NEW JERSEY TURNPIKE AUTHORITY
INTERCHANGE 6-9 WIDENING PROGRAM

EXECUTIVE ORDER NO. 215
ENVIRONMENTAL IMPACT STATEMENT

VOLUME 2

Appendices

Submitted to:

New Jersey Turnpike Authority

Submitted by:

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In association with:

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APPENDICES

APPENDIX A
SOIL TYPES AND ERODIBILITY FACTORS

Appendix A
Descriptions of Soil Types in the Project Corridor

Burlington County Soils

The Burlington County soils discussed below are specifically depicted in Figures 3-14a and 3-14b.

Adelphia fine sandy loam, 0 to 2 percent slopes (AdmA): The Adelphia series consists of deep moderately well drained or somewhat poorly drained soils on uplands. They formed in acid coastal plain deposits containing glauconite. Typically, they have a fine sandy loam surface layer 14 inches thick. The subsoil from 14 to 30 inches is mottled olive brown sandy clay loam. It contains 10 to 40 percent glauconite. The substratum from 30 to 60 inches is olive gray and yellowish brown sandy loam and loamy sand. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages 1 to 2 feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Adelphia fine sandy loam, clayey substratum, 0 to 2 percent slopes (AdmkA), and 2 to 5 percent slopes (AdmkB): The Adelphia series consists of deep moderately well drained or somewhat poorly drained soils on uplands. They formed in acid coastal plain deposits containing glauconite. Typically, they have a fine sandy loam surface layer 14 inches thick. The subsoil from 14 to 30 inches is mottled olive brown sandy clay loam. It contains 10 to 40 percent glauconite. The substratum from 30 to 60 inches is olive gray and yellowish brown sandy loam and loamy sand. Slopes range from 0 to 5 percent. Depth to seasonal high water table averages 1 to 2 feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Collington fine sandy loam, 2 to 5 percent slopes (ComB), and 5 to 10 percent slopes (ComC): The Collington series consists of deep, well drained soils on uplands. They formed in coastal plain sediments containing moderate amounts of glauconite. Typically these soils have a dark brown sandy loam surface layer 11 inches thick over 2 inches of brown sandy loam. The dark brown subsoil from 13 to 29 inches is sandy clay loam and from 29 to 32 inches is sandy loam. The dark brown substratum from 32 to 44 inches is sandy loam and from 44 to 80 inches is loose sand. Slopes range from 0 to 10 percent. Depth to seasonal high water table averages approximately 6 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Donlonton fine sandy loam, 0 to 2 percent slopes (DoaA), and Donlonton loam, 0 to 2 percent slopes (DobA): The Donlonton series consists of deep, moderately well and somewhat poorly drained soils on uplands. They formed in glauconitic marine sediments. Typically, these soils have a very dark grayish-brown and olive brown fine sandy loam surface layer, 12 inches thick. The subsoil from 12 to 20 inches is olive brown sandy clay loam, and from 20 to 50 inches is mottled olive brown sandy clay. The substratum from 50 to 60 inches is dark olive green fine sandy loam. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages 1 to 2 feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Fallsington fine sandy loam, 0 to 2 percent slopes (FanA), and Fallsington fine sandy loam, clayey substratum, 0 to 2 percent slopes (FankA): The Fallsington series consists of very deep, poorly drained soils on upland flats and in depressions. They formed in stratified coastal plain sediments of marine or alluvial origin. Typically these soils have a dark gray sandy loam surface layer 10 inches thick. The subsoils are mottled gray sandy clay loam from 10 to 32 inches, and mottled light gray loamy sand from 32 to 40 inches. The substratum is stratified light gray sandy clay loam and sand. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages 0 to 1 feet. These are considered to be hydric soils. They are included within Hydrologic Groups B/D.

Fluvaquents, loamy, 0 to 3 percent slopes, frequently flooded (FmhAt): Fluvaquents, loamy consist of very deep, poorly and somewhat poorly drained soils on flood plains. They formed in alluvium. Typically

these soils have a reddish brown silt loam surface layer 7 inches thick. The mottled silt loam subsoil is reddish brown from 7 to 16 inches and pinkish gray from 16 to 35 inches. The substratum from 35 to 52 inches is pinkish gray sandy loam and below 52 inches is variegated pinkish gray stratified sand and gravel. Slopes range from 0 to 3 percent. Depth to seasonal high water table averages 0 to 1 feet. These are considered to be hydric soils. They are included within Hydrologic Groups B/D.

Freehold fine sandy loam, 2 to 5 percent slopes (FrmB), 10 to 15 percent slopes (FrmD) and Freehold fine sandy loam, clayey substratum, 2 to 5 percent slopes (FrmkB): The Freehold series consists of deep well drained soils on the uplands. They formed in acid coastal plain deposits containing glauconite. Typically these soils have a dark yellowish brown sandy loam plow layer 9 inches thick. The subsoil between 9 and 35 inches is a friable dark brown sandy loam or sandy clay loam. This layer contains less than 10 percent glauconite. The substratum from 35 to 70 inches is stratified yellowish brown loamy sand with thin sandy loam layers. Slopes range from 0 to 25 percent. Depth to seasonal high water table averages greater than 5 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Holmdel fine sandy loam, 0 to 2 percent slopes (HodA), 2 to 5 percent slopes (HodB), Holmdel fine sandy loam, clayey substratum, 0 to 2 percent slopes (HodkA), and Holmdel fine sandy loam, clayey substratum, 2 to 5 percent slopes (HodkB): The Holmdel series consists of very deep, moderately well and somewhat poorly drained soils on uplands. They formed in coastal plain sediments. Typically these soils have a dark grayish brown sandy loam surface layer 12 inches thick. The mottled subsoil from 12 to 20 inches is yellowish brown sandy loam and from 20 to 38 inches is light olive brown sandy clay loam. The mottled substratum from 38 to 60 inches is stratified yellowish brown sandy loam and olive brown sand. Slopes range from 0 to 5 percent. Depth to seasonal high water table averages 1 to 2½ feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Keyport fine sandy loam, 2 to 5 percent slopes (KenB), Keyport loam, 0 to 2 percent slopes (KeoA), 2 to 5 percent slopes (KeoB), 5 to 10 percent slopes (KeoC), 10 to 15 percent slopes (KeoD), 15 to 25 percent slopes (KeoE): The Keyport series consists of very deep, moderately well drained soils on uplands. They formed in northern coastal plain sediments. Typically these soils have a dark brown silt loam surface layer 10 inches thick. The subsoil layers from 10 to 44 inches are yellowish brown and dark yellowish brown silty clay loam. The upper substratum from 44 to 60 inches is dark gray silty clay loam and the lower substratum from 60 to 72 inches is dark gray stratified clay to loamy sand. Slopes range from 0 to 25 percent. Depth to seasonal high water table averages approximately 2 feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Pits, sand and gravel (PHG): Psamments are excessively drained to well drained sandy fill land that has been smoothed. The thickness of the fill ranges from 24 to 48 inches but is dominantly 36 inches. Gravel content ranges from 0 to 50 percent. Slopes range from 0 to 5 percent. Depth to seasonal high water table averages greater than 5 feet. These are not considered to be hydric soils. They are included within Hydrologic Group A.

Pits, clay (PHM): The pits soil series are somewhat poorly drained, depth to seasonal high water table averages approximately 1 feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Sassafras fine sandy loam, 0 to 2 percent slopes (SaeA), 2 to 5 percent slopes (SaeB), 5 to 10 percent slopes (SaeC), and Sassafras fine sandy loam, clayey substratum, 2 to 5 percent slopes (SaekB): The Sassafras series consists of very deep, well-drained soils on uplands. They formed in marine or alluvial coastal plain sediments. Typically, these soils have a brown sandy loam surface layer 9 inches thick. The subsoil, is yellowish-brown loam from 9 to 21 inches, brown sandy clay loam from 21 to 32 inches, and strong brown sandy loam from 32 to 40 inches. The substratum, from 40 to 52 inches, is strong brown gravelly sandy loam and, from 52 to 70 inches, is brownish-yellow loamy sand. Slopes range from 0 to 10 percent. Depth to seasonal high water table averages 4 to 6 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Shrewsbury fine sandy loam, and Shrewsbury fine sandy loam, clayey substratum, 0 to 2 percent slopes (ShskA): The Shrewsbury series consists of deep, poorly drained soils in low positions. They formed in coastal plain deposits containing small amounts of glauconite. Typically these soils have a dark gray fine sandy loam surface layer 10 inches thick. A mottled subsurface layer from 10 to 14 inches is gray fine sandy loam. The mottled subsoil layers from 14 to 32 inches are gray and greenish gray sandy clay loam. The mottled substratum from 32 to 60 inches is stratified layers of loamy sand, fine sandy loam and sand. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages approximately 6 inches. These are not considered to be hydric soils. They are included within Hydrologic Groups C/D.

Urban land, clayey substratum, 0 to 8 percent slopes (URCLAB): No Map Unit Description Category data are currently available for the specified Soil Survey Area. This soil is somewhat poorly drained, Depth to seasonal high water table is greater than 5 feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Urban land, sandy, 0 to 8 percent slopes (URSAAB): No Map Unit Description Category data are currently available for the specified Soil Survey Area. This soil is excessively drained, Depth to seasonal high water table is greater than 5 feet. These are not considered to be hydric soils. They are included within Hydrologic Group A.

