

F.E. Everett Turnpike

File No.: 199101009

City and State: Nashua, NH

General Impacts:

- 2.87 acres non-tidal emergent
- 15.61 acres non-tidal forested
- 3.82 acres non-tidal scrub-shrub
- 1.56 acres other
- 23.79 TOTAL (per original permit and EASOF)

NOTE: According to 11/3/97 letter from NHDOT to the Corps, the permitted impact was 27.1 acres and the letter requested an additional 0.2 acre.

Functions and Values Lost: (From Wetland Impact Assessment)

- Sediment/Toxicant Retention
- Wildlife Habitat
- Floodflow Alteration
- Recreation
- Nutrient Removal

Year(s) Mitigation Constructed: December 1994

Size and Type of Mitigation as Proposed:

Mitigation is proposed to be on several sites of which TSA1 is one. A total of 26 acres is to be created per the EASOF.

- 4.4 acres non-tidal forested
- 6.2 acres non-tidal emergent
- 12.6 acres non-tidal scrub-shrub

Per the 1992 mitigation plan, the following was proposed for TSA1 and would include 1.1 acre enhancement of "low value wetlands" (presumably the loosestrife infested wetland) with the creation. The total would be:

- 1.0 acre open water/non-tidal emergent
- 5.7 acres non-tidal scrub-shrub
- 2.0 acres non-tidal forested/scrub-shrub
- 8.7 acres TOTAL

NOTE: According to 4/29/98 letter from NHDOT to the Corps, 11.1 acres had already been created, 10.3 acres were to be created at previously approved sites, 8.0 acres were proposed at new sites, and preservation of 3.25 acres was included. According to the same letter the TSA1 site included 8.7 acres of creation with 17.4 additional acres to be preserved.

Proposed Functions and Values of Mitigation: (From Mitigation Plans)

Floodflow Alteration
Sediment/Toxicant Retention
Wildlife Habitat
Nutrient Removal
Recreation
Visual Quality/Aesthetics

Mitigation Special Condition(s):

