Appendix Q. Geological Hazard Information

Table Q-1. Abandoned Mines in New Jersey

Site Name	Mine Type	Begin Date	End Date	Location	County
WHITE MEADOW MINE	IRON	1840	1868	ROCKAWAY TWP	MORRIS
RICHARD MINE	IRON	1856	0	ROCKAWAY TWP	MORRIS
COOPER MINE	IRON	1868	1873	RINGWOOD	PASSAIC
UNKNOWN	IRON	0	0	POHATCONG	WARREN
UNKNOWN	IRON	0	0	POHATCONG	WARREN
UNKNOWN	IRON	0	0	HOLLAND TWP	HUNTERDON
HAGAR MINE	IRON	1879	1880	HOLLAND TWP	HUNTERDON
HAGAR MINE	IRON	1879	1880	HOLLAND TWP	HUNTERDON
HAGAR MINE	IRON	1879	1880	HOLLAND TWP	HUNTERDON
HAGAR MINE	IRON	1879	1880	HOLLAND TWP	HUNTERDON
OAK RIDGE MINE	GRAPHITE	0	0	JEFFERSON TWP	MORRIS
RIKER MINE	IRON	1873	1873	SPARTA TWP	SUSSEX
UNNAMED MINE	IRON	0	0	SPARTA TWP	SUSSEX
UNNAMED MINE	IRON	0	0	SPARTA TWP	SUSSEX
UNNAMED MINE	IRON	0	0	SPARTA TWP	SUSSEX
UNNAMED MINE	IRON	0	0	SPARTA TWP	SUSSEX
UNNAMED MINE	IRON	0	0	SPARTA TWP	SUSSEX
SCHOFIELD MINE	IRON	1855	1890	JEFFERSON TWP	MORRIS
FORD MINE	IRON	1855	1890	JEFFERSON TWP	MORRIS
UNNAMED MINE	IRON	0	0	JEFFERSON TWP	MORRIS
DODGE MINE	IRON	1868	1884	JEFFERSON TWP	MORRIS

Site Name	Mine Type	Begin Date	End Date	Location	County
DUFFEE MINE	IRON	1855	1868	JEFFERSON TWP	MORRIS
SHERMAN FARM MINE	IRON	1854	1905	SPARTA TWP	SUSSEX
SHERMAN FARM MINE	IRON	1854	1905	SPARTA TWP	SUSSEX
BUNKER MINE	IRON	1854	1905	SPARTA TWP	SUSSEX
UNNAMED MINE	IRON	0	0	SPARTA TWP	SUSSEX
DUFFEE MINE	IRON	1855	1868	JEFFERSON TWP	MORRIS
DUFFEE MINE	IRON	1855	1868	JEFFERSON TWP	MORRIS
DUFFEE MINE	IRON	1855	1868	JEFFERSON TWP	MORRIS
DUFFEE MINE	IRON	1855	1868	JEFFERSON TWP	MORRIS
DUFFEE MINE	IRON	1855	1868	JEFFERSON TWP	MORRIS
DUFFEE MINE	IRON	1855	1868	JEFFERSON TWP	MORRIS
ROBERTS	IRON	1873	1889	SPARTA TWP	SUSSEX
ROBERTS	IRON	1873	1889	SPARTA TWP	SUSSEX
CONDON CUT	IRON	0	0	SPARTA TWP	SUSSEX
CONDON CUT	IRON	0	0	SPARTA TWP	SUSSEX
CONDON CUT	IRON	0	0	SPARTA TWP	SUSSEX
VICTOR MINE	IRON	0	0	SPARTA TWP	SUSSEX
VICTOR MINE	IRON	0	0	SPARTA TWP	SUSSEX
DAVENPORT	IRON	1873	1880	SPARTA TWP	SUSSEX
DAVENPORT	IRON	1873	1880	SPARTA TWP	SUSSEX
BIG CUT	IRON	0	0	SPARTA TWP	SUSSEX
BIG CUT	IRON	0	0	SPARTA TWP	SUSSEX
VULCAN MINE	IRON	0	0	SPARTA TWP	SUSSEX

Site Name	Mine Type	Begin Date	End Date	Location	County
VULCAN MINE	IRON	0	0	SPARTA TWP	SUSSEX
VULCAN MINE	IRON	0	0	SPARTA TWP	SUSSEX
VULCAN MINE	IRON	0	0	SPARTA TWP	SUSSEX
UNNAMED MINE	IRON	0	0	JEFFERSON TWP	MORRIS
UNNAMED MINE	IRON	0	0	JEFFERSON TWP	MORRIS
UNNAMED MINE	IRON	0	0	JEFFERSON TWP	MORRIS
OGDEN MINE	IRON	1772	1899	SPARTA TWP	SUSSEX
OGDEN MINE	IRON	1772	1899	SPARTA TWP	SUSSEX
NESHANIC MINE	COPPER	1770	1861	RARITAN TWP	HUNTERDON
LAYTON MINE	IRON	1878	0	VERNON TWP	SUSSEX
WAWAYANDA MINE	IRON	1854	1891	VERNON TWP	SUSSEX
GREEN MINE	IRON	0	0	VERNON TWP	SUSSEX
TEN EYCK'S EXPLORATION	IRON	1855	1879	VERNON TWP	SUSSEX
CAREY MINE	IRON	0	0	WEST MILFORD TWP	PASSAIC
WRIGHTENOUR MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
SLOAT FARM MINE	IRON	1883	0	RINGWOOD BORO	PASSAIC
WANAQUE- LONDON MINE	IRON	1799	1905	BLOOMINGDALE BORO	PASSAIC
TELLINGTON MINE	IRON	1873	0	WEST MILFORD TWP	PASSAIC
KANOUSE MINE	IRON	0	0	WANAQUE BORO	PASSAIC
RYERSON DE BOW MINE	IRON	1872	1907	RIVERDALE BORO	MORRIS
JACKSON MINE	IRON	1862	0	RIVERDALE BORO	MORRIS
DE BOW MINE	IRON	1872	1906	RIVERDALE BORO	MORRIS
LANAGAN MINE	IRON	0	0	RIVERDALE BORO	MORRIS

Site Name	Mine Type	Begin Date	End Date	Location	County
KAHART MINE	IRON	0	0	KINNELON BORO	MORRIS
AUBLE MINE	IRON	0	1892	PEAPACK GLADSTONE	SOMERSET
MARTIN MINE	IRON	0	0	ALEXANDRIA TWP	HUNTERDON
DUCKWORTH FARM MINE	IRON	1776	1879	HOLLAND TWP	HUNTERDON
AMERICAN MINE	COPPER	1754	1905	BRIDGEWATER TWP	SOMERSET
CHIMNEY ROCK MINES	COPPER	0	0	BRIDGEWATER TWP	SOMERSET
UNNAMED	COPPER	0	0	FRANKLIN TWP	SOMERSET
DOD MINE	COPPER	1720	1760	EAST ORANGE CITY	ESSEX
GRIGGSTOWN MINE	COPPER	1753	1916	FRANKLIN TWP	SOMERSET
SCHUYLER MINE	COPPER	1710	1903	NORTH ARLINGTON	BERGEN
WIGWAM BROOK MINE	COPPER	0	0	ORANGE CITY	ESSEX
CLINTON	MANGANESE	0	0	CLINTON TWP	HUNTERDON
KEAN MINE	IRON	1875	1885	HIGH BRIDGE BORO	HUNTERDON
APGARS MINE	IRON	0	0	GLEN GARDNER BORO	HUNTERDON
UNNAMED	IRON	0	0	LEBANON TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
CANFIELDS PHOSPHATE MINE	IRON	1870	1881	MINE HILL TWP	MORRIS
COW-BELLY VEIN	IRON	1713	1883	MINE HILL TWP	MORRIS
STEPHENS MINE	IRON	0	0	ROXBURY TWP	MORRIS
SALMON MINE	IRON	0	0	MOUNT OLIVE TWP	MORRIS
UNNAMED	IRON	0	0	MOUNT OLIVE TWP	MORRIS
RARICK FARM EXPLORATION	IRON	1870	1879	WASHINGTON TWP	MORRIS

Site Name	Mine Type	Begin Date	End Date	Location	County
CREAMER MINE	IRON	1873	0	CHESTER BORO	MORRIS
BLAUVELT	IRON	1890	0	CHESTER BORO	MORRIS
UNNAMED	IRON	0	0	CHESTER TWP	MORRIS
UNNAMED	IRON	0	0	CHESTER TWP	MORRIS
HARDEN MINE	IRON	1869	0	CHESTER TWP	MORRIS
GULICK MINE	IRON	0	0	CHESTER TWP	MORRIS
UNNAMED	IRON	0	0	CHESTER TWP	MORRIS
RARICK FARM EXPLORATION	IRON	1873	0	CHESTER TWP	MORRIS
LANGDON MINE	IRON	1879	1886	WASHINGTON TWP	MORRIS
LITTLE MINE	IRON	0	0	OXFORD TWP	WARREN
AARON HOWELL PROSPECT	COPPER	0	0	INDEPENDENCE TWP	WARREN
DAVIS PROSPECT	COPPER	1873	1881	INDEPENDENCE TWP	WARREN
CHARLOTTE MINE	URANIUM	0	0	BYRAM TWP	SUSSEX
FRENCH MINE	COPPER	1750	0	NEW BRUNSWICK CITY	MIDDLESEX
BOLMER MINE	COPPER	1800	1868	BRIDGEWATER TWP	SOMERSET
BOLMER MINE	COPPER	1800	1868	BRIDGEWATER TWP	SOMERSET
BOLMER MINE	COPPER	1800	1868	BRIDGEWATER TWP	SOMERSET
WILLIAMS MINE	IRON	1815	1833	VERNON TWP	SUSSEX
CENTENNIAL MINE	IRON	1875	1879	WEST MILFORD TWP	PASSAIC
HOPE MOUNTAIN MINE	IRON	0	1868	RINGWOOD BORO	PASSAIC
HOPE MOUNTAIN MINE	IRON	0	1868	RINGWOOD BORO	PASSAIC
HOPE MOUNTAIN MINE	IRON	0	1868	RINGWOOD BORO	PASSAIC
HOPE MOUNTAIN MINE	IRON	0	1868	RINGWOOD BORO	PASSAIC

Site Name	Mine Type	Begin Date	End Date	Location	County
HOPE MOUNTAIN MINE	IRON	0	1868	RINGWOOD BORO	PASSAIC
HOPE MOUNTAIN MINE	IRON	0	1868	RINGWOOD BORO	PASSAIC
OAK MINE	IRON	1762	1853	RINGWOOD BORO	PASSAIC
UNNAMED	IRON	0	0	RINGWOOD BORO	PASSAIC
UNNAMED	IRON	0	0	RINGWOOD BORO	PASSAIC
MONKS MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
UNNAMED	IRON	0	0	WEST MILFORD TWP	PASSAIC
PETER MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
COOPER MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
KEELER MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
MILLER MINE	IRON	1867	1873	RINGWOOD BORO	PASSAIC
ST. GEORGE MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
RINGWOOD BUSH MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
LITTLE BLUE MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
CANNON MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
BLUE MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
RED MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
CANNON MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
HARD MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
MULE MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
HICKORY MT. & VALLEY MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
BOARD MINE	IRON	0	0	RINGWOOD BORO	PASSAIC
UNNAMED	IRON	0	0	GREENWICH TWP	WARREN

