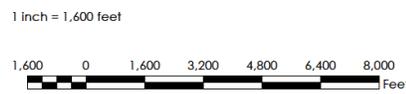
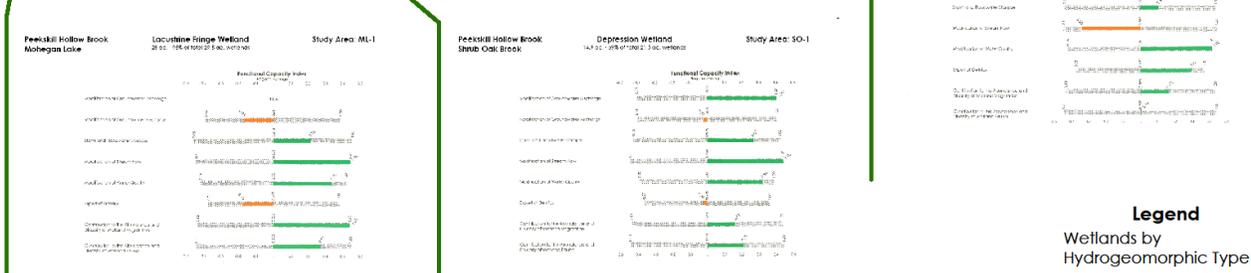
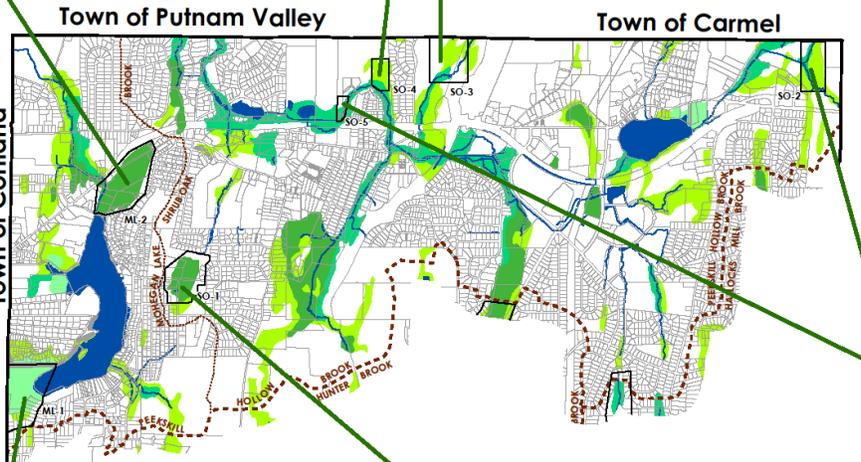
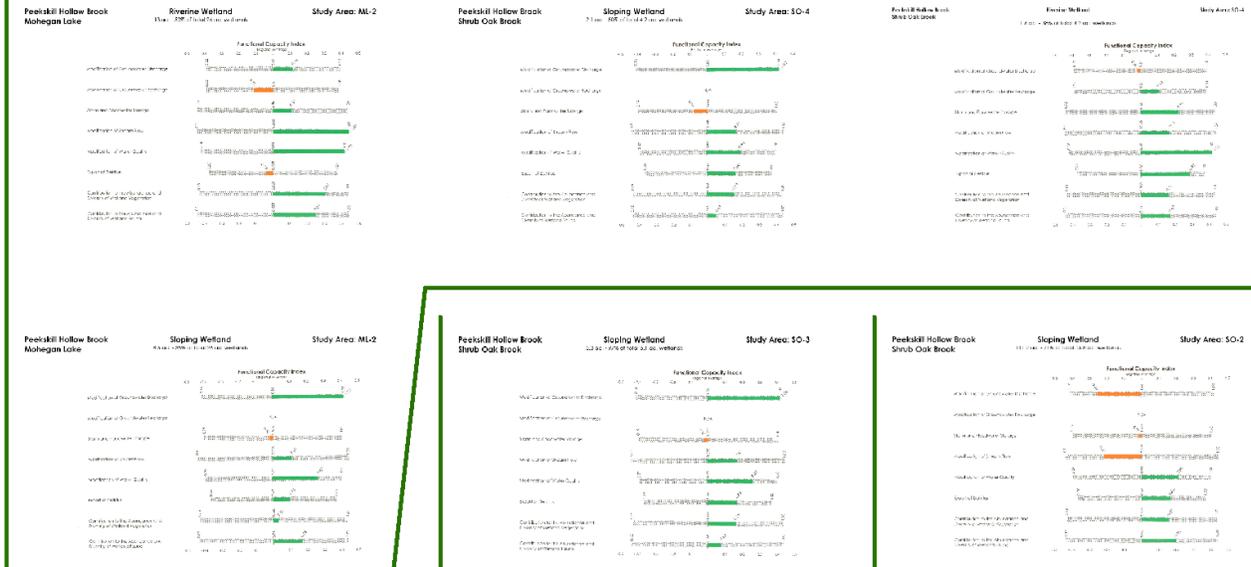


# Town of Yorktown, New York Wetland Functional Assessment Study Peekskill Hollow Brook Watershed

Mohegan Lake Subwatershed

Shrub Oak Brook Subwatershed



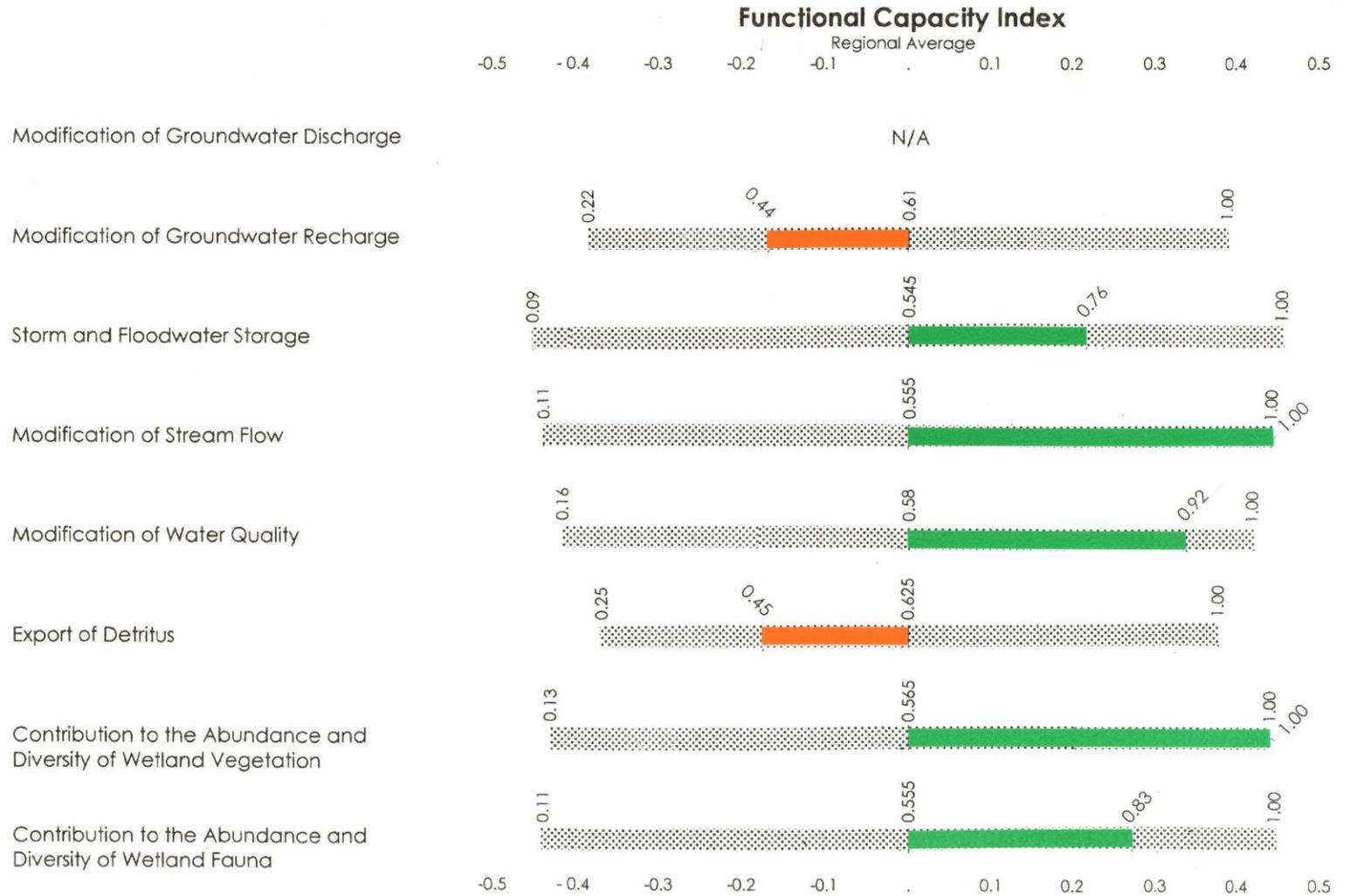
- Legend**
- Wetlands by Hydrogeomorphic Type
    - Depression . . . . .
    - Lacustrine . . . . .
    - Rivine . . . . .
    - Slope . . . . .
  - Waterbody . . . . .
  - Watercourses . . . . .
  - Watershed . . . . .
  - Sub-Watershed . . . . .
  - Tax Lots . . . . .
  - Study Areas . . . . .



Prepared By:  
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As part of the Freshwater Wetlands  
Functional Assessment Study, 2007.  
Additional GIS map production assistance  
provided by:  
**JAM GIS CONSULTING**  
JAIME A. MARTINEZ - 718-501-8332

1. Derived from the hydro data generated by the 2005 USDA NRCS National Wetland Inventory (NWI) for the Town of Yorktown, New York.  
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28 ac. - 95% of total 29.5 ac. wetlands



WETLAND INVENTORY DATA

LACUSTRINE FRINGE 95%  
SLOPE (NOT ASSESSED) 5%

Project Number: \_\_\_\_\_ Date: \_\_\_\_\_  
 Wetland Number: Mohegan Lake ML-1  
 Aerial Photo Numbers: \_\_\_\_\_  
 USGS Quadrangle: Mohegan Lake  
 Field Investigators: B. DeBette

PART 1 - CHARACTERIZATION of WETLAND

SURFACE WATER FLOW VECTORS		PLANT SPECIES												
Condition	Percent/Acreage	OW	FW	F	FU	OU	DOM	COM	OCC	C	S	TS	LS	H
	_____	Depressional												
	<u>5%</u>	Slope												
	_____	Flat												
	_____	Extensive Peatland												
	<u>95%</u>	Lacustrine Fringe												
	_____	Riverine												
VEGETATION TYPES														
Type	Percent/Acreage													
Forested Wetland														
Evergreen														
Needle-leaved														
Deciduous														
Broad-leaved	<u>20%</u>													
Needle-leaved														
Scrub Shrub														
Evergreen														
Broad-leaved														
Needle-leaved														
Deciduous														
Broad-leaved	<u>80%</u>													
Needle-leaved														
Emergent Wetland														
Persistent	<u>50%</u>													
Non-persistent														
Aquatic Bed														
Total	<u>150%</u>													
Comments:														
		SOIL TYPES												
		Histosol												
		• Fibric <input type="checkbox"/>												
		• Hemic <input type="checkbox"/>												
		• Sapric <input checked="" type="checkbox"/>												
		Mineral												
		Hydric Soil												
		• Gravelly <input type="checkbox"/>												
		• Sandy <input checked="" type="checkbox"/>												
		• Silty <input type="checkbox"/>												
		• Clayey <input type="checkbox"/>												
		GEOLOGY												
		Surficial:												
		<u>Glacial till</u>												
		Bedrock:												
		PRE-EMPTIVE STATUS												
		Public ownership						Documented habitat for state or federal listed species						
		Wildlife management area						Regionally scarce wetland category						
		Fisheries management area						Historic/archaeologic area						
		Designated State or Federal protected wetland												

PLANT SPECIES	OW	FW	F	FU	OU	DOM	COM	OCC	C	S	TS	LS	H
RED MAPLE													
GREEN ASH													
WHITE ASH													
AMERICAN ELM													
TULIP POPLAR													
SWAMP CYPRESS													
SPIKE BUSH													
MUSTARD GARLIC													
SILKY DOGWOOD													
WINTER BERRY													
SUMMERSWEET LILY													
HIGH BUSH BLUEBERRY													
SWAMP WHITE OAK													
SPHAGNUM MOSS													
SENSITIVE FERN													
CINNAMON FERN													
ROYAL FERN													
MULTI FLOW ROSE													
WISTARIA													
VIRGINIA CRANFERRY													
POISON IVY													
COMMON CATTAIL													
SWAMP AZALEA													
SHADE BUSH SPRAWLING													
LUSSOCK SEDGE													
JACK-IN-THE-PULPIT													
BLACK ASH													
BLACK BIRCH													
SWEET BIRCH													
PURPLE LACUSTRINE													

OW Obligate Wetland  
 FW Facultative Wetland  
 F Facultative  
 FU Facultative Upland  
 OU Obligate Upland  
 DOM Dominant  
 COM Common  
 OCC Occasional  
 C Canopy  
 S Sapling  
 TS Tall Shrub  
 LS Low Shrub  
 H Herb

# WETLAND INVENTORY DATA (continued)

## PART 2 - CHARACTERIZATION of MODEL VARIABLES

LANDSCAPE VARIABLES	MICRORELIEF OF WETLAND SURFACE:	NUMBER OF TYPES & RELATIVE PROPORTIONS:																						
<p><b>Size:</b></p> <input type="checkbox"/> Small (<10 acres) <input checked="" type="checkbox"/> Medium (10-100 acres) <input type="checkbox"/> Large (>100 acres) <p><b>Wetland Juxtaposition:</b></p> <input checked="" type="checkbox"/> Connected Upstream and Downstream <input type="checkbox"/> Only Connected Above <input type="checkbox"/> Only Connected Below <input type="checkbox"/> Other Wetlands Nearby but not Connected <input type="checkbox"/> Wetland Isolated <p><b>Fire Occurrence and Frequency:</b></p> <input type="checkbox"/> Natural; Predictable Frequency <input type="checkbox"/> Natural; Sporadic Frequency <input type="checkbox"/> Human-caused; Predictable <input type="checkbox"/> Human-caused; Sporadic <input type="checkbox"/> Rare Event <input checked="" type="checkbox"/> No Evidence <p><b>Regional Scarcity:</b></p> <input type="checkbox"/> Not Scarce (>5% of total wetland area of region) <input checked="" type="checkbox"/> Scarce (<5% of total wetland area of region) <p><b>Watershed Land Use:</b></p> <input checked="" type="checkbox"/> > 50% urbanized <input type="checkbox"/> 25-50% urbanized <input type="checkbox"/> 0-25% urbanized	<p><b>Microrelief of Wetland Surface:</b></p> <input checked="" type="checkbox"/> Pronounced >45 cm <input type="checkbox"/> Well Developed 15-45 cm <input type="checkbox"/> Poorly Developed <15 cm <input type="checkbox"/> Absent <p><b>Inlet/Outlet Class:</b></p> <input type="checkbox"/> No Inlet/No Outlet <input type="checkbox"/> No Inlet/Intermittent Outlet <input type="checkbox"/> No Inlet/Perennial Outlet <input type="checkbox"/> Intermittent Inlet/No Outlet <input type="checkbox"/> Intermittent Inlet/Intermittent Outlet <input checked="" type="checkbox"/> Intermittent Outlet/Perennial Outlet <input type="checkbox"/> Perennial Inlet/No Outlet <input type="checkbox"/> Perennial Inlet/Intermittent Outlet <input type="checkbox"/> Perennial Inlet/Perennial Outlet <p><b>Nested Piezometer Data:</b></p> <input type="checkbox"/> Recharge <input type="checkbox"/> Discharge <input type="checkbox"/> Horizontal Flow <input checked="" type="checkbox"/> Not Available <p><b>Relationship of Wetlands' Substrate Elevation to Regional Piezometric Surface:</b></p> <input type="checkbox"/> Piez. Surface Above or at Substrate elev. <input type="checkbox"/> Piez. Surface below Substrate elev. <input checked="" type="checkbox"/> Not Available <p><b>Evidence of Sedimentation:</b></p> <input type="checkbox"/> No Evidence Observed <input checked="" type="checkbox"/> Sediment Observed on Wetland Substrate <input type="checkbox"/> Fluvaquent Soils <p><b>Evidence of Seeps and Springs:</b></p> <input type="checkbox"/> No Seeps or Springs <input checked="" type="checkbox"/> Seeps Observed <input type="checkbox"/> Perennial Spring <input type="checkbox"/> Intermittent Spring	<p><b>Number of Types &amp; Relative Proportions:</b></p> <p><b>Number of Types</b></p> <input type="checkbox"/> Actual # <input checked="" type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <p><b>Evenness of Distribution</b></p> <input type="checkbox"/> Even Distribution <input checked="" type="checkbox"/> Moderately Even Distribution <input type="checkbox"/> Highly Uneven Distribution <p><b>Vegetation Density/Dominance:</b></p> <input type="checkbox"/> Sparse (0-20%) <input type="checkbox"/> Low Density (20-40%) <input type="checkbox"/> Medium Density (40-60%) <input type="checkbox"/> High Density (60-80%) <input checked="" type="checkbox"/> Very High Density (80-100%) <p><b>Vegetative Interspersion:</b></p> <input type="checkbox"/> High (small groupings, diverse and interspersed) <input checked="" type="checkbox"/> Moderate (broken irregular rings) <input type="checkbox"/> Low (large patches, concentric rings) <p><b>Number of Layers and Percent Cover:</b></p> <table style="width: 100%;"> <thead> <tr> <th>Number of Layers</th> <th>% Cover</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> 6 or &gt; (actual #)</td> <td>1. submergents:</td> </tr> <tr> <td><input type="checkbox"/> 5</td> <td>2. floating:</td> </tr> <tr> <td><input type="checkbox"/> 4</td> <td>3. moss-lichen:</td> </tr> <tr> <td><input type="checkbox"/> 3</td> <td>4. short herb:</td> </tr> <tr> <td><input type="checkbox"/> 2</td> <td>5. tall herb:</td> </tr> <tr> <td><input type="checkbox"/> 1</td> <td>6. dwarf shrub:</td> </tr> <tr> <td></td> <td>7. short shrub:</td> </tr> <tr> <td></td> <td>8. tall shrub:</td> </tr> <tr> <td></td> <td>9. sapling:</td> </tr> <tr> <td></td> <td>10. tree:</td> </tr> </tbody> </table> <p><b>Plant Species Diversity:</b></p> <input type="checkbox"/> Low 1-2 plots sampled <input checked="" type="checkbox"/> Medium 3-4 plots sampled <input type="checkbox"/> High 5 or more plots sampled <p><b>Proportion of Animal Food Plants:</b></p> <input type="checkbox"/> Low (5-25% cover) <input type="checkbox"/> Medium (25-50% cover) <input checked="" type="checkbox"/> High (>50% cover) <p><b>Cover Distribution:</b></p> <input checked="" type="checkbox"/> Continuous Cover <input type="checkbox"/> Small Scattered Patches <input type="checkbox"/> 1 or More Large Patches; Parts of Site Open <input type="checkbox"/> Solitary, Scattered Stems <p><b>Dead Woody Material:</b></p> <input type="checkbox"/> Abundant (>50 of wetland surface) <input type="checkbox"/> Moderately Abundant (25-50% of surface) <input checked="" type="checkbox"/> Low Abundance (0-25% of surface) <p><b>Interspersion of Cover and Open Water:</b></p> <input type="checkbox"/> 26-75% Scattered or Peripheral <input type="checkbox"/> >75% Scattered or Peripheral <input checked="" type="checkbox"/> <25% Scattered or Peripheral <input type="checkbox"/> 100% Cover or Open Water <p><b>Stream Sinuosity:</b></p> <input type="checkbox"/> Highly Convoluted (index 1.50 or >) <input type="checkbox"/> Moderately Convoluted (index 1.25-1.50) <input type="checkbox"/> Straight/Slightly Irreg. (index) 1.10-1.25 <p><b>Presence of Islands:</b></p> <input type="checkbox"/> Several to Many <input type="checkbox"/> One or Few <input type="checkbox"/> Absent	Number of Layers	% Cover	<input checked="" type="checkbox"/> 6 or > (actual #)	1. submergents:	<input type="checkbox"/> 5	2. floating:	<input type="checkbox"/> 4	3. moss-lichen:	<input type="checkbox"/> 3	4. short herb:	<input type="checkbox"/> 2	5. tall herb:	<input type="checkbox"/> 1	6. dwarf shrub:		7. short shrub:		8. tall shrub:		9. sapling:		10. tree:
Number of Layers	% Cover																							
<input checked="" type="checkbox"/> 6 or > (actual #)	1. submergents:																							
<input type="checkbox"/> 5	2. floating:																							
<input type="checkbox"/> 4	3. moss-lichen:																							
<input type="checkbox"/> 3	4. short herb:																							
<input type="checkbox"/> 2	5. tall herb:																							
<input type="checkbox"/> 1	6. dwarf shrub:																							
	7. short shrub:																							
	8. tall shrub:																							
	9. sapling:																							
	10. tree:																							
HYDROLOGIC VARIABLES	SOIL VARIABLES	VEGETATION VARIABLES																						
<p><b>Surface Water Level Fluctuation of Wetland:</b></p> <input type="checkbox"/> High Fluctuation <input checked="" type="checkbox"/> Low Fluctuation <input type="checkbox"/> Never Inundated <p><b>Frequency of Overbank Flooding:</b></p> <input type="checkbox"/> Return Interval > 5 yrs. <input type="checkbox"/> Return Interval 2-5 yrs. <input checked="" type="checkbox"/> Return Interval 1-2 yrs. <input type="checkbox"/> No Overbank Flooding <p><b>pH:</b></p> <input type="checkbox"/> Acid <5.5 <input checked="" type="checkbox"/> Circumneutral 5.5-7.4 <input type="checkbox"/> Alkaline >7.4 <input type="checkbox"/> No Water <p><b>Surficial Geologic Deposit Under Wetland</b></p> <input type="checkbox"/> Low Permeability Stratified Deposits <input type="checkbox"/> High Permeability Stratified Deposits <input checked="" type="checkbox"/> Glacial Till <p><b>Wetland Land Use:</b></p> <input type="checkbox"/> High Intensity (ie. agriculture) <input type="checkbox"/> Moderate Intensity (ie. forestry) <input checked="" type="checkbox"/> Low Intensity (ie. open space) <p><b>Wetland Water Regime:</b></p> <input checked="" type="checkbox"/> Wet: Perm Flooded, Intermittently Exposed, Semiperm. Flooded <input type="checkbox"/> Drier: Seasonally Flooded, Temporarily Flooded, Saturated <p><b>Basin Topographic Gradient:</b></p> <input checked="" type="checkbox"/> High Gradient >2% <input type="checkbox"/> Low Gradient <2% <p><b>Degree of Outlet Restriction:</b></p> <input checked="" type="checkbox"/> Restricted Outflow <input type="checkbox"/> Unrestricted Outflow <input type="checkbox"/> No Outflow <p><b>Ratio of Wetland Area to Watershed Area:</b></p> <input checked="" type="checkbox"/> High >10% <input type="checkbox"/> Low <10%	<p><b>Soil Lacking:</b></p> <input type="checkbox"/> <p><b>Histosol:</b></p> <input type="checkbox"/> Fibric <input type="checkbox"/> Hemic <input checked="" type="checkbox"/> Sapric <p><b>Mineral Hydric Soil:</b></p> <input type="checkbox"/> Gravelly <input checked="" type="checkbox"/> Sandy <input type="checkbox"/> Silty <input type="checkbox"/> Clayey	<p><b>Vegetation Lacking:</b></p> <input type="checkbox"/> <p><b>Dominant Wetland Type:</b></p> <input type="checkbox"/> Forested - Evergreen - Needle-leaved <input checked="" type="checkbox"/> Forested - Deciduous - Broad-leaved <input type="checkbox"/> Forested - Deciduous - Needle-leaved <input type="checkbox"/> Scrub Shrub - Evergreen - Broad-leaved <input type="checkbox"/> Scrub Shrub - Evergreen - Needle-leaved <input checked="" type="checkbox"/> Scrub Shrub - Deciduous - Broad-leaved <input type="checkbox"/> Scrub Shrub - Deciduous - Needle-leaved <input type="checkbox"/> Emergent - Persistent <input type="checkbox"/> Emergent - Non-persistent <input type="checkbox"/> Aquatic Bed																						

ML-1 LAKE STRIKE FRINGE  
 95%  
 SLOPE 5%\*

2.9.1 Modification of Ground Water Discharge

\* WETLAND CLASSES < 25% ARE NOT EVALUATED SEPARATELY

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS			
			D	S	R	F
<b>Indicators of Disfunction</b>						
• Inlet/Outlet Class	• perennial inlet/no outlet		0	0	0	0
• Nested Piezometer Data	• recharge condition		0	0	0	0
• Relationship to Regional Piezometric Surface	• wetland substrate elevation above piezometric surface		0	0	0	0
<b>Direct Indicators of Function</b>						
• Presence of Springs and Seeps	• evidence of perennial seeps or springs		18	15	15	18
• Nested Piezometer Data	• discharge condition		18	15	15	18
• Relationship to Regional Piezometric Surface	• wetland substrate elevation below piezometric surface		18	15	15	18
• Inlet/Outlet Class	• no inlet/perennial outlet		18	15	15	18
<b>Primary Variables</b>						
• Microrelief of Wetland Surface	• pronounced		3	3	3	3
	• well developed		2	2	2	2
	• poorly developed		1	1	1	1
	• absent		0	0	0	0
• Inlet/Outlet Class	• perennial inlet/perennial outlet		3	3	0	3
	• intermittent inlet/perennial outlet		2	2	0	2
	• all other classes		0	0	0	0
• pH	• alkaline		3	3	3	3
	• circumneutral		2	2	2	2
	• acid		0	0	0	0
	• no water present		0	0	0	0
• Surficial Geologic Deposit Under Wetland	• high permeability stratified deposits		3	3	3	3
	• low permeability stratified deposits		2	2	2	2
	• glacial till		1	1	1	1
• Wetland Water Regime	• wet; permanently flooded, intermittently exposed, semipermanently flooded		3	0	3	3
	• drier; seasonally flooded, temporarily flooded, saturated		1	0	1	1

(continued)

2.9.1 Modification of Ground Water Discharge (Continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS			
			D	S	R	F
• Soil Type	• histosol		3	3	3	3
	• mineral hydric soil		1	1	1	1
			-	-	-	-
		Total Score:				
		Model Range:	3-18	2-15	3-15	3-18
		Functional Capacity Index:	Total			
			Score			
			18	15	15	18
		Index Range:	0.19-1.0	0.16-1.0	0.22-1.0	0.19-1.0

Note: This model can be applied to both year long and seasonal discharge wetlands.

