## II. ENVIRONMENTAL CONTEXT

The Locust Grove Site is located in the Mid-Drainage zone of the High (or Upper) Coastal Plain of Delaware, south of the Piedmont Uplands (Custer 1984:25; Grettler et al. 1991:7-9) (Figure 2). Situated between the fall line and the Smyrna River, the High Coastal Plain represents the southeastern extension of the very coarse glacial deposits of the Columbia sediments. In many

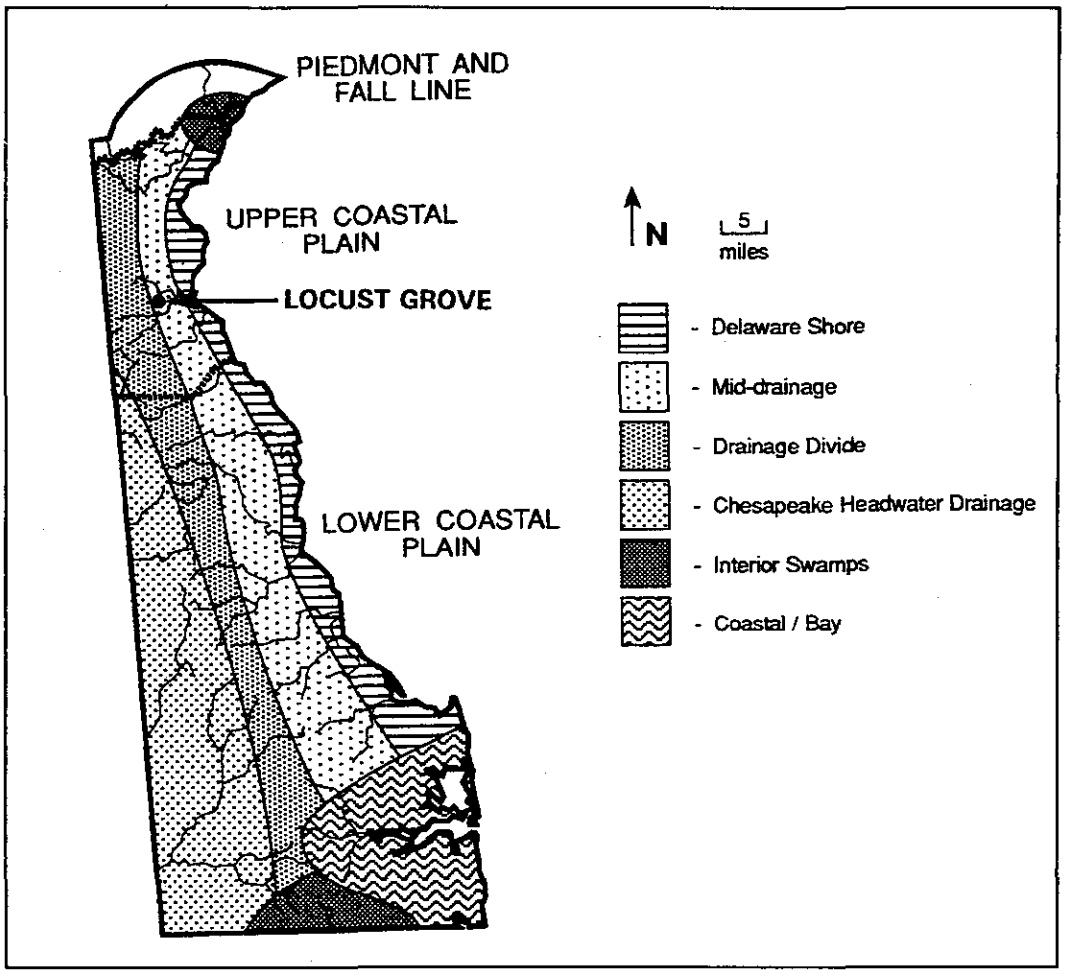


**FIGURE 2: Project Area in Relation to the Physiographic Provinces of Delaware** *Source: Grettler et al. 1966*

areas of New Castle County, these coarse deposits resisted erosion, creating a rolling topography with up to 16 meters (50 feet) of elevation difference between headlands bordering larger streams and the adjacent floodplain marshes. These differences are sufficient to cause varied distributions of plant and animal species (Braun 1967:246-247). Watercourses tend to be deeply incised and are lined with relatively recent sediments that are thin along the upper reaches of the drainages and become thicker toward their mouths (Mathews and Lavoie 1970). Most streams are not entirely tidal, and the freshwater/saltwater mix allows for a wide range of resources.

Locust Grove is situated near the northern edge of a broad northeast-southwest-trending drainage divide. The terrain in this area is level, with an elevation of about 60 feet above mean sea level. An unnamed tributary of Drawyer Creek is located 2,000 feet to the north of the site, and flows in a northeasterly direction to its confluence with Drawyer Creek, approximately 1.3 miles from Locust Grove. Just over a mile to the south of the site is the Appoquinimink River, a tributary of the Delaware River, which also flows in a northeasterly direction; Drawyer Creek joins the Appoquinimink River roughly 2.7 miles east of Locust Grove.

Soils in the project area have been classified as Matapeake silt loam, silty substratum, 2 to 5 percent slopes. Matapeake soils, which account for 25 percent of the soils in New Castle County, are deep and well drained and are well suited to most crops; erosion, however, is a problem, and in most areas part of the original surface layer has been washed away (Mathews and Lavoie 1970:28-30).

Land use in the vicinity of the project area has been agricultural since the period of initial European settlement during the seventeenth century. Despite an increase in residential development that has occurred over the last two decades (including the construction of the Evergreen Farms subdivision east of Locust Grove), the area between Odessa and Middletown still retains much of its rural character, provided by agricultural fields, pasture, woodlots, and dispersed farmsteads.