Site Name	Mine Type	Begin Date	End Date	Location	County
UNNAMED	IRON	0	0	GREENWICH TWP	WARREN
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
NJ ZINC COMPANY MINE	ZINC	0	0	FRANKLIN BORO	SUSSEX
NJ ZINC COMPANY MINE	ZINC	0	0	OGDENSBURG BORO	SUSSEX
LARGE MINE	IRON	0	0	CLINTON TWP	HUNTERDON
FLEMINGTON MINE	COPPER	1770	1861	RARITAN TWP	HUNTERDON
FLEMINGTON MINE	COPPER	1770	1861	RARITAN TWP	HUNTERDON
WANAQUE- LAUREL MINE	IRON	0	1890	BLOOMINGDALE BORO	PASSAIC
BROWN MINE	IRON	0	0	WANAQUE BORO	PASSAIC
BEAM MINE	IRON	0	0	WANAQUE BORO	PASSAIC
BUTLER MINE	IRON	0	0	MAHWAH TWP	BERGEN
RHEINSMITH FARM MINE	IRON	1873	1874	RINGWOOD BORO	PASSAIC
BLUE WANAQUE MINE	IRON	0	0	BLOOMINGDALE BORO	PASSAIC
WORTMAN MINE	IRON	1873	0	CHESTER TWP	MORRIS
BARTLE MINE	IRON	0	0	WASHINGTON TWP	MORRIS
HOFFMAN MINE	COPPER	1812	1868	BRIDGEWATER TWP	SOMERSET
SAMUEL WILDS MINE	IRON	0	0	RIVERDALE BORO	MORRIS
PAHAQUARRY MINE	COPPER	1650	1911	HARDWICK TWP	WARREN
SUSSEX LEAD MINE	LEAD	0	0	SPARTA TWP	SUSSEX
STONY BROOK MINE	COPPER	1800	0	WATCHUNG BORO	SOMERSET
MENLO PARK MINE	COPPER	1784	1903	EDISON TWP	MIDDLESEX
HURDTOWN APATITE MINE	IRON	0	0	JEFFERSON TWP	MORRIS
HURD MINE	IRON	1855	1903	JEFFERSON TWP	MORRIS

Site Name	Mine Type	Begin Date	End Date	Location	County
BAKER MINE LOWER HILL	IRON	1868	1883	MINE HILL TWP	MORRIS
BAKER MINE	IRON	1868	1879	MINE HILL TWP	MORRIS
SCRUB OAKS MINE	IRON	1856	1959	MINE HILL TWP	MORRIS
ERB MINE	IRON	1868	1891	WHARTON BORO	MORRIS
CORWIN MINE	IRON	1855	1868	MINE HILL TWP	MORRIS
SULLIVAN MINE	IRON	1868	0	WHARTON BORO	MORRIS
JOHNSON HILL MINE	IRON	1868	1869	WHARTON BORO	MORRIS
HUFF MINE	IRON	1855	1910	WHARTON BORO	MORRIS
DOLAN MINE	IRON	1869	1886	ROCKAWAY TWP	MORRIS
BAKER NO 1 MINE	IRON	1868	1891	MINE HILL TWP	MORRIS
MILLEN MINE	IRON	1855	1883	MINE HILL TWP	MORRIS
RANDALL HILL MINE	IRON	1855	1882	MINE HILL TWP	MORRIS
JACKSON HILL MINE	IRON	1855	1876	MINE HILL TWP	MORRIS
SPRING MINE	IRON	1868	0	MINE HILL TWP	MORRIS
STIRLING MINE	IRON	1640	1885	WHARTON BORO	MORRIS
HUBBARD & N. RIVER MINE	IRON	1855	1868	WHARTON BORO	MORRIS
NEW STIRLING MINE	IRON	1890	1900	WHARTON BORO	MORRIS
HURD MINE	IRON	1855	1920	WHARTON BORO	MORRIS
ORCHARD MINE	IRON	1850	1893	WHARTON BORO	MORRIS
WASHINGTON FORGE MINE	IRON	1868	1881	WHARTON BORO	MORRIS
MEADOW MINE	IRON	1884	1886	WHARTON BORO	MORRIS
MOUNT PLEASANT MINE	IRON	1786	1896	WHARTON BORO	MORRIS
COGILL MINE	IRON	1868	1910	ROCKAWAY TWP	MORRIS

Site Name	Mine Type	Begin Date	End Date	Location	County
DENMARK MINE	IRON	1868	0	ROCKAWAY TWP	MORRIS
MT HOPE MINE SPANCER SHFT	IRON	1710	1969	ROCKAWAY TWP	MORRIS
MT HOPE FOWLER SHAFT MINE	IRON	1710	1969	ROCKAWAY TWP	MORRIS
MT. HOPE BROWN SHAFT MINE	IRON	1710	1969	ROCKAWAY TWP	MORRIS
MT. HOPE NEW LEONARD MINE	IRON	1710	1985	ROCKAWAY TWP	MORRIS
MT. HOPE ELIZABETH MINE	IRON	1710	1969	ROCKAWAY TWP	MORRIS
MOUNT HOPE MINE	IRON	1710	1969	ROCKAWAY TWP	MORRIS
TEABO MINE	IRON	1800	1907	ROCKAWAY TWP	MORRIS
TEABO MINE	IRON	1800	1907	ROCKAWAY TWP	MORRIS
TEABO MINE	IRON	1800	1907	ROCKAWAY TWP	MORRIS
ALLEN MINE	IRON	1855	1882	ROCKAWAY TWP	MORRIS
RICHARD MINE	IRON	1803	1958	ROCKAWAY TWP	MORRIS
BAKER MINE	IRON	1866	1905	ROCKAWAY TWP	MORRIS
WEST MT PLEASENT MINE	IRON	1880	1896	WHARTON BORO	MORRIS
J.D. KING MINE	IRON	0	0	WHARTON BORO	MORRIS
SWEDES MINE	IRON	1855	1882	ROCKAWAY TWP	MORRIS
WHITE MEADOW MINE	IRON	1840	1868	ROCKAWAY TWP	MORRIS
HICKORY HILL MINE	IRON	1855	1886	ROCKAWAY TWP	MORRIS
SIGLER MINE	IRON	1868	1869	ROCKAWAY TWP	MORRIS
WELDON MINE	IRON	1855	1902	JEFFERSON TWP	MORRIS
LOWER WELDON MINE	IRON	1873	1896	JEFFERSON TWP	MORRIS

Site Name	Mine Type	Begin Date	End Date	Location	County
HARVEY MINE	IRON	1855	1920	WHARTON BORO	MORRIS
DAVENPORT MINE	IRON	1868	0	JEFFERSON TWP	MORRIS
MINE TUNNEL	IRON	1869	1886	ROCKAWAY TWP	MORRIS
MOUNT HOPE MINE	IRON	1710	1985	ROCKAWAY TWP	MORRIS
SHOEMAKER MINE	IRON	1889	1911	WHITE TWP	WARREN
FITTZ MINE	IRON	1889	1908	WHITE TWP	WARREN
TITMAN SHAFT	IRON	1873	1874	WHITE TWP	WARREN
UNNAMED	IRON	0	0	WHITE TWP	WARREN
UNNAMED	IRON	0	0	OXFORD TWP	WARREN
RIDDLE MINE	IRON	1872	1891	OXFORD TWP	WARREN
QUEEN MINE	IRON	1882	1900	OXFORD TWP	WARREN
AHLES MINE	IRON	1901	1916	OXFORD TWP	WARREN
RAUB MINE	IRON	1872	1891	WHITE TWP	WARREN
ROSEBERRY MINE	IRON	0	0	WHITE TWP	WARREN
BARTON MINE	IRON	1873	1916	WHITE TWP	WARREN
KAISER MINE	IRON	1882	1891	WHITE TWP	WARREN
BREWER MINE	IRON	1880	1880	WHITE TWP	WARREN
OXFORD MINE	IRON	1854	1964	OXFORD TWP	WARREN
UNNAMED	IRON	0	0	HARMONY TWP	WARREN
SPLIT ROCK POND MINE	IRON	1873	1880	ROCKAWAY TWP	MORRIS
BEACH GLEN MINE	IRON	1808	1930	ROCKAWAY TWP	MORRIS
RIGHTER MINE	IRON	1872	0	ROCKAWAY TWP	MORRIS
COBB MINE	IRON	1868	1881	ROCKAWAY TWP	MORRIS

Site Name	Mine Type	Begin Date	End Date	Location	County
BIRCH MINE	IRON	0	0	ROCKAWAY TWP	MORRIS
FAIRVIEW MINE	IRON	0	0	ROCKAWAY TWP	MORRIS
HIBERNIA MINE	IRON	1722	1916	ROCKAWAY TWP	MORRIS
BEACH MINE	IRON	1785	1886	ROCKAWAY TWP	MORRIS
GREENVILLE MINE	IRON	1872	0	ROCKAWAY TWP	MORRIS
STONY BROOK MINE	IRON	1770	1880	KINNELON BORO	MORRIS
MEIRDEN MINE	IRON	1868	0	ROCKAWAY TWP	MORRIS
TICHENOR MINE	IRON	1868	1872	ROCKAWAY TWP	MORRIS
BOTTS FARM MINE	IRON	1872	1873	BOONTON TWP	MORRIS
ROCKAWAY VALLEY MINES	IRON	1820	1880	BOONTON TWP	MORRIS
TAYLOR MINE	IRON	1858	1873	MONTVILLE TWP	MORRIS
PROSPECT #2 SIMS	IRON	0	0	ROCKAWAY TWP	MORRIS
PROSPECT #70 SIMS	IRON	0	0	ROCKAWAY TWP	MORRIS
DECKER MINE	IRON	0	0	MONTVILLE TWP	MORRIS
THATCHER MINE	IRON	1873	1900	FRANKLIN TWP	WARREN
CLINE MINE	IRON	1873	1880	FRANKLIN TWP	WARREN
BROADWAY MINE	IRON	1856	1868	FRANKLIN TWP	WARREN
WEAN MINE	IRON	1874	1881	BETHLEHEM TWP	HUNTERDON
CLINE MINE	IRON	1873	1879	FRANKLIN TWP	WARREN
PETTY MINE	IRON	1880	1880	ALEXANDRIA TWP	HUNTERDON
HAZARD MINE	IRON	1877	1877	FRANKLIN TWP	WARREN
SLACK MINE	IRON	1899	1899	FRANKLIN TWP	WARREN
HAMLEN MINE	IRON	1860	1880	LOPATCONG TWP	WARREN

Site Name	Mine Type	Begin Date	End Date	Location	County
HACKLEBARNEY MINE	IRON	1760	1896	CHESTER TWP	MORRIS
CRANE MINE	IRON	1868	1868	MOUNT OLIVE TWP	MORRIS
STEPHENS MINE	IRON	1848	1879	MOUNT OLIVE TWP	MORRIS
MOUNT OLIVE MINE	IRON	1848	1886	MOUNT OLIVE TWP	MORRIS
SOLOMON MINE	IRON	1886	1886	MOUNT OLIVE TWP	MORRIS
DRAKE MINE	IRON	1854	1870	MOUNT OLIVE TWP	MORRIS
DRAKE MINE	IRON	1854	1870	MOUNT OLIVE TWP	MORRIS
OSBORNE MINE	IRON	1848	1855	MOUNT OLIVE TWP	MORRIS
BAPTIST CHURCH MINE	IRON	1873	1873	ROXBURY TWP	MORRIS
HILT MINE	IRON	1855	0	ROXBURY TWP	MORRIS
HOPLER MINE	IRON	1868	1881	WASHINGTON TWP	MORRIS
PEACH ORCHARD MINE	IRON	1870	1883	CHESTER BORO	MORRIS
HEDGES MINE	IRON	1870	1879	CHESTER BORO	MORRIS
DICKERSON FARM MINE	IRON	1870	1890	CHESTER BORO	MORRIS
TOPPING MINE	IRON	1873	1880	CHESTER BORO	MORRIS
SAMPSON MINE	IRON	1867	1885	CHESTER BORO	MORRIS
SKELLENGER MINE	IRON	1867	1868	CHESTER BORO	MORRIS
CROMWELL MINE	IRON	1872	1886	CHESTER BORO	MORRIS
COLLIS FARM EXPLORATION	IRON	1873	1873	CHESTER BORO	MORRIS
SWEAYZE MINE	IRON	1870	1886	CHESTER BORO	MORRIS
COOPER MINE	IRON	1879	1885	CHESTER TWP	MORRIS
KEAN MINE	IRON	1883	1883	CHESTER TWP	MORRIS
SQUIER'S MINE	IRON	1880	1884	CHESTER TWP	MORRIS