If the wetland is seasonally fluctuating between recharge and discharge, then reduce the above score by one half (1/2), because the wetland only functions in a discharge mode for roughly half the year.

2.9.2 Modification of Ground Water Recharge

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS				
			D	L	EP	R	F
Indicators of Disfunction							
• Inlet/Outlet Class	• no inlet/perennial outlet; intermittent inlet/perennial outlet		0				0
• Nested Piezometer Data	• discharge condition		0	0	0	0	0
• Relationship to Regional Piezometric Surface	• wetland substrate elevation above or at piezometric surface		0	0	0	0	0
• Presence of Seeps and Springs	• presence of seeps or springs		0	0	0	0	0

(continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS				
			D	EP	R	F	
<b>Direct Indicators of Function</b>							
• Inlet/Outlet Class	• perennial inlet/no outlet		21				21
• Nested Piezometer Data	• recharge condition		21				21
• Relationship to Regional Piezometric Surface	• wetland substrate elevation below piezometric surface		21				21
<b>Primary Variables</b>							
• Microrelief of Wetland Surface	• Poorly Developed		3	3	1	3	3
	• Absent		3	3	1	3	3
	• Well Developed		2	2	2	2	2
	• Pronounced		1	1	3	1	1
• Inlet/Outlet Class	• Perennial Inlet/Intermittent Outlet		3	0	0	0	3
	• All Other Classes		0	0	0	0	0
• pH	• Acid		3	3	3	3	3
	• Circumneutral		2	2	2	2	2
	• Alkaline		1	1	1	1	1
	• No water present		0	0	0	0	0
• Surficial Geologic Deposit Under Wetland	• Glacial Till		3	1	1	1	3
	• Low Permeability Stratified Deposits		2	2	2	2	2
	• High Permeability Stratified Deposits		1	3	3	3	1
• Surface Water Level Fluctuation of the Wetland	• High Fluctuation		3	3	0	3	3
	• Low Fluctuation		2	2	0	2	2
	• Never Inundated		1	1	0	1	1
• Wetland Water Regime	• Drier: Seasonally Flooded, Temporarily Flooded, Saturated		3	3	0	3	3
	• Wet: Permanently Flooded, Intermittently Exposed, Semipermanently Flooded		1	1	0	1	1
• Soil Type	• Gravelly or Sandy Mineral Hydric		3	3	0	3	3
	• Silty or Clayey Mineral Hydric		2	2	0	2	2
	• Sapric Histosol		1	1	0	1	1
	• Fibric or Hemic Histosol		0	0	3	0	0
Total Score:				18			
Model Range:			4-21	4-18	2-12	4-18	4-21
Functional Capacity Index:			Total Score re 21	$\frac{18}{21} = 0.86$	$\frac{12}{21}$	$\frac{18}{21}$	$\frac{21}{21}$
Index Range:			0.1-1.0	0.22-1.0	0.16-1.0	0.22-1.0	0.19-1.0

Note: This model should be applied to both year long and seasonal recharge wetlands.

If the wetland is seasonally fluctuating between recharge and discharge, then reduce the above score by one half (1/2), because the wetland only functions in a recharge mode for roughly half the year.

## 2.9.3

Storm and Flood-Water Storage

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
Indicators of disfunction	none							
Direct Indicators of Function	no outlet		27	21				30
<u>Primary Variables</u>								
● Inlet/Outlet Class	● perennial inlet/intermittent outlet		3	3	0	0	0	3
	● intermittent inlet/intermittent outlet		2	2	0	0	0	2
	● no inlet/intermittent outlet		1	1	0	0	0	1
	● non inlet/perennial outlet		1	1	0	0	0	1
	● intermittent inlet/perennial outlet		1	1	0	0	0	1
	● perennial inlet/perennial outlet		1	1	0	0	0	1
● Degree of Outlet Restriction	● restricted		3	0	0	0	0	3
	● unrestricted		0	0	0	0	0	0
● Basin Topographic Gradient	● low gradient		3	3	0	3	3	3
	● high gradient		1	1	0	0	1	1
● Wetland Water Regime	● Drier: seasonally flooded, temporarily flooded, saturated		3	3	3	0	3	3
	● Wet: permanently flooded, intermittently exposed, semipermanently flooded		1	1	1	0	1	1
● Surface Water Level Fluctuation of the Wetland	● high fluctuation		3	0	3	0	3	3
	● low fluctuation		2	0	2	0	2	2
	● never inundated		0	0	0	0	0	0
● Ratio of Wetland Area to Watershed Area	● large		3	3	3	0	3	3
	● small		1	1	1	0	1	1
● Microrelief of Wetland Surface	● pronounced		3	3	3	3	3	3
	● well developed		2	2	2	2	2	2
	● poorly developed		1	1	1	1	1	1
	● absent		0	0	0	0	0	0
● Frequency of Overbank Flooding	● overbank flooding absent		0	0	0	0	0	0
	● return interval of > 5 yrs		0	0	1	0	1	1
	● return interval of 2-5 yrs		0	0	2	0	2	2
	● return interval of 1-2 yrs		0	0	3	0	3	3
● Vegetation Density/Dominance	● high/very high		3	3	3	3	3	3
	● moderate		2	2	2	2	2	2
	● sparse/low		1	1	1	1	1	1
	● no vegetation		0	0	0	0	0	0

(continued)

### 2.9.3 Storm and Flood-Water Storage (Continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
• Dead Woody Material	• abundant		3	3	3	3	3	3
	• moderately abundant		2	2	2	2	2	2
	• sparse		1	1	1	1	1	1
	• absent		0	0	0	0	0	0
				—	—	—	—	—
		Total Score:			16			
		Model Range:	4-27	4-21	2-21	0-12	3-24	4-30
		Functional Capacity Index:	Total Score		16 = 0.76			
			27	21	21	12	24	30
		Index Range:	0.15-1.0	0.19-1.0	0.09-1.0	0-1.0	0.12-1.0	0.13-1.0

### 2.9.4 Modification of Stream Flow (This model is identical for all HGM types)

VARIABLES	CONDITIONS	WEIGHTS
Indicators of Disfunction	no outlet	0
Direct Indicators of Function	none	
<b>Primary Variables</b>		
<u>Storm and Flood Water Storage</u> Function Model Score		<u>Modification of Groundwater</u> Discharge Function Model Score
High	3 x	High 3 = 9
Mod	2 x	High 3 = 6
Low	1 x	High 3 = 3
High	3 x	Mod 2 = 6
Mod	2 x	Mod 2 = 4
Low	1 x	Mod 2 = 2
High	3 x	Low 1 = 3
Mod	2 x	Low 1 = 2
Low	1 x	Low 1 = 1
		Total Score:
		Model Range: 1-9
		Functional Capacity Index: Total Score 9 = 1.0 *
		Index Range: 0.11-1.0

High = FCI of 0.67-1.0, Mod = FCI of 0.34-0.66, Low = FCI of 0-0.33 for the Storm and Flood Water Storage and Modification of Ground Water Discharge Function Model Scores.

SEEPS IN SLOPE PORTION OF WETLAND OTHERWISE LP HAS NO G.W. DISCHARGE EVALUATION, THEREFORE NO MODIFICATION OF STREAM FLOW.

2.9.5 Modification of Water Quality

VARIABLES	CONDITIONS	WEIGHTS					
		HGM TYPES: D	S	L	EP	R	F
Indicators of disfunction	none						
Direct Indicators of Function	evidence of sedimentation	18	15	12	12	12	18
<b>Primary Variables</b>							
• Wetland Land Use	• low intensity	3	3	3	3	3	3
	• moderate intensity	2	2	2	2	2	2
	• high intensity	1	1	1	1	1	1
• Degree of Outlet Restriction	• restricted outflow	3	0	0	0	0	3
	• no outlet	2	0	0	0	0	2
	• unrestricted outflow	1	0	0	0	0	1
• Inlet/Outlet Type	• no outlet	3	3	0	0	0	3
	• intermittent outlet	2	2	0	0	0	2
	• perennial outlet	1	1	0	0	0	1
• Dominant Wetland Type	• forested wetland	3	3	3	3	3	3
	• scrub-shrub	2	2	2	2	2	2
	• emergent wetland	2	2	2	2	2	2
	• aquatic bed	1	0	0	0	0	0
	• no vegetation	0	0	0	0	0	0
• Cover Distribution	• forming a continuous cover	3	3	3	3	3	3
	• growing in small scattered patches	2	2	2	2	2	2
	• one or more large patches	1	1	1	1	1	1
	• solitary scattered stems	1	1	1	1	1	1
	• no vegetation	0	0	0	0	0	0
• Soil Type	• histosol or clayey soil	3	3	3	3	3	3
	• silty soil	2	2	2	0	2	2
	• sandy or gravelly soil	1	1	1	0	1	1
		—	—	11	—	—	—
	Total Score:			11			
	Model Range:	4-18	3-15	2-12	1-12	2-12	4-18
	Functional Capacity Index:	Total Score		$\frac{11}{12} = 0.92$			
		18	15	12	12	12	18
	Index Range:	0.22-1.0	0.20-1.0	0.16-1.0	0.8-1.0	0.16-1.0	0.22-1.0

## 2.9.6 Export of Detritus

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	EP	R	F	
Indicators of disfunction	no outlet		0	0	0	0	0	
Direct Indicators of Function	none							
<b>Primary Variables</b>								
• Wetland Land Use	• moderate intensity		3	3	3	3	3	
	• low intensity		2	2	2	2	2	
	• high intensity		1	1	1	1	1	
• Degree of Outlet Restriction	• unrestricted outflow		3	0	0	0	3	
	• restricted outflow		1	0	0	0	1	
• Inlet/Outlet Class	• perennial outlet		3	3	0	0	3	
	• intermittent outlet		1	1	0	0	1	
• Wetland Water Regime	• drier: seasonally flooded, temporarily flooded, saturated		3	3	3	0	3	
	• wet: permanently flooded, intermittently exposed, semipermanently flooded		1	1	1	1	1	
• Vegetation Density/Dominance	• high/very high		3	3	3	3	3	
	• medium		2	2	2	2	2	
	• sparse/low		1	1	1	1	1	
	• no vegetation		0	0	0	0	0	
• Soil Type	• mineral hydric soil		3	3	3	3	3	
	• histosol		1	1	1	1	1	
Total Score:			—	—	7	—	—	
Model Range:			5-18	4-15	3-12	2-10	3-12	5-18
Functional Capacity Index:			Total Score		7 = 0.58			
			18	15	12	10	12	18
Index Range:			0.27-1.0	0.26-1.0	0.25-1.0	0.20-1.0	0.25-1.0	0.27-1.0

**2.9.7 Contribution to Abundance and Diversity of Wetland Vegetation**  
 (This model is identical for all HGM types)

VARIABLES	CONDITIONS	WEIGHTS
Indicators of Dysfunction	no vegetation	0
Direct Indicators of Function	none	
<u>Primary Variables</u>		
• Plant Species Diversity	<ul style="list-style-type: none"> <li>• high diversity</li> <li>• medium diversity</li> <li>• low diversity</li> </ul>	5 3 1
• Vegetation Density/Dominance	<ul style="list-style-type: none"> <li>• high/very high</li> <li>• medium</li> <li>• sparse/low</li> </ul>	5 3 1
• Wetland Juxtaposition	<ul style="list-style-type: none"> <li>• connected upstream and downstream</li> <li>• connected above or below</li> <li>• other wetlands nearby but not connected (400 m or closer)</li> <li>• isolated</li> </ul>	5 3 1
		0
		15
	Total Score:	
	Model Range:	2-15
	Functional Capacity Index:	= Total Score / 15 = 1.0
	Index Range:	0.13-1.0

### 2.9.8 Contribution to Abundance and Diversity of Wetland Fauna

(This model is identical for all HGM types except Slope Wetlands for which "Interspersion of Vegetation Cover and Open Water" does not apply))

VARIABLES	CONDITIONS	WEIGHTS
Direct Indicators of Disfunction	none	
Direct Indicators of Function	none	
<u>Primary Variables</u>		
• Watershed Land Use	<ul style="list-style-type: none"> <li>• low intensity (0-25% urbanized)</li> <li>• moderate intensity (25-50% urbanized)</li> <li>• high intensity (&gt; 50% urbanized)</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>2</li> <li>1</li> </ul>
• Wetland Land Use	<ul style="list-style-type: none"> <li>• low intensity</li> <li>• moderate intensity</li> <li>• high intensity</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>2</li> <li>1</li> </ul>
• Wetland Water Regime	<ul style="list-style-type: none"> <li>• wet: permanently flooded, intermittently exposed, semipermanently flooded</li> <li>• drier: seasonally flooded, temporarily flooded, saturated</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>1</li> </ul>
• Microrelief of Wetland Surface	<ul style="list-style-type: none"> <li>• pronounced</li> <li>• well developed</li> <li>• poorly developed</li> <li>• absent</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>2</li> <li>1</li> <li>0</li> </ul>
• Number of Wetland types and Relative Proportions	<ul style="list-style-type: none"> <li>• 5 or more types</li> <li>• 3-4 types</li> <li>• 1-2 types</li> <li>• no vegetation</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>2</li> <li>1</li> <li>0</li> </ul>
	<ul style="list-style-type: none"> <li>• even distribution</li> <li>• moderately even distribution</li> <li>• highly uneven distribution</li> <li>• no vegetation</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>2</li> <li>1</li> <li>0</li> </ul>
• Vegetation Interspersion	<ul style="list-style-type: none"> <li>• high interspersion</li> <li>• moderate interspersion</li> <li>• low interspersion</li> <li>• no vegetation</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>2</li> <li>1</li> <li>0</li> </ul>
• Number of Layers and Percent Cover	<ul style="list-style-type: none"> <li>• 5 or more layers</li> <li>• 3-4 layers</li> <li>• 1-2 layers</li> <li>• no vegetation</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>2</li> <li>1</li> <li>0</li> </ul>
	<ul style="list-style-type: none"> <li>• layers well developed (&gt; 50% cover)</li> <li>• layers with moderate cover (26-50% cover)</li> <li>• layers poorly distinguishable (&lt; 25% cover)</li> <li>• no vegetation</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>2</li> <li>1</li> <li>0</li> </ul>

(continued)

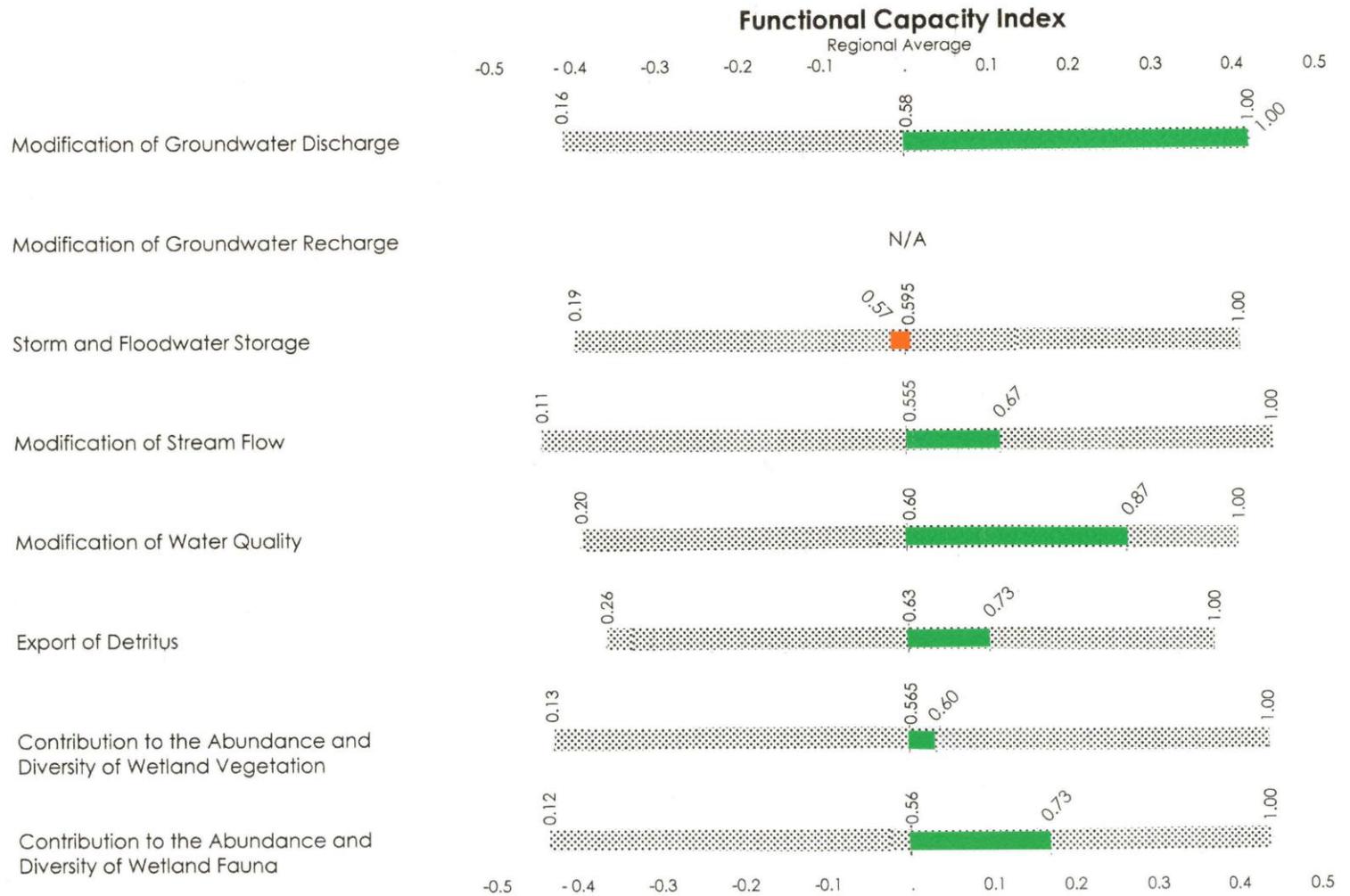
### 2.9.8 Contribution to Abundance and Diversity of Wetland Fauna

(This model is identical for all HGM types except Slope Wetlands for which "Interspersion of Vegetation Cover and Open Water" does not apply))

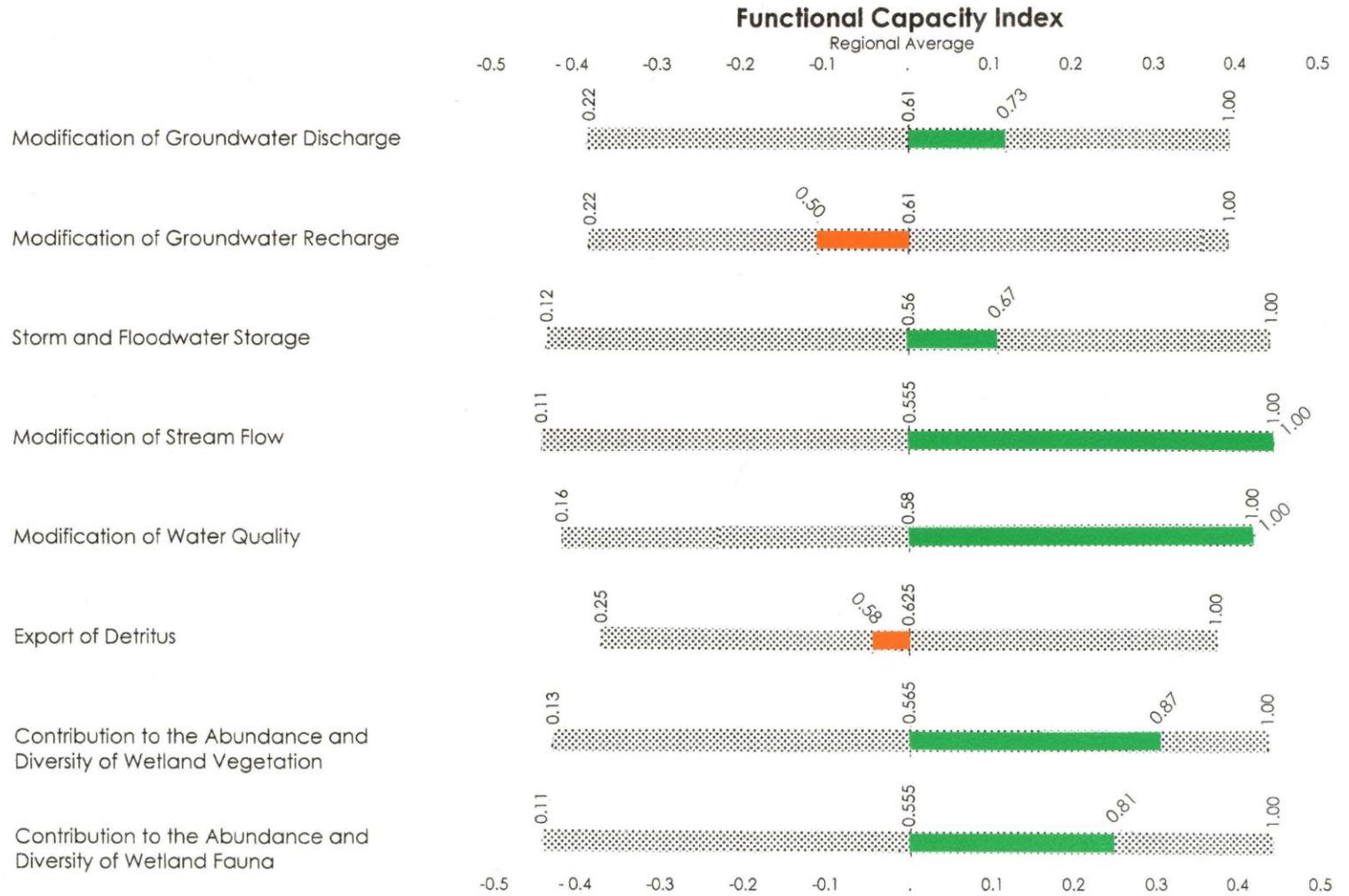
VARIABLES	CONDITIONS	WEIGHTS
Direct Indicators of Disfunction	none	
Direct Indicators of Function	none	
<u>Primary Variables</u>		
● Watershed Land Use	<ul style="list-style-type: none"> <li>● low intensity (0-25% urbanized)</li> <li>● moderate intensity (25-50% urbanized)</li> <li>● high intensity (&gt; 50% urbanized)</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>2</li> <li>1</li> </ul>
● Wetland Land Use	<ul style="list-style-type: none"> <li>● low intensity</li> <li>● moderate intensity</li> <li>● high intensity</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>2</li> <li>1</li> </ul>
● Wetland Water Regime	<ul style="list-style-type: none"> <li>● wet: permanently flooded, intermittently exposed, semipermanently flooded</li> <li>● drier: seasonally flooded, temporarily flooded, saturated</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>1</li> </ul>
● Microrelief of Wetland Surface	<ul style="list-style-type: none"> <li>● pronounced</li> <li>● well developed</li> <li>● poorly developed</li> <li>● absent</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>2</li> <li>1</li> <li>0</li> </ul>
● Number of Wetland types and Relative Proportions	<ul style="list-style-type: none"> <li>● 5 or more types</li> <li>● 3-4 types</li> <li>● 1-2 types</li> <li>● no vegetation</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>2</li> <li>1</li> <li>0</li> </ul>
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	<ul style="list-style-type: none"> <li>● layers well developed (&gt; 50% cover)</li> <li>● layers with moderate cover (26-50% cover)</li> <li>● layers poorly distinguishable (&lt; 25% cover)</li> <li>● no vegetation</li> </ul>	<ul style="list-style-type: none"> <li>3</li> <li>2</li> <li>1</li> <li>0</li> </ul>