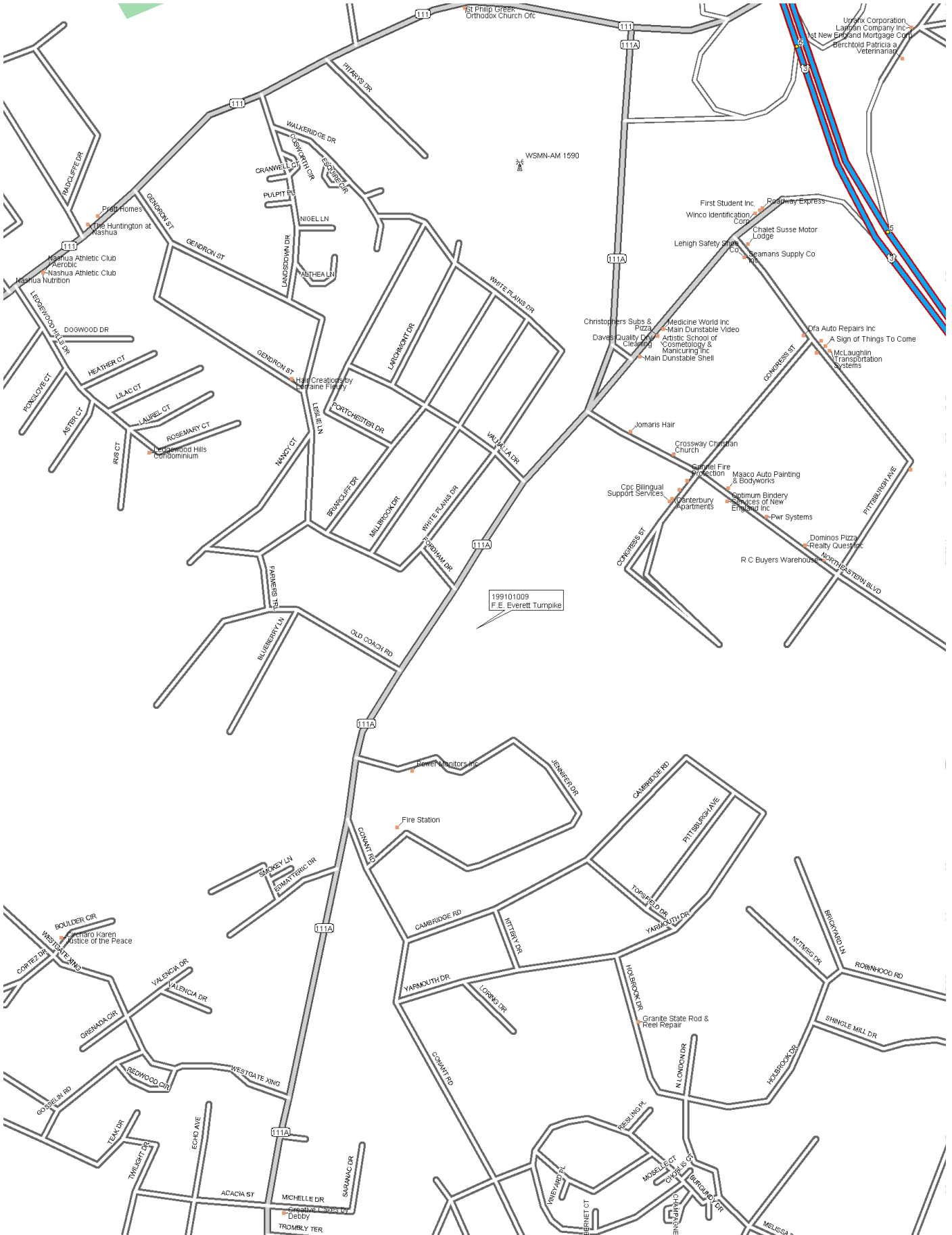
2. The monitoring plan entitled, "Monitoring of Wetland Mitigation Sites for Exits 1 through 7, FE Everett Turnpike, Nashua, NH dated 12/16/91 shall be complied with in its entirety.
3. Water table elevation at TSA1 site will be monitored and recorded bimonthly from January 1, 1992 through the growing season up until August 15, 1992. Monitoring data will be obtained from the monitoring wells that have been placed at the site. The data obtained from the monitoring wells will be evaluated prior to construction of the TSA1 site. The interdisciplinary team identified in the Monitoring Plan shall determine if elevations and/or the planting scheme of the TSA1 sites will need to be modified based on that data.
7. No fill shall be placed into wetlands or waterways until the final mitigation plan is approved in writing by the Corps of Engineers.

Remarks:

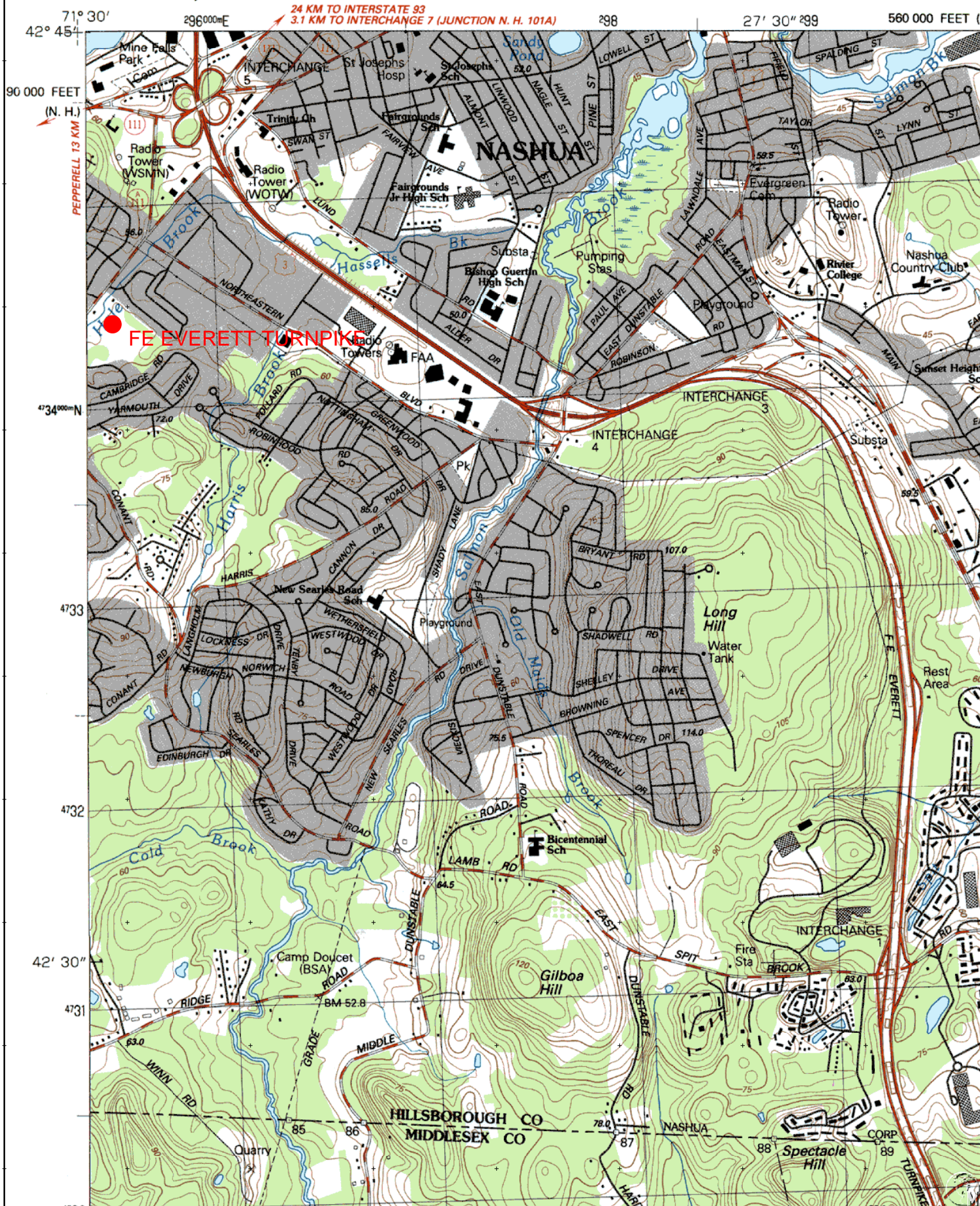
TSA1 site is 25 acres in its entirety. Two wetlands, a 1.3 acre wetland in the southeast corner of the site and a 0.9 acre *Lythrum salicaria*-dominated wetland in the west central portion of the site, existed prior to construction.

Directions:

Take 128/I-95 north to exit 32B/32A for Route 3/I-293 north. In New Hampshire, take exit 5W (W. Hollis Road). Immediately after crossing the highway, take a left onto SR 1114. After about ¼ mile, the road will merge with Main Dunstable Road heading west. The site is on the left about 0.2 mile after the merge and approximately across the road from Old Coach Road.



LOWELL, MASSACHUSETTS-NEW HAMPSHIRE



MITIGATION SITE FIELD DATA FORM

Site Name: F.E. Everett Turnpike (TSA1) **File No. :** 199101009

City/Town: Nashua **State:** NH **Waterbody:** Hale Brook

Monitor(s): Kathleen McKee, Keith Wright **Date:** 6-27-02

Was site constructed? yes

Is site wetland? yes

Size of proposed wetland: 8.7 acres

Actual size of wetland: not determined

Landscape position: gently sloping lowland bordered by Hale Brook to the north with an upland that separates the two wetlands on this site.

Lat/Long Points:

Point A: N42.73796 W071.49764

Point B: N42.73679 W071.49697

Saved GPS Waypoint name: Eve 1, Eve 2

GPS Tracking Log Name: N/A

Perimeter: TBD

Surrounding land use:

Residential and road

Is wetland function compromised by surrounding land use?

Wildlife function compromised by human land use as evidenced by trash.

Plant Health:

Vigorous

Invasive Species:

Site A (western area): *Phragmites australis*,
Elaeagnus sp.

Site B (eastern area): *Lythrum salicaria* (trace).

Plants:

Site A :

Alisma plantago-aquatica

Alnus rugosa

Bidens sp.

Carex lurida

Carex sp. (ovales)

Carex stricta

Carex vulpinoidea

Comptonia peregrina

Cornus amomum

Elaeagnus sp.

