

MHD – Route 1

File No.: 199500378

City and State: Foxboro, MA

General Impacts: 1.5 acres forested wetland

Functions and Values Lost: (From EA/SOF)

Floodflow Alteration
Sediment Stabilization
Wildlife Habitat

Year(s) Mitigation Constructed: December 1998

Size and Type of Mitigation as Proposed: 2.05 acres scrub-shrub and other

Proposed Functions and Values of Mitigation: (From database)

Wildlife Habitat

Mitigation Special Condition(s):

6. With regard to the mitigation site designated as “Foxboro-Walpole Wetland Replication Area” and shown on Sheet 2 of 2 dated “July 1995”, permittee shall, within 60 days of the issuance of this permit, submit a revised grading and planting plan. The revisions shall be of such a nature as to minimize the potential for undesirable invasive vegetation species (e.g. phragmites, purple loosestrife) to colonize the mitigation site. Measures to be considered to achieve this objective are (but are not limited to): use of more deep marsh to encourage the growth of emergent vegetation; specific measures to identify and control invasive species during the period in which desired vegetation is becoming established, etc. The Corps will establish construction schedules and monitoring requirements concurrent with written approval of the revised replication plan. In the event that the local conservation commissions do not concur with the Foxboro-Walpole site replication plan as revised, the Corps will enter into discussions with the permittee to determine suitable alternate mitigation measures.

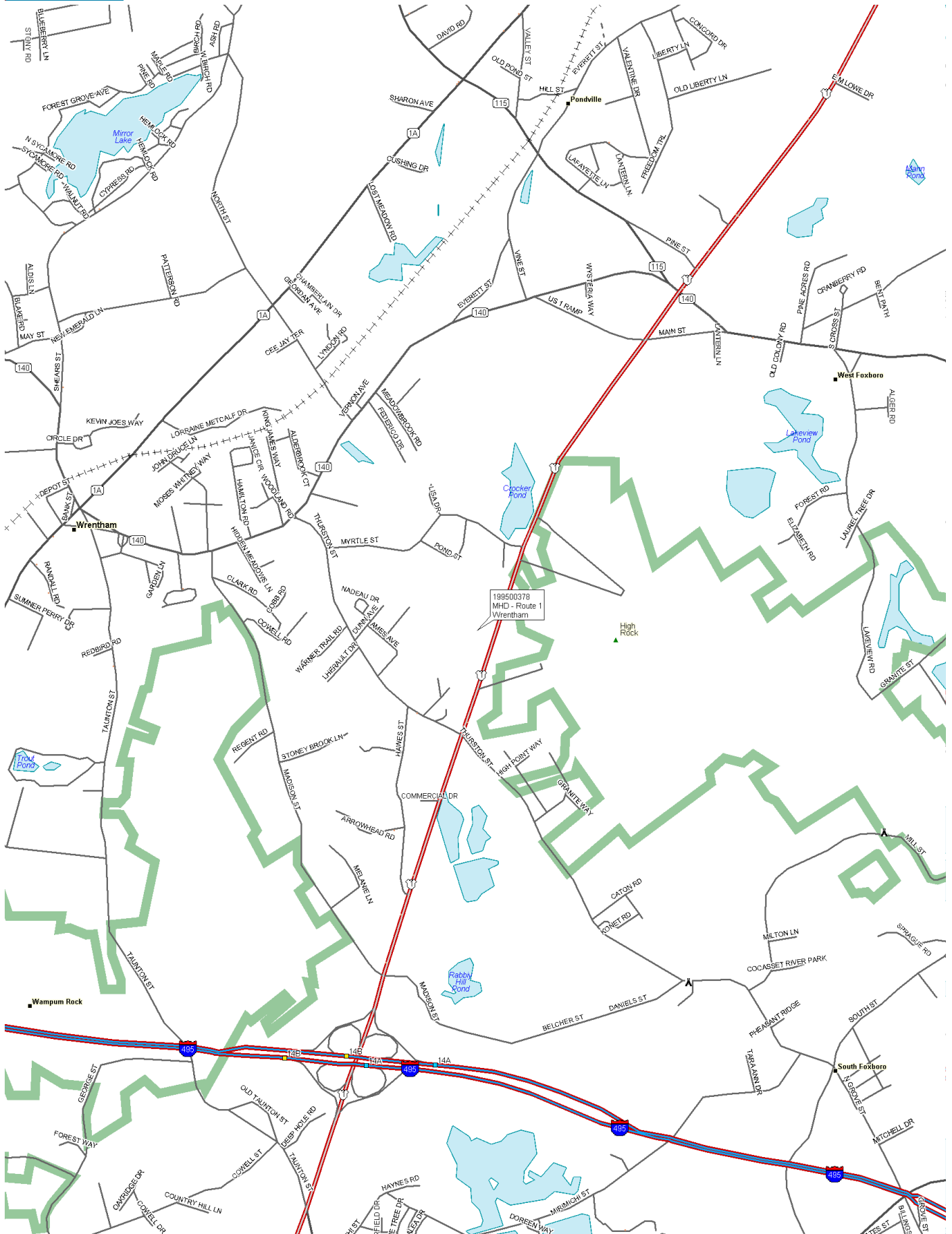
7. With regard to the mitigation site designated as “Wrentham Wetland Replication Area” and shown on sheet 1 of 2 dated “July 1995”, permittee shall install a minimum of 3 groundwater monitoring wells at the site and shall record groundwater elevation data for the period August-October 1995 and April-July 1996. Based on this data, permittee shall on or before August 31, 1996, submit a grading and planting plan for wetland replication at the site. The Corps will establish construction schedules and monitoring requirements concurrent with written approval of the replication plan.

