WETLANDS of FITZWILLIAM

Showing Results of NH Method Evaluation of 31 Top-Ranked Wetlands

Candidate Prime Wetlands in YELLOW

ABOUT THIS MAP

This map was created from NH GRANIT data layers, as obtained from UNH Complex Systems Research Center, Durham, NH. The 2010 1-foot pixel, color infrared aerial photograph was flown by NHDOT and processed by CSRC. Other base layers included the NHDOT Roads layer (2013), the USGS 10-foot contour data, and the National Hydrography Dataset (NHD). Wetlands were mapped using these layers, as well as the 2011 web soil survey data for Cheshire County, the National Wetlands Inventory (NWI), and aerial photo interpretation (API). Limited roadside and off-road field evidence was also utilized from surveys between April and July of 2016.

Wetland units shown in light blue-green were generally less than 3.5 acres or otherwise too small to evaluate. These units, like all wetland polygons that comprise the larger complexes, were mapped as a collection of individual polygons that correspond to NWI cover classes as well as soil types. Larger collections of wetland units were aggregated into "Wetland Evalution Units" or WEU's, and were delimited on the basis of guidance provided by the "Method for Inventorying and Evaluating Freshwater Wetlands in New Hampshire" (NH Method). These WEU's were then evaluated using a point-based, hybrid assessment methodology that evaluated 11 wetland atttributes (61 max pts), specifically:

1) Size
2) Association with perennial water bodies
3) Relationship to active floodplains
4) Position relative to underlying stratified drift aquifers
5) Position relative to bedrock aquifers
6) Landscape position within an unfragmented block
7) Position relative to WAP habitats of highest value
8) Number of NWI cover classes
9) Presence of known rare species or exemplary natural communities
10) Position near or within a Significant Ecological Area
11) Position within a protected private or public conservation parcel

The top 30 point-ranked wetlands were then presented to the Fitzwilliam Board of Selectmen and Conservation Commission for input as to what should comprise the final evaluation list. The resulting 31 wetlands were assessed using the NH Method. This was completed in the office as well as through field surveys where written property permission was granted. A total of 29 of the 31 NH Method-evaluated wetlands were surveyed in whole or in part in the field. The final selection of 16 recommended candidate prime wetlands were identified using scores from the NH Method, wherein mean scores and top-ranked functions were used to establish a numerical threshold. For more information on this evaluation please see the explanation in the final Wetlands Report.

All errors and omissions are the responsibility of the author and lies outside the purview of the Town of Fitzwilliam
THIS MAP IS NOT INTENDED FOR SURVEY-ACCURATE DEPICTIONS OF WETLANDS!

μ

1 0.5 0 1 Miles

1,200 600 0 1,200 Meters

1:17,500

Legend

- Fitzwilliam Town Boundary
- Half-Mile Extended Study Area
- Conservation Land
- Other WEU's
- Vernal Pools