Urban land, sandy over clayey, 0 to 8 percent slopes (URSACB): No Map Unit Description Category data are currently available for the specified Soil Survey Area. This soil is somewhat poorly drained, Depth to seasonal high water table is greater than 5 feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Woodstown fine sandy loam, 0 to 2 percent slopes (WofA), and 2 to 5 percent slopes (WofB): The Woodstown series consists of deep, moderately well-drained soils on uplands and terraces. They formed in marine and alluvial coastal plain sediments. Typically, these soils have a dark grayish-brown sandy loam surface layer, 7 inches thick, and a subsurface layer, from 7 to 11 inches, of light yellowish-brown sandy loam. The light olive brown sandy clay loam subsoil, from 11 to 29 inches, is mottled in the lower part. The substratum layers, from 29 to 70 inches, are sandy loam and loamy sand. Slopes range from 0 to 30 percent. Depth to seasonal high water table averages approximately 2½ feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Woodstown fine sandy loam, clayey substratum, 0 to 2 percent slopes (WofkA), and 2 to 5 percent slopes (WofkB): The Woodstown clay substratum consists of deep, moderately well drained soil on uplands and terraces. They formed in marine and alluvial coastal plain sediments. Typically, these soils have a dark grayish brown sandy loam surface layer from 8 to 12 inches. The subsoil from 12 to 36 inches is mottled yellowish brown sandy loam. The subsoil from 36 to 45 inches is mottled yellowish brown loamy sand, and from 45 to 60 inches is sandy clay. Slopes range from 0 to 8 percent. Depth to seasonal high water table averages approximately 1½ feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Mercer County Soils

The Mercer County soils discussed below are specifically depicted in Figures 3-14b through 3-14d.

Elkton silt loam, 0 to 2 percent slopes (EkbA): The Elkton series consists of very deep, poorly drained soils formed in loamy (silty)/ clayey deposits of the Mid-Atlantic coastal plain. They are on lowlands, depressions, and ancient floodplains. Typically the surface layer is dark olive gray silt loam 1 inch thick. The subsurface layer is gray silt loam 9 inches thick. The subsoil from 10 to 14 inches is gray silty clay loam with prominent mottles. The substratum from 40 to 65 inches is gray very fine sandy loam. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages approximately 1 feet. These are considered to be hydric soils. They are included within Hydrologic Group C/D.

Evesboro loamy sand, 0 to 5 percent slopes (EvgB): The Evesboro series consists of very deep excessively drained soils on uplands. They formed in acid sandy coastal plain sediments. Typically, these soils have a grayish brown sand surface layer 3 inches thick and a yellowish brown sand layer from 3 to 16 inches. The subsoil between 16 to 30 inches is yellowish brown sand. The substratum from 30 to 72 inches is loose yellowish brown sand. Slopes range from 0 to 5 percent. Depth to seasonal high water table averages between 4 to 6 feet. These are not considered to be hydric soils. They are included within Hydrologic Group A.

Fallsington sandy loam, 0 to 2 percent slopes (FamA): The Fallsington series consists of very deep, poorly drained soils on upland flats and in depressions. These soils formed in stratified coastal plain sediments of marine or alluvial origin. Typically these soils have a dark gray sandy loam surface layer 10 inches thick. The subsoil, is mottled gray sandy clay loam from 10 to 32 inches and mottled light gray loamy sand from 32 to 40 inches. The substratum is stratified light gray sandy clay loam and sand. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages approximately 6 inches. These are considered to be hydric soils. They are included within Hydrologic Groups B/D.

Fluvaquents, loamy, 0 to 3 percent slopes, frequently flooded (FmhAt): Fluvaquents, loamy consist of very deep, poorly and somewhat poorly drained soils on floodplains. They formed in alluvium. Typically these soils have a reddish brown silt loam surface layer 7 inches thick. The mottled silt loam subsoil is reddish brown from 7 to 16 inches and pinkish gray from 16 to 35 inches. The substratum from 35 to 52 inches is pinkish gray sandy loam and below 52 inches is variegated pinkish gray stratified sand and gravel. Slopes range from 0 to 3 percent. Depth to seasonal high water table averages approximately 6 inches. These are considered to be hydric soils. They are included within Hydrologic Groups B/D.

Fluvaquents, 0 to 3 percent slopes, very frequently flooded (FmhAv): Fluvaquents, frequently flooded consist of deep, poorly drained to very poorly drained soils adjacent to perennial streams in the coastal plain province that are subject to frequent stream overflow. These soils formed in sediments that are quite variable in texture. Slopes range from 0 to 3 percent. Depth to seasonal high water table averages approximately 6 inches. These are considered to be hydric soils. They are included within Hydrologic Group D.

Fort Mott loamy sand, 0 to 5 percent slopes (FodB), 5 to 10 percent slopes (FodC): The Fort Mott series consists of very deep well drained soils on uplands. They formed in acidic, moderately coarse textured coastal plain sediments. Typically, these soils have a loamy sand surface layer about 30 inches thick. The top 8 inches is dark grayish brown loose loamy sand and the lower part from 8 to 30 inches is yellowish brown loose loamy sand. The subsoil from 30 to 49 inches is yellowish brown sandy loam. The substratum from 49 to 65 inches is strong brown loose loamy sand. Slopes range from 0 to 10 percent. Depth to seasonal high water table averages greater than 5 or 6 feet. These are not considered to be hydric soils. They are included within Hydrologic Group A.

Galestown loamy sand, 0 to 5 percent slopes (GadB): The Galestown series consists of very deep, somewhat excessively drained soils on uplands. They formed in marine, eolian, and alluvial sediments. Typically these soils have a dark brown loamy sand surface layer 11 inches thick. The subsoil, from 11 to 29 inches, is yellowish brown loamy sand, and from 29 to 40 inches, is strong brown loamy sand. The substratum, from 40 to 65 inches, is brownish yellow sand. Slopes range from 0 to 5 percent. Depth to seasonal high water table averages greater than 5 feet. These are not considered to be hydric soils. They are included within Hydrologic Group A.

Glassboro and Woodstown sandy loams, 0 to 5 percent slopes (GKAWOB): The Glassboro series consists of deep, somewhat poorly drained soils that formed in loamy fluvial or marine sediments on stream terraces and on the lower coastal plain. Typically, they have a dark grayish brown fine sandy loam surface about 9 inches thick. The subsoil from 9 to 17 inches is mottled light olive brown fine sandy loam. Below 17 inches, it is mottled grayish brown fine sandy loam to 37 inches. The substratum from 37

to 66 inches is mottled brownish yellow fine sand. Slopes range from 0 to 5 percent. Depth to seasonal high water table averages approximately 1 foot.

The Woodstown series consists of deep, moderately well-drained soils on uplands and terraces. They formed in marine and alluvial coastal plain sediments. Typically, these soils have a dark grayish-brown sandy loam surface layer, 7 inches thick, and a subsurface layer, from 7 to 11 inches, of light yellowish-brown sandy loam. The light olive brown sandy clay loam subsoil, from 11 to 29 inches, is mottled in the lower part. The substratum layers, from 29 to 70 inches, are sandy loam and loamy sand. Slopes range from 0 to 5 percent. Depth to seasonal high water table averages between 2 to 3 feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Lenoir-Keyport silt loams, 0 to 5 percent slopes (LenB): The Keyport series consists of very deep, moderately well drained soils on uplands. They formed in northern coastal plain sediments. Typically these soils have a dark brown silt loam surface layer 10 inches thick. The subsoil layers from 10 to 44 inches are yellowish brown and dark yellowish brown silty clay loam. The upper substratum from 44 to 60 inches is dark gray silty clay loam and the lower substratum from 60 to 72 inches is dark gray stratified clay to loamy sand. Slopes range from 0 to 5 percent. Depth to seasonal high water table averages approximately 2 feet. These are not considered to be hydric soils. They are included within Hydrologic Group D.

Matapeake loam, 0 to 2 percent slopes (MbpA), Matapeake loam, 2 to 5 percent slopes (MbpB): The Matapeake series consists of very deep, well-drained soils on coastal plain uplands. They formed in a silty mantle and the underlying sandy sediments. Typically, these soils have grayish-brown and light yellowish-brown silt loam surface layers to a depth of 11 inches. The subsoil, from 11 to 34 inches, is yellowish-brown and strong brown silt loam. From 34 to 38 inches, the subsoil is strong brown sandy loam. The substratum layers, from 38 to 62 inches, are light yellowish-brown sandy loam and pale yellow loamy sand. Slopes range from 0 to 5 percent. Depth to seasonal high water table averages greater than 6 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Mattapex and Bertie loams, 0 to 5 percent slopes (MBYB): The Mattapex series consists of very deep, moderately well drained soils formed in silty sediments overlying coarser sediments of marine or alluvial origin. Typically, these soils have a dark grayish-brown loam surface layer, 11 inches thick. The subsoil from 11 to 15 inches is brown loam, from 15 to 26 inches is yellowish-brown silty clay loam, and from 26 to 36 inches is mottled light olive brown silty clay loam. The mottled substratum from 36 to 60 inches is yellowish-brown fine sandy loam. Slopes range from 0 to 5 percent. Depth to seasonal high water table averages approximately 1½ feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Othello silt loam, 0 to 2 percent slopes (OthA): The Othello series consists of very deep, poorly drained soils on uplands. They formed in silty material underlain by coarser sediment. Typically, these soils have a dark grayish-brown silt loam surface, 9 inches thick. The subsoil between 9 and 18 inches is light olive gray silty clay loam with prominent yellowish-brown mottles, and between 18 and 29 inches is light gray, silty clay loam with prominent yellowish-brown mottles. A mottled gray sandy loam substrata grades into a light gray loamy sand below 29 inches. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages approximately 6 inches. These are considered to be hydric soils. They are included within Hydrologic Groups C/D.