(continued)

8.6 ac. - 35% of total 26 ac. wetlands



13 ac. - 50% of total 26 ac. wetlands



WETLAND INVENTORY DATA

Total wetlands 25.5 ac  
 Riverine 13.1 ac = 51%  
 Slope 8.6 ac = 34%  
 Depression 3.7 ac = 15%  
 \* ≤ 25% not assessed separately

Project Number: YORKTOWN  
 Wetland Number: ML-2  
 Aerial Photo Numbers: \_\_\_\_\_  
 USGS Quadrangle: Mohegan Lake  
 Field Investigators: BD & SC

Date: \_\_\_\_\_

PART 1 - CHARACTERIZATION of WETLAND

SURFACE WATER FLOW VECTORS		PLANT SPECIES																																							
Condition	Percent/Acreage	Condition	Percent/Acreage	OW	PW	F	FU	OU	DOM	COM	OCC	C	S	TS	LS	H																									
	15% / 3.7 ac	Depressional																																							
	34% / 8.6 ac	Slope																																							
		Flat																																							
		Extensive Peatland																																							
		Lacustrine Fringe																																							
	51% / 13.1 ac	Riverine																																							
VEGETATION TYPES			PLANT SPECIES																																						
Type	Percent/Acreage	SOIL TYPES																																							
Forested Wetland		Histosol																																							
Evergreen		• Fibric																																							
Needle-leaved		• Hemic																																							
Deciduous		• Sapric																																							
Broad-leaved	60%	Mineral																																							
Needle-leaved		Hydric Soil																																							
Scrub Shrub		• Gravelly																																							
Evergreen		• Sandy																																							
Broad-leaved		• Silty																																							
Needle-leaved		• Clayey																																							
Deciduous	15%																																								
Broad-leaved																																									
Needle-leaved																																									
Emergent Wetland																																									
Persistent	5%																																								
Non-persistent																																									
Aquatic Bed																																									
Total	100%																																								
Comments:																																									
			<table border="0"> <tr> <td>OW</td><td>Obligate Wetland</td> <td>COM</td><td>Common</td> </tr> <tr> <td>FW</td><td>Facultative Wetland</td> <td>OCC</td><td>Occasional</td> </tr> <tr> <td>F</td><td>Facultative</td> <td>C</td><td>Canopy</td> </tr> <tr> <td>FU</td><td>Facultative Upland</td> <td>S</td><td>Sapling</td> </tr> <tr> <td>OU</td><td>Obligate Upland</td> <td>TS</td><td>Tall Shrub</td> </tr> <tr> <td>DOM</td><td>Dominant</td> <td>LS</td><td>Low Shrub</td> </tr> <tr> <td></td><td></td> <td>H</td><td>Herb</td> </tr> </table>											OW	Obligate Wetland	COM	Common	FW	Facultative Wetland	OCC	Occasional	F	Facultative	C	Canopy	FU	Facultative Upland	S	Sapling	OU	Obligate Upland	TS	Tall Shrub	DOM	Dominant	LS	Low Shrub			H	Herb
OW	Obligate Wetland	COM	Common																																						
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DOM	Dominant	LS	Low Shrub																																						
		H	Herb																																						
			<table border="0"> <tr> <td colspan="2">PRE-EMPTIVE STATUS</td> </tr> <tr> <td>Public ownership</td> <td>Documented habitat for state or federal listed species</td> </tr> <tr> <td>Wildlife management area</td> <td>Regionally scarce wetland category</td> </tr> <tr> <td>Fisheries management area</td> <td>Historic/archaeologic area</td> </tr> <tr> <td>Designated State or Federal protected wetland</td> <td></td> </tr> </table>											PRE-EMPTIVE STATUS		Public ownership	Documented habitat for state or federal listed species	Wildlife management area	Regionally scarce wetland category	Fisheries management area	Historic/archaeologic area	Designated State or Federal protected wetland																			
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# WETLAND INVENTORY DATA (continued)

## PART 2 - CHARACTERIZATION of MODEL VARIABLES

**LANDSCAPE VARIABLES**

**Size:**

Small (<10 acres)

Medium (10-100 acres)

Large (>100 acres)

**Wetland Juxtaposition:**

Connected Upstream and Downstream

Only Connected Above

Only Connected Below

Other Wetlands Nearby but not Connected

Wetland Isolated

**Fire Occurrence and Frequency:**

Natural; Predictable Frequency

Natural; Sporadic Frequency

Human-caused; Predictable

Human-caused; Sporadic

Rare Event

No Evidence

**Regional Scarcity:**

Not Scarce (>5% of total wetland area of region)

Scarce (<5% of total wetland area of region)

**Watershed Land Use:**

> 50% urbanized

25-50% urbanized

0-25% urbanized

**HYDROLOGIC VARIABLES**

**Surface Water Level Fluctuation of Wetland:**

High Fluctuation

Low Fluctuation

Never Inundated

**Frequency of Overbank Flooding:**

Return Interval > 5 yrs.

Return Interval 2-5 yrs.

Return Interval 1-2 yrs.

No Overbank Flooding

**pH:**

Acid <5.5

Circumneutral 5.5-7.4

Alkaline >7.4

No Water

**Surficial Geologic Deposit Under Wetland**

Low Permeability Stratified Deposits

High Permeability Stratified Deposits

Glacial Till

**Wetland Land Use:**

High Intensity (ie. agriculture)

Moderate Intensity (ie. forestry)

Low Intensity (ie. open space)

**Wetland Water Regime:**

Wet: Perm Flooded, Intermittently Exposed, Semiperme. Flooded

Drier: Seasonally Flooded, Temporarily Flooded, Saturated

**Basin Topographic Gradient:**

High Gradient >2%

Low Gradient <2%

**Degree of Outlet Restriction:**

Restricted Outflow

Unrestricted Outflow

No Outflow

**Ratio of Wetland Area to Watershed Area:**

High >10%

Low <10%

**Microrelief of Wetland Surface:**

Pronounced >45 cm

Well Developed 15-45 cm

Poorly Developed <15 cm

Absent

**Inlet/Outlet Class:**

No Inlet/No Outlet

No Inlet/Intermittent Outlet

No Inlet/Perennial Outlet

Intermittent Inlet/No Outlet

Intermittent Inlet/Intermittent Outlet

Intermittent Outlet/Perennial Outlet

Perennial Inlet/No Outlet

Perennial Inlet/Intermittent Outlet

Perennial Inlet/Perennial Outlet

**Nested Piezometer Data:**

Recharge

Discharge

Horizontal Flow

Not Available

**Relationship of Wetlands' Substrate Elevation to Regional Piezometric Surface:**

Piez. Surface Above or at Substrate elev.

Piez. Surface below Substrate elev.

Not Available

**Evidence of Sedimentation:**

No Evidence Observed

Sediment Observed on Wetland Substrate

Fluvaquent Soils

**Evidence of Seeps and Springs:**

No Seeps or Springs

Seeps Observed

Perennial Spring

Intermittent Spring

**SOIL VARIABLES**

**Soil Lacking:**

**Histosol:**

Fibric

Hemic

Sapric

**Mineral Hydric Soil:**

Gravelly

Sandy

Silty

Clayey

**VEGETATION VARIABLES**

**Vegetation Lacking:**

**Dominant Wetland Type:**

Forested - Evergreen - Needle-leaved

Forested - Deciduous - Broad-leaved

Forested - Deciduous - Needle-leaved

Scrub Shrub - Evergreen - Broad-leaved

Scrub Shrub - Evergreen - Needle-leaved

Scrub Shrub - Deciduous - Broad-leaved

Scrub Shrub - Deciduous - Needle-leaved

Emergent - Persistent

Emergent - Non-persistent

Aquatic Bed

**Number of Types & Relative Proportions:**

**Number of Types**

Actual #

5

4

3

2

1

**Evenness of Distribution**

Even Distribution

Moderately Even Distribution

Highly Uneven Distribution

**Vegetation Density/Dominance:**

Sparse (0-20%)

Low Density (20-40%)

Medium Density (40-60%)

High Density (60-80%)

Very High Density (80-100%)

**Vegetative Interspersion:**

High (small groupings, diverse and interspersed)

Moderate (broken irregular rings)

Low (large patches, concentric rings)

**Number of Layers and Percent Cover:**

Number of Layers	% Cover
<input type="checkbox"/> 6 or > (actual #)	1. submergents:
<input checked="" type="checkbox"/> 5	2. floating:
<input type="checkbox"/> 4	3. moss-lichen:
<input type="checkbox"/> 3	4. short herb:
<input type="checkbox"/> 2	5. tall herb:
<input type="checkbox"/> 1	6. dwarf shrub:
	7. short shrub:
	8. tall shrub:
	9. sapling:
	10. tree:

**Plant Species Diversity:**

Low 1-2 plots sampled

Medium 3-4 plots sampled

High 5 or more plots sampled

**Proportion of Animal Food Plants:**

Low (5-25% cover)

Medium (25-50% cover)

High (>50% cover)

**Cover Distribution:**

Continuous Cover

Small Scattered Patches

1 or More Large Patches; Parts of Site Open

Solitary, Scattered Stems

**Dead Woody Material:**

Abundant (>50 of wetland surface)

Moderately Abundant (25-50% of surface)

Low Abundance (0-25% of surface)

**Interspersion of Cover and Open Water:**

26-75% Scattered or Peripheral

>75% Scattered or Peripheral

<25% Scattered or Peripheral

100% Cover or Open Water

**Stream Sinuosity:**

Highly Convoluted (index 1.50 or >)

Moderately Convoluted (index 1.25-1.50)

Straight/Slightly Irreg. (index) 1.10-1.25

**Presence of Islands:**

Several to Many

One or Few

Absent

ML-2

Total Wetlands 25.5 ac  $\angle$  10% watershed  
 Riverine 13.1 ac = 51%  
 Slope 8.6 ac = 34%  
 Depression 3.7 ac = 15%\*  
 \*  $\angle$  25%  $\therefore$  assessed w/ riverine.

2.9.1 Modification of Ground Water Discharge

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS			
			D	S	R	F
<b>Indicators of Disfunction</b>						
• Inlet/Outlet Class	• perennial inlet/no outlet		0	0	0	0
• Nested Piezometer Data	• recharge condition		0	0	0	0
• Relationship to Regional Piezometric Surface	• wetland substrate elevation above piezometric surface		0	0	0	0
<b>Direct Indicators of Function</b>						
• Presence of Springs and Seeps	• evidence of perennial seeps or springs		18	15	15	18
• Nested Piezometer Data	• discharge condition		18	15	15	18
• Relationship to Regional Piezometric Surface	• wetland substrate elevation below piezometric surface		18	15	15	18
• Inlet/Outlet Class	• no inlet/perennial outlet		18	15	15	18
<b>Primary Variables</b>						
• Microrelief of Wetland Surface	• pronounced		3	3	3	3
	• well developed		2	2	2	2
	• poorly developed		1	1	1	1
	• absent		0	0	0	0
• Inlet/Outlet Class	• perennial inlet/perennial outlet		3	3	0	3
	• intermittent inlet/perennial outlet		2	2	0	2
	• all other classes		0	0	0	0
• pH	• alkaline		3	3	3	3
	• circumneutral		2	2	2	2
	• acid		0	0	0	0
	• no water present		0	0	0	0
• Surficial Geologic Deposit Under Wetland	• high permeability stratified deposits		3	3	3	3
	• low permeability stratified deposits		2	2	2	2
	• glacial till		1	1	1	1
• Wetland Water Regime	• wet; permanently flooded, intermittently exposed, semipermanently flooded		3	0	3	3
	• drier; seasonally flooded, temporarily flooded, saturated		1	0	1	1

(continued)

2.9.1

Modification of Ground Water Discharge (Continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS			
			D	S	R	F
• Soil Type	• histosol		3	3	3	3
	• mineral hydric soil		1	1	1	1
			-	-	11	-
Total Score:						
Model Range:			3-18	2-15	3-15	3-18
Functional Capacity Index:			Total Score			
			18	$\frac{15}{18} = 1.0$	$\frac{11}{15} = 0.73$	18
Index Range:			0.19-1.0	0.16-1.0	0.22-1.0	0.19-1.0

Note: This model can be applied to both year long and seasonal discharge wetlands.

If the wetland is seasonally fluctuating between recharge and discharge, then reduce the above score by one half (1/2), because the wetland only functions in a discharge mode for roughly half the year.

2.9.2

Modification of Ground Water Recharge

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS				
			D	L	EP	R	F
Indicators of Disfunction							
• Inlet/Outlet Class	• no inlet/perennial outlet; intermittent inlet/perennial outlet		0				0
• Nested Piezometer Data	• discharge condition		0	0	0	0	0
• Relationship to Regional Piezometric Surface	• wetland substrate elevation above or at piezometric surface		0	0	0	0	0
• Presence of Seeps and Springs	• presence of seeps or springs		0	0	0	0	0

(continued)

2.9.2

Modification of Ground Water Recharge (Continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS				
			D	L	EP	R	F
<b>Direct Indicators of Function</b>							
• Inlet/Outlet Class	• perennial inlet/no outlet		21				21
• Nested Piezometer Data	• recharge condition		21				21
• Relationship to Regional Piezometric Surface	• wetland substrate elevation below piezometric surface		21				21
<b>Primary Variables</b>							
• Microrelief of Wetland Surface	• Poorly Developed		3	3	1	3	3
	• Absent		3	3	1	3	3
	• Well Developed		2	2	2	2	2
	• Pronounced		1	1	3	1	1
• Inlet/Outlet Class	• Perennial Inlet/Intermittent Outlet		3	0	0	0	3
	• All Other Classes		0	0	0	0	0
• pH	• Acid		3	3	3	3	3
	• Circumneutral		2	2	2	2	2
	• Alkaline		1	1	1	1	1
	• No water present		0	0	0	0	0
• Surficial Geologic Deposit Under Wetland	• Glacial Till		3	1	1	1	3
	• Low Permeability Stratified Deposits		2	2	2	2	2
	• High Permeability Stratified Deposits		1	3	3	3	1
• Surface Water Level Fluctuation of the Wetland	• High Fluctuation		3	3	0	3	3
	• Low Fluctuation		2	2	0	2	2
	• Never Inundated		1	1	0	1	1
• Wetland Water Regime	• Drier: Seasonally Flooded, Temporarily Flooded, Saturated		3	3	0	3	3
	• Wet: Permanently Flooded, Intermittently Exposed, Semipermanently Flooded		1	1	0	1	1
• Soil Type	• Gravelly or Sandy Mineral Hydric		3	3	0	3	3
	• Silty or Clayey Mineral Hydric		2	2	0	2	2
	• Sapric Histosol		1	1	0	1	1
	• Fibric or Hemic Histosol		0	0	3	0	0
Total Score:			9				
Model Range:			4-21	4-18	2-12	4-18	4-21
Functional Capacity Index:			Total Score	18	12	18	21
Index Range:			0.19-1.0	0.22-1.0	0.16-1.0	0.22-1.0	0.19-1.0

Note: This model should be applied to both year long and seasonal recharge wetlands.

If the wetland is seasonally fluctuating between recharge and discharge, then reduce the above score by one half (1/2), because the wetland only functions in a recharge mode for roughly half the year.

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
Indicators of disfunction	none							
Direct Indicators of Function	no outlet		27	21				30
<u>Primary Variables</u>								
• Inlet/Outlet Class	• perennial inlet/intermittent outlet		3	3	0	0	0	3
	• intermittent inlet/intermittent outlet		2	2	0	0	0	2
	• no inlet/intermittent outlet		1	1	0	0	0	1
	• non inlet/perennial outlet		1	1	0	0	0	1
	• intermittent inlet/perennial outlet		1	1	0	0	0	1
	• perennial inlet/perennial outlet		1	1	0	0	0	1
• Degree of Outlet Restriction	• restricted		3	0	0	0	0	3
	• unrestricted		0	0	0	0	0	0
• Basin Topographic Gradient	• low gradient		3	3	0	3	3	3
	• high gradient		1	1	0	0	1	1
• Wetland Water Regime	• Drier: seasonally flooded, temporarily flooded, saturated		3	3	3	0	3	3
	• Wet: permanently flooded, intermittently exposed, semipermanently flooded		1	1	1	0	1	1
• Surface Water Level Fluctuation of the Wetland	• high fluctuation		3	0	3	0	3	3
	• low fluctuation		2	0	2	0	2	2
	• never inundated		0	0	0	0	0	0
• Ratio of Wetland Area to Watershed Area	• large		3	3	3	0	3	3
	• small		1	1	1	0	1	1
• Microrelief of Wetland Surface	• pronounced		3	3	3	3	3	3
	• well developed		2	2	2	2	2	2
	• poorly developed		1	1	1	1	1	1
	• absent		0	0	0	0	0	0
• Frequency of Overbank Flooding	• overbank flooding absent		0	0	0	0	0	0
	• return interval of > 5 yrs		0	0	1	0	1	1
	• return interval of 2-5 yrs		0	0	2	0	2	2
	• return interval of 1-2 yrs		0	0	3	0	3	3
• Vegetation Density/Dominance	• high/very high		3	3	3	3	3	3
	• moderate		2	2	2	2	2	2
	• sparse/low		1	1	1	1	1	1
	• no vegetation		0	0	0	0	0	0

(continued)

### 2.9.3 Storm and Flood-Water Storage (Continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS						
			D	S	L	EP	R	F	
• Dead Woody Material	• abundant		3	3	3	3	3	3	
	• moderately abundant		2	2	2	2	2	2	
	• sparse		1	1	1	1	1	1	
	• absent		0	0	0	0	0	0	
				—	12	—	—	16	—
Total Score:									
Model Range:			4-27	4-21	2-21	0-12	3-24	4-30	
Functional Capacity Index:									
			Total Score	27	21	21	12	24	30
				$12 = 0.67$			$16 = 0.67$		
Index Range:			0.15-1.0	0.19-1.0	0.09-1.0	0-1.0	0.12-1.0	0.13-1.0	

### 2.9.4 Modification of Stream Flow (This model is identical for all HGM types)

VARIABLES	CONDITIONS	WEIGHTS
Indicators of Dysfunction	no outlet	0
Direct Indicators of Function	none	

#### Primary Variables

#### Storm and Flood Water Storage Function Model Score

High	3	x
Mod	2	x
Low	1	x
High	3	x
Mod	2	x
Low	1	x
High	3	x
Mod	2	x
Low	1	x

#### Modification of Groundwater Discharge Function Model Score

High	3	=	9
High	3	=	6
High	3	=	3
Mod	2	=	6
Mod	2	=	4
Mod	2	=	2
Low	1	=	3
Low	1	=	2
Low	1	=	1

Total Score:

Model Range: 1-9

Functional Capacity Index:

Total Score

9

Index Range: 0.11-1.0

$$\frac{9}{9} = 1.0$$

$$6 = 0.67$$

\*High = FCI of 0.67-1.0, Mod = FCI of 0.34-0.66, Low = FCI of 0-0.33 for the Storm and Flood Water Storage and Modification of Ground Water Discharge Function Model Scores.

2.9.5 Modification of Water Quality

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS						
			D	S	L	EP	R	F	
Indicators of disfunction	none								
Direct Indicators of Function	evidence of sedimentation		18	15	12	12	12	12	18
<b>Primary Variables</b>									
• Wetland Land Use	• low intensity		3	3	3	3	3	3	3
	• moderate intensity		2	2	2	2	2	2	2
	• high intensity		1	1	1	1	1	1	1
• Degree of Outlet Restriction	• restricted outflow		3	0	0	0	0	0	3
	• no outlet		2	0	0	0	0	0	2
	• unrestricted outflow		1	0	0	0	0	0	1
• Inlet/Outlet Type	• no outlet		3	3	0	0	0	0	3
	• intermittent outlet		2	2	0	0	0	0	2
	• perennial outlet		1	1	0	0	0	0	1
• Dominant Wetland Type	• forested wetland		3	3	3	3	3	3	3
	• scrub-shrub		2	2	2	2	2	2	2
	• emergent wetland		2	2	2	2	2	2	2
	• aquatic bed		1	0	0	0	0	0	0
	• no vegetation		0	0	0	0	0	0	0
• Cover Distribution	• forming a continuous cover		3	3	3	3	3	3	3
	• growing in small scattered patches		2	2	2	2	2	2	2
	• one or more large patches		1	1	1	1	1	1	1
	• solitary scattered stems		1	1	1	1	1	1	1
	• no vegetation		0	0	0	0	0	0	0
• Soil Type	• histosol or clayey soil		3	3	3	3	3	3	3
	• silty soil		2	2	2	0	2	2	2
	• sandy or gravelly soil		1	1	1	0	1	1	1
			—	13	—	—	12	—	—
Total Score:									
Model Range:			4-18	3-15	2-12	1-12	2-12	4-18	
Functional Capacity Index:			Total Score	$\frac{13}{15} = 0.87$			$\frac{12}{12} = 1.0$		
			18	15	12	12	12	18	
Index Range:			0.22-1.0	0.20-1.0	0.16-1.0	0.8-1.0	0.16-1.0	0.22-1.0	

## 2.9.6 Export of Detritus

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
Indicators of disfunction	no outlet		0	0		0		0
Direct Indicators of Function	none							
<u>Primary Variables</u>								
• Wetland Land Use	• moderate intensity		3	3	3	3	3	3
	• low intensity		2	2	2	2	2	2
	• high intensity		1	1	1	1	1	1
• Degree of Outlet Restriction	• unrestricted outflow		3	0	0	0	0	3
	• restricted outflow		1	0	0	0	0	1
• Inlet/Outlet Class	• perennial outlet		3	3	0	0	0	3
	• intermittent outlet		1	1	0	0	0	1
• Wetland Water Regime	• drier: seasonally flooded, temporarily flooded, saturated		3	3	3	0	3	3
	• wet: permanently flooded, intermittently exposed, semipermanently flooded		1	1	1	1	1	1
• Vegetation Density/Dominance	• high/very high		3	3	3	3	3	3
	• medium		2	2	2	2	2	2
	• sparse/low		1	1	1	1	1	1
	• no vegetation		0	0	0	0	0	0
• Soil Type	• mineral hydric soil		3	3	3	3	3	3
	• histosol		1	1	1	1	1	1
Total Score:			—	11	—	—	7	—
Model Range:			5-18	4-15	3-12	2-10	3-12	5-18
Functional Capacity Index:			Total Score	11 = 0.73	—	—	7 = 0.58	—
			18	15	12	10	12	18
Index Range:			0.27-1.0	0.26-1.0	0.25-1.0	0.20-1.0	0.25-1.0	0.27-1.0

**2.9.7 Contribution to Abundance and Diversity of Wetland Vegetation**  
 (This model is identical for all HGM types)

VARIABLES		CONDITIONS	WEIGHTS
Indicators of Disfunction		no vegetation	0
Direct Indicators of Function		none	
<u>Primary Variables</u>	• Plant Species Diversity	• high diversity	5
		• medium diversity	3
		• low diversity	1
	• Vegetation Density/Dominance	• high/very high	5
		• medium	3
		• sparse/low	1
	• Wetland Juxtaposition	• connected upstream and downstream	5
		• connected above or below	3
		• other wetlands nearby but not connected (400 m or closer)	1
		• isolated	0
Total Score:			9
Model Range:			2-15
Functional Capacity Index:			= $\frac{\text{Total Score}}{15}$
Index Range:			0.13-1.0

*Handwritten notes:*  
 $\frac{9}{15} = 0.60$   
 $\frac{13}{15} = 0.87$

### 2.9.8 Contribution to Abundance and Diversity of Wetland Fauna

(This model is identical for all HGM types except Slope Wetlands for which "Interspersion of Vegetation Cover and Open Water" does not apply)

VARIABLES	CONDITIONS	WEIGHTS
Direct Indicators of Disfunction	none	
Direct Indicators of Function	none	
<u>Primary Variables</u>		
• Watershed Land Use	<ul style="list-style-type: none"> <li>• low intensity (0-25% urbanized)</li> <li>• moderate intensity (25-50% urbanized)</li> <li>• high intensity (&gt; 50% urbanized)</li> </ul>	3 2 1
• Wetland Land Use	<ul style="list-style-type: none"> <li>• low intensity</li> <li>• moderate intensity</li> <li>• high intensity</li> </ul>	3 2 1
• Wetland Water Regime	<ul style="list-style-type: none"> <li>• wet: permanently flooded, intermittently exposed, semipermanently flooded</li> <li>• drier: seasonally flooded, temporarily flooded, saturated</li> </ul>	3 1
• Microrelief of Wetland Surface	<ul style="list-style-type: none"> <li>• pronounced</li> <li>• well developed</li> <li>• poorly developed</li> <li>• absent</li> </ul>	3 2 1 0
• Number of Wetland types and Relative Proportions	<ul style="list-style-type: none"> <li>• 5 or more types</li> <li>• 3-4 types</li> <li>• 1-2 types</li> <li>• no vegetation</li> </ul>	3 2 1 0
	<ul style="list-style-type: none"> <li>• even distribution</li> <li>• moderately even distribution</li> <li>• highly uneven distribution</li> <li>• no vegetation</li> </ul>	3 2 1 0
• Vegetation Interspersion	<ul style="list-style-type: none"> <li>• high interspersion</li> <li>• moderate interspersion</li> <li>• low interspersion</li> <li>• no vegetation</li> </ul>	3 2 1 0
• Number of Layers and Percent Cover	<ul style="list-style-type: none"> <li>• 5 or more layers</li> <li>• 3-4 layers</li> <li>• 1-2 layers</li> <li>• no vegetation</li> </ul>	3 2 1 0
	<ul style="list-style-type: none"> <li>• layers well developed (&gt; 50% cover)</li> <li>• layers with moderate cover (26-50% cover)</li> <li>• layers poorly distinguishable (&lt; 25% cover)</li> <li>• no vegetation</li> </ul>	3 2 1 0