Roads_DOT

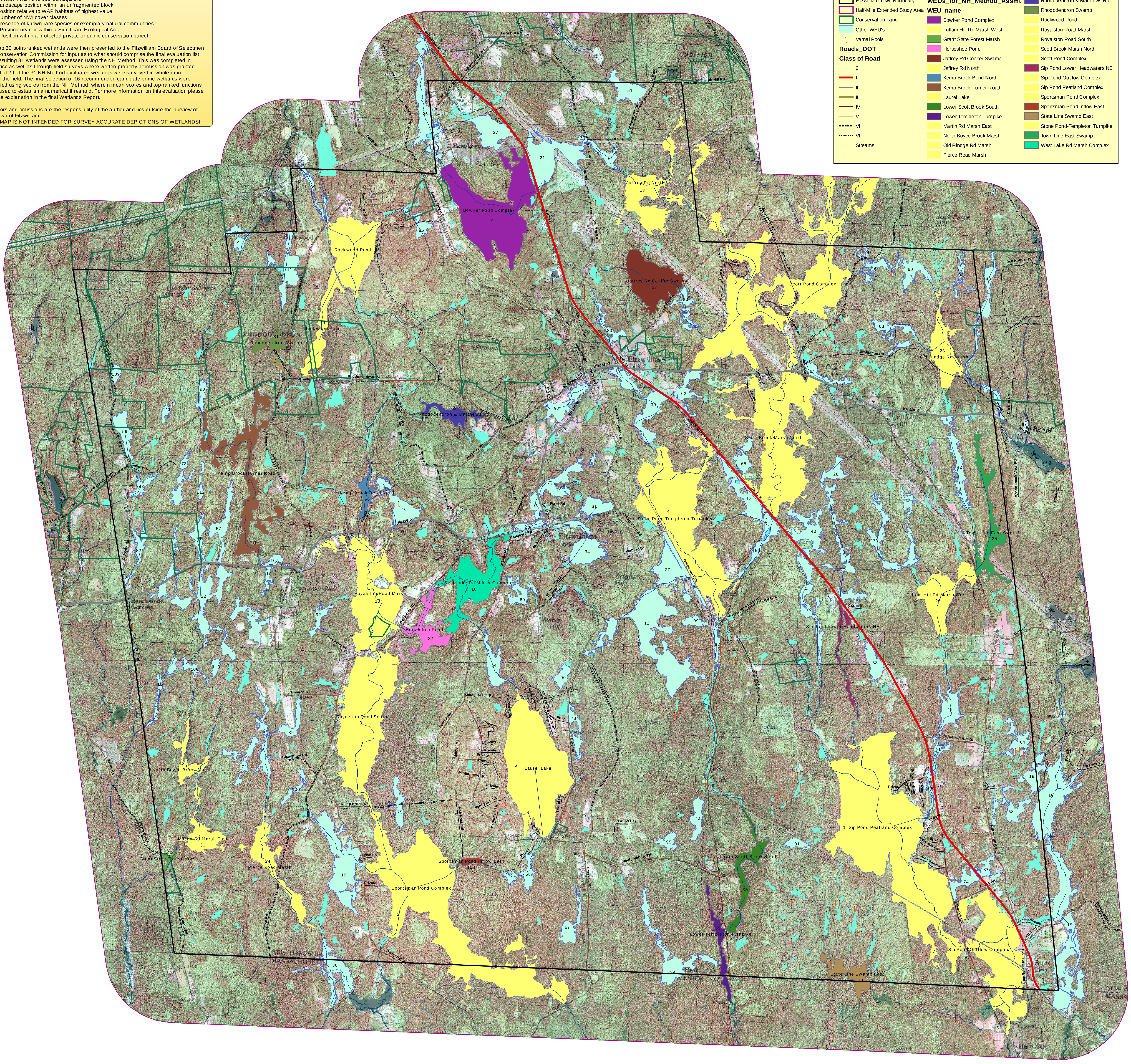
Class of Road

- 0
- I
- II
- III
- IV
- V
- VI
- VII
- Streams

WEUs_for_NH_Method_Assmt

WEU_name

- Bowker Pond Complex
- Fullam Hill Rd Marsh West
- Grant State Forest Marsh
- Horseshoe Pond
- Jaffrey Rd Conifer Swamp
- Jaffrey Rd North
- Kemp Brook Bend North
- Kemp Brook-Turner Road
- Laurel Lake
- Lower Scott Brook South
- Lower Templeton Turnpike
- Martin Rd Marsh East
- North Boyce Brook Marsh
- Old Rindge Rd Marsh
- Pierce Road Marsh
- Rhododendron & Matthews Rd
- Rhododendron Swamp
- Rockwood Pond
- Royalston Road Marsh
- Royalston Road South
- Scott Brook Marsh North
- Scott Pond Complex
- Sip Pond Lower Headwaters NE
- Sip Pond Outflow Complex
- Sip Pond Peatland Complex
- Sportsman Pond Complex
- Sportsman Pond Inflow East
- State Line Swamp East
- Stone Pond-Templeton Turnpike
- Town Line East Swamp
- West Lake Rd Marsh Complex



NH Method Summary of Scores

Town: Fitzwilliam

Add qualitative information to rows 6 through 9

Do not add data to Scores columns - Functional Scores are automatically recorded from data sheets for each wetland

