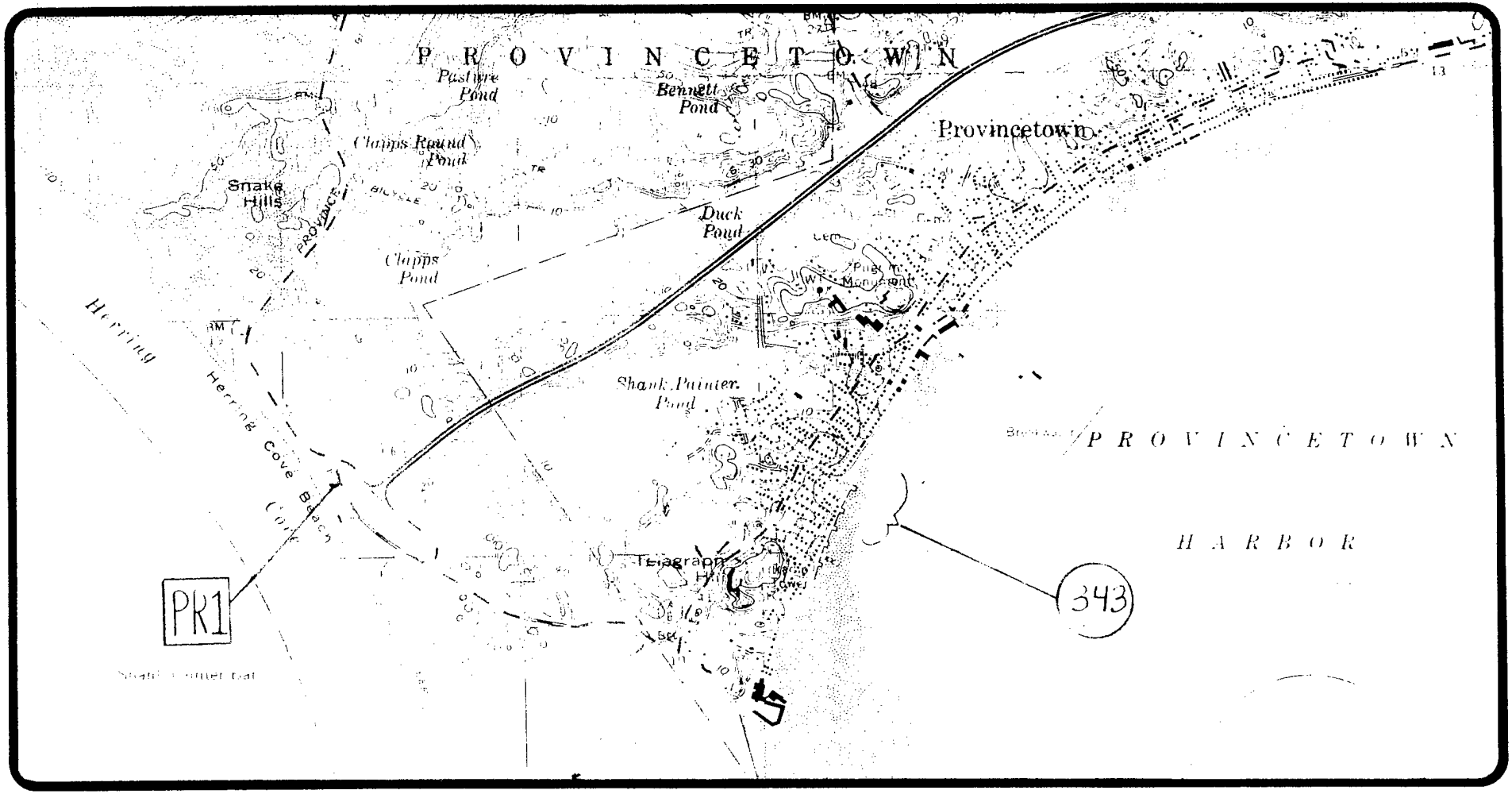
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - N. Truro, MA.

□ - 1991 ○ - 1978

New England Division

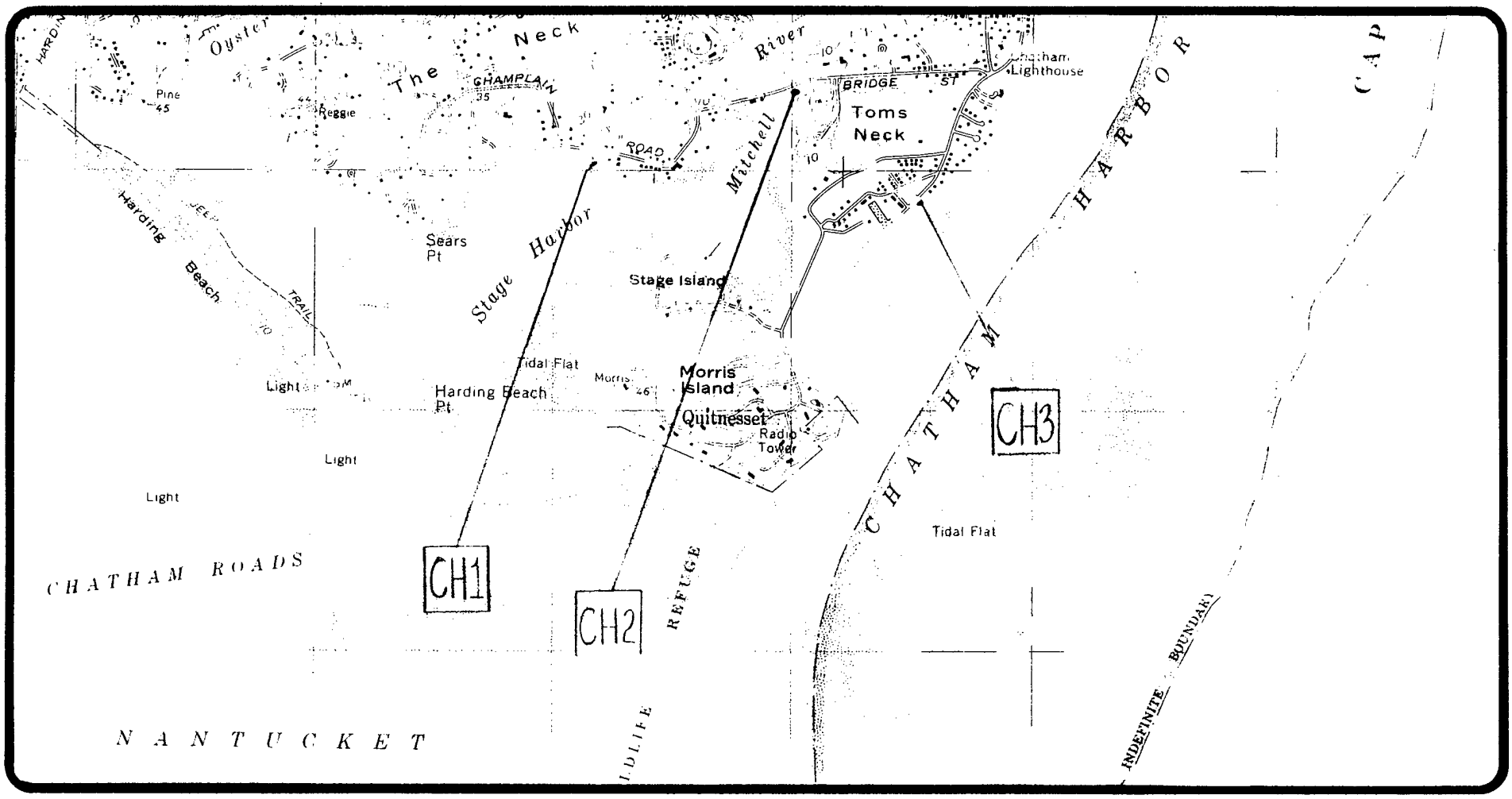
US Army Corps of Engineers



High Water Mark Location Map
Halloween Storm, October, 1991 □ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - **Provincetown, MA.**

US Army Corps of Engineers
New England Division



High Water Mark Location Map
Halloween Storm, October, 1991

□ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - **Chatham, MA.**

US Army Corps of Engineers
New England Division

APPENDIX

NANTUCKET, MASSACHUSETTS

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Madaket Harbor		1
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Madaket, Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Summer cottage "Winterfest" on Mass. Ave.-- small stump in front yard at SE corner of white picket fence with nail @ mark- painted stake @ stump to identify

5 November 1991	S. Acone & G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

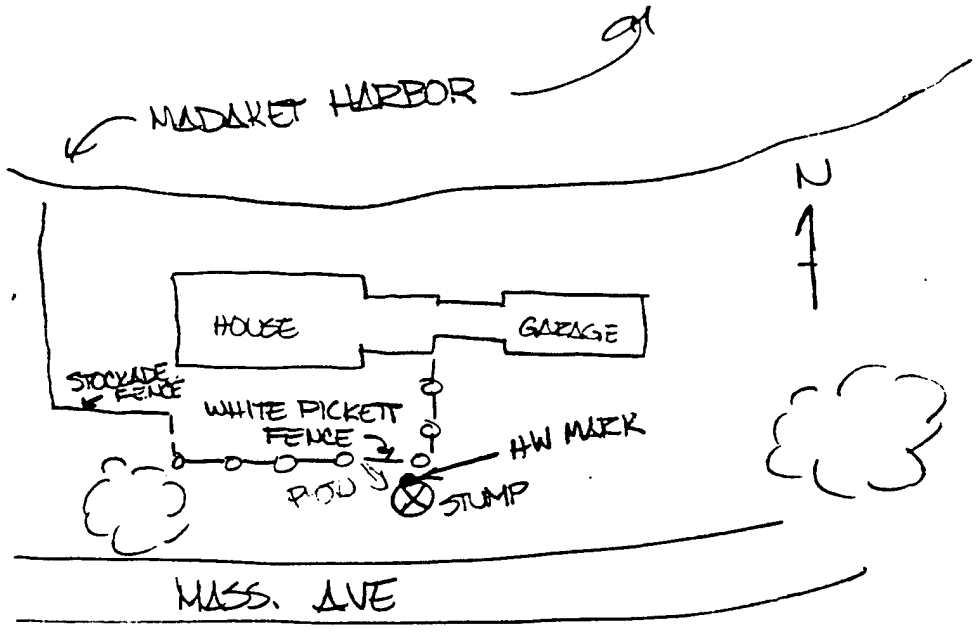
windshield survey of area-saw debris line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

High Accuracy

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
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MADAKET HARBOR
N
HOUSE
GARAGE
STOCKADE FENCE
WHITE PICKET FENCE
HW MARK
POU
STUMP
MASS. AVE

1

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Hither Creek		2
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Madaket Harbor	Madaket, Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Ames Ave. bridge across Hither Creek-NE abutment:

Paint line & nail on support post for sidewalk on N.E. corner of bridge.

5 November 1991 (Date obtained) — S. Acone & G. Hanlon (Obtained by)

(Name and address of person pointing out high watermark)

Debris line @ Abutment (If not pointed out, how obtained?) — (Date and hour of high watermark)

Moderate Reliability

(Elev. of high watermark) (Datum) — (Benchmark referred to) (Datum)

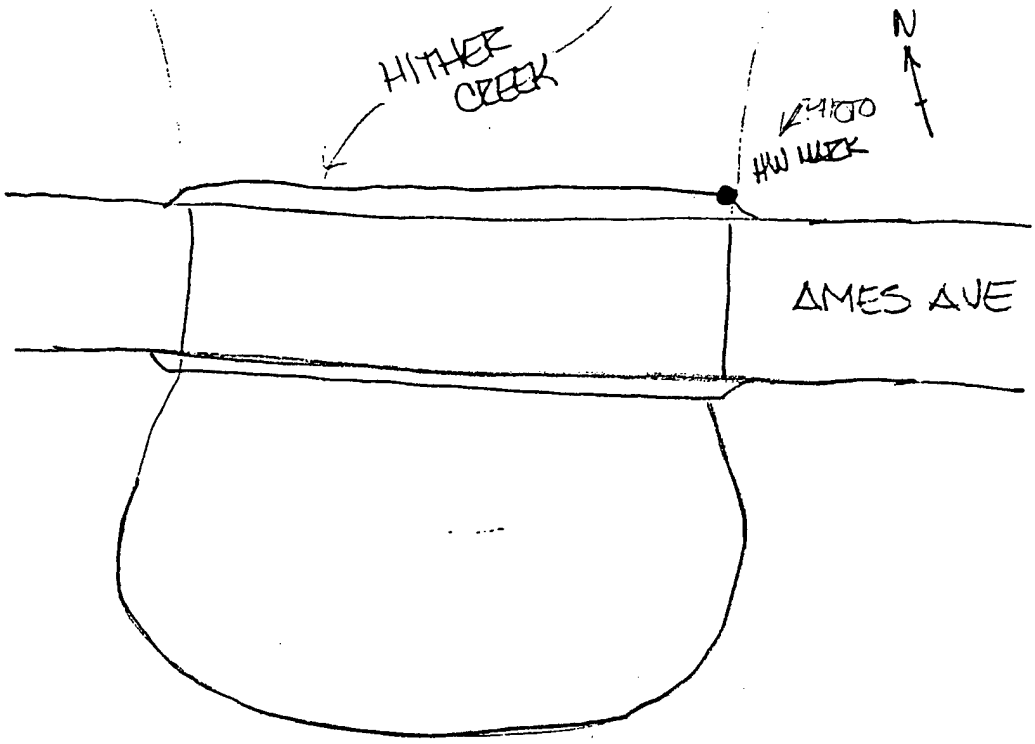
(Elevation of high watermark above water surface) — (Date & Hour) — (Class. of watermark)

(Elevation determined by) — (Date) — (Order of levels)

(Nearest dam upstream or downstream) — (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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DEPARTMENT OF THE ARMY
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Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Madaket Harbor		3
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Madaket, Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Pole #9 across fron the home of G.E. Norton, 26 N. Cambridge Street-paint line and nail in pole (about 3' up from ground).