(continued)

2.9.8 Contribution to Abundance and Diversity of Wetland Fauna (Continued)

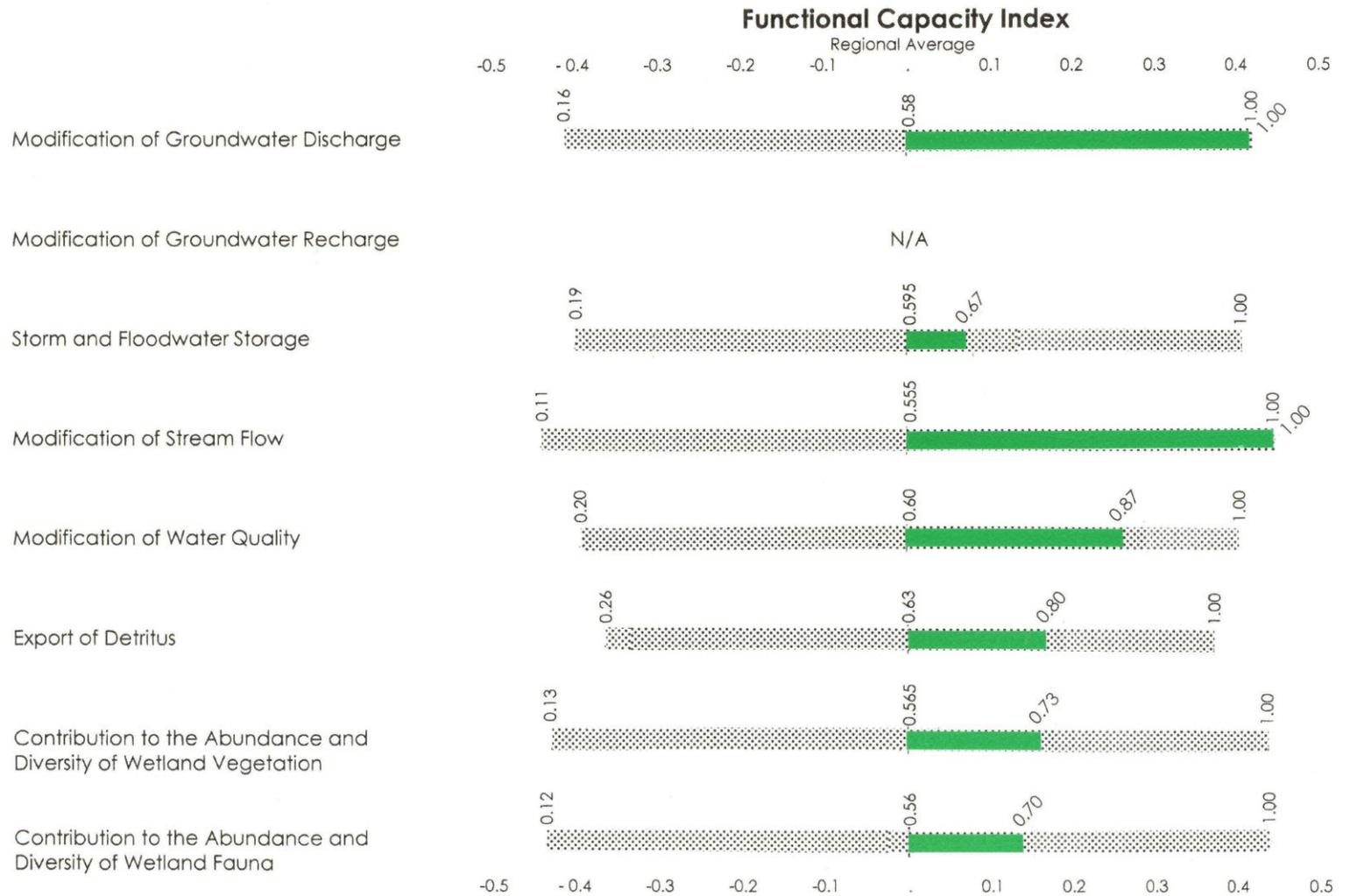
VARIABLES	CONDITIONS	WEIGHTS
• Interspersion of Vegetation Cover and Open Water	• 26-75% scattered or peripheral	3
	• > 75% scattered or peripheral	2
	• < 25% scattered or peripheral	1
	• 100% cover or open water	1
	• no vegetation	0
• Size	• large (> 100 acres)	3
	• medium (10-100 acres)	2
	• small (< 10 acres)	1
• Wetland Juxtaposition	• other wetlands within 400 m and connected above or below	3
	• other wetlands within 400 m but not connected	1
	• wetland isolated	0
		0
Slope Wetlands:	All Other HGM Types:	Total Score:
Model Range: 4-33		Model Range: 4-36
Functional Capacity Index = $\frac{\text{Total Score}}{33}$ <span style="color: green;">24 = 0.73</span>		Functional Capacity Index = $\frac{\text{Total Score}}{36}$ <span style="color: blue;">29 = 0.81</span>
Index Range: 0.12-1.0		Index Range: 0.11-1.0

Peekskill Hollow Brook  
Shrub Oak Brook

### Sloping Wetland

Study Area: SO-1

6.6 ac. - 31% of total 21.5 ac. wetlands

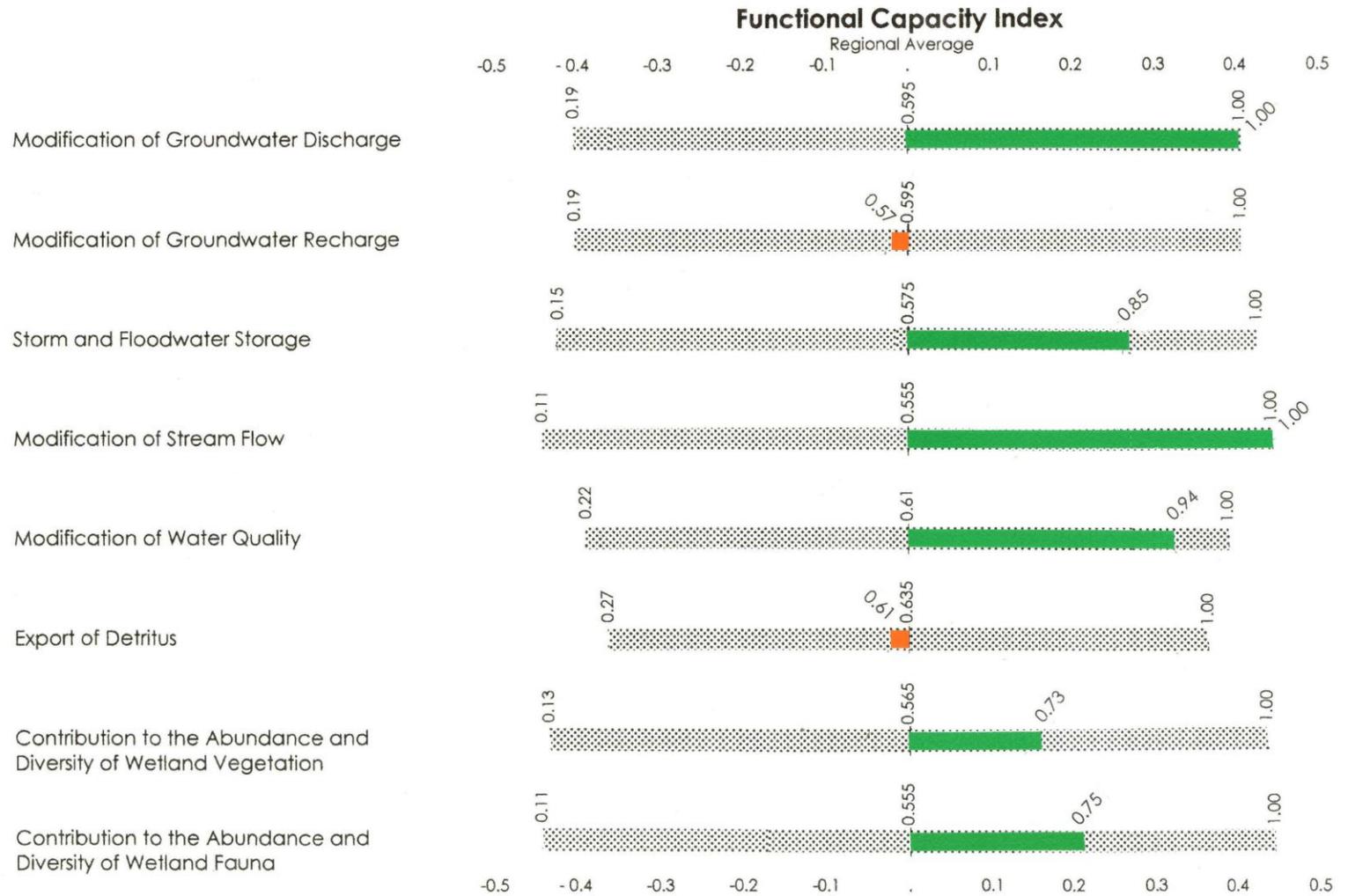


Peekskill Hollow Brook  
Shrub Oak Brook

### Depression Wetland

Study Area: SO-1

14.9 ac. - 69% of total 21.5 ac. wetlands



# WETLAND INVENTORY DATA

DEPRESSIONAL 72%  
SLOPE 28%

Project Number: \_\_\_\_\_ Date: \_\_\_\_\_

Wetland Number: 50-1 DEPRESSIONAL+SLOPE

Aerial Photo Numbers: \_\_\_\_\_

USGS Quadrangle: MONTEGAN LAKE

Field Investigators: E. DONOHUE

## PART 1 - CHARACTERIZATION of WETLAND

SURFACE WATER FLOW VECTORS		PLANT SPECIES												
Condition	Percent/Acreage	OW	FW	F	FU	OU	DOM	COM	OCC	C	S	TS	LS	H

	✓	Depressional
	✓	Slope
	—	Flat
	—	Extensive Peatland
	—	Lacustrine Fringe
	—	Riverine

<u>WILLOW CATERPILLAR</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>											
<u>ROYAL FISH</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>SHADELUSH</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>CHRISTMAS PINE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>CATALPA</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>ARROWWOOD VIB</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>MULTI FLORA ROSE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>REDMAPLE</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>AMERICAN ELM</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>POISON IVY</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>VIRGINIA CREEPER</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>JACK-IN-THE-PULPIT</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>WINTER BERRY</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>GRASS SP</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>SILKY DOGWOOD</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>JEWELWEED</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>PHIZAGMITES</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>SUMMIT SWEET CLOVER</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>GREEN ASH</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>SWEET BIRCH</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>SWAMP AZALEA</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>BLACK BIRCH</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>JAPANESE BARBERSVEET</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>COMMON SPICE BUSH</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>VIRGINIA WITCHHAZEL</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>AMERICAN BIRCH</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>BLACK GLIM</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
<u>BEESB WILLOW</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						

### VEGETATION TYPES

Type	Percent/Acreage
Forested Wetland	
Evergreen	
Needle-leaved	
Deciduous	
Broad-leaved	100%
Needle-leaved	
Scrub Shrub	
Evergreen	
Broad-leaved	
Needle-leaved	
Deciduous	
Broad-leaved	
Needle-leaved	
Emergent Wetland	
Persistent	
Non-persistent	
Aquatic Bed	
Total	

#### SOIL TYPES

Histosol	
• Fibric	<input checked="" type="checkbox"/>
• Hemic	<input type="checkbox"/>
• Sapric	<input type="checkbox"/>
Mineral	
Hydric Soil	
• Gravelly	<input type="checkbox"/>
• Sandy	<input type="checkbox"/>
• Silty	<input type="checkbox"/>
• Clayey	<input type="checkbox"/>

#### GEOLOGY

Surficial:	
<u>GLACIAL TILL</u>	
Bedrock:	

OW	Obligate Wetland	COM	Common
FW	Facultative Wetland	OCC	Occasional
F	Facultative	C	Canopy
FU	Facultative Upland	S	Sapling
OU	Obligate Upland	TS	Tall Shrub
DOM	Dominant	LS	Low Shrub
		H	Herb

Comments: \_\_\_\_\_

#### PRE-EMPTIVE STATUS

<input checked="" type="checkbox"/> Public ownership	_____ Documented habitat for state or federal listed species
<input checked="" type="checkbox"/> Wildlife management area	_____ Regionally scarce wetland category
_____ Fisheries management area	_____ Historic/archaeologic area
_____ Designated State or Federal protected wetland	

# WETLAND INVENTORY DATA (continued)

## PART 2 - CHARACTERIZATION of MODEL VARIABLES

**LANDSCAPE VARIABLES**

**Size:**

Small (<10 acres)  
 Medium (10-100 acres)  
 Large (>100 acres)

**Wetland Juxtaposition:**

Connected Upstream and Downstream  
 Only Connected Above  
 Only Connected Below  
 Other Wetlands Nearby but not Connected  
 Wetland Isolated

**Fire Occurrence and Frequency:**

Natural; Predictable Frequency  
 Natural; Sporadic Frequency  
 Human-caused; Predictable  
 Human-caused; Sporadic  
 Rare Event  
 No Evidence

**Regional Scarcity:**

Not Scarce (>5% of total wetland area of region)  
 Scarce (<5% of total wetland area of region)

**Watershed Land Use:**

> 50% urbanized  
 25-50% urbanized  
 0-25% urbanized

**HYDROLOGIC VARIABLES**

**Surface Water Level Fluctuation of Wetland:**

High Fluctuation  
 Low Fluctuation  
 Never Inundated

**Frequency of Overbank Flooding:**

Return Interval > 5 yrs.  
 Return Interval 2-5 yrs.  
 Return Interval 1-2 yrs.  
 No Overbank Flooding

**pH:**

Acid <5.5  
 Circumneutral 5.5-7.4  
 Alkaline >7.4  
 No Water

**Surficial Geologic Deposit Under Wetland**

Low Permeability Stratified Deposits  
 High Permeability Stratified Deposits  
 Glacial Till

**Wetland Land Use:**

High Intensity (i.e. agriculture)  
 Moderate Intensity (i.e. forestry)  
 Low Intensity (i.e. open space)

**Wetland Water Regime:**

Wet: Perm. Flooded, Intermittently Exposed, Semiperm. Flooded  
 Drier: Seasonally Flooded, Temporarily Flooded, Saturated

**Basin Topographic Gradient:**

High Gradient >2%  
 Low Gradient <2%

**Degree of Outlet Restriction:**

Restricted Outflow  
 Unrestricted Outflow  
 No Outflow

**Ratio of Wetland Area to Watershed Area:**

High >10%  
 Low <10%

**Microrelief of Wetland Surface:**

Pronounced >45 cm  
 Well Developed 15-45 cm  
 Poorly Developed <15 cm  
 Absent

**Inlet/Outlet Class:**

No Inlet/No Outlet  
 No Inlet/Intermittent Outlet  
 No Inlet/Perennial Outlet  
 Intermittent Inlet/No Outlet  
 Intermittent Inlet/Intermittent Outlet  
 Intermittent Outlet/Perennial Outlet  
 Perennial Inlet/No Outlet  
 Perennial Inlet/Intermittent Outlet  
 Perennial Inlet/Perennial Outlet

**Nested Piezometer Data:**

Recharge  
 Discharge  
 Horizontal Flow  
 Not Available

**Relationship of Wetlands' Substrate Elevation to Regional Piezometric Surface:**

Piez. Surface Above or at Substrate elev.  
 Piez. Surface below Substrate elev.  
 Not Available

**Evidence of Sedimentation:**

No Evidence Observed  
 Sediment Observed on Wetland Substrate  
 Fluvaquent Soils

**Evidence of Seeps and Springs:**

No Seeps or Springs  
 Seeps Observed  
 Perennial Spring  
 Intermittent Spring

**SOIL VARIABLES**

**Soil Lacking:**

**Histosol:**

Fibric  
 Hemic  
 Sapric

**Mineral Hydric Soil:**

Gravelly  
 Sandy  
 Silty  
 Clayey

**VEGETATION VARIABLES**

**Vegetation Lacking:**

**Dominant Wetland Type:**

Forested - Evergreen - Needle-leaved  
 Forested - Deciduous - Broad-leaved  
 Forested - Deciduous - Needle-leaved  
 Scrub Shrub - Evergreen - Broad-leaved  
 Scrub Shrub - Evergreen - Needle-leaved  
 Scrub Shrub - Deciduous - Broad-leaved  
 Scrub Shrub - Deciduous - Needle-leaved  
 Emergent - Persistent  
 Emergent - Non-persistent  
 Aquatic Bed

**Number of Types & Relative Proportions:**

**Number of Types**

Actual #  
 5  
 4  
 3  
 2  
 1

**Evenness of Distribution**

Even Distribution  
 Moderately Even Distribution  
 Highly Uneven Distribution

**Vegetation Density/Dominance:**

Sparse (0-20%)  
 Low Density (20-40%)  
 Medium Density (40-60%)  
 High Density (60-80%)  
 Very High Density (80-100%)

**Vegetative Interspersion:**

High (small groupings, diverse and interspersed)  
 Moderate (broken irregular rings)  
 Low (large patches, concentric rings)

**Number of Layers and Percent Cover:**

Number of Layers	% Cover
<input type="checkbox"/> 6 or > (actual #)	1. submerged:
<input type="checkbox"/> 5	2. floating:
<input type="checkbox"/> 4	3. moss-lichen:
<input type="checkbox"/> 3	4. short herb:
<input type="checkbox"/> 2	5. tall herb:
<input type="checkbox"/> 1	6. dwarf shrub:
	7. short shrub:
	8. tall shrub:
	9. sapling:
	10. tree:

**Plant Species Diversity:**

Low 1-2 plots sampled  
 Medium 3-4 plots sampled  
 High 5 or more plots sampled

**Proportion of Animal Food Plants:**

Low (5-25% cover)  
 Medium (25-50% cover)  
 High (>50% cover)

**Cover Distribution:**

Continuous Cover  
 Small Scattered Patches  
 1 or More Large Patches; Parts of Site Open  
 Solitary, Scattered Stems

**Dead Woody Material:**

Abundant (>50 of wetland surface)  
 Moderately Abundant (25-50% of surface)  
 Low Abundance (0-25% of surface)

**Interspersion of Cover and Open Water:**

26-75% Scattered or Peripheral  
 >75% Scattered or Peripheral  
 <25% Scattered or Peripheral  
 100% Cover or Open Water

**Stream Sinuosity:**

Highly Convoluted (index 1.50 or >)  
 Moderately Convoluted (index 1.25-1.50)  
 Straight/Slightly Irreg. (index) 1.10-1.25

**Presence of Islands:**

Several to Many  
 One or Few  
 Absent

50-1 DEPRESSION 72%  
SLOPE 28%\*

\* WETLAND CLASSES CONSTITUTING LESS THAN 25% OF TOTAL WETLAND AREA ARE COMBINED W/ HIGHEST CLASS.

2.9.1 Modification of Ground Water Discharge

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS			
			D	S	R	F
<b>Indicators of Dysfunction</b>						
• Inlet/Outlet Class	• perennial inlet/no outlet		0	0	0	0
• Nested Piezometer Data	• recharge condition		0	0	0	0
• Relationship to Regional Piezometric Surface	• wetland substrate elevation above piezometric surface		0	0	0	0
<b>Direct Indicators of Function</b>						
• Presence of Springs and Seeps	• evidence of perennial seeps or springs		18	15	15	18
• Nested Piezometer Data	• discharge condition		18	15	15	18
• Relationship to Regional Piezometric Surface	• wetland substrate elevation below piezometric surface		18	15	15	18
• Inlet/Outlet Class	• no inlet/perennial outlet		18	15	15	18
<b>Primary Variables</b>						
• Microrelief of Wetland Surface	• pronounced		3	3	3	3
	• well developed		2	2	2	2
	• poorly developed		1	1	1	1
	• absent		0	0	0	0
• Inlet/Outlet Class	• perennial inlet/perennial outlet		3	3	0	3
	• intermittent inlet/perennial outlet		2	2	0	2
	• all other classes		0	0	0	0
• pH	• alkaline		3	3	3	3
	• circumneutral		2	2	2	2
	• acid		0	0	0	0
	• no water present		0	0	0	0
• Surficial Geologic Deposit Under Wetland	• high permeability stratified deposits		3	3	3	3
	• low permeability stratified deposits		2	2	2	2
	• glacial till		1	1	1	1
• Wetland Water Regime	• wet; permanently flooded, intermittently exposed, semipermanently flooded		3	0	3	3
	• drier; seasonally flooded, temporarily flooded, saturated		1	0	1	1

(continued)

2.9.1 Modification of Ground Water Discharge (Continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS			
			D	S	R	F
• Soil Type	• histosol		3	3	3	3
	• mineral hydric soil		1	1	1	1
			10	5	-	-
		Total Score:				
		Model Range:	3-18	2-15	3-15	3-18
		Functional Capacity Index:				
		Total Score	18	5	15	18
		Index Range:	0.19-1.0	0.16-1.0	0.22-1.0	0.19-1.0

*Handwritten notes:*  
 $\frac{10}{18} = 0.556$   
 $\frac{5}{15} = 0.33$   
 $\frac{1}{15} = 0.067$   
 $\frac{1}{18} = 0.056$

Note: This model can be applied to both year long and seasonal discharge wetlands.

If the wetland is seasonally fluctuating between recharge and discharge, then reduce the above score by one half (1/2), because the wetland only functions in a discharge mode for roughly half the year.

2.9.2 Modification of Ground Water Recharge

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS				
			D	L	EP	R	F
Indicators of Dysfunction							
• Inlet/Outlet Class	• no inlet/perennial outlet; intermittent inlet/perennial outlet		0				0
• Nested Piezometer Data	• discharge condition		0	0	0	0	0
• Relationship to Regional Piezometric Surface	• wetland substrate elevation above or at piezometric surface		0	0	0	0	0
• Presence of Seeps and Springs	• presence of seeps or springs		0	0	0	0	0

(continued)

2.9.1 Modification of Ground Water Discharge (Continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS			
			D	S	R	F
• Soil Type	• histosol		3	3	3	3
	• mineral hydric soil		1	1	1	1
			10	5	-	-
		Total Score:				
		Model Range:	3-18	2-15	3-15	3-18
		Functional Capacity Index:				
		Total Score	10	5	15	18
		Index Range:	0.19-1.0	0.16-1.0	0.22-1.0	0.19-1.0

*Handwritten notes:*  
 $\frac{10}{18} = 0.556$   
 $\frac{5}{15} = 0.33$   
 $\frac{1}{15} = 0.067$   
 $\frac{1}{18} = 0.056$

Note: This model can be applied to both year long and seasonal discharge wetlands.

If the wetland is seasonally fluctuating between recharge and discharge, then reduce the above score by one half (1/2), because the wetland only functions in a discharge mode for roughly half the year.

