

Lochmere Golf Course

File No.: 199600376

City and State: Northfield, NH

General Impacts: 3.76 acres

Functions and Values Lost: (From EA/SOF)

Floodflow Alteration

Water Quality Maintenance

Wildlife Habitat

Year(s) Mitigation Constructed: December 1998

Size and Type of Mitigation as Proposed: 3.88 acres PEM and PSS

Proposed Functions and Values of Mitigation:

Floodflow Alteration

Wildlife Habitat

Mitigation Special Condition(s):

7. The compensatory mitigation associated with this permit shall include 3.55 acres of creation, 0.20 acre of restoration, and 1.13 acre of enhancement of wetlands. This wetland mitigation shall proceed in accordance with the attached plan entitled "Lochmere Golf and Country Club, Tilton, New Hampshire" dated November 1996. Construction of the mitigation shall begin within one year of receipt of this permit. It shall continue until mitigation construction and planting is complete.

Remarks:

None

Directions:

Take 128/95 north to I-93 north. Take exit 20, Route 11. Take a left off the exit, and follow it to the Lochmere Country Club entrance. It's approximately 2 ½ miles from the exit.





MITIGATION SITE FIELD DATA FORM

Site Name: Lochmere Golf Course File No. 199600376

City/Town: Tilton State: NH Waterbody:

Monitor(s): Ladd, Barbeau, Somers, Kettenring, Danforth Date: 9-30-02

Was site constructed? yes

Is site wetland? yes

Size of proposed wetland: 3.88 acres

Actual size of wetland: TBD

Landscape position: at sub site LGCA, southern exposure, middle depression, riparian. At LGC5, depression. At LGC10, depression.

Lat/Long Points: TBD

Saved GPS Waypoint name(s): LGCA, LGC5, LGC10

GPS Tracking Log Name: N/A

Perimeter: TBD

Surrounding land use:

LGC5- golf course (~1/2) & forested, LGCA- golf course and mit. site (1 side), LGC10- depression

Is wetland function compromised by surrounding land use?

Yes

Plant health:

No plantings were done anywhere on the site. All the volunteer vegetation looked healthy.

Invasive species:

Typha sp. was observed growing at all the sub sites. Phalaris was observed at LGC5, and Rhamnus was seen at LGCA.

Wildlife use:

At LGCA- songbirds, frogs, and red efts. At LGC5- songbirds, ribbon snakes, garter snakes, green frogs, and a yellow-throated warbler. At LGC10- a praying mantis.

Plants:

LGC10:

Bidens sp.
Carex lurida (dominant)
Carex sp. (2 species)
Eleocharis sp.
Epilobium sp.
Euthamia graminifolia (dominant)
Juncus effusus (dominant)
Juncus sp.
Onoclea sensibilis
Polygala sp.
Polygonum sp.
Populus tremuloides
Scirpus cyperinus
Solidago rugosa
Thistle
Typha latifolia
Verbena hastata
Vernonia sp.
In "sweet fern area" of LGC10:
Betula papyrifera (12")
Euthamia graminifolia
Juncus effusus
Lysimachia quadrifolia
Panicum sp.
Panicum clandestinum
Rudbeckia serotina
Solidago rugosa

LGC 5 SITE:

Alnus rugosa 5' few
Aster novae-angliae
Aster novi-belgii
Astragalus canadensis
Carex lurida
Carex spp.
Epilobum sp.
Equisetum sp.
Eupatorium perfoliatum
Impatiens capensis
Leersia oryzoides

Phalaris arundinacea

Populus tremuloides 2' few
Potentilla simplex
Salix discolor few 8'
Scirpus cypernius
Solidago canadensis
Sphagnum sp.
Typha latifolia (dominant)

LGCA:

Rhamnus frangula
Typha latifolia dominates site

Soils Data:

DEPTH	HORIZON	MATRIX	REDOX	COMMENTS
0 – 2"	A	10YR 3/3		saturated to surface
2 – 6	B1 (fill)	10YR 5/2	conc. and depl. directly under A	loamy sand
6 – 12	B2 (fill?)	10 YR 5/4		
12+	B3 (fill?)	5Y 5/2	common concentrations	