Site Name	Mine Type	Begin Date	End Date	Location	County
LEAK MINE	IRON	1866	1882	CHESTER TWP	MORRIS
BEEMER MINE	IRON	1886	1887	CHESTER TWP	MORRIS
SKELLENGER MINE	IRON	1881	1882	CHESTER TWP	MORRIS
DANIEL HORTON MINE	IRON	1867	1870	CHESTER TWP	MORRIS
BARNES MINE	IRON	1869	1872	CHESTER TWP	MORRIS
THORP MINE	IRON	1910	0	CHESTER TWP	MORRIS
GULICK FARM MINE	IRON	1870	1886	CHESTER TWP	MORRIS
LANGDON MINE	IRON	1879	1886	CHESTER TWP	MORRIS
PITNEY MINE	IRON	1873	1881	CHESTER TWP	MORRIS
CHILD MINE	IRON	1874	1874	CHESTER TWP	MORRIS
WOODHULL MINE	IRON	1870	1886	CHESTER TWP	MORRIS
BUDD MINE	IRON	1867	1873	CHESTER TWP	MORRIS
QUIMBY MINE	IRON	1910	0	CHESTER TWP	MORRIS
TIGER MINE	IRON	1880	1883	CHESTER TWP	MORRIS
STERLING HILL MINE	IRON	1877	1882	OGDENSBURG BORO	SUSSEX
PIKES PEAK MINE	IRON	1855	1881	FRANKLIN BORO	SUSSEX
HILL MINE	IRON	1868	1882	FRANKLIN BORO	SUSSEX
AMOS SHARP MINE	IRON	1868	1873	SPARTA TWP	SUSSEX
PARDEE MINE	IRON	1800	1899	SPARTA TWP	SUSSEX
FORD MINE	IRON	1855	1896	JEFFERSON TWP	MORRIS
SCHOFIELD MINE	IRON	1855	1890	JEFFERSON TWP	MORRIS
SHERMAN FARM MINE	IRON	1854	1875	SPARTA TWP	SUSSEX
BOSS MINE	IRON	0	1868	SPARTA TWP	SUSSEX

Site Name	Mine Type	Begin Date	End Date	Location	County
GOBLE MINE	IRON	1868	1868	SPARTA TWP	SUSSEX
LOSEY EXPLORATION	IRON	1881	1881	FRANKLIN BORO	SUSSEX
ANDERSON MINE	IRON	1856	1868	MANSFIELD TWP	WARREN
SMITH'S MINE	IRON	1873	1882	LIBERTY TWP	WARREN
DEATS MINE	IRON	1873	1883	LIBERTY TWP	WARREN
HOAGLAND MINE	IRON	1873	1880	LIBERTY TWP	WARREN
LANNING MINE	IRON	1881	1883	OXFORD TWP	WARREN
CARWHEEL MINE	IRON	1700	1883	OXFORD TWP	WARREN
NEW MINE	IRON	1868	1880	OXFORD TWP	WARREN
MCKINLEY MINE	IRON	1883	1905	OXFORD TWP	WARREN
WELCH MINE	IRON	1879	1882	OXFORD TWP	WARREN
STALEY MINE	IRON	1868	1868	OXFORD TWP	WARREN
BARKER MINE	IRON	1880	1881	INDEPENDENCE TWP	WARREN
PEQUEST MINE	IRON	1869	1880	WHITE TWP	WARREN
HOIT MINE	IRON	1870	1875	WHITE TWP	WARREN
CREAGER MINE	IRON	1871	1880	MANSFIELD TWP	WARREN
MITCHELL MINE	IRON	1870	1874	MANSFIELD TWP	WARREN
BALD PATE MINE	IRON	1868	1879	MANSFIELD TWP	WARREN
EGBERT CHURCH MINE	IRON	1871	1876	MANSFIELD TWP	WARREN
POHATCONG PIT # 1	IRON	1870	1870	MANSFIELD TWP	WARREN
MATTISON MINE	IRON	1880	1880	LEBANON TWP	HUNTERDON
POHATCONG PIT # 2	IRON	1870	1870	MANSFIELD TWP	WARREN
STALEY 2	IRON	1880	0	OXFORD TWP	WARREN

Site Name	Mine Type	Begin Date	End Date	Location	County
CANISTEAR MINE	IRON	1870	1880	VERNON TWP	SUSSEX
RUTHERFORD MINE	IRON	1888	0	WEST MILFORD TWP	PASSAIC
SIGLER MINE	IRON	0	0	WEST MILFORD TWP	PASSAIC
WALLACE MINE	IRON	1870	0	WEST MILFORD TWP	PASSAIC
PARDEE MINE	IRON	1870	1884	ROCKAWAY TWP	MORRIS
WINTER MINE	IRON	1882	1885	ROCKAWAY TWP	MORRIS
DAVENPORT MINE	IRON	1879	1884	ROCKAWAY TWP	MORRIS
GREEN POND MINE	IRON	1872	1900	ROCKAWAY TWP	MORRIS
COPPERAS MINE	IRON	1812	1815	ROCKAWAY TWP	MORRIS
HOWELL TRACT MINE	IRON	1874	1885	ROCKAWAY TWP	MORRIS
CHARLOTTESBURG MINE	IRON	1765	1888	ROCKAWAY TWP	MORRIS
WOOD MINE	IRON	1873	1883	ROCKAWAY TWP	MORRIS
TRACY AND CRANE FARM	IRON	1870	1873	WEST MILFORD TWP	PASSAIC
HENDERSON FARM MINE	IRON	1872	0	HARDYSTON TWP	SUSSEX
DAY MINE	IRON	1910	0	WEST MILFORD TWP	PASSAIC
CLINTON TRACT MINE	IRON	1872	1873	WEST MILFORD TWP	PASSAIC
WILD CAT MINE	IRON	1877	1886	ROCKAWAY TWP	MORRIS
SHIELDS MINE	IRON	1868	1908	MANSFIELD TWP	WARREN
THOMAS MINE	IRON	1873	1880	MANSFIELD TWP	WARREN
BROWN MINE	IRON	1874	1880	MANSFIELD TWP	WARREN
SEARLE MINE	IRON	1868	1868	INDEPENDENCE TWP	WARREN
SEARLE MINE	IRON	1868	1868	INDEPENDENCE TWP	WARREN
CREAMER MINE	IRON	1854	1875	MOUNT OLIVE TWP	MORRIS

Site Name	Mine Type	Begin Date	End Date	Location	County
SMITH MINE	IRON	1850	1868	MOUNT OLIVE TWP	MORRIS
FISHER MINE	IRON	1864	1873	WASHINGTON TWP	MORRIS
PIDCOCK MINE	IRON	1800	1880	LEBANON TWP	HUNTERDON
SHARP MINE	IRON	1871	1874	WASHINGTON TWP	MORRIS
MARSH MINE	IRON	1855	0	WASHINGTON TWP	MORRIS
DICKINSON'S MINE	IRON	1855	1860	WASHINGTON TWP	MORRIS
HANN MINE	IRON	1871	1880	WASHINGTON TWP	MORRIS
DERRENBERGER FARM	IRON	1883	1883	WASHINGTON TWP	MORRIS
STOUTENBERG MINE	IRON	1872	1883	WASHINGTON TWP	MORRIS
NAUGHRIGHT MINE	IRON	1870	1883	WASHINGTON TWP	MORRIS
WILLIAM SHARP MINE	IRON	1870	1880	WASHINGTON TWP	MORRIS
DUFFORD MINE	IRON	1879	1880	WASHINGTON TWP	MORRIS
FISHER EXPLORATION	IRON	1880	1880	WASHINGTON TWP	MORRIS
SICKLES MINE	IRON	1870	1882	SPARTA TWP	SUSSEX
CASCADE MINE	IRON	1850	1883	BYRAM TWP	SUSSEX
ALLIS EXPLORATION	IRON	1873	1879	BYRAM TWP	SUSSEX
BYERLY MINE	IRON	1873	0	BYRAM TWP	SUSSEX
ROSEVILLE MINE	IRON	1850	1880	BYRAM TWP	SUSSEX
SILVER MINE	IRON	1855	0	BYRAM TWP	SUSSEX
MCKEAN MINE	IRON	1873	1880	BYRAM TWP	SUSSEX
BEDELL MINE	IRON	1890	1900	BYRAM TWP	SUSSEX
GAFFNEY MINE	IRON	1874	1880	BYRAM TWP	SUSSEX
LOWRANCE MINE	IRON	1855	0	MOUNT OLIVE TWP	MORRIS

Site Name	Mine Type	Begin Date	End Date	Location	County
HUDE MINE	IRON	1790	1910	STANHOPE BORO	SUSSEX
BUDD MINE	IRON	1875	1906	STANHOPE BORO	SUSSEX
HAGGERTY MINE	IRON	1885	0	STANHOPE BORO	SUSSEX
LAWSON MINE	IRON	1880	0	HOPATCONG BORO	SUSSEX
LAKE VIEW MINE	IRON	1863	1882	MOUNT ARLINGTON BO	MORRIS
NOLANS MINE	IRON	1855	1868	JEFFERSON TWP	MORRIS
GOVE MINE	IRON	1874	1881	MOUNT ARLINGTON	MORRIS
LURK MINE	IRON	1904	0	MOUNT ARLINGTON	MORRIS
HIGH LEDGE MINE	IRON	1880	1883	ROXBURY TWP	MORRIS
BURT MINE	IRON	1882	1883	MOUNT ARLINGTON	MORRIS
PASSAIC MINE	IRON	1882	0	HOPATCONG BORO	SUSSEX
EDWARD'S PROSPECT	IRON	0	0	HOPATCONG BORO	SUSSEX
WOLF MINE	IRON	1880	1901	MOUNT OLIVE TWP	MORRIS
LAWRENCE MINE	IRON	1873	0	BYRAM TWP	SUSSEX
BLACK HILLS MINE	IRON	1879	1900	MINE HILL TWP	MORRIS
DICKERSON MINE	IRON	1713	1908	MINE HILL TWP	MORRIS
CANFIELD MINE	IRON	1870	1873	MINE HILL TWP	MORRIS
BRYANT MINE	IRON	1868	1890	RANDOLPH TWP	MORRIS
FOULON MINE	IRON	1868	1873	RANDOLPH TWP	MORRIS
CHARLES KING MINE	IRON	1868	1870	RANDOLPH TWP	MORRIS
KING MINE	IRON	1853	1880	MINE HILL TWP	MORRIS
EVERS MINE	IRON	1868	1883	MINE HILL TWP	MORRIS
BROTHERTON MINE	IRON	1855	1901	MINE HILL TWP	MORRIS

Site Name	Mine Type	Begin Date	End Date	Location	County
BRYAM MINE	IRON	1844	1883	MINE HILL TWP	MORRIS
TROWBRIDGE MINE	IRON	1868	1869	RANDOLPH TWP	MORRIS
DALRYMPLE MINE	IRON	1868	1882	RANDOLPH TWP	MORRIS
LAWRENCE MINE	IRON	1878	1883	RANDOLPH TWP	MORRIS
DEHART MINE	IRON	1868	1886	RANDOLPH TWP	MORRIS
DAVID HORTON MINE	IRON	1868	1873	RANDOLPH TWP	MORRIS
GEORGE MINE	IRON	1855	1873	RANDOLPH TWP	MORRIS
HENDERSON MINE	IRON	1868	0	RANDOLPH TWP	MORRIS
COMBS MINE	IRON	1828	1881	RANDOLPH TWP	MORRIS
COPPER MINE	IRON	1870	0	RANDOLPH TWP	MORRIS
MUNSON'S MINE	IRON	1859	0	DOVER TOWN	MORRIS
SKELLINGER MINE	IRON	1878	1880	RANDOLPH TWP	MORRIS
LEWIS MINE	IRON	0	1870	MENDHAM TWP	MORRIS
CONNET MINE	IRON	1869	1875	MENDHAM TWP	MORRIS
BEERS EXPLORATION	IRON	1878	1879	MORRIS TWP	MORRIS
JANES MINE	IRON	1865	0	BERNARDSVILLE BORO	SOMERSET
GLENDON MINE	IRON	1850	1868	GREEN TWP	SUSSEX
HAGGERTY'S FARM	IRON	1874	1879	ALLAMUCHY TWP	WARREN
BRYANT MINE	IRON	1866	1873	ALLAMUCHY TWP	WARREN
WATERLOO MINE	IRON	1855	1885	ALLAMUCHY TWP	WARREN
FRENCH'S MINE	IRON	1873	1873	BYRAM TWP	SUSSEX
WINTERMUTH'S MINE	IRON	1880	1883	ALLAMUCHY TWP	WARREN
WINTERMUTH'S MINE	IRON	1880	1883	ALLAMUCHY TWP	WARREN