2.9.2 Modification of Ground Water Recharge

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS				
			D	L	EP	R	F
Indicators of Dysfunction							
• Inlet/Outlet Class	• no inlet/perennial outlet; intermittent inlet/perennial outlet		0				0
• Nested Piezometer Data	• discharge condition		0	0	0	0	0
• Relationship to Regional Piezometric Surface	• wetland substrate elevation above or at piezometric surface		0	0	0	0	0
• Presence of Seeps and Springs	• presence of seeps or springs		0	0	0	0	0

(continued)

2.9.3 Storm and Flood-Water Storage

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
Indicators of disfunction	none							
Direct Indicators of Function	no outlet		27	21				30
<b>Primary Variables</b>								
• Inlet/Outlet Class	• perennial inlet/intermittent outlet		3	3	0	0	0	3
	• intermittent inlet/intermittent outlet		2	2	0	0	0	2
	• no inlet/intermittent outlet		1	1	0	0	0	1
	• non inlet/perennial outlet		1	1	0	0	0	1
	• intermittent inlet/perennial outlet		1	1	0	0	0	1
	• perennial inlet/perennial outlet		1	1	0	0	0	1
• Degree of Outlet Restriction	• restricted		3	0	0	0	0	3
	• unrestricted		0	0	0	0	0	0
• Basin Topographic Gradient	• low gradient		3	3	0	3	3	3
	• high gradient		1	1	0	0	1	1
• Wetland Water Regime	• Drier: seasonally flooded, temporarily flooded, saturated		3	3	3	0	3	3
	• Wet: permanently flooded, intermittently exposed, semipermanently flooded		1	1	1	0	1	1
• Surface Water Level Fluctuation of the Wetland	• high fluctuation		3	0	3	0	3	3
	• low fluctuation		2	0	2	0	2	2
	• never inundated		0	0	0	0	0	0
• Ratio of Wetland Area to Watershed Area	• large		3	3	3	0	3	3
	• small		1	1	1	0	1	1
• Microrelief of Wetland Surface	• pronounced		3	3	3	3	3	3
	• well developed		2	2	2	2	2	2
	• poorly developed		1	1	1	1	1	1
	• absent		0	0	0	0	0	0
• Frequency of Overbank Flooding	• overbank flooding absent		0	0	0	0	0	0
	• return interval of >5 yrs		0	0	1	0	1	1
	• return interval of 2-5 yrs		0	0	2	0	2	2
	• return interval of 1-2 yrs		0	0	3	0	3	3
• Vegetation Density/Dominance	• high/very high		3	3	3	3	3	3
	• moderate		2	2	2	2	2	2
	• sparse/low		1	1	1	1	1	1
	• no vegetation		0	0	0	0	0	0

(continued)

### 2.9.3 Storm and Flood-Water Storage (Continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
• Dead Woody Material	• abundant		3	3	3	3	3	3
	• moderately abundant		2	2	2	2	2	2
	• sparse		1	1	1	1	1	1
	• absent		0	0	0	0	0	0
				23	14	—	—	—
		Total Score:						
		Model Range:	4-27	4-21	2-21	0-12	3-24	4-30
		Functional Capacity Index:	Total Score	$\frac{23}{27} = 0.85$	$\frac{14}{21} = 0.67$			
			27	21	21	12	24	30
		Index Range:	0.15-1.0	0.19-1.0	0.09-1.0	0-1.0	0.12-1.0	0.13-1.0

### 2.9.4 Modification of Stream Flow (This model is identical for all HGM types)

VARIABLES	CONDITIONS	WEIGHTS
Indicators of Disfunction	no outlet	0
Direct Indicators of Function	none	
<u>Primary Variables</u>		
<u>Storm and Flood Water Storage</u> Function Model Score		<u>Modification of Groundwater</u> Discharge Function Model Score
High	3 x	High 3 = 9
Mod	2 x	High 3 = 6
Low	1 x	High 3 = 3
High	3 x	Mod 2 = 6
Mod	2 x	Mod 2 = 4
Low	1 x	Mod 2 = 2
High	3 x	Low 1 = 3
Mod	2 x	Low 1 = 2
Low	1 x	Low 1 = 1
		Total Score:
		Model Range: 1-9
		Functional Capacity Index: Total Score
		9 / 9 = 1.0
		Index Range: 0.11-1.0

\*High = FCI of 0.67-1.0, Mod = FCI of 0.34-0.66, Low = FCI of 0-0.33 for the Storm and Flood Water Storage and Modification of Ground Water Discharge Function Model Scores.

### 2.9.6 Export of Detritus

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
Indicators of disfunction	no outlet		0	0		0		0
Direct Indicators of Function	none							
<b>Primary Variables</b>								
• Wetland Land Use	• moderate intensity		3	3	3	3	3	3
	• low intensity		2	2	2	2	2	2
	• high intensity		1	1	1	1	1	1
• Degree of Outlet Restriction	• unrestricted outflow		3	0	0	0	0	3
	• restricted outflow		1	0	0	0	0	1
• Inlet/Outlet Class	• perennial outlet		3	3	0	0	0	3
	• intermittent outlet		1	1	0	0	0	1
• Wetland Water Regime	• drier: seasonally flooded, temporarily flooded, saturated		3	3	3	0	3	3
	• wet: permanently flooded, intermittently exposed, semipermanently flooded		1	1	1	1	1	1
• Vegetation Density/Dominance	• high/very high		3	3	3	3	3	3
	• medium		2	2	2	2	2	2
	• sparse/low		1	1	1	1	1	1
	• no vegetation		0	0	0	0	0	0
• Soil Type	• mineral hydric soil		3	3	3	3	3	3
	• histosol		1	1	1	1	1	1
			<u>11</u>	<u>12</u>	—	—	—	—
Total Score:								
- Model Range:			5-18	4-15	3-12	2-10	3-12	5-18
Functional Capacity Index:			Total Score	$\frac{11}{18} = 0.61$	$\frac{12}{18} = 0.67$			
			<u>18</u>	<u>15</u>	<u>12</u>	<u>10</u>	<u>12</u>	<u>18</u>
Index Range:			0.27-1.0	0.26-1.0	0.25-1.0	0.20-1.0	0.25-1.0	0.27-1.0

## 2.9.5 Modification of Water Quality

VARIABLES	CONDITIONS	WEIGHTS					
		HGM TYPES: D	S	L	EP	R	F
Indicators of disfunction	none						
Direct Indicators of Function	evidence of sedimentation	18	15	12	12	12	18
<b>Primary Variables</b>							
• Wetland Land Use	• low intensity	3	3	3	3	3	3
	• moderate intensity	2	2	2	2	2	2
	• high intensity	1	1	1	1	1	1
• Degree of Outlet Restriction	• restricted outflow	3	0	0	0	0	3
	• no outlet	2	0	0	0	0	2
	• unrestricted outflow	1	0	0	0	0	1
• Inlet/Outlet Type	• no outlet	3	3	0	0	0	3
	• intermittent outlet	2	2	0	0	0	2
	• perennial outlet	1	1	0	0	0	1
• Dominant Wetland Type	• forested wetland	3	3	3	3	3	3
	• scrub-shrub	2	2	2	2	2	2
	• emergent wetland	2	2	2	2	2	2
	• aquatic bed	1	0	0	0	0	0
	• no vegetation	0	0	0	0	0	0
• Cover Distribution	• forming a continuous cover	3	3	3	3	3	3
	• growing in small scattered patches	2	2	2	2	2	2
	• one or more large patches	1	1	1	1	1	1
	• solitary scattered stems	1	1	1	1	1	1
	• no vegetation	0	0	0	0	0	0
• Soil Type	• histosol or clayey soil	3	3	3	3	3	3
	• silty soil	2	2	2	0	2	2
	• sandy or gravelly soil	1	1	1	0	1	1
		<u>17</u>	<u>13</u>	—	—	—	—
	Total Score:						
	Model Range:	4-18	3-15	2-12	1-12	2-12	4-18
	Functional Capacity Index:	Total Score	$\frac{17}{18} = 0.94$	$\frac{13}{15} = 0.87$	$\frac{12}{12} = 1.0$	$\frac{12}{12} = 1.0$	$\frac{18}{18} = 1.0$
	Index Range:	0.22-1.0	0.20-1.0	0.16-1.0	0.8-1.0	0.16-1.0	0.22-1.0

## 2.9.5 Modification of Water Quality

VARIABLES	CONDITIONS	HGM TYPES: WEIGHTS					
		D	S	L	EP	R	F
Indicators of disfunction	none						
Direct Indicators of Function	evidence of sedimentation	18	15	12	12	12	18
<b>Primary Variables</b>							
• Wetland Land Use	• low intensity	3	3	3	3	3	3
	• moderate intensity	2	2	2	2	2	2
	• high intensity	1	1	1	1	1	1
• Degree of Outlet Restriction	• restricted outflow	3	0	0	0	0	3
	• no outlet	2	0	0	0	0	2
	• unrestricted outflow	1	0	0	0	0	1
• Inlet/Outlet Type	• no outlet	3	3	0	0	0	3
	• intermittent outlet	2	2	0	0	0	2
	• perennial outlet	1	1	0	0	0	1
• Dominant Wetland Type	• forested wetland	3	3	3	3	3	3
	• scrub-shrub	2	2	2	2	2	2
	• emergent wetland	2	2	2	2	2	2
	• aquatic bed	1	0	0	0	0	0
	• no vegetation	0	0	0	0	0	0
• Cover Distribution	• forming a continuous cover	3	3	3	3	3	3
	• growing in small scattered patches	2	2	2	2	2	2
	• one or more large patches	1	1	1	1	1	1
	• solitary scattered stems	1	1	1	1	1	1
	• no vegetation	0	0	0	0	0	0
• Soil Type	• histosol or clayey soil	3	3	3	3	3	3
	• silty soil	2	2	2	0	2	2
	• sandy or gravelly soil	1	1	1	0	1	1
		17	13	—	—	—	—
	Total Score:						
	Model Range:	4-18	3-15	2-12	1-12	2-12	4-18
	Functional Capacity Index:	Total Score	17 = 0.94				
		18	13 = 0.87	12	12	12	18
	Index Range:	0.22-1.0	0.20-1.0	0.16-1.0	0.8-1.0	0.16-1.0	0.22-1.0

### 2.9.8 Contribution to Abundance and Diversity of Wetland Fauna

(This model is identical for all HGM types except Slope Wetlands for which "Interspersion of Vegetation Cover and Open Water" does not apply)

VARIABLES	CONDITIONS	WEIGHTS
Direct Indicators of Dysfunction	none	
Direct Indicators of Function	none	
<u>Primary Variables</u>		
• Watershed Land Use	• low intensity (0-25% urbanized)	3
	• moderate intensity (25-50% urbanized)	2
	• high intensity (> 50% urbanized)	1
• Wetland Land Use	• low intensity	3
	• moderate intensity	2
	• high intensity	1
• Wetland Water Regime	• wet: permanently flooded, intermittently exposed, semipermanently flooded	3
	• drier: seasonally flooded, temporarily flooded, saturated	1
• Microrelief of Wetland Surface	• pronounced	3
	• well developed	2
	• poorly developed	1
	• absent	0
• Number of Wetland types and Relative Proportions	• 5 or more types	3
	• 3-4 types	2
	• 1-2 types	1
	• no vegetation	0
	• even distribution	3
• Vegetation Interspersion	• moderately even distribution	2
	• highly uneven distribution	1
	• no vegetation	0
	• high interspersion	3
• Number of Layers and Percent Cover	• moderate interspersion	2
	• low interspersion	1
	• no vegetation	0
	• 5 or more layers	3
	• 3-4 layers	2
• layers well developed (> 50% cover)	• 1-2 layers	1
	• no vegetation	0
	• layers with moderate cover (26-50% cover)	2
	• layers poorly distinguishable (< 25% cover)	1
	• no vegetation	0

(continued)

2.9.8 Contribution to Abundance and Diversity of Wetland Fauna (Continued)

VARIABLES	CONDITIONS	WEIGHTS
● Interspersion of Vegetation Cover and Open Water	● 26-75% scattered or peripheral	3
	● >75% scattered or peripheral	2
	● <25% scattered or peripheral	1
	● 100% cover or open water	1
	● no vegetation	0
● Size	● large (> 100 acres)	3
	● medium (10-100 acres)	2
	● small (< 10 acres)	1
● Wetland Juxtaposition	● other wetlands within 400 m and connected above or below	3
	● other wetlands within 400 m but not connected	1
	● wetland isolated	0
Slope Wetlands:	All Other HGM Types:	Total Score: 27 23
Model Range: 4-33		Model Range: 4-36
Functional Capacity Index = $\frac{\text{Total Score}}{33} = \frac{23}{33} = 0.70$		Functional Capacity Index = $\frac{\text{Total Score}}{36} = \frac{27}{36} = 0.75$
Index Range: 0.12-1.0		Index Range 0.11-1.0

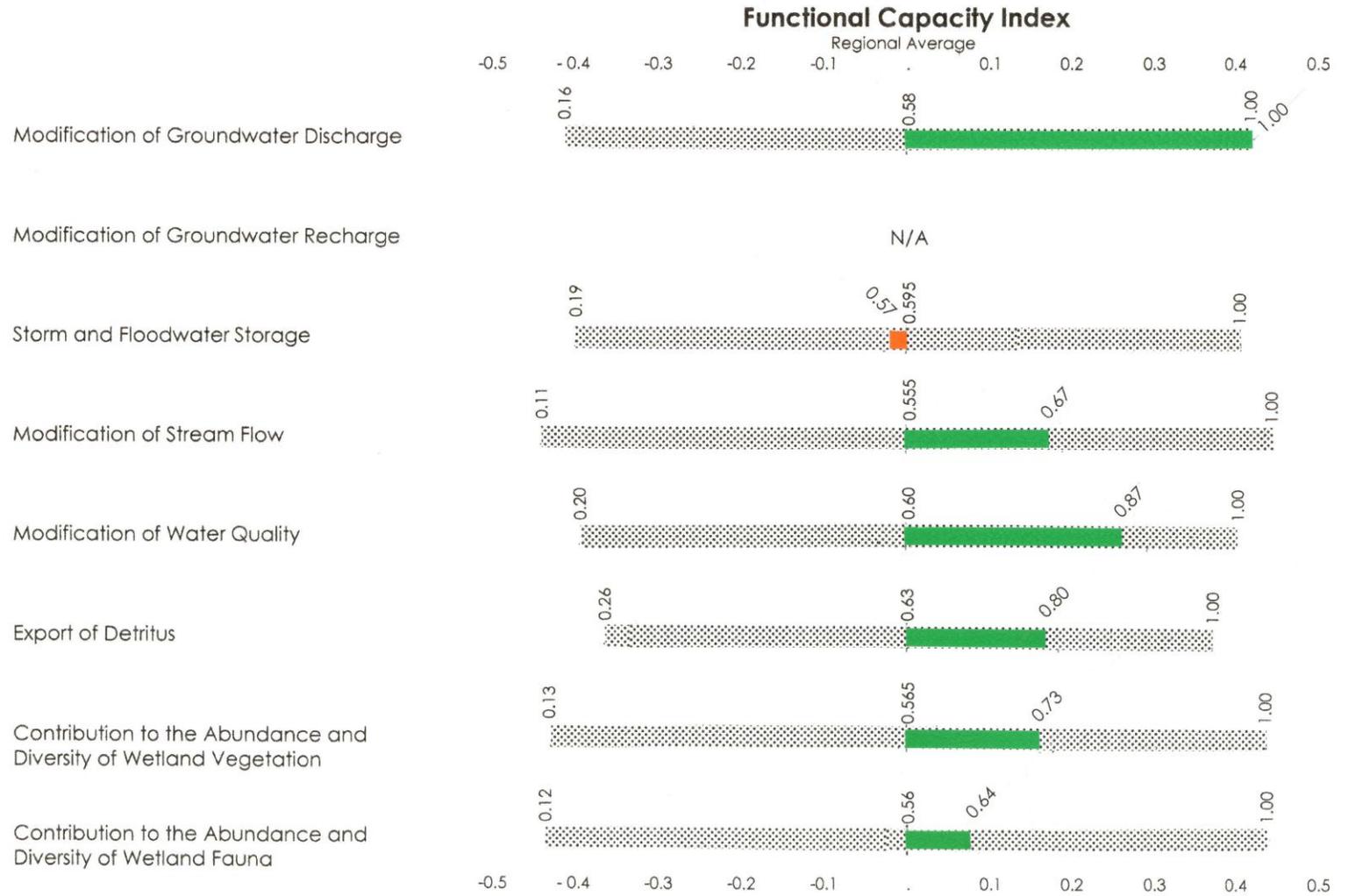
Refer to Appendix 'C' for SO-2 Data and Analysis sheets and graphs.

Peekskill Hollow Brook  
Shrub Oak Brook

Sloping Wetland

Study Area: SO-3

5.3 ac. - 97% of total 6.1 ac. wetlands



# WETLAND INVENTORY DATA

Project Number: \_\_\_\_\_ Date: \_\_\_\_\_

Wetland Number: 60-3-SLOHUG

Aerial Photo Numbers: \_\_\_\_\_

USGS Quadrangle: MOHEGAN LAKE

Field Investigators: B DONOHUE

## PART 1 - CHARACTERIZATION of WETLAND

SURFACE WATER FLOW VECTORS		PLANT SPECIES											
----------------------------	--	---------------	--	--	--	--	--	--	--	--	--	--	--

Condition	Percent/Acreage	
	_____	Depressional
	✓ 95%	Slope
	_____	Flat
	_____	Extensive Peatland
	_____	Lacustrine Fringe
	✓ 5%	Riverine

	OW	FW	F	FU	OU	DOM	COM	OCC	C	S	TS	LS	H
Red Maple	<input type="checkbox"/>												
Spicebush	<input type="checkbox"/>												
American Elm	<input type="checkbox"/>												
Skunk Cabbage	<input type="checkbox"/>												
Japanese Barberry	<input type="checkbox"/>												
Tulip Poplar	<input type="checkbox"/>												
Black Birch	<input type="checkbox"/>												
Hornbeam	<input type="checkbox"/>												
Japanese Rose	<input type="checkbox"/>												
American Beech	<input type="checkbox"/>												
Grape	<input type="checkbox"/>												
Sensitive Fern	<input type="checkbox"/>												
Winterberry	<input type="checkbox"/>												
Pignut Hickory	<input type="checkbox"/>												
Mustard Garlic	<input type="checkbox"/>												
Jewelweed	<input type="checkbox"/>												
Christmas Fern	<input type="checkbox"/>												
Scarlet Oak	<input type="checkbox"/>												
Scouring Rush	<input type="checkbox"/>												

Type	Percent/Acreage	
<b>VEGETATION TYPES</b>		
Forested Wetland		<b>SOIL TYPES</b>
Evergreen		Histosol
Needle-leaved		• Fibric <input type="checkbox"/>
Deciduous		• Hemic <input type="checkbox"/>
Broad-leaved	100%	• Sapric <input type="checkbox"/>
Needle-leaved		
Scrub Shrub		Mineral
Evergreen		Hydric Soil
Broad-leaved		• Gravelly <input type="checkbox"/>
Needle-leaved		• Sandy <input checked="" type="checkbox"/>
Deciduous		• Silty <input checked="" type="checkbox"/>
Broad-leaved		• Clayey <input type="checkbox"/>
Needle-leaved		
<b>GEOLOGY</b>		
Emergent Wetland		Surficial:
Persistent		Glacial til
Non-persistent		
Aquatic Bed		
Total	100%	Bedrock:

OW	Obligate Wetland	COM	Common
FW	Facultative Wetland	OCC	Occasional
F	Facultative	C	Canopy
FU	Facultative Upland	S	Sapling
OU	Obligate Upland	TS	Tall Shrub
DOM	Dominant	LS	Low Shrub
		H	Herb

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

PRE-EMPTIVE STATUS	
<input checked="" type="checkbox"/> Public ownership	_____ Documented habitat for state or federal listed species
_____ Wildlife management area	_____ Regionally scarce wetland category
_____ Fisheries management area	_____ Historic/archaeologic area
_____ Designated State or Federal protected wetland	

# WETLAND INVENTORY DATA (continued)

## PART 2 - CHARACTERIZATION of MODEL VARIABLES

**LANDSCAPE VARIABLES**

**Size:**

Small (<10 acres)  
 Medium (10-100 acres)  
 Large (>100 acres)

**Wetland Juxtaposition:**

Connected Upstream and Downstream  
 Only Connected Above  
 Only Connected Below  
 Other Wetlands Nearby but not Connected  
 Wetland Isolated

**Fire Occurrence and Frequency:**

Natural; Predictable Frequency  
 Natural; Sporadic Frequency  
 Human-caused; Predictable  
 Human-caused; Sporadic  
 Rare Event  
 No Evidence

**Regional Scarcity:**

Not Scarce (>5% of total wetland area of region)  
 Scarce (<5% of total wetland area of region)

**Watershed Land Use:**

> 50% urbanized  
 25-50% urbanized  
 0-25% urbanized

**HYDROLOGIC VARIABLES**

**Surface Water Level Fluctuation of Wetland:**

High Fluctuation  
 Low Fluctuation  
 Never Inundated

**Frequency of Overbank Flooding:**

Return Interval > 5 yrs.  
 Return Interval 2-5 yrs.  
 Return Interval 1-2 yrs.  
 No Overbank Flooding

**pH:**

Acid <5.5  
 Circumneutral 5.5-7.4  
 Alkaline >7.4  
 No Water

**Surficial Geologic Deposit Under Wetland**

Low Permeability Stratified Deposits  
 High Permeability Stratified Deposits  
 Glacial Till

**Wetland Land Use:**

High Intensity (i.e. agriculture)  
 Moderate Intensity (i.e. forestry)  
 Low Intensity (i.e. open space)

**Wetland Water Regime:**

Wet: Perm Flooded, Intermittently Exposed, Semiperm. Flooded  
 Drier: Seasonally Flooded, Temporarily Flooded, Saturated

**Basin Topographic Gradient:**

High Gradient >2%  
 Low Gradient <2%

**Degree of Outlet Restriction:**

Restricted Outflow  
 Unrestricted Outflow  
 No Outflow

**Ratio of Wetland Area to Watershed Area:**

High >10%  
 Low <10%

**Microrelief of Wetland Surface:**

Pronounced >45 cm  
 Well Developed 15-45 cm  
 Poorly Developed <15 cm  
 Absent

**Inlet/Outlet Class:**

No Inlet/No Outlet  
 No Inlet/Perennial Outlet  
 No Inlet/Perennial Outlet  
 Intermittent Inlet/No Outlet  
 Intermittent Inlet/Intermittent Outlet  
 Intermittent Outlet/Perennial Outlet  
 Perennial Inlet/No Outlet  
 Perennial Inlet/Intermittent Outlet  
 Perennial Inlet/Perennial Outlet

**Nested Piezometer Data:**

Recharge  
 Discharge  
 Horizontal Flow  
 Not Available

**Relationship of Wetlands' Substrate Elevation to Regional Piezometric Surface:**

Piez. Surface Above or at Substrate elev.  
 Piez. Surface Below Substrate elev.  
 Not Available

**Evidence of Sedimentation:**

No Evidence Observed  
 Sediment Observed on Wetland Substrate  
 Fluvaquent Soils

**Evidence of Seeps and Springs:**

No Seeps or Springs  
 Seeps Observed  
 Perennial Spring  
 Intermittent Spring

**SOIL VARIABLES**

**Soil Lacking:**

**Histosol:**

Fibric  
 Hemic  
 Sapric

**Mineral Hydric Soil:**

Gravelly  
 Sandy  
 Silty  
 Clayey

**VEGETATION VARIABLES**

**Vegetation Lacking:**

**Dominant Wetland Type:**

Forested - Evergreen - Needle-leaved  
 Forested - Deciduous - Broad-leaved  
 Forested - Deciduous - Needle-leaved  
 Scrub Shrub - Evergreen - Broad-leaved  
 Scrub Shrub - Evergreen - Needle-leaved  
 Scrub Shrub - Deciduous - Broad-leaved  
 Scrub Shrub - Deciduous - Needle-leaved  
 Emergent - Persistent  
 Emergent - Non-persistent  
 Aquatic Bed

**Number of Types & Relative Proportions:**

**Number of Types**

Actual #  
 5  
 4  
 3  
 2  
 1

**Evenness of Distribution**

Even Distribution  
 Moderately Even Distribution  
 Highly Uneven Distribution

**Vegetation Density/Dominance:**

Sparse (0-20%)  
 Low Density (20-40%)  
 Medium Density (40-60%)  
 High Density (60-80%)  
 Very High Density (80-100%)

**Vegetative Interspersion:**

High (small groupings, diverse and interspersed)  
 Moderate (broken irregular rings)  
 Low (large patches, concentric rings)

**Number of Layers and Percent Cover:**

Number of Layers	% Cover
<input checked="" type="checkbox"/> 6 or > (actual #)	1. submergent:
<input type="checkbox"/> 5	2. floating:
<input type="checkbox"/> 4	3. moss-lichen:
<input type="checkbox"/> 3	4. short herb:
<input type="checkbox"/> 2	5. tall herb:
<input type="checkbox"/> 1	6. dwarf shrub:
	7. short shrub:
	8. tall shrub:
	9. seeping:
	10. tree:

**Plant Species Diversity:**

Low 1-2 plots sampled  
 Medium 3-4 plots sampled  
 High 5 or more plots sampled

**Proportion of Animal Food Plants:**

Low (5-25% cover)  
 Medium (25-50% cover)  
 High (>50% cover)

**Cover Distribution:**

Continuous Cover  
 Small Scattered Patches  
 1 or More Large Patches; Parts of Site Open  
 Solitary, Scattered Stems

**Dead Woody Material:**

Abundant (>50 of wetland surface)  
 Moderately Abundant (25-50% of surface)  
 Low Abundance (0-25% of surface)

**Interspersion of Cover and Open Water:**

26-75% Scattered or Peripheral  
 >75% Scattered or Peripheral  
 <25% Scattered or Peripheral  
 100% Cover or Open Water

**Stream Sinuosity:**

Highly Convoluted (index 1.50 or >)  
 Moderately Convoluted (index 1.25-1.50)  
 Straight/Slightly Irreg. (index) 1.10-1.25