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

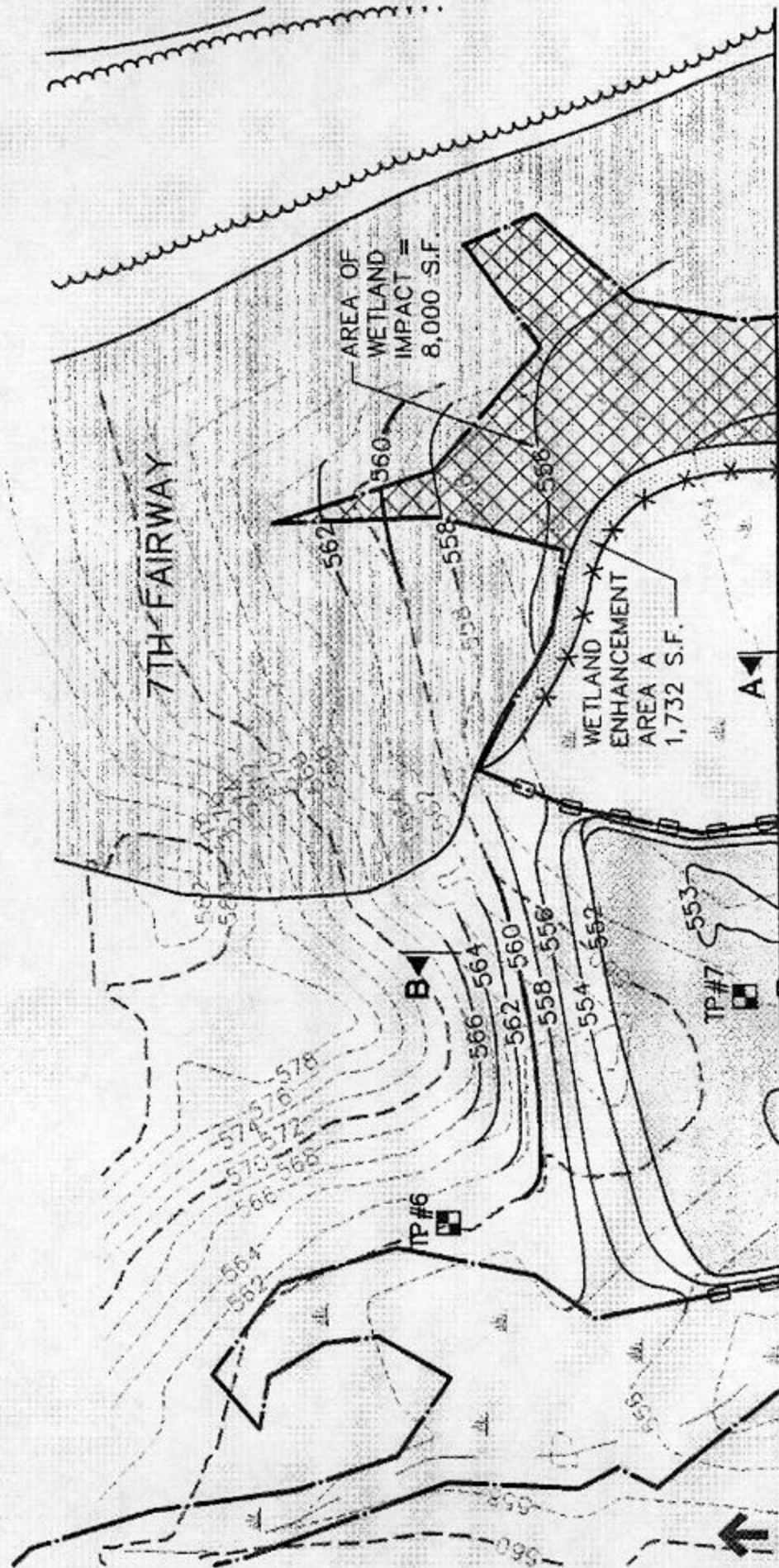
See file.

Overall Description of site:

LGC10 was flat.

Comments, problems, recommendations:

Sub site LGCA was supposed to have been restored as a forested wetland. Part of the apparent creation area is actually "enhancement." There is some woodchip fill.



Transportation
Land Development
Environmental Services
Site Remediation, Soils, GSI
Bedford, New Hampshire 03110-4333
603 644 0888 • FAX 603 644 2303

VHB
Vermont Highway Builders, Inc.