Portsmouth variant silt loam, 0 to 2 percent slopes (PortA): The Portsmouth series consists of very poorly drained, nearly level soils on flat and slight depressions on the lower coastal plain and stream terraces. In a representative profile, the surface layer is black fine sandy loam about 12 inches thick. The subsurface layer is gray fine sandy loam about 7 inches thick. The subsoil is mottled gray and dark gray fine sandy loam in the upper part. Sandy clay loam in the middle part, and sandy loam in the lower part of the subsoil is about 19 inches thick, underlain by gray sand and course sand to 72 inches. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages approximately 6 inches. These are considered to be hydric soils. They are included within Hydrologic Groups B/D.

Sandy and silty land, strongly sloping (SaaD): No Map Unit Description Category data are currently available for the specified Soil Survey Area. The soil is excessively drained. Depth to seasonal high water table averages approximately 6 feet. These are not considered to be hydric soils. They are included within Hydrologic Group A.

Sassafras sandy loam, 2 to 5 percent slopes (SacB), 5 to 10 percent slopes (SacC), 5 to 10 percent slopes, eroded (SacC2), and Sassafras sandy clay loam, 5 to 10 percent slopes, severely eroded (SagC3): The Sassafras series consists of very deep, well-drained soils on uplands. They formed in marine or alluvial coastal plain sediments. Typically, these soils have a brown sandy loam surface layer, 9 inches thick. The subsoil, from 9 to 21 inches, is yellowish-brown loam, from 21 to 32 inches, is brown sandy clay loam, and from 32 to 40 inches, is strong brown sandy loam. The substratum, from 40 to 52 inches, is strong brown gravelly sandy loam and, from 52 to 70 inches, is brownish-yellow loamy sand. Slopes range from 0 to 10 percent. Depth to seasonal high water table averages 5 to 6 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Sassafras-Woodstown sandy loams, 2 to 5 percent slopes (SaoB): The Woodstown series consists of deep, moderately well-drained soils on uplands and terraces. They formed in marine and alluvial coastal plain sediments. Typically, these soils have a dark grayish-brown sandy loam surface layer, 7 inches thick, and a subsurface layer, from 7 to 11 inches, of light yellowish-brown sandy loam. The light olive brown sandy clay loam subsoil, from 11 to 29 inches, is mottled in the lower part. The substratum layers, from 29 to 70 inches, are sandy loam and loamy sand. Slopes range from 2 to 5 percent. Depth to seasonal high water table averages approximately 6 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Tinton loamy sand, 0 to 5 percent slopes (ThgB): The Tinton series consists of deep, well-drained to excessively drained soils on terraces and uplands. They formed in coastal plain sediments, containing small amounts of glauconite. Typically these soils have a grayish brown sand surface layer 12 inches thick. A subsurface layer from 12 to 26 inches is yellowish-brown fine sand. The subsoil from 26 to 40 inches is dark yellowish-brown fine sandy loam. The yellowish-brown substratum from 40 to 50 inches is loamy sand and from 50 to 60 inches is fine sandy loam. Slopes range from 0 to 25 percent. Depth to seasonal high water table averages greater than 5 feet. These are not considered to be hydric soils. They are included within Hydrologic Group A.

Udorthents, gravelly substratum, 0 to 8 percent slopes (UdgB): No Map Unit Description Category data are currently available for the specified Soil Survey Area. The soil is well drained. Depth to seasonal high water table is greater than 5 feet. These are not considered to be hydric soils. They are included within Hydrologic Group A.

Woodstown-Fallsington sandy loams, 0 to 5 percent slopes (WomfB): The Fallsington series consists of very deep, poorly-drained soils on upland flats and in depressions. They formed in stratified coastal plain sediments of marine or alluvial origin. Typically these soils have a dark gray sandy loam surface layer 10 inches thick. The subsoil is mottled gray sandy clay loam from 10 to 32 inches and mottled light gray loamy sand to 40 inches. The substratum is stratified light gray sandy clay loam and sand. Slopes range from 0 to 10 percent. The Woodstown series consists of deep, moderately well-drained soils on uplands and terraces. They formed in marine and alluvial coastal plain sediments. Typically, these soils have a dark grayish-brown sandy loam surface layer, 7 inches thick, and a subsurface layer, from 7 to 11 inches, of light yellowish-brown sandy loam. The light olive brown sandy clay loam subsoil, from 11 to 29 inches, is mottled in the lower part. The substratum layers, from 29 to 70 inches, are sandy loam and loamy sand. Slopes range from 0 to 5 percent. Depth to seasonal high water table averages approximately 2½ feet. These are considered to be hydric soils. They are included within Hydrologic Group C.

Middlesex County Soils

The Middlesex County soils discussed below are specifically depicted in Figures 3-14d through 3-14f.

Atsion sand, 0 to 2 percent slopes (AtsA): The Atsion series consists of deep, poorly drained soils on uplands. They formed in coastal plain sediments. Typically these soils have a dark gray sand surface layer over 10 inches of light gray sand. The subsoil from 18 to 24 inches is very dark brown sand and from 24 to 36 inches is very dark gray sand. The substratum from 36 to 60 inches is brown loose sand. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages approximately 0 feet. These are considered to be hydric soils. They are included within Hydrologic Groups C/D.

Downer loamy sand 5 to 10 percent slopes (DocC): The Downer series consists of very deep, well-drained soils on uplands. They formed in acidic, moderately coarse textured coastal plain sediments. Typically these soils have a dark grayish-brown loamy sand surface layer 18 inches thick. The subsoil from 18 to 30 inches is yellowish-brown sandy loam. The substratum from 30 to 40 inches is loose loamy sand. Below 40 inches, the range includes stratified layers of gravel to sandy clay loam. Slopes range from 0 to 10 percent. Depth to seasonal high water table averages greater than 5 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Downer-Urban land complex, 5 to 10 percent slopes (DouC), and 10 to 15 percent slopes (DouD): The Downer series consists of very deep, well-drained soils on uplands. They formed in acidic, moderately coarse textured coastal plain sediments. Typically these soils have a dark grayish-brown loamy sand surface layer 18 inches thick. The subsoil from 18 to 30 inches is yellowish-brown sandy loam. The substratum from 30 to 40 inches is loose loamy sand. Below 40 inches, the range includes stratified layers of gravel to sandy clay loam. Slopes range from 0 to 30 percent. Urban land is land mostly covered by streets, parking lots, buildings, and other structures of urban areas. Slopes range from 0 to 15 percent. Depth to seasonal high water table averages greater than 6 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Elkton loam, 0 to 2 percent slopes, rarely flooded (EkaAr): The Elkton series consists of very deep, poorly drained soils formed in loamy / clayey deposits of the midatlantic coastal plain. They are on lowlands, depressions, and ancient floodplains. Typically the surface layer is dark olive gray silt loam 1 inch thick. The subsurface layer is gray silt loam 9 inches thick. The subsoil from 10 to 40 inches is gray silty clay loam with prominent mottles. The substratum from 40 to 65 inches is gray very fine sandy loam. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages 0 to 6 inches. These are considered to be hydric soils. They are included within Hydrologic Groups C/D.

Fallsington sandy loam, 0 to 2 percent slopes (FamA): No Map Unit Description Category data are currently available for the specified Soil Survey Area. This soil is poorly drained. Depth to seasonal high water table averages approximately 0 feet. These are considered to be hydric soils. They are included within Hydrologic Groups B/D.

Fallsington loam, 0 to 2 percent slopes (FapA): The Fallsington series consists of very deep, poorly drained soils on upland flats and in depressions. They formed in stratified coastal plain sediments of marine or alluvial origin. Typically these soils have a dark gray sandy loam surface layer 10 inches thick. The subsoil is mottled gray sandy clay loam from 10 to 32 inches and mottled light gray loamy sand from 32 to 40 inches. The substratum is stratified light gray sandy clay loam and sand. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages approximately 0 feet. These are considered to be hydric soils. They are included within Hydrologic Groups B/D.

Fluvaquents, loamy, 0 to 3 percent slopes, frequently flooded (FmhAt): Fluvaquents, loamy consist of very deep, poorly and somewhat poorly drained soils on floodplains. They formed in alluvium. Typically these soils have a reddish-brown silt loam surface layer 7 inches thick. The mottled silt loam subsoil is reddish-brown from 7 to 16 inches and pinkish-gray from 16 to 35 inches. The substratum from 35 to 52 inches is pinkish-gray sandy loam and below 52 inches is variegated pinkish-gray stratified sand and gravel. Slopes range from 0 to 3 percent. Depth to seasonal high water table averages approximately 6 inches. These are considered to be hydric soils. They are included within Hydrologic Groups B/D.

Galloway, clayey substratum-Urban land complex, 0 to 5 percent slopes (GaokB): The Galloway series consists of deep, moderately well-drained soil on uplands. They formed in coarse-textured coastal plain sediments. Typically, these soils have a loamy sand surface layer that is 9 inches thick, which is grayish-brown in the upper part and light brownish-gray in the lower part. The substratum from 9 to 39 inches is olive-yellow loamy sand, and from 39 to 47 inches it is light brownish-gray sand. The IIC horizon from 47 to 60 inches is yellowish-brown coarse sand. Slopes range from 0 to 5 percent. Depth to seasonal high water table averages approximately 2 to 3 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Hammonton loamy sand, 0 to 2 percent slopes (HboA): The Hammonton series consists of very deep, moderately well-drained soils on uplands. They formed in acidic, moderately coarse textured coastal plain sediments. Typically, these soils have a very dark grayish-brown loamy sand surface layer 8 inches thick and a yellowish brown loamy sand subsurface layer from 8 to 18 inches. The subsoil between 18 and 36 inches is mottled yellowish-brown sandy loam. The substratum from 36 to 60 inches is loose brownish-yellow sand. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages approximately 1½ to 3 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Humaquepts, 0 to 3 percent slopes, frequently flooded (HumAt): Humaquepts, frequently flooded consist of deep, somewhat poorly drained to very poorly drained soils adjacent to perennial streams in the coastal plain province that are subject to frequent stream overflow. These soils formed in sediments that are quite variable in texture. Slopes range from 0 to 3 percent. Depth to seasonal high water table averages approximately 6 inches. These are considered to be hydric soils. They are included within Hydrologic Group D.

