Appendix M

Detailed Table of Wetland Impacts

Stormwater Remediation Projects - Hempstead Lake State Park

WETLAND IMPACT ASSESSMENT TABLE (USACE WOTUS)

Impact Area (Location of Impact Assessment Maps)	Specific Activity	Aquatic Resource Type	Permanent Loss (ACRES) (Mitigation required)	Permanent Impact, Conversion/ Other (ACRES) (Mitigation Required)	Acres Temporary Impact (ACRES) (Restoration Proposed)	Permanent Impact (ACRES) (No Mitigation Required)	FILL <OHW (CY)	Notes/Comments
Construction Mill Creek Channel - North End (Map 1B - 10 of 10)	Bank Stabilization/Erosion	Open Water	0			0.018		Concrete grid w/ gravel fill to be placed within existing footprint of original timber bottom. No new impacts.
	Floatables Catcher & Open Channel Structure	Open Water	0			0.031		Structure to be placed within footprint of original brick walls and timber bottom
	Access Road to F.C.	Open Water	0			0		All work in upland.
	Transition to NE Pond; Riprap	Open Water				0.04	140	Riprap below surface of water in channel at south end floatables catcher structure.
		SUBTOTAL	**0**	**0**	**0**	**0.089**		
New Wetland "B" (Map 1B - 5 of 10 & 8 of 10)	Fill Footprint (berm <OHW)	Open Water				0.29	1100	"Impact" calculated as footprint of fill on 'pond side' of berm that remains open water surface
		Emergent	0.05				1300	Pond Fringe wetlands at shoreline where proposed trail crosses
	Berm (to upland)	Open Water	1.03				15000	Area of top of berm resulting in conversion of open water to dry land
	Fill (Culvert Riprap Outlet)	Open Water				0.02	35	Riprap at outlet only; Culvert pipes footprint was included in impact for berm; Riprap inlet included in impacts for inside basin.
	Fill Footprint (raise pond bottom el)	Open Water				4.03	27300	Same number as OW converted to emergent wetland. Fill would be placed waterward of existing emergent veg. Creation of the filtering wetland
		Emergent	0			0.17		Fill on pond side of berm planted with emergent
	Within Basin	Emergent		0.22				Considered an impact w/ mitigation because the basin would be maintenance dredged, plus accumulation of sediment in the wetland
		SUBTOTAL	**1.08**	**0.22**	**0**	**4.51**		
Replace Culvert A (Map 1B - 6 of 10 & 7 of 10)	Riprap	Scrub Shrub	0.04			0.03	208	Inlet + Outlet of pipe, Excavation needed at north end to allow water flow into pipe, required depth will not allow replanting)
	Pipe							
		SUBTOTAL	**0.04**	**0**	**0**	**0.03**		
New Culvert B (Map 1B - 7 of 10)	Riprap	Open Water				0.02	232	Riprap would remain below the water surface at OHW inlet end (remain submerged).
		Emergent	0.02					Riprap buries emergent wetland (0.02 ac) on outlet pipe end.
	Pipe	Emergent			0.02		15	
		SUBTOTAL	**0.02**	**0**	**0.02**	**0.02**	**247**	
New NW Pond Detention Basin (Map 1B - 3 of 10)	Fill (Berm & Spillway)	Open Water	0.02					Perm loss = berm footprint in existing open water channel
		Scrub Shrub	0.13					Perm loss = footprint of berm resulting in fill or conversion to open water
		Emergent	0.32					Perm loss = footprint of berm resulting in fill or conversion to open water
	Access Ramp	Scrub Shrub	0.31					Includes slope fill for access ramp, west of open channel to boundary of open water basin (estimated boundary, all considered 'permanent loss' of scrub shrub wetland)
	Conv to Open Water w/in Basin	Scrub Shrub	0.33					0.07-acre west of open channel adjacent to access road slope fill + 0.26-acre within basin east of open channel (see wetland impact map)
		Emergent	0.06					
	In Basin	Scrub Shrub (to emerg)		0.19				Require mitigation since the basin would be maintenance dredged, plus accumulation of sediment in the wetlands & habitat fragmentation
		Emergent		0.15				Existing wetland that would now become a detention basin
		SUBTOTAL	**1.17**	**0.34**	**0**	**0**		
New NWP DB Wetland Channel (Map 1B - 3 of 10)	Excavation	Emergent			0.46			Minimal regarding to direct SB flow to northern wetland; revegetation with emergent
		SUBTOTAL	**0**	**0**	**0.46**	**0**		
NW Pond Dam Reconstruction (Map 1B - 2 of 10)	Concrete Cap	Open Water	0.001				12	
	Riprap (dam slope)	Open Water	0.003				210	210 total CY of riprap
		Emergent	0.029					Fill on back side = 0.01, 0.014, 0.005
	Conv to Open Water	Emergent				0.037		no mitigation because the impacts would off-set with develop of new emergent as water levels stabilize
	Construction & Equipment	Emergent			0.14			
		SUBTOTAL	**0.033**	**0**	**0.14**	**0.037**		
Hempstead Lake Pipe Culvert Removal (Map 2)	Excavate to open channel	Upland						
		SUBTOTAL	0	0	0	0		Replacing existing riprap, new channel from upland (stone placed into channel upon construction)
South Pond Dam Repair (Map 8)	Grading - Fill	Open Water	0.017					
		SUBTOTAL	**0.017**	**0**	**0**	**0**		
PERMANENT LOSS TOTALS	Permanent Loss of Open Water (to dry land)		**1.071**					Includes activities with conversion to dry land; fill & permanent new in-water structures
	Permanent Loss of Forested Wetland		**0**					All impacts avoided
	Permanent Loss of Scrub Shrub Wetland		**0.81**					
	Permanent Loss of Emergent Wetland		**0.479**					
	Permanent Loss of WOTUS (OW, FW, SS, EM) Mitigation Required		**2.36**					
	Permanent Loss of Special Aquatic Sites (FW, SS, EM) Mitigation Required		**1.289**					Emergent, S. Shrub Wetlands
PERMANENT IMPACT CONVERSION/OTHER TOTALS	Permanent Impact Conversion/Other (Forest to Emerg)			**0**				All impacts avoided
	Permanent Impact Conversion /Other (S.Scrub to Emerg)			**0.19**				
	Permanent Impact Conversion /Other (Ex. Emergent in Basin)			**0.37**				
	Permanent Impact Conversion/Other (SS,EM) Mitigation Required			**0.56**				
TEMPORARY IMPACTS TOTAL	**Temporary Impacts w/ Restoration**				**0.62**			
PERMANENT IMPACTS NO MITIGATION	**Permanent Impacts No Mitigation Required**					**4.686**		Includes impacts to open water (fill to raise pond elevation to wetland and fill below surface or water.)
IMPACTS REQUIRING MITIGATION	**Total Impact Acres Requiring Mitigation**		**2.36**	**0.56**			**2.92**	
	Wetland Impact Acres Requiring Mitigation		**1.289**	**0.56**			**1.849**	