Eleocharis sp.

Galium sp.

Impatiens capensis

Juncus effusus

Myosotis sp. (*laxa*?)

Onoclea sensibilis

Osmunda cinnamomea

Phragmites australis

Quercus rubra

Rosa palustris

Sagittaria latifolia

Salix discolor

Salix nigra

Salix sp.

Sambucus canadensis

Scirpus americanus

Scirpus atrovirens

Scirpus cyperinus

Scirpus validus

Solidago sp.

Typha latifolia

Vaccinium corymbosum

Vicia sp.

Wildlife Use:

Sleeping depressions from
large mammals, red-winged blackbird,
round holes on bank of pond, hairy scat on rock.

Site B:

Acer rubrum
Alnus rugosa
Betula populifolia
Carex sp. (ovales)
Carex crinita
Carex vulpinoidea
Cornus amomum
Elaeagnus sp.
Equisetum hyemale
Equisetum palustre
Galium sp.
Impatiens capensis
Iris versicolor

Lythrum salicaria
Osmunda cinnamomea
Panicum sp.
 Poaceae sp.
Populus sp. (deltoides?)
Salix discolor
Salix nigra
Sambucus canadensis
Scirpus americanus
Scirpus cyperinus
Solidago sp.
Sparganium sp.
Typha latifolia
Viburnum dentatum

Soil data:

Area A

DEPTH	HORIZON	MATRIX	REDOX	COMMENTS
0 – 3"	A	7.5YR2.5/2		sandy loam; 15% gravel
3 – 6"	B	5Y2.5/2	5YR4/6 15%	medium loamy sand
6 -	B2	2.5Y4/1		50% cobbles

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

See field notes.

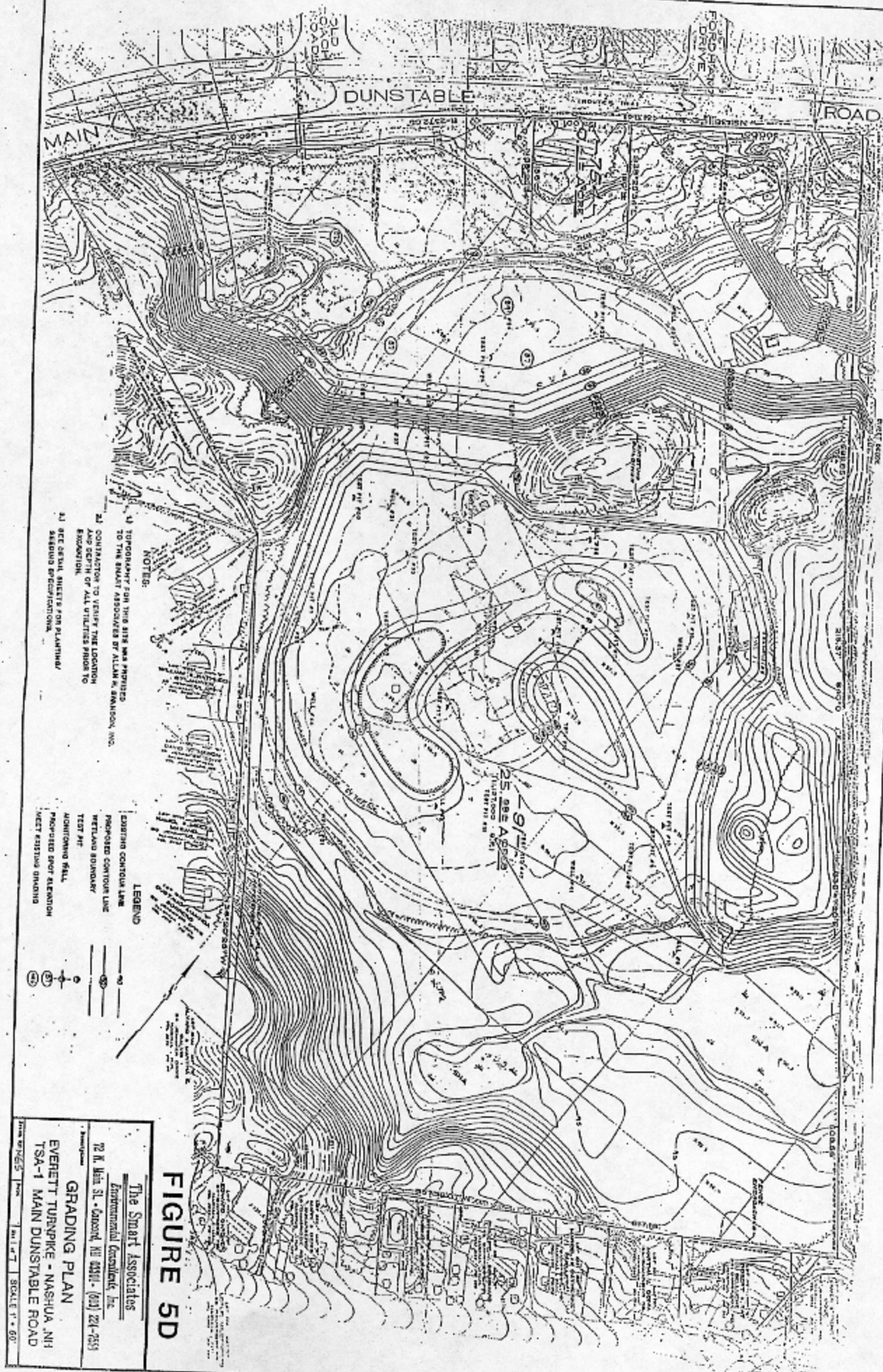
Overall Description of site:

TSA-1 is a parcel on the south side of Main Dunstable Road 3000' west of the Everett Turnpike. The site lies adjacent to Hale Brook. Two wetlands, separated by an upland area, were created on this site. A map is in the field notes and contains a key to the site's various vegetative communities and hydrology.

Large *Cornus sericea* patch was found on edge of older wetland by the road. Older wetland, perhaps 20 feet wide, contains the brook that buffers Site A from the road. It is very thick and healthy.

Comments, problems, recommendations:

Areas that were supposed to be scrub/shrub were actually shallow marsh.



Wetland Function-Value Evaluation Form

Total area of wetland 8.7 acres Human made? yes Is wetland part of a wildlife corridor? no or a "habitat island"? yes

Adjacent land use residential; road Distance to nearest roadway or other development 100'

Dominant wetland systems present PEM, PSS 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 portion

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

NHDOT F.E. Everett
Turnpike (TSA-1);

Wetland I.D. 199101009













Latitude N42.737 Longitude W071.497

Prepared by: _____ Date 6/27/02

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	X			Gravelly/sandy substrate
 Floodflow Alteration	X		X	Associated with stream; has a confined outlet; developed area
 Fish and Shellfish Habitat		X		
 Sediment/Toxicant Retention	X			Dense herbaceous vegetation
 Nutrient Removal	X			Dense herbaceous vegetation
 Production Export	X			Wildlife food sources; detritus could be moved by stream
 Sediment/Shoreline Stabilization		X		
 Wildlife Habitat	X		X	Both PEM and PSS and some limited adjacent forest
 Recreation	X			Easy accessibility to homes in area; areas to walk and do birdwatching
 Educational/Scientific Value		X		
 Uniqueness/Heritage		X		
 Visual Quality/Aesthetics	X			Not spectacular but improvement over degraded area it used to be.
ES Endangered Species Habitat		X		None known
Other				

Notes:

* Refer to backup list of numbered considerations.

199101009
NHDOT F.E. Everett Turnpike (TSA1)
Nashua, NH
6/27/02



Western creation area looking west from near middle of the berm separating the east and west basins.



Western creation area with pre-existing wetland in the background. Looking northerly from southern end of the site towards the small area of open water shown on the design plans.



Western Border

Western portion of the site looking East – see separating berm between East and West.



Eastern Border

Eastern portion of the site from the center looking northeast, east, southeast and south.



Eastern portion of the site from the northern corner looking west and southwest.

USGS Nashua, New Hampshire, United States 11 Apr 1998



0 100M 0 100yd

Image courtesy of the U.S. Geological Survey
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