Keyport sandy loam, 2 to 5 percent slopes (KemB), Keyport loam, 0 to 2 percent slopes (KeoA), Keyport loam, 2 to 5 percent slopes (KeoB), Keyport loam, 5 to 10 percent slopes (KeoC), Keyport loam, 10 to 15 percent slopes (KeoD): The Keyport series consists of very deep, moderately well-drained soils on uplands. They formed in northern coastal plain sediments. Typically these soils have a dark brown silt loam surface layer that is 10 inches thick. The subsoil layers from 10 to 44 inches are yellowish-brown and dark yellowish-brown silty clay loam. The upper substratum from 44 to 60 inches is dark gray silty clay loam and the lower substratum from 60 to 72 inches is dark gray stratified clay to loamy sand. Slopes range from 0 to 15 percent. Depth to seasonal high water table averages approximately 2 feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Klinesville channery loam, 18 to 35 percent slopes (KkoE): No Map Unit Description Category data are currently available for the specified Soil Survey Area. This soil is somewhat excessively drained. Depth to seasonal high water table averages greater than 5 feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Lakehurst sand, 0 to 5 percent slopes (LakB): The Lakehurst series consists of deep, moderately well or somewhat poorly drained soils on uplands. They formed in acidic, sandy coastal plain sediments. Typically in woodland areas these soils have a dark gray sand surface 3 inches thick and a light gray sand layer from 3 to 15 inches. The subsoil between 15 and 18 inches is dark brown loamy sand. The lower part of the subsoil from 18 to 36 inches is yellowish-brown sand. The substratum from 36 to 60 inches is pale brown loose sand. Slopes range from 0 to 5 percent. Depth to seasonal high water table averages approximately 1½ feet. These are not considered to be hydric soils. They are included within Hydrologic Group A.

Manahawkin muck, frequently flooded, 0 to 2 percent slopes (MakAt): The Manahawkin series consists of very deep, very poorly drained soils formed in organic deposits, over sand and gravel. Typically, they have a black surface and subsurface layer of highly decomposed organic material, 39 inches thick. The substratum to a depth of 60 inches is gray sand. Manahawkin soils are in low positions in back swamps, lake basins, and along fresh water channels as they open to tide water. Slopes range from

0 to 2 percent. Depth to seasonal high water table averages approximately 0 feet. These are considered to be hydric soils. They are included within Hydrologic Group D.

Matapeake, silt loam, 0 to 2 percent slopes (MbrA): The Matapeake series consists of very deep, well-drained soils on coastal plain uplands. They formed in a silty mantle and the underlying sandy sediments. Typically, these soils have grayish-brown and light yellowish-brown silt loam surface layers to a depth of 11 inches. The subsoil, from 11 to 34 inches, is yellowish-brown and strong brown silt loam. From 34 to 38 inches, the subsoil is strong brown sandy loam. The substratum layers, from 38 to 62 inches, are light yellowish-brown sandy loam and pale yellow loamy sand. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages approximately 6 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Mattapex silt loam, 0 to 2 percent slopes (MbuA): The Mattapex series consists of very deep, moderately well drained soils formed in silty sediments overlying coarser sediments of marine or alluvial origin. Typically, these soils have a dark grayish-brown loam surface layer, 11 inches thick. The subsoil from 11 to 15 inches is brown loam, from 15 to 26 inches is yellowish-brown silty clay loam, and from 26 to 36 inches is mottled light olive-brown silty clay loam. The mottled substratum from 36 to 60 inches is yellowish-brown fine sandy loam. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages approximately 1½ feet. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Pits, sand and gravel (PHG): Psamments are excessively drained to well drained sandy fill land that has been smoothed. The thickness of the fill ranges from 24 to 48 inches but is dominantly 36 inches. Gravel content ranges from 0 to 50 percent. Slopes range from 0 to 5 percent.

Pits, clay (PHM): No Map Unit Description Category data is currently available for the specified Soil Survey Area. This soil is somewhat poorly drained. Depth to seasonal high water table averages approximately 1 feet. These are not considered to be hydric soils. They are included within Hydrologic Groups C.

Psamments, 0 to 3 percent slopes (PssA): Psamments are excessively drained to well drained sandy fill land that has been smoothed. The thickness of the fill ranges from 24 to 48 inches but is dominantly 36 inches. Gravel content ranges from 0 to 50 percent. Slopes range from 0 to 3 percent. Depth to seasonal high water table averages approximately 4 feet. These are not considered to be hydric soils. They are included within Hydrologic Group A.

Sassafras sandy loam, 2 to 5 percent slopes (SacB), 5 to 10 percent slopes (SacC): The Sassafras series consists of very deep, well-drained soils on uplands. They formed in marine or alluvial coastal plain sediments. Typically, these soils have a brown sandy loam surface layer, 9 inches thick. The subsoil, from 9 to 21 inches, is yellowish-brown loam, from 21 to 32 inches, is brown sandy clay loam, and, from 32 to 40 inches, is strong brown sandy loam. The substratum, from 40 to 52 inches, is strong brown gravelly sandy loam and, from 52 to 70 inches, is brownish-yellow loamy sand. Slopes range from 2 to 10 percent.

Sassafras gravelly sandy loam, 2 to 5 percent slopes (SadB), 5 to 10 percent slopes (SadC), 10 to 15 percent slopes (SadD): The Sassafras series consists of deep, well-drained soils on uplands. They formed in marine or alluvial coastal plain sediments. Typically, these soils have a brown gravelly sandy loam surface layer, 9 inches thick. The subsoil, from 9 to 21 inches, is yellowish-brown loam, from 21 to 32 inches, is brown sandy clay loam, and, from 32 to 40 in., is strong brown sandy loam. The substratum, from 40 to 52 inches, is strong brown gravelly sandy loam and, from 52 to 70 in., is brownish-yellow loamy sand. Slopes range from 2 to 15 percent. Depth to seasonal high water table averages approximately 6 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Sassafras loam, 0 to 2 percent slopes (SafA): The Sassafras series consists of very deep, well-drained soils on uplands. They formed in marine or alluvial coastal plain sediments. Typically, these soils have a

brown sandy loam surface layer, 9 inches thick. The subsoil, from 9 to 21 inches, is yellowish-brown loam, from 21 to 32 inches, is brown sandy clay loam, and, from 32 to 40 inches, is strong brown sandy loam. The substratum, from 40 to 52 inches, is strong brown gravelly sandy loam and, from 52 to 70 inches, is brownish-yellow loamy sand. Slopes range from 0 to 2 percent. Depth to seasonal high water table averages approximately 6 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Sassafras-Urban land complex, 0 to 5 percent slopes (SapB): Urban land is land mostly covered by streets, parking lots, buildings, and other structures of urban areas. Slopes range from 0 to 45 percent.

The Sassafras series consists of very deep, well-drained soils on uplands. They formed in marine or alluvial coastal plain sediments. Typically, these soils have a brown sandy loam surface layer, 9 inches thick. The subsoil, from 9 to 21 inches, is yellowish-brown loam, from 21 to 32 inches, is brown sandy clay loam, and, from 32 to 40 inches, is strong brown sandy loam. The substratum, from 40 to 52 inches, is strong brown gravelly sandy loam and, from 52 to 70 inches, is brownish-yellow loamy sand. Slopes range from 0 to 60 percent. Depth to seasonal high water table is greater than 5 feet. These are not considered to be hydric soils. They are included within Hydrologic Group B.

Udorthents, clayey substratum, 0 to 8 percent slopes (UdcB): No Map Unit Description Category data is currently available for the specified Soil Survey Area. Depth to seasonal high water table is greater than 5 feet. This soil is somewhat poorly drained. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Urban land, 0 to 45 percent slopes (UR): Urban land is land mostly covered by streets, parking lots, buildings, and other structures of urban areas. These are not considered to be hydric soils.

Woodstown sandy loam, 0 to 2 percent slopes (WoeA), 2 to 5 percent slopes (WoeB): The Woodstown series consists of deep, moderately well-drained soils on uplands and terraces. They formed in marine and alluvial coastal plain sediments. Typically, these soils have a dark grayish-brown sandy loam surface layer, 7 inches thick, and a subsurface layer, from 7 to 11 inches, of light yellowish-brown sandy loam. The light olive brown sandy clay loam subsoil, from 11 to 29 inches, is mottled in the lower part. The substratum layers, from 29 to 70 inches, are sandy loam and loamy sand. Slopes range from 0 to 5 percent. Depth to seasonal high water table is approximately 1.5 feet. This soil is moderately well drained. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Woodstown loam, 0 to 2 percent slopes (WogA): The Woodstown series consists of deep, moderately well-drained soils on uplands and terraces. They formed in marine and alluvial coastal plain sediments. Typically, these soils have a dark grayish-brown sandy loam surface layer, 7 inches thick, and a subsurface layer, from 7 to 11 inches, of light yellowish-brown sandy loam. The light olive brown sandy clay loam subsoil, from 11 to 29 inches, is mottled in the lower part. The substratum layers, from 29 to 70 inches, are sandy loam and loamy sand. Slopes range from 0 to 2 percent. Depth to seasonal high water table is approximately 1.5 feet. This soil is moderately well drained. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Woodstown-Urban land complex, 0 to 5 percent slopes (WooB): Urban land is land mostly covered by streets, parking lots, buildings, and other structures of urban areas. Slopes range from 0 to 5 percent. Depth to seasonal high water table is approximately 1.5 feet. This soil is moderately well drained. These are not considered to be hydric soils. They are included within Hydrologic Group C.

