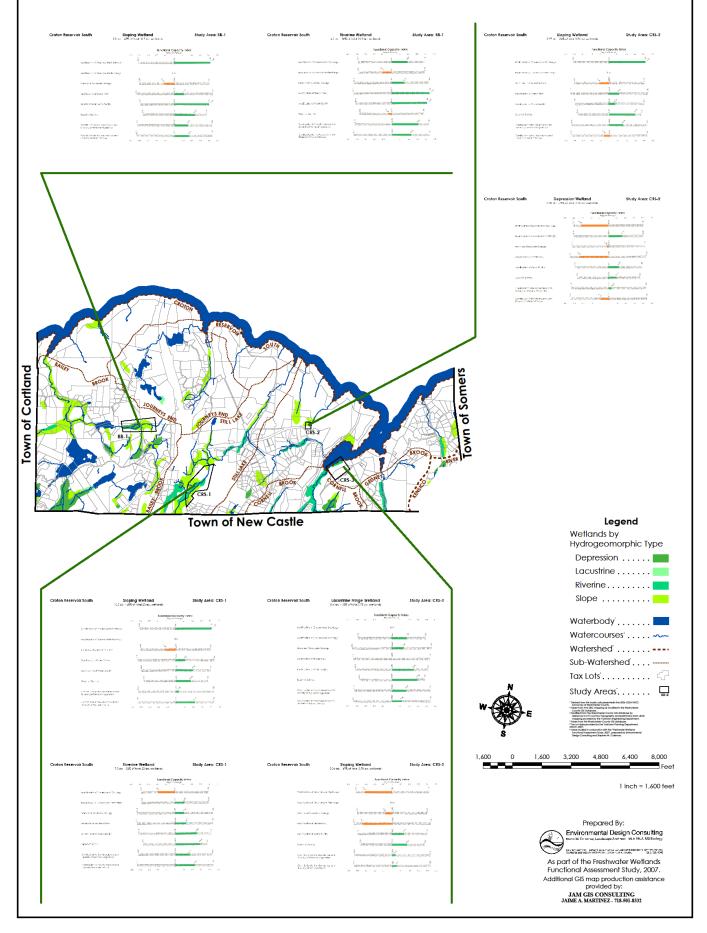
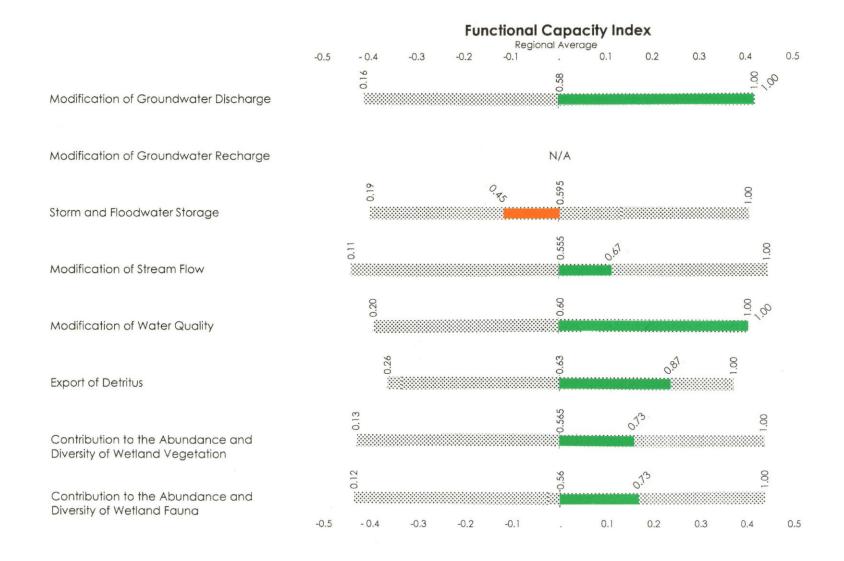
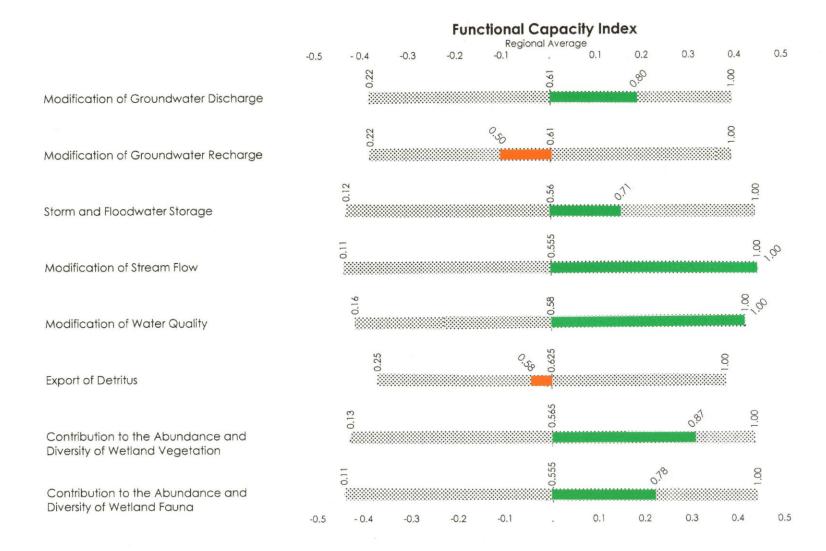
Town of Yorktown, New York Wetland Functional Assessment Study Croton Reservoir South Watershed



5.0 ac. - 47% of total 10.7 ac. wetlands



4.1 ac. - 38% of total 10.7 ac. wetlands



WETLAND INVENTORY DATA

WEILIAM INV	ENTORIL		
Project Number: YORKTOON	Date:	BOTH	
Wetland Number: BB-1			
USGS Quadrangle: OSSILILIG			
Field Investigators: BA & S.C.			
PART 1 - CHARACTER	IZATION	of WETLAND	

SURFAC	CE WATER FLOW VE	CTORS	PLANT	SPECIES
Condition	Percent/Acreag	Depressional Slope Flat Extensive Peatland Lacustrine Fringe Riverine	Red Maple Sweet Birch Chashark Hekory Tulp toplar Red Oak American Reseh American Elm Reschoot Spice bush Witchhazel Gilky Dansoal Lingsof Enourous Japanese Barberry Arronemoal Viburhum	
Type	VEGETATION TYPES Percent/Acreage		Carlic Mustard Tussek George Skunk Castare Dennsylvania Selce	
Forested Wetland Evergreen Needle-leaved Deciduous Broad-leaved Needle-leaved	1%	Histosol Fibric Hemic Sapric	Pennsylvania Selje Prisen lyg Prisay Willew	
Scrub Shrub Evergreen Broad-leaved Needle-leaved Deciduous Broad-leaved Needle-leaved	14%	Mineral Hydric Soil Gravelly Sandy Silty Clayey	OW Obligate Wetland	COM Common
Emergent Wetland Persistent Non-persistent Aquatic Bed	and the later of t	GEOLOGY Surficial: Glacial till	FW Facultative Wetland F Facultative FU Facultative Upland OU Obligate Upland DOM Dominant	OCC Occasional C Canopy S Sapling TS Tall Shrub LS Low Shrub
Total	100%	Bedrock:	DDE EMPI	H Herb
			Public ownership Wildlife management area Fisheries management area Designated State or Federal protected wetlar	Documented habitat fo state or federal listed species Regionally scarce wetland category Historic/archaeologic

WETLAND INVENTORY DATA (continued)

PART 2 - CHARACTERIZATION of MODEL VARIABLES

LANDSCAPE VARIABLES	Microrelief of Wetland Surface:	Number of Types & Relative Proportions:
Size: Smail (<10 acres) Medium (10-100 acres)	Pronounced >45 cm Well Developed 15-45 cm Poorly Developed <15 cm Absent	Number of Types Evenness of Distribution Actual # Even Distribution Moderately Even Distribution Highly Uneven Distribution
Wetland Juxtaposition: Connected Upstream and Downstream Only Connected Above Only Connected Below Other Wetlands Nearby but not Connected Wetland Isolated Fire Occurence 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:	Inlet/Outlet Class: No Inlet/No Outlet No Indet/Intermittent Outlet Intermittent Inlet/No Outlet Intermittent Inlet/No Outlet Intermittent Inlet/Intermittent Outlet Intermittent Untervoutlet Perennial Inlet/No Outlet Perennial Inlet/Perennial Outlet Perennial Inlet/Perennial Outlet Perennial Inlet/Perennial Outlet Perennial Inlet/Perennial Outlet Recharge Discharge Index Outlet Data: Recharge Discharge Recharge Piezometric Surface: Piezometric Surface: Piezometric Surface:	Vegetation Density/Dominance: Sparse (0-20%) Low Density (20-40%) Medium Density (40-60%) High Density (80-100%) 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 6 or > (actual #) 1. submergents: 5 2. floating: 4 3. moss-lichen: 3 4. short herb:
25-50% urbanized 0-25% urbanized HYDROLOGIC VARIABLES	Not Available Evidence of Sedimentation: No Evidence Observed	2 5. tall herb: 1 6. dwarf shrub: 7. short shrub: 8. tall shrub:
Surface Water Level Fluctuation of Wetland: High Fluctuation Low Fluctuation Never Inundated Frequency of Overbank Flooding: Return Interval > 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:	Fluvaquent Soits 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	Plant Species Diversity: Low 1-2 plots sampled Medium 3-4 plots sampled Froportion of Animal Food Plants: Low (5-25% cover) Medium (25-50% cover) Fligh (>50% cover) Cover Distribution: Continuous Cover Small Scattered Patches 1 or More Large Patches; Parts of Site Open Solitary, Scattered Stems Dead Woody Material: Abrundant (>50 of wetland surface) Moderately Abrundant (25-50% of surface)
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:	VEGETATION VARIABLES Vegetation Lacking: Dominant Wetland Type: Forested - Evergreen - Needle-leaved Forested - Deciduous - Broad-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	Interspersion of Cover and Open Water: 26-75% Scauered or Peripheral >75% Scautered 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
High >10% Low <10%		

BB-1 Total Wetlands 10,700 = 5%, ws.

Slope 50ne = 47%

Piverine 411 ne = 38%

Depression 1.6 es - 15%*

Modification of Ground Water Discharge **HLLM TYPES & 25% not evaluated separately

2.9.1

			WE	IGHTS	
VARIABLES	CONDITIONS HGM TYPES:	D	S	R	F
Indicators of Disfunction Inlet/Outlet Class	perennial inlet/no outlet	0	0	0	0
Nested Piezometer Data	• recharge condition	0	0	0	0
Relationship to Regional Piezo- metric Surface	 wetland substrate elevation above piezometric surface 	0	0	0	0
Direct Indicators of Function 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 Peizometeric Surface 	 wetland substrate elevation below piezometric surface 	18	15	15	18
• Inlet/Outlet Class	no inlet/perennial outlet	18	15	15	18
Primary Variables Microrelief of Wetland Surface	 pronounced well developed poorly developed absent 	3 2 1 0	3 2 1 0	3 2 1 0	3 2 1 0
• Inlet/Outlet Class	 perennial inlet/perennial outlet intermittent inlet/perennial outlet all other classes 	3 2 0	3 2 0	0 0 0	3 2 0
• pH	alkaline circumneutral acid no water present	3 2 0 0	3 2 0 0	3 2 0 0	3 2 0 0
Surficial Geologic Deposit Under Wetland	 high permeability stratified deposits low permeability stratified deposits glacial till 	3 2 1	3 2 1	3 2	3 2 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)

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

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

					WEIGH	TS	
VARIABLES	CONDITIONS HGM TYPES:		D	L	EP	R	F
Indicators of Disfunction Inlet/Outlet Class	 no inlet/perent tent inlet/perent 	nial outlet; intermit-	0				0
Nested Piezometer Data	discharge conc	lition	0	0	0	0	0
 Relationship to Regional Piezo- metric Surface 	wetland substr or at piezomet	ate elevation above ric surface	0	0	0	0	0
Presence of Seeps and Springs	 presence of se 	eps or springs	0	0	0	0	0

(continued)