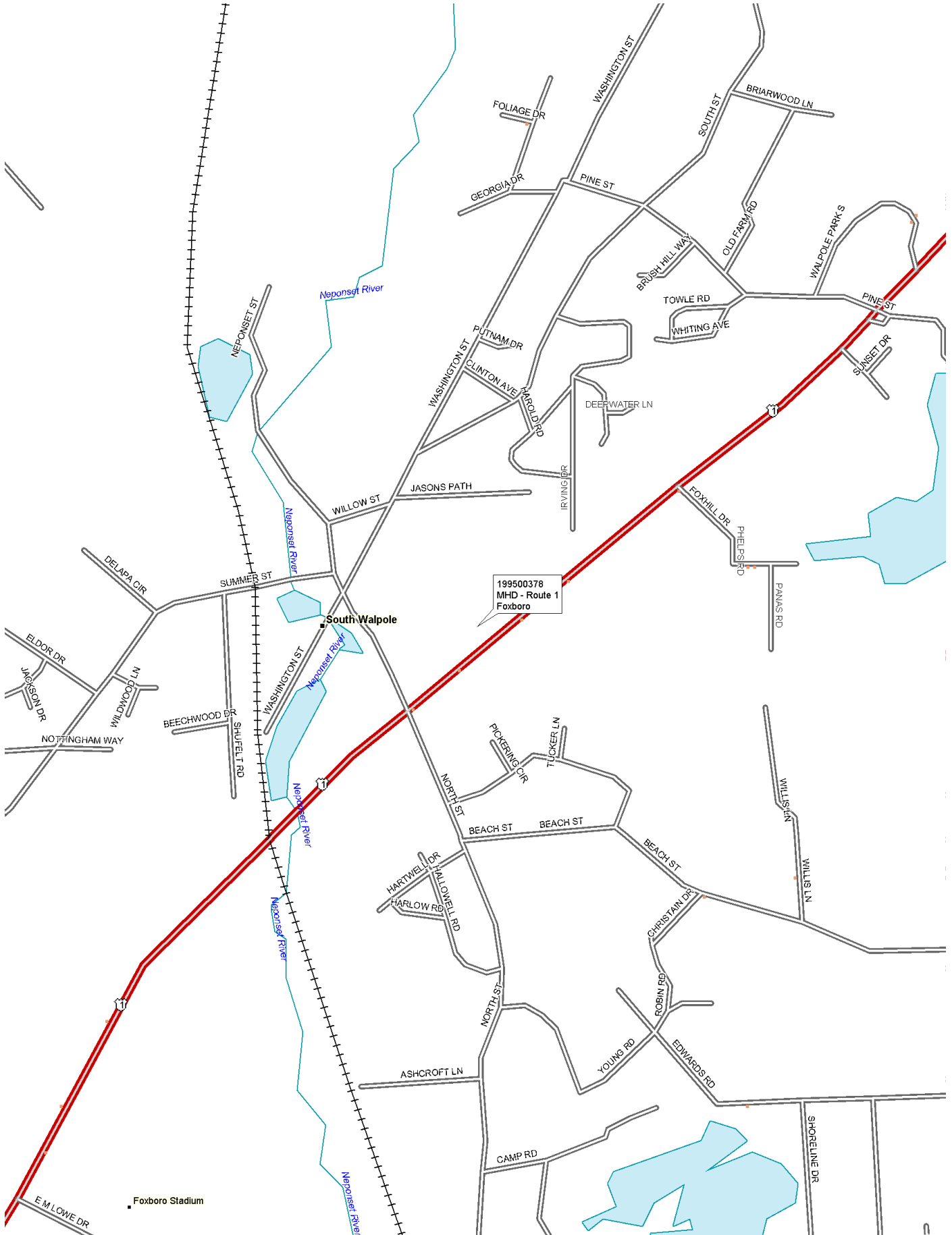
Remarks:

None

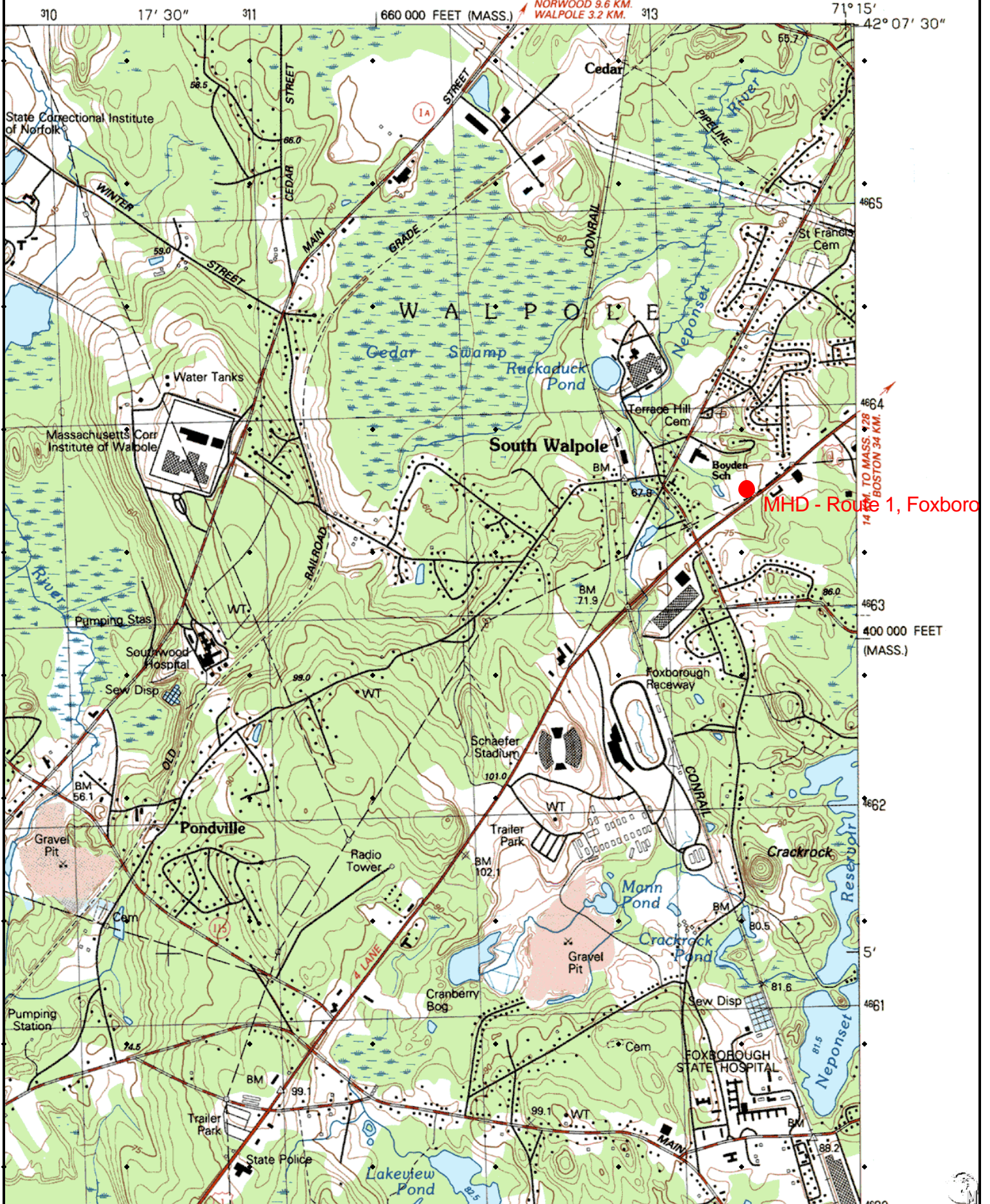
Directions:

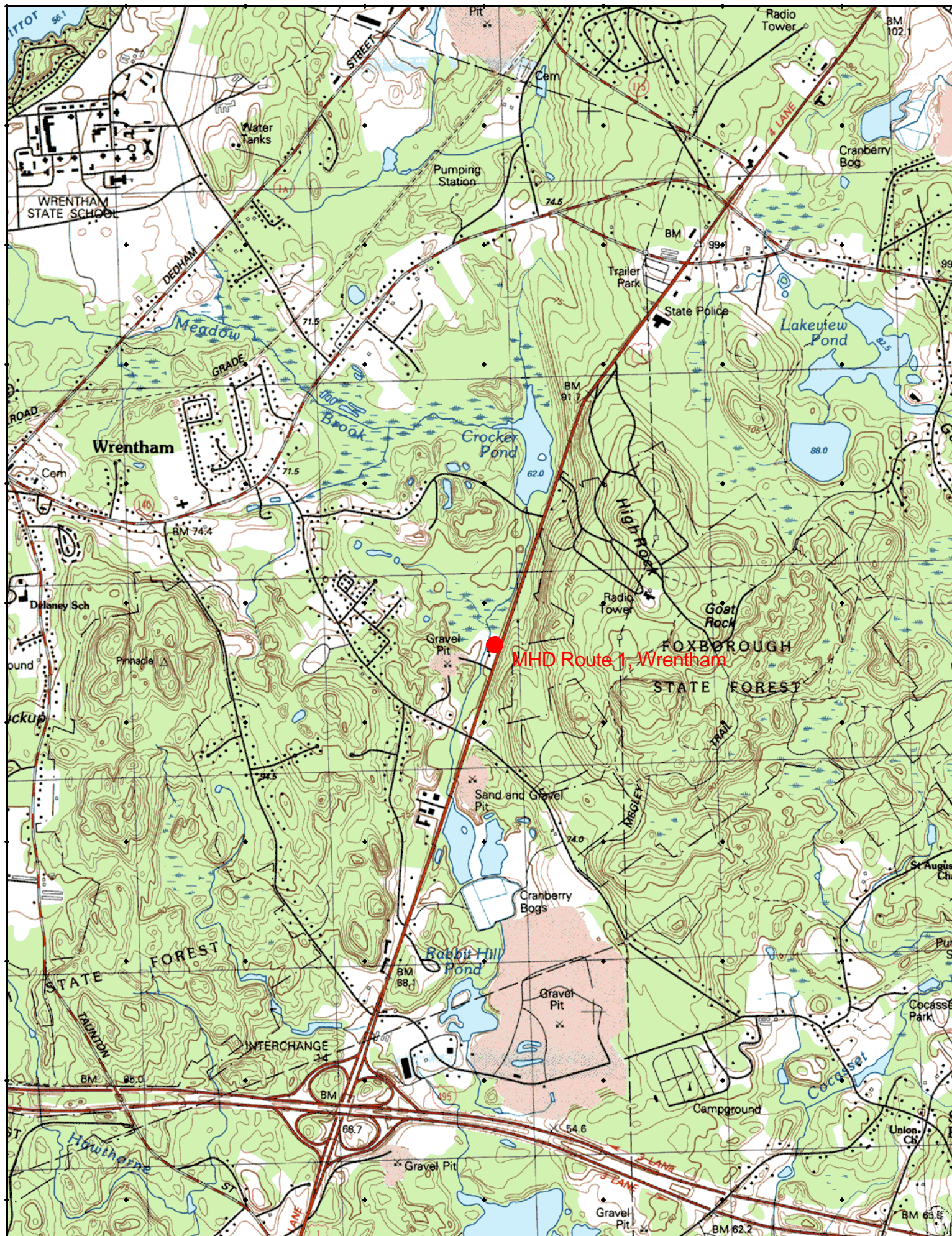
Take 128/95 south to exit 9, Route 1 south. Follow to the Foxboro town line. The site is on the right side at the line. Park just beyond at a small shopping plaza on Route 1 and North Street.





7.5 X 15 MINUTE SERIES (TOPOGRAPHIC)





MITIGATION SITE FIELD DATA FORM

Site Name: Mass Highway Dept., Route 1 - Foxboro Mitigation site File No. 199500378

City/Town: Foxboro State: MA Waterbody:

Monitor(s): K Wright, K McKee, R. Ladd Date: 7-10-02

Was site constructed? yes

Is site wetland? Pond mostly, some fringe wetland

Size of proposed wetland: 0.82 acre

Actual size of wetland: 5-10' fringe
around pond that size

Landscape position: depression with inlet near
natural wetland. The Neponset River is south.

Lat/Long Points: N 42.93735 W 71.52483

Saved GPS Waypoint name: MHD

Perimeter: TBD

Surrounding land use:
Highway, commercial, wetland, upland

Is wetland function compromised by
surrounding land use?
Yes by runoff from very busy Route 1.

Plant health:
Good but some alders have half dead or chewed
leaves. Many alders 8-10 feet tall. Red maples
stressed – have red leaves.

Invasive species:
Phragmites – very narrow border around pond.
Loosestrife in wetland but significant shrubs
shading them out. In the sun some are very
large! One knotweed upslope – may spread.

Wildlife use:
Saw deer beds, 3-4; small animal trail adjacent to
pond 7' up. Swallows over pond. Scat with
berries.