Appendix A
Soil Erodibility Factors for Soil Types in the Project Corridor

BURLINGTON COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
AdmA:										NHEL
Adelphia	0-10	-	-	5-25	.32	.32	5	3	86	
	10-14	-	-	5-25	.32					
	14-30	-	-	20-35	.32					
	30-60	-	-	5-15	.24					
Shrewsbury	0-10	-	-	5-20	.32	.32	5	8	0	
	10-14	-	-	5-20	.32					
	14-24	-	-	15-35	.28					
	24-32	-	-	15-35	.28					
	32-60	-	-	5-15	.24					
AdmkA:										NHEL
Adelphia, clayey substratum	0-10	-	-	5-25	.32	.32	5	3	86	
	10-14	-	-	5-25	.32					
	14-30	-	-	20-35	.32					
	30-40	-	-	5-15	.24					
	40-60	-	-	25-40	.28					
Shrewsbury	0-10	-	-	-	.32	.32	5	8	0	
	10-14	-	-	5-20	.32					
	14-24	-	-	15-35	.28					
	24-32	-	-	15-35	.28					
	32-40	-	-	5-15	.24					
	40-60	-	-	5-15	.28					
AdmkB:										PHEL
Adelphia, clayey substratum	0-10	-	-	5-25	.32	.32	5	3	86	
	10-14	-	-	5-25	.32					
	14-30	-	-	20-35	.32					
	30-40	-	-	5-15	.24					
	40-60	-	-	25-40	.28					
ComB:										PHEL
Collington	0-10	-	-	10-20	.32	.32	5	3	86	
	10-14	-	-	10-20	.32					

BURLINGTON COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
	14-20	-	-	15-35	.32					
	20-32	-	-	15-35	.32					
	32-38	-	-	15-35	.32					
	38-60	-	-	5-15	.24					
ComC:										PHEL
Collington	0-10	-	-	10-20	.32	.32	5	3	86	
	10-14	-	-	10-20	.32					
	14-20	-	-	15-35	.32					
	20-32	-	-	15-35	.32					
	32-38	-	-	15-35	.32					
	38-60	-	-	5-15	.24					
DoaA:										PHEL
Donlonton	0-10	-	-	5-20	.37	.37	3	3	86	
	10-28	-	-	30-50	.43					
	28-36	-	-	30-50	.43					
	36-48	-	-	15-35	.37					
	48-60	-	-	15-35	.37					
DobA:										PHEL
Donlonton	0-10	-	-	5-20	.37	.37	3	5	56	
	10-28	-	-	30-50	.43					
	28-36	-	-	30-50	.43					
	36-48	-	-	15-35	.37					
	48-60	-	-	15-35	.37					
Shrewsbury	0-10	-	-	5-20	.32	.32	5	8	0	
	10-14	-	-	5-20	.32					
	14-24	-	-	15-35	.28					
	24-32	-	-	15-35	.28					
	32-60	-	-	5-15	.24					
FanA:										NHEL
Fallsington	0-12	-	-	5-18	.28	.28	5	8	0	
	12-14	-	-	5-18	.28					
	14-34	-	-	18-30	.37					
	34-60	-	-	2-9	.20					
FankA:										NHEL

BURLINGTON COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
Fallsington, clayey substratum	0-12	-	-	5-18	.28	.28	5	8	0	
	12-14	-	-	5-18	.28					
	14-34	-	-	18-30	.37					
	34-40	-	-	18-30	.37					
	40-60	-	-	2-30	.32					
FmhAt:										NHEL
Fluvaquents	0-5	23-52	28-50	7-27	.32	.32	5	8	0	
	5-12	20-50	50-80	12-27	.43					
	12-18	45-80	5-25	20-35	.37					
	18-24	45-80	5-25	20-35	.37					
	24-50	43-85	10-45	5-15	.17					
Udifluvents	0-3	43-85	5-45	2-12	.28	.28	2	3	86	
	3-16	43-85	5-45	2-12	.28					
	16-22	65-90	2-25	2-18	.24					
	22-27	65-90	2-25	2-18	.24					
	27-32	65-90	2-25	2-18	.24					
	32-50	43-85	5-45	2-12	.28					
FrmD:										HEL
Freehold	0-11	-	-	10-15	.32	.32	5	3	86	
	11-15	-	-	10-15	.32	.32				
	15-22	-	-	15-30	.32	.32				
	22-30	-	-	15-30	.32	.32				
	30-35	-	-	15-30	.32	.32				
	35-60	-	-	3-12	.24	.24				
FrmkB:										PHEL
Freehold, clayey substratum	0-11	-	-	10-15	.32	.32	5	3	86	
	11-15	-	-	10-15	.32	.32				
	15-22	-	-	15-30	.32	.32				
	22-35	-	-	15-30	.32	.32				
	35-40	-	-	3-12	.24	.24				
	40-60	-	-	60-70	.28	.28				
HodA:										NHEL
Holmdel	0-10	-	-	10-15	.32	.32	5	3	86	
	10-14	-	-	15-30	.32	.32				

BURLINGTON COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
	14-21	-	-	15-30	.32	.32				
	21-34	-	-	15-30	.32	.32				
	34-60	-	-	2-15	.28	.28				
Shrewsbury	0-10	-	-	5-20	.32	.32	5	8	0	
	10-14	-	-	5-20	.32					
	14-24	-	-	15-35	.28					
	24-32	-	-	15-35	.28					
	32-60	-	-	5-15	.24					
HodB:										PHEL
Holmdel	0-10	-	-	10-15	.32	.32	5	3	86	
	10-14	-	-	15-30	.32					
	14-21	-	-	15-30	.32					
	21-34	-	-	15-30	.32					
	34-60	-	-	2-15	.28					
HodkA:										NHEL
Holmdel, clayey substratum	0-10	-	-	10-15	.32	.32	5	3	86	
	10-14	-	-	15-30	.32	.32				
	14-21	-	-	15-30	.32	.32				
	21-34	-	-	15-30	.32	.32				
	34-40	-	-	2-15	.28	.28				
	40-60	-	-	2-15	.28	.28				
Shrewsbury	0-10	-	-	5-20	.32	.32	5	8	0	
	10-14	-	-	5-20	.32	.32				
	14-24	-	-	15-35	.28	.28				
	24-32	-	-	15-35	.28	.28				
	32-40	-	-	5-15	.24	.24				
	40-60	-	-	5-15	.28	.28				
HodkB:										PHEL
Holmdel, clayey substratum	0-10	-	-	10-15	.32	.32	5	3	86	
	10-14	-	-	15-30	.32	.32				
	14-21	-	-	15-30	.32	.32				
	21-34	-	-	15-30	.32	.32				
	34-40	-	-	2-15	.28	.28				
	40-60	-	-	2-15	.28	.28				

BURLINGTON COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol Soil name	Depth (in)	Sand (%)	Silt (%)	Clay (%)	Erosion factors			Wind Erodibility Group	Wind Erodibility Index	HEL Class
					Kw	Kf	T			
KenB:										PHEL
Keyport	0-10	-	-	5-20	.32	.32	3	3	86	
	10-16	-	-	5-20	.32	.32				
	16-24	-	-	30-50	.43	.43				
	24-38	-	-	30-50	.43	.43				
	38-60	-	-	30-50	.43	.43				
KeoA:										PHEL
Keyport	0-12	23-52	28-50	7-27	.37	.37	3	5	56	
	12-18	20-45	20-39	35-55	.20	.20				
	18-24	10-45	20-60	40-55	.20	.20				
	24-32	10-45	20-60	40-55	.20	.20				
	32-41	10-45	20-70	30-55	.24	.24				
	41-55	10-45	20-73	27-40	.37	.37				
	55-80	10-85	5-73	3-40	.37	.37				
Fallsington	0-2	0-52	0-50	0-27	.05	.05	5	5	56	
	2-5	23-52	28-50	7-27	.28	.28				
	5-8	43-85	5-55	18-20	.28	.28				
	8-14	43-85	5-55	18-20	.28	.28				
	14-31	23-80	5-50	18-35	.20	.20				
	31-62	43-95	4-40	3-18	.10	.10				
	62-80	43-95	4-40	2-18	.05	.10				
Lenni	0-5	23-52	28-50	7-27	.32	.32	3	5	56	
	5-10	20-52	15-53	25-40	.24	.24				
	10-18	10-45	20-60	40-55	.20	.20				
	18-33	10-45	20-73	27-40	.28	.28				
	33-45	55-80	5-42	6-15	.24	.24				
	45-80	43-89	5-55	5-12	.24	.24				
Sassafras	0-12	55-80	5-42	6-15	.28	.28	5	3	86	
	12-18	43-85	5-55	18-20	.28	.28				
	18-28	46-79	10-35	20-34	.32	.32				
	28-40	43-85	5-50	3-16	.20	.20				
	40-58	43-95	4-40	2-18	.15	.15				
	58-80	43-95	4-40	2-18	.15	.15				
KeoB:										PHEL
Keyport	0-8	23-52	28-50	10-25	.37	.37	3	5	56	