				WEIGHTS					
VARIABLES	CONDITIONS	CONDITIONS HGM TYPES:		L	EP	R	F		
Direct Indicators of Function Inlet/Outlet Class	• perennial inlet	/no outlet	21				21		
Nested Piezometer Data	• recharge condi	ition	21				21		
Relationship to Regional Peizometeric Surface	 wetland substr piezometric su 	rate elevation below orface	21	Lucia Reva			21		
Primary Variables Microrelief of Wetland Surface	Poorly Develo	nned .	3	3	1	3	3		
Microreller of Welland Surface	Absent	pea	3 2	3	2 3	3 3 2	3 2 1		
	Well Develope	ed		2	2	2	1		
	 Pronounced 		1	1	3	1			
Inlet/Outlet Class	Perennial Inle All Other Class	t/Intermittent Outlet	3	0	0	0	3		
	• Acid		3	3	3	3	3		
• pH	Circumneutral	1	2	2	3 2 1	2	3 2 1		
	Alkaline		1	1		1	1		
	No water pres	sent	0	0	0	0	0		
	2 - 100 200		4		1	1	3		
 Surficial Geologic Deposit Under Wetland 		oility Stratified Depos-	3 2	1 2	2	1 2	2		
	High Permeatits	bility Stratified Depos-	1	3	3	3	1		
	High Fluctuat	rion	3	3	0	3	3 2		
Surface Water Level Fluctuation of the Wetland	Low Fluctuati	ion	3 2	3 2	0	2	2		
of the wettand	Never Inunda		1	1	0	1	1		
Wetland Water Regime	Drier: Season	nally Flooded, Tem- ded, Saturated	3	3	0	3	3		
	a Wet Perman	nently Flooded, Inter-	1	1	0	0	1		
	mittently Exp manently Flo	osed, Semiper-	_			_	_		
	Gravelly or S	Sandy Mineral Hydric	3	3	0	3	3		
Soil Type	Silty or Clave	ey Mineral Hydric	2	2	0	2	2		
	Sapric Histos Fibric or Her	iol	0	0	0	0	0		
		Total Score:	9	and the state of t					
		Model Range:	4- 21	4-18	2-12	4-18	4-2		
•	Fun	ctional Capacity Index:	To- tal Sco re 21	0A3 18	12	9 = 0	21		
		Index Range:		0.22- 1.0	0.16- 1.0	0.22- 1.0	0.1		

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.

				WEI	GHTS		
VARIABLES	CONDITIONS HGM TYPES:	D	S	L	EP	R	F
ndicators of disfunction	none						
Direct Indicators of Function	no outlet	27	21				30
Primary Variables							
Inlet/Outlet Class	 perennial inlet/intermittent outlet 	3	3	0	0	0	3
a lillet/Outlet Class	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
	· consisted	3	0	0	0	0	3
Degree of Outlet	restricted unrestricted	0	0	0	0	0	0
Restriction	unrestricted						
	*	3	3	0	3	(3)	3
 Basin Topographic 	low gradient	1	1	0	0	1	1
Gradient	 high gradient 	1	0	· ·			
			(2)	3	0	3	3
 Wetland Water Regime 	 Drier: seasonally flooded, 	3	(3)	3	U	,	
	temporarily flooded, saturated				0	0	1
	Wet: permanently flooded, intermit-	1	1	1	0		1
	tently exposed, semipermanently						
	flooded						
	110,000						
Surface Water Level	 high fluctuation 	3	0	3	0	3	3
	low fluctuation	2	0	2	0	2	2
Fluctuation of the		0	0	0	0	0	0
Wetland	 never inundated 		~				
		2	3	3	0	3	3
 Ratio of Wetland Area to 	• large	3	3	1	0	1	1
Watershed Area	• small	1	(1	1			
				2	3	3	3
 Microrelief of Wetland 	pronounced	3	3	3		2	2
Surface	 well developed 	2	2	2	2		
	poorly developed	1	(1)	1	1	1	0
	absent	0	0	0	0	0	
 Frequency of Overbank 	 overbank flooding absent 	0	0	0	0	0	0
Flooding	 return interval of >5 yrs 	0	0	1	0	1	1
Flooding	• return interval of 2-5 yrs	0	0	2	0	2	2
	• return interval of 1-2 yrs	0	0	3	0	(3)	3
	- Tetuth interval of 1-2 year					_	
	a high/uppy high	3	3	3	3	(3)	3
Vegetation	high/very high	2	6	2	2	3 2	2
Density/Dominance	• moderate	1	1	ī	1	1	1
	• sparse/low	0	0	0	0	0	0
	 no vegetation 	U	U	0	0		

2.9.3 Storm and Flood-Water Storage (Continued)

					WEIG	HTS		
VARIABLES	CONDITIONS HGM TYPES:		D	s	L	EP	R	F
Dead Woody Material	abundant moderately abunda sparse absent	nt	3 2 1 0	3 2 1 0	3 2 1 0	3 2 1 0	3 2 1 0	3 2 1 0
		Total Score:	T	10	_	-	77	
		Model Range:	4-27	4-21	2-21	0-12	3-24	4-30
	Funct	ional Capacity Index:	Score	ARAGATA	21	12	17 =	0.11
		Index Range:	0.15- 1.0	0.19- 1.0	0.09-	0-1.0	0.12-	0.13

2.9.4 Modification of Stream Flow

(This model is identical for all HGM types)

	VARIABLES	3		CON	DITIONS	WEIGHTS
ndicators	of Disfunction		no outlet			0
Direct Ind	licators of Function	on	none		WICO,	
	d Flood Water Ston Model Score	x x x x x x x x x	Modifica Discharge High High Mod Mod Low Low Low	Function M 3 3 3 2 2 2 1 1		9 6 3 6 4 2 3 2 1
٠				Function	Total Score: Model Range: al Capacity Index: Index Range:	Total 9 - 10

^{*}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.

	Communication of the Association Communication Communicati			WEIG	HTS		
VARIABLES	CONDITIONS HGM TYPES	D	S	L	EP	R	F
ndicators of disfunction	поле						
Direct Indicators of Function	evidence of sedimentation	18	15	12	12	12	18
						-	
Primary Variables	• low intensity	3	3	3	3	3	3
 Wetland Land Use 	moderate intensity	2	2 .	2	2		2
	• high intensity	1	i	1	1	1	1
	tand and gow	3	0	0	0	0	3
 Degree of Outlet 	• restricted outflow	2	0	0	0	0	2
Restriction	 no outlet unrestricted outflow 	1	0	0	0	0	1
		2	3	0	0	0	3
 Inlet/Outlet Type 	 no outlet 	3		0	0	0	2
	• intermittent outlet .	2	2	0	0	0	1
	• perennial outlet	1	0	0		-	
	forested wetland	3	3	3	3	3	3
 Dominant Wetland Type 		2	2	2	2	2	2
	scrub-shrub	2	2	2	2	2	2
	 emergent wetland 	1	0	0	0	0	0
	aquatic bed	.0	0	0	0	0	0
	 no vegetation 	. 0					
	• forming a continuous cover	3	(3)	3	3	- 3	3
 Cover Distribution 	growing in small scattered patches	2	2	2	2	2	2
	e growing in small scattered pateries	1	1	1	1	- 1	1
	one or more large patches	i	1	1	1	1	1
	 solitary scattered stems 	0	0	0	0	0	0
•	 no vegetation 	U				4	3
	 histosol or clayey soil 	3	3	3	3	3	
 Soil Type 	• silty soil	2	2	2	0	2	2
		1	1	1	0	1	1
	sandy or gravelly soil	-					
	Total Sco	re:					
	Model Ran	ge: 4-18	3-15	2-12	1-12	2-12	4-
	Functional Capacity Ind	ex: Tota	1 900 -	1.0		17 :	110
		Scor 18	15	12	12	12	11
	Index Rar	ige: 0.22	0.20-	0.16-	0.8-	0.16	- 0. 1.
	INCX Kai	1.0	1.0	1.0	1.0	1.0	

	and the second s			WEIG	HTS		
VARIABLES	CONDITIONS HGM TYPES:	D	S	L	EP	R	F
Indicators of disfunction	no outlet	0	0		0		0
indicators of distunction			ANNUAL SERVICE				
Direct Indicators of Function	none	-					
Primary Variables		3	3	3	3	3	3
Wetland Land Use	 moderate intensity 	2	(2)	2	2	2	2
	 low intensity 	1	4	1	1	1	1
	 high intensity 	1	1	•			
		3	0	0	0	0	3
Degree of Outlet	• unrestricted outflow	1	0	0	0	0	1
Restriction	 restricted outflow 	*		-			
		3	3	0	0	0	3
 Inlet/Outlet Class 	perennial outlet	1	1	0	0	0	1
11100	• intermittent outlet	1	,	•			
		3	3	3	0	3	3
 Wetland Water Regime 	e drier: seasonally flooded,	3	9				
	temporarily flooded, saturated	1	1	1	1	1	1
	wet: permanently flooded,	1	1		•		
	intermittently exposed,						
	semipermanently flooded						
				2	3	3	3
- Managian Den	 high/very high 	3	3	3	2	2	2
Vegetation Den-	• medium	2	2	2		1	1
sity/Dominance	• sparse/low	1	1	1	1	0	0
		0	0	0	0	0	U
	o no vegetation						3
*	• mineral hydric soil	3	(3)	3	3	3	
 Soil Type 		1	1	1	1	1	1
	histosol						-
		17	13			7	
	Total Score	:					
			4-15	3-12	2-10	3-12	5-17
	- Model Range	: 5-18	4-13	1172	2 10	100000000000000000000000000000000000000	
		en .		10.0			181
	Functional Capacity Index	c: Tota	10.63	0.		7,	2
		Scor	2	12	10	12	18
		18	15	12	10		
			0.04	0.25-	0.20-	0.25-	0.2
	Index Range	e: 0.27		1.0	1.0	1.0	1.0
		1.0	1.0	1.0	1.0	a t w	

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			
Primary Variables Plant Species Diversity	 high diversity medium diversity low diversity 			
• Vegetation Density/D minance			5	
 Wetland Juxtaposit n 	connected upstream and downstream connected above or below other wetlands nearby but not connected (400 m or closer)		1	
	• isolated		13 11	
		Total Score:		
		Model Range:	2-15	
		Functional Capacity Index:	= Total Score 15	
		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	CONTRACTOR OF THE SECTION AND ADDRESS AND
Direct Indicators of Function	none	
		(3)
Primary Variables Watershed Land Use	low intensity (0-25% urbanized)	3
Watershed Land Use	moderate intensity (25-50% urbanized)	1
	• high intensity (>50% urbanized)	
	low intensity	3
 Wetland Land Use 	• moderate intensity	1
	• high intensity	1
		(3)
	wet: permanently flooded, intermittently	0
Wetland Water Regime	avnosed seminermanently flooded	
	drier: seasonally flooded, temporarily	D
	flooded, saturated	
		3
a and a life of the same	• pronounced	2
 Microrelief of Wetland Surface 	well developed	3 2
	poorly developed	0
	• absent	
*		3 2 1 0
CWalland types and Relative	• 5 or more types	(2)
 Number of Wetland types and Relative 	• 3-4 types	
Proportions	• 1-2 types	0
	• no vegetation	
	even distribution	3 2 0
	moderately even distribution	
	highly uneven distribution	0
	• no vegetation	
		3
 Vegetation Interspersion 	• high interspersion	C
	moderate interspersion	1
	• low interspersion	O
	• no vegetation	3
Number of Layers and Percent Cover	• 5 or more layers	2
Number of Layers and reference	• 3-4 layers	1
	• 1-2 layers	0
	• no vegetation	
	• layers well developed (>50% cover)	
	e layers with moderate cover (26-50%	1
	cover)	0
	e layers poorly distinguishable (<25%	Y Comments
	cover)	0
	• no vegetation	V
	- 110 Ackerment	