5 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good reliability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

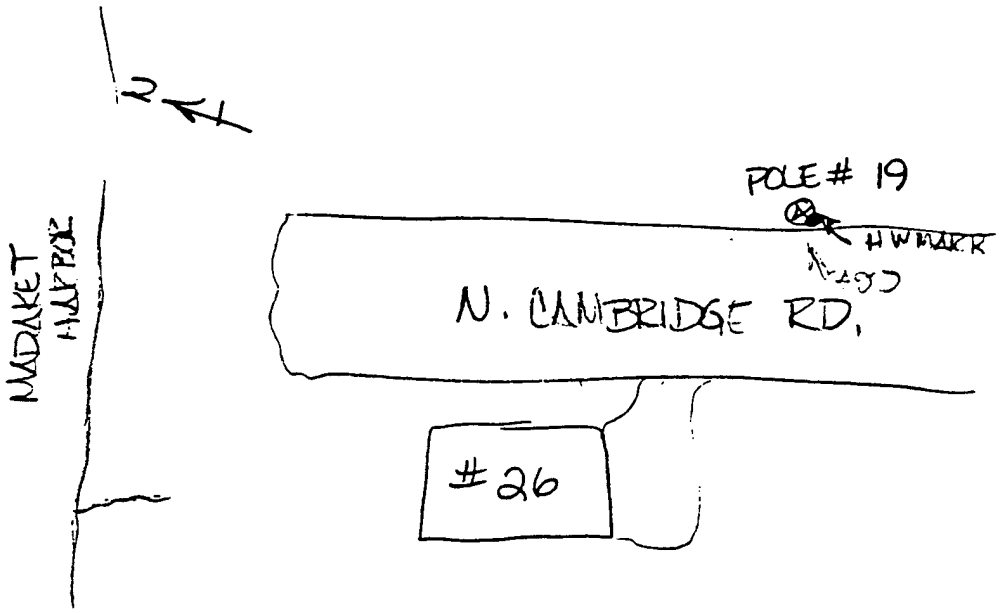
(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Sound		4
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Bathing Beach Road Pole #5-nail and paint mark on pole

5 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

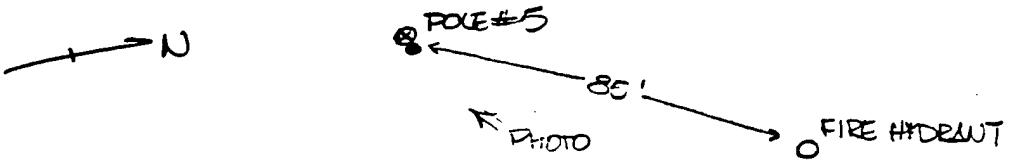
Debris line in brush	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good reliability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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NANTUCKET SOUND

BATHING BEACH ROAD

4

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		5
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Hulbert Ave.- pole 6/22 (with fire box)- nail and paint mark (about 2½ ft up from ground).

5 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good reliability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

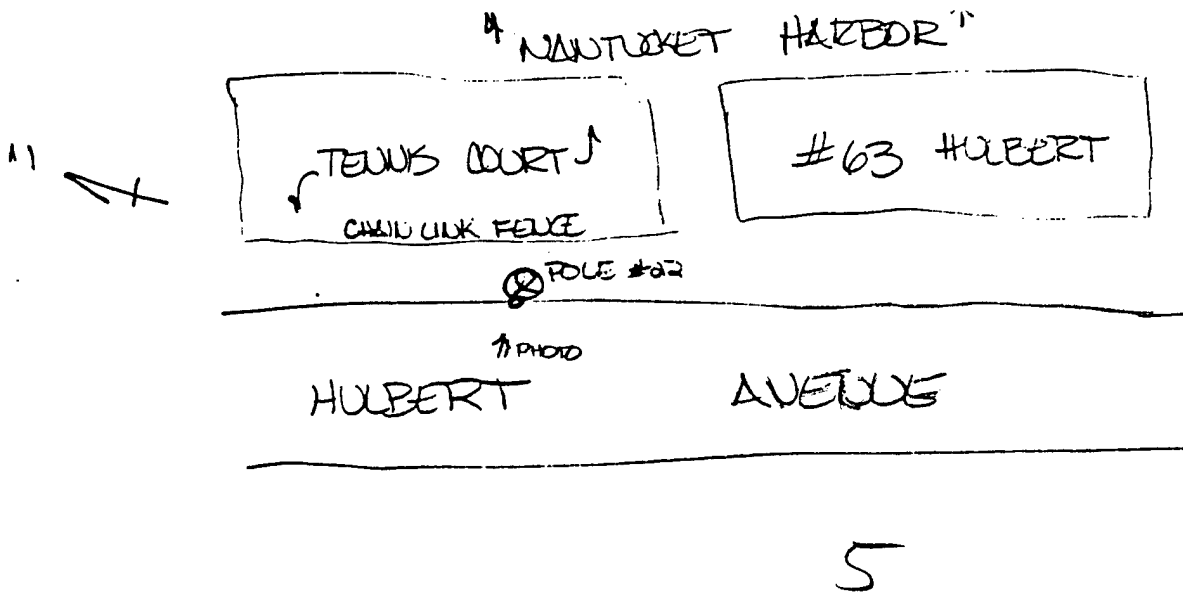
(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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NANTUCKET HARBOR
TENNIS COURT
CHAIN LINK FENCE
#63 HULBERT
POLE #22
PHOTO
HULBERT
AVENUE

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		6
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Intersection of James and Hulbert Avenue.

Nail in sign post for James Street (about 2½' up).

5 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris line in brush	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

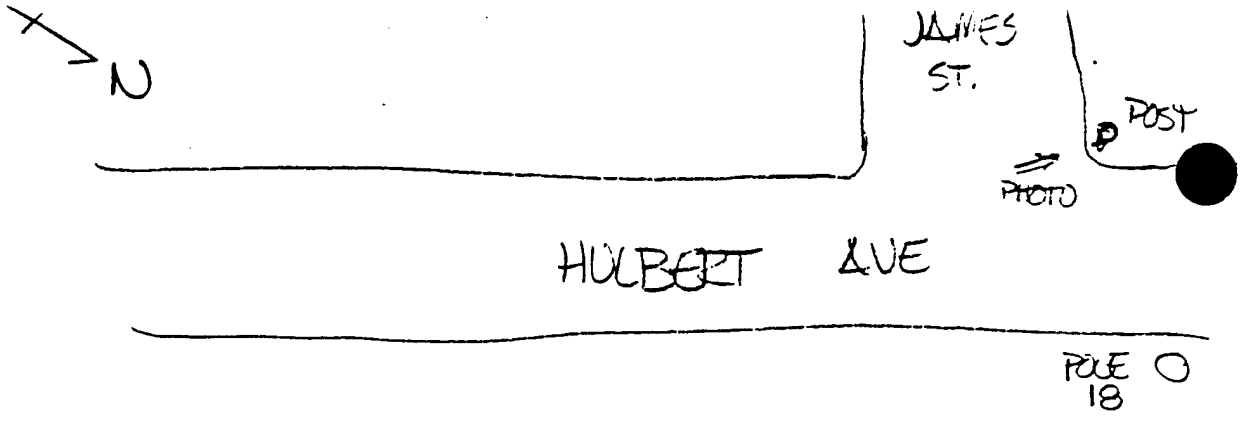
Good reliability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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N
JAMES ST.
POST
PHOTO
HULBERT AVE
POLE 18

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HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		7
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Hulbert Ave. @ pole #11-paint and nail about 2½ ft up

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good reliability

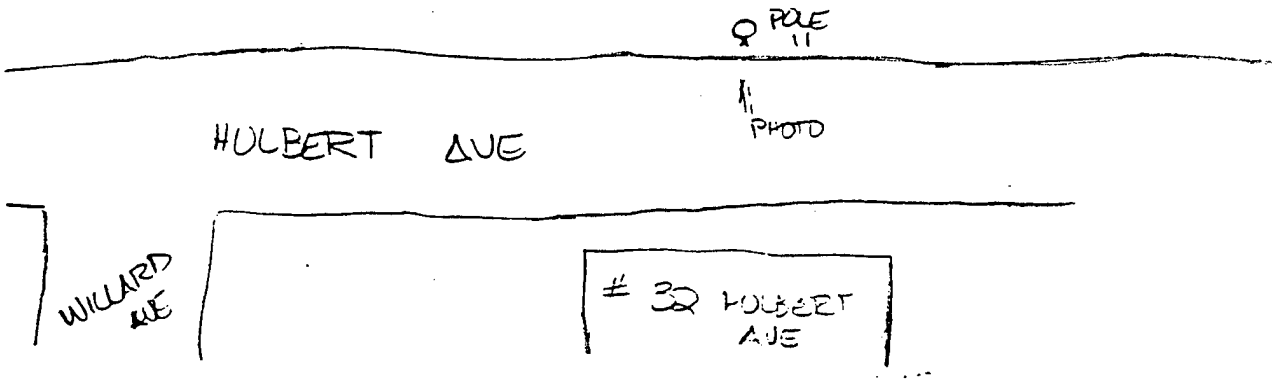
(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

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New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		8
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Easton Street on Brant Point-last pole on street at entrance to beach-nail and paint (about 1' up).

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

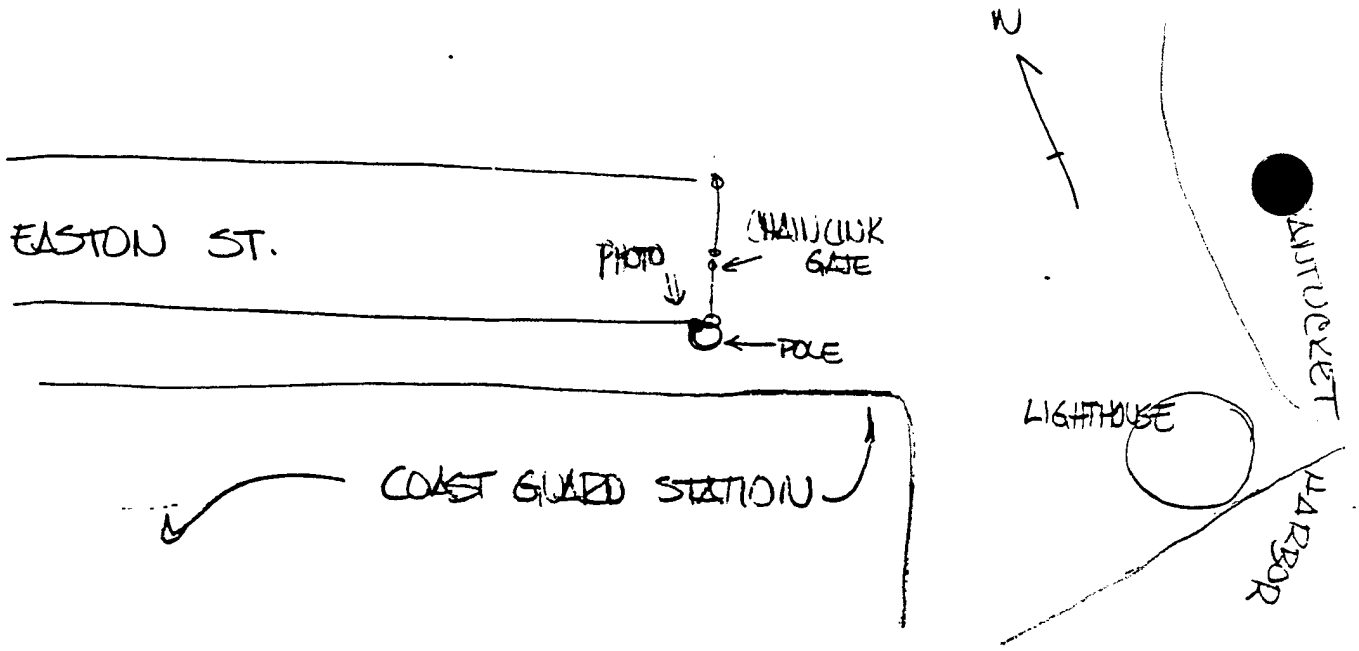
Fair reliability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78


EASTON ST.
PHOTO
CHAINLINK GATE
POLE
COAST GUARD STATION
N
NANTUCKET
LIGHTHOUSE
HARBOR

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		9
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Intersection of Easton and Hulbert in rotary-

Pole #22. Paint and nail about 2½' up.