**Presence of Islands:**

Several to Many  
 One or Few  
 Absent

2.9.1 Modification of Ground Water Discharge

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS			
			D	S	R	F
<b>Indicators of Disfunction</b>						
• Inlet/Outlet Class	• perennial inlet/no outlet		0	0	0	0
• Nested Piezometer Data	• recharge condition		0	0	0	0
• Relationship to Regional Piezometric Surface	• wetland substrate elevation above piezometric surface		0	0	0	0
<b>Direct Indicators of Function</b>						
• Presence of Springs and Seeps	• evidence of perennial seeps or springs		18	15	15	18
• Nested Piezometer Data	• discharge condition		18	15	15	18
• Relationship to Regional Piezometric Surface	• wetland substrate elevation below piezometric surface		18	15	15	18
• Inlet/Outlet Class	• no inlet/perennial outlet		18	15	15	18
<b>Primary Variables</b>						
• Microrelief of Wetland Surface	• pronounced		3	3	3	3
	• well developed		2	2	2	2
	• poorly developed		1	1	1	1
	• absent		0	0	0	0
• Inlet/Outlet Class	• perennial inlet/perennial outlet		3	3	0	3
	• intermittent inlet/perennial outlet		2	2	0	2
	• all other classes		0	0	0	0
• pH	• alkaline		3	3	3	3
	• circumneutral		2	2	2	2
	• acid		0	0	0	0
	• no water present		0	0	0	0
• Surficial Geologic Deposit Under Wetland	• high permeability stratified deposits		3	3	3	3
	• low permeability stratified deposits		2	2	2	2
	• glacial till		1	1	1	1
• Wetland Water Regime	• wet; permanently flooded, intermittently exposed, semipermanently flooded		3	0	3	3
	• drier; seasonally flooded, temporarily flooded, saturated		1	0	1	1

(continued)

2.9.1 Modification of Ground Water Discharge

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS			
			D	S	R	F
<b>Indicators of Disfunction</b>						
• Inlet/Outlet Class	• perennial inlet/no outlet		0	0	0	0
• Nested Piezometer Data	• recharge condition		0	0	0	0
• Relationship to Regional Piezometric Surface	• wetland substrate elevation above piezometric surface		0	0	0	0
<b>Direct Indicators of Function</b>						
• Presence of Springs and Seeps	• evidence of perennial seeps or springs		18	15	15	18
• Nested Piezometer Data	• discharge condition		18	15	15	18
• Relationship to Regional Piezometric Surface	• wetland substrate elevation below piezometric surface		18	15	15	18
• Inlet/Outlet Class	• no inlet/perennial outlet		18	15	15	18
<b>Primary Variables</b>						
• Microrelief of Wetland Surface	• pronounced		3	3	3	3
	• well developed		2	2	2	2
	• poorly developed		1	1	1	1
	• absent		0	0	0	0
• Inlet/Outlet Class	• perennial inlet/perennial outlet		3	3	0	3
	• intermittent inlet/perennial outlet		2	2	0	2
	• all other classes		0	0	0	0
• pH	• alkaline		3	3	3	3
	• circumneutral		2	2	2	2
	• acid		0	0	0	0
	• no water present		0	0	0	0
• Surficial Geologic Deposit Under Wetland	• high permeability stratified deposits		3	3	3	3
	• low permeability stratified deposits		2	2	2	2
	• glacial till		1	1	1	1
• Wetland Water Regime	• wet; permanently flooded, intermittently exposed, semipermanently flooded		3	0	3	3
	• drier; seasonally flooded, temporarily flooded, saturated		1	0	1	1

(continued)

**Modification of Ground Water Recharge (Continued)**

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS				
			D	L	EP	R	F
<b>Direct Indicators of Function</b>							
• Inlet/Outlet Class	• perennial inlet/no outlet		21				21
• Nested Piezometer Data	• recharge condition		21				21
• Relationship to Regional Piezometric Surface	• wetland substrate elevation below piezometric surface		21				21
<b>Primary Variables</b>							
• Microrelief of Wetland Surface	• Poorly Developed		3	3	1	3	3
	• Absent		3	3	1	3	3
	• Well Developed		2	2	2	2	2
	• Pronounced		1	1	3	1	1
• Inlet/Outlet Class	• Perennial Inlet/Intermittent Outlet		3	0	0	0	3
	• All Other Classes		0	0	0	0	0
• pH	• Acid		3	3	3	3	3
	• Circumneutral		2	2	2	2	2
	• Alkaline		1	1	1	1	1
	• No water present		0	0	0	0	0
• Surficial Geologic Deposit Under Wetland	• Glacial Till		3	1	1	1	3
	• Low Permeability Stratified Deposits		2	2	2	2	2
	• High Permeability Stratified Deposits		1	3	3	3	1
• Surface Water Level Fluctuation of the Wetland	• High Fluctuation		3	3	0	3	3
	• Low Fluctuation		2	2	0	2	2
	• Never Inundated		1	1	0	1	1
• Wetland Water Regime	• Drier: Seasonally Flooded, Temporarily Flooded, Saturated		3	3	0	3	3
	• Wet: Permanently Flooded, Intermittently Exposed, Semipermanently Flooded		1	1	0	1	1
• Soil Type	• Gravelly or Sandy Mineral Hydric		3	3	0	3	3
	• Silty or Clayey Mineral Hydric		2	2	0	2	2
	• Sapric Histosol		1	1	0	1	1
	• Fibric or Hemic Histosol		0	0	3	0	0
Total Score:							
Model Range:			4-21	4-18	2-12	4-18	4-21
Functional Capacity Index:			Total Score				
			21	18	12	18	21
Index Range:			0.1-1.0	0.22-1.0	0.16-1.0	0.22-1.0	0.19-1.0

Note: This model should be applied to both year long and seasonal recharge wetlands.

If the wetland is seasonally fluctuating between recharge and discharge, then reduce the above score by one half (1/2), because the wetland only functions in a recharge mode for roughly half the year.

2.9.3 Storm and Flood-Water Storage

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
Indicators of disfunction	none							
Direct Indicators of Function	no outlet		27	21				30
<b>Primary Variables</b>								
• Inlet/Outlet Class	• perennial inlet/intermittent outlet		3	3	0	0	0	3
	• intermittent inlet/intermittent outlet		2	2	0	0	0	2
	• no inlet/intermittent outlet		1	1	0	0	0	1
	• non inlet/perennial outlet		1	1	0	0	0	1
	• intermittent inlet/perennial outlet		1	1	0	0	0	1
	• perennial inlet/perennial outlet		1	1	0	0	0	1
• Degree of Outlet Restriction	• restricted		3	0	0	0	0	3
	• unrestricted		0	0	0	0	0	0
• Basin Topographic Gradient	• low gradient		3	3	0	3	3	3
	• high gradient		1	1	0	0	1	1
• Wetland Water Regime	• Drier: seasonally flooded, temporarily flooded, saturated		3	3	3	0	3	3
	• Wet: permanently flooded, intermittently exposed, semipermanently flooded		1	1	1	0	1	1
• Surface Water Level Fluctuation of the Wetland	• high fluctuation		3	0	3	0	3	3
	• low fluctuation		2	0	2	0	2	2
	• never inundated		0	0	0	0	0	0
• Ratio of Wetland Area to Watershed Area	• large		3	3	3	0	3	3
	• small		1	1	1	0	1	1
• Microrelief of Wetland Surface	• pronounced		3	3	3	3	3	3
	• well developed		2	2	2	2	2	2
	• poorly developed		1	1	1	1	1	1
	• absent		0	0	0	0	0	0
• Frequency of Overbank Flooding	• overbank flooding absent		0	0	0	0	0	0
	• return interval of >5 yrs		0	0	1	0	1	1
	• return interval of 2-5 yrs		0	0	2	0	2	2
	• return interval of 1-2 yrs		0	0	3	0	3	3
• Vegetation Density/Dominance	• high/very high		3	3	3	3	3	3
	• moderate		2	2	2	2	2	2
	• sparse/low		1	1	1	1	1	1
	• no vegetation		0	0	0	0	0	0

(continued)

**2.9.3 Storm and Flood-Water Storage (Continued)**

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS						
			D	S	L	EP	R	F	
• Dead Woody Material	• abundant		3	3	3	3	3	3	
	• moderately abundant		2	2	2	2	2	2	
	• sparse		1	1	1	1	1	1	
	• absent		0	0	0	0	0	0	
				—	—	—	—	—	—
		Total Score:		11 + 10 + 12 = 33					
		Model Range:	4-27	4-21	2-21	0-12	3-24	4-30	
		Functional Capacity Index:	Total Score	27	21	21	12	24	30
		Index Range:	0.15-1.0	0.19-1.0	0.09-1.0	0-1.0	0.12-1.0	0.13-1.0	

**2.9.4 Modification of Stream Flow**  
(This model is identical for all HGM types)

VARIABLES	CONDITIONS	WEIGHTS				
Indicators of Disfunction	no outlet	0				
Direct Indicators of Function	none					
<b>Primary Variables</b>						
<u>Storm and Flood Water Storage Function Model Score</u>		<u>Modification of Groundwater Discharge Function Model Score</u>				
High	3	x	High	3	=	9
Mod	2	x	High	3	=	6
Low	1	x	High	3	=	3
High	3	x	Mod	2	=	6
Mod	2	x	Mod	2	=	4
Low	1	x	Mod	2	=	2
High	3	x	Low	1	=	3
Mod	2	x	Low	1	=	2
Low	1	x	Low	1	=	1
					Total Score:	
					Model Range:	1-9
					Functional Capacity Index:	Total Score 6 = 0.67
					Index Range:	0.11-1.0

High = FCI of 0.67-1.0, Mod = FCI of 0.34-0.66, Low = FCI of 0-0.33 for the Storm and Flood Water Storage and Modification of Ground Water Discharge Function Model Scores.

2.9.6 Export of Detritus

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					F
			D	S	L	EP	R	
Indicators of disfunction	no outlet		0	0		0		0
Direct Indicators of Function	none							
<b>Primary Variables</b>								
• Wetland Land Use	• moderate intensity		3	3	3	3	3	3
	• low intensity		2	2	2	2	2	2
	• high intensity		1	1	1	1	1	1
• Degree of Outlet Restriction	• unrestricted outflow		3	0	0	0	0	3
	• restricted outflow		1	0	0	0	0	1
• Inlet/Outlet Class	• perennial outlet		3	3	0	0	0	3
	• intermittent outlet		1	1	0	0	0	1
• Wetland Water Regime	• drier: seasonally flooded, temporarily flooded, saturated		3	3	3	0	3	3
	• wet: permanently flooded, intermittently exposed, semipermanently flooded		1	1	1	1	1	1
• Vegetation Density/Dominance	• high/very high		3	3	3	3	3	3
	• medium		2	2	2	2	2	2
	• sparse/low		1	1	1	1	1	1
	• no vegetation		0	0	0	0	0	0
• Soil Type	• mineral hydric soil		3	3	3	3	3	3
	• histosol		1	1	1	1	1	1
			—	12	—	—	—	—
Total Score:								
• Model Range:			5-18	4-15	3-12	2-10	3-12	5-18
Functional Capacity Index:			Total Score	12 = 0.30				
			18	15	12	10	12	18
Index Range:			0.27-1.0	0.26-1.0	0.25-1.0	0.20-1.0	0.25-1.0	0.27-1.0

## 2.9.5 Modification of Water Quality

VARIABLES	CONDITIONS	WEIGHTS					
		HGM TYPES: D	S	L	EP	R	F
Indicators of disfunction	none						
Direct Indicators of Function	evidence of sedimentation	18	15	12	12	12	18
<b>Primary Variables</b>							
• Wetland Land Use	• low intensity	3	3	3	3	3	3
	• moderate intensity	2	2	2	2	2	2
	• high intensity	1	1	1	1	1	1
• Degree of Outlet Restriction	• restricted outflow	3	0	0	0	0	3
	• no outlet	2	0	0	0	0	2
	• unrestricted outflow	1	0	0	0	0	1
• Inlet/Outlet Type	• no outlet	3	3	0	0	0	3
	• intermittent outlet	2	2	0	0	0	2
	• perennial outlet	1	1	0	0	0	1
• Dominant Wetland Type	• forested wetland	3	3	3	3	3	3
	• scrub-shrub	2	2	2	2	2	2
	• emergent wetland	2	2	2	2	2	2
	• aquatic bed	1	0	0	0	0	0
	• no vegetation	0	0	0	0	0	0
• Cover Distribution	• forming a continuous cover	3	3	3	3	3	3
	• growing in small scattered patches	2	2	2	2	2	2
	• one or more large patches	1	1	1	1	1	1
	• solitary scattered stems	1	1	1	1	1	1
	• no vegetation	0	0	0	0	0	0
• Soil Type	• histosol or clayey soil	3	3	3	3	3	3
	• silty soil	2	2	2	0	2	2
	• sandy or gravelly soil	1	1	1	0	1	1
		—	13	—	—	—	—
	Total Score:		13				
	Model Range:	4-18	3-15	2-12	1-12	2-12	4-18
	Functional Capacity Index:	Total Score	13 = 0.72				
		18	15	12	12	12	18
	Index Range:	0.22-1.0	0.20-1.0	0.16-1.0	0.8-1.0	0.16-1.0	0.22-1.0

**2.9.7 Contribution to Abundance and Diversity of Wetland Vegetation**  
 (This model is identical for all HGM types)

VARIABLES	CONDITIONS	WEIGHTS
Indicators of Disfunction	no vegetation	0
Direct Indicators of Function	none	
<u>Primary Variables</u>		
• Plant Species Diversity	<ul style="list-style-type: none"> <li>• high diversity</li> <li>• medium diversity</li> <li>• low diversity</li> </ul>	5 3 ①
• Vegetation Density/Dominance	<ul style="list-style-type: none"> <li>• high/very high</li> <li>• medium</li> <li>• sparse/low</li> </ul>	⑤ 3 1
• Wetland Juxtaposition	<ul style="list-style-type: none"> <li>• connected upstream and downstream</li> <li>• connected above or below</li> <li>• other wetlands nearby but not connected (400 m or closer)</li> <li>• isolated</li> </ul>	⑤ 3 1 0
		11
	Total Score:	
	Model Range:	2-15
	Functional Capacity Index:	= Total Score / 15 = 0.73
	Index Range:	0.13-1.0

### 2.9.8 Contribution to Abundance and Diversity of Wetland Fauna

(This model is identical for all HGM types except Slope Wetlands for which "Interspersion of Vegetation Cover and Open Water" does not apply))

VARIABLES	CONDITIONS	WEIGHTS
Direct Indicators of Disfunction	none	
Direct Indicators of Function	none	
<b>Primary Variables</b>		
• Watershed Land Use	• low intensity (0-25% urbanized)	3
	• moderate intensity (25-50% urbanized)	2
	• high intensity (> 50% urbanized)	1
• Wetland Land Use	• low intensity	3
	• moderate intensity	2
	• high intensity	1
• Wetland Water Regime	• wet: permanently flooded, intermittently exposed, semipermanently flooded	3
	• drier: seasonally flooded, temporarily flooded, saturated	1
• Microrelief of Wetland Surface	• pronounced	3
	• well developed	2
	• poorly developed	1
	• absent	0
• Number of Wetland types and Relative Proportions	• 5 or more types	3
	• 3-4 types	2
	• 1-2 types	1
	• no vegetation	0
	• even distribution	3
• Vegetation Interspersion	• moderately even distribution	2
	• highly uneven distribution	1
	• no vegetation	0
	• high interspersion	3
• Number of Layers and Percent Cover	• moderate interspersion	2
	• low interspersion	1
	• no vegetation	0
	• 5 or more layers	3
• Number of Layers and Percent Cover	• 3-4 layers	2
	• 1-2 layers	1
	• no vegetation	0
	• layers well developed (> 50% cover)	3
	• layers with moderate cover (26-50% cover)	2
	• layers poorly distinguishable (< 25% cover)	1
	• no vegetation	0

(continued)

2.9.8 Contribution to Abundance and Diversity of Wetland Fauna (Continued)

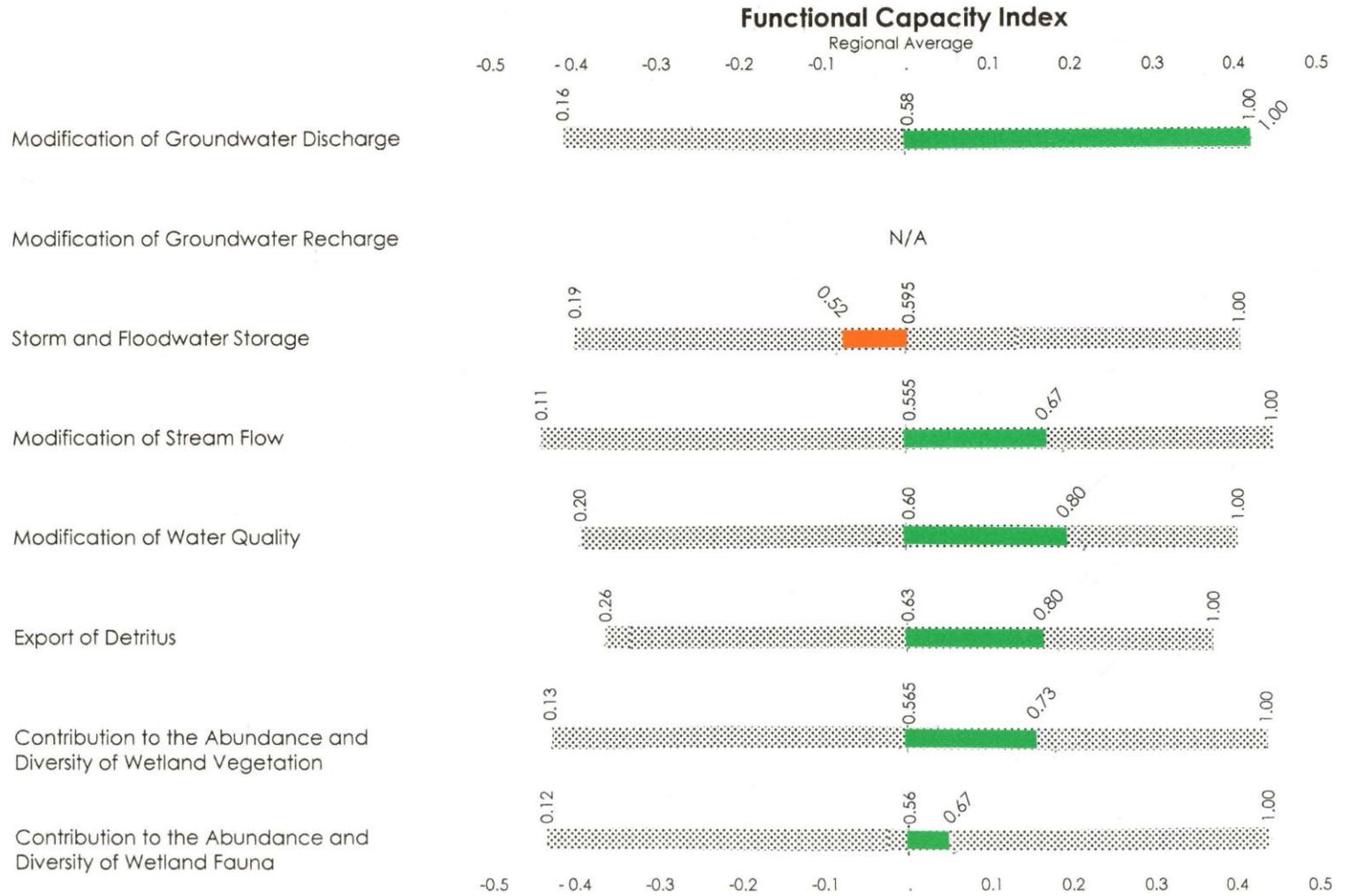
VARIABLES	CONDITIONS	WEIGHTS
● Interspersion of Vegetation Cover and Open Water	● 26-75% scattered or peripheral	3
	● >75% scattered or peripheral	2
	● <25% scattered or peripheral	1
	● 100% cover or open water	①
	● no vegetation	0
● Size	● large (> 100 acres)	3
	● medium (10-100 acres)	2
	● small (< 10 acres)	①
● Wetland Juxtaposition	● other wetlands within 400 m and connected above or below	③
	● other wetlands within 400 m but not connected	1
	● wetland isolated	0
		<u>23</u>
Slope Wetlands:	All Other HGM Types:	Total Score:
Model Range: 4-33		Model Range: 4-36
Functional Capacity Index = $\frac{\text{Total Score}}{33}$		Functional Capacity Index = $\frac{\text{Total Score}}{36}$ 23 = 0.64
Index Range: 0.12-1.0		Index Range 0.11-1.0

Peekskill Hollow Brook  
Shrub Oak Brook

Sloping Wetland

Study Area: SO-4

2.1 ac. - 50% of total 4.2 ac. wetlands

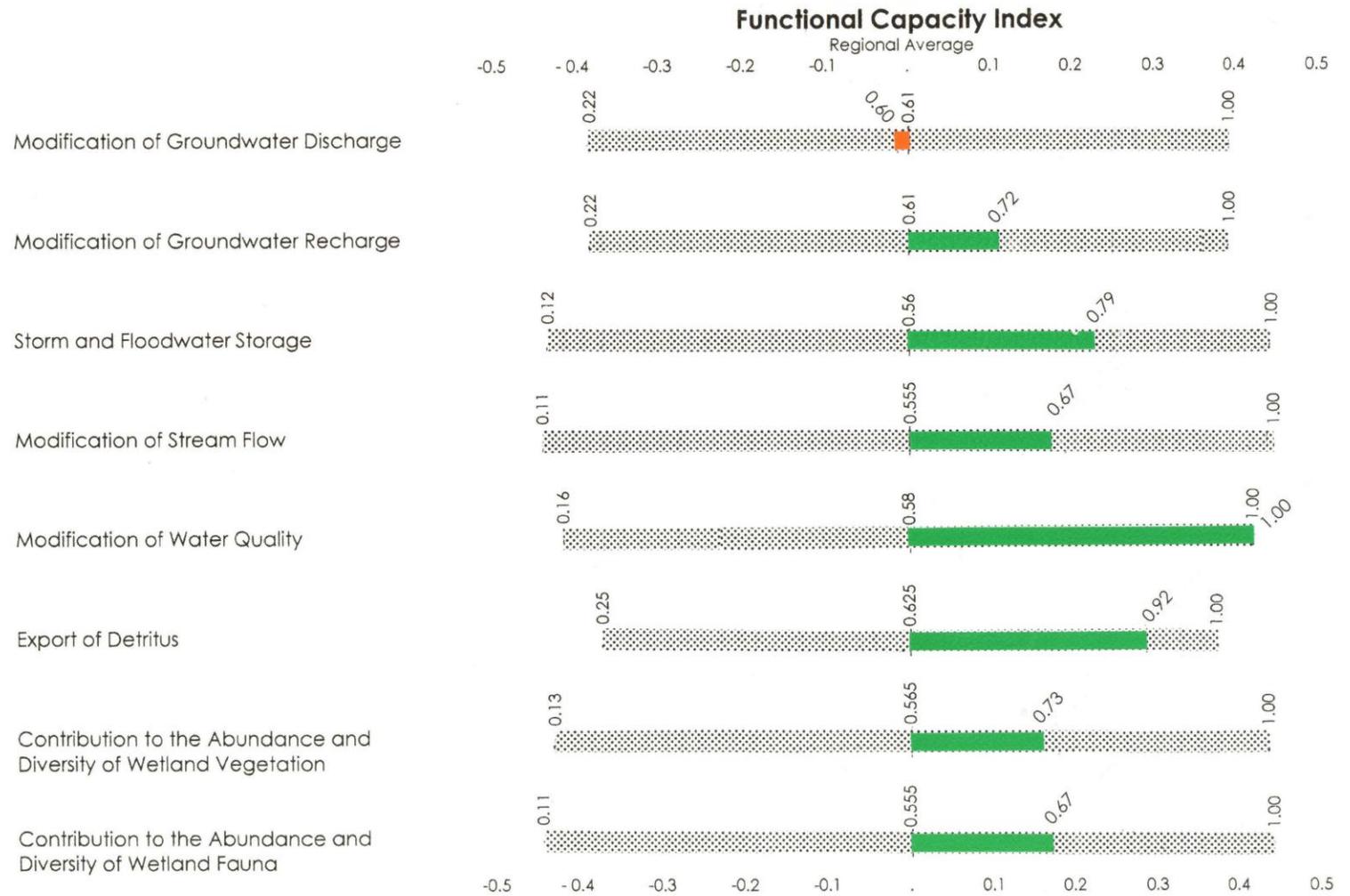


Peekskill Hollow Brook  
Shrub Oak Brook

### Riverine Wetland

Study Area: SO-4

1.6 ac. - 38% of total 4.2 ac. wetlands





# WETLAND INVENTORY DATA (continued)

## PART 2 - CHARACTERIZATION of MODEL VARIABLES

**LANDSCAPE VARIABLES**

**Size:**

Small (<10 acres)  
 Medium (10-100 acres)  
 Large (>100 acres)

**Wetland Juxtaposition:**

Connected Upstream and Downstream  
 Only Connected Above  
 Only Connected Below  
 Other Wetlands Nearby but not Connected  
 Wetland Isolated

**Fire Occurrence and Frequency:**

Natural; Predictable Frequency  
 Natural; Sporadic Frequency  
 Human-caused; Predictable  
 Human-caused; Sporadic  
 Rare Event  
 No Evidence