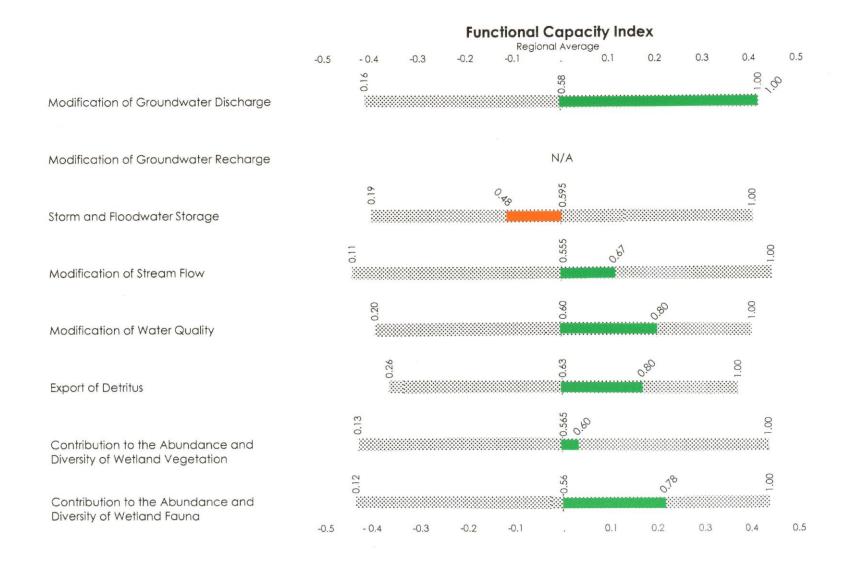
2.9.8 Contribution to Abundance and Diversity of Wetland Fauna (Continued)

VARIABLES	CONDITIONS			WEIGHTS
Interspersion of Vegetation Cover and Open Water	 26-75% scattered of >75% scattered of <25% scattered of 100% cover or ope no vegetation 	r peripheral r peripheral		3 2 0
• Size	 large (> 100 acres) medium (10-100 a small (< 10 acres) 	cres)		3 17
Wetland Juxtaposition	other wetlands with connected above of their wetlands with their wetlands with their wetlands with their wetlands.	or below		1
	o wetland isolated	:		0 78 30
Slope Wetlands:		All Other HGM Types:	Total Score:	-25
Model Range: 4-33			Model Range: Functional Capacity	4-36 Total Score ZS = 01
Functional Capacity Index = Total Score 33	24 =0.73		Index =	36 0.11-1.0
Index Range: 0.12-1.0			Index Range	

Sloping Wetland

16.0 ac. - 68% of total 23 ac. wetlands

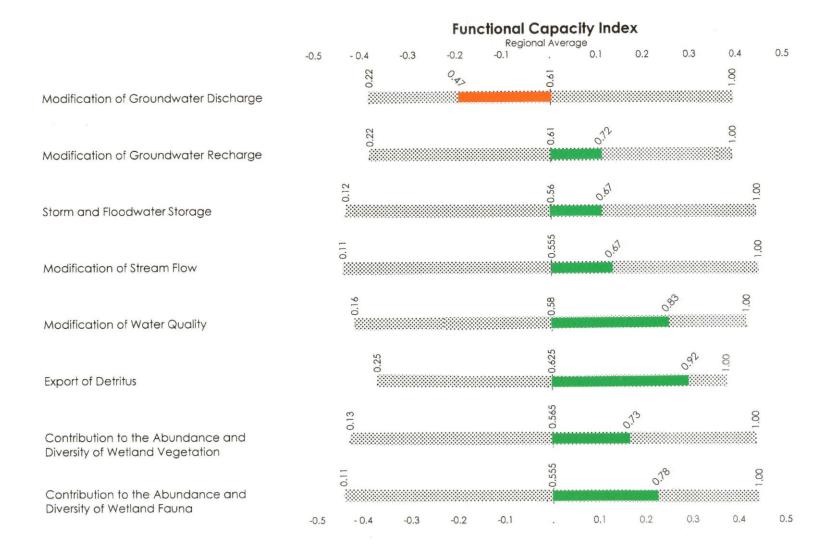
Study Area: CRS-1



Riverine Wetland

7.0 ac. - 32% of total 23 ac. wetlands

Study Area: CRS-1



WETLAND INVENTORY DATA

SLOPE 16 ac 68% 400 PIVERINE 7 ac 32% 400

Project Number: YOLKTOWL	Date: DEPLESION 0,15 at 419.*
Wetland Number: CRS-1	Total Wetland 23 ac
Aerial Photo Numbers:	* WETLAND CLASSES Z Z5
USGS Quadrangle:	AN EVALUATED SEPARATED
Field Investigators:	

SURFAC	E WATER FLOW VEC	TORS	PLANT	SPECIES
Condition	Percent/Acreage		PLANT PLANT PLANT PLANT PLANT AMERICAN ISAM TOTIC FEPTE ARCHAN KAH WHITE HOH WITCHHARDEL BRIAR ARABE SPP GILLET DOGWOOD JAPANEE HONEY SULLE	\$ 1. 2 8 2 5 5 5 5 5 2 2 2 1 1 1 1 1 1 1 1 1 1 1
<u> </u>	32%	Fringe Riverine	SHADBUSH SHEVICEREDRY PLANCHIAW VIRURIUM. SWEET BIRCH JAPANISSE ROSE BITTERSWEET	
*	VEGETATION TYPES		HOENBEAN	
Forested Wetland Evergreen Needle-leaved Deciduous Broad-leaved Needle-leaved Scrub Shrub Evergreen Broad-leaved Needle-leaved Deciduous Broad-leaved Needle-leaved Deciduous Broad-leaved Needle-leaved Needle-leaved Emergent Wetland Persistent Non-persistent Aquatic Bed	90% 5% 100%	SOIL TYPES Histosol • Fibric • Hemic • Sapric Mineral Hydric Soil • Gravelly • Sandy • Silty • Clayey GEOLOGY Surficial: Acial Bedrock:	LED ONE JUNE PINE CHRISTMA FERM MUSTARD GARLIC LOTICE BUSH APRONHOOD VIROLULA APRONHOOD VIROLULA FUTER FERM OW Obligate Wetland FW Facultative Wetland F Facultative Upland OU Obligate Upland	COM Common OCC Occasional C Canopy S Sapling TS Tall Shrub LS Low Shrub H Herb
			PRE-EMP Public ownership Wildlife management area Fisheries management area Designated State or Federal protected wetla	Documented habitat for state or federal listed species Regionally scarce wetland category Historic/archaeologic

WETLAND INVENTORY DATA (continued)

PART 2 - CHARACTERIZATION of MODEL VARIABLES

LANDSCAPE VARIABLES	Microrelief of Wetland Surface:	1 Number of The control of the contr
Size: Small (<10 acres) Medium (10-100 acres) Large (>100 acres) Wetland Juxtaposition: Connected Upstream and Downstream	Pronounced >45 cm Well Developed 15-45 cm Poorly Developed <15 cm Absent Inlet/Outlet Class:	Number of Types & Relative Proportions: Number of Types
Only Connected Above Only Connected Below Other Wetlands Nearby but not Connected Wetland Isolated Fire Occurence and Frequency: Natural; Sporadic 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 0-25% urbanized HYDROLOGIC VARIABLES	No Inter/Intermittent Outlet No Inter/Perennial Outlet Intermittent Inter/No Outlet Intermittent Interviolet Intermittent Outlet Intermittent Interviolet Intermittent Outlet Perennial Outlet Intermittent Outlet Intermittent Outlet Perennial Outlet Intermittent Outlet	Vegetation Density/Dominance: Sparse (0-20%) Low Density (20-40%) Medium Density (40-60%) Were High Density (60-80%) Very High Density (80-100%)
Surface Water Level Fluctuation of Wetland: High Fluctuation Low Fluctuation Never Inundated Frequency of Overbank Flooding: Return Interval > 5 yrs.	Sediment Observed on Wetland Substrate Fluvaquent Soils Evidence of Seeps and Springs: No Seeps or Springs Seeps Observed Perennial Spring Intermittent Spring	9. sapling: 10. tree: Plant Species Diversity: Low 1-2 plots sampled Medium 3-4 plots sampled High 5 or more plots sampled
Return Interval 2-5 yrs. Return Interval 1-2 yrs. No Overbank Flooding pH:	SOIL VARIABLES Soil Lacking:	Proportion of Animal Food Plants: Low (5-25% cover) Medium (25-50% cover) High (>50% cover)
Acid <5.5 Circumneutral 5.5-7.4 Alkaline >7.4 No Water	Histosol: Fibric Hemic Sapric	Cover Distribution: Continuous Cover Small Scattered Patches
Surficial Geologic Deposit Under Wetland Low Permeability Stratified Deposits High Permeability Stratified Deposits Glacial Till	Mineral Hydric Soil: Gravelly Sandy Silty	l or More Large Patches; Parts of Site Open Solitary, Scattered Stems Dead Woody Material:
Wetland Land Use: High Intensity (ie. agriculture) Moderate Intensity (ie. forestry) Low Intensity (ie. open space)	VEGETATION VARIABLES Vegetation Lacking:	Abrundant (>50 of wetland surface) Moderately Abrundant (25-50% of surface) Low Abrundance (0-23% of surface) Interspersion of Cover and Open Water:
Wetland Water Regime: Wet: Perm Flooded, Intermittently Exposed, Semiperm. Flooded Drier: Seasonally Flooded, Temporarily Flooded, Saturated	Dominant Wetland Type: Forested - Evergreen - Needle-leaved Forested - Deciduous - Broad-leaved Forested - Deciduous - Needle-leaved	26-75% Scattered or Peripheral >75% Scattered or Peripheral <25% Scattered or Peripheral 100% Cover or Open Water Stream Sinuosity:
High Gradient > 2% Low Gradient < 2%	Scrub Shrub - Evergreen - Broad-leaved Scrub Shrub - Evergreen - Needle-leaved Scrub Shrub - Deciduous - Broad-leaved Scrub Shrub - Deciduous - Broad-leaved Scrub Shrub - Deciduous - Needle-leaved Emergent - Persistent Emergent - Non-persistent Aquatic Bed	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

CRS-1 SLOPE 16 ac 68% RIVERINE 7 ac 32%: *DETRESSION 0.15 ac 21%

2 25% MOT BUHLLIGHED SISPARATELY

2.9.1 Modification of Ground Water Discharge

Wetland Water

Regime

WEIGHTS VARIABLES CONDITIONS HGM TYPES: D S B F Indicators of Disfunction Inlet/Outlet Class perennial inlet/no outlet 0 0 0 0 Nested Piezometer recharge condition 0 0 0 0 Data Relationship to wetland substrate elevation above 0 0 0 0 Regional Piezopiezometric surface metric Surface Direct Indicators of (15) Function evidence of perennial seeps or 18 15 18 Presence of Springs springs and Seeps Nested Piezometer discharge condition 18 15 15 18 Data Relationship to wetland substrate elevation below 15 18 15 18 Regional piezometric surface Peizometeric Surface Inlet/Outlet Class no inlet/perennial outlet 18 15 15 18 Primary Variables Microrelief of pronounced 3 3 3 3 Wetland Surface 2 well developed 2 2 poorly developed 1 0 0 0 0 Inlet/Outlet Class 0 perennial inlet/perennial outlet 3 3 3 intermittent inlet/perennial outlet 2 2 2 all other classes 0 0 0 pH alkaline 3 3 3 2 2 20 circumneutral 0 0 no water present 0 0 0 Surficial Geologic high permeability stratified deposits 3 3 3 Deposit Under low permeability stratified deposits 2 2 2 Wetland glacial till 1 1

wet; permanently flooded, inter-

drier; seasonally flooded, tempo-

rarily flooded, saturated

mittently exposed, semipermanently

3

1

0

0

3

1

(continued)

