

APPENDIX B
SOIL PROFILES

SOIL PROFILE

1x1 Meter Unit N110 E210

Date: May 3, 2005

Soil Description By: M.G. Sams, CPSS

County: Sussex County, Delaware

Project Location: Wetland Mitigation APE

Horizon/Depth	SOIL COLOR		Texture	Structure	Consistence	Boundary	Comments
	Matrix	Mottling					
Ap/0-41.0 cm (0-16.1 in)	10YR 3/2 Very dark grayish brown		sandy loam, with a few fine gravels	weak coarse granular	friable	abrupt, smooth	Stratum 1
BA/41.0-53.0 cm (16.1-20.9 in)	10YR 4/4 Dark yellowish brown	common: 10YR 4/4 Dark yellowish brown	loamy sand, with 3% fine gravels	weak subangular blocky	friable	clear, smooth	Stratum 2
Bt/53.0-91.0 cm (20.9-35.8 in)	10YR 4/6 Dark yellowish brown	common: 10YR 4/4 Dark yellowish brown	sandy clay loam, with coarse sand and 10% fine gravels	weak medium subangular blocky	friable, slightly sticky	clear, smooth	Stratum 2; thick clay in pores and bridging between sand grains
C1/91.0-150.0 cm (35.8-59.1 in)	10YR 4/4 Dark yellowish brown		sandy clay loam	massive	firm, slightly sticky	abrupt, smooth	(from auger boring)
C2g/150.0-155.0 cm+ (59.1-61.0 in+)	N 5/0 Gray		silty clay loam	massive	very plastic		(from auger boring) laminated

Additional Notes: Cove position; well developed profile of sandy coastal plain deposits.

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SOIL PROFILE

1x1 Meter Unit N90 E160

Date: May 3, 2005

County: Sussex County, Delaware

Soil Description By: M.G. Sams, CPSS

Project Location: Wetland Mitigation APE

Horizon/Depth	SOIL COLOR		Texture	Structure	Consistence	Boundary	Comments
	Matrix	Mottling					
Ap/0-22.0 cm (0-8.7 in)	10YR 3/2 Very dark grayish brown		loamy sand	very weak coarse granular	friable	abrupt, smooth	Stratum 1
E/22.0-64.0 cm (8.7-25.2 in)	10YR 5/3 Brown		loamy sand	single grained	loose	gradual, smooth	Stratum 2
2Bw/64.0-93.0 cm (25.2-36.6 in)	10YR 4/6 Dark yellowish brown		sandy loam, slightly higher in clay than E	very weak medium subangular blocky	very friable	clear, smooth	Stratum 3
2C1/93.0-137.0 cm (36.6-53.9 in)	10YR 5/4 Yellowish brown	common: 10YR 5/4 Yellowish brown, Fe stains	coarse loamy sand, with 10% fine gravels	single grained	loose	clear, smooth	Stratum 4
2C2/137.0-160.0 cm (53.9-63.0 in)	10YR 5/3 Brown		clay loam, grading to saturated sand with depth	massive	loose	gradual, smooth	Stratum 4
2C3/160.0 cm+ (63.0 in+)	10YR 7/3 Very pale brown		sand	massive	slightly flowing		saturated

Additional Notes: Ridge shoulder, moderately well developed profile of sandy coastal plain deposits.

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SOIL PROFILE

1x1 Meter Unit N120 E150

Date: May 3, 2005

Soil Description By: M.G. Sams, CPSS

County: Sussex County, Delaware

Project Location: Wetland Mitigation APE

Horizon/Depth	SOIL COLOR		Texture	Structure	Consistence	Boundary	Comments
	Matrix	Mottling					
Ap/0-10.0 cm (0-3.9 in)	10YR 3/2 Very dark grayish brown		loamy sand	very weak coarse granular	very friable	abrupt, smooth	Stratum 1
BA/10.0-22.0 cm (3.9-8.7 in)	10YR 4/4 Dark yellowish brown		loamy sand	very weak fine subangular blocky	very friable	gradual, smooth	Stratum 2
E/22.0-53.0 cm (8.7-20.9 in)	10YR 5/3 Brown		sand	very weak medium subangular blocky	very friable	clear, smooth	Stratum 2
Bw/53.0-70.0 cm (20.9-27.6 in)	10YR 4/4 Dark yellowish brown		loamy sand, with prominent 10YR 4/6 Dark yellowish brown lamellae	weak medium subangular blocky	friable	clear, smooth	Stratum 2
2C1/70.0-150.0 cm (27.6-59.1 in)	10YR 5/3 Brown		coarse sand, with 10% fine gravels	massive	loose	gradual, smooth	
2C2/150.0-180.0 cm+ (59.1-70.9 in+)	10YR 6/2 Light brownish gray		sand	massive	slightly flowing		saturated

Additional Notes: Cove position; moderately well developed profile of sandy coastal plain deposits.