Plants:

Acer rubrum (red maple)
Alnus rugosa
Cornus amomum
Impatiens capensis
Juncus effusus
Leersia oryzoides (rice cutgrass)
Lythrum salicaria
Phragmites australis
Pinus strobus (white pine)
Populus sp. (cottonwood)
Salix discolor
Typha latifolia
Verbena hastata (blue vervain)

Soils Data:

Soils data not collected at this site.

Sketch approximate mitigation site, noting areas and types of wetlands, waters, other features, landscape position, landmarks, etc., and data and photo point(s)

See file.

Overall Description of site:

See sketch –

Deep pond with 2:1 steep bank all around and narrow fringe of wetland. Water comes in from Route 1 and culvert, has an outlet at weir across the pond into a natural adjacent wetland. There is a 7' tall cyclone fence all around except for the canal where the 2 wetlands connect. The embankment is 5-10 feet high and the wetland vegetation strip around is 5-10' wide with speckled alder dominant and sometimes up to 10' tall. The pond is covered with duckweed and planted aquatics (burreed, arrowhead, arrow arum, pickerel weed, water lily) were not there – the water was probably too deep. Very few cattails were seen in a few corners of the pond.

When first built, there was a huge influx of sediment – maybe damaged the planted species.

Just south of the site at a higher elevation and on the other side of the fence is a volunteer wet meadow full of *Juncus effusus* and *Scirpus* spp. and *Phragmites*.

Comments, problems, recommendations:

No delineation was done due to steep delineating bank.

MITIGATION SITE FIELD DATA FORM

Site Name: MHD Rte. 1, Wrentham File No. 199500378

City/Town: Wrentham, State: MA Waterbody: next to stream

Monitor(s): R. Ladd, K. Wright, K. McKee Date: 7-10-02

Was site constructed? yes

Is site wetland? yes

Size of proposed wetland: 1.48 acres

found in the abandoned, adjacent gravel pit sand mounds, many dragonflies and butterflies.

Actual size of wetland: about the same

Landscape position: In the middle – between runoff from Route 1 and upland and outlet to the adjacent stream

Lat/Long Points: 42.10305 N 71.25798W

Saved GPS Waypoint name: MHD2

GPS Tracking Log Name: 10-july-02 (2)

Perimeter: see GIS

Surrounding land use:

Gravel pit, forest, Route 1 highway, wetland, stream

Is wetland function compromised by surrounding land use?

Runoff from route 1 which is one long side of surrounding land use

Plant health:

Very good but some buttonbush planted too far from water and are suffering. The individuals near water very healthy.

Invasive species:

Typha latifolia, a few Lythrum salicaria, and a few young Elaeagnus

Wildlife use:

Turtles (painted?), many red-winged blackbirds, 1 dead crawfish, 8 predated turtle nests were

Plants:

Acer rubrum
Alnus rugosa
Asclepias incarnata
Carex crinita
Carex sp.
Carex sp. (ovales)
Carex sp. (porcupine sedge?)
Carex vulpinoidea
Cephalanthus occidentalis (buttonbush)
Cornus amomum
Elaeagnus sp.
Eupatorium perfoliatum
Euthamia graminifolia
Glyceria sp.
Iris sp.
Juncus sp.
Lythrum salicaria
nettle sp.
Onoclea sensibilis
Pinus strobus
Pontederia cordata
Rosa palustris
Rubus sp. (raspberries)
Salix discolor
Sambucus canadensis
Scirpus atrovirens
Solidago rugosa
Sparganium sp. (*S. americanum*?)
Typha latifolia
Vaccinium corymbosum (highbush blueberries)
Verbena hastata
Viviparous *Juncus* sp. (*J. acuminatus*?)

Soils Data:

Soils data not collected at this site.

Sketch approximate mitigation site, noting areas and types of wetlands, waters, other features, landscape position, landmarks, etc., and data and photo point(s)

See file

Overall Description of site:

PEM/OW dominated by *Typha latifolia*, water coming in from highway runoff, going out to adjacent wetland and adjacent stream. Pretty diverse vegetation, not much invasive species besides cattails (which were planted). Saw a large snapping turtle in stream.

Comments, problems, recommendations:

Design requires a lot more forested wetland but grading not right – should have been higher. Should have filled to where water level is now and should have made mounds for trees (R. Ladd).