3

				,	WEIGH	ITS	
VARIABLES	CONDITIONS	HGM TYPES:	D	L	EP	R	F
Direct Indicators of Function Inlet/Outlet Class	perennial inlets	/no outlet	21				21
Nested Piezometer Data	• recharge condi	tion	21				21
Relationship to Regional Peizometeric Surface	wetland substra piezometric su	ate elevation below	21				21
Primary Variables							
 Microrelief of Wetland Surface 	 Poorly Develop 	ped	3	3 2	1	3	3
	Absent Well Develope	.a	3 2	3	1 2	3	3
	 Well Develope Pronounced 	d	1	1	3	1	3 2 1
• Inlet/Outlet Class	Perennial Inlet. All Other Clas	/Intermittent Outlet	3	0	0	0	3
• pH	• Acid		3	3	3	3	3
	 Circumneutral Alkaline 		3 2 1	2	2	3	3 2 1
	No water prese	ent	Ô	0	0	Ó	Ô
 Surficial Geologic Deposit Under Wetland 		lity Stratified Depos-	3 2	1 2	1 2	1	3 2
	 High Permeabing its 	ility Stratified Depos-	1	3	3	3	1
Surface Water Level Fluctuation	High Fluctuation	on	3	3	0	3	3
of the Wetland	 Low Fluctuation 		3 2 1	2	Ö	3	2
	 Never Inundate 	ed	1	1	0	1	1
Wetland Water Regime	Drier: Seasons porarily Floods	ally Flooded, Tem-	3	3	0	3	3
	 Wet: Permane 	ntly Flooded, Inter-	1	1	0	1	1
	mittently Expo	sed, Semiper- ded		_	_	_	_
Soil Type	Gravelly or Sar	ndy Mineral Hydric	3	3	0	3	3 2
	 Silty or Clayey 	ndy Mineral Hydric Mineral Hydric	2	2	0		2
	 Sapric Histosol Fibric or Hemi 	c Histosol	1	0	3	0	0
		Total Score:				13	
		Model Range:	4- 21	4-18	2-12	4-18	4-21
	Functi	ional Capacity Index:	To-				0.12
		,	Sco re 21	18	12	13 7	21
		Index Range:	0.1 9- 1.0	0.22- 1.0	0.16- 1.0	0.22- 1.0	0.19

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		WEIGHTS				
	CONDITIONS HGM TYPES:	D	S	R	E	
Soil Type	histosol	3	3	3	3	
	 mineral hydric soil 	1	1	0	1	
		-	-	9	-	
	Total Score:					
	Model Range:	3-18	2-15	3-15	3-18	
	Functional Capacity Index:	Total Score	15=10	Z=0	47	
		18	15	15	18	
	Index Range:	0.19-1.0	0.16-	0.22-	0.19	
			1.0	1.0	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						WEIGH	ITS	
	CO	NDITIONS	HGM TYPES:	D	L	EP	R	F
Indicators of Disfunction Inlet/Outlet Class	•	no inlet/perenn tent inlet/peren	nial outlet; intermit-	0				0
Nested Piezometer Data	•	discharge cond	lition	0	0	0	0	0
 Relationship to Regional Piezo- metric Surface 	•	wetland substruction at piezometr	ate elevation above ric surface	0	0	0	0	0
 Presence of Seeps and Springs 		presence of se	eps or springs	0	0	0	0	0

(continued)

				,	WEIGH	ITS	
VARIABLES	CONDITIONS	HGM TYPES:	D	L	EP	R	F
Direct Indicators of Function Inlet/Outlet Class	perennial inlets	/no outlet	21				21
Nested Piezometer Data	• recharge condi	tion	21				21
Relationship to Regional Peizometeric Surface	wetland substra piezometric su	ate elevation below	21				21
Primary Variables							
 Microrelief of Wetland Surface 	 Poorly Develop 	ped	3	3 2	1	3	3
	Absent Well Develope	.a	3 2	3	1 2	3	3
	 Well Develope Pronounced 	d	1	1	3	1	3 2 1
• Inlet/Outlet Class	Perennial Inlet. All Other Clas	/Intermittent Outlet	3	0	0	0	3
• pH	• Acid		3	3	3	3	3
	 Circumneutral Alkaline 		3 2 1	2	2	3	3 2 1
	No water prese	ent	Ô	0	0	Ó	Ô
 Surficial Geologic Deposit Under Wetland 		lity Stratified Depos-	3 2	1 2	1 2	1	3 2
	 High Permeabing its 	ility Stratified Depos-	1	3	3	3	1
Surface Water Level Fluctuation	High Fluctuation	on	3	3	0	3	3
of the Wetland	 Low Fluctuation 		3 2 1	2	Ö	3	2
	 Never Inundate 	ed	1	1	0	1	1
Wetland Water Regime	Drier: Seasons porarily Floods	ally Flooded, Tem-	3	3	0	3	3
	 Wet: Permane 	ntly Flooded, Inter-	1	1	0	1	1
	mittently Expo	sed, Semiper- ded		_	_	_	_
Soil Type	Gravelly or Sar	ndy Mineral Hydric	3	3	0	3	3 2
	 Silty or Clayey 	ndy Mineral Hydric Mineral Hydric	2	2	0		2
	 Sapric Histosol Fibric or Hemi 	c Histosol	1	0	0	0	0
		Total Score:				13	
		Model Range:	4- 21	4-18	2-12	4-18	4-21
	Functi	ional Capacity Index:	To-				0.12
		,	Sco re 21	18	12	13 7	21
		Index Range:	0.1 9- 1.0	0.22- 1.0	0.16- 1.0	0.22- 1.0	0.19

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.

				WE	IGHTS		
VARIABLES	CONDITIONS HGM TYPES:	D	S	L	EP	R	F
Indicators of disfunction	none						
Direct Indicators of Function	no outlet	27	21	California de la calenta de la			30
Primary Variables							
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	D	0	0	0	1
	• non inlet/perennial outlet	1	1	0	0	0	1
	• intermittent inlet/perennial outlet	1	1	0	0	0	
	perennial inlet/perennial outlet	1	1	0	0	0	1
	perennal med perennal outlet	1	1	U	0	0	1
Degree of Outlet	• restricted	3	0	0	0	0	3
Restriction	• unrestricted	0	0	0	0	0	0
						G	
Basin Topographic	low gradient	3	3	0	3	3	3
Gradient	high gradient	1	Ō	0	0	0	1
Wetland Water Regime	Drier: seasonally flooded,	3	(3)	3	0	3	3
	temporarily flooded, saturated					0	
	Wet: permanently flooded, intermit-	1	1	1 .	0	1	1
	tently exposed, semipermanently flooded						
Surface Water Level	 high fluctuation 	3	0	3	0	3	3
Fluctuation of the	low fluctuation	2	0	2	0	(2)	2
Wetland	never inundated	0	0	0	0	0	0
Ratio of Wetland Area to	• large	3	3	3	0	3	3
Watershed Area	• small	1	3	1	0	3	1
Microrelief of Wetland	• pronounced	3	3	3	3	3	3
Surface	well developed	2	2	2	2	2	2
	poorly developed	1	1	1	1	1	1
	• absent	0	0	0	0	0	Ó
Frequency of Overbank	overbank flooding absent	0	0	0	0	0	0
Flooding	• return interval of > 5 yrs	0	0	1	0	1	1
The state of the s	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	high/very high	3	(3)	3	3	3	3
Density/Dominance	• moderate	2	3 2	2	3 2	2	2
	• sparse/low	1	1	1	1	- 1	1
	• no vegetation	0	0	o	0	0	0

2.9.3 Storm and Flood-Water Storage (Continued)

	*	WEIGHTS					
VARIABLES	CONDITIONS HGM TYPES:	D	S	L	EP	R	F
Dead Woody Material	abundant moderately abundant sparse absent	3 2 1 0	3 2 1 0	3 2 1 0	3 2 1 0	3 2 1 0	3 2 1 0
*	Total Score:	-	10	_	-	16	_
	Model Range:	4-27	4-21	2-21	0-12	3-24	4-30
	Functional Capacity Index:	Total Score 27	10 =0	21 21	12	16 =0	67 30
	Index Range:	0.15-	0.19- 1.0	0.09-	0-1.0	0.12- 1.0	0.13

2.9.4 Modification of Stream Flow

(This model is identical for all HGM types)

	VARIAB	LES		CO	NDITIONS	WEIGHTS
Indicators	of Disfunction	on	no outlet			0
Direct Ind	icators of Fu	nction	none			
Primary V	ariables				Name of the last o	
Storm and Function	Flood Water Model Score	Storage	Modific Discharge	ation of Grou	indwater odel Score	
High* Mod Low	3 2	x x	High High	3 3 2 2 2 2	=	9 6 3 6 4 2 3
High Mod	3	X X X	High Mod Mod	2	=	6
Low High	1 3	x x	Mod Low	2	=	2
Mod Low	2	X X	Low	i	=	1
					Total Score:	ener
					Model Range:	1-9 6 - 0.67
				Functiona	Capacity Index:	1-9 6 = 0.67 Total Score 9 6/4 = 0.67 0.11-1.0
					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.

2.9.5 Modification of Water Quality

Indicators of disfunction Indicators of disfunction Indicators of disfunction Indicators of Function Indicators				WEIGHTS				
Direct Indicators of Function evidence of sedimentation 18 15 12 12 12 12 12 12 12	VARIABLES	CONDITIONS HGM TYPES:		S	L	EP	R	F
New test	indicators of disfunction	none						
New Ideal Land Use	Direct Indicators of Function	evidence of sedimentation	18	15	12	12	12	18
New Index Now Intensity 3 3 3 3 3 3 3 3 3	Primary Variables							
 high intensity 1 0 0		low intensity		(3)	3	3	3	3
● Degree of Outlet Restriction • restricted outflow 3 0 0 0 0 • no outlet unrestricted outflow 1 0 0 0 0 0 • Inlet/Outlet Type • no outlet intermittent outlet eperennial outlet 3 3 0		 moderate intensity 	2	2	2	2	2	2
Restriction			1	1	1	1	1	1
Restriction	Degree of Outlet	• restricted outflow	3	0	0	0	0	3
Unrestricted outflow 1			2	0	0	0		2
intermittent outlet							0	1
Intermittent outlet	Inlet/Outlet Type	• no outlet	3	3	0	0	0	3
Dominant Wetland Type		• intermittent outlet	2	(2)	0	0	0	2
• scrub-shrub • emergent wetland • aquatic bed • no vegetation • forming a continuous cover • growing in small scattered patches • one or more large patches • solitary scattered stems • no vegetation • histosol or clayey soil • sandy or gravelly soil Total Score: Model Range: 4-18 3-15 2-12 1-12 2-12 - Comparison of the patches Total Score Functional Capacity Index: Total Score		The state of the s			0		0	1
• scrub-shrub • emergent wetland • aquatic bed • no vegetation • forming a continuous cover • growing in small scattered patches • one or more large patches • solitary scattered stems • no vegetation • histosol or clayey soil • sandy or gravelly soil Total Score: Model Range: 4-18 3-15 2-12 2 2 2 2 2 2 2 2 2 2 2 2 2	Dominant Wetland Type	forested wetland	3	(3)	3	3	3	3
emergent wetland	-,,	scrub-shrub	2		2	2	2	2
• aquatic bed • no vegetation • Cover Distribution • forming a continuous cover • growing in small scattered patches • one or more large patches • solitary scattered stems • solitary scattered stems • no vegetation • histosol or clayey soil • silty soil • silty soil • sandy or gravelly soil • Soil Type • hore solitary scattered stems • histosol or clayey soil • sandy or gravelly soil • Soil Type • histosol or clayey soil • sandy or gravelly soil • Soil Type • histosol or clayey soil • sandy or gravelly soil • Soil Type • histosol or clayey soil • sandy or gravelly soil • Soil Type • histosol or clayey soil			2					2
• no vegetation							0	0
• growing in small scattered patches 2 2 2 2 2 2 2 2 0 0 1 1 1 1 1 1 1 1 1 1			- 0	0			0	0
• growing in small scattered patches 2 2 2 2 2 2 2 2 0 0 1 1 1 1 1 1 1 1 1 1		- 5	2	(2)	2	3	(3)	3
• one or more large patches • solitary scattered stems • no vegetation • histosol or clayey soil • silty soil • sandy or gravelly soil Total Score: Model Range: 4-18 3-15 2-12 1-12 2-12 Functional Capacity Index: Total Score	• Cover Distribution							2
• solitary scattered stems • no vegetation • Soil Type • histosol or clayey soil • silty soil • sandy or gravelly soil Total Score: Model Range: 4-18 3-15 2-12 1-12 2-12 Functional Capacity Index: Total Score			1	- T	1			1
• no vegetation 0 0 0 0 0 0 • Soil Type • histosol or clayey soil 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3			1		1	10		1
• Soil Type • histosol or clayey soil • silty soil • sandy or gravelly soil Total Score: Model Range: 4-18 3-15 2-12 1-12 2-12 Functional Capacity Index: Total Score 10 00 00 00 00 00 00 00 00 00 00 00 00 0			_		7.05	100		0
• silty soil • sandy or gravelly soil Total Score: Model Range: 4-18 3-15 2-12 1-12 2-12 Functional Capacity Index: Total Score		• no vegetation	0	0	U	U	0	U
Total Score: Model Range: 4-18 3-15 2-12 1-12 2-12 Functional Capacity Index: Total Score	Soil Type							3
Total Score: Model Range: 4-18 3-15 2-12 1-12 2-12 Functional Capacity Index: Total Score 12 0.50 10 =0				2			2	2
Total Score: Model Range: 4-18 3-15 2-12 1-12 2-12 Functional Capacity Index: Total Score 12 0.50 10 = 0	,	 sandy or gravelly soil 	1	(1)	1	0	0	1
Total Score: Model Range: 4-18 3-15 2-12 1-12 2-12 Functional Capacity Index: Total Score			-	12	-	_	10	-
Functional Capacity Index: Total Score 12 = 0.80 10 = 0		Total Sci	ore:					
Functional Capacity Index: Total Score 17 0.50 12 12 12 12		Model Rai	ige: 4-18	3-15	2-12	1-12	2-12	4-1
Score 18 15 12 12 12		Functional Capacity Inc	lex: Tota	1	20		10	0 83
10 13 12 12 12			Scor	e 12=0	12	12	12	18
Index Range: 0.22- 0.20- 0.16- 0.8- 0.16- 1.0 1.0 1.0 1.0 1.0		Index Rai						0.2