BURLINGTON COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
	8-15	1-45	1-73	30-50	.43	.43				
	15-27	1-45	1-73	30-50	.43	.43				
	27-40	1-45	1-73	30-50	.43	.43				
	40-60	1-45	1-73	30-50	.43	.43				
KeoC:										HEL
Keyport	0-10	23-52	28-50	7-27	.37	.37	3	5	56	
	10-16	23-52	28-50	7-27	.37	.37				
	16-24	20-45	15-53	27-40	.43	.43				
	24-38	20-45	15-53	27-40	.43	.43				
	38-60	20-45	15-53	27-40	.43	.43				
Collington	0-9	55-80	5-42	6-15	.28	.28	5	3	86	
	9-22	23-80	10-50	18-30	.32	.32				
	22-30	20-52	15-53	18-35	.32	.32				
	30-38	55-75	17-42	5-15	.28	.28				
	38-43	45-89	3-49	2-19	.32	.32				
	43-80	45-89	3-49	2-19	.32	.32				
Sassafras	0-12	55-80	5-42	6-15	.28	.28	5	3	86	
	12-18	43-85	5-55	18-20	.28					
	18-28	46-79	10-35	20-34	.32					
	28-40	43-85	5-50	3-16	.20					
	40-58	43-95	4-40	2-18	.15					
	58-80	43-95	4-40	2-18	.15					
KeoD:										HEL
Keyport	0-10	23-52	28-50	10-25	.37	.37	3	5	56	
	10-16	23-52	28-50	10-25	.37	.37				
	16-24	1-45	1-53	30-50	.43	.43				
	24-38	1-45	1-53	30-50	.43	.43				
	38-60	1-45	1-53	30-50	.43	.43				
KeoE:										HEL
Keyport	0-10	-	-	10-25	.37	.37	3	5	56	
	10-16	-	-	10-25	.37	.37				
	16-24	-	-	30-50	.43	.43				
	24-38	-	-	30-50	.43	.43				
	38-60	-	-	30-50	.43	.43				
PHG:										NHEL

BURLINGTON COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
Pits, sand and gravel	0-6	86-100	0-14	0-9	.02	.15	5	8	0	
	6-60	86-100	0-14	0-9	.17	.17				
PHM:										NHEL
Pits, clay	0-10	45-65	1-20	35-60	.32	.32	5	4	86	
	10-60	1-65	1-53	27-60	.37	.37				
SaeA:										NHEL
Sassafras	0-10	-	-	3-12	.32	.32	5	3	86	
	10-14	-	-	3-12	.32	.32				
	14-28	-	-	18-27	.32	.32				
	28-34	-	-	18-27	.32	.32				
	34-60	-	-	3-16	.20	.20				
SaeB:										PHEL
Sassafras	0-10	-	-	3-12	.32	.32	5	3	86	
	10-14	-	-	3-12	.32	.32				
	14-28	-	-	18-27	.32	.32				
	28-34	-	-	18-27	.32	.32				
	34-60	-	-	3-16	.20	.20				
SaeC:										PHEL
Sassafras	0-10	-	-	3-12	.32	.32	5	3	86	
	10-28	-	-	18-27	.32	.32				
	28-34	-	-	18-27	.32	.32				
	34-60	-	-	3-16	.20	.20				
SaekB:										PHEL
Sassafras, clayey substratum	0-10	-	-	3-12	.32	.32	5	3	86	
	10-14	-	-	3-12	.32					
	14-28	-	-	18-27	.32					
	28-34	-	-	18-27	.32					
	34-40	-	-	3-16	.20					
	40-60	-	-	20-40	.32					
ShskA:										NHEL
Shrewsbury, clayey substratum	0-10	-	-	5-20	.32	.32	5	8	0	
	10-14	-	-	5-20	.32	.32				
	14-24	-	-	15-35	.28	.28				

BURLINGTON COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol Soil name	Depth (in)	Sand (%)	Silt (%)	Clay (%)	Erosion factors			Wind Erodibility Group	Wind Erodibility Index	HEL Class
					Kw	Kf	T			
	24-32	-	-	15-35	.28	.28				
	32-40	-	-	5-15	.24	.24				
	40-60	-	-	5-15	.28	.28				
URCLAB:										NHEL
Urban land, clayey substratum	0-6	-	-	35-60	.43	.43	5	4	86	
	6-60	-	-	30-60	.43	.43				
URSAAB:										NHEL
Urban land, sandy substratum	0-6	-	-	1-3	.15	.15	5	1	220	
	6-60	-	-	1-3	.15	.15				
URSACB:										NHEL
Urban land, sandy over clayey substratum	0-30	-	-	35-60	.24	.24	3	3	86	
	6-60	-	-	30-60	.43	.43				
WofA:										NHEL
Woodstown	0-10	-	-	5-18	.32	.32	5	3	86	
	10-14	-	-	5-18	.32	.32				
	14-24	-	-	18-30	.37	.37				
	24-34	-	-	18-30	.37	.37				
	34-60	-	-	5-20	.20	.20				
Fallsington	0-12	-	-	5-18	.28	.28	5	8	0	
	12-14	-	-	5-18	.28	.28				
	14-34	-	-	18-30	.37	.37				
	34-60	-	-	2-9	.20	.20				
WofB:										PHEL
Woodstown	0-10	-	-	5-18	.32	.32	5	3	86	
	10-14	-	-	5-18	.32	.32				
	14-24	-	-	18-30	.37	.37				
	24-34	-	-	18-30	.37	.37				
	34-60	-	-	5-20	.20	.20				
WofkA:										NHEL
Woodstown, clayey substratum	0-10	-	-	5-18	.32	.32	5	3	86	
	10-14	-	-	5-18	.32	.32				
	14-24	-	-	18-30	.37	.37				
	24-34	-	-	18-30	.37	.37				

BURLINGTON COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol Soil name	Depth (in)	Sand (%)	Silt (%)	Clay (%)	Erosion factors			Wind Erodibility Group	Wind Erodibility Index	HEL Class
					Kw	Kf	T			
	34-40	-	-	5-20	.20	.20				
	40-60	-	-	20-40	.37	.37				
Fallsington	0-12	-	-	5-18	.28	.28	5	8	0	
	12-14	-	-	5-18	.28	.28				
	14-34	-	-	18-30	.37	.37				
	34-40	-	-	18-30	.37	.37				
	40-60	-	-	2-30	.32	.32				
WofkB:										PHEL
Woodstown, clayey substratum	0-10	-	-	5-18	.32	.32	5	3	86	
	10-14	-	-	5-18	.32	.32				
	14-24	-	-	18-30	.37	.37				
	24-34	-	-	18-30	.37	.37				
	34-40	-	-	5-20	.20	.20				
	40-60	-	-	20-40	.37	.37				

HEL = Highly erodible land, PHEL = Potentially highly erodible land, NHEL = Not highly erodible land
Source: USDA-NRCS

MERCER COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol and Soil name	Depth (in)	Sand (%)	Silt (%)	Clay (%)	Erosion factors			Wind Erodibility Group	Wind Erodibility Index	HEL Class
					Kw	Kf	T			
EkbA:										PHEL
Elkton	0-6	-	-	11-25	.43	.43	3	8	0	
	6-10	-	-	27-45	.43	.43				
	10-25	-	-	27-45	.43	.43				
	25-60	-	-	27-45	.43	.43				
EvgB:										NHEL
Evesboro	0-4	-	-	1-4	.20	.20	5	2	134	
	4-18	-	-	1-4	.20	.20				
	18-36	-	-	3-6	.20	.20				
	36-60	-	-	1-10	.15	.15				
FamA:										NHEL
Fallsington	0-2	0-80	0-42	0-15	.05	.05	5	3	86	
	2-5	55-80	5-42	6-15	.24	.24				
	5-8	43-85	5-55	18-20	.28	.28				

MERCER COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol and Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
	8-14	43-85	5-55	18-20	.28	.28				
	14-31	23-80	5-50	18-35	.15	.20				
	31-62	43-95	4-40	3-18	.10	.10				
	62-80	43-95	4-40	2-18	.05	.10				
FmhAt:										NHEL
Fluvaquents	0-15	23-52	28-50	7-27	.32	.32	5	8	0	
	5-12	20-50	50-80	12-27	.43	.43				
	12-18	45-80	5-25	20-35	.32	.37				
	18-24	45-80	5-25	20-35	.32	.37				
	24-60	43-85	10-45	5-15	.10	.17				
FmhAv:										NHEL
Fluvaquents	0-10	-	-	2-40	.32	.32	4	8	0	
	10-60	-	-	2-40	.32	.32				
FodB:										PHEL
Fort Mott	0-8	70-90	1-30	1-15	.20	.20	5	1	220	
	8-30	70-90	1-30	1-15	.20	.20				
	30-33	43-85	1-50	1-20	.32	.32				
	33-49	43-85	1-50	1-20	.32	.32				
	49-72	70-90	1-30	1-15	.17	.20				
FodC:										PHEL
Fort Mott	0-8	-	-	5-10	.20	.20	5	2	134	
	8-20	-	-	5-10	.20	.20				
	20-33	-	-	5-10	.32	.32				
	33-40	-	-	10-30	.32	.32				
	40-60	-	-	5-15	.20	.20				
GadB:										NHEL
Galestown	0-2	-	-	4-10	.20	.20	5	2	134	
	2-7	-	-	4-10	.20	.20				
	7-32	-	-	4-10	.28	.28				
	32-60	-	-	2-6	.17	.17				
GKAWOB:										NHEL
Glassboro	0-10	-	-	4-12	.28	.28	5	3	86	
	10-13	-	-	4-12	.28	.28				
	13-18		-	10-18	.32	.32				
	18-26	-	-	10-18	.32	.32				