10 Park Plaza
Boston, Massachusetts

ROUTE 1 - FOXBOROUGH / WALPOLE WETLAND REPLICATION AREA

WETLAND PLAN

AT: ROUTE 1

IN: NORFOLK COUNTY
COMMONWEALTH OF MASSACHUSETTS

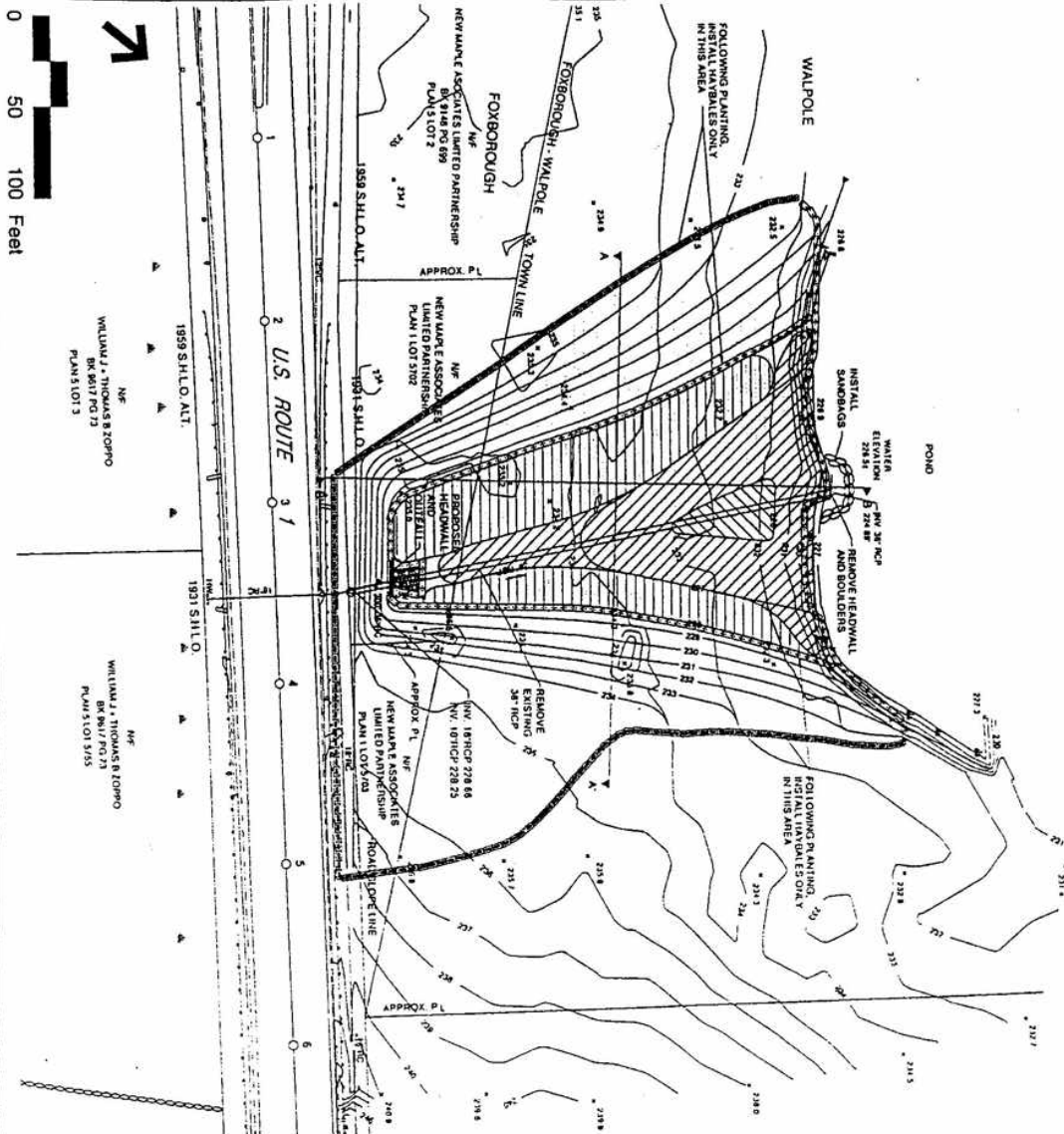
APPLICATION BY:

MASSACHUSETTS HIGHWAY DEPARTMENT

SHEET

2 OF 2

DATE
July, 1995



PLANT LIST									
COMMON NAME	SCIENTIFIC NAME	HEIGHT AS PLANTED	HEIGHT AT MATURE	QUANTITY	UNIT	PLANTING DATE	PLANTING LOCATION	PLANTING METHOD	PLANTING NOTES
COMMON WHEAT	Triticum aestivum	10.0 C	10.0 C	50	1000	1995	WETLAND	SEED	1000 SEEDS
COMMON WHEAT	Triticum aestivum	10.0 C	10.0 C	50	1000	1995	WETLAND	SEED	1000 SEEDS
COMMON WHEAT	Triticum aestivum	10.0 C	10.0 C	50	1000	1995	WETLAND	SEED	1000 SEEDS
COMMON WHEAT	Triticum aestivum	10.0 C	10.0 C	50	1000	1995	WETLAND	SEED	1000 SEEDS
COMMON WHEAT	Triticum aestivum	10.0 C	10.0 C	50	1000	1995	WETLAND	SEED	1000 SEEDS
COMMON WHEAT	Triticum aestivum	10.0 C	10.0 C	50	1000	1995	WETLAND	SEED	1000 SEEDS
COMMON WHEAT	Triticum aestivum	10.0 C	10.0 C	50	1000	1995	WETLAND	SEED	1000 SEEDS
COMMON WHEAT	Triticum aestivum	10.0 C	10.0 C	50	1000	1995	WETLAND	SEED	1000 SEEDS
COMMON WHEAT	Triticum aestivum	10.0 C	10.0 C	50	1000	1995	WETLAND	SEED	1000 SEEDS
COMMON WHEAT	Triticum aestivum	10.0 C	10.0 C	50	1000	1995	WETLAND	SEED	1000 SEEDS

NOTE: 1. TOTAL WETLAND REPLICATION AREA - 24,000 SQUARE FEET

THE WETLAND PLANT SEED LIST, AS DETAILLED IN THE WETLAND REPLICATION AREA, SHALL BE PROVIDED AS A TOTAL WEIGHT OF 27 POUNDS. THE TOTAL WEIGHT OF WETLAND SEEDS AND PLANTS SHALL BE PROVIDED AS A TOTAL WEIGHT OF 27 POUNDS. THE TOTAL WEIGHT OF WETLAND SEEDS AND PLANTS SHALL BE PROVIDED AS A TOTAL WEIGHT OF 27 POUNDS.



**ROUTE 1 - WRENTHAM WETLAND REPLICATION AREA
WETLAND PLAN**

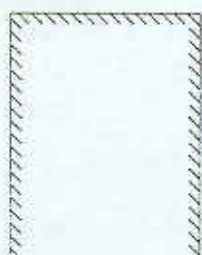
AT: ROUTE 1
IN:
NORFOLK COUNTY
COMMONWEALTH OF MASSACHUSETTS

APPLICATION BY:
MASSACHUSETTS HIGHWAY DEPARTMENT

DATE	July, 1995
SHEET	OF

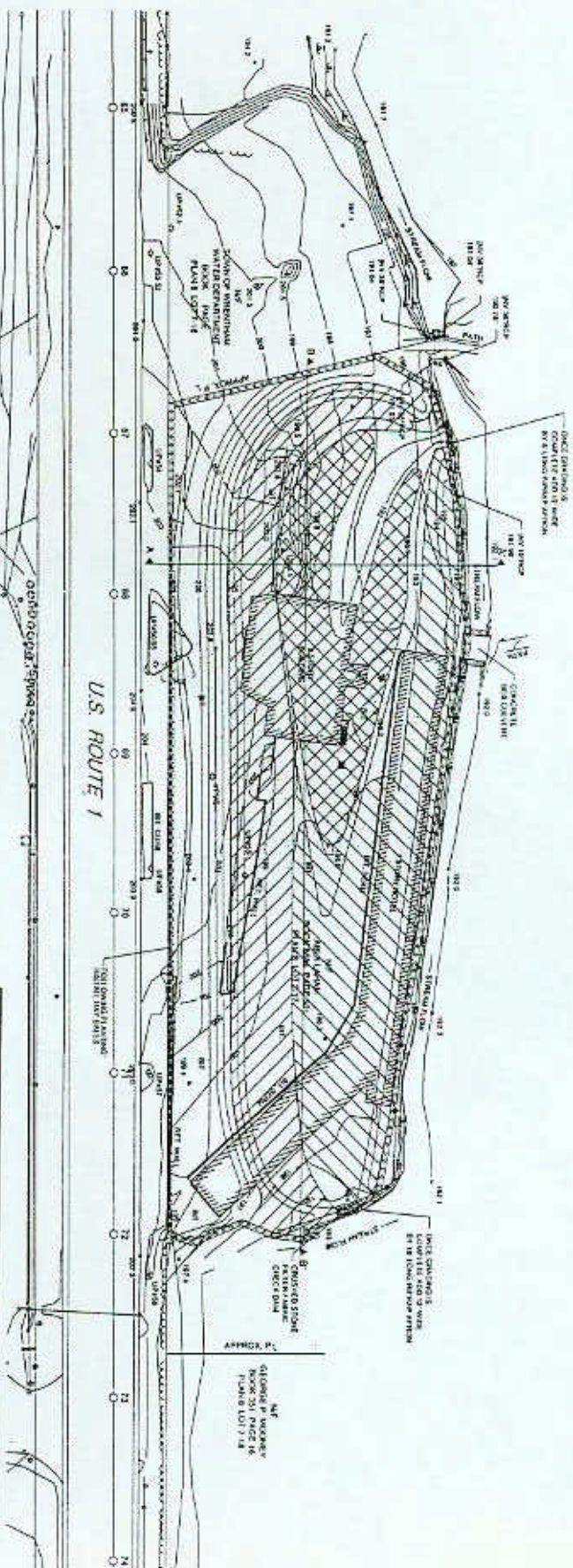
Of

2



PLANT LIST							
PLANT SYMBOL	PLANT NAME	Botanical Name	DESCRIPTION	SPECIES	HEIGHT	QUANTITY	UNIT
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100	100	100	100	100	100	100	100