2.9.6 Export of Detritus

				WEIG	HTS		
VARIABLES	CONDITIONS HGM TYPES:		S	L	EP	R	F
ndicators of disfunction	no outlet	0	0		0		0
Direct Indicators of Function	none						
rimary Variables							
 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	unrestricted outflow	3	0	0	0	0	3
Restriction	• restricted outflow	1	0	0	0	0	1
Inlet/Outlet Class	• perennial outlet	3	3	0	0	0	3
• Intel Outlet Class	• 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
Vegetation Den-	high/very high	3	3	3	3	3	3
sity/Dominance	• medium	2	2	2	2	2	2
SK). Dominance	• 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
3011 1/ре	• histosol	1	1	1	1	1	1
		1200	17	-	-	11	-
	Total Score:		-			11	
	- Model Range:	5-18	4-15	3-12	2-10	3-12	5-1
		Territ		0.00			6.1
	Functional Capacity Index:	Total Score	12 20	,00		11 =0	2 1010
		18	15	12	10	12	18
	Index Range:	0.27-	0.26-	0.25-	0.20-	0.25-	0.2
	midex Range.	1.0	1.0	1.0	1.0	1.0	1.0

2.9.6 Export of Detritus

				WEIG	HTS		
VARIABLES	CONDITIONS HGM TYPES:		S	L	EP	R	F
ndicators of disfunction	no outlet	0	0		0		0
Direct Indicators of Function	none						
rimary Variables							
 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	unrestricted outflow	3	0	0	0	0	3
Restriction	• restricted outflow	1	0	0	0	0	1
Inlet/Outlet Class	• perennial outlet	3	3	0	0	0	3
• Intel Outlet Class	• 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
Vegetation Den-	high/very high	3	3	3	3	3	3
sity/Dominance	• medium	2	2	2	2	2	2
SK). Dominance	• 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
3011 1/ре	• histosol	1	1	1	1	1	1
		1200	17	-	-	11	-
	Total Score:		-			11	
	- Model Range:	5-18	4-15	3-12	2-10	3-12	5-1
		Territ		0.00			6.1
	Functional Capacity Index:	Total Score	12 20	,00		11 =0	2 1010
		18	15	12	10	12	18
	Index Range:	0.27-	0.26-	0.25-	0.20-	0.25-	0.2
	midex Range.	1.0	1.0	1.0	1.0	1.0	1.0

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

VARIABLES		CONDITIONS		WEIGHTS	5
Indicators of Disfunc	tion	no vegetation		0	
Direct Indicators of F	unction	none			
Primary Variables •	Plant Species Diversity	 high diversity medium diversity low diversity 		5 3	
•	Vegetation Density/Do minance	 high/very high medium sparse/low 		5 3	
•	Wetland Juxtapositio n	 connected upstream and downstream connected above or below other wetlands nearby but not 		3	
		connected (400 m or closer) isolated	,	0	
			Total Score:	at	
			Model Range:	2-15	0.1
			Functional Capacity Index:	= Total Score 15	15 = 0.1 %= 0.1
			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	
Primary Variables		
Watershed Land Use	 low intensity (0-25% urbanized) 	3 2
	 moderate intensity (25-50% urbanized) 	2
	high intensity (>50% urbanized)	. 1
Wetland Land Use	• low intensity	3
Wettand Land Osc	moderate intensity	2
	• high intensity	1
Wetland Water Regime	• wet: permanently flooded, intermittently	(3)
Trouble Training Trogition	exposed, semipermanently flooded	
	drier: seasonally flooded, temporarily	
	flooded, saturated	
Microrelief of Wetland Surface	• pronounced	3
Whiteforeher or wedand outland	• well developed	2
	poorly developed	1
	• absent	1
Number of Wetland types and Relative	• 5 or more types	3 2
Proportions	• 3-4 types	2
	• 1-2 types	0
	• no vegetation	0
	• even distribution	3
	 moderately even distribution 	2
	 highly uneven distribution 	1 0
	• no vegetation	0
Vegetation Interspersion	• high interspersion	2
	 moderate interspersion 	2
	low interspersion	
	• no vegetation	0
Number of Layers and Percent Cover	• 5 or more layers	3
	• 3-4 layers	2
	• 1-2 layers	1
	• no vegetation	0
	• layers well developed (>50% cover)	3
	 layers with moderate cover (26-50% 	2
	cover)	1
	 layers poorly distinguishable (<25% 	0
	cover)	
	• no vegetation	0

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

VARIABLES	CONDITIONS		WEIGHTS
Interspersion of Vegetation Cover and	• 26-75% scattered or peripheral		3
Open Water	• >75% scattered or peripheral		2
	<25% scattered or peripheral		1
	• 100% cover or open water		i
	• no vegetation		0
Size	• large (>100 acres)		3
	medium (10-100 acres)		(2)
	• small (<10 acres)		3 2
Wetland Juxtaposition	other wetlands within 400 m and connected above or below		0
	 other wetlands within 400 m but not 		1
	connected		
	• wetland isolated		0
			78 78
Slope Wetlands:	All Other HGM Types:	Total Score:	CO C8
Model Range: 4-33		Model Range:	4-36
unctional Capacity Index = Total Score		Functional Capacity	Total Score
33		Index =	36
Index Range: 0.12-1.0			4-36 Total Score 36 0.11-1.0
muck Range. 0.12-1.0		Index Range	0.11-1.0

Sloping Wetland

Study Area: CRS-2

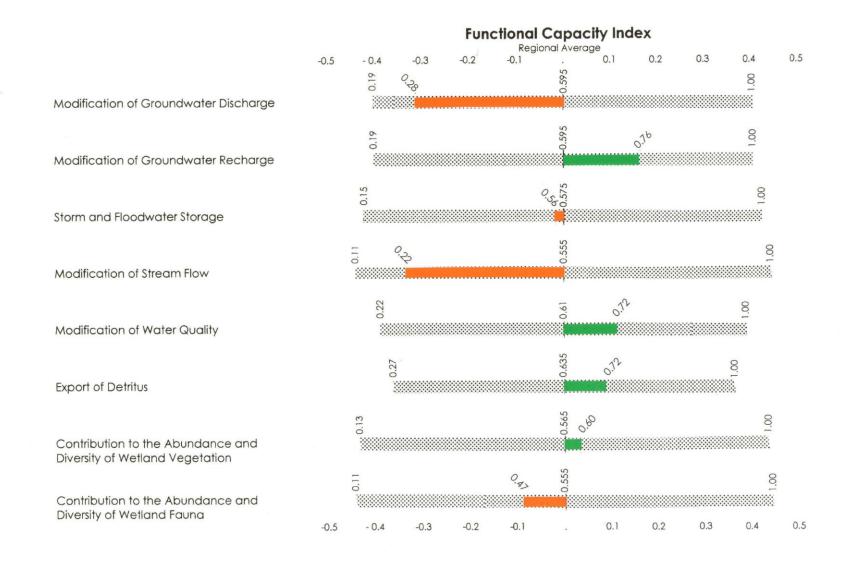
0.27 ac. - 74% of total 0.36 ac. wetlands



Depression Wetland

Study Area: CRS-2

0.09 ac. - 26% of total 0.36 ac. wetlands



Project Number: YOUKTOWN	Date:	Total	0.36 ac
Wetland Number: CRS-Z SLOPE DEPRESSION			
Aerial Photo Numbers:			
USGS Quadrangle: OSSINING: Field Investigators:			

SURFAC	E WATER FLOW VE	CTORS	PLAN	T SPECIES
Condition	Percent/Acrea	ge		OW FFW COM CCOM CCOM CCOM CCOM CCOM CCOM CCOM
$\rightarrow \downarrow \leftarrow$	76%	Depressional	HIGH BUSH BLOOBERRY SWEET BIRGH	
###	74%	Slope Flat	BLACK CHERRY BUSH CINHAMON FERN	. 000000000000000000000000000000000000
$\stackrel{\longleftarrow}{\longleftrightarrow}$		Extensive Peatland	Misc Feels Gelsses Scoars	
	************	Lacustrine Fringe		
<u> </u>	-	Riverine		
*	VEGETATION TYPE	S		
Туре	Percent/Acreage			
Forested Wetland Evergreen Needle-leaved Deciduous Broad-leaved Needle-leaved		Histosol • Fibric • Hemic • Sapric		
Scrub Shrub Evergreen Broad-leaved Needle-leaved Deciduous Broad-leaved Needle-leaved		Mineral Hydric Soil Gravelly Sandy Silty Clayey	OW Obligate Wetland	COM Common
Emergent Wetland Persistent Non-persistent Aquatic Bed	100%	GEOLOGY Surficial:	FW Facultative Wetland F Facultative FU Facultative Upland OU Obligate Upland DOM Dominant	OCC Occasional C Canopy S Sapling TS Tall Shrub LS Low Shrub H Herb
Total	100%	Bedrock:	PRE-EMP	TIVE STATUS
Comments: MALL LI DPLAND WATER TABLE DEPRESSION	SOIL - POSSIB	OF EXAVATION AT INTERCEPTION AUGED	Public ownership Wildlife management area Fisheries management area Designated State or Federal protected wetl:	Documented habitat fo state or federal listed species Regionally scarce wetland category Historic/archaeologic area

WETLAND INVENTORY DATA (continued)

