

US EPA ARCHIVE DOCUMENT

Some Impressions of the Middle Atlantic Coastal Plain (Ecoregion 63) and the Atlantic Coastal Pine Barrens (Ecoregion 84)

A general pattern of different land uses “leapfrogging” up the coast appears to be prevalent in the Middle Atlantic Coastal Plain. Pockets of built up areas (metropolitan and coastal development), forestry, and agriculture are found in various locations against a backdrop of various types of wetlands. The wetlands include both salt and freshwater marshes, flood plain forests, freshwater swamps, and pocosins/carolina bays (both considered evergreen shrub bogs). The pattern in the Atlantic Coastal Pine Barrens appears to be much more consistent with a mix of built-up, forest, and agriculture. Exceptions to the rule are along the coast proper where most of the developed areas are abutting the ocean on stabilized sand spits, cut off from the mainland by a strip of coastal wetlands. The other exception is land within the Pinelands National Reserve where strict zoning has kept the amount of development low.

Developed areas in Ecoregion 63 are located primarily in port cities (Savannah, Charleston, Wilmington, Norfolk) or resort cities (Brunswick, Myrtle Beach [the Grand Strand, Georgetown, SC to Wilmington, NC], and Nags Head). The population diminishes away from the coast proper into more rural settings that can be fairly sparsely settled, i.e. northeast North Carolina. The growth of developed areas has had several causes such as manufacturing dependent on port facilities (the Charleston metro area, from both local and other SC locations needing sea borne transport), national resort spots (Myrtle Beach, Hilton Head) and second home development (the eastern shore of Maryland).

Agriculture also has significant pockets within the ecoregion including northeast South Carolina (the lower Pee Dee country), northeast North Carolina (the Pamlico peninsula) and the Eastern Shore (eastern Maryland and southern Delaware). The Pee Dee and the Eastern Shore have traditionally been agricultural strongholds. Agriculture in northeast North Carolina is a more recent trend as large-scale corporate ag companies have drained and developed a significant portion of the pocosin wetlands. Forestry is wide spread in the southern portion of the ecoregion, especially in North Carolina where large corporate owners, such as Weyhauser, have developed substantial pine plantations. Many of these are also found on former pocosin wetlands. Forestry is limited in extreme southeastern Virginia and the Eastern Shore.

The Middle Atlantic Coastal Plain has numerous holdings of reserved lands along the coast (National Seashores, National Wildlife Refuges, National Forests, and military bases) but this pattern is more pronounced in the southern portion than in the north. Areas that had less wetlands or open beaches have more agriculture (the Pee Dee and the central Eastern Shore) or resort developments (the Grand Strand, Hilton Head, St. Simons Island).

The Atlantic Coastal Pine Barrens ecoregion in southern New Jersey has a pattern of more development on the periphery (the coast, central New Jersey, and the eastern side of the Philadelphia metro area) than in the center. The Pinelands National Reserve dominates this section where strict land use controls

were put in place in the late 1970s and early 1980s. The attempt was to keep a relatively undeveloped area in that condition because of its unique ecological qualities and as a safeguard to a large aquifer that could be easily contaminated. The Pinelands, as the region is known, has been zoned mostly agricultural although much of it is forested and small towns and residences dot the area. The portions of the ecoregion to the north and west of the Pinelands has a much greater percentage of developed lands intermixed with forest and agriculture. The coastal region to the east of the Pinelands has developed areas on open beach portions but more wetlands, as numerous tidal marshes are present. New Jersey has a much higher population density than most of the Middle Atlantic Coastal Plain but the southern portion of the state, where most of the sample blocks are located, is the least densely settled.

Block 63_225

Two tidal rivers dominate it, one on the northern border and in the southeast corner. The land in between is forested and has freshwater wetlands. The Kings Bay Naval Weapons Station and the city of Elliott's Bluff are found in the southeast corner. A two-highway corridor (I-95, US 17) is found on the western side of the block.

Block 63_218

The edge of the Savannah metro area is in the northwest corner of the block but most of it is dominated by coastal wetlands. They are mostly in the Wassaw National Wildlife Refuge. Siskiwit Island is linked to the mainland by the Diamond Causeway and had some development on it.

Block 63_193

The edge of the Charleston metro area is found in a crescent running from the northern edge to the southeast corner, occupying most of the northeast corner. The majority of the block was in forest and wetlands, both upland and tidal river. Industrial forestland appeared to be present in the west-central portion of the block. Some agriculture and less intensely managed woodland were in the southern third of the block.