MERCER COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol and Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
	26-60	-	-	2-12	.28	.32				
Woodstown	0-11	-	-	5-18	.28	.28	5	3	86	NHEL
	11-17	-	-	18-30	.32	.32				
	17-23	-	-	18-30	.32	.32				
	23-30	-	-	18-30	.32	.32				
	30-48	-	-	18-30	.32	.32				
	48-60	-	-	5-20	.24	.24				
LenB:										PHEL
Lenoir	0-7	-	-	6-20	.43	.43	3	5	56	
	7-16	-	-	35-60	.43	.43				
	16-34	-	-	35-60	.43	.43				
	34-60	-	-	35-60	.43	.43				
Keyport	0-7	-	-	10-25	.43	.43	3	5	56	
	7-10	-	-	10-25	.43	.43				
	10-16	-	-	30-50	.43	.43				
	16-26	-	-	30-50	.43	.43				
	26-34	-	-	5-50	.49	.49				
	34-60	-	-	5-50	.49	.49				
MbpA:										NHEL
Matapeake	0-8	-	-	5-15	.37	.37	5	5	56	
	8-15	-	-	5-15	.37	.37				
	15-19	-	-	18-30	.43	.43				
	19-27	-	-	18-30	.43	.43				
	27-41	-	-	18-30	.43	.43				
	41-60	-	-	2-20	.28	.28				
MbpB:										PHEL
Matapeake	0-8	-	-	5-15	.37	.37	5	5	56	
	8-15	-	-	5-15	.37	.37				
	15-19	-	-	18-30	.43	.43				
	19-27	-	-	18-30	.43	.43				
	27-41	-	-	18-30	.43	.43				
	41-60	-	-	2-20	.28	.28				
MBYB:										PHEL
Mattapex	0-8	-	-	10-18	.37	.37	5	5	56	
	10-13	-	-	10-18	.37	.37				

MERCER COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol and Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
	13-19	-	-	18-30	.43	.43				
	19-33	-	-	18-30	.43	.43				
	33-41	-	-	8-15	..28	.28				
	41-60	-	-	3-8	.28	.28				
Mattapex	0-12	-	-	5-15	.37	.37	5	5	56	PHEL
	12-16	-	-	18-35	.43	.43				
	16-27	-	-	18-35	.43	.43				
	27-32	-	-	18-35	.43	.43				
	32-60	-	-	5-15	.24	.24				
OthA:										PHEL
Othello	0-5	10-50	50-80	12-27	.37	.37	5	8	0	
	5-9	0-50	40-80	12-40	.43	.43				
	9-28	0-50	40-80	12-40	.43	.43				
	28-38	0-50	40-80	12-40	.43	.43				
	38-46	71-89	4-29	3-14	.20	.20				
	46-60	85-96	1-12	2-9	.10	.10				
PortA:										NHEL
Portsmouth	0-9	-	-	20-27	.32	.32	4	8	0	
	9-13	-	-	20-27	.32	.32				
	13-18	-	-	20-35	.43	.43				
	18-26	-	-	20-35	.43	.43				
	26-31	-	-	2-10	.15	.15				
	31-60	-	-	2-10	.15	.15				
SaaD:										HEL
Gullied Land	0-16	-	-	1-4	.28	.28	4	4	86	
	16-30	-	-	3-6	.28	.28				
	30-72	-	-	1-10	.20	.20				
SacB:										PHEL
Sassafras	0-12	55-80	5-42	6-15	.28	.28	5	3	86	
	12-18	43-85	5-55	18-20	.28	.28				
	18-28	46-79	10-35	20-34	.32	.32				
	28-40	43-85	5-50	3-16	.20	.20				
	40-58	43-95	4-40	2-18	.15	.15				
	58-80	43-95	4-40	2-18	.15	.15				
SacC:										PHEL

MERCER COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol and Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
Sassafras	0-12	55-80	5-42	6-15	.28	.28	5	3	86	
	12-18	43-85	5-55	18-20	.28	.28				
	18-28	46-79	10-35	20-34	.32	.32				
	28-40	43-85	5-50	3-16	.20	.20				
	40-58	43-95	4-40	2-18	.15	.15				
	58-80	43-95	4-40	2-18	.15	.15				
SacC2:										PHEL
Sassafras, eroded	0-12	55-80	5-42	6-15	.28	.28	4	3	86	
	12-18	43-85	5-55	18-20	.28	.28				
	18-28	46-79	10-35	20-34	.32	.32				
	28-40	43-85	5-50	3-16	.20	.20				
	40-58	43-95	4-40	2-18	.15	.15				
	58-80	43-95	4-40	2-18	.15	.15				
SagC3:										HEL
Sassafras, severely eroded	0-8	-	-	3-12	.28	.28	4	5	56	
	8-32	-	-	18-27	.32	.32				
	32-60	-	-	3-12	.24	.28				
SaoB:										PHEL
Sassafras	0-12	-	-	3-12	.28	.28	5	3	86	
	12-43	-	-	18-27	.32	.32				
	43-60	-	-	3-16	.28	.28				
Woodstown	0-11	-	-	5-18	.28	.28	5	3	86	
	11-17	-	-	18-30	.32	.32				
	17-23	-	-	18-30	.32	.32				
	23-30	-	-	18-30	.32	.32				
	30-48	-	-	18-30	.32	.32				
	48-60	-	-	5-20	.24	.24				
ThgB:										PHEL
Tinton	0-7	70-90	1-30	1-7	.20	.20	5	2	134	
	7-32	70-90	1-30	1-7	.20	.20				
	32-46	43-85	1-50	5-35	.32	.32				
	46-60	43-100	1-50	2-15	.20	.20				
UdgB:										NHEL
Udorthents	0-10	-	-	0-1	.10	.15	5	1	220	

MERCER COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol and Soil name	Depth (in)	Sand (%)	Silt (%)	Clay (%)	Erosion factors			Wind Erodibility Group	Wind Erodibility Index	HEL Class
					Kw	Kf	T			
	10-72	-	-	0-1	.15	.17				
WomfB:										PHEL
Woodstown	0-11	-	-	5-18	.28	.28	5	3	86	
	11-17	-	-	18-30	.32	.32				
	17-23	-	-	18-30	.32	.32				
	23-30	-	-	18-30	.32	.32				
	30-48	-	-	18-30	.32	.32				
	48-60	-	-	5-20	.24	.24				
Fallsington	0-8	-	-	5-18	.24	.24	5	8	0	
	8-11	-	-	18-30	.32	.32				
	11-19	-	-	18-30	.32	.32				
	19-26	-	-	18-30	.15	.15				
	26-35	-	-	18-30	.15	.15				
	35-60	-	-	5-20	.15	.15				

HEL = Highly erodible land, PHEL = Potentially highly erodible land, NHEL = Not highly erodible land
Source: USDA-NRCS

MIDDLESEX COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol and Soil name	Depth (in)	Sand (%)	Silt (%)	Clay (%)	Erosion factors			Wind Erodibility Group	Wind Erodibility Index	HEL Class
					Kw	Kf	T			
AtsA:										NHEL
Atsion	0-2	0-98	0-7	0-7	.05	.05	5	8	0	
	2-4	85-96	2-12	2-9	.10	.10				
	4-26	85-96	2-12	2-9	.17	.17				
	26-34	70-96	2-25	2-14	.17	.17				
	34-46	70-96	2-25	2-14	.17	.17				
	46-51	85-96	2-12	2-9	.17	.17				
	51-80	70-96	2-25	3-14	.17	.17				
DocC:										PHEL
Downer	0-10	71-89	4-29	3-14	.20	.20	5	2	134	
	10-16	71-89	4-29	3-14	.20	.20				
	16-36	55-80	5-42	6-15	.28	.28				
	36-48	55-89	4-42	3-15	.15	.20				
	48-80	55-96	1-42	2-15	.15	.20				

MIDDLESEX COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol and Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
DouC:										PHEL
Downer	0-8	-	-	3-8	.20	.20	5	2	134	
	8-13	-	-	3-8	.20	.20				
	13-30	-	-	6-18	.28	.32				
	30-60	-	-	3-25	.20	.24				
Urban land	0-60	-	-	-	-	-	-	-	-	
DouD:										HEL
Downer	0-10	-	-	3-8	.20	.20	5	2	134	
	10-25	-	-	6-18	.28	.32				
	25-60	-	-	3-25	.20	.24				
Urban land	0-60	-	-	-	-	-	-	-	-	
EkaAr:										PHEL
Elkton	0-8	-	-	11-25	.37	.37	3	8	0	
	8-35	-	-	27-35	.37	.37				
	35-60	-	-	27-45	.32	.32				
FamA:										NHEL
Fallsington	0-2	0-80	0-42	0-15	.05	.05	5	3	86	
	2-5	55-80	5-42	6-15	.24	.24				
	5-8	43-85	5-55	18-20	.28	.28				
	8-14	43-85	5-55	18-20	.28	.28				
	14-31	23-80	5-50	18-35	.15	.20				
	31-62	43-95	4-40	3-18	.10	.10				
	62-80	43-95	4-40	2-18	.05	.10				
FapA:										NHEL
Fallsington	0-2	0-80	0-42	0-15	.05	.05	5	5	56	
	2-5	23-52	28-50	7-27	.28	.28				
	5-8	43-85	5-55	18-20	.28	.28				
	8-14	43-85	5-55	18-20	.28	.28				
	14-31	23-80	5-50	18-35	.15	.20				
	31-62	43-95	4-40	3-18	.10	.10				
	62-80	43-95	4-40	2-18	.05	.10				
FmhAt:										NHEL
Fluvaquents	0-5	23-52	28-50	7-27	.32	.32	5	8	0	
	5-12	20-50	50-80	12-27	.43	.43				
	12-18	45-80	5-25	20-35	.32	.37				