Wetland name/code	MEAN VALUES	Sip Pond Peatland Complex	Sportsman Pond Complex	Scott Pond Complex	Stone Pond-Templeton Turnpike	Scott Brook Marsh North	Laurel Lake	Sip Pond Outflow Complex	Royalston Road South	Bowker Pond Complex	Royalston Road Marsh
Date Evaluated		8/24/2016	9/29/2016	1/7/2016	9/29/2016	1/7/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016
Investigator	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll
Wetland Acres	98.4	352.5	300.2	299.5	214.5	193.2	192.5	189.2	183.9	161.3	134.9
Watershed Acres	2454.0	3495	7141	4074	6654	4709	654	11804	4662	842	3975
Wetland Functions & Scores		= Highest Scores			= 2nd highest scores			= 3rd highest scores			
1. ECOLOGICAL INTEGRITY	7.5	7.6	8.1	8.1	6.5	7.9	5.5	5.2	7.1	5.6	7.2
2. WETLAND WILDLIFE HABITAT	7.3	8.5	9.3	9.3	7.6	8.5	7.1	7.5	7.3	7.7	7.8
3. FISH & AQUATIC HABITAT	5.5	7.3	6.5	7.0	5.8	7.1	5.0	6.6	6.2	4.8	5.5
4. SCENIC QUALITY	6.6	9.6	9.6	9.6	8.3	6.8	7.5	8.3	6.7	8.3	6.7
5. EDUCATIONAL POTENTIAL	6.4	7.3	8.2	9.3	7.6	5.8	7.8	7.5	5.9	7.9	6.9
6. WETLAND-BASED RECREATION	6.1	9.7	9.8	8.3	7.0	6.9	7.6	8.5	5.8	7.0	5.9
7. FLOODWATER STORAGE	5.2	8.0	7.1	4.3	4.1	8.0	10.0	4.5	5.4	8.0	5.0
8. GROUNDWATER	2.9	2.8	3.6	4.6	3.6	5.4	4.4	6.4	5.4	5.4	7.2
9. SEDIMENT TRAPPING	7.3	7.9	6.5	6.3	7.7	8.6	7.4	7.8	8.6	7.7	8.6
10. NUTRIENT TRANSFORMATION	6.4	6.2	4.9	5.1	6.9	8.3	5.2	7.5	7.3	5.3	7.2
11. SHORELINE ANCHORING	7.1	8.8	7.5	7.5	8.1	6.5	4.9	8.8	7.5	7.5	8.8
12. NOTEWORTHINESS	14.5	40.0	20.0	20.0	10.0	20.0	20.0	30.0	10.0	10.0	10.0
	Top Ranked	3	3	3		1	1				1
	2nd Ranked	2	1		1	3		3	1	3	
	3rd Ranked	2	2	2		3	1	1	1	1	2
	# > Mean	10	10	9	9	10	7	10	8	8	8
	SUM	17	16	14	10	17	9	14	10	12	11
	Mean Sum =	8.77									

Wetland name/code	Rockwood Pond	Jaffrey Rd North	Kemp Brook-Turner Road	West Lake Rd Marsh Complex	Jaffrey Rd Conifer Swamp	Fullam Hill Rd Marsh West	Old Rindge Rd Marsh	Pierce Road Marsh	Town Line East Swamp	Martin Road Marsh East
Date Evaluated	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016
Investigator	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll
Wetland Acres	121.1	90.7	80.3	75.1	67.2	55.3	44.7	42.3	40.7	29.3
Watershed Acres	981	907	816	1226	261	1001	531	632	443	288
Wetland Functions & Scores							= Highest Scores			= 2nd highest scores
1. ECOLOGICAL INTEGRITY	6.2	10.0	7.4	6.2	5.7	7.9	7.1	9.8	6.2	10.0
2. WETLAND WILDLIFE HABITAT	8.1	8.8	7.0	5.7	5.7	7.3	6.7	8.7	5.8	8.5
3. FISH & AQUATIC HABITAT	5.4	6.6	4.5	4.4	3.1	7.0	4.1	6.7	3.5	6.5
4. SCENIC QUALITY	8.3	4.5	2.3	5.2	3.2	6.0	7.7	7.1	3.8	8.3
5. EDUCATIONAL POTENTIAL	7.6	5.8	4.7	6.3	5.5	7.0	6.3	7.0	6.0	6.2
6. WETLAND-BASED RECREATION	9.4	5.0	5.2	4.6	4.1	6.5	6.1	7.6	4.4	5.6
7. FLOODWATER STORAGE	8.0	6.9	6.7	6.2	5.0	5.2	5.7	5.0	5.1	5.1
8. GROUNDWATER	4.4	1.0	1.0	5.2	1.0	1.0	1.0	1.0	1.0	1.0
9. SEDIMENT TRAPPING	7.1	7.4	8.1	8.0	8.6	7.9	8.0	5.0	7.2	7.2
10. NUTRIENT TRANSFORMATION	4.4	7.9	8.0	7.8	7.7	7.1	7.7	5.0	6.4	7.4
11. SHORELINE ANCHORING	6.3	9.4	10.0	7.5	0.0	7.5	8.8	8.8	7.5	8.1
12. NOTEWORTHINESS	20.0	20.0	20.0	0.0	10.0	10.0	20.0	10.0	10.0	20.0
Top Ranked		1	1							1
2nd Ranked	2	2	1					1		1
3rd Ranked	2	2	1	1	1	1	3	1		2
# > Mean	7	8	5	5	2	9	7	7	2	7
SUM	11	13	8	6	3	10	10	9	2	11