Site Name	Mine Type	Begin Date	End Date	Location	County
EUREKA MINE	IRON	1871	1871	ALLAMUCHY TWP	WARREN
EXCELSIOR MINE	IRON	1871	1883	ALLAMUCHY TWP	WARREN
EDSALL MINE	IRON	1840	1873	HARDYSTON TWP	SUSSEX
SIMPSON MINE	IRON	1850	1854	VERNON TWP	SUSSEX
POCHUK MINE	IRON	1835	1876	VERNON TWP	SUSSEX
COPPERAS MINE	IRON	1816	1816	VERNON TWP	SUSSEX
BIRD MINE	IRON	1868	1868	VERNON TWP	SUSSEX
RAPP MINE	IRON	1868	1930	POHATCONG TWP	WARREN
CARPENTER MINE	IRON	1865	1885	POHATCONG TWP	WARREN
CARPENTER MINE	IRON	1865	1885	POHATCONG TWP	WARREN
RIEGEL MINE	IRON	1879	1888	POHATCONG TWP	WARREN
RIEGEL MINE	IRON	1879	1888	POHATCONG TWP	WARREN
HARTS MINE EXPLORATION	IRON	0	0	POHATCONG TWP	WARREN
SHILOH MINE	IRON	1873	1873	HOPE TWP	WARREN
SWAYZE HEMATITE MINE	IRON	1877	1882	HOPE TWP	WARREN
ALBERTSON MINE	IRON	1873	1875	INDEPENDENCE TWP	WARREN
CUMMINS MINE	IRON	1868	1882	INDEPENDENCE TWP	WARREN
COOK FARM MINE	IRON	1881	1900	LIBERTY TWP	WARREN
SHUSTER MINE	IRON	1877	1890	FRELINGHUYSEN TWP	WARREN
SCRANTON'S LEASE	IRON	1873	1883	INDEPENDENCE TWP	WARREN
GREEN FARM MINE	IRON	1873	1884	INDEPENDENCE TWP	WARREN
JENNY JUMP MINE	IRON	1880	1900	HOPE TWP	WARREN
DAFFORD MINE	IRON	1879	1880	LEBANON TWP	HUNTERDON

Site Name	Mine Type	Begin Date	End Date	Location	County
SHARPS MINE	IRON	1871	1880	CLINTON TWP	HUNTERDON
EMERY FARM EXPLORATION	IRON	1878	1878	CLINTON TWP	HUNTERDON
OLD FURNANCE MINE	IRON	1778	1884	CLINTON TWP	HUNTERDON
ANNANDALE MINE	IRON	1880	1880	CLINTON TWP	HUNTERDON
COKESBURY MINE	IRON	1776	1873	TEWKSBURY TWP	HUNTERDON
BURRILL MINE	IRON	1878	1878	TEWKSBURY TWP	HUNTERDON
SUTTON FARM MINE	IRON	1873	1881	TEWKSBURY TWP	HUNTERDON
FOX HILL MINE	IRON	1873	1880	TEWKSBURY TWP	HUNTERDON
WELCH FARM EXPLORATION	IRON	1883	1883	TEWKSBURY TWP	HUNTERDON
NEIGHBOR MINE	IRON	1879	1880	LEBANON TWP	HUNTERDON
CRESTMORE MINE	IRON	0	0	WASHINGTON TWP	MORRIS
RAMSEY'S MINE	IRON	1870	1872	HARMONY TWP	WARREN
ANDOVER MINE	IRON	1776	1863	ANDOVER TWP	SUSSEX
SULPHUR HILL MINE	IRON	1857	1880	ANDOVER TWP	SUSSEX
TAR HILL MINE	IRON	1855	1880	ANDOVER TWP	SUSSEX
LONGCORE MINE	IRON	1855	0	ANDOVER TWP	SUSSEX
SUSSEX MILLS MINE	IRON	0	0	SPARTA TWP	SUSSEX
BIRD MINE	IRON	1873	1873	CLINTON TOWN	HUNTERDON
RODENBAUGH MINE	IRON	1876	1880	BETHLEHEM TWP	HUNTERDON
MABERRY MINE	IRON	1880	1880	BETHLEHEM TWP	HUNTERDON
HIGH BRIDGE MINES	IRON	1720	1889	HIGH BRIDGE BORO	HUNTERDON
GLEN RIDGE MINE	COPPER	1746	0	GLEN RIDGE BORO	ESSEX

Site Name	Mine Type	Begin Date	End Date	Location	County
RARITAN MINE	COPPER	1840	0	PISCATAWAY TWP	MIDDLESEX
AHLES MINE	IRON	1901	1916	OXFORD TWP	WARREN
AHLES MINE	IRON	1901	1916	OXFORD TWP	WARREN
SCHULER MINE	IRON	1773	1880	WHITE TWP	WARREN
ROSEBERRY MINE	IRON	1872	1890	WHITE TWP	WARREN
UNNAMED	IRON	0	0	WASHINGTON TWP	WARREN
PIERSONS EXPLORATION	IRON	0	0	MAHWAH TWP	BERGEN
UNNAMED	IRON	0	0	MAHWAH TWP	BERGEN
UNNAMED	COPPER	0	0	DELAWARE TWP	HUNTERDON
UNNAMED	GRAPHITE	0	0	MORRIS TWP	MORRIS
UNNAMED	GRAPHITE	0	0	MENDHAM BORO	MORRIS
DICKINSON MINE	GRAPHITE	0	0	MENDHAM TWP	MORRIS
SUTTON FARM GRAPHITE MINE	GRAPHITE	0	0	TEWKSBURY TWP	HUNTERDON
ANNANDALE GRAPHITE MINE	GRAPHITE	0	0	CLINTON TWP	HUNTERDON
FISHER MINE	GRAPHITE	0	0	TEWKSBURY TWP	HUNTERDON
ENGLEMANN MINE	GRAPHITE	0	0	CHESTER TWP	MORRIS
BETTS EXPLORATION	GRAPHITE	0	0	MORRIS TWP	MORRIS
UNNAMED	GRAPHITE	0	0	BLOOMINGDALE BORO	PASSAIC
BLOOMINGDALE MINE	GRAPHITE	0	0	RIVERDALE BORO	MORRIS
BLOOMINGDALE MINE	GRAPHITE	0	0	RIVERDALE BORO	MORRIS
UNNAMED	MICA	0	0	MENDHAM TWP	MORRIS
FELTVILLE MINE	COPPER	1733	1865	WATCHUNG BORO	SOMERSET

Site Name	Mine Type	Begin Date	End Date	Location	County
UNNAMED	IRON	0	0	FRELINGHUYSEN TWP	WARREN
CUMMINS MINE	IRON	1868	1882	INDEPENDENCE TWP	WARREN
CUMMINS MINE	IRON	1868	1882	INDEPENDENCE TWP	WARREN
UNNAMED	IRON	0	0	INDEPENDENCE TWP	WARREN
KISPAUGH MINE NORTH	IRON	1871	1900	LIBERTY TWP	WARREN
KISPAUGH MINE SOUTH	IRON	1871	1900	LIBERTY TWP	WARREN
DAVIS MINE	IRON	1873	1883	INDEPENDENCE TWP	WARREN
INSHOW EXPLORATION	IRON	1872	0	HOPE TWP	WARREN
POTTER FARM EXPLORATION	IRON	1872	1873	INDEPENDENCE TWP	WARREN
GARRISON FARM EXPLORATION	IRON	1858	1881	INDEPENDENCE TWP	WARREN
STINSON MINE	IRON	1881	1883	INDEPENDENCE TWP	WARREN
UNNAMED	IRON	0	0	INDEPENDENCE TWP	WARREN
UNNAMED	IRON	0	0	INDEPENDENCE TWP	WARREN
UNNAMED	IRON	0	0	INDEPENDENCE TWP	WARREN
UNNAMED	IRON	0	0	INDEPENDENCE TWP	WARREN
UNNAMED	SULFIDE	0	0	FRELINGHUYSEN TWP	WARREN
UNNAMED	IRON	0	0	INDEPENDENCE TWP	WARREN
STIFF FARM EXPLORATIONS	IRON	1871	0	HOPE TWP	WARREN
HOWELL FARM MINE	IRON	1800	1943	INDEPENDENCE TWP	WARREN
HOWELL FARM MINE	IRON	1800	1943	INDEPENDENCE TWP	WARREN
HOWELL FARM MINE	IRON	1800	1943	INDEPENDENCE TWP	WARREN
HOWELL FARM MINE	IRON	1800	1943	INDEPENDENCE TWP	WARREN