AT: U.S. ROUTE 3 / N.H. ROUTE 11
IN: TILTON
NEW HAMPSHIRE

APPLICATION BY:
GERALD CHAILLE
LOCHMERE GOLF & COUNTRY CLUB

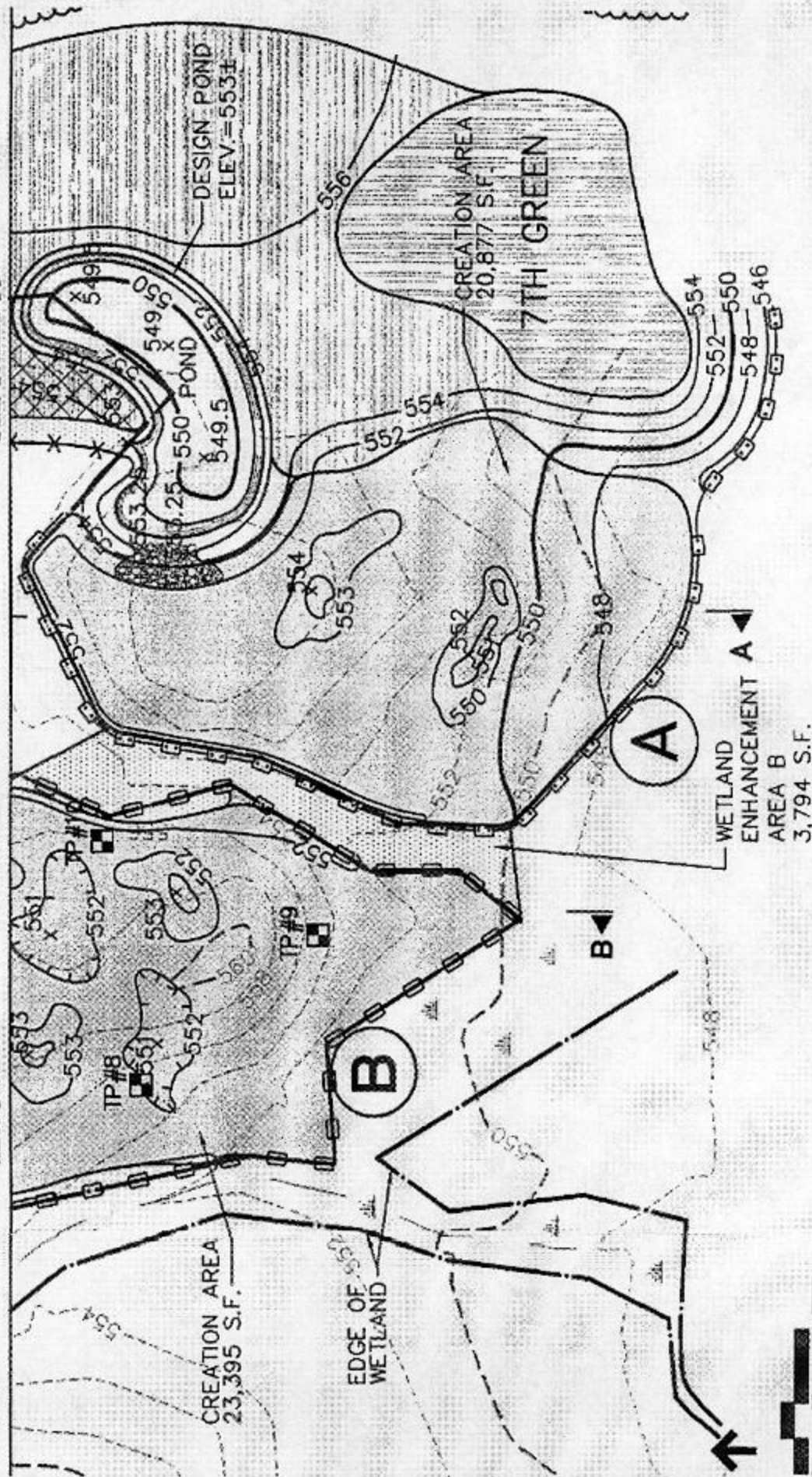
GRADING PLAN PHASE II MITIGATION

DATE
SEPTEMBER 17, 1996
REVISED: OCTOBER 24, 1996

SHEET
38
OF
43

MATCH LINE

SEE SHEET 38



VHB
Vermont Engineering & Construction, Inc.