Block 63_194

The Charleston metro area takes up most of the block. Some agricultural land is found on Daniels Island between the Cooper and Wando Rivers but the completion of the I-526 beltway is allowing more development into this area. Most of the urban development in the northwest corner is recent, within the last thirty years. A portion of the Francis Marion National Forest is found in the northeast corner.

Block 63-167

The block was approximately 70% “uplands” of forest and agriculture (as of 1992) with the remainder bottomland forested wetlands. The block is on the edge of the Pee Dee agricultural region and probably has the more of this land use than any of the other blocks seen so far.

Block 63-150

The city of Marion, SC is located in the southeast corner of the block. The Pee Dee bottomland dominates the southwest corner whereas the northern and eastern portions were mostly in agricultural land. Strips of pine forest are found across the central and northeast portions of the block and timber harvesting appears in the 1992 images.

Block 63-151

The block is still in the Pee Dee region and was mostly agriculture and lowland wetlands. A small portion of forest was located in the northeast corner.

Block 63_115

Several forested pocosins dominated this block. The largest is the Hoffman State Forest and Game Land in the east-central and southeast corner. It had active timbering operations on it in 1992. The Purgatory Pocosin was in the southwest corner. Agricultural land was scattered around the block outside of these pocosin areas, intermixed with lowland wetlands and upland forest.

Block 63_103

The city of Washington, NC is located in the northeast corner of the block. A sizeable area of large tract pine forest was found in the southwest corner. These larger tracts of pine are a possible indicator of corporate ownership (Weyhauser?). The land in between these corners had agriculture on the uplands and lowland wetlands, including the Tar/Pamlico Rivers.

Block 63_99

Agricultural land dominated this block in 1992. It is most likely from drained pocosin wetlands (some was still remnant in the east-central portion of the block). First Colony Farms, a large corporate ag company, owns large land holdings on the Pamlico peninsula and has converted a substantial portion of the original pocosin wetlands found there into ag and pine forestland.

Block 63_31

The only Eastern Shore block. It has a developed corridor in the northern portion from Salisbury, MD on the west and along US 50 towards Willards, MD. The southern portion had more forest and lowland wetlands whereas agriculture was found more in the north. The Wicomico Demonstration Forest is found south of the US 50 corridor but it does not stand out in the image. The Pocomoke River is found on the eastern fringe of the block.

Block 84_47

A typical southern New Jersey shore block. The highly developed areas were on barrier islands that were separated from the mainland by tidal wetlands. A twin highway corridor parallels the first uplands behind these marshlands. The Garden State Parkway and US 9 had low-density development along them. The area behind the highway corridor was mostly forested and freshwater wetlands with some agricultural land.

Block 84_46

The pattern found in 84_47 continued in this block but the developed areas were denser as the proximity to Atlantic City increased. The Tuckahoe Wildlife Management Area that is mostly tidal marshland and scattered upland forest patches dominated the center of the block. The rest of the block inland of the Tuckahoe WMA was mostly forested and freshwater wetlands.

Block 84_43

Atlantic City is in the south-central portion of the block and the built-up areas continued on along the next barrier island and up along the coast until the northwest corner of the block. The Edwin B. Forsythe National Wildlife Refuge occupied most of the tidal wetlands north of Atlantic City. A new, large scale housing development (being built in 1992) is located in the northwest corner of the block.

Block 84-31

The block lies on the west edge of the Pinelands and the eastern edge of the Philadelphia metro area. Wharton State Forest is found in the southwest portion and the city of Medford Lakes a few miles north of it. Agricultural land was dominant in the northwest corner whereas forest and freshwater wetlands in the eastern portion except for an "island" of ag land in that area.

Block 84_24

The city of Trenton, NJ and its suburbs dominate the block, especially in the western and central portions. The southeast corner was mostly agriculture in 1992 with limited forest and wetlands.

Block 84-35

The north-central portion of this block is dominated by the edge of the Philadelphia metro area. Agriculture was intermixed in the central portion and was the main land use in the southwest corner. Several areas of forests and wetlands were in the block, the Great Egg Harbor River along the eastern border and the Glassboro Wildlife Management Area in the south-central portion of the block.

Block 84_34

The Philadelphia metro area occupies both the northeast and northwest corners of the block with the Delaware River between them. A majority of the block was in agriculture except along riparian areas where small tracts of forest and wetlands existed.