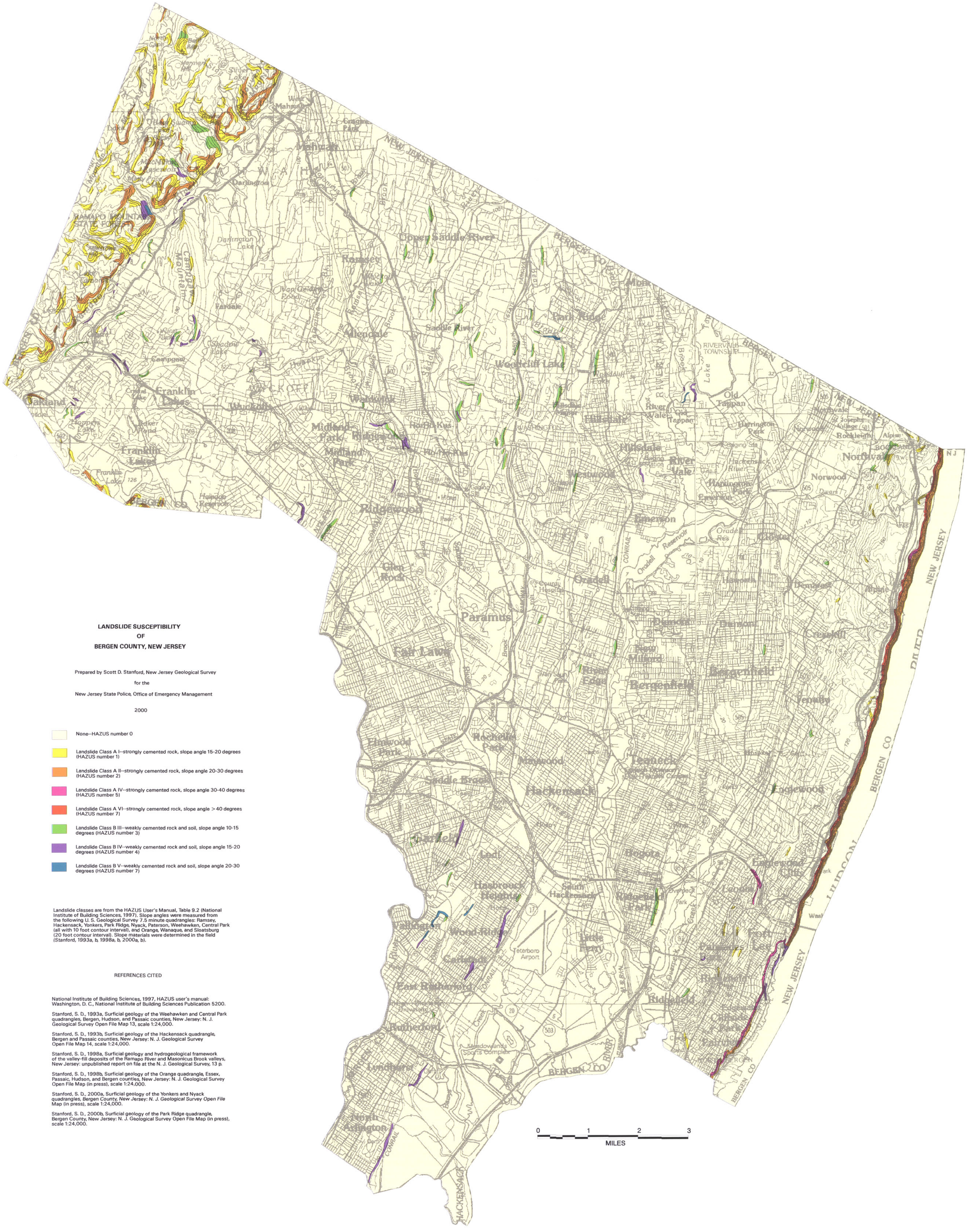
Site Name	Mine Type	Begin Date	End Date	Location	County
HOWELL FARM MINE	IRON	1800	1943	INDEPENDENCE TWP	WARREN
SHAW MINE	IRON	1868	1871	INDEPENDENCE TWP	WARREN
UNNAMED	SULFIDE	0	0	INDEPENDENCE TWP	WARREN
UNNAMED	IRON	0	0	INDEPENDENCE TWP	WARREN
HOWELL FARM MINE	IRON	1800	1943	INDEPENDENCE TWP	WARREN
UNNAMED	MICA	0	0	HARMONY TWP	WARREN
UNNAMED	IRON	0	0	FRANKLIN TWP TWP	WARREN
TERRY MINE	IRON	1868	1885	FRANKLIN TWP	WARREN
CARTER MINE	IRON	1880	1881	HARMONY TWP	WARREN
CARTER MINE	IRON	1880	1881	HARMONY TWP	WARREN
CARTER MINE	IRON	1880	1881	HARMONY TWP	WARREN
CARTER MINE	IRON	1880	1881	HARMONY TWP	WARREN
SMITH'S OPENINGS	IRON	0	1873	FRANKLIN TWP	WARREN
UNNAMED	IRON	0	0	FRANKLIN TWP	WARREN
UNNAMED	IRON	0	0	FRANKLIN TWP	WARREN
UNNAMED	IRON	0	0	FRANKLIN TWP	WARREN
UNNAMED	IRON	0	0	FRANKLIN TWP	WARREN
UNNAMED	IRON	0	0	FRANKLIN TWP	WARREN
UNNAMED	IRON	0	0	FRANKLIN TWP	WARREN
UNNAMED	IRON	0	0	ALEXANDRIA TWP	HUNTERDON
TURKEY HILL MINE	IRON	1872	1886	BETHLEHEM TWP	HUNTERDON
TURKEY HILL MINE	IRON	1872	1886	BETHLEHEM TWP	HUNTERDON
TURKEY HILL MINE	IRON	1872	1886	BETHLEHEM TWP	HUNTERDON

Site Name	Mine Type	Begin Date	End Date	Location	County
TURKEY HILL MINE	IRON	1872	1886	BETHLEHEM TWP	HUNTERDON
TURKEY HILL MINE	IRON	1872	1886	BETHLEHEM TWP	HUNTERDON
TURKEY HILL MINE	IRON	1872	1886	BETHLEHEM TWP	HUNTERDON
TURKEY HILL MINE	IRON	1872	1886	BETHLEHEM TWP	HUNTERDON
WRIGHT MINE	IRON	1880	1881	ALEXANDRIA TWP	HUNTERDON
HENRY MINE	IRON	0	0	BETHLEHEM TWP	HUNTERDON
HENRY MINE	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	ALEXANDRIA TWP	HUNTERDON
UNNAMED	IRON	0	0	ALEXANDRIA TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
SWAYZE MINE	IRON	1868	1889	BETHLEHEM TWP	HUNTERDON
SWAYZE MINE	IRON	1868	1889	BETHLEHEM TWP	HUNTERDON
SWAYZE MINE	IRON	1868	1889	BETHLEHEM TWP	HUNTERDON
SWAYZE MINE	IRON	1868	1889	BETHLEHEM TWP	HUNTERDON
SWAYZE MINE	IRON	1868	1889	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
SWAYZE MINE	IRON	1868	1889	BETHLEHEM TWP	HUNTERDON

Site Name	Mine Type	Begin Date	End Date	Location	County
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
SWAYZE MINE	IRON	1868	1889	BETHLEHEM TWP	HUNTERDON
WILD CAT MINE	IRON	1876	1880	BETHLEHEM TWP	HUNTERDON
WILD CAT MINE	IRON	1876	1880	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
UNNAMED	IRON	0	0	HOLLAND TWP	HUNTERDON
UNNAMED	IRON	0	0	HOLLAND TWP	HUNTERDON
UNNAMED	IRON	0	0	POHATCONG TWP	WARREN
UNNAMED	MICA	0	0	HARMONY TWP	WARREN
SILVER SPRING MINE	IRON	1882	0	MOUNT ARLINGTON	MORRIS
UNNAMED	IRON	0	0	BETHLEHEM TWP	HUNTERDON
MILLER MINE	IRON	1871	1879	BETHLEHEM TWP	HUNTERDON
MILLER MINE	IRON	1871	1879	BETHLEHEM TWP	HUNTERDON
HIGH BRIDGE MINES	IRON	1720	1889	HIGH BRIDGE BORO	HUNTERDON
KEAN MINE	IRON	1875	1885	HIGH BRIDGE BORO	HUNTERDON
KEAN MINE	IRON	1875	1885	HIGH BRIDGE BORO	HUNTERDON
READINGSBURGH MINE	GRAPHITE	0	0	CLINTON TWP	HUNTERDON

Site Name	Mine Type	Begin Date	End Date	Location	County
BEAVERS FARM MINE	GRAPHITE	0	0	HIGH BRIDGE BORO	HUNTERDON
HACKETT MINE	GRAPHITE	0	0	HIGH BRIDGE BORO	HUNTERDON
UNNAMED	IRON	0	0	LEBANON TWP	HUNTERDON
UNNAMED	IRON	0	0	LEBANON TWP	HUNTERDON
UNNAMED	IRON	0	0	LEBANON TWP	HUNTERDON
UNNAMED	IRON	0	0	LEBANON TWP	HUNTERDON
VAN SYCKLE'S MINE	IRON	1770	1875	BETHLEHEM TWP	HUNTERDON
EVELAND MINE	IRON	1880	0	GLEN GARDNER	HUNTERDON
ALVAH GRAY	IRON	1873	1880	LEBANON TWP	HUNTERDON
BANGHART MINE	IRON	1868	1880	LEBANON TWP	HUNTERDON
BANGHART MINE	IRON	1868	1880	LEBANON TWP	HUNTERDON
BANGHART MINE	IRON	1868	1880	LEBANON TWP	HUNTERDON
BANGHART MINE	IRON	1868	1880	LEBANON TWP	HUNTERDON
BANGHART MINE	IRON	1868	1880	LEBANON TWP	HUNTERDON
UNNAMED	IRON	0	0	CLINTON TWP	HUNTERDON
UNNAMED	IRON	0	0	HARMONY TWP	WARREN
UNNAMED	IRON	0	0	HARMONY TWP	WARREN
MARBLE MT. MINE	IRON	1860	1887	LOPATCONG TWP	WARREN
MARBLE MT. MINE	IRON	1860	1887	LOPATCONG TWP	WARREN
MARBLE MT. MINE	IRON	1860	1887	LOPATCONG TWP	WARREN
ASBURY	IRON	1854	1879	BETHLEHEM TWP	HUNTERDON

Source: NJDEP 2006



LANDSLIDE SUSCEPTIBILITY
OF
BERGEN COUNTY, NEW JERSEY

Prepared by Scott D. Stanford, New Jersey Geological Survey
for the
New Jersey State Police, Office of Emergency Management

2000

- None--HAZUS number 0
- Landslide Class A I--strongly cemented rock, slope angle 15-20 degrees (HAZUS number 1)
- Landslide Class A II--strongly cemented rock, slope angle 20-30 degrees (HAZUS number 2)
- Landslide Class A IV--strongly cemented rock, slope angle 30-40 degrees (HAZUS number 5)
- Landslide Class A VI--strongly cemented rock, slope angle >40 degrees (HAZUS number 7)
- Landslide Class B III--weakly cemented rock and soil, slope angle 10-15 degrees (HAZUS number 3)
- Landslide Class B IV--weakly cemented rock and soil, slope angle 15-20 degrees (HAZUS number 4)
- Landslide Class B V--weakly cemented rock and soil, slope angle 20-30 degrees (HAZUS number 7)

Landslide classes are from the HAZUS User's Manual, Table 9.2 (National Institute of Building Sciences, 1997). Slope angles were measured from the following U. S. Geological Survey 7.5 minute quadrangles: Ramsey, Hackensack, Yonkers, Park Ridge, Nyack, Paterson, Weehawken, Central Park (all with 10 foot contour interval), and Orange, Wanaque, and Sloatsburg (20 foot contour interval). Slope materials were determined in the field (*Stanford, 1993a, b, 1998a, b, 2000a, b*).

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LANDSLIDE SUSCEPTIBILITY FOR ESSEX COUNTY, NEW JERSEY

Prepared by Scott D. Stanford, New Jersey Geological Survey
for the
New Jersey State Police, Office of Emergency Management

2001

- None--HAZUS number 0
- Landslide Class A I--strongly cemented rock, slope angle 15-20 degrees (HAZUS number 1)
- Landslide Class A II--strongly cemented rock, slope angle 20-30 degrees (HAZUS number 2)
- Landslide Class A IV--strongly cemented rock, slope angle 30-40 degrees (HAZUS number 5)
- Landslide Class A VI--strongly cemented rock, slope angle >40 degrees (HAZUS number 7)
- Landslide Class B III--weakly cemented rock and soil, slope angle 10-15 degrees (HAZUS number 3)
- Landslide Class B IV--weakly cemented rock and soil, slope angle 15-20 degrees (HAZUS number 4)
- Landslide Class B V--weakly cemented rock and soil, slope angle 20-30 degrees (HAZUS number 7)

Landslide classes are from the HAZUS User's Manual, Table 9.2 (National Institute of Building Sciences, 1997). Slope angles were measured from the following U. S. Geological Survey 7.5 minute quadrangles: Caldwell, Orange, Pompton Plains, and Roselle (all with 20-foot contour interval), and Paterson and Elizabeth (10-foot contour interval). Slope materials are from Salisbury (1895) and Stanford (1991, 1998, 2000).

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0 1 2 3
MILES

LANDSLIDE SUSCEPTIBILITY

OF

HUDSON COUNTY, NEW JERSEY

Prepared by Scott D. Stanford, New Jersey Geological Survey

for the

New Jersey State Police, Office of Emergency Management

1999

- None--HAZUS number 0
- Landslide Class A I--strongly cemented rock, slope angle 15-20 degrees (HAZUS number 1)
- Landslide Class A II--strongly cemented rock, slope angle 20-30 degrees (HAZUS number 2)
- Landslide Class A IV--strongly cemented rock, slope angle 30-40 degrees (HAZUS number 5)
- *Landslide Class B IV--weakly cemented rock and soil, slope angle 15-20 degrees (HAZUS number 4)*

Landslide classes are from the HAZUS User's Manual, Table 9.2 (National Institute of Building Sciences, 1997). Slope angles were measured from the following U. S. Geological Survey 7.5 minute quadrangles: Jersey City, Weehawken, Central Park (all with 10 foot contour interval), and Orange (20 foot contour interval). Slope materials were determined in the field (Stanford, 1993, 1995, 1998).