**Regional Scarcity:**

Not Scarce (>5% of total wetland area of region)  
 Scarce (<5% of total wetland area of region)

**Watershed Land Use:**

> 50% urbanized  
 25-50% urbanized  
 0-25% urbanized

**HYDROLOGIC VARIABLES**

**Surface Water Level Fluctuation of Wetland:**

High Fluctuation  
 Low Fluctuation  
 Never Inundated

**Frequency of Overbank Flooding:**

Return Interval > 5 yrs.  
 Return Interval 2-5 yrs.  
 Return Interval 1-2 yrs.  
 No Overbank Flooding

**pH:**

Acid <5.5  
 Circumneutral 5.5-7.4  
 Alkaline >7.4  
 No Water

**Surficial Geologic Deposit Under Wetland**

Low Permeability Stratified Deposits  
 High Permeability Stratified Deposits  
 Glacial Till

**Wetland Land Use:**

High Intensity (i.e. agriculture)  
 Moderate Intensity (i.e. forestry)  
 Low Intensity (i.e. open space)

**Wetland Water Regime:**

Wet: Perm. Flooded, Intermittently Exposed, Semiperm. Flooded  
 Drier: Seasonally Flooded, Temporarily Flooded, Saturated

**Basin Topographic Gradient:**

High Gradient >2%  
 Low Gradient <2%

**Degree of Outlet Restriction:**

Restricted Outflow  
 Unrestricted Outflow  
 No Outflow

**Ratio of Wetland Area to Watershed Area:**

High >10%  
 Low <10%

**Microrelief of Wetland Surface:**

Pronounced >45 cm  
 Well Developed 15-45 cm  
 Poorly Developed <15 cm  
 Absent

**Inlet/Outlet Class:**

No Inlet/No Outlet  
 No Inlet/Intermittent Outlet  
 No Inlet/Perennial Outlet  
 Intermittent Inlet/No Outlet  
 Intermittent Inlet/Intermittent Outlet  
 Intermittent Outlet/Perennial Outlet  
 Perennial Inlet/No Outlet  
 Perennial Inlet/Intermittent Outlet  
 Perennial Inlet/Perennial Outlet

**Nested Piezometer Data:**

Recharge  
 Discharge  
 Horizontal Flow  
 Not Available

**Relationship of Wetlands' Substrate Elevation to Regional Piezometric Surface:**

Piez. Surface Above or at Substrate elev.  
 Piez. Surface below Substrate elev.  
 Not Available

**Evidence of Sedimentation:**

No Evidence Observed  
 Sediment Observed on Wetland Substrate  
 Fluvaquent Soils

**Evidence of Seeps and Springs:**

No Seeps or Springs  
 Seeps Observed  
 Perennial Spring  
 Intermittent Spring

**SOIL VARIABLES**

**Soil Lacking:**

**Histosol:**

Fibric  
 Hemic  
 Sapric

**Mineral Hydric Soil:**

Gravelly  
 Sandy  
 Silty  
 Clayey

**VEGETATION VARIABLES**

**Vegetation Lacking:**

**Dominant Wetland Type:**

Forested - Evergreen - Needle-leaved  
 Forested - Deciduous - Broad-leaved  
 Forested - Deciduous - Needle-leaved  
 Scrub Shrub - Evergreen - Broad-leaved  
 Scrub Shrub - Evergreen - Needle-leaved  
 Scrub Shrub - Deciduous - Broad-leaved  
 Scrub Shrub - Deciduous - Needle-leaved  
 Emergent - Persistent  
 Emergent - Non-persistent  
 Aquatic Bed

**Number of Types & Relative Proportions:**

**Number of Types**

Actual #  
 5  
 4  
 3  
 2  
 1

**Evenness of Distribution**

Even Distribution  
 Moderately Even Distribution  
 Highly Uneven Distribution

*Riverine Slope Depressional*

**Vegetation Density/Dominance:**

Sparse (0-20%)  
 Low Density (20-40%)  
 Medium Density (40-60%)  
 High Density (60-80%)  
 Very High Density (80-100%)

**Vegetative Interspersion:**

High (small groupings, diverse and interspersed)  
 Moderate (broken irregular rings)  
 Low (large patches, concentric rings)

**Number of Layers and Percent Cover:**

Number of Layers	% Cover
<input checked="" type="checkbox"/> 6 or > (actual #)	1. submergents:
<input type="checkbox"/> 5	2. floating:
<input type="checkbox"/> 4	3. moss-lichen:
<input type="checkbox"/> 3	4. short herb:
<input type="checkbox"/> 2	5. tall herb:
<input type="checkbox"/> 1	6. dwarf shrub:
	7. short shrub:
	8. tall shrub:
	9. sapling:
	10. tree:

**Plant Species Diversity:**

Low 1-2 plots sampled  
 Medium 3-4 plots sampled  
 High 5 or more plots sampled

**Proportion of Animal Food Plants:**

Low (5-25% cover)  
 Medium (25-50% cover)  
 High (>50% cover)

**Cover Distribution:**

Continuous Cover  
 Small Scattered Patches  
 1 or More Large Patches; Parts of Site Open  
 Solitary, Scattered Stems

**Dead Woody Material:**

Abundant (>50 of wetland surface)  
 Moderately Abundant (25-50% of surface)  
 Low Abundance (0-25% of surface)

**Interspersion of Cover and Open Water:**

26-75% Scattered or Peripheral  
 >75% Scattered or Peripheral  
 <25% Scattered or Peripheral  
 100% Cover or Open Water

**Stream Sinuosity:**

Highly Convoluted (index 1.50 or >)  
 Moderately Convoluted (index 1.25-1.50)  
 Straight/Slightly Irreg. (index 1.10-1.25)

*N/A*

**Presence of Islands:**

Several to Many  
 One or Few  
 Absent

*N/A*

50-4

Slope

Riverine

2.9.1 Modification of Ground Water Discharge

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS			
			D	S	R	F
<b>Indicators of Disfunction</b>						
• Inlet/Outlet Class	• perennial inlet/no outlet		0	0	0	0
• Nested Piezometer Data	• recharge condition		0	0	0	0
• Relationship to Regional Piezometric Surface	• wetland substrate elevation above piezometric surface		0	0	0	0
<b>Direct Indicators of Function</b>						
• Presence of Springs and Seeps	• evidence of perennial seeps or springs		18	15	15	18
• Nested Piezometer Data	• discharge condition		18	15	15	18
• Relationship to Regional Piezometric Surface	• wetland substrate elevation below piezometric surface		18	15	15	18
• Inlet/Outlet Class	• no inlet/perennial outlet		18	15	15	18
<b>Primary Variables</b>						
• Microrelief of Wetland Surface	• pronounced		3	3	3	3
	• well developed		2	2	2	2
	• poorly developed		1	1	1	1
	• absent		0	0	0	0
• Inlet/Outlet Class	• perennial inlet/perennial outlet		3	3	0	3
	• intermittent inlet/perennial outlet		2	2	0	2
	• all other classes		0	0	0	0
• pH	• alkaline		3	3	3	3
	• circumneutral		2	2	2	2
	• acid		0	0	0	0
	• no water present		0	0	0	0
• Surficial Geologic Deposit Under Wetland	• high permeability stratified deposits		3	3	3	3
	• low permeability stratified deposits		2	2	2	2
	• glacial till		1	1	1	1
• Wetland Water Regime	• wet; permanently flooded, intermittently exposed, semipermanently flooded		3	0	3	3
	• drier; seasonally flooded, temporarily flooded, saturated		1	0	1	1

(continued)

## 2.9.1

Modification of Ground Water Discharge (Continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS			
			D	S	R	F
• Soil Type	• histosol		3	3	3	3
	• mineral hydric soil		1	①	①	1
			-	-	-	-
Total Score:						
Model Range:			3-18	2-15	3-15	3-18
Functional Capacity Index:			Total			
			Score	$\frac{15}{18} = 0.83$	$\frac{9}{15} = 0.60$	
			18	15	15	18
Index Range:			0.19-1.0	0.16-1.0	0.22-1.0	0.19-1.0

Note: This model can be applied to both year long and seasonal discharge wetlands.

If the wetland is seasonally fluctuating between recharge and discharge, then reduce the above score by one half (1/2), because the wetland only functions in a discharge mode for roughly half the year.

## 2.9.2

Modification of Ground Water Recharge

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS				
			D	L	EP	R	F
Indicators of Disfunction							
• Inlet/Outlet Class	• no inlet/perennial outlet; intermittent inlet/perennial outlet		0				0
• Nested Piezometer Data	• discharge condition		0	0	0	0	0
• Relationship to Regional Piezometric Surface	• wetland substrate elevation above or at piezometric surface		0	0	0	0	0
• Presence of Seeps and Springs	• presence of seeps or springs		0	0	0	0	0

(continued)

## 2.9.2

## Modification of Ground Water Recharge (Continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS				
			D	L	EP	R	F
<b>Direct Indicators of Function</b>							
• Inlet/Outlet Class	• perennial inlet/no outlet		21				21
• Nested Piezometer Data	• recharge condition		21				21
• Relationship to Regional Piezometric Surface	• wetland substrate elevation below piezometric surface		21				21
<b>Primary Variables</b>							
• Microrelief of Wetland Surface	• Poorly Developed		3	3	1	3	3
	• Absent		3	3	1	3	3
	• Well Developed		2	2	2	2	2
	• Pronounced		1	1	3	1	1
• Inlet/Outlet Class	• Perennial Inlet/Intermittent Outlet		3	0	0	0	3
	• All Other Classes		0	0	0	0	0
• pH	• Acid		3	3	3	3	3
	• Circumneutral		2	2	2	2	2
	• Alkaline		1	1	1	1	1
	• No water present		0	0	0	0	0
• Surficial Geologic Deposit Under Wetland	• Glacial Till		3	1	1	1	3
	• Low Permeability Stratified Deposits		2	2	2	2	2
	• High Permeability Stratified Deposits		1	3	3	3	1
• Surface Water Level Fluctuation of the Wetland	• High Fluctuation		3	3	0	3	3
	• Low Fluctuation		2	2	0	2	2
	• Never Inundated		1	1	0	1	1
• Wetland Water Regime	• Drier: Seasonally Flooded, Temporarily Flooded, Saturated		3	3	0	3	3
	• Wet: Permanently Flooded, Intermittently Exposed, Semipermanently Flooded		1	1	0	1	1
			—	—	—	—	—
• Soil Type	• Gravelly or Sandy Mineral Hydric		3	3	0	3	3
	• Silty or Clayey Mineral Hydric		2	2	0	2	2
	• Sapric Histosol		1	1	0	1	1
	• Fibric or Hemic Histosol		0	0	3	0	0
Total Score:						13	
Model Range:			4-21	4-18	2-12	4-18	4-21
Functional Capacity Index:			Total Score 13 21	18	12	$\frac{13}{18} = 0.72$	21
Index Range:			0.1 9- 1.0	0.22- 1.0	0.16- 1.0	0.22- 1.0	0.19- 1.0

Note: This model should be applied to both year long and seasonal recharge wetlands.

If the wetland is seasonally fluctuating between recharge and discharge, then reduce the above score by one half (1/2), because the wetland only functions in a recharge mode for roughly half the year.

## 2.9.3

## Storm and Flood-Water Storage

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
Indicators of disfunction	none							
Direct Indicators of Function	no outlet		27	21				30
<b>Primary Variables</b>								
• Inlet/Outlet Class	• perennial inlet/intermittent outlet		3	3	0	0	0	3
	• intermittent inlet/intermittent outlet		2	2	0	0	0	2
	• no inlet/intermittent outlet		1	1	0	0	0	1
	• non inlet/perennial outlet		1	1	0	0	0	1
	• intermittent inlet/perennial outlet		1	1	0	0	0	1
	• perennial inlet/perennial outlet		1	1	0	0	0	1
• Degree of Outlet Restriction	• restricted		3	0	0	0	0	3
	• unrestricted		0	0	0	0	0	0
• Basin Topographic Gradient	• low gradient		3	3	0	3	3	3
	• high gradient		1	1	0	0	1	1
• Wetland Water Regime	• Drier: seasonally flooded, temporarily flooded, saturated		3	3	3	0	3	3
	• Wet: permanently flooded, intermittently exposed, semipermanently flooded		1	1	1	0	1	1
• Surface Water Level Fluctuation of the Wetland	• high fluctuation		3	0	3	0	3	3
	• low fluctuation		2	0	2	0	2	2
	• never inundated		0	0	0	0	0	0
• Ratio of Wetland Area to Watershed Area	• large		3	3	3	0	3	3
	• small		1	1	1	0	1	1
• Microrelief of Wetland Surface	• pronounced		3	3	3	3	3	3
	• well developed		2	2	2	2	2	2
	• poorly developed		1	1	1	1	1	1
	• absent		0	0	0	0	0	0
• Frequency of Overbank Flooding	• overbank flooding absent		0	0	0	0	0	0
	• return interval of > 5 yrs		0	0	1	0	1	1
	• return interval of 2-5 yrs		0	0	2	0	2	2
	• return interval of 1-2 yrs		0	0	3	0	3	3
• Vegetation Density/Dominance	• high/very high		3	3	3	3	3	3
	• moderate		2	2	2	2	2	2
	• sparse/low		1	1	1	1	1	1
	• no vegetation		0	0	0	0	0	0

(continued)

2.9.3 Storm and Flood-Water Storage (Continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
• Dead Woody Material	• abundant		3	3	3	3	3	3
	• moderately abundant		2	2	2	2	2	2
	• sparse		1	1	1	1	1	1
	• absent		0	0	0	0	0	0
				—	—	—	—	—
Total Score:				11			19	
Model Range:			4-27	4-21	2-21	0-12	3-24	4-30
Functional Capacity Index:			Total Score	11 = 0.52			19 = 0.79	
			27	21	21	12	24	30
Index Range:			0.15-1.0	0.19-1.0	0.09-1.0	0-1.0	0.12-1.0	0.13-1.0

2.9.4 Modification of Stream Flow  
(This model is identical for all HGM types)

VARIABLES	CONDITIONS	WEIGHTS				
Indicators of Disfunction	no outlet	0				
Direct Indicators of Function	none					
<u>Primary Variables</u>						
<u>Storm and Flood Water Storage Function Model Score</u>		<u>Modification of Groundwater Discharge Function Model Score</u>				
High	3	x	High	3	=	9
Mod	2	x	High	3	=	6
Low	1	x	High	3	=	3
High	3	x	Mod	2	=	6
Mod	2	x	Mod	2	=	4
Low	1	x	Mod	2	=	2
High	3	x	Low	1	=	3
Mod	2	x	Low	1	=	2
Low	1	x	Low	1	=	1
Total Score:						
Model Range:			1-9			
Functional Capacity Index:			Total Score			$= \frac{6}{9} = 0.67$
			9			
Index Range:			0.11-1.0			

\*High = FCI of 0.67-1.0, Mod = FCI of 0.34-0.66, Low = FCI of 0-0.33 for the Storm and Flood Water Storage and Modification of Ground Water Discharge Function Model Scores.

2.9.5 Modification of Water Quality

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
Indicators of disfunction	none							
Direct Indicators of Function	evidence of sedimentation		18	15	12	12	12	18
<b>Primary Variables</b>								
• Wetland Land Use	• low intensity		3	3	3	3	3	3
	• moderate intensity		2	2	2	2	2	2
	• high intensity		1	1	1	1	1	1
• Degree of Outlet Restriction	• restricted outflow		3	0	0	0	0	3
	• no outlet		2	0	0	0	0	2
	• unrestricted outflow		1	0	0	0	0	1
• Inlet/Outlet Type	• no outlet		3	3	0	0	0	3
	• intermittent outlet		2	2	0	0	0	2
	• perennial outlet		1	1	0	0	0	1
• Dominant Wetland Type	• forested wetland		3	3	3	3	3	3
	• scrub-shrub		2	2	2	2	2	2
	• emergent wetland		2	2	2	2	2	2
	• aquatic bed		1	0	0	0	0	0
	• no vegetation		0	0	0	0	0	0
• Cover Distribution	• forming a continuous cover		3	3	3	3	3	3
	• growing in small scattered patches		2	2	2	2	2	2
	• one or more large patches		1	1	1	1	1	1
	• solitary scattered stems		1	1	1	1	1	1
	• no vegetation		0	0	0	0	0	0
• Soil Type	• histosol or clayey soil		3	3	3	3	3	3
	• silty soil		2	2	2	0	2	2
	• sandy or gravelly soil		1	1	1	0	1	1
			—	12	—	—	—	—
	Total Score:			12				
	Model Range:		4-18	3-15	2-12	1-12	2-12	4-18
	Functional Capacity Index:		Total Score	12 = 0.80			12 = 1.0	
			18	15	12	12	12	18
	Index Range:		0.22-1.0	0.20-1.0	0.16-1.0	0.8-1.0	0.16-1.0	0.22-1.0

2.9.6 Export of Detritus

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
Indicators of disfunction	no outlet		0	0		0		0
Direct Indicators of Function	none							
<u>Primary Variables</u>								
• Wetland Land Use	• moderate intensity		3	3	3	3	3	3
	• low intensity		2	2	2	2	2	2
	• high intensity		1	1	1	1	1	1
• Degree of Outlet Restriction	• unrestricted outflow		3	0	0	0	0	3
	• restricted outflow		1	0	0	0	0	1
• Inlet/Outlet Class	• perennial outlet		3	3	0	0	0	3
	• intermittent outlet		1	1	0	0	0	1
• Wetland Water Regime	• drier: seasonally flooded, temporarily flooded, saturated		3	3	3	0	3	3
	• wet: permanently flooded, intermittently exposed, semipermanently flooded		1	1	1	1	1	1
• Vegetation Density/Dominance	• high/very high		3	3	3	3	3	3
	• medium		2	2	2	2	2	2
	• sparse/low		1	1	1	1	1	1
	• no vegetation		0	0	0	0	0	0
• Soil Type	• mineral hydric soil		3	3	3	3	3	3
	• histosol		1	1	1	1	1	1
			—	12	—	—	11	—
		Total Score:						
		• Model Range:	5-18	4-15	3-12	2-10	3-12	5-18
		Functional Capacity Index:	Total Score					
			18	$\frac{12}{18} = 0.67$	12	10	$\frac{11}{12} = 0.92$	18
		Index Range:	0.27-1.0	0.26-1.0	0.25-1.0	0.20-1.0	0.25-1.0	0.27-1.0

2.9.6 Export of Detritus

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
Indicators of disfunction	no outlet		0	0		0		0
Direct Indicators of Function	none							
<u>Primary Variables</u>								
• Wetland Land Use	• moderate intensity		3	3	3	3	3	3
	• low intensity		2	2	2	2	2	2
	• high intensity		1	1	1	1	1	1
• Degree of Outlet Restriction	• unrestricted outflow		3	0	0	0	0	3
	• restricted outflow		1	0	0	0	0	1
• Inlet/Outlet Class	• perennial outlet		3	3	0	0	0	3
	• intermittent outlet		1	1	0	0	0	1
• Wetland Water Regime	• drier: seasonally flooded, temporarily flooded, saturated		3	3	3	0	3	3
	• wet: permanently flooded, intermittently exposed, semipermanently flooded		1	1	1	1	1	1
• Vegetation Density/Dominance	• high/very high		3	3	3	3	3	3
	• medium		2	2	2	2	2	2
	• sparse/low		1	1	1	1	1	1
	• no vegetation		0	0	0	0	0	0
• Soil Type	• mineral hydric soil		3	3	3	3	3	3
	• histosol		1	1	1	1	1	1
			—	12	—	—	11	—
Total Score:								
• Model Range:			5-18	4-15	3-12	2-10	3-12	5-18
Functional Capacity Index:			Total Score	$\frac{12}{15} = 0.80$			$\frac{11}{12} = 0.92$	
			18	15	12	10	12	18
Index Range:			0.27-1.0	0.26-1.0	0.25-1.0	0.20-1.0	0.25-1.0	0.27-1.0

### 2.9.8 Contribution to Abundance and Diversity of Wetland Fauna

(This model is identical for all HGM types except Slope Wetlands for which "Interspersion of Vegetation Cover and Open Water" does not apply))

VARIABLES	CONDITIONS	WEIGHTS
Direct Indicators of Disfunction	none	
Direct Indicators of Function	none	
<b>Primary Variables</b>		
• Watershed Land Use	<ul style="list-style-type: none"> <li>• low intensity (0-25% urbanized)</li> <li>• moderate intensity (25-50% urbanized)</li> <li>• high intensity (&gt;50% urbanized)</li> </ul>	3 2 ①
• Wetland Land Use	<ul style="list-style-type: none"> <li>• low intensity</li> <li>• moderate intensity</li> <li>• high intensity</li> </ul>	③ 2 1
• Wetland Water Regime	<ul style="list-style-type: none"> <li>• wet: permanently flooded, intermittently exposed, semipermanently flooded</li> <li>• drier: seasonally flooded, temporarily flooded, saturated</li> </ul>	3 ①
• Microrelief of Wetland Surface	<ul style="list-style-type: none"> <li>• pronounced</li> <li>• well developed</li> <li>• poorly developed</li> <li>• absent</li> </ul>	③ 2 ① 0
• Number of Wetland types and Relative Proportions	<ul style="list-style-type: none"> <li>• 5 or more types</li> <li>• 3-4 types</li> <li>• 1-2 types</li> <li>• no vegetation</li> </ul>	3 ② 1 0
	<ul style="list-style-type: none"> <li>• even distribution</li> <li>• moderately even distribution</li> <li>• highly uneven distribution</li> <li>• no vegetation</li> </ul>	3 2 ① 0
• Vegetation Interspersion	<ul style="list-style-type: none"> <li>• high interspersion</li> <li>• moderate interspersion</li> <li>• low interspersion</li> <li>• no vegetation</li> </ul>	3 ② 1 0
• Number of Layers and Percent Cover	<ul style="list-style-type: none"> <li>• 5 or more layers</li> <li>• 3-4 layers</li> <li>• 1-2 layers</li> <li>• no vegetation</li> </ul>	③ 2 1 0
	<ul style="list-style-type: none"> <li>• layers well developed (&gt;50% cover)</li> <li>• layers with moderate cover (26-50% cover)</li> <li>• layers poorly distinguishable (&lt;25% cover)</li> <li>• no vegetation</li> </ul>	③ 2 1 0

(continued)

2.9.8 Contribution to Abundance and Diversity of Wetland Fauna (Continued)

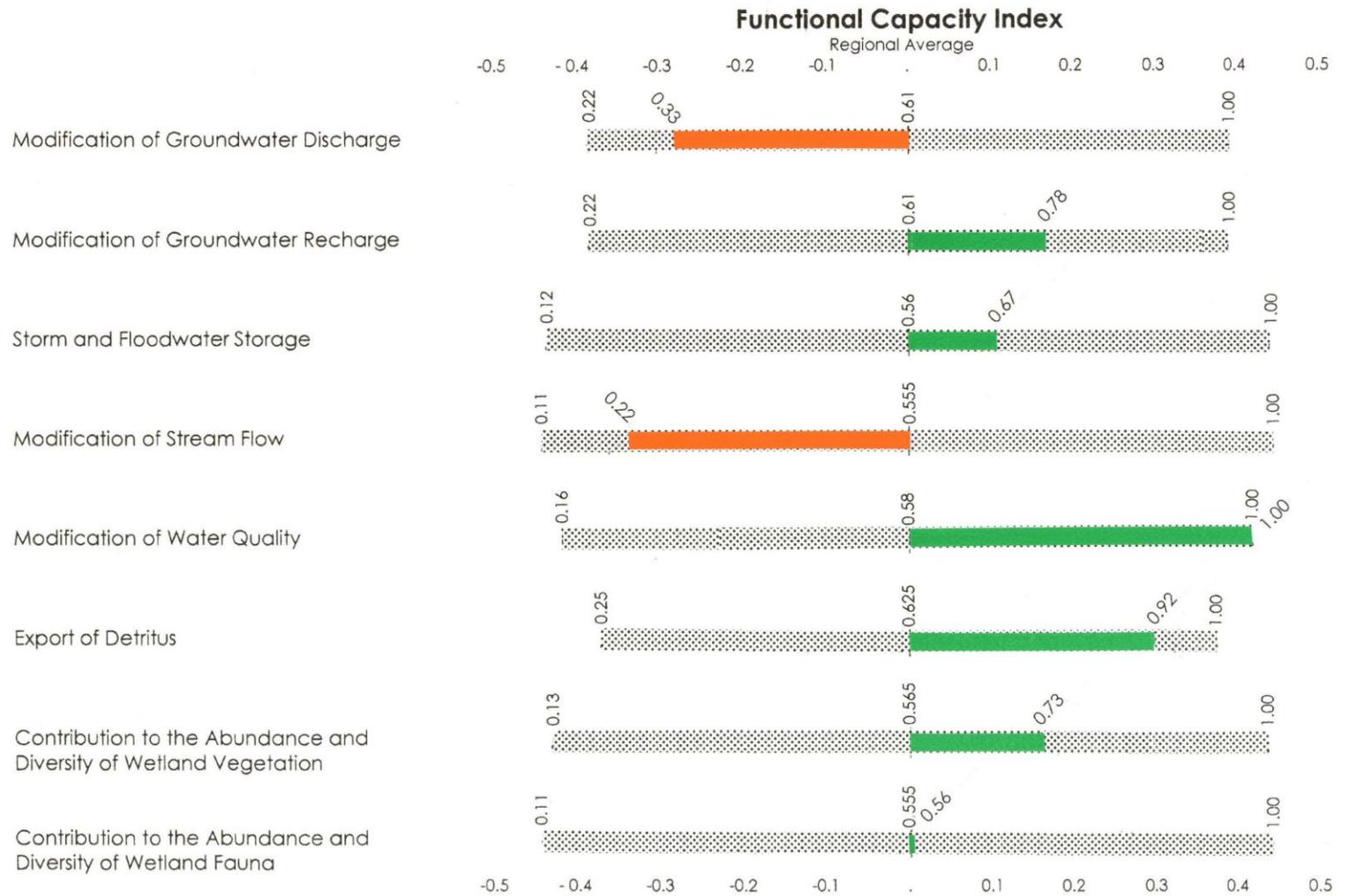
VARIABLES	CONDITIONS	WEIGHTS
● Interspersion of Vegetation Cover and Open Water	● 26-75% scattered or peripheral	3
	● > 75% scattered or peripheral	2
	● < 25% scattered or peripheral	1
	● 100% cover or open water	1
	● no vegetation	0
● Size	● large (> 100 acres)	3
	● medium (10-100 acres)	2
	● small (< 10 acres)	1
● Wetland Juxtaposition	● other wetlands within 400 m and connected above or below	3
	● other wetlands within 400 m but not connected	1
	● wetland isolated	0
Slope Wetlands:	All Other HGM Types:	Total Score: 21 + 1 = 22 3 = 24
Model Range: 4-33		Model Range: 4-36
Functional Capacity Index = $\frac{\text{Total Score}}{33}$		Functional Capacity Index = $\frac{\text{Total Score}}{36} = 0.61$ = 0.67
Index Range: 0.12-1.0		Index Range 0.11-1.0

Peekskill Hollow Brook  
Shrub Oak Brook

Riverine Wetland

Study Area: SO-5

1.7 ac. - 74% of total 2.3 ac. wetlands





WETLAND INVENTORY DATA (continued)

PART 2 - CHARACTERIZATION of MODEL VARIABLES

**LANDSCAPE VARIABLES**

**Size:**

Small (<10 acres)

Medium (10-100 acres)

Large (>100 acres)

**Wetland Juxtaposition:**

Connected Upstream and Downstream

Only Connected Above

Only Connected Below

Other Wetlands Nearby but not Connected

Wetland Isolated

**Fire Occurrence and Frequency:**

Natural; Predictable Frequency

Natural; Sporadic Frequency

Human-caused; Predictable

Human-caused; Sporadic

Rare Event

No Evidence

**Regional Scarcity:**

Not Scarce (>5% of total wetland area of region)

Scarce (<5% of total wetland area of region)

**Watershed Land Use:**

> 50% urbanized

25-50% urbanized

0-25% urbanized

**HYDROLOGIC VARIABLES**

**Surface Water Level Fluctuation of Wetland:**

High Fluctuation

Low Fluctuation

Never Inundated

**Frequency of Overbank Flooding:**

Return Interval > 5 yrs.