Transportation
Land Development
Environmental Services
Site Remediation Services
Soils Remediation
Burlington, New Hampshire 05405
603 644 0828 • FAX 603 644 2365

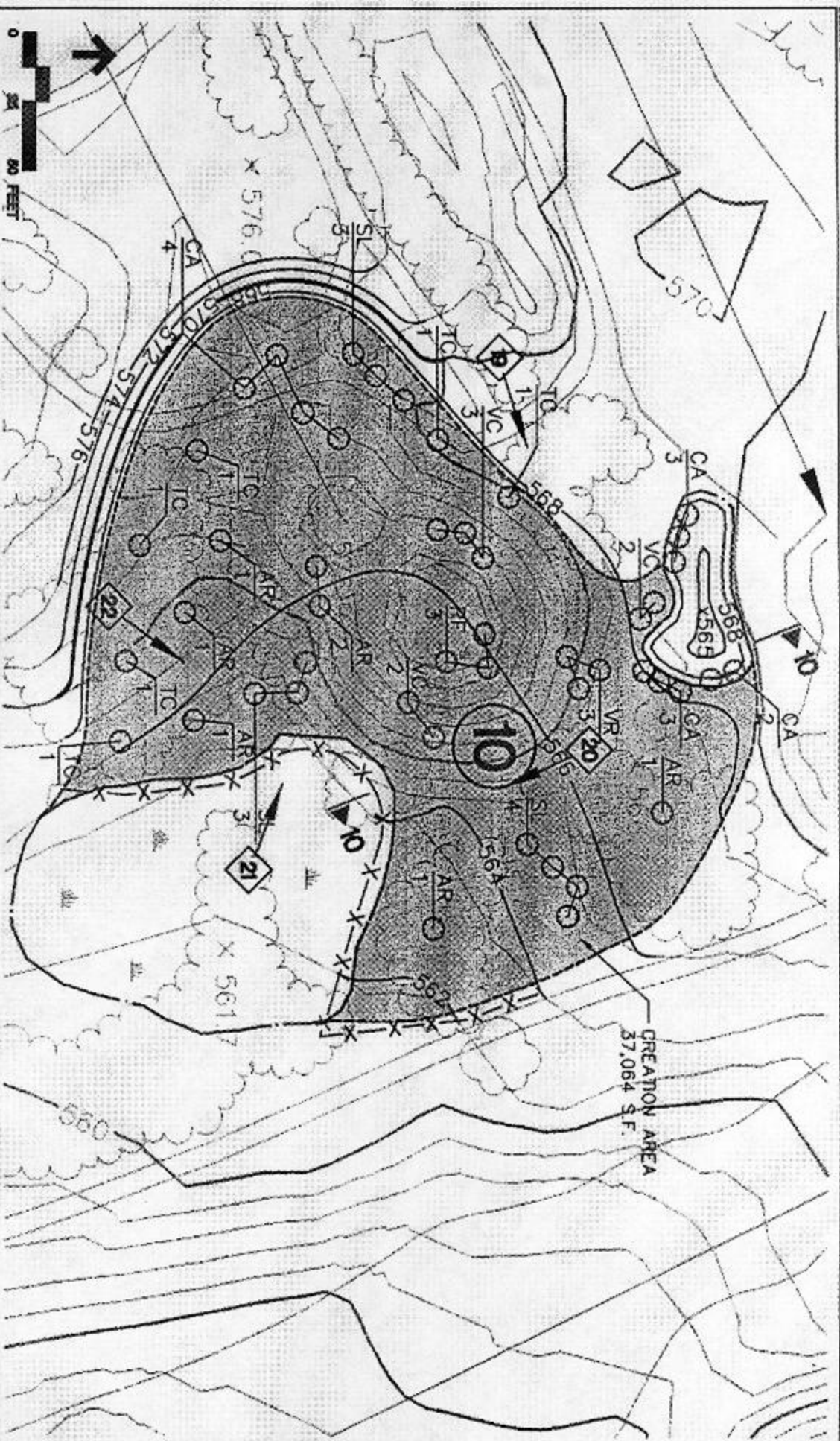
AT: U.S. ROUTE 3 / N.H. ROUTE 11
IN: TILTON
NEW HAMPSHIRE

APPLICATION BY:
GERALD CHAILLE
LOCHMERE GOLF & COUNTRY CLUB

GRADING PLAN PHASE II MITIGATION

DATE
SEPTEMBER 17, 1996
REVISED: OCTOBER 24, 1996

SHEET
39
OF
43



WHB

Wetland Habitat, Inc.