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LANDSLIDE SUSCEPTIBILITY FOR MIDDLESEX COUNTY, NEW JERSEY

Prepared by Scott D. Stanford, New Jersey Geological Survey
for the
New Jersey State Police, Office of Emergency Management

2003

- None--HAZUS number 0
- Landslide Class B III--weakly cemented rock and soil, slope angle 10-15 degrees (HAZUS number 3)
- Landslide Class B IV--weakly cemented rock and soil, slope angle 15-20 degrees (HAZUS number 4)
- *Landslide Class CVI--shales and clayey soil, slope angle 10-15 degrees* (HAZUS number 8)
- Landslide Class CVII--shales and clayey soil, slope angle 15-20 degrees (HAZUS number 9)

Landslide classes are from the HAZUS User's Manual, Table 9.2 (National Institute of Building Sciences, 1997). Slope angles were measured from the following U. S. Geological Survey 7.5 minute quadrangles: Bound Brook, Freehold, Hightstown, Jamesburg, Monmouth Junction, Princeton, Plainfield, and Perth Amboy (all with 20-foot contour interval), and Arthur Kill, New Brunswick, South Amboy, and Keyport (10-foot contour interval). In former sand and clay pits where the base-map topography has been altered, slope angles are estimated from aerial photography and field observations. Slope materials are from Stanford (1999).

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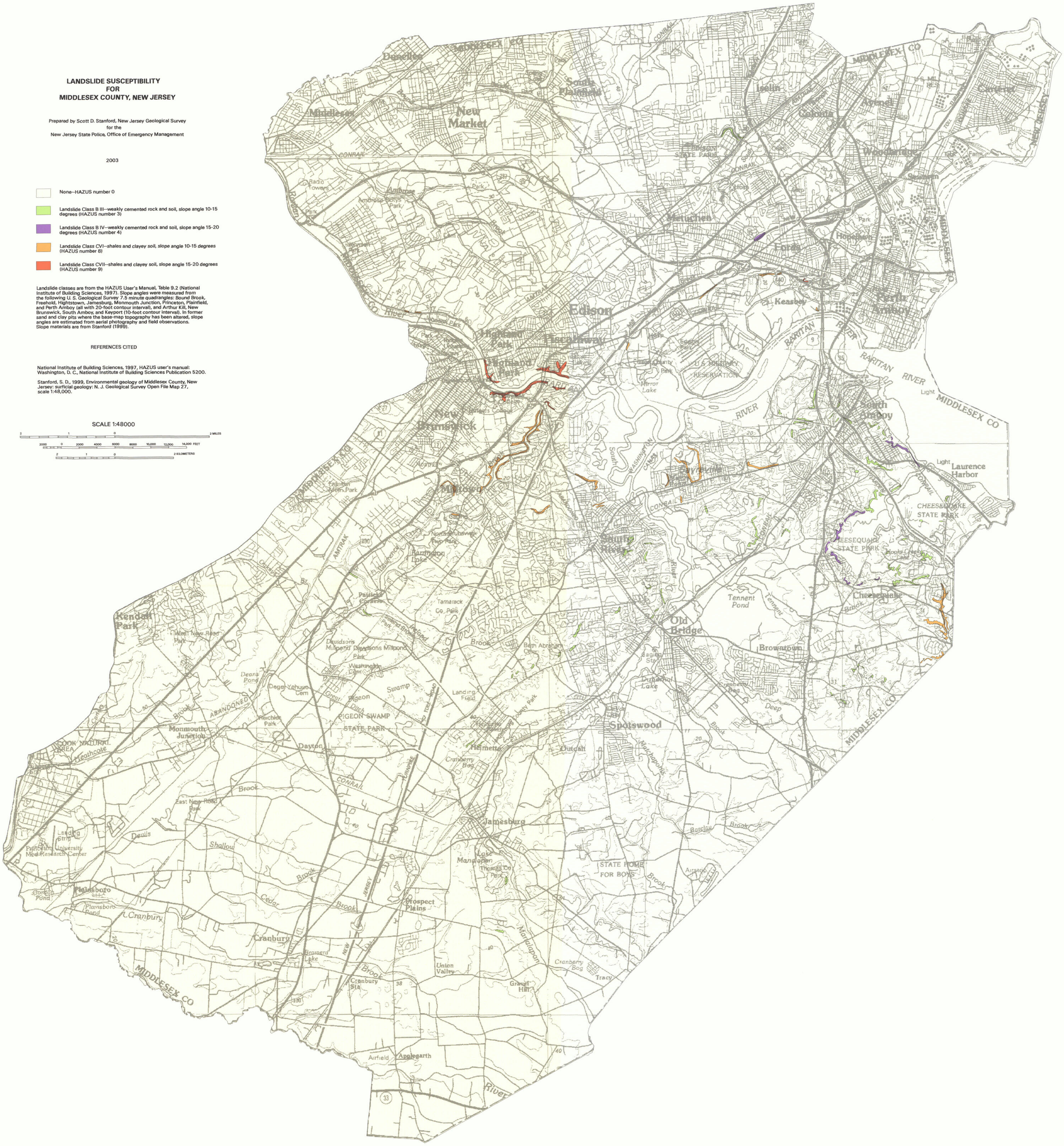
SCALE 1:48000


MIDDLESEX CO
Dunellen
Middlesex
New Market
South Plainfield
Iselin
Colonia
Avenel
Woodbridge
Carteret
Metuchen
Edison
Fords
Keasbey
Perth Amboy
Highland Park
New Brunswick
South Amboy
Laurence Harbor
Milltown
South River
Sayreville
Kendall Park
Old Bridge
Tennent Pond
Cheesequake
Browntown
Spotswood
Monmouth Junction
Dayton
Jamesburg
Plainsboro
Cranbury
Prospect Plains
Union Valley
Gravel Hill
Tracy
Applegarth
Airfield
STATE HOME FOR BOYS
CHEESEQUAKE STATE PARK
RARITAN RIVER
CONRAIL
AMTRAK
Mirror Lake
Mandeville Lake
Deans Pond
Pigeon Swamp
PIGEON SWAMP STATE PARK
Tamarack Co. Park
Davidsons Millpond
Washington Cem
Landing Field
Cranberry Bog
Deep Brook
Princeton University Med Research Center
Plainsboro Pond
Cranbury Brook
Cedar Brook
Shallow Brook
Devils Brook
Heathcote Brook
Manalapan Brook
Barclay Brook
Airstrip
Thomas Co Park
Brainerd Lake
Cranbury Sta
Tennent Brook
Cranberry Bog
Gaging Sta
Dunellen Lake
Bern Abraham Cem
Hospital
Farm
Park
Light
Radio Towers
Ambrose Park
Ambrose Boys Park
Franklin Elem Park
Nonacoicus Twp Park
Harrington Lake
Patricks Corners
West New Road Park
East New Road Park
Reichler Park
Hopkins County Park
Edison Park
U.S. MILITARY RESERVATION
Raritan River
Millstone River
South River
Manalapan Brook
Devils Brook
Cedar Brook
Shallow Brook
Heathcote Brook
Cranbury Brook
Tennent Brook
Deep Brook
Barclay Brook
Airstrip
Gordon Pond
Plainsboro Pond
Lake Mandeville
Cranbury Sta
Applegarth
Airfield
Tracy
Gravel Hill
Union Valley
Prospect Plains
Spotswood
Outcall
Helmetta
Dayton
Monmouth Junction
Kendall Park
Jamesburg
Plainsboro
Cranbury
Carteret
Woodbridge
Avenel
Colonia
Iselin
Metuchen
Edison
Fords
Keasbey
Perth Amboy
South Amboy
Laurence Harbor
Old Bridge
Spotswood
Jamesburg
Cranbury
Plainsboro
Kendall Park
Monmouth Junction
Dayton
Helmetta
Outcall
Prospect Plains
Union Valley
Gravel Hill
Tracy
Applegarth
Airfield
Cranbury Sta
Brainerd Lake
Lake Mandeville
Thomas Co Park
Cranberry Bog
Tennent Pond
Cheesequake
Browntown
Dunellen Lake
Bern Abraham Cem
Gaging Sta
Hospital
Farm
Park
Light
Radio Towers
Ambrose Park
Ambrose Boys Park
Franklin Elem Park
Nonacoicus Twp Park
Harrington Lake
Patricks Corners
West New Road Park
East New Road Park
Reichler Park
Hopkins County Park
Edison Park
U.S. MILITARY RESERVATION
Mirror Lake
Deans Pond
Pigeon Swamp
PIGEON SWAMP STATE PARK
Tamarack Co. Park
Davidsons Millpond
Washington Cem
Landing Field
Cranberry Bog
Deep Brook
Princeton University Med Research Center
Plainsboro Pond
Gordon Pond
Cranbury Brook
Cedar Brook
Shallow Brook
Devils Brook
Heathcote Brook
Manalapan Brook
Barclay Brook
Airstrip
Thomas Co Park
Brainerd Lake
Cranbury Sta
Tennent Brook
Cranberry Bog
Gaging Sta
Dunellen Lake
Bern Abraham Cem

LANDSLIDE SUSCEPTIBILITY FOR MONMOUTH COUNTY, NEW JERSEY

Prepared by Scott D. Stanford, New Jersey Geological Survey
for the
New Jersey State Police, Office of Emergency Management

2009

EXPLANATION

- None--HAZUS number 0
- BIII Landslide Class BIII--dry sandy soil, slope angle 10-15 degrees (HAZUS number 3)
- BIV Landslide Class BIV--dry sandy soil, slope angle 15-20 degrees (HAZUS number 4).
- BV Landslide Class BV--dry sandy soil, slope angle 20-30 degrees (HAZUS number 7).
- CVI Landslide Class CVI--dry clayey soil, slope angle 10-15 degrees (HAZUS number 8).
- CVII Landslide Class CVII--dry clayey soil, slope angle 15-20 degrees (HAZUS number 9).
- CIX Landslide Class CIX--dry clayey soil, slope angle 20-30 degrees (HAZUS number 9).
- CX Landslide Class CX--wet clayey soil, slope angle greater than 15 degrees (HAZUS number 10).

Landslide classes are from the HAZUS User's Manual, Table 9.2 (National Institute of Building Sciences, 1997). Slope angles were measured from the following U. S. Geological Survey 7.5 minute quadrangles: Freehold, Jamesburg, Keyport, Long Branch, Marlboro, Sandy Hook (all with 20-foot contour interval); Allentown, Adelphia, Cassville, Roosevelt, South Amboy (10-foot contour interval); Asbury Park, Farmingdale, Lakewood, Point Pleasant (5-foot contour interval). Slope materials were determined from the geologic maps listed in the References.