Wetland name/code	Horseshoe Pond	Lower Scott Brook South	State Line Swamp East	North Boyce Brook Marsh	Rhododendron & Matthews Rd	Lower Templeton Turnpike	Kemp Brook Bend North	Sip Pond Lower Head-waters NE	Rhododendron Swamp	Sportsman Pond Inflow East	Grant State Forest Marsh	High	Low	Mean
Date Evaluated	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016	10/12/2016			
Investigator	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll	R. Van de Poll			
Wetland Acres	30.8	28.5	26.3	19.4	17.3	17.0	12.8	11.4	9.4	4.4	3.5			
Watershed Acres	1406	7789	106	144	206	8824	817	379	92	871	343			
Wetland Functions & Scores			= 3rd highest scores											
1. ECOLOGICAL INTEGRITY	5.8	7.2	10.0	10.0	8.3	7.6	7.4	4.8	8.8	9.0	9.5	10.0	4.8	7.5
2. WETLAND WILDLIFE HABITAT	5.8	7.3	7.7	8.1	6.3	6.4	6.1	5.6	5.4	6.6	7.7	9.3	5.4	7.3
3. FISH & AQUATIC HABITAT	4.0	6.2	3.5	5.6	6.1	5.7	5.6	4.4	3.5	5.0	6.3	7.3	3.1	5.5
4. SCENIC QUALITY	5.2	6.7	5.3	7.7	6.2	6.0	6.0	5.2	6.0	6.2	6.8	9.6	2.3	6.6
5. EDUCATIONAL POTENTIAL	4.6	6.9	4.4	5.9	4.9	6.7	5.2	5.5	6.5	5.4	6.5	9.3	4.4	6.4
6. WETLAND-BASED RECREATION	4.7	6.0	3.3	5.5	3.2	6.4	4.2	4.5	6.1	3.3	6.7	9.8	3.2	6.1
7. FLOODWATER STORAGE	4.0	3.1	4.1	5.3	4.7	2.5	3.0	3.0	3.3	1.8	1.9	10.0	1.8	5.2
8. GROUNDWATER	5.4	1.0	1.0	1.0	1.0	2.8	7.2	1.0	2.6	1.0	1.0	7.2	1.0	2.9
9. SEDIMENT TRAPPING	7.7	4.3	9.2	7.2	7.8	4.4	6.9	7.0	9.0	5.4	6.3	9.2	4.3	7.3
10. NUTRIENT TRANSFORMATION	6.3	5.0	7.7	5.5	7.5	4.4	5.5	7.0	7.5	4.9	4.6	8.3	4.4	6.4
11. SHORELINE ANCHORING	7.5	8.8	0.0	8.8	8.8	7.5	9.4	6.3	0.0	8.8	6.3	10.0	0.0	7.1
12. NOTEWORTHINESS	0.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	30.0	10.0	10.0	40.0	0.0	14.5
Top Ranked			2	1			1							
2nd Ranked	1						1		2					
3rd Ranked		1		2	1					1	1			
# > Mean	3	5	4	6	5	5	3	1	5	2	6			
SUM	4	6	6	9	6	5	5	1	7	3	7			

Southwest Region Planning Commission

NH GRANIT
NEW HAMPSHIRE'S STATEWIDE GIS CLEARINGHOUSE

Ecosystem MANAGEMENT CONSULTANTS of New England

GRANIT
January, 2002

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