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Excellent reliability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)
(Elevation of high watermark above water surface)		(Date & Hour)	(Class. of watermark)
(Elevation determined by)		(Date)	(Order of levels)
(Nearest dam upstream or downstream)		(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78

9

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		10
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Street sign post at intersection of Walsh St. and East Lincoln Avenue. Nail in sign post (about 4' up)

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

Caretaker pointed out debris lines.
(Name and address of person pointing out high watermark)

Debris line	6:00 PM Wed. 30 November 1991
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Good reliability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

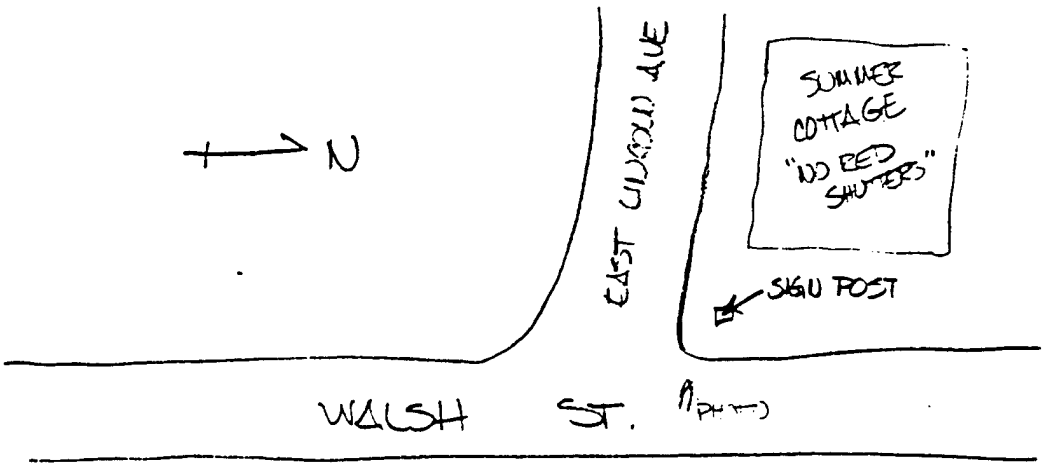
(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78


N
EAST CLINTON AVE
SUMMER COTTAGE "RED SHUTTERS"
SIGN POST
WALSH ST.
PHOTO

10

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		11
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: North Beach Street at Stuarts way-pole # 144 1A - nail and paint in pole about 2' up.

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

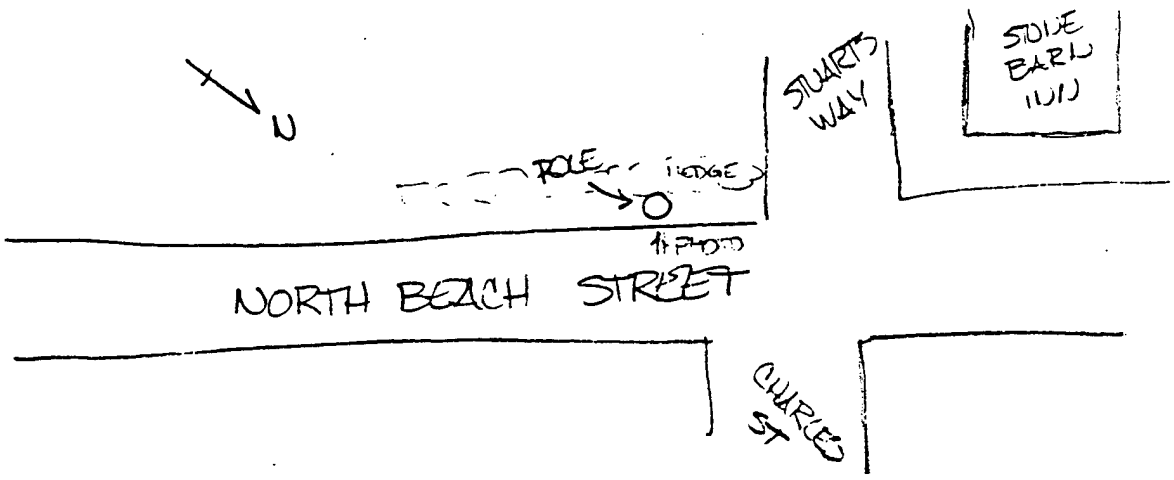
Fair realiability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78


N
POLE
HEDGE
STUARTS WAY
SURF BARS INN
NORTH BEACH STREET
CHURCH ST

11

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		12
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: South Beach Street-pole #8-nail and paint mark up 3±'.

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

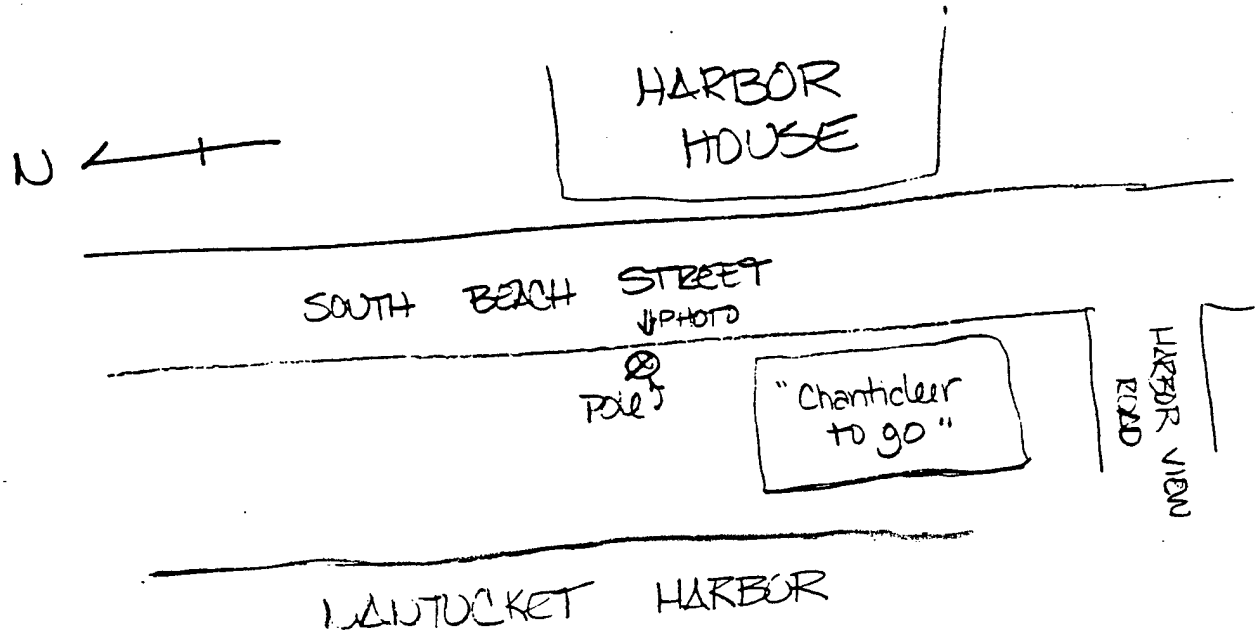
Good reliability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78


N
HARBOR HOUSE
SOUTH BEACH STREET
PHOTO
POLE
"Chanticleer to go"
HARBOR VIEW ROAD
NANTUCKET HARBOR

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		B
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: USCGS Bench mark #23 - 1934 - Chief Day indicated water just reached the station, the elevation as the survey disk.

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

Deputy Chief Day - Nantucket Police
(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

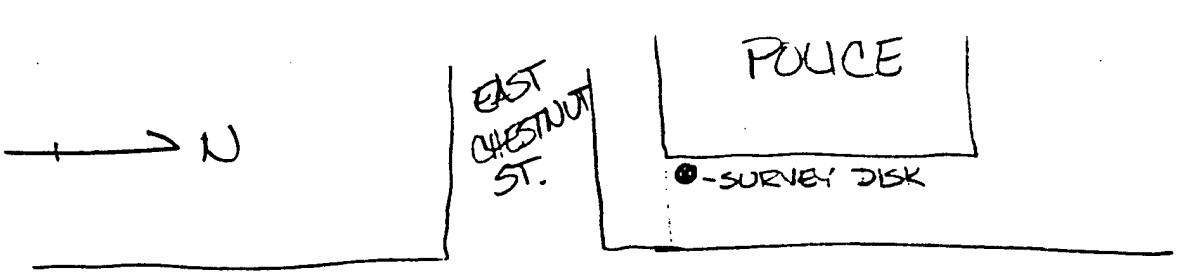
Fair reliability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78



SOUTH WATER ST.

NANTUCKET HARBOR

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		14
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Washington at Commercial Wharf-nail about 18"up in No Parking sign at corner near the Nantucket Power Plant.

6 November 1991 (Date obtained) — S. Acone and G. Hanlon (Obtained by)

(Name and address of person pointing out high watermark)

Debris line (If not pointed out, how obtained?) — (Date and hour of high watermark)

(Elev. of high watermark) (Datum) — (Benchmark referred to) (Datum)

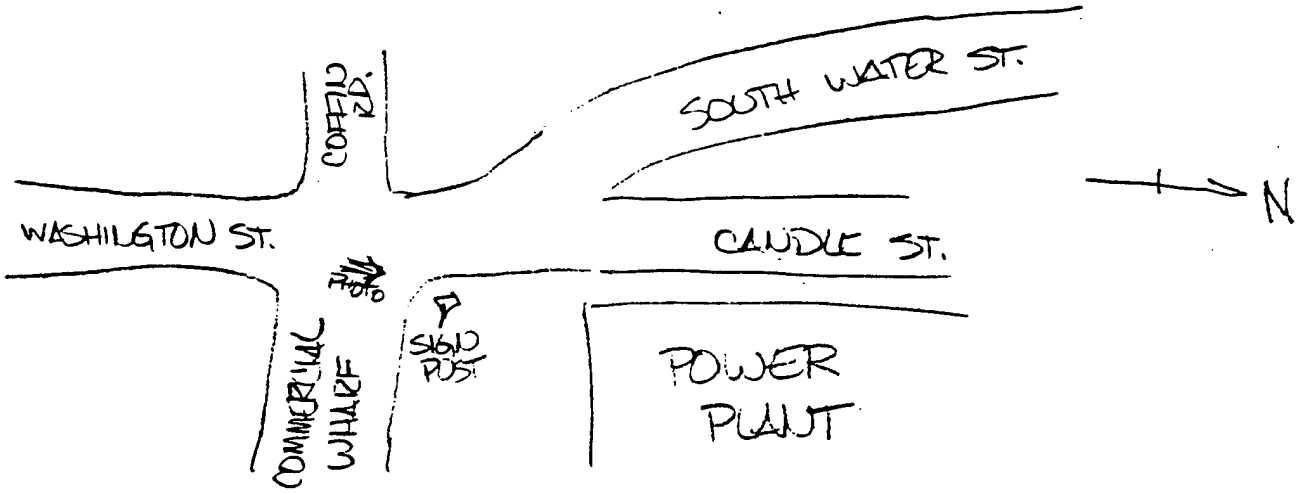
(Elevation of high watermark above water surface) — (Date & Hour) — (Class. of watermark)

(Elevation determined by) — (Date) — (Order of levels)

(Nearest dam upstream or downstream) — (Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78


COFFIN RD.
SOUTH WATER ST.
N
WASHINGTON ST.
CANDLE ST.
SIGN POST
COMMERCIAL WHARF
POWER PLANT

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		15
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Intersection of Washington Street and Francis Street Pole #16S-nail and paint on pole about 3½ft. up.