SCALE 1:50,000

CONTOUR INTERVAL 10 METERS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

BASE FROM U. S. GEOLOGICAL SURVEY LONG BRANCH (1983) AND TRENTON (1986) 1:100,000 METRIC TOPOGRAPHIC MAPS

APPROXIMATE MEAN DECLINATION, 1989

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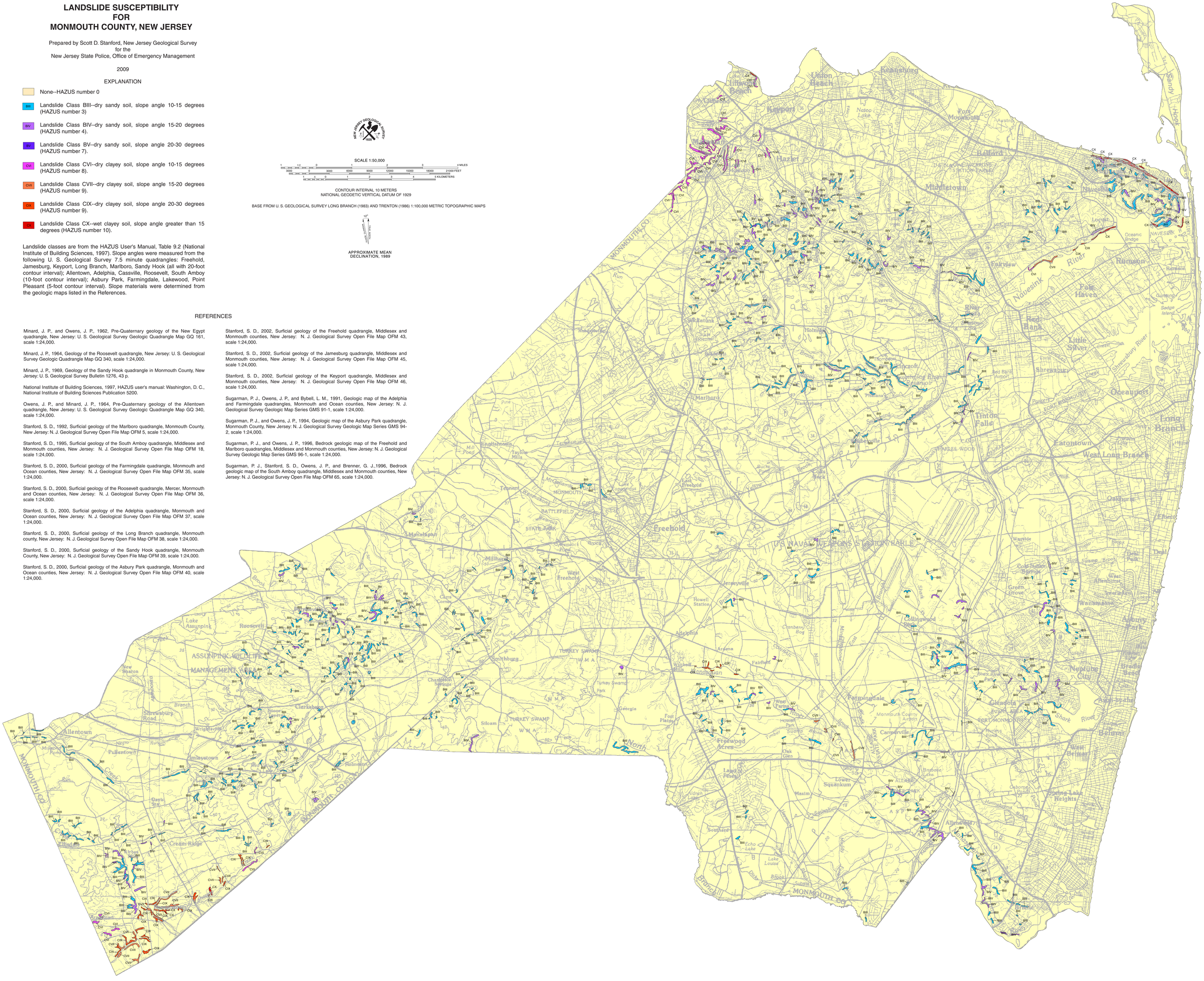


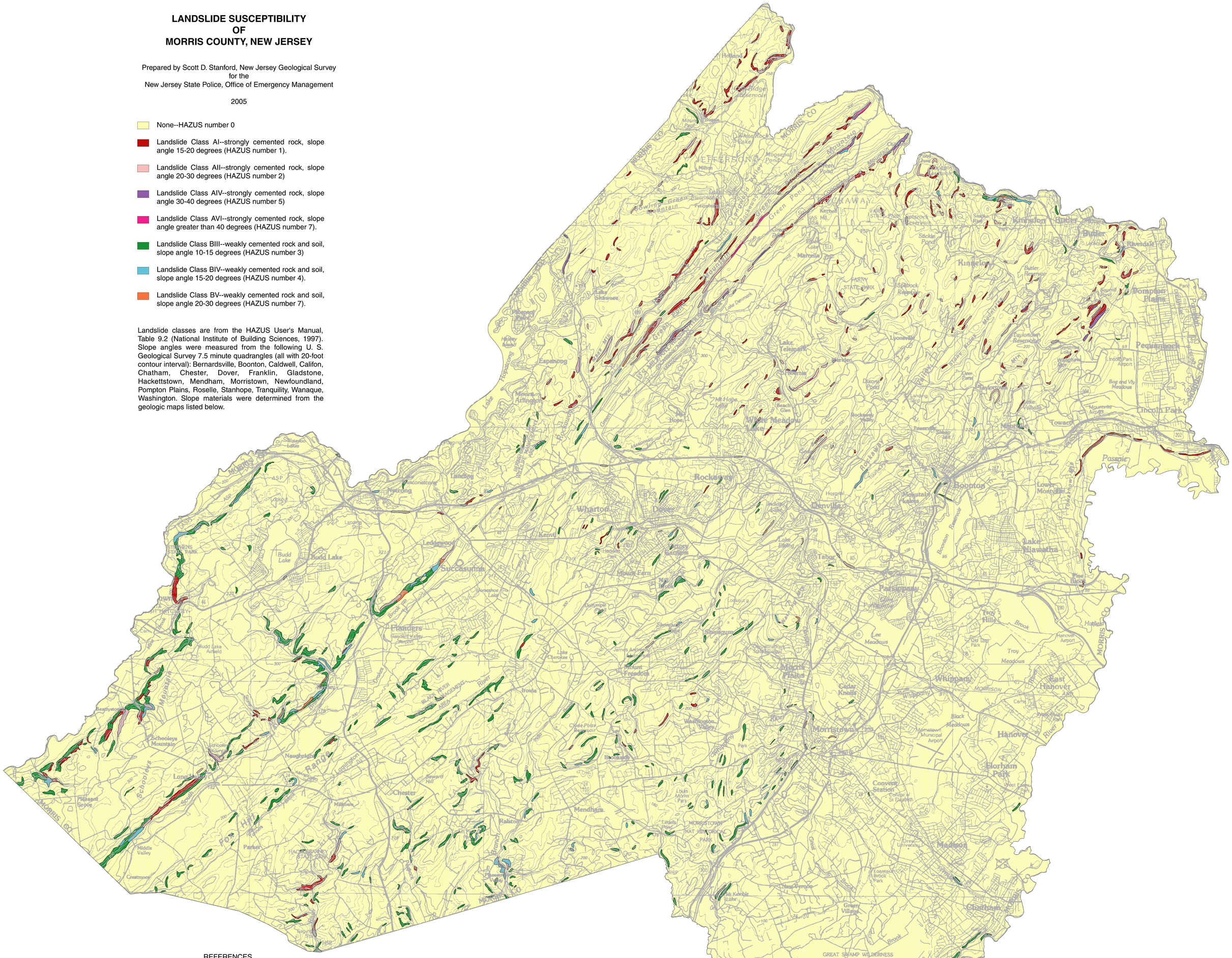
LANDSLIDE SUSCEPTIBILITY OF MORRIS COUNTY, NEW JERSEY

Prepared by Scott D. Stanford, New Jersey Geological Survey
for the
New Jersey State Police, Office of Emergency Management

2005

- None--HAZUS number 0
- Landslide Class AI--strongly cemented rock, slope angle 15-20 degrees (HAZUS number 1).
- Landslide Class AII--strongly cemented rock, slope angle 20-30 degrees (HAZUS number 2)
- Landslide Class AIV--strongly cemented rock, slope angle 30-40 degrees (HAZUS number 5)
- Landslide Class AVI--strongly cemented rock, slope angle greater than 40 degrees (HAZUS number 7).
- Landslide Class BIII--weakly cemented rock and soil, slope angle 10-15 degrees (HAZUS number 3)
- Landslide Class BIV--weakly cemented rock and soil, slope angle 15-20 degrees (HAZUS number 4).
- Landslide Class BV--weakly cemented rock and soil, slope angle 20-30 degrees (HAZUS number 7).

Landslide classes are from the HAZUS User's Manual, Table 9.2 (National Institute of Building Sciences, 1997). Slope angles were measured from the following U. S. Geological Survey 7.5 minute quadrangles (all with 20-foot contour interval): Bernardsville, Boonton, Caldwell, Califon, Chatham, Chester, Dover, Franklin, Gladstone, Hackettstown, Mendham, Morristown, Newfoundland, Pompton Plains, Roselle, Stanhope, Tranquility, Wanaque, Washington. Slope materials were determined from the geologic maps listed below.



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NEW JERSEY GEOLOGICAL SURVEY 1858

SCALE 1: 48 000

1 1/2 0 1 2 3 4 MILES

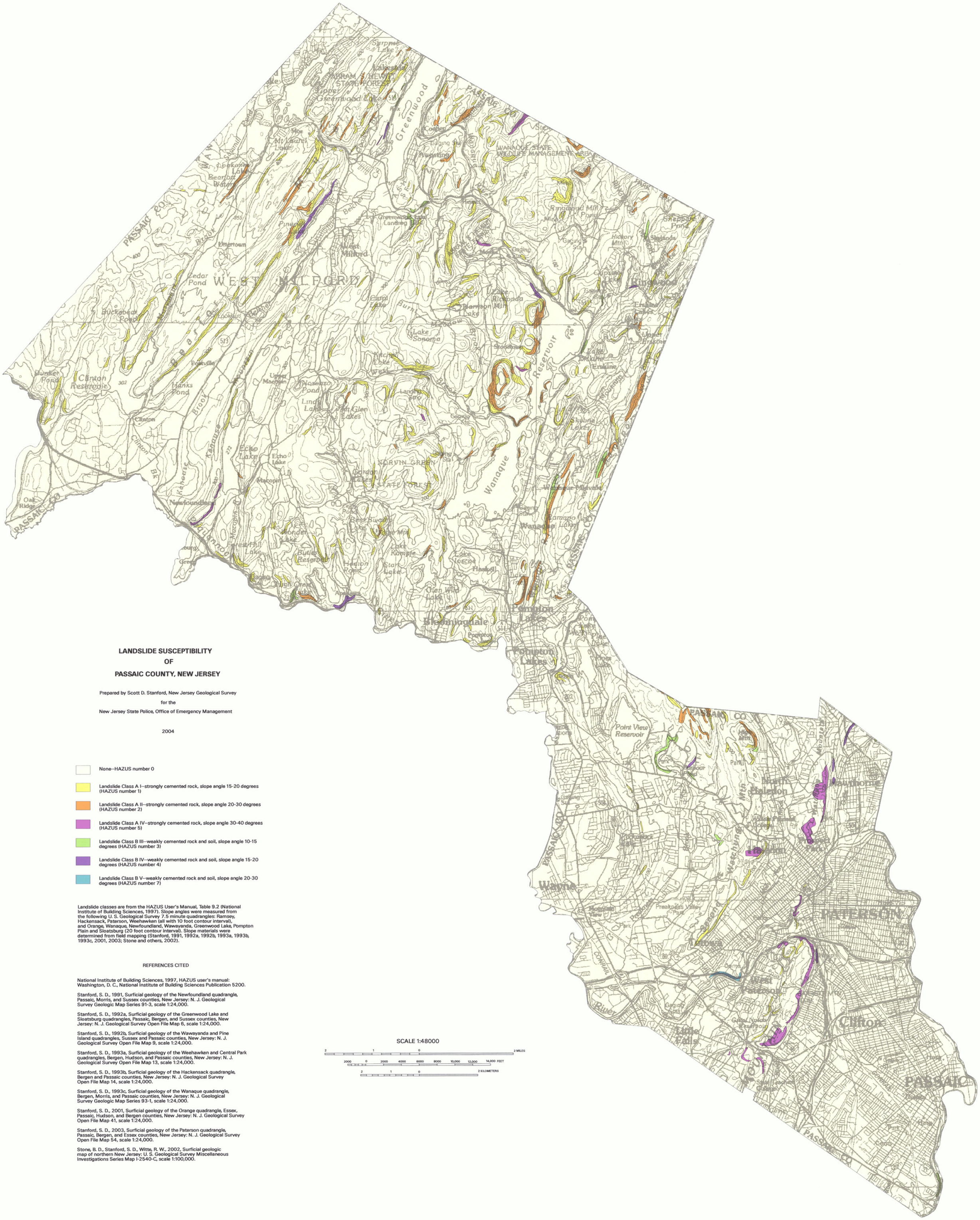
3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 20 METERS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