MIDDLESEX COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol and Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
	18-24	45-80	5-25	20-35	.32	.37				
	24-50	43-85	10-45	5-15	.10	.17				
GaokB:										NHEL
Galloway, clayey substratum	0-6	-	-	1-4	.17	.17	4	2	134	
	6-40	-	-	2-5	.17	.17				
	40-48	-	-	2-5	.17	.17				
	48-60	-	-	40-60	.37	.37				
Urban land	0-60	-	-	-	-	-	-	-	-	
HboA:										NHEL
Hammonton	0-8	43-85	1-50	5-20	.32	.32	5	3	86	
	8-18	43-85	1-50	5-20	.32	.32				
	18-36	43-85	1-50	5-20	.32	.32				
	36-60	85-100	1-30	2-10	.15	.15				
HumAt:										NHEL
Humaquepts, frequently flooded	0-18	23-52	28-50	2-40	.28	.28	5	8	0	
	18-60	1-100	1-50	2-40	.24	.24				
KemB:										PHEL
Keyport	0-12	55-80	5-42	5-12	.28	.28	3	3	86	
	12-18	20-45	20-39	35-55	.20	.20				
	18-24	10-45	20-60	40-55	.20	.20				
	24-32	10-45	20-60	40-55	.20	.20				
	32-41	10-45	20-70	30-55	.24	.24				
	41-55	10-45	20-73	27-40	.37	.37				
	55-80	10-85	5-73	3-40	.37	.37				
KeoA:										PHEL
Keyport	0-12	23-52	28-50	7-27	.37	.37	3	5	56	
	12-18	20-45	20-39	35-55	.20	.20				
	18-24	10-45	20-60	40-55	.20	.20				
	24-32	10-45	20-60	40-55	.20	.20				
	32-41	10-45	20-70	30-55	.24	.24				
	41-55	10-45	20-73	27-40	.37	.37				
	55-80	10-85	5-73	3-40	.37	.37				
KeoB:										PHEL
Keyport	0-8	23-52	28-50	10-25	.37	.37	3	5	56	

MIDDLESEX COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol and Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
	8-15	1-45	1-73	30-50	.43	.43				
	15-27	1-45	1-73	30-50	.43	.43				
	27-40	1-45	1-73	30-50	.43	.43				
	40-60	1-45	1-73	30-50	.43	.43				
KeoC:										HEL
Keyport	0-10	23-52	28-50	7-27	.37	.37	3	5	56	
	10-16	23-52	28-50	7-27	.37	.37				
	16-24	20-45	15-53	27-40	.43	.43				
	24-38	20-45	15-53	27-40	.43	.43				
	38-60	20-45	15-53	27-40	.43	.43				
KeoD:										HEL
Keyport	0-10	23-52	28-50	10-25	.37	.37	3	5	56	
	10-16	23-52	28-50	10-25	.37	.37				
	16-24	1-45	1-53	30-50	.43	.43				
	24-38	1-45	1-53	30-50	.43	.43				
	38-60	1-45	1-53	30-50	.43	.43				
KkoE:										HEL
Klinesville	0-3	-	-	10-25	.24	.28	2	5	56	
	3-10	-	-	10-20	.32	.37				
	10-14	-	-	10-20	.28	.37				
	14-157	0	0	0	.02	.02				
LakB:										NHEL
Lakehurst	0-2	0-98	0-7	0-7	.05	.05	5	1	220	
	2-4	85-96	2-12	2-9	.10	.10				
	4-18	85-96	2-12	2-9	.10	.10				
	18-32	70-96	2-25	2-14	.10	.10				
	32-45	70-96	2-25	3-14	.10	.10				
	45-54	45-96	2-35	3-16	.10	.10				
	54-80	45-96	2-35	3-16	.10	.10				
	25-157	0	0	0	.02	.02				
MakAt:										NHEL
Manahawkin, frequently flooded	0-13	0-96	0-25	0-14	.05	.05	2	2	134	
	13-26	0-96	0-25	0-14	.02	.02				
	26-47	0-96	0-25	0-14	.02	.02				

MIDDLESEX COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol and Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
	47-80	70-96	2-25	2-14	.10	.10				
MbrA:										NHEL
Matapeake	0-10	10-50	50-80	12-27	.43	.43	5	5	56	
	10-25	10-50	28-80	12-27	.49	.49				
	25-33	10-50	28-80	12-27	.49	.49				
	33-50	43-90	1-50	1-20	.24	.24				
	50-72	85-100	1-15	1-10	.24	.24				
MbuA:										NHEL
Mattapex	0-7	10-50	50-80	12-27	.43	.43	5	5	56	
	7-18	5-50	50-80	12-27	.43	.43				
	18-33	1-20	40-73	12-40	.43	.43				
	33-40	1-20	40-73	12-40	.43	.43				
	40-72	70-90	1-30	1-15	.17	.17				
PHG:										NHEL
Pits, sand and gravel	0-6	86-100	0-14	0-9	.02	.15	5	8	0	
	6-60	86-100	0-14	0-9	.05	.17				
PHM:										NHEL
Pits, clay	0-10	45-65	1-20	35-60	.32	.32	5	4	86	
	10-60	1-65	1-53	27-60	.37	.37				
PssA:										NHEL
Psamments, nearly level	0-6	-	-	1-3	.17	.17	5	1	250	
	6-30	-	-	1-3	.10	.15				
	30-72	-	-	2-5	.24	.24				
SacB:										PHEL
Sassafras	0-12	55-80	5-42	6-15	.28	.28	5	3	86	
	12-18	43-85	5-55	18-20	.28	.28				
	18-28	46-79	10-35	20-34	.32	.32				
	28-40	43-85	5-50	3-16	.20	.20				
	40-58	43-95	4-40	2-18	.15	.15				
	58-80	43-95	4-40	2-18	.15	.15				
SacC:										PHEL
Sassafras	0-12	55-80	5-42	6-15	.28	.28	5	3	86	
	12-18	43-85	5-55	18-20	.28	.28				
	18-28	46-79	10-35	20-34	.32	.32				
	28-40	43-85	5-50	3-16	.20	.20				

MIDDLESEX COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol and Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
	40-58	43-95	4-40	2-18	.15	.15				
	58-80	43-95	4-40	2-18	.15	.15				
SadB:										PHEL
Sassafras	0-12	43-85	1-50	1-20	.20	.28	5	3	86	
	12-14	23-85	1-50	1-35	.37	.37				
	14-30	23-85	1-50	1-35	.37	.37				
	30-34	23-85	1-50	1-35	.37	.37				
	34-72	43-100	1-50	1-20	.17	.20				
SadC:										PHEL
Sassafras, eroded	0-17	43-85	0-50	0-20	.24	.28	5	3	86	
	17-37	23-85	1-50	1-35	.37	.37				
	37-60	43-100	0-50	0-20	.17	.24				
SadD:										HEL
Sassafras	0-3	-	-	3-12	.24	.28	5	3	86	
	3-15	-	-	3-12	.24	.28				
	15-20	-	-	18-27	.32	.32				
	20-35	-	-	18-27	.32	.32				
	35-42	-	-	3-12	.17	.24				
	42-60	-	-	3-12	.17	.24				
SafA:										NHEL
Sassafras	0-8	23-52	28-50	7-27	.32	.32	5	5	56	
	8-12	23-52	28-50	7-27	.32	.32				
	12-25	45-80	1-28	10-35	.32	.32				
	25-31	45-80	1-28	10-35	.32	.32				
	31-42	43-100	1-50	1-20	.17	.24				
	42-60	70-90	1-30	1-15	.17	.24				
SapB:										PHEL
Sassafras	0-12	55-89	4-42	3-15	.20	.20	5	3	86	
	12-18	43-85	5-55	18-20	.28	.28				
	18-28	46-79	10-35	20-34	.32	.32				
	28-40	43-85	5-50	3-16	.20	.20				
	40-58	43-95	4-40	2-18	.15	.15				
	58-80	43-95	4-40	2-18	.15	.15				
Urban land	-	-	-	-	-	-	-	-	-	
UdcB:										NHEL

MIDDLESEX COUNTY PROJECT AREA SOIL ERODIBILITY FACTORS										
Symbol and Soil name	**Depth (in)**	**Sand (%)**	**Silt (%)**	**Clay (%)**	**Erosion factors**			**Wind Erodibility Group**	**Wind Erodibility Index**	**HEL Class**
					Kw	**Kf**	**T**			
Udorthents,clayey substratum	0-10	-	-	35-60	.32	.32	5	4	86	
	10-60	-	-	30-60	.37	.37				
UR:										
Urban land	-	-	-	-	-	-	-	8	0	-
WoeA:										NHEL
Woodstown	0-8	55-80	5-42	5-12	.28	.28	5	3	86	
	8-26	55-80	5-42	5-20	.24	.24				
	26-30	46-79	10-35	20-34	.20	.20				
	30-36	55-80	5-42	5-20	.24	.24				
	36-80	70-96	2-25	2-14	.15	.15				
WoeB:										PHEL
Woodstown	0-8	55-80	5-42	5-12	.28	.28	5	3	86	
	8-26	55-80	5-42	5-20	.24	.24				
	26-30	46-79	10-35	20-34	.20	.20				
	30-36	55-80	5-42	5-20	.24	.24				
	36-80	70-96	2-25	2-14	.15	.15				
WogA:										NHEL
Woodstown	0-12	23-52	28-50	5-18	.32	.32	5	5	56	
	12-36	23-85	1-50	18-30	.32	.32				
	36-60	43-100	1-50	5-20	.20	.24				
WooB:										PHEL
Woodstown	0-8	55-80	5-42	5-12	.28	.28	5	3	86	
	8-26	55-80	5-42	5-20	.24	.24				
	26-30	46-79	10-35	20-34	.20	.20				
	30-36	55-80	5-42	5-20	.24	.24				
	36-80	70-96	2-25	2-14	.15	.15				
Urban land	-	-	-	-	-	-	-	-	-	-

HEL = Highly erodible land, PHEL = Potentially highly erodible land, NHEL = Not highly erodible land
Source: USDA-NRCS