

# Soil Erosion and Sediment Control at Construction Sites in New Jersey



Soil Conservation Districts were established in New Jersey in the aftermath of the Dust Bowl Era. Each of the 16 Districts in New Jersey is a legal subdivision of State government. Districts were instituted in New Jersey with the adoption of the New Jersey Soil Conservation Act in July of 1937. Since then, Districts have worked to conserve and better manage the natural resources of New Jersey, addressing the problems associated with a highly urbanizing State.

# History of the Dust Bowl Era



During the Dust Bowl Era of the 1930's choices were made, and land practices that abused the land were common. Coupled with an extended period of drought severe soil erosion problems developed. On April 27, 1935 President Roosevelt signed the Soil Conservation Act. Officially, an era of soil conservation began. On July 19, 1946, the Southeast Jersey Soil Conservation District was formed.

# Soil Erosion and Sediment Control Problems at Construction Sites.



During the 1970's a rapid shift in land use occurred in New Jersey. Land that was traditionally agricultural and rural was developed into non-agricultural and urban uses. With the construction of houses, industrial facilities, and commercial sites came major land disturbances. Sediment became a major source of pollution. Soil being washed off of construction sites, and excess stormwater runoff created considerable flooding and water quality problems.

# State of New Jersey Soil Erosion and Sediment Control Act



On January 31, 1976, the State of New Jersey approved the “Soil Erosion and Sediment Control Act, P.L. Chapter 251”. This is a Statewide program to reduce the danger from stormwater runoff, to retard nonpoint source pollution, and to conserve and protect the environmental resources of the State.

Developers disturbing more than 5,000 square feet of land are required to implement measures at construction sites to address erosion and sedimentation problems.

# Type of Construction Projects Regulated Under the Act



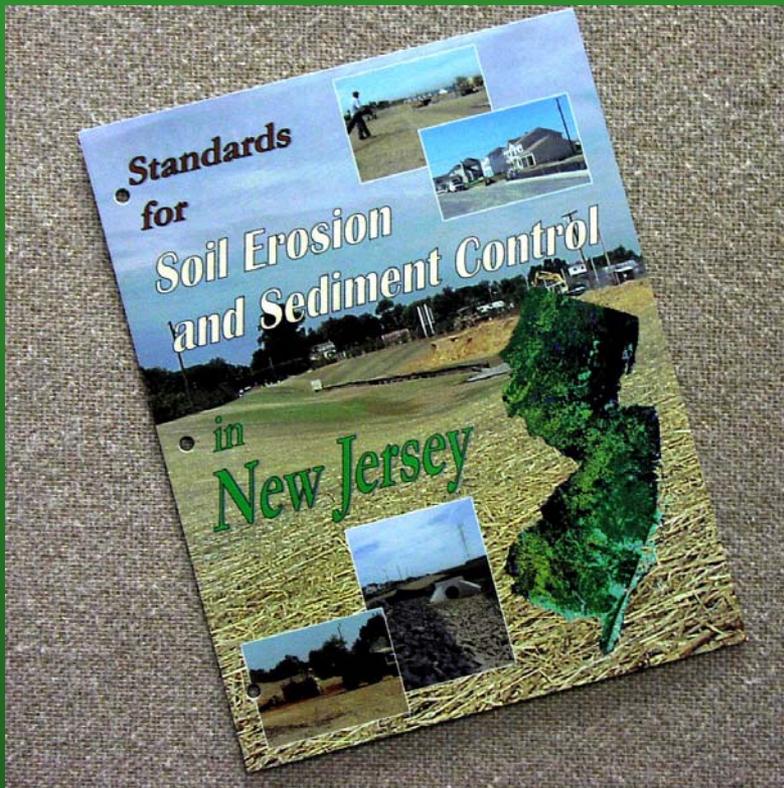
- Commercial sites
- Schools and churches
- Industrial facilities
- Townhouses and Condominiums
- Single family dwelling subdivisions
- Casinos and hotels
- Land grading and utility lines
- Gravel Pits, mining sites, and landfills
- Shopping centers
- Public facilities and golf courses

# Requirements for Developers and Engineers



Before a landowner or developer may disturb more than 5,000 square feet of land, they must submit a “Soil Erosion and Sediment Control Plan” to their local Conservation District for review and approval. Plan must be prepared by an Engineer or Architect in accordance with the “Standards for Soil Erosion and Sediment Control in New Jersey”. District personnel then review the plans for compliance with the standards.

# “Standards for Soil Erosion and Sediment Control in New Jersey”



The “Standards for Soil Erosion and Sediment Control in New Jersey” are guidelines that planners must utilize when designing practices to be used at a construction site. The standards contain sections on vegetative measures, and permanent structural erosion control measures. They also provide guidelines for temporary measures while construction and land disturbance is taking place.

# Vegetative Covers for Soil Stabilization



The establishment of a permanent vegetative cover over exposed soil areas will stabilize the soil, slow the movement of stormwater runoff, and increase infiltration to help protect nearby wetlands, streams or other environmentally sensitive areas.

# Temporary Mulch Covers



The use of temporary mulch covers such as straw, properly anchored with a binder, is an effective way to protect the soil from erosion until a permanent vegetative cover can be established. Mulch covers can be utilized during non-growing season, but are also effective when applied after an exposed soil area has been seeded. The mulch helps to retain soil moisture, and helps to protect the seed before germination occurs.

# Sediment Barriers



Sediment barriers such as silt fencing can be utilized at construction sites to help prevent sediment from washing offsite, from washing into environmentally sensitive areas at the project location.

# Stabilized Construction Access



A pad of clean crushed stone, located at points where construction traffic will be accessing a site, will help to reduce the tracking or flowing of sediment onto roadways or other paved surfaces. This will help to prevent sediment from being transported offsite and from being deposited into nearby drainage systems, or water bodies.

# Stormwater Inlet Protection



Inlet protection methods, such as crushed stone applied over wire mesh, will intercept and retain sediment, preventing it from entering storm sewer systems. Many storm sewer systems discharge onto stormwater management basins, and some may discharge directly into wetlands and other water bodies.

# Stormwater Management Basins



Stormwater basins are installed to reduce the impact of stormwater runoff. When a tract of land is developed the amount of stormwater runoff from the site is increased. A basin can control the release of stormwater runoff downstream of a site, helping to prevent downstream erosion. Basins can also be used to capture sediment, and suspended debris or trash.

# Conduit Outlet Protection



The use of a stone pad at the end of a discharge pipe is utilized to reduce the velocity of stormwater discharging from the outlet. This helps to prevent scouring of soil at the pipe discharge, which is a common source of sediment in lakes and streams.