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

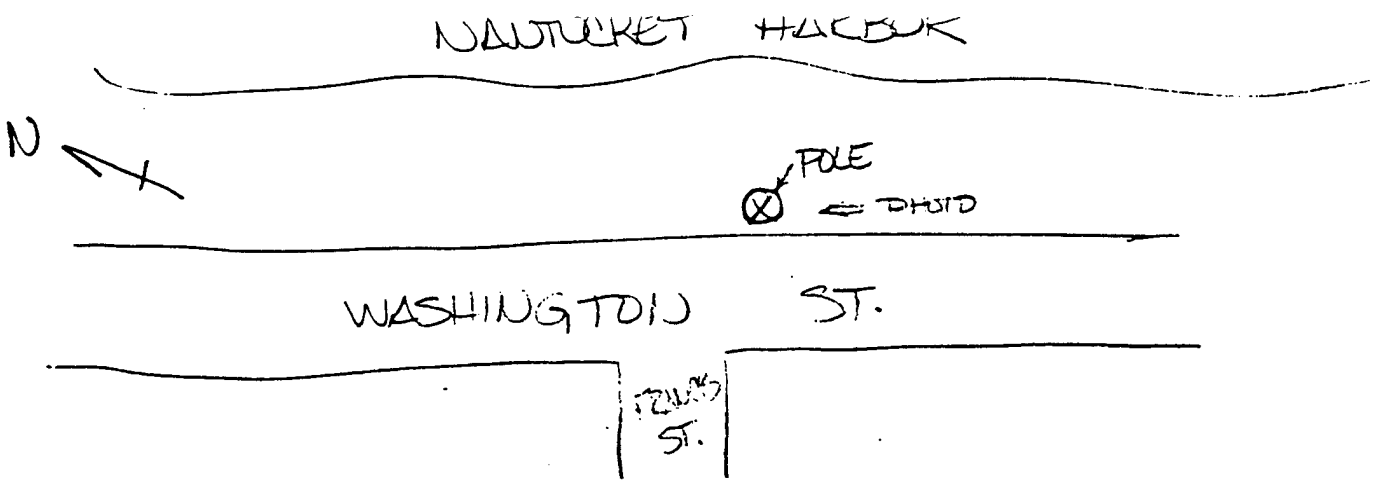
(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78


NANTUCKET HARBOR
N
POLE
DHOD
WASHINGTON ST.
FRANKS ST.

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		16
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Washington Street extension-pole # 19-nail and paint (about 2'up).

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

Drew Deeley-Island Marine Service
(Name and address of person pointing out high watermark)

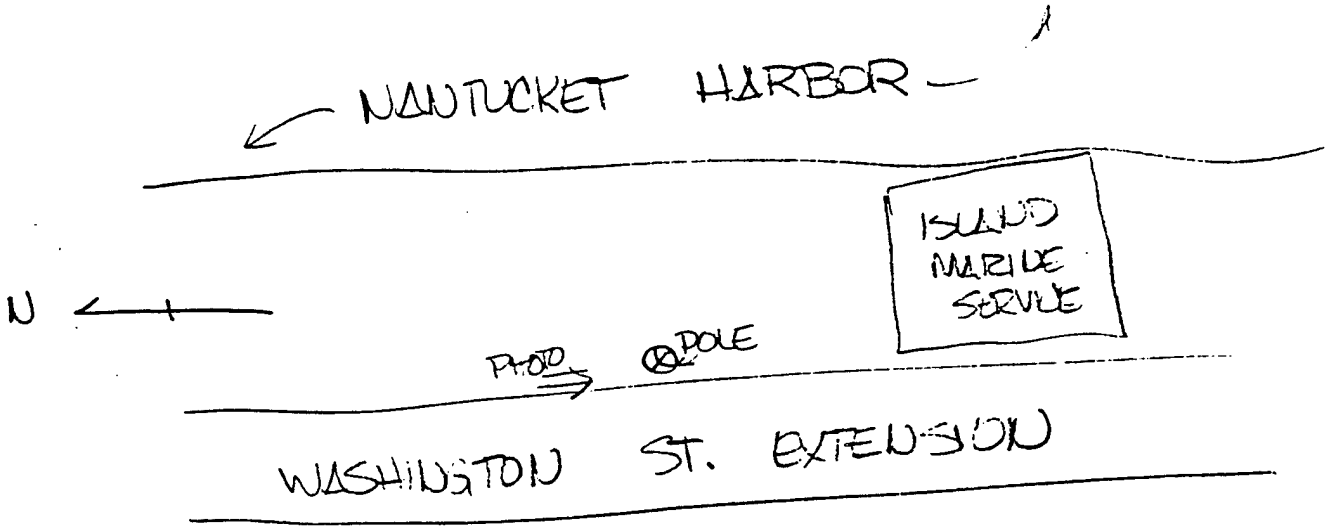
	6:00 pm-Wednesday November 30 1991
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78


NANTUCKET HARBOR
ISLAND MARINE SERVICE
N
PROP
POLE
WASHINGTON ST. EXTENSION

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		17
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Wauwinet, Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Wauwinet Road-pole 18-paint and nail at ground level

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

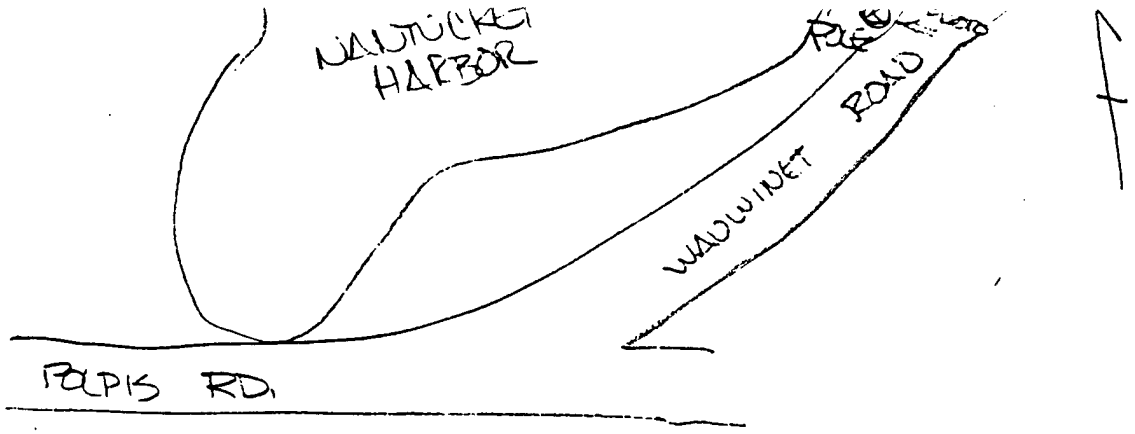
Debris line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78


NANTUCKET HARBOR
POLPIS RD.

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		18
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Shawkemo, Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Polpis Road - pole #69 - paint and nail approximately 2' up.

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris in brush	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

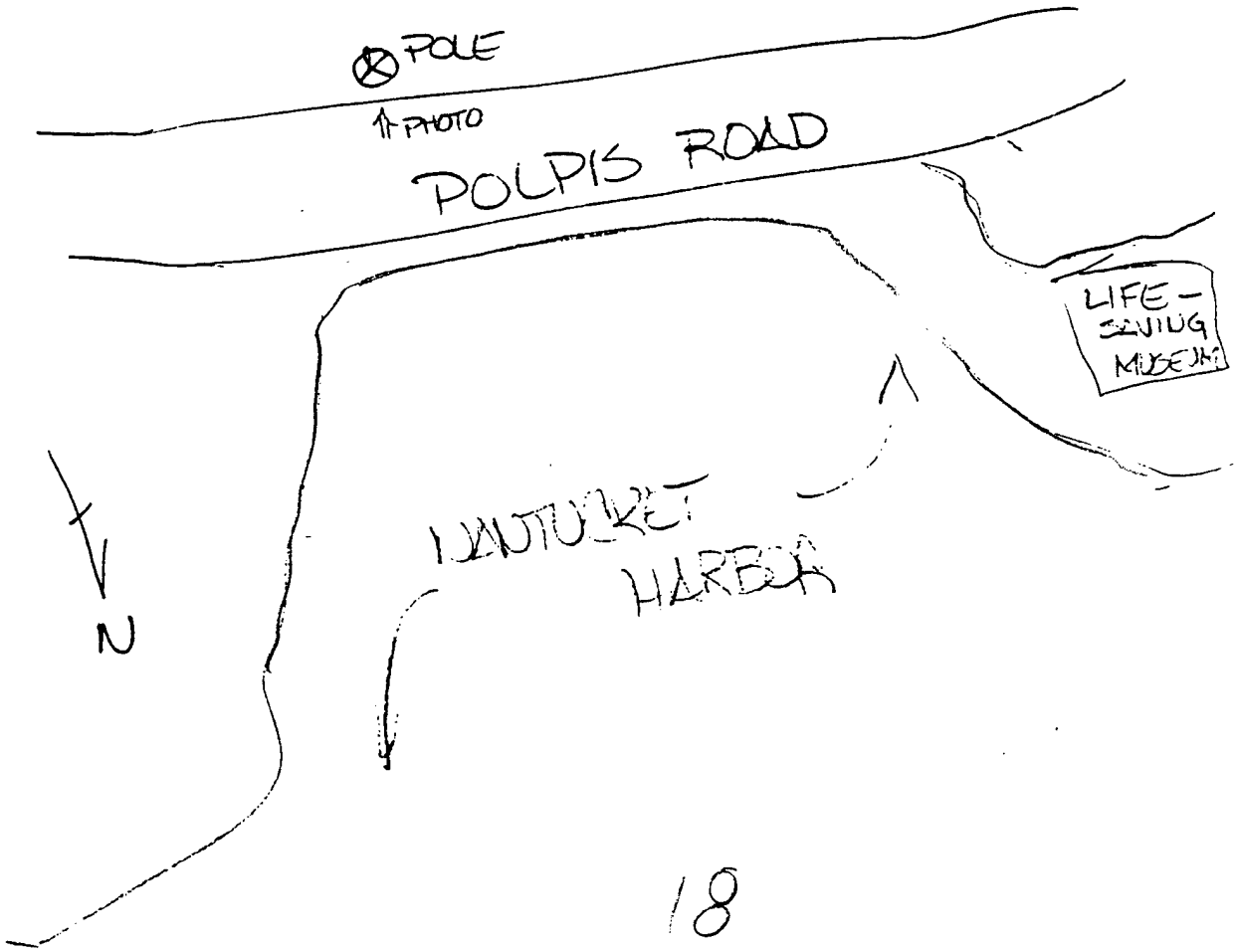
Fair reliability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78


POLE
PHOTO
POLPIS ROAD
LIFE-SAVING MUSEUM
N
HARBOR

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Nantucket Harbor		19
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Atlantic Ocean	Squam, Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Pond was flooded when Barrier Beach was overtopped. Squam Road - unmarked pole at Squam Pond just past home "whales End" - nail at base of pole near telephone box #25.