PART 2 - CHARACTERIZATION of MODEL VARIABLES

LANDSCAPE VARIABLES	Microrellef of Wetland Surface:	Number of Types & Relative Proportions:
Size:	Pronounced >45 cm Well Developed 15-45 cm Poorly Developed <15 cm Absent	Number of Types Everness of Distribution Actual # Even Distribution S Moderately Even Distribution Highly Uneven Distribution
Wetland Juxtaposition: Comected Upstream and Downstream Only Connected Above Only Connected Below Other Wetlands Nearby but not Comnected Wetland Isolated Fire Occurence 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)	Inlet/Outlet Class: No Inlet/No Outlet No Inlet/No Outlet No Inlet/Peremial Outlet Intermittent Inlet/No Outlet Intermittent Inlet/No Outlet Intermittent Inlet/No Outlet Intermittent Outlet/Perennial Outlet Perennial Inlet/No Outlet Perennial Inlet/No Outlet Perennial Inlet/Perennial Outlet Recharge Discharge Horizontal Flow Not Available Relationship of Wetlands' Substrate Elevation to Regional Plezometric Surface:	Vegetation Density/Dominance: Sparse (0-20%)
Watershed Land Use: > 50% urbanized 25-50% urbanized 0-25% urbanized HYDROLOGIC VARIABLES	Piez. Surface Above or at Substrate elev. Piez. Surface below Substrate elev. Not Available Evidence of Sedimentation: No Evidence Observed	5 2. floating: 4 3. moss-lichen: 3 4. short herb: 2 5. tall herb: 1 6. dwarf shrub: 7. short shrub: 8. tall shrub: 8. tall shrub:
Surface Water Level Fluctuation of Wetland:	Sediment Observed on Wetland Substrate Fluvaquent Soits	9. sapling: 10. tree:
High Fluctuation Low Fluctuation Never Inundated Frequency of Overbank Flooding: Return Interval > 5 yrs.	Evidence of Seeps and Springs: No Seeps or Springs Seeps Observed Perennial Spring Intermittent Spring	Plant Species Diversity: Low 1-2 plots sampled Medium 3-4 plots sampled High 5 or more plots sampled
Return Interval 2-5 yrs. Return Interval 1-2 yrs. No Overbank Flooding	SOIL VARIABLES Soil Lacking:	Proportion of Animal Food Plants:
pH: Acid <5.5 Circumneutral 5.5-7.4 Alkaline >7.4 No Water	Histosol: Fibric Hemic Sapric	Medium (25-50% cover) High (>50% cover) Cover Distribution: Continuous Cover Small Scattered Patches
Surficial Geologic Deposit Under Wetland Low Permeability Stratified Deposits High Permeability Stratified Deposits Glacial Till Wetland Land Use:	Mineral Hydric Soil: Gravelly Sandy Silty Clayey	1 or More Large Patches; Parts of Site Open Solitary, Scattered Stems Dead Woody Material: Abrundant (>50 of wetland surface) Moderately Abrundant (25-50% of surface)
High Intensity (ie. agriculture) Moderate Intensity (ie. forestry)	VEGETATION VARIABLES	Low Abrundance (0-25% of surface)
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 No Outflow Ratio of Wetland Area to Watershed Area: High >10% Low <10%	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 - Needle-leaved Scrub Shrub - Deciduous - Needle-leaved Emergent - Persistent Emergent - Non-persistent Aquatic Bed	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

CRS-Z GLOPE/DEPRESSION (0.36 m)

2.9.1 Modification of Ground Water Discharge

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

(continued)

2.9.1 Modification of Ground Water Discharge (Continued)

			WEI	GHTS	
VARIABLES	CONDITIONS HGM TYPES:	D	S	R	
Soil Type	histosol	3	3	3	3
-77	 mineral hydric soil 	(1)	(I)	1	1
		5	4	_	-
	Total Score:				
	Model Range:	3-18	2-15	3-15	3-18
	Functional Capacity Index:	Total	0.25	11	
		Score 5		- Contract	18
	:	18	15	15	10
	Index Range:	0.19-1.0	0.16-	0.22-	0.19
			1.0	1.0	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

					WEIGH	TS	
VARIABLES	CONDITIONS HGM TYPES:			L	EP	R	F
Indicators of Disfunction Inlet/Outlet Class	no inlet/perent tent inlet/perent	nial outlet; intermit-	0				0
Nested Piezometer Data	discharge conc	lition	0	0	0	0	0
Relationship to Regional Piezo- metric Surface	wetland substr or at piezomet	ate elevation above	0	0	0	0	0
Presence of Seeps and Springs	 presence of se 	eps or springs	0	0	0	0	0

(continued)

					WEIGH	TS	
VARIABLES	CONDITIONS	HGM TYPES:	D	L	EP	R	F
Direct Indicators of Function Inlet/Outlet Class	• perennial inlet.	/no outlet	21				21
Nested Piezometer Data	• recharge condi	tion	21				21
Relationship to Regional Peizometeric Surface	wetland substra piezometric su	ate elevation below	21				21
Primary Variables							
Microrelief of Wetland Surface	Poorly Develo	ped	3	3 2	1	3 2	3 2
	Well Develope	ed	2	2	2	2	2
	 Pronounced 		1	1	3	ī	ī
Inlet/Outlet Class	Perennial InletAll Other Class	/Intermittent Outlet ses	3	0	0	0	3
• pH	Acid		3	3	3	3	3
	 Circumneutral 		3	2	2	2	2
	• Alkaline		1	1	1	1	1
	No water prese	ent	0	0	0	0	0
 Surficial Geologic Deposit Under Wetland 	Glacial Till Low Permeahi	lity Stratified Depos-	3 2	1 2	1 2	1 2	3 2
der wettand	its Low Perineadi	nty Stratified Depos-	4	. 2	2	2	4
	High Permeabi its	ility Stratified Depos-	1	3	. 3	3	1
Surface Water Level Fluctuation	High Fluctuation	on	3	3	0	3	3
of the Wetland	 Low Fluctuation 	on	2	2	0	2	2
*	Never Inundate	ed	1	1	0	1	1
Wetland Water Regime	Drier: Season porarily Floods	ally Flooded, Tem-	3	3	0	3	3
	• Wet: Permane	ently Flooded, Inter-	1	1	0	1	1
	mittently Expo	sed, Semiper-	-	-	-	-	-
Soil Type	Gravelly or Sa	ndy Mineral Hydric	3	3	0	3	3
	 Silty or Clayey 	Mineral Hydric	3 2 1	2	0	2	2
	 Sapric Histoso Fibric or Hemi 	ic Histosol	0	0	0	0	0
		Total Score:	16				
		Model Range:	4- 21	4-18	2-12	4-18	4-2
		in al Constitution					
	Funct	ional Capacity Index:	To-				
			Sco	18	12	18	21
			Sco re 21	=0			
		Index Range:	0.1	0.22-	0.16-	0.22-	0.1
		muca Nange.	9-	1.0	1.0	1.0	1.0
			1.0	0.012-0.000	1.0	and the	

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.

				WEI	GHTS		
VARIABLES	CONDITIONS HGM TYPES:	D	S	L	EP	R	F
indicators of disfunction	none						
Direct Indicators of Function	no outlet	27	21				30
Primary Variables							
Inlet/Outlet Class	 perennial inlet/intermittent outlet 	3	3	0	0	0	3
• Infeb Outlet Class	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
	perenana nines perenana sanor	0	0				
- 10.1	• restricted	3	0	0	0	0	3
Degree of Outlet	• unrestricted	0	0	0	0	0	0
Restriction	• unestricted						
	a tour and tour	3	3	0	3	3	3
Basin Topographic	low gradient	1	0	0	0	1	1
Gradient	 high gradient 	T.	0.				
	The state of the s	(3)	(3)	3	0	3	3
 Wetland Water Regime 	 Drier: seasonally flooded, 	3	3	3	· ·		
	temporarily flooded, saturated			1.	0	1	1
	• Wet: permanently flooded, intermit-	1	1	13	U		•
	tently exposed, semipermanently	-					
	flooded						
				200			2
Surface Water Level	• high fluctuation	3	0	3	0	3	3
	low fluctuation	3	0	2	0	2	2
Fluctuation of the	• never inundated	0	0	0	0	0	0
Wetland	• Hevel indidated						
	· Posterior	3	3	3	0	3	3
 Ratio of Wetland Area to 	• large	1	1	1	0	1	1
Watershed Area	• small		0	5			
		3	3	3	3	3	3
 Microrelief of Wetland 	pronounced			2	2	2	2
Surface	 well developed 	2	2	1	1	1	1
	 poorly developed 	1		0	0	0	0
	• absent	0	0	0	0	U	0
 Frequency of Overbank 	 overbank flooding absent 	0	0	0	0	0	0
Flooding	• return interval of >5 yrs	0	0	1	0	1	1
Piooding	• return interval of 2-5 yrs	0	0	2	0	2	2
	• return interval of 1-2 yrs	0	0	3	0	3	3
	- Ician moral of the jiv						
	high/very high	3	3	3	3	3	3
 Vegetation 		2	2	2	2	2	2
Density/Dominance	• moderate	1	1	1	1	1	1
	• sparse/low	0	0	0	0	0	0
	 no vegetation 	0	0				

2.9.3 Storm and Flood-Water Storage (Continued)

					WEI	GHTS		
VARIABLES	CONDITIONS HGM TYPES:			S	L	EP	R	F
Dead Woody Material	abundant		3	3	3	3	3	3
	 moderately abunda 	ant	2	2	2	2	2	3 2
	• sparse		1	1	1	1	1	1
	• absent		0	0	0	0	0	0
		Total Score:	15	9	-	-	_	-
		Model Range:	4-27	4-21	2-21	0-12	3-24	4-30
	Funct	ional Capacity Index:	Total	5 = 0.5 9 = 0	43			
			Score	9=0	//	- Control	10000	-
			27	21	21	12	24	30
		Index Range:	0.15-	0.19-	0.09-	0-1.0	0.12-	0.13

2.9.4 Modification of Stream Flow

(This model is identical for all HGM types)

	VARIAB	LES		CO	NDITIONS	WEIGHTS
Indicators	of Disfuncti	on	no outlet			0
Direct Ind	icators of Fu	inction	none			
Primary V	'ariables					
Storm and Function	Flood Wate Model Scor	r Storage e	Modific Discharge	ation of Gro	undwater lodel Score	
High*	3	x	High	3	=	9
Mod	2	X	High	3	=	9 6 3
Low	1	X	High	3	=	3
High	3	X	Mod	2	=	6
Mod	2	X	Mod	2	=	4
_ow	1	X	Mod	2	==	2
ligh	3	X	Low	1	=	4 2 3 2
Mod	2	X	Low	1		(2)
Low	1	X	Low	1	=	1
					Total Score:	
					Model Range:	1-9 7 00
				Functiona	l Capacity Index:	Total Score
					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.

				WEI	GHTS		
VARIABLES	CONDITIONS HGM TYPES	: D	S	L	EP	R	F
ndicators of disfunction	none						
Direct Indicators of Function	evidence of sedimentation	18	15	12	12	12	18
Primary Variables							
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	• restricted outflow	3	0	0	0	0	3
Restriction	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	Ti	-	_	-	_
	Total Score						
	Model Rang	e: 4-18	3-15 3 = 0.7 11 = (1 2-12	1-12	2-12	4-1
	Functional Capacity Inde.	Total	13-01	42			
	Functional Capacity Inde.	Score	11= (),1			
		18	15	12	12	12	18
		10	13	12	14	1.2	10
	Index Rang	e: 0.22-	0.20-	0.16-	0.8-	0.16-	0.2
		1.0	1.0	1.0	1.0	1.0	1.0

2.9.6 Export of Detritus

		WEIGHTS					
VARIABLES	CONDITIONS HGM TYPES:		S	L	EP	R	F
Indicators of disfunction	no outlet	0	0		0		0
Direct Indicators of Function	none						111111111111111111111111111111111111111
Primary Variables			One of the second				
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	unrestricted outflow	3	0	0	0	0	3
Restriction	 restricted outflow 	1	0	0	0	0	1
Inlet/Outlet Class	perennial outlet	3	3	0	0	0	3
	• intermittent outlet	Î	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 Den-	• high/very high	3	3	3	3	3	3
sity/Dominance	• 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	73	3	3	3	3
	• histosol	1	4	1	1	1	1
	Total Score:	13	17		-	-	-
	- Model Range:	5-18	4-15	3-12	2-10	3-12	5-1
	Functional Capacity Index:	Total	41	1			
	runctional Capacity Index:	Score		0.80			
		18	15	12	10	12	18
	Index Range:	0.27-	0.26-	0.25-	0.20-	0.25-	0.2
		1.0	1.0	1.0	1.0	1.0	1.0