TOTAL WELL AND REPLICATION AREA = 64,356 SQUARE FEET
ALTERNATE SPECIES WITHIN EACH PLANTING ZONE



6/10/2016 10:00 AM
PAGE 16
PLANNED FOR 2016

Wetland Function-Value Evaluation Form

Total area of wetland _____ Human made? yes Is wetland part of a wildlife corridor? yes or a "habitat island"? _____

Adjacent land use road, abandoned gravel pit, wetland, forest Distance to nearest roadway or other development 15 feet

Dominant wetland systems present PEM and some POW Contiguous undeveloped buffer zone present no

Is the wetland a separate hydraulic system? no If not, where does the wetland lie in the drainage basin? middle

How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

MHD – Route 1 -
Wetland I.D. Wrentham 199500378













Latitude N42.10305 Longitude W71.25798

Prepared by: KM KW RL Date 7/10/02

Wetland Impact:
Type _____ Area _____

Evaluation based on:
Office _____ Field X

Corps manual wetland delineation
completed? Y _____ N X

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge			see soil map		
 Floodflow Alteration	X			X	good storage, 1 inlet, 1 outlet
 Fish and Shellfish Habitat	X				saw crayfish shell, overflows to stream and adjacent wetland
 Sediment/Toxicant Retention	X			X	very good, lots of cattails, down from road
 Nutrient Removal	X				a lot of emergents in water
 Production Export	X				a lot of plant material and food sources that would flush out
 Sediment/Shoreline Stabilization		X			
 Wildlife Habitat	X				turtles, birds, insects, amphibians, no mammal evidence except 1 scat on rock
 Recreation		X			
 Educational/Scientific Value		X			
 Uniqueness/Heritage		X			
 Visual Quality/Aesthetics	X				
ES Endangered Species Habitat		X			
Other					

Notes:

* Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland _____ Human made? yes Is wetland part of a wildlife corridor? no or a "habitat island"? no

Adjacent land use road, commercial, wetlands Distance to nearest roadway or other development 10 feet

Dominant wetland systems present POW Contiguous undeveloped buffer zone present no

Is the wetland a separate hydraulic system? no If not, where does the wetland lie in the drainage basin? upper? see quad

How many tributaries contribute to the wetland? 1 Wildlife & vegetation diversity/abundance (see attached list)

MHD – Route 1 – Foxboro
Wetland I.D. 199500378













Latitude N42.93735 Longitude W71.52483

Prepared by: KM KW RL Date 7/10/02

Wetland Impact:
Type _____ Area _____

Evaluation based on:
Office _____ Field X

Corps manual wetland delineation
completed? Y _____ N X

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge					see soils map, if permeable, maybe recharge
 Floodflow Alteration	X				confining water, small outlet
 Fish and Shellfish Habitat			unknown		covered in duckweed, potential
 Sediment/Toxicant Retention	X			X	storm water discharge in thru culvert; functions as settling basin
 Nutrient Removal	X				limited by no emergents, just duckweed
 Production Export		X			no emergents
 Sediment/Shoreline Stabilization	X				vegetation thick on steep slope
 Wildlife Habitat	X				limited by access, all open water, no shallow areas
 Recreation		X			no access
 Educational/Scientific Value		X			
 Uniqueness/Heritage		X			
 Visual Quality/Aesthetics		X			
ES Endangered Species Habitat		X			
Other					

Notes:

* Refer to backup list of numbered considerations.

199500378
MHD – Route 1
Foxboro and Wrentham, MA
7/10/02



Foxboro site looking west across pond from east side next to Route 1. Outlet is in the distance on the left side. Note coverage by duckweed.



Foxboro site looking north at east side of pond to show proximity to Route 1. Culvert outlet is beyond shrubs in foreground.



Wrentham site looking northwest and north from southeast corner of site.
Route 1 is on the right.



Wrentham site looking west from east side across portion of ponded area.

USGS 4 km W of Foxboro, Massachusetts, United States 29 Mar 1995



0 200M

0 200yd

Image courtesy of the U.S. Geological Survey
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Image courtesy of the U.S. Geological Survey
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