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

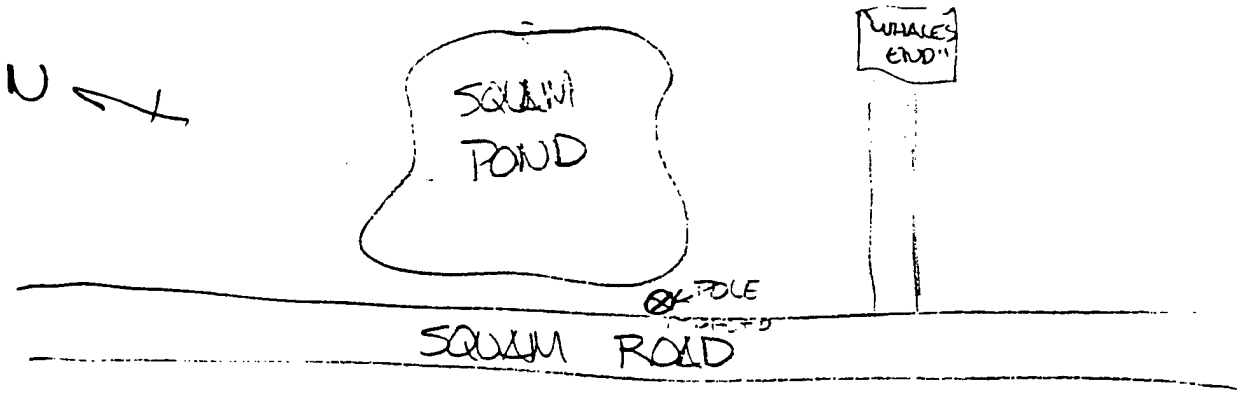
Low reliability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78


WHALES END
SQUAM POND
POLE
SQUAM ROAD

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Sesachacha Pond		20
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
Atlantic Ocean	Quidnet, Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Pond was flooded when Barrier Beach was over-topped. Quidnet Road - pole #8 - nail and paint and stake at ground elevation.

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

Low reliability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

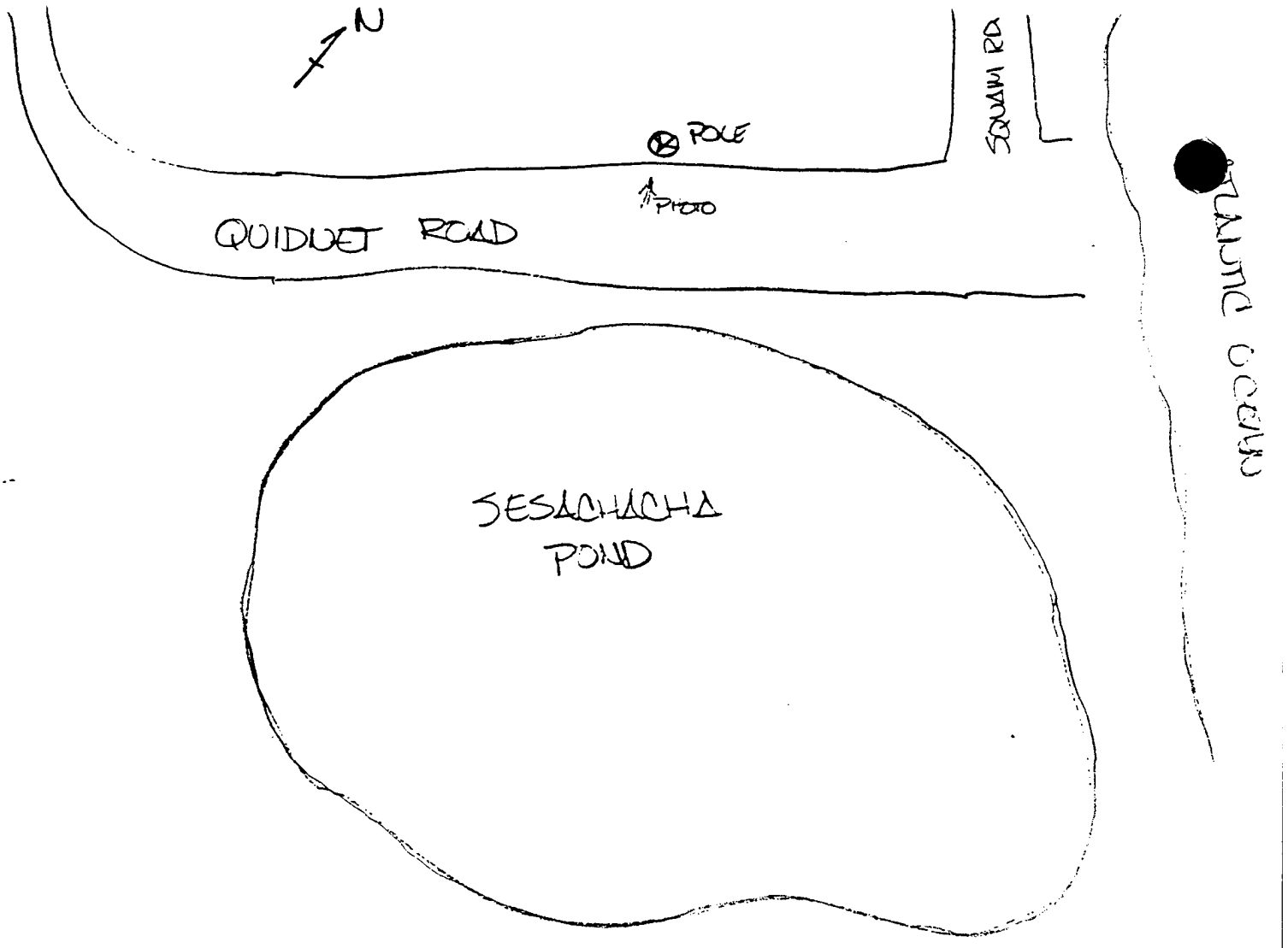
(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)

(Elevation determined by)	(Date)	(Order of levels)

(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)

Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

NED FORM 203
1 APR 78


N
POLE
PHOTO
QUIDUET ROAD
SQUAW RD
ATLANTIC OCEAN
SESACHACHA
POND

DEPARTMENT OF THE ARMY
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

HIGH WATERMARK - OCTOBER 1991 NORTHEASTER

Atlantic Ocean		21
(Name of River, Bay or Harbor)	(Miles from Mouth)	(Watermark No.)
	Siaconset, Nantucket	MA
(Tributary of)	(City or Town)	(State)

Description of high watermark: Codfish Park Road - pole #7- paint and nail (about 6" up).

6 November 1991	S. Acone and G. Hanlon
(Date obtained)	(Obtained by)

(Name and address of person pointing out high watermark)

Debris line	
(If not pointed out, how obtained?)	(Date and hour of high watermark)

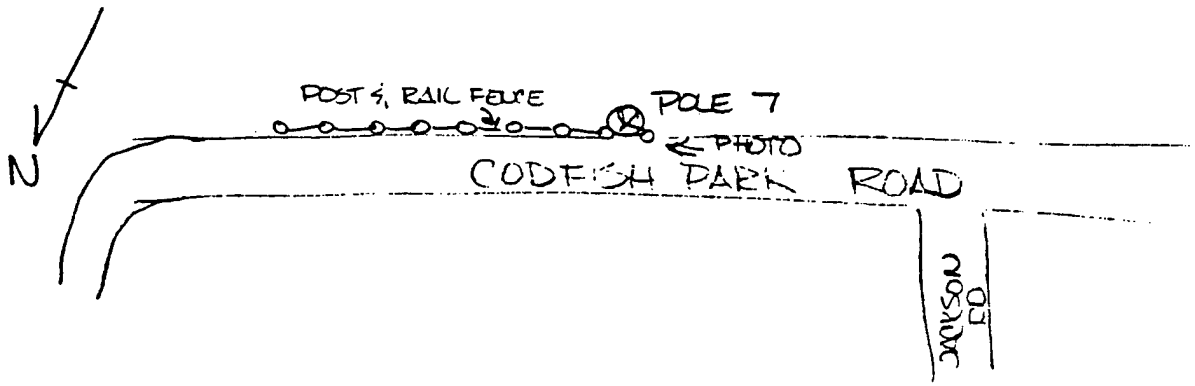
Medium reliability

(Elev. of high watermark)	(Datum)	(Benchmark referred to)	(Datum)

(Elevation of high watermark above water surface)	(Date & Hour)	(Class. of watermark)
(Elevation determined by)	(Date)	(Order of levels)
(Nearest dam upstream or downstream)	(Latitude and longitude of watermark)	

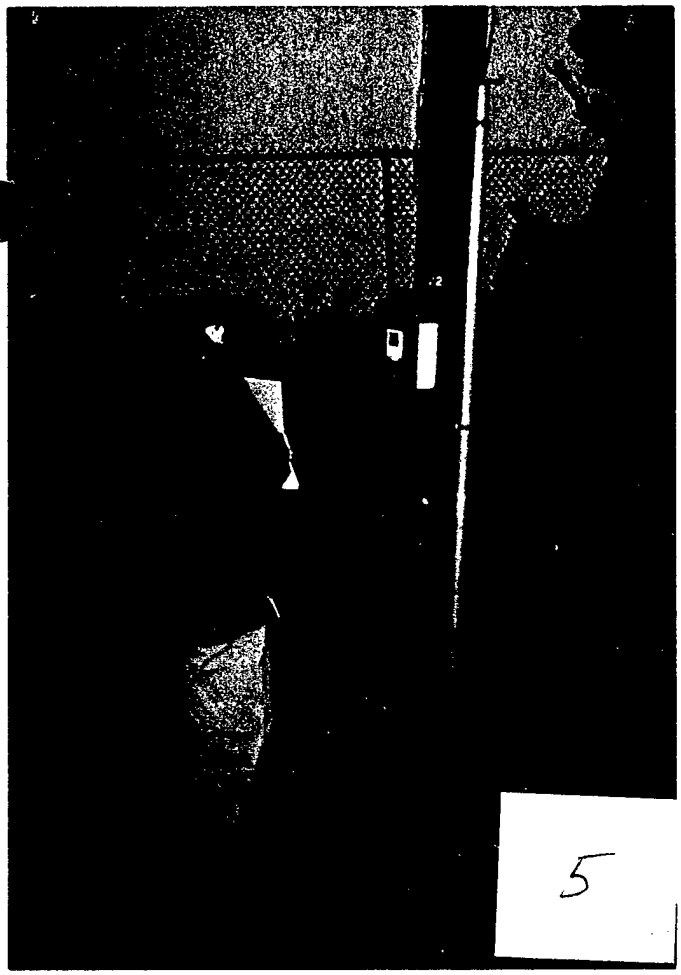
Remarks - (Failure of dams upstream, elevation and time of other points on hydrograph, factors that might affect high watermark, elevation of previous flood heights at same point, etc.)