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

VARIABLES CONDITIONS Indicators of Disfunction no vegetation			WEIGHTS	
		no vegetation		0
Direct Indicators of F	unction	none		
Primary Variables	Plant Species Diversity	 high diversity medium diversity low diversity 		5 3 1
•	Vegetation Density/Do minance	 high/very high medium sparse/low 		⑤ 3 1
•	Wetland Juxtapositio n	 connected upstream and downstream connected above or below other wetlands nearby but not connected (400 m or closer) isolated 	,	5 3) 1
		130 Med	Total Score: Model Range:	2-15
			Functional Capacity Index:	= Total Score 15
			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	
Primary Variables		
Watershed Land Use	low intensity (0-25% urbanized)	3
	 moderate intensity (25-50% urbanized) 	2
	• high intensity (>50% urbanized)	0
Wetland Land Use	• low intensity	3
Wettalid Land Osc	• moderate intensity	2
	• high intensity	1
Wetland Water Regime	• wet: permanently flooded, intermittently	3
	exposed, semipermanently flooded	
	 drier: seasonally flooded, temporarily flooded, saturated 	Ô
	Hooded, Saturated	
Microrelief of Wetland Surface	• pronounced	3
	well developed	2
	poorly developed	3 2 1
	• absent	0
Number of Wetland types and Relative	• 5 or more types	3
Proportions	• 3-4 types	2
	• 1-2 types	3 2 ① 0
	• no vegetation	0
	• even distribution	3
	 moderately even distribution 	2
	 highly uneven distribution 	1
	• no vegetation	0
Vegetation Interspersion	• high interspersion	3
	 moderate interspersion 	2
	low interspersion	1
	• no vegetation	0
Number of Layers and Percent Cover	• 5 or more layers	3
	• 3-4 layers	2
	• 1-2 layers	1
	 no vegetation 	0
	• layers well developed (>50% cover)	3
	 layers with moderate cover (26-50% 	2
	cover)	
	 layers poorly distinguishable (<25% 	0
	cover)	
	• no vegetation	0

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

VARIABLES	CONDITIONS	WE	EIGHTS
Interspersion of Vegetation Cover and	• 26-75% scattered or peripheral		3
Open Water	 >75% scattered or peripheral 		2
	< 25% scattered or peripheral		1
	• 100% cover or open water		0
	• no vegetation		0
• Size	• large (>100 acres)		3
	medium (10-100 acres)		2
	• small (< 10 acres)		Ф
Wetland Juxtaposition	other wetlands within 400 m and		3
The state of the s	connected above or below		
	 other wetlands within 400 m but not 		1
	connected		
	 wetland isolated 		0
	•	16	11
Slope Wetlands:	All Other HGM Types:	Total Coores	
Model Range: 4-33		Model Range:	4-36 15 5 A
Functional Capacity Index = Total Score		Functional Capacity To	tal Score
33		Index =	36
Index Range: 0.12-1.0		Index Range 0	0.11-1.0

Sloping Wetland

0.36 ac. - 47% of total 0.78 ac. wetlands

Study Area: CRS-3

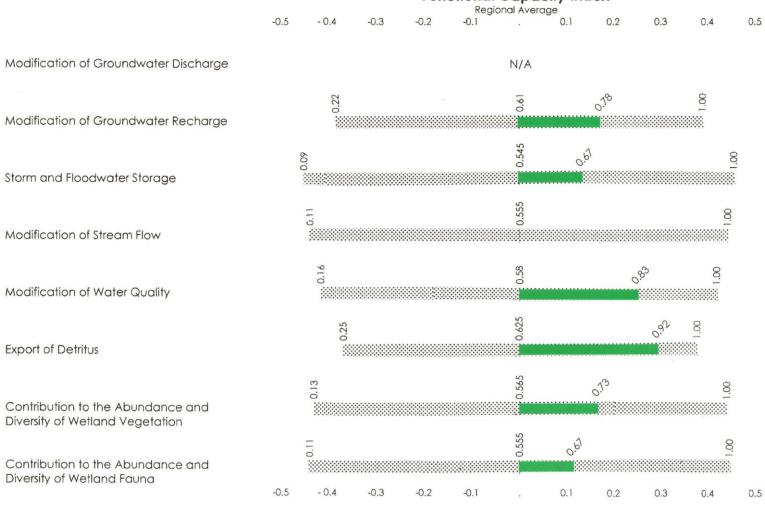


Lacustrine Fringe Wetland

0.41ac. - 53% of total 0.78 ac. wetlands

Functional Capacity Index

Study Area: CRS-3



WETLAND INVENTORY DATA LACOSTRULE FRANCE 0.41 & 0.56 ac

Project Number: York Town	Date:	0.784
	- The state of the	
Wetland Number: <u>CP5-3</u>	g, regregated a Ministry e	
Aerial Photo Numbers:		
USGS Quadrangle: DSSILILIG		
Field Investigators:		

PART 1 - CHARACTERIZATION of WETLAND

SURFAC	E WATER FLOW VE	CTORS	PLANT SPECIES				
Condition	Percent/Acreag	e	Des handle	FW DOW COM			
→ <u></u>	valuation of temperary	Depressional	AMORKAN ELM SWEET BIECH				
##	47%	Slope Flat	GRAY BIECH				
←	Appendix Committee Committ	Extensive Peatland	MULTIFLAN POSIS				
	53%	Lacustrine Fringe	MUSTARD GARLIC ONION GRASS				
9-0-	***************************************	Riverine	SKULL CARRAGE	#00000 5 000000 0000000000000000000000000			
7 7	VEGETATION TYPES	S	BLAKEFTER				
Type .	Percent/Acreage						
Forested Wetland Evergreen Needle-leaved Deciduous Broad-leaved Needle-leaved Scrub Shrub Evergreen Broad-leaved Needle-leaved Deciduous Broad-leaved Needle-leaved Emergent Wetland Persistent Non-persistent Aquatic Bed	40%	Histosol Fibric Hemic Sapric Mineral Hydric Soil Gravelly Sandy Silty Clayey GEOLOGY Surficial:	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 Herb			
Comments: 150	evoir is made control of water		Public ownership Wildlife management area Fisheries management area Designated State or Federal protected wet	Documented habitat for state or federal listed species Regionally scarce wetland category Historic/archaeologic			

WETLAND INVENTORY DATA (continued)

PART 2 - CHARACTERIZATION of MODEL VARIABLES

T. I. D. C.	Misseeller CW	
LANDSCAPE VARIABLES	Microrelief of Wetland Surface:	Number of Types & Relative Proportions:
Size:	Pronounced >45 cm	Number of Types Evenness of Distribution
Small (<10 acres)	Poorly Developed <15 cm	Actual # Even Distribution
Medium (10-100 acres) Large (>100 acres)	Absent	I man the state of
Large (>100 acres)	Inlet/Outlet Class:	Highly Uneven Distribution
Wetland Juxtaposition:	The state of the s	1 2
Connected Upstream and Downstream	No Injet/Intermittent Outlet	
Only Connected Above	No Inlet/Intermittens Outlet No Inlet/Perennial Outlet	Vegetation Density/Dominance:
Only Connected Below	Intermittent Injet/No Outlet	
Other Wetlands Nearby but not Connected Wetland Isolated	Intermittent Inlet/Intermittent Outlet	(0.20.0)
A ensure isotated	Intermittent Outlet/Perennial Outlet	Low Density (20-40%) Medium Density (40-60%)
Fire Occurence and Frequency:	Perennial Inlet/No Outlet	High Density (60-80%)
Natural; Predictable Frequency	Perennial Inlet/Intermittent Outlet Perennial Inlet/Perennial Outlet	Very High Density (80-100%)
Natural: Sporadio Frequency	and an analytic analytic and an analytic analytic and an analytic analytic analytic and an analytic a	Vegetative Interspersion:
Human-caused; Predictable	Nested Piezometer Data:	
Human-caused: Sporadic	Recharge	High (small groupings, diverse and interspersed) Moderate (broken irregular rings)
No Evidence	Discharge	Low (large pstches, concentric rings)
A STATE OF THE STA	Horizontal Flow Not Available	
Regional Scarcity:		Number of Layers and Percent Cover:
Not Scarce (>5% of total wetland area of region)	Relationship of Wetlands' Substrate Elevation	Number of Layers % Cover
Scarce (<5% of total wetland area of region)	to Regional Piezometric Surface:	6 or > (actual #) 1. submergents:
Watershed Land Use:	Piez. Surface Above or at Substrate elev.	2. floating: 3. moss-lichen:
>50% urbanized	Piez. Surface below Substrate elev.	3. moss-nonen:
25-50% urbanized	Not Available	2 5. tall herb:
0-25% urbanized	Evidence of Sedimentation:	1 6. dwarf shrub:
	No Evidence Observed	7. short shrub:
HYDROLOGIC VARIABLES	Sediment Observed on Wetland Substrate	8. tall shrub:
Surface Water Level Fluctuation of Wetland:	Fluvaquent Soils	9. sapling: 10. tree:
	Fuldam es is	Plant Species Diversity:
High Fluctuation Low Fluctuation	Evidence of Seeps and Springs:	Tiant Species Diversity:
Never Inundated	No Sceps or Springs	Low 1-2 plots sampled
F	Seeps Observed Perennial Spring	Medium 3-4 piots sampled
Frequency of Overbank Flooding:	Intermittent Spring	High 5 or more plots sampled
Return Interval' > 5 yrs. Return Interval 2-5 yrs.		Proportion of Animal Food Plants:
Return Interval 1-2 yrs.	SOIL VARIABLES	
No Overbank Flooding	Soil Lacking:	Low (5-25% cover) Medium (25-50% cover)
pH:		Medium (25-50% cover) High (>50% cover)
Acid <5.5 Circumneutral 5.5-7.4	Histosol:	Cover Distribution:
Alkaline >7.4	Fibric	Continuous Cover
No Water	Hemic .	Small Scattered Patches
S	☐ Sapric	I or More Large Patches; Parts of Site Open
Surficial Geologic Deposit Under Wetland	Mineral Hydric Soil:	Solitary, Scattered Stems
Low Permeability Stratified Deposits High Permeability Stratified Deposits	Gravelly Gravelly	N 170 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
High Permeability Stratified Deposits Glacial Till	Sandy	Dead Woody Material:
27076 1270701011111111	Silty	Abrundant (>50 of wetland surface)
Wetland Land Use:	Clayey	Moderately Abrundant (25-50% of surface)
High Intensity (ie. agriculture)	VEGETATION VARIABLES	Low Abrundance (0-25% of surface)
Moderate Intensity (ie. forestry)		Interspersion of Cover and Open Water:
Low Intensity (ie. open space)	Vegetation Lacking:	
Wetland Water Regime:		26-75% Scauered or Peripheral
Wet: Penn Flooded, Intermittently Exposed,	Dominant Wetland Type:	>75% Scattered or Peripheral
Semiperm, Flooded		<25% Scattered or Peripheral 100% Cover or Open Water
Drier: Sessonally Flooded, Temporarily Flooded,	Forested - Evergreen - Needle-leaved Forested - Deciduous - Broad-leaved	Total de la di Open mater
Saturated	Forested - Deciduous - Needle-leaved	Stream Sinuosity:
Basin Topographic Gradient:	Scrub Shrub - Evergreen - Repad-leaved	Highly Convoluted (index 1.50 or >)
High Gradient >2%	Scrub Shrub - Evergreen - Needle-leaved	Moderately Convoluted (index 1.30 or 5)
☐ Low Gradient <2%	Scrub Shrub - Deciduous - Broad-leaved	Straight/Slightly Irreg. (index) 1.10-1.25
Degree of Outlet Restriction:	Scrub Shrub - Deciduous - Needle-leaved Emergent - Persistent	
Restricted Outflow	Emergent - Non-persistent	Presence of Islands:
Utrestricted Outlow	Aquatic Bed	Several to Many
☐ No Outflow		One or Few
Ratio of Wetland Area to Watershed Area:		Absent
☐ High >10%		
■ Low <10%		25