Transportation
Land Development
Environmental Services
Site Remediation, Suite 607
Rockford, New Hampshire 03110-6532
603 644 0888 • FAX 603 644 2383

WETLAND MITIGATION / RESTORATION PLAN

PHASE I

AT: U.S. ROUTE 3 / Rte. ROUTE 11
RE: TILTON
BETHPAGE
NEW HAMPSHIRE

APPLICATION BY:
GERALD CHAILLE c/o
LOCHMERE GOLF & COUNTRY CLUB

DATE

SEPTEMBER 17, 1996
REVISED: OCTOBER 24, 1996

SHEET

25 OF 43

Wetland Function-Value Evaluation Form

Lochmere Golf Course-A
199600376

Total area of wetland 3.88 ac Human made? yes Is wetland part of a wildlife corridor? yes or a "habitat island"? _____

Adjacent land use golf course Distance to nearest roadway or other development 10 feet

Dominant wetland systems present PEM Contiguous undeveloped buffer zone present 0

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

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

Wetland I.D. _____

Latitude _____ Longitude _____













Prepared by: Ladd Date 9/30/02

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				discharge v recharge
 Floodflow Alteration	X				
 Fish and Shellfish Habitat		X			
 Sediment/Toxicant Retention	X			X	
 Nutrient Removal	X				
 Production Export		X			
 Sediment/Shoreline Stabilization		X			
 Wildlife Habitat	X				minimal
 Recreation		X			
 Educational/Scientific Value		X			do have sign identifying site as wetland mitigation
 Uniqueness/Heritage		X			
 Visual Quality/Aesthetics	X				for golfers
ES Endangered Species Habitat		X			
Other					

Notes: North end of area was wetland. Now it has small amount of fill/sediment on top.

* Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Lochmere Golf Course-5
199600376

Total area of wetland 3.88 ac Human made? yes Is wetland part of a wildlife corridor? no or a "habitat island"? no
Adjacent land use golf course and restaurant Distance to nearest roadway or other development 20 feet to cart path, 50 feet to bldg
Dominant wetland systems present PEM Contiguous undeveloped buffer zone present 50%
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? culvert from golf course pond Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. _____













Latitude _____ Longitude _____

Prepared by: Ladd Date 9/30/02

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				sands and gravel, both recharge discharge, landscape position
 Floodflow Alteration	X				has a bermed outlet
 Fish and Shellfish Habitat		X			
 Sediment/Toxicant Retention	X			X	dense vegetation
 Nutrient Removal	X				dense vegetation
 Production Export		X			
 Sediment/Shoreline Stabilization		X			
 Wildlife Habitat	X				limited
 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

Lochmere Golf Course-10
199600376

Total area of wetland 3.88 ac Human made? yes Is wetland part of a wildlife corridor? no or a "habitat island"? yes
Adjacent land use golf course Distance to nearest roadway or other development 0 feet to cart paths >500 feet to roads
Dominant wetland systems present PEM Contiguous undeveloped buffer zone present 0%
Is the wetland a separate hydraulic system? yes If not, where does the wetland lie in the drainage basin? _____
How many tributaries contribute to the wetland? 0 Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. _____













Latitude N43.47121 Longitude W71.54823

Prepared by: Ladd Date 9/30/02

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			seems perched
 Floodflow Alteration		X			
 Fish and Shellfish Habitat		X			
 Sediment/Toxicant Retention	X			X	dense, herbaceous vegetation
 Nutrient Removal	X				
 Production Export		X			
 Sediment/Shoreline Stabilization		X			
 Wildlife Habitat	X				extremely limited
 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.

199600376
Lochmere Golf Course
Tilton, NH
9/30/92



Site 10 from the west end. Site extends to the cart path in the distance.



Site 5 looking southerly from south side of the cart path.



Site A looking south and west from north end (top of slope).
Site extends to trees in center of photo and cart path on left.



Site A looking west and north from southeast corner. Site extends to shrub line on left.

USGS 1 km SW of Lochmere, New Hampshire, United States 12 Apr 1998



0 1.5Km

0 1.25Mi

Image courtesy of the U.S. Geological Survey
© 2003 Microsoft Corporation. All rights reserved.