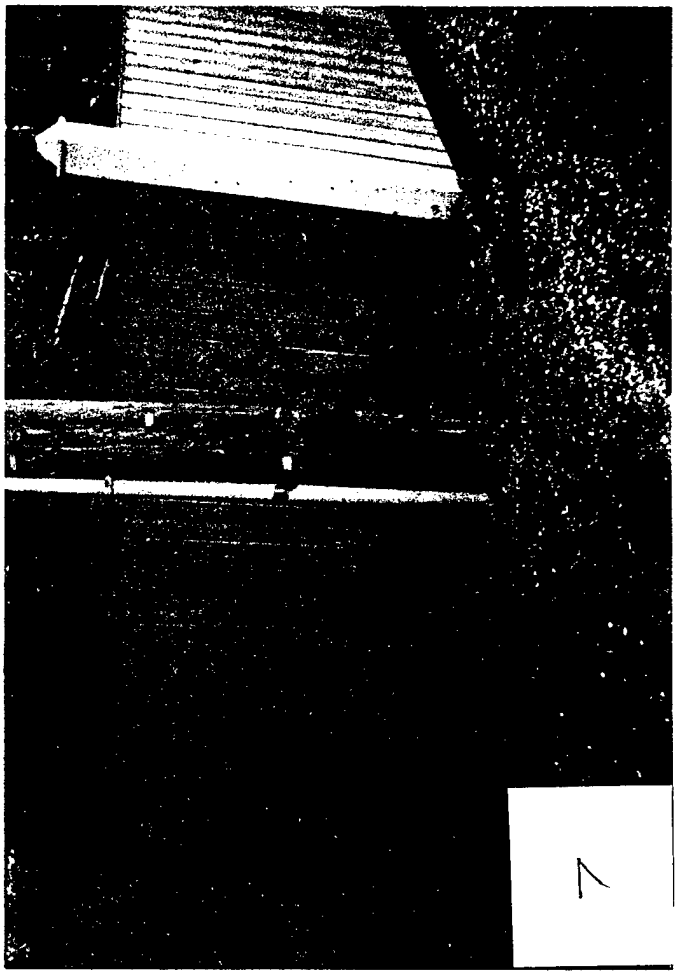
NED FORM 203
1 APR 78

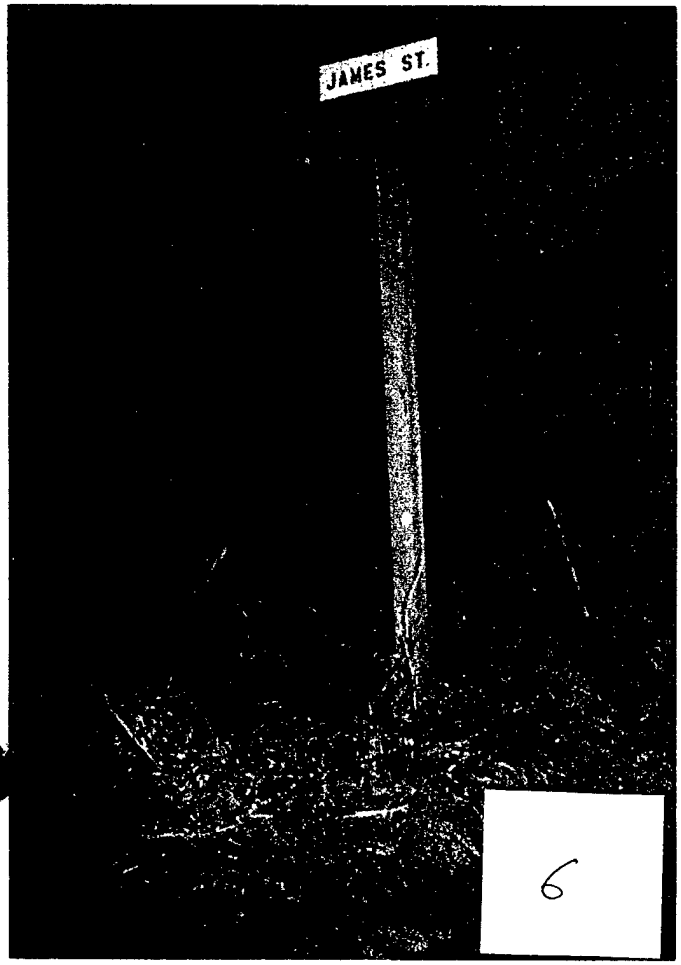


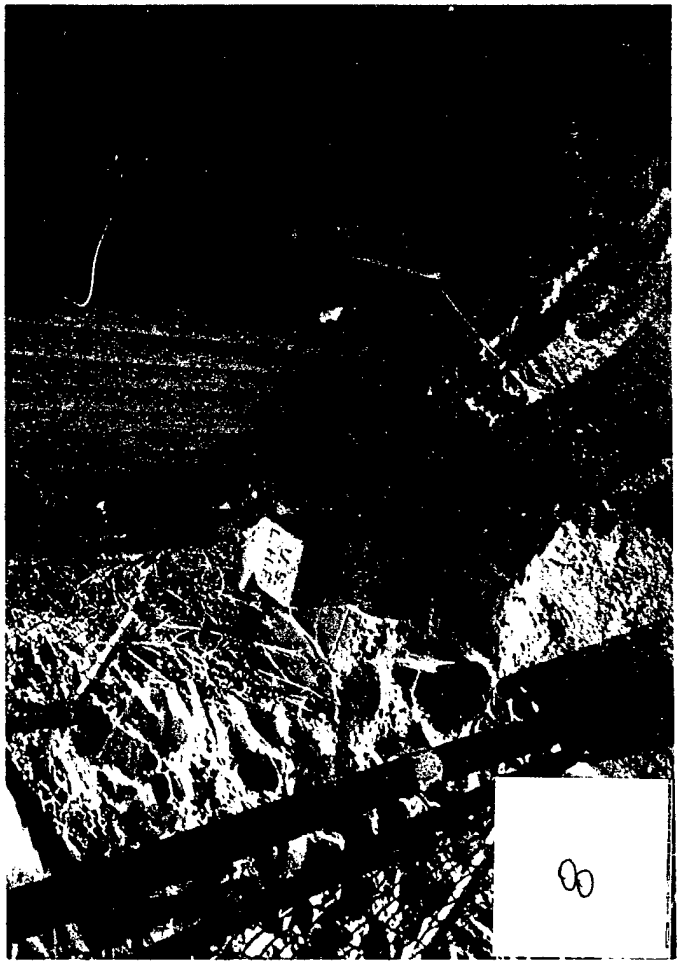
21

HIGH WATER MARK #1
1
2
3
4

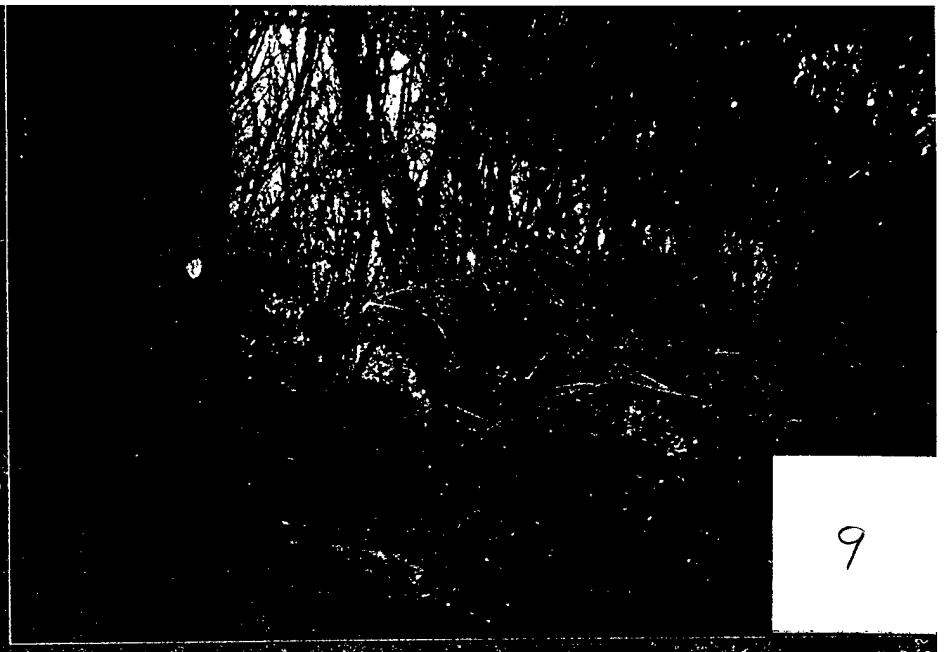

5

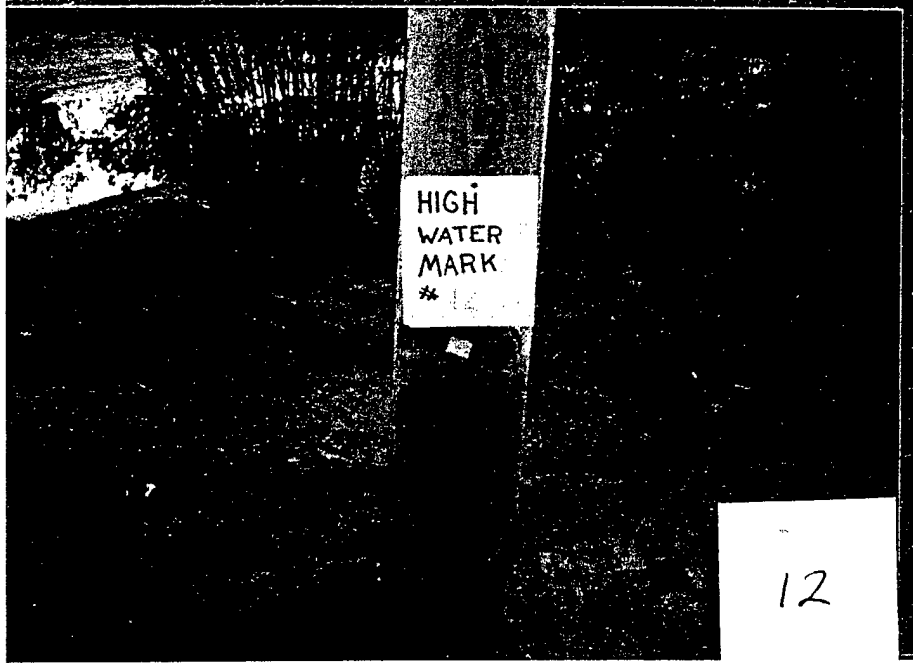

7


JAMES ST.
6

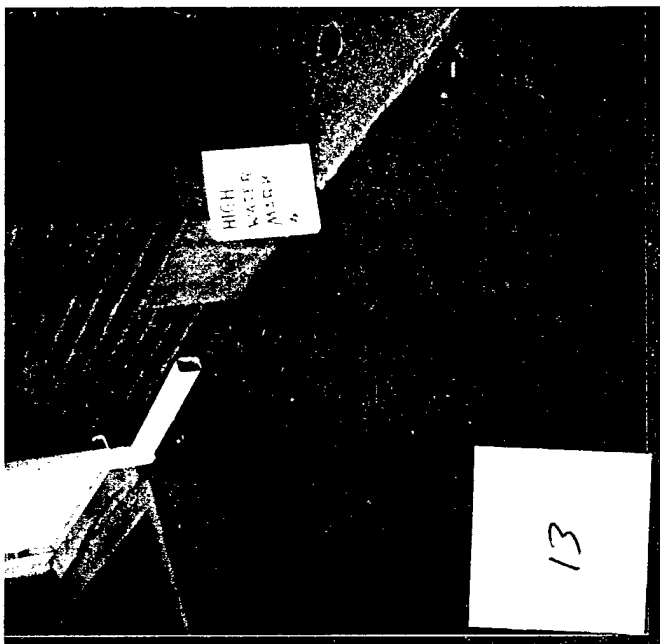

8

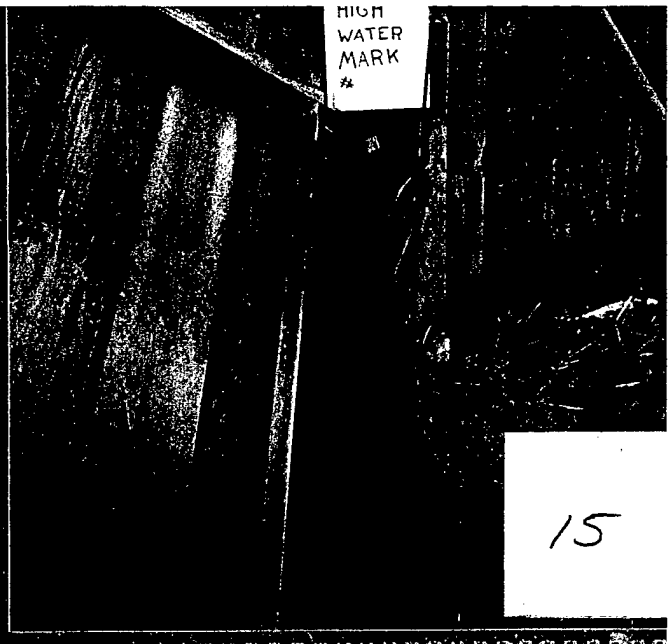

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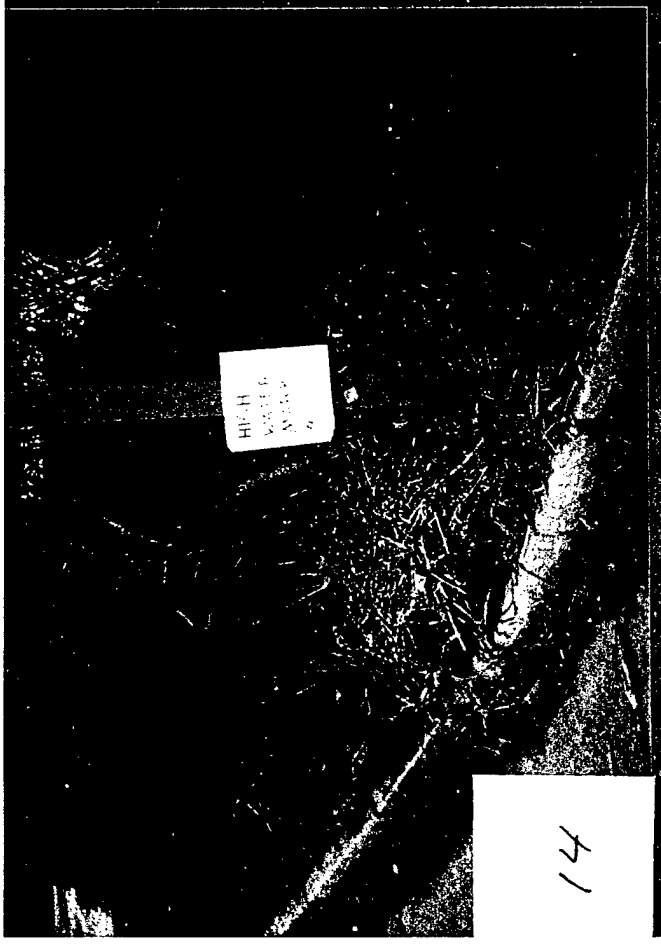