CES-3 LACUSTRILE FRINCE 0.41 ec (53%)
5LOPE 0.36 ec (47%)
0.78 ec

2.9.1 Modification of Ground Water Discharge

		WEIGHTS				
VARIABLES	CONDITIONS HGM TYPES:	D	S	R	F	
Indicators of Disfunction Inlet/Outlet Class	perennial inlet/no outlet	0	0	0	0	
 Nested Piezometer Data 	• recharge condition	0	0	0 -	0	
 Relationship to Regional Piezo- metric Surface 	 wetland substrate elevation above piezometric surface 	0	0	0	0	
Direct Indicators of Function 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 Peizometeric Surface 	wetland substrate elevation below piezometric surface	18	15	15	18	
• Inlet/Outlet Class	• no inlet/perennial outlet	18	15	15	18	
Primary Variables • Microrelief of Wetland Surface	 pronounced well developed poorly developed absent 	3 2 1 0	3 2 1 0	3 2 1 0	3 2 1 0	
Inlet/Outlet Class	 perennial infet/perennial outlet intermittent inlet/perennial outlet all other classes 	3 2 0	3 2 0	0 0 0	3 2 0	
• рН	alkaline circumneutral acid no water present	3 2 0 0	3 2 0 0	3 2 0 0	3 2 0 0	
 Surficial Geologic Deposit Under Wetland 	 high permeability stratified deposits low permeability stratified deposits glacial till 	3 2 1	3 2 ①	3 2 1	3 2 1	
Wetland Water Regime	wet; permanently flooded, inter- mittently exposed, semipermanently flooded	3	0	3	3	
	drier; seasonally flooded, tempo- rarily flooded, saturated	1	0	1	1	

(continued)

		WEIGHTS					
VARIABLES	CONDITIONS HGM TYPES:	D	S	R	E		
Soil Type	• histosol	3	3	3	3		
	mineral hydric soil	1	1	1	1		
		-	4	-	-		
	Total Score:						
	Model Range:	3-18	2-15	3-15	3-18		
	Functional Capacity Index:	Total Score	4-0	7.7	_		
	:	18	15	15	18		
	Index Range:	0.19-1.0	0.16-	0.22-	0.19		
			1.0	1.0	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

•					WEIGH	TS	
VARIABLES	CONDITIONS HGM TYPES:		D	EL)	EP	R	F
Indicators of Disfunction Inlet/Outlet Class	no inlet/perent tent inlet/perer	nial outlet; intermit-	0				0
Nested Piezometer Data	discharge cond	lition	0	0	0	0	0
Relationship to Regional Piezo- metric Surface	 wetland substr or at piezomet 	ate elevation above ric surface	0	0	0	0	0
Presence of Seeps and Springs	 presence of se 	eps or springs	0	0	0	0	0

(continued)

					WEIGH	ITS	
VARIABLES	CONDITIONS	HGM TYPES:	D	L	EP	R	F
Direct Indicators of Function Inlet/Outlet Class	perennial inlet/no outlet		21				21
Nested Piezometer Data	• recharge condi	 recharge condition 					21
 Relationship to Regional Peizometeric Surfacé 	wetland substra piezometric sui	ate elevation below	21				21
Primary Variables				6	4		
Microrelief of Wetland Surface	Poorly Develop Absent	ped	3 2 1	3 2	1	3 2	3
	Well Develope	d	2	2	2	2	2
	 Pronounced 		1	ī	3	ī	ī
Inlet/Outlet Class	Perennial Inlet All Other Class	/Intermittent Outlet	3	0	0	0	3
• pH	• Acid		3	3	3	3	3
	 Circumneutral 		3 2 1	3 2	3 2 1	3 2 1	3 2 1
	• Alkaline		1	I	1	1	1
	 No water prese 	ent	0	0	0	0	0
Surficial Geologic Deposit Un-	Glacial Till		3	(D)	1	1	3
der Wetland		ity Stratified Depos-	3 2	1	2	2	2
	High Permeabi its	lity Stratified Depos-	1	3	3	3	1
Surface Water Level Fluctuation	High Fluctuation	on	3	3	0	3	3
of the Wetland	 Low Fluctuation 	n	2	2	Ö	2	2
	 Never Inundate 	ed	1	1	0	1	1
Wetland Water Regime	Drier: Seasona porarily Floode	ally Flooded, Tem-	3	3	0	3	3
	• Wet: Permane	ntly Flooded, Inter-	1	1	0	1	1
	mittently Expos	sed, Semiper- led	-	-	-	-	_
Soil Type	Gravelly or Sar	ndy Mineral Hydric	3	(3)	0	3	3
	 Silty or Clayey 	Mineral Hydric	2	3	0	2	2
	Sapric Histosol Fibric or Hemi-	c Histosol	0	0	0	0	0
		Total Score:		14			
		Model Range:	4- 21	4-18	2-12	4-18	4-2
	r	and Canasim I. I.	Т.		18		
	Functi	onal Capacity Index:	To-	140	01.		
			tal Sco	18	12	18	21
			<u>re</u> 21				
		Index Range:	0.1	0.22-	0.16-	0.22-	0.19
			9-	1.0	1.0	1.0	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.

				WEIGHTS			
VARIABLES	CONDITIONS HGM TYPES:	D	S	The state of	EP	R	F
Indicators of disfunction	none						
Direct Indicators of Function	no outlet	27	21				30
Primary Variables							
Inlet/Outlet Class	 perennial inlet/intermittent outlet 	3	3	0	0	0	3
THE CALLET	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	• restricted	3	0	0	0	0	3
Degree of Outlet Restriction	• unrestricted	0	0	0	0	0	0
RESTRICTION	- uncontroled	-	-				
. D : T	low gradient	3	3	0	3	3	3
Basin Topographic		1	(I)	0	0	1	1
Gradient	• high gradient	•	•		7		
	- Discourselly Seeded	3	(3)	(3)	0	3	3
 Wetland Water Regime 	Drier: seasonally flooded,	,	0	0			
	temporarily flooded, saturated	1	1	1.	0	1	1
	• Wet: permanently flooded, intermit-	1	1	1 .	0	*	
	tently exposed, semipermanently						
	flooded						
		2	0	3	0	3	3
 Surface Water Level 	 high fluctuation 	2	0	2	0	2	2
Fluctuation of the	 low fluctuation 		0	0	0	0	0
Wetland	 never inundated 	0	0	0	U	U	U
		3	3	3	0	3	3
 Ratio of Wetland Area to 	• large	1	(1)	1	0	1	1
Watershed Area	• small	1	0	0	U		
The second secon		3	3	3	3	3	3
 Microrelief of Wetland 	• pronounced	2	2	2	2	2	2
Surface	 well developed 			1	1	1	1
	 poorly developed 	1	1	0	0	0	0
	• absent	0	0	0	0	U	U
	a to be flooding about	0	0	0	0	0	0
 Frequency of Overbank 	overbank flooding absent	0	0	1	0	1	1
Flooding	• return interval of >5 yrs	0	0	2	0	2	2
	• return interval of 2-5 yrs	0	0	3	0	3	3
	 return interval of 1-2 yrs 	0	0	(3)	U	3	
	a bish town birth	3	(3)	3	3	3	3
 Vegetation 	high/very high	2	2	2	2	2	2
Density/Dominance	• moderate	1	1	1	1	1	1
	• sparse/low	0	0	0	0	0	0
	 no vegetation 	U	U	U	0		

2.9.3 Storm and Flood-Water Storage (Continued)

			WEIGHTS					
VARIABLES	CONDITIONS	HGM TYPES:	D	S	E	EP	R	F
Dead Woody Material	abundant moderately abundant sparse absent	ant	3 2 1 0	3 2 1 0	3 2 1 0	3 2 1 0	3 2 1 0	3 2 1 0
		Total Score:		1/	14			
		Model Range:	4-27	4-21	2-21	0-12	3-24	4-30
	Func	tional Capacity Index:	Total Score 27	21	14 =	12	24	30
		Index Range:	0.15- 1.0	0.19- 1.0	0.09-	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			CO	NDITIONS	WEIGHTS
Indicators	of Disfunction		no outlet			0
Direct Ind	icators of Function	1	none			
Primary V	'ariables					
Storm and Function	Flood Water Stor Model Score	age	Modific Discharge	ation of Grone E Function M	undwater lodel Score	
High Mod Low High Mod Low High Mod Low	3 2 1 3 2 1 3 2 1	x x x x x x x x x	High High Mod Mod Low Low Low	3 3 3 2 2 2 1 1 1	= = = = = = = = = = = = = = = = = = = =	9 6 3 6 4 2 3 2 1
				Function	Total Score: Model Range: al Capacity Index:	Total Score
					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

		WEIGHTS					
VARIABLES	CONDITIONS HGM TYPES:	D	S	E	EP	R	F
ndicators of disfunction	none						
Direct Indicators of Function	evidence of sedimentation	18	15	12	12	12	18
Primary Variables							
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	• restricted outflow	3	0	0	0	0	3
Restriction	• 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
7	• silty soil	2	2	2	0	2	2
	 sandy or gravelly soil 	1	0	1	0	1	1
	Total Score:	-	<u>n</u>	10	_	_	-
						2.12	4
	Model Range:	4-18	3-15		1-12	2-12	4-
	Functional Capacity Index:	Total	11 = 0	130	0,83		
		Score 18	15	12	12	12	1
	Index Range:	0.22-	0.20-	0.16-	0.8-	0.16-	0.
		1.0	1.0	1.0	1.0	1.0	1.

2.9.6 Export of Detritus

		WEIGHTS					
VARIABLES	CONDITIONS HGM TYPES:	D	S	L	EP	R	F
indicators of disfunction	no outlet	0	0		0		0
Direct Indicators of Function	none						
Primary Variables							
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	unrestricted outflow	3	0	0	0	0	3
Restriction	• restricted outflow	1	0	0	0	0	1
Inlet/Outlet Class	perennial outlet	3	3	0	0	0	3
	• intermittent outlet	71)	3 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 Den-	• high/very high	3	3	3	3	3	3
sity/Dominance	• 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	5-1
	Functional Capacity Index:	Total Score 18	12 =0	30 11 =	10	12	18
	Index Range:	0.27-	0.26-	0.25-	0.20-	0.25-	0.2

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

VARIABLES		CONDITIONS		WEIGHT	S
Indicators of Disfun	of Disfunction no vegetation		0		
Direct Indicators of	Function	none			
Primary Variables		high diversity		5	
- Inner	Plant	 medium diversity 		3	
	Species	low diversity		(1)	
	Diversity				
	Vegetation	 high/very high 		5	
		medium		3	
	Density/Do			1	
	minance	• sparse/low			
	Wetland	 connected upstream and downstream 		3	
	Juxtapositio	connected above or below		(3)	
	n	other wetlands nearby but not		1	
	-11	connected (400 m or closer)			
		• isolated		0	
		- Isolated		9 11	
			Total Score:		
			Model Range:	2-15	好:
			Moder Range:	er-t-J	15
*			Functional Capacity	= Total	1-
			Index:	Score	14
			Ilidex.	15	15
			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	
Primary Variables		6
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
Wettalid Land Osc	moderate intensity	2
	• high intensity	1
Wetland Water Regime	• wet: permanently flooded, intermittently	3
	exposed, semipermanently flooded	
	drier: seasonally flooded, temporarily	0
	flooded, saturated	(1)
Microrelief of Wetland Surface	• pronounced	3
	• well developed	2
	poorly developed	(1)
	• absent	3 2 1
Number of Wetland types and Relative	• 5 or more types	3
Proportions	• 3-4 types	2
Troportions	• 1-2 types	3 2 1
	• no vegetation	0
	• even distribution	3
	moderately even distribution	3 2 ①
	highly uneven distribution	(D)
	• no vegetation	0
Vegetation Interspersion	• high interspersion	3
Vegetation interspersion	• moderate interspersion	(2)
	low interspersion	2
	• no vegetation	0
Number of Layers and Percent Cover	• 5 or more layers	3
Trumber of Eayers and Tercent Cover	• 3-4 layers	2
	• 1-2 layers	1
	• no vegetation	0
	• layers well developed (>50% cover)	3
	• layers with moderate cover (26-50%	2
	cover)	1
	 layers poorly distinguishable (<25% 	0
	cover)	
	• no vegetation	0

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

VARIABLES	CONDITIONS		WEIGHTS
Interspersion of Vegetation Cover and	26-75% scattered or peripheral		3
Open Water	 >75% scattered or peripheral 		2
	<25% scattered or peripheral		1
	• 100% cover or open water		0
	• no vegetation		0
• Size	• large (>100 acres)		3 2
	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
	•		22 24
Slope Wetlands:	All Other HGM Types:	Total Score:	
Model Range: 4-33		Model Range:	Total Score
Functional Capacity Index = Total Score		Functional Capacity	Total Score
33	•	Index =	36
Index Range: 0.12-1.0		Index Range	0.11-1.0