BASE FROM U. S. GEOLOGICAL SURVEY NEWARK AND MIDDLETOWN 1:100,000 METRIC TOPOGRAPHIC MAPS, 1986

APPROXIMATE MEAN DECLINATION, 1998



LANDSLIDE SUSCEPTIBILITY
OF
PASSAIC COUNTY, NEW JERSEY

Prepared by Scott D. Stanford, New Jersey Geological Survey
for the
New Jersey State Police, Office of Emergency Management

2004

- None--HAZUS number 0
- Landslide Class A I--strongly cemented rock, slope angle 15-20 degrees (HAZUS number 1)
- Landslide Class A II--strongly cemented rock, slope angle 20-30 degrees (HAZUS number 2)
- Landslide Class A IV--strongly cemented rock, slope angle 30-40 degrees (HAZUS number 5)
- Landslide Class B III--weakly cemented rock and soil, slope angle 10-15 degrees (HAZUS number 3)
- Landslide Class B IV--weakly cemented rock and soil, slope angle 15-20 degrees (HAZUS number 4)
- Landslide Class B V--weakly cemented rock and soil, slope angle 20-30 degrees (HAZUS number 7)

Landslide classes are from the HAZUS User's Manual, Table 9.2 (National Institute of Building Sciences, 1997). Slope angles were measured from the following U. S. Geological Survey 7.5 minute quadrangles: Ramsey, Hackensack, Paterson, Weehawken (all with 10 foot contour interval), and Orange, Wanaque, Newfoundland, Wawayanda, Greenwood Lake, Pompton Plain and Sloatsburg (20 foot contour interval). Slope materials were determined from field mapping (Stanford, 1991, 1992a, 1992b, 1993a, 1993b, 1993c, 2001, 2003; Stone and others, 2002).

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SCALE 1:48000

2 1 0 2 MILES

2000 0 2000 4000 6000 8000 10,000 12,000 14,000 FEET

2 1 0 2 KILOMETERS

LANDSLIDE SUSCEPTIBILITY FOR SOMERSET COUNTY, NEW JERSEY

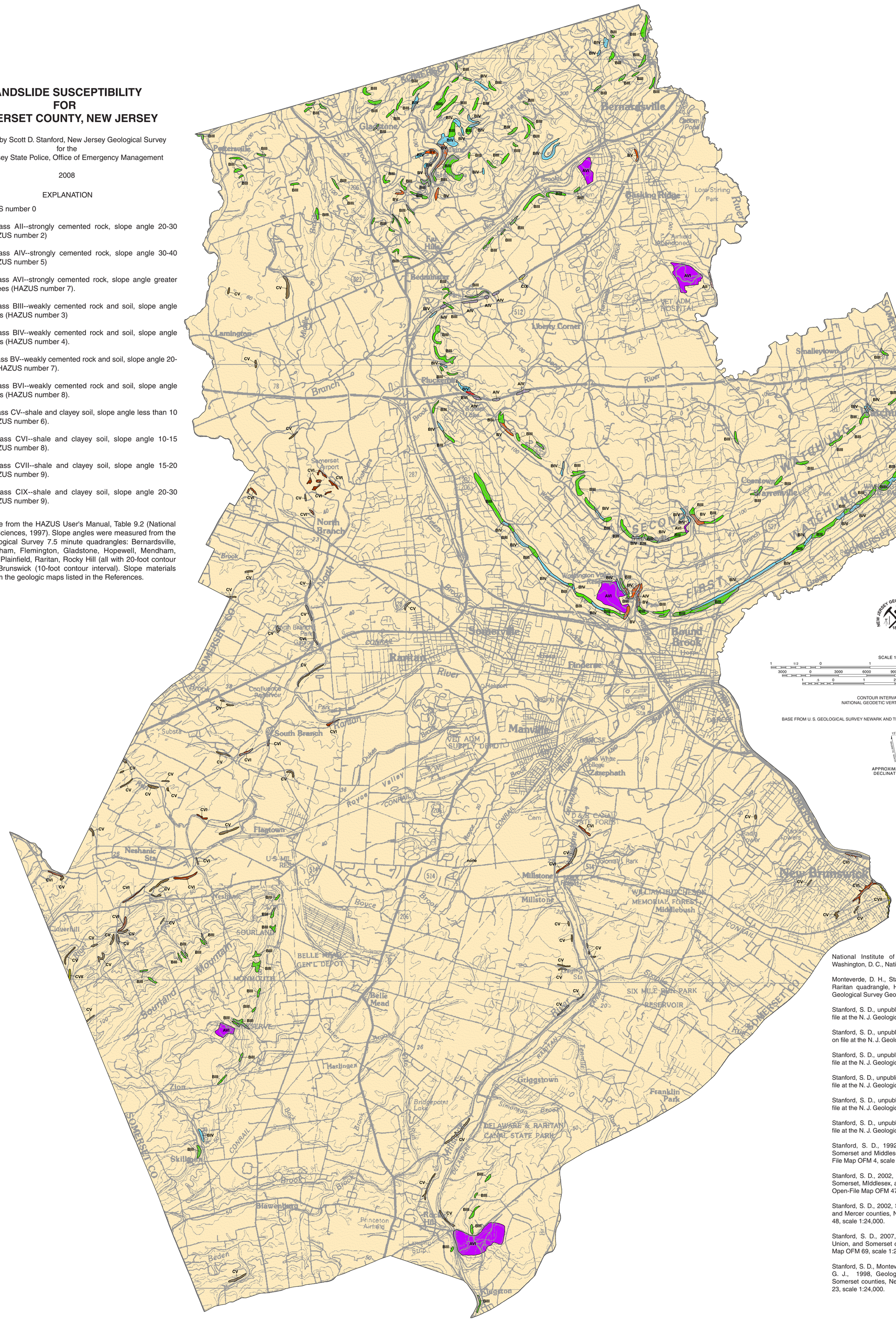
Prepared by Scott D. Stanford, New Jersey Geological Survey
for the
New Jersey State Police, Office of Emergency Management

2008

EXPLANATION

- None--HAZUS number 0
- Landslide Class AII--strongly cemented rock, slope angle 20-30 degrees (HAZUS number 2)
- Landslide Class AIV--strongly cemented rock, slope angle 30-40 degrees (HAZUS number 5)
- Landslide Class AVI--strongly cemented rock, slope angle greater than 40 degrees (HAZUS number 7).
- Landslide Class BIII--weakly cemented rock and soil, slope angle 10-15 degrees (HAZUS number 3)
- Landslide Class BIV--weakly cemented rock and soil, slope angle 15-20 degrees (HAZUS number 4).
- Landslide Class BV--weakly cemented rock and soil, slope angle 20-30 degrees (HAZUS number 7).
- Landslide Class BVI--weakly cemented rock and soil, slope angle 30-40 degrees (HAZUS number 8).
- Landslide Class CV--shale and clayey soil, slope angle less than 10 degrees (HAZUS number 6).
- Landslide Class CVI--shale and clayey soil, slope angle 10-15 degrees (HAZUS number 8).
- Landslide Class CVII--shale and clayey soil, slope angle 15-20 degrees (HAZUS number 9).
- Landslide Class CIX--shale and clayey soil, slope angle 20-30 degrees (HAZUS number 9).

Landslide classes are from the HAZUS User's Manual, Table 9.2 (National Institute of Building Sciences, 1997). Slope angles were measured from the following U. S. Geological Survey 7.5 minute quadrangles: Bernardsville, Bound Brook, Chatham, Flemington, Gladstone, Hopewell, Mendham, Monmouth Junction, Plainfield, Raritan, Rocky Hill (all with 20-foot contour interval), and New Brunswick (10-foot contour interval). Slope materials were determined from the geologic maps listed in the References.


Bernardsville
Basking Ridge
Liberty Corner
Lamington
Pluckemin
Somerset
North Branch
Raritan
Manville
Millstone
Belle Mead
Griggstown
Franklin Park
New Brunswick
Princeton
Kingston
Skillman
Hillsborough
Neshanic Sta
Flemington
Bound Brook
Watchung
Mount Laurel
Lake Nelson
Lake Wapalanne
Wallington Valley Reservoir
Confluence Reservoir
Duke Farms
Delaware & Raritan Canal State Park
Six Mile Run Park Reservoir
William Hutcheson Memorial Forest
Belle Mead Gen'l Depot
Veterans Adm. Supply Depot
Veterans Adm. Hospital
Somerset Airport
Lord Stirling Park
Millstone River
Raritan River
Passaic River
Delaware River
Delaware & Raritan Canal
Conrail
Princeton Airport
Rocky Hill
Hillsborough
Skillman
Blawenburg
Hopewell
Pennington
Titusville
Lambertville
Stockton
Frenchtown
Milford
Califon
Long Valley
Chester
Mendham
Morristown
Madison
Chatham
Summit
Plainfield
Scotch Plains
Fanwood
Westfield
Rahway
Cranford
Roselle Park
Union
Kenilworth
Springfield
Maplewood
South Orange
Millburn
Short Hills
Livingston
Roseland
East Orange
Orange
Glen Ridge
Montclair
Bloomfield
Nutley
Belleville
Newark
Kearny
Harrison
Jersey City
Hoboken
Secaucus
Carteret
Rahway
Elizabeth
Linden
Roselle
Hillside
Irvington
Maplewood
Bayonne
Staten Island
Long Island
Atlantic Ocean
Raritan Bay
Newark Bay
Hackensack River
Passaic River
Rahway River
Elizabeth River
Arthur Kill
Kill Van Kull
Newark Airport
Teterboro Airport
Linden Airport
Bayonne Bridge
Holland Tunnel
Lincoln Tunnel
Goethals Bridge
Outerbridge Crossing
Verrazano-Narrows Bridge
Brooklyn Bridge
Manhattan Bridge
Williamsburg Bridge
Queensboro Bridge
Triborough Bridge
George Washington Bridge
Tappan Zee Bridge
Bear Mountain Bridge
Newburgh-Beacon Bridge
Mid-Hudson Bridge
Kingston-Rhinecliff Bridge
Rondout Creek
Esopus Creek
Hudson River
Delaware River
Raritan River
Passaic River
Rahway River
Elizabeth River
Arthur Kill
Kill Van Kull
Newark Bay
Hackensack

LANDSLIDE SUSCEPTIBILITY FOR UNION COUNTY, NEW JERSEY

Prepared by Scott D. Stanford, New Jersey Geological Survey
for the
New Jersey State Police, Office of Emergency Management

2002

- None--HAZUS number 0
- Landslide Class A I--strongly cemented rock, slope angle 15-20 degrees (HAZUS number 1)
- Landslide Class A II--strongly cemented rock, slope angle 20-30 degrees (HAZUS number 2)
- Landslide Class A VI--strongly cemented rock, slope angle >40 degrees (HAZUS number 7)
- Landslide Class B III--weakly cemented rock and soil, slope angle 10-15 degrees (HAZUS number 3)
- Landslide Class B IV--weakly cemented rock and soil, slope angle 15-20 degrees (HAZUS number 4)
- Landslide Class B V--weakly cemented rock and soil, slope angle 20-30 degrees (HAZUS number 7)

Landslide classes are from the HAZUS User's Manual, Table 9.2 (National Institute of Building Sciences, 1997). Slope angles were measured from the following U. S. Geological Survey 7.5 minute quadrangles: Chatham, Plainfield, Perth Amboy, and Roselle (all with 20-foot contour interval), and Arthur Kill and Elizabeth (10-foot contour interval). Slope materials are from Salisbury (1895) and Stanford (1991, 1999, 2002).

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SCALE 1:48000

2 1 0 2 MILES

2000 0 2000 4000 6000 8000 10,000 12,000 14,000 FEET

2 1 0 2 KILOMETERS