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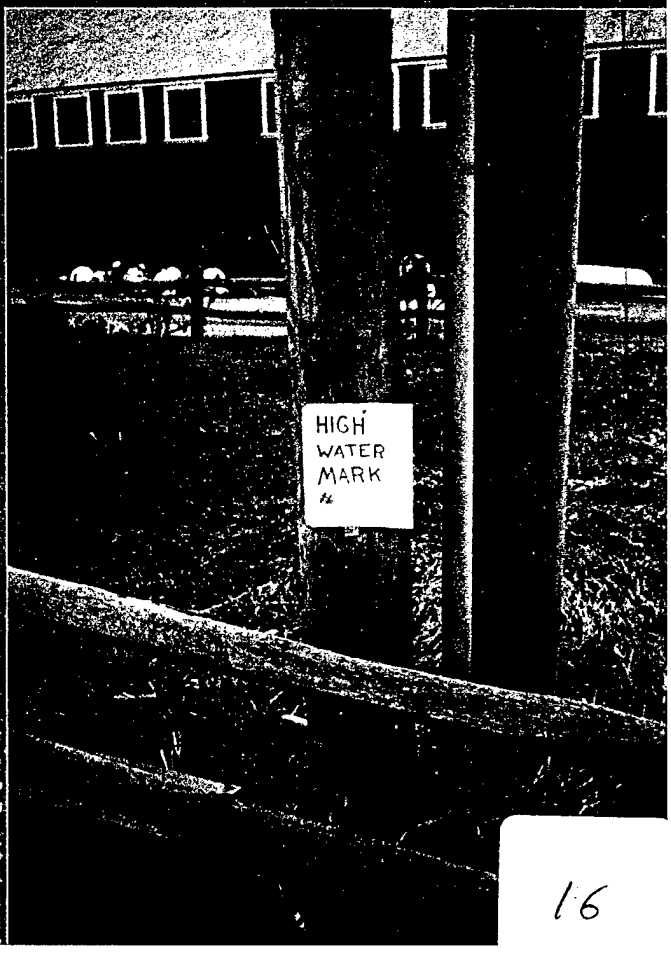

HIGH
WATER
MARK
*
12


HIGH
WATER
MARK
*
11


HIGH WATER MARK
13


HIGH WATER MARK
15


HIGH WATER MARK
14

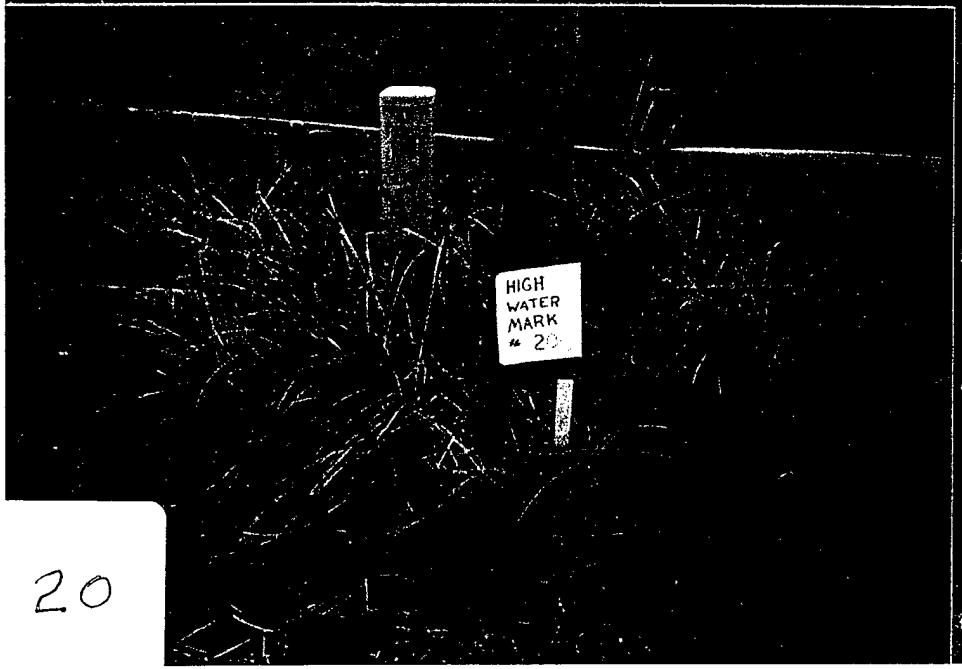

HIGH WATER MARK
16



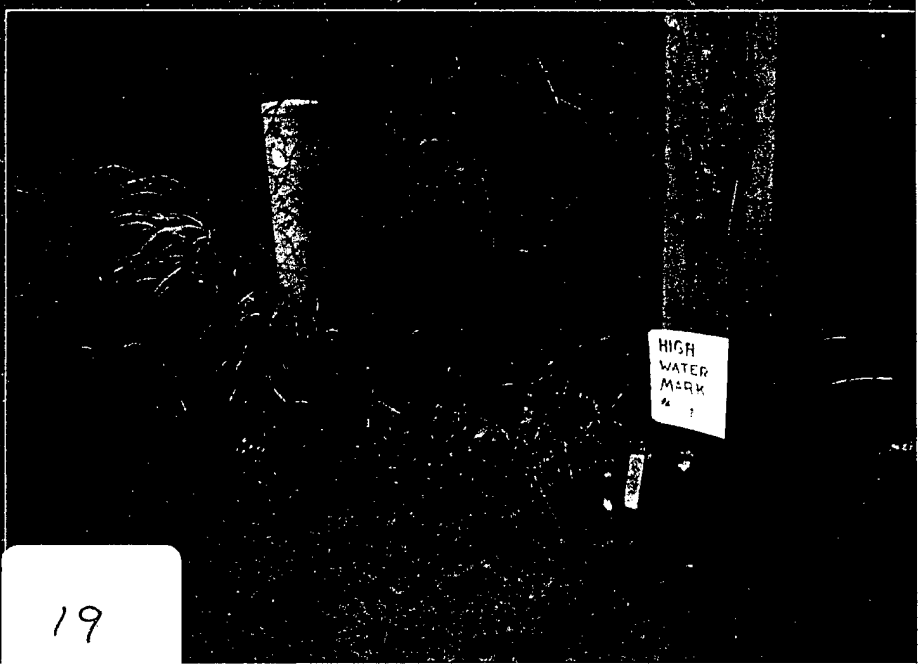
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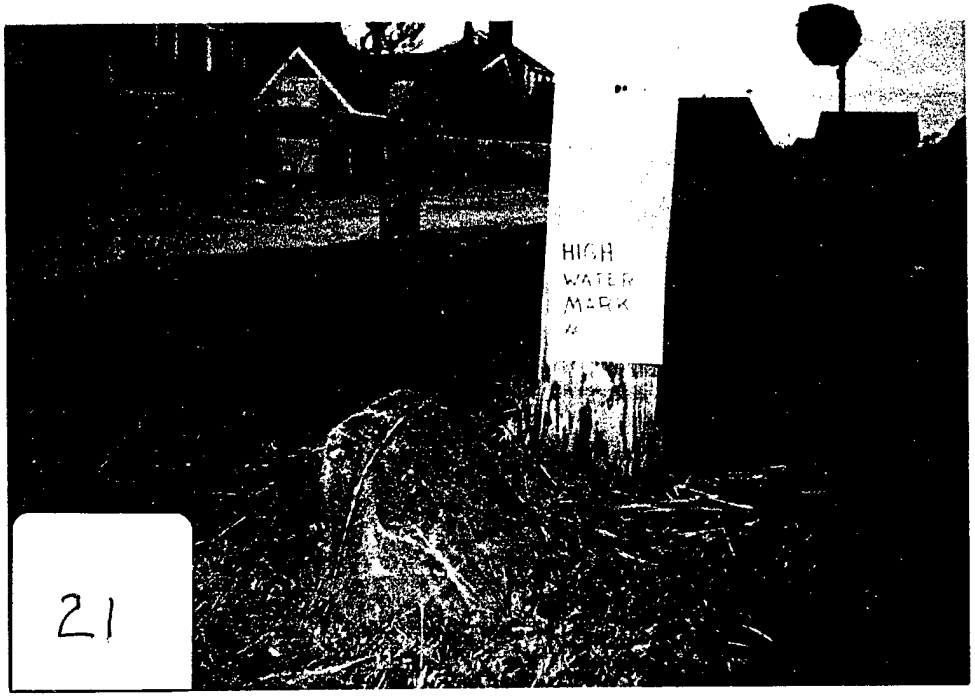
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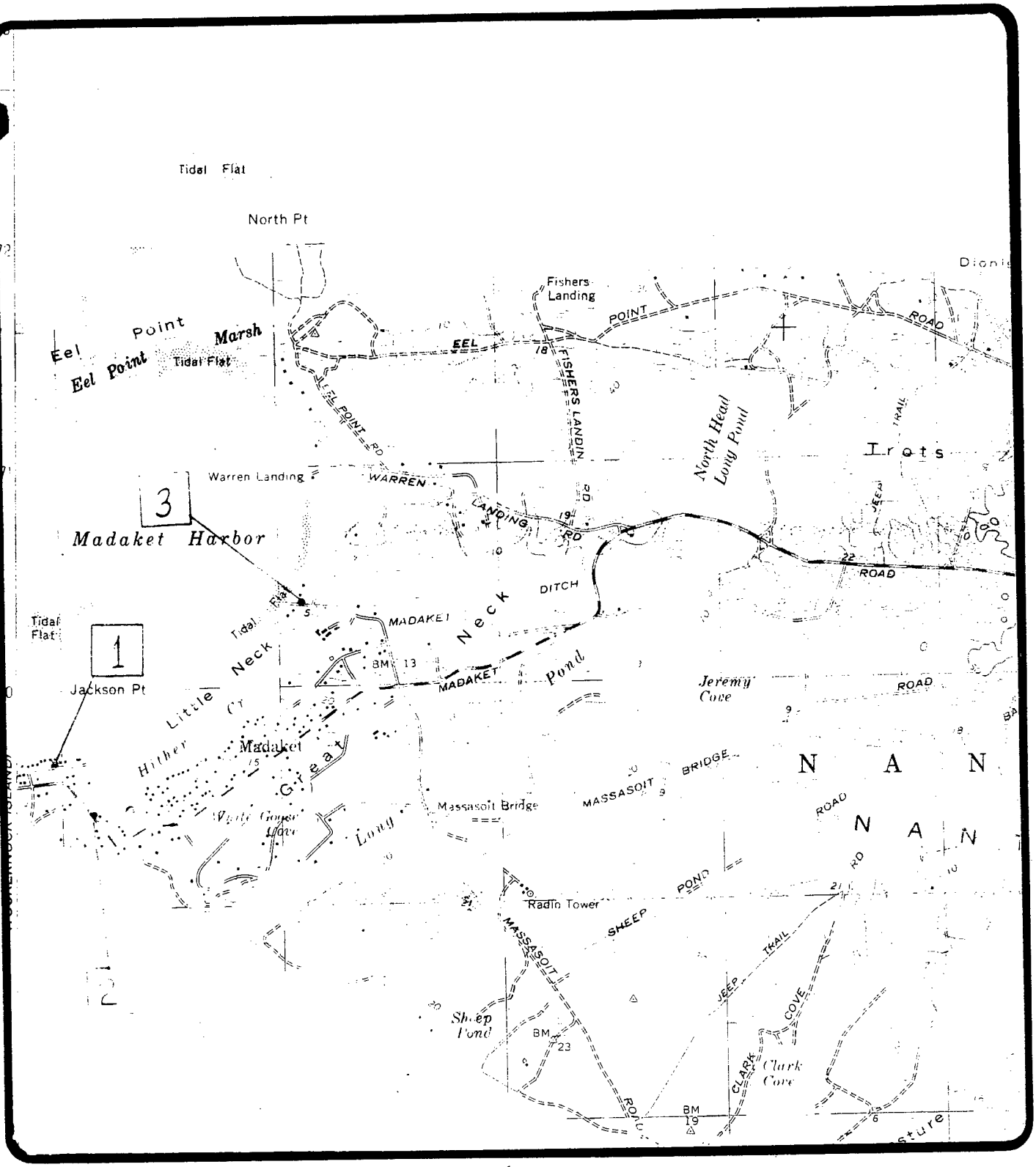