Return Interval 2-5 yrs.

Return Interval 1-2 yrs.

No Overbank Flooding

**pH:**

Acid <5.5

Circumneutral 5.5-7.4

Alkaline >7.4

No Water

**Surficial Geologic Deposit Under Wetland**

Low Permeability Stratified Deposits

High Permeability Stratified Deposits

Glacial Till

**Wetland Land Use:**

High Intensity (ie. agriculture)

Moderate Intensity (ie. forestry)

Low Intensity (ie. open space)

**Wetland Water Regime:**

Wet: Perm. Flooded, Intermittently Exposed, Semiperm. Flooded

Drier: Seasonally Flooded, Temporarily Flooded, Saturated

**Basin Topographic Gradient:**

High Gradient >2%

Low Gradient <2%

**Degree of Outlet Restriction:**

Restricted Outflow

Unrestricted Outflow

No Outflow

**Ratio of Wetland Area to Watershed Area:**

High >10%

Low <10%

**Microrelief of Wetland Surface:**

Pronounced >45 cm

Well Developed 15-45 cm

Poorly Developed <15 cm

Absent

**Inlet/Outlet Class:**

No Inlet/No Outlet

No Inlet/Intermittent Outlet

No Inlet/Perennial Outlet

Intermittent Inlet/No Outlet

Intermittent Inlet/Intermittent Outlet

Intermittent Outlet/Perennial Outlet

Perennial Inlet/No Outlet

Perennial Inlet/Intermittent Outlet

Perennial Inlet/Perennial Outlet

**Nested Piezometer Data:**

Recharge

Discharge

Horizontal Flow

Not Available

**Relationship of Wetlands' Substrate Elevation to Regional Piezometric Surface:**

Piez. Surface Above or at Substrate elev.

Piez. Surface below Substrate elev.

Not Available

**Evidence of Sedimentation:**

No Evidence Observed

Sediment Observed on Wetland Substrate

Fluvaquent Soils

**Evidence of Seeps and Springs:**

No Seeps or Springs

Seeps Observed

Perennial Spring

Intermittent Spring

**SOIL VARIABLES**

**Soil Lacking:**

**Histisol:**

Fibric

Hemic

Sapric

**Mineral Hydric Soil:**

Gravelly

Sandy

Silty

Clayey

**VEGETATION VARIABLES**

**Vegetation Lacking:**

**Dominant Wetland Type:**

Forested - Evergreen - Needle-leaved

Forested - Deciduous - Broad-leaved

Forested - Deciduous - Needle-leaved

Scrub Shrub - Evergreen - Broad-leaved

Scrub Shrub - Evergreen - Needle-leaved

Scrub Shrub - Deciduous - Broad-leaved

Scrub Shrub - Deciduous - Needle-leaved

Emergent - Persistent

Emergent - Non-persistent

Aquatic Bed

**Number of Types & Relative Proportions:**

**Number of Types**

Actual #

5

4

3

2

1

**Evenness of Distribution**

Even Distribution

Moderately Even Distribution

Highly Uneven Distribution

*Evening slope*

**Vegetation Density/Dominance:**

Sparse (0-20%)

Low Density (20-40%)

Medium Density (40-60%)

High Density (60-80%)

Very High Density (80-100%)

**Vegetative Interspersion:**

High (small groupings, diverse and interspersed)

Moderate (broken irregular rings)

Low (large patches, concentric rings)

**Number of Layers and Percent Cover:**

**Number of Layers**

6 or > (actual #)

5

4

3

2

1

**% Cover**

1. submergents:

2. floating:

3. moss-lichen:

4. short herb:

5. tall herb:

6. dwarf shrub:

7. short shrub:

8. tall shrub:

9. sapling:

10. tree:

**Plant Species Diversity:**

Low 1-2 plots sampled

Medium 3-4 plots sampled

High 5 or more plots sampled

**Proportion of Animal Food Plants:**

Low (5-25% cover)

Medium (25-50% cover)

High (>50% cover)

**Cover Distribution:**

Continuous Cover

Small Scattered Patches

1 or More Large Patches; Parts of Site Open

Solitary, Scattered Stems

**Dead Woody Material:**

Abundant (>50 of wetland surface)

Moderately Abundant (25-50% of surface)

Low Abundance (0-25% of surface)

**Interspersion of Cover and Open Water:**

26-75% Scattered or Peripheral

>75% Scattered or Peripheral

<25% Scattered or Peripheral

100% Cover or Open Water

**Stream Sinuosity:**

Highly Convoluted (index 1.50 or >)

Moderately Convoluted (index 1.25-1.50)

Straight/Slightly Irreg. (index) 1.10-1.25

**Presence of Islands:**

Several to Many

One or Few

Absent

*NA*

### 2.9.1 Modification of Ground Water Discharge

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS			
			D	S	R	F
<b>Indicators of Disfunction</b>						
• Inlet/Outlet Class	• perennial inlet/no outlet		0	0	0	0
• Nested Piezometer Data	• recharge condition		0	0	0	0
• Relationship to Regional Piezometric Surface	• wetland substrate elevation above piezometric surface		0	0	0	0
<b>Direct Indicators of Function</b>						
• Presence of Springs and Seeps	• evidence of perennial seeps or springs		18	15	15	18
• Nested Piezometer Data	• discharge condition		18	15	15	18
• Relationship to Regional Piezometric Surface	• wetland substrate elevation below piezometric surface		18	15	15	18
• Inlet/Outlet Class	• no inlet/perennial outlet		18	15	15	18
<b>Primary Variables</b>						
• Microrelief of Wetland Surface	• pronounced		3	3	3	3
	• well developed		2	2	2	2
	• poorly developed		1	1	1	1
	• absent		0	0	0	0
• Inlet/Outlet Class	• perennial inlet/perennial outlet		3	3	0	3
	• intermittent inlet/perennial outlet		2	2	0	2
	• all other classes		0	0	0	0
• pH	• alkaline		3	3	3	3
	• circumneutral		2	2	2	2
	• acid		0	0	0	0
	• no water present		0	0	0	0
• Surficial Geologic Deposit Under Wetland	• high permeability stratified deposits		3	3	3	3
	• low permeability stratified deposits		2	2	2	2
	• glacial till		1	1	1	1
• Wetland Water Regime	• wet; permanently flooded, intermittently exposed, semipermanently flooded		3	0	3	3
	• drier; seasonally flooded, temporarily flooded, saturated		1	0	1	1

(continued)

2.9.1 Modification of Ground Water Discharge (Continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS			
			D	S	R	F
• Soil Type	• histosol		3	3	3	3
	• mineral hydric soil		1	1	①	1
			-	-	-	-
		Total Score:				
		Model Range:	3-18	2-15	3-15	3-18
		Functional Capacity Index:	Total Score		5 = 0.33	
			18	15	15	18
		Index Range:	0.19-1.0	0.16-1.0	0.22-1.0	0.19-1.0

Note: This model can be applied to both year long and seasonal discharge wetlands.

If the wetland is seasonally fluctuating between recharge and discharge, then reduce the above score by one half (1/2), because the wetland only functions in a discharge mode for roughly half the year.

2.9.2 Modification of Ground Water Recharge

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS				
			D	L	EP	R	F
Indicators of Disfunction							
• Inlet/Outlet Class	• no inlet/perennial outlet; intermittent inlet/perennial outlet		0				0
• Nested Piezometer Data	• discharge condition		0	0	0	0	0
• Relationship to Regional Piezometric Surface	• wetland substrate elevation above or at piezometric surface		0	0	0	0	0
• Presence of Seeps and Springs	• presence of seeps or springs		0	0	0	0	0

(continued)

## 2.9.2

## Modification of Ground Water Recharge (Continued)

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS				
			D	L	EP	R	F
<b>Direct Indicators of Function</b>							
• Inlet/Outlet Class	• perennial inlet/no outlet		21				21
• Nested Piezometer Data	• recharge condition		21				21
• Relationship to Regional Piezometric Surface	• wetland substrate elevation below piezometric surface		21				21
<b>Primary Variables</b>							
• Microrelief of Wetland Surface	• Poorly Developed		3	3	1	3	3
	• Absent		3	3	1	3	3
	• Well Developed		2	2	2	2	2
	• Pronounced		1	1	3	1	1
• Inlet/Outlet Class	• Perennial Inlet/Intermittent Outlet		3	0	0	0	3
	• All Other Classes		0	0	0	0	0
• pH	• Acid		3	3	3	3	3
	• Circumneutral		2	2	2	2	2
	• Alkaline		1	1	1	1	1
	• No water present		0	0	0	0	0
• Surficial Geologic Deposit Under Wetland	• Glacial Till		3	1	1	1	3
	• Low Permeability Stratified Deposits		2	2	2	2	2
	• High Permeability Stratified Deposits		1	3	3	3	1
• Surface Water Level Fluctuation of the Wetland	• High Fluctuation		3	3	0	3	3
	• Low Fluctuation		2	2	0	2	2
	• Never Inundated		1	1	0	1	1
• Wetland Water Regime	• Drier: Seasonally Flooded, Temporarily Flooded, Saturated		3	3	0	3	3
	• Wet: Permanently Flooded, Intermittently Exposed, Semipermanently Flooded		1	1	0	1	1
• Soil Type	• Gravelly or Sandy Mineral Hydric		3	3	0	3	3
	• Silty or Clayey Mineral Hydric		2	2	0	2	2
	• Sapric Histosol		1	1	0	1	1
	• Fibric or Hemic Histosol		0	0	3	0	0
Total Score:						14	
Model Range:			4-21	4-18	2-12	4-18	4-21
Functional Capacity Index:			Total Score 21	18	12	$\frac{14}{18} = 0.78$	21
Index Range:			0.1-1.0	0.22-1.0	0.16-1.0	0.22-1.0	0.19-1.0

Note: This model should be applied to both year long and seasonal recharge wetlands.

If the wetland is seasonally fluctuating between recharge and discharge, then reduce the above score by one half (1/2), because the wetland only functions in a recharge mode for roughly half the year.

2.9.3

Storm and Flood-Water Storage

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
Indicators of disfunction	none							
Direct Indicators of Function	no outlet		27	21				30
<b>Primary Variables</b>								
● Inlet/Outlet Class	● perennial inlet/intermittent outlet		3	3	0	0	0	3
	● intermittent inlet/intermittent outlet		2	2	0	0	0	2
	● no inlet/intermittent outlet		1	1	0	0	0	1
	● non inlet/perennial outlet		1	1	0	0	0	1
	● intermittent inlet/perennial outlet		1	1	0	0	0	1
	● perennial inlet/perennial outlet		1	1	0	0	0	1
● Degree of Outlet Restriction	● restricted		3	0	0	0	0	3
	● unrestricted		0	0	0	0	0	0
● Basin Topographic Gradient	● low gradient		3	3	0	3	3	3
	● high gradient		1	1	0	0	1	1
● Wetland Water Regime	● Drier: seasonally flooded, temporarily flooded, saturated		3	3	3	0	3	3
	● Wet: permanently flooded, intermittently exposed, semipermanently flooded		1	1	1	0	1	1
● Surface Water Level Fluctuation of the Wetland	● high fluctuation		3	0	3	0	3	3
	● low fluctuation		2	0	2	0	2	2
	● never inundated		0	0	0	0	0	0
● Ratio of Wetland Area to Watershed Area	● large		3	3	3	0	3	3
	● small		1	1	1	0	1	1
● Microrelief of Wetland Surface	● pronounced		3	3	3	3	3	3
	● well developed		2	2	2	2	2	2
	● poorly developed		1	1	1	1	1	1
	● absent		0	0	0	0	0	0
● Frequency of Overbank Flooding	● overbank flooding absent		0	0	0	0	0	0
	● return interval of > 5 yrs		0	0	1	0	1	1
	● return interval of 2-5 yrs		0	0	2	0	2	2
	● return interval of 1-2 yrs		0	0	3	0	3	3
● Vegetation Density/Dominance	● high/very high		3	3	3	3	3	3
	● moderate		2	2	2	2	2	2
	● sparse/low		1	1	1	1	1	1
	● no vegetation		0	0	0	0	0	0

(continued)

**2.9.3 Storm and Flood-Water Storage (Continued)**

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
● Dead Woody Material	● abundant		3	3	3	3	3	3
	● moderately abundant		2	2	2	2	2	2
	● sparse		1	1	1	1	1	1
	● absent		0	0	0	0	0	0
				—	—	—	—	—
		<b>Total Score:</b>					16	
		<b>Model Range:</b>	4-27	4-21	2-21	0-12	3-24	4-30
		<b>Functional Capacity Index:</b>	<b>Total Score</b>				16	
			27	21	21	12	24	30
		<b>Index Range:</b>	0.15-1.0	0.19-1.0	0.09-1.0	0-1.0	0.12-1.0	0.13-1.0

**2.9.4 Modification of Stream Flow**  
(This model is identical for all HGM types)

VARIABLES	CONDITIONS	WEIGHTS
Indicators of Disfunction	no outlet	0
Direct Indicators of Function	none	
<b>Primary Variables</b>		
<u>Storm and Flood Water Storage Function Model Score</u>		<u>Modification of Groundwater Discharge Function Model Score</u>
High*	3 x	High 3 = 9
Mod	2 x	High 3 = 6
Low	1 x	High 3 = 3
High	3 x	Mod 2 = 6
Mod	2 x	Mod 2 = 4
Low	1 x	Mod 2 = 2
High	3 x	Low 1 = 3
Mod	2 x	Low 1 = 2
Low	1 x	Low 1 = 1
		<b>Total Score:</b>
		<b>Model Range:</b> 1-9
		<b>Functional Capacity Index:</b> <b>Total Score</b> 27 = 9
		<b>Index Range:</b> 0.11-1.0

\*High = FCI of 0.67-1.0, Mod = FCI of 0.34-0.66, Low = FCI of 0-0.33 for the Storm and Flood Water Storage and Modification of Ground Water Discharge Function Model Scores.

### 2.9.5 Modification of Water Quality

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS						
			D	S	L	EP	R	F	
Indicators of disfunction	none								
Direct Indicators of Function	evidence of sedimentation		18	15	12	12	12	18	
<b>Primary Variables</b>									
• Wetland Land Use	• low intensity		3	3	3	3	③	3	
	• moderate intensity		2	2	2	2	2	2	
	• high intensity		1	1	1	1	1	1	
• Degree of Outlet Restriction	• restricted outflow		3	0	0	0	0	3	
	• no outlet		2	0	0	0	0	2	
	• unrestricted outflow		1	0	0	0	①	1	
• Inlet/Outlet Type	• no outlet		3	3	0	0	0	3	
	• intermittent outlet		2	2	0	0	①	2	
	• perennial outlet		1	1	0	0	0	1	
• Dominant Wetland Type	• forested wetland		3	3	3	3	③	3	
	• scrub-shrub		2	2	2	2	2	2	
	• emergent wetland		2	2	2	2	2	2	
	• aquatic bed		1	0	0	0	0	0	
	• no vegetation		0	0	0	0	0	0	
• Cover Distribution	• forming a continuous cover		3	3	3	3	③	3	
	• growing in small scattered patches		2	2	2	2	2	2	
	• one or more large patches		1	1	1	1	1	1	
	• solitary scattered stems		1	1	1	1	1	1	
	• no vegetation		0	0	0	0	0	0	
• Soil Type	• histosol or clayey soil		3	3	3	3	③	3	
	• silty soil		2	2	2	0	2	2	
	• sandy or gravelly soil		1	1	1	0	1	1	
			—	—	—	—	—	—	
Total Score:									
Model Range:			4-18	3-15	2-12	1-12	2-12	4-18	
Functional Capacity Index:									
			<u>Total Score</u>				$\frac{12}{12} = 1.0$		
			18	15	12	12	12	18	
Index Range:			0.22-1.0	0.20-1.0	0.16-1.0	0.8-1.0	0.16-1.0	0.22-1.0	

2.9.6 Export of Detritus

VARIABLES	CONDITIONS	HGM TYPES:	WEIGHTS					
			D	S	L	EP	R	F
Indicators of disfunction	no outlet		0	0		0		0
Direct Indicators of Function	none							
<b>Primary Variables</b>								
• Wetland Land Use	• moderate intensity		3	3	3	3	3	3
	• low intensity		2	2	2	2	2	2
	• high intensity		1	1	1	1	1	1
• Degree of Outlet Restriction	• unrestricted outflow		3	0	0	0	0	3
	• restricted outflow		1	0	0	0	0	1
• Inlet/Outlet Class	• perennial outlet		3	3	0	0	0	3
	• intermittent outlet		1	1	0	0	0	1
• Wetland Water Regime	• drier: seasonally flooded, temporarily flooded, saturated		3	3	3	0	0	3
	• wet: permanently flooded, intermittently exposed, semipermanently flooded		1	1	1	1	1	1
• Vegetation Density/Dominance	• high/very high		3	3	3	3	3	3
	• medium		2	2	2	2	2	2
	• sparse/low		1	1	1	1	1	1
	• no vegetation		0	0	0	0	0	0
• Soil Type	• mineral hydric soil		3	3	3	3	3	3
	• histosol		1	1	1	1	1	1
			—	—	—	—	11	—
		<b>Total Score:</b>						
		<b>Model Range:</b>	5-18	4-15	3-12	2-10	3-12	5-18
		<b>Functional Capacity Index:</b>						
		<b>Total Score</b>	18	15	12	10	11 = 0.92	18
		<b>Index Range:</b>	0.27-1.0	0.26-1.0	0.25-1.0	0.20-1.0	0.25-1.0	0.27-1.0

**2.9.7 Contribution to Abundance and Diversity of Wetland Vegetation**  
 (This model is identical for all HGM types)

VARIABLES	CONDITIONS	WEIGHTS
Indicators of Disfunction	no vegetation	0
Direct Indicators of Function	none	
<u>Primary Variables</u>		
• Plant Species Diversity	<ul style="list-style-type: none"> <li>• high diversity</li> <li>• medium diversity</li> <li>• low diversity</li> </ul>	5 3 ①
• Vegetation Density/Dominance	<ul style="list-style-type: none"> <li>• high/very high</li> <li>• medium</li> <li>• sparse/low</li> </ul>	⑤ 3 1
• Wetland Juxtaposition	<ul style="list-style-type: none"> <li>• connected upstream and downstream</li> <li>• connected above or below</li> <li>• other wetlands nearby but not connected (400 m or closer)</li> <li>• isolated</li> </ul>	⑤ 3 1 0 11
Total Score:		
Model Range:		2-15
Functional Capacity Index:		11 = Total Score $\frac{11}{15} = 0.73$
Index Range:		0.13-1.0

### 2.9.8 Contribution to Abundance and Diversity of Wetland Fauna

(This model is identical for all HGM types except Slope Wetlands for which "Interspersion of Vegetation Cover and Open Water" does not apply))

VARIABLES	CONDITIONS	WEIGHTS
Direct Indicators of Disfunction	none	
Direct Indicators of Function	none	
<b>Primary Variables</b>		
● Watershed Land Use	<ul style="list-style-type: none"> <li>● low intensity (0-25% urbanized)</li> <li>● moderate intensity (25-50% urbanized)</li> <li>● high intensity (&gt; 50% urbanized)</li> </ul>	3 2 ①
● Wetland Land Use	<ul style="list-style-type: none"> <li>● low intensity</li> <li>● moderate intensity</li> <li>● high intensity</li> </ul>	③ 2 1
● Wetland Water Regime	<ul style="list-style-type: none"> <li>● wet: permanently flooded, intermittently exposed, semipermanently flooded</li> <li>● drier: seasonally flooded, temporarily flooded, saturated</li> </ul>	3 ①
● Microrelief of Wetland Surface	<ul style="list-style-type: none"> <li>● pronounced</li> <li>● well developed</li> <li>● poorly developed</li> <li>● absent</li> </ul>	3 2 1 ①
● Number of Wetland types and Relative Proportions	<ul style="list-style-type: none"> <li>● 5 or more types</li> <li>● 3-4 types</li> <li>● 1-2 types</li> <li>● no vegetation</li> </ul>	3 2 ① 0
	<ul style="list-style-type: none"> <li>● even distribution</li> <li>● moderately even distribution</li> <li>● highly uneven distribution</li> <li>● no vegetation</li> </ul>	3 2 ① 0
● Vegetation Interspersion	<ul style="list-style-type: none"> <li>● high interspersion</li> <li>● moderate interspersion</li> <li>● low interspersion</li> <li>● no vegetation</li> </ul>	③ 2 1 0
● Number of Layers and Percent Cover	<ul style="list-style-type: none"> <li>● 5 or more layers</li> <li>● 3-4 layers</li> <li>● 1-2 layers</li> <li>● no vegetation</li> </ul>	③ 2 1 0
	<ul style="list-style-type: none"> <li>● layers well developed (&gt; 50% cover)</li> <li>● layers with moderate cover (26-50% cover)</li> <li>● layers poorly distinguishable (&lt; 25% cover)</li> <li>● no vegetation</li> </ul>	③ 2 1 0

(continued)

2.9.8 Contribution to Abundance and Diversity of Wetland Fauna (Continued)

VARIABLES	CONDITIONS	WEIGHTS
● Interspersion of Vegetation Cover and Open Water	● 26-75% scattered or peripheral	3
	● >75% scattered or peripheral	2
	● <25% scattered or peripheral	1
	● 100% cover or open water	①
	● no vegetation	0
● Size	● large (> 100 acres)	3
	● medium (10-100 acres)	2
	● small (< 10 acres)	①
● Wetland Juxtaposition	● other wetlands within 400 m and connected above or below	③
	● other wetlands within 400 m but not connected	1
	● wetland isolated	0
		<u>20</u>
Slope Wetlands:	All Other HGM Types:	Total Score:
Model Range: 4-33		Model Range: 4-36
Functional Capacity Index = $\frac{\text{Total Score}}{33}$		Functional Capacity Index = $\frac{\text{Total Score}}{36} = 0.56$
Index Range: 0.12-1.0		Index Range: 0.11-1.0