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SOIL PROFILE

1x1 Meter Unit N100 E260

Date: May 3, 2005

Soil Description By: M.G. Sams, CPSS

County: Sussex County, Delaware

Project Location: Wetland Mitigation APE

Horizon/Depth	SOIL COLOR		Texture	Structure	Consistence	Boundary	Comments
	Matrix	Mottling					
Ap/0-24.0 cm (0-9.5 in)	10YR 3/2 Very dark grayish brown		loamy sand	very weak coarse granular	very friable	abrupt, smooth	Stratum 1
E/24.0-81.0 cm (9.5-31.9 in)	10YR 5/3 Brown	few: 10YR 4/4 Dark yellowish brown	loamy sand	very weak medium subangular blocky	very friable	clear, smooth	Stratum 2
2Bw/81.0-116.0 cm (31.9-45.7 in)	7.5YR 5/4 Brown		loamy sand, with thin lens of fine gravel, clay content increases at base	weak medium subangular blocky	friable	clear, smooth	Stratum 4
2Bt/116.0-170.0 cm (45.7-66.9 in)	7.5YR 5/6 strong brown		sandy clay loam	moderate fine subangular blocky	firm	clear, smooth	Stratum 5 medium 7.5YR 5/4 Brown clay coatings
2C/170.0-250.0 cm+ (66.9-98.4 in+)	10YR 6/2 Light brownish gray		fine sand	single grained	loose		

Additional Notes: Shoulder position; well developed profile of sandy coastal plain deposits.

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SOIL PROFILE

1x1 Meter Unit N90 E280

Date: May 3, 2005

Soil Description By: M.G. Sams, CPSS

County: Sussex County, Delaware

Project Location: Wetland Mitigation APE

Horizon/Depth	SOIL COLOR		Texture	Structure	Consistence	Boundary	Comments
	Matrix	Mottling					
Ap/0-20.0 cm (0-7.9 in)	10YR 3/2 Very dark grayish brown		loamy sand	very weak coarse granular	very friable	abrupt, smooth	Stratum 1
E/20.0-75.0 cm (7.9- 29.5 in)	10YR 5/3 Brown		sand	very weak medium subangular blocky	very friable	clear, smooth	Stratum 2
Bw1/75.0-94.0 cm (29.5-37.0 in)	7.5YR 5/4 Brown		loamy sand, with prominent 10YR 4/6 Dark yellowish brown lamellae	very weak medium subangular blocky	very friable	clear, smooth	Stratum 4
2Bw2/94.0-113.0 cm (37.0-44.5 in)	10YR 5/6 Yellowish brown		clay loam, with 8% fine gravels and prominent 10YR 4/6 Dark yellowish brown lamellae	weak medium subangular blocky	firm, slightly cemented	gradual, smooth	Stratum 4 thin, patchy 7.5YR 4/6 Strong brown clay films and bridges
2Bw3/113.0-130.0 cm (44.5-51.2 in)	10YR 5/6 Yellowish brown		clay loam	weak medium subangular blocky	firm	clear, smooth	Stratum 4
2C1/130.0-180.0 cm (51.2-70.9 in)	7.5YR 6/8 Reddish yellow		sand	single grained	loose	gradual, smooth	
2C2/180.0 cm+ (70.9 in+)	7.5YR 6/6 Reddish yellow		clay loam	massive	slightly plastic		

Additional Notes: Broad ridge shoulder position; moderately well developed profile of sandy coastal plain deposits.

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SOIL PROFILE

1x1 Meter Unit N130 E280

Date: May 3, 2005

Soil Description By: M.G. Sams, CPSS

County: Sussex County, Delaware

Project Location: Wetland Mitigation APE

Horizon/Depth	SOIL COLOR		Texture	Structure	Consistence	Boundary	Comments
	Matrix	Mottling					
Ap/0-38.0 cm (0-15.0 in)	10YR 3/2 Very dark grayish brown		loamy sand	very weak coarse granular	very friable	abrupt, smooth	Stratum 1
E/38.0-82.0 cm (15.0-32.3 in)	10YR 5/3 Brown	common: 7.5YR 5/6 Strong brown 10YR 5/1 Gray	loamy sand	very weak fine subangular blocky	very friable	gradual, smooth	Stratum 2; free water below 82.0 cm (32.3 in); many organic intrusions from Ap down into E

Additional Notes: Low toeslope, immediately above wetland margin; moderately well developed profile of sandy coastal plain deposits.

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