20



19


HIGH
WATER
MARK
21



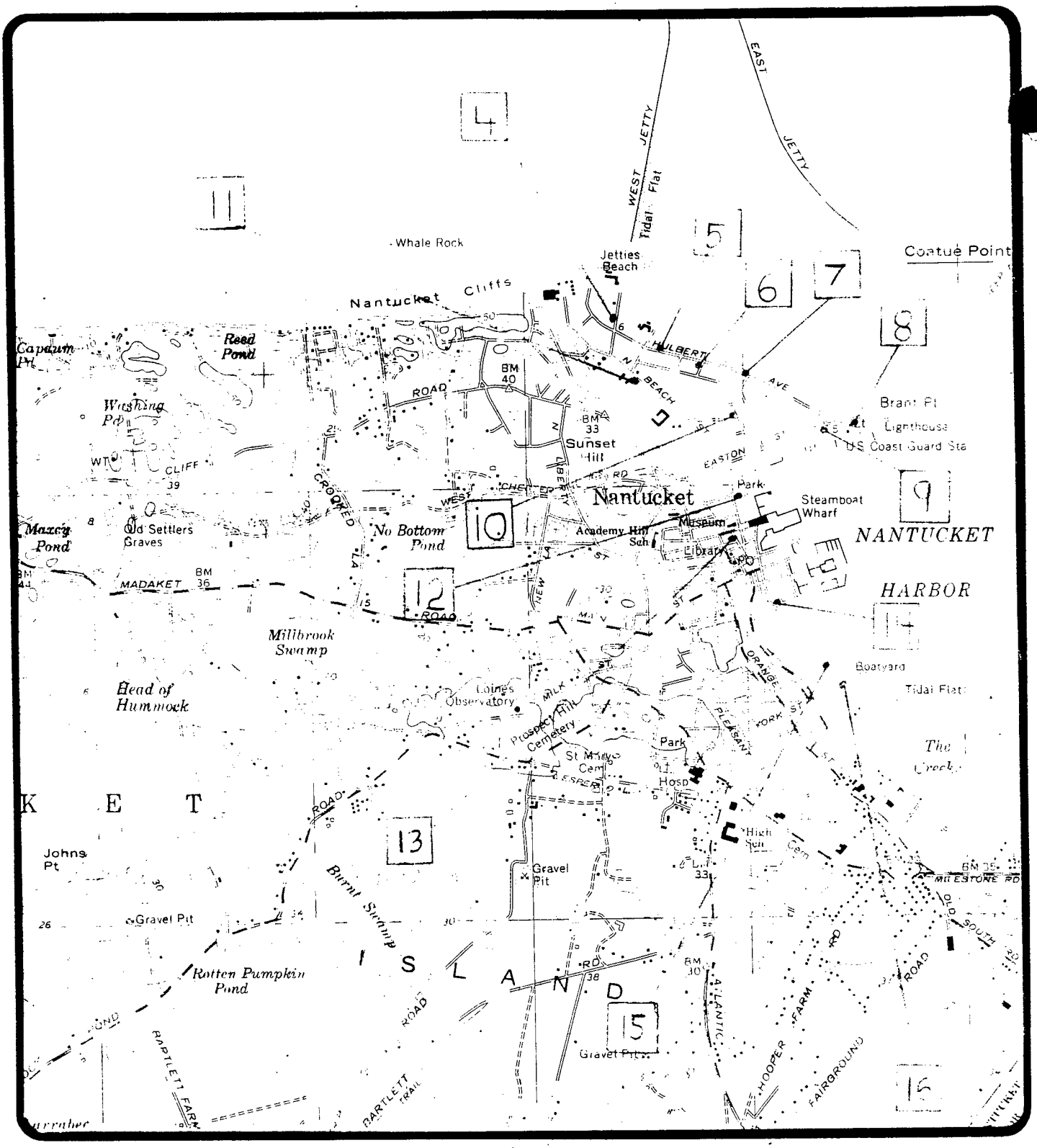
High Water Mark Location Map
Halloween Storm, October, 1991

USGS 7.5 Minute Quadrangle - Nantucket, MA.

☐ - 1991 ○ - 1978

New England Division

US Army Corps of Engineers



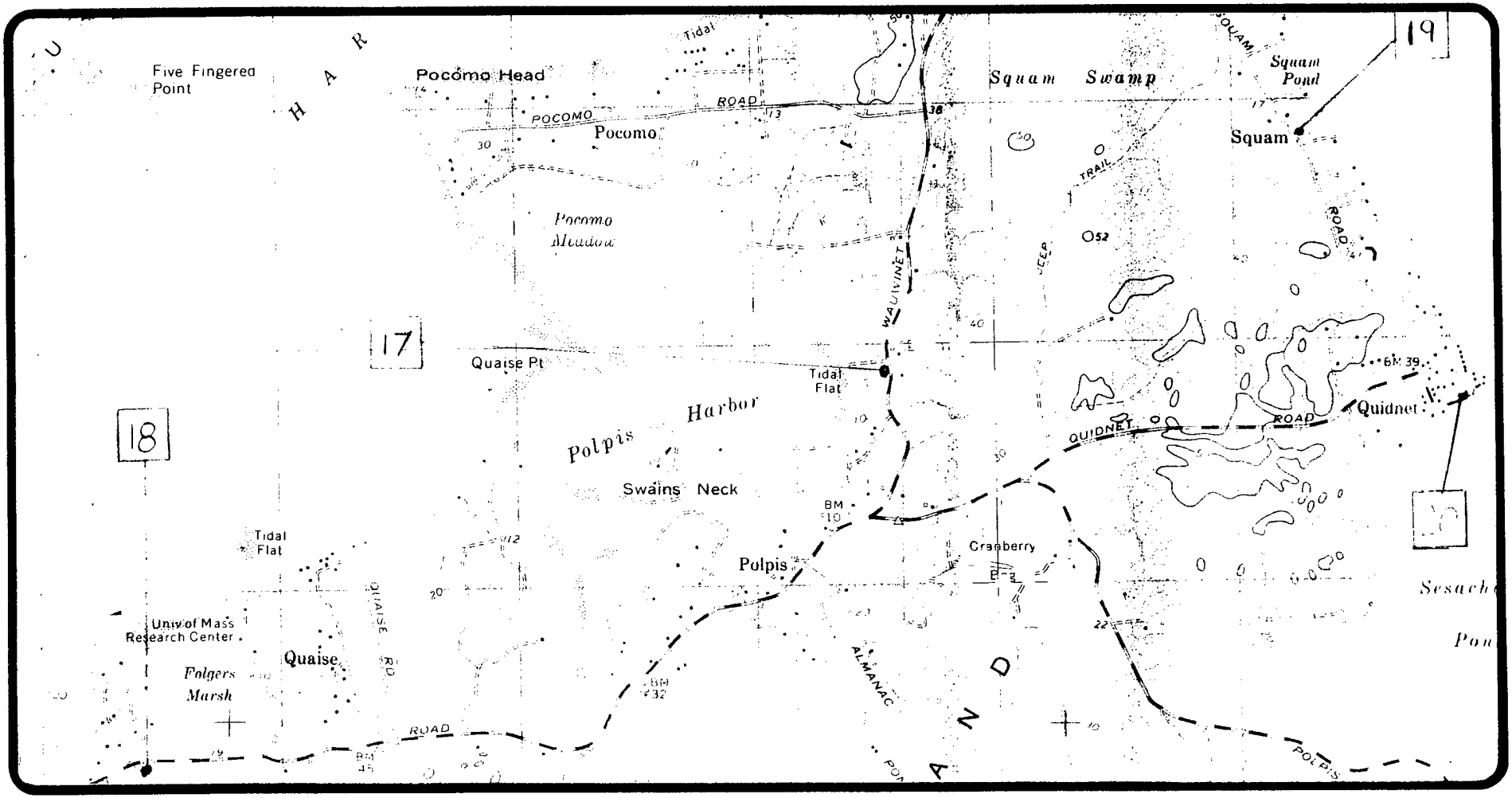
High Water Mark Location Map
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USGS 7.5 Minute Quadrangle - Nantucket, MA.

□ - 1991 ○ - 1978

New England Division

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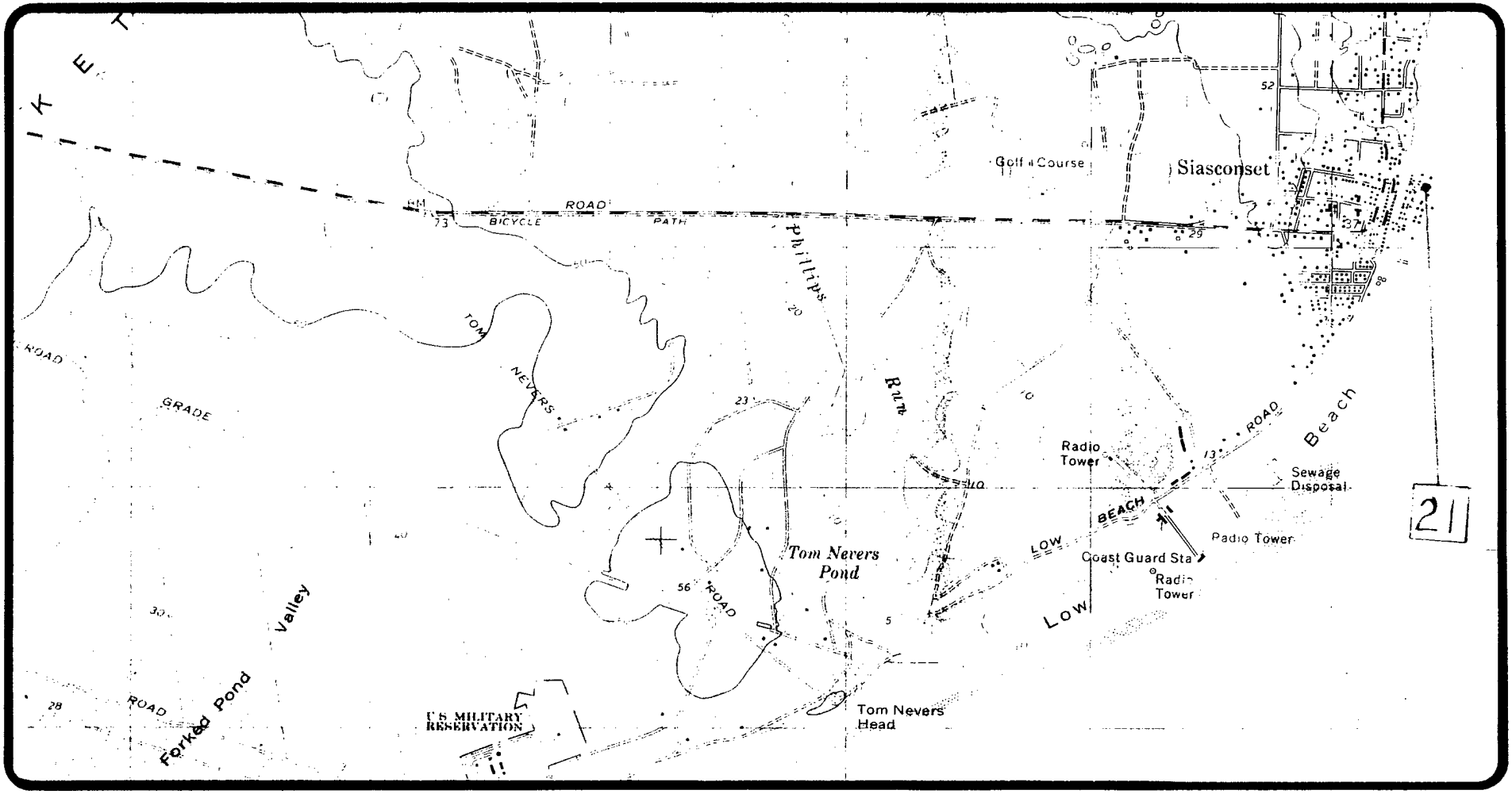


High Water Mark Location Map
Halloween Storm, October, 1991

□ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - **Siasconset, MA.**

US Army Corps of Engineers
New England Division



High Water Mark Location Map
Halloween Storm, October, 1991

□ - 1991 ○ - 1978

USGS 7.5 Minute Quadrangle - Siasconset, MA.

US Army Corps of Engineers
New England Division