

III. ENVIRONMENTAL, PREHISTORIC, AND HISTORIC CONTEXTS

ENVIRONMENTAL CONTEXT

The project area is located along State Route 9, from the Kent County line to N453, in New Castle County. The area is situated in the extreme southeast portion of the county, within the Coastal Plain Physiographic Province, roughly twelve miles south of the Chesapeake and Delaware Canal. Sawmill Branch, a tributary of the Smyrna River, provides drainage for the southern extent of the project area.

The soils in this part of New Castle County are generally of the Keyport-Elkton association, which consists of nearly level-to-gently sloping uplands with moderately well and poorly drained medium-textured soils (Matthews and Lavoie 1970). This association accounts for about 4% of the soils found in New Castle County. The soils in the tested areas of the project are primarily Elkton silt loam (0 – 2% slopes) and a small portion of Keyport silt loams (2 – 5% slopes).

The Elkton Series consists of poorly drained soils that occur on the upland flats on the Coastal Plain in the southern part of New Castle County. These soils developed in old fine-textured marine sediments and are not difficult to work in, as they are neither too wet nor too dry. The Elkton soils have a moderate-to-high available moisture capacity and can be difficult to drain, as water moves through the subsoil very slowly (Matthews and Lavoie 1970). A small section of the project area contains soils from the Keyport series. These soils are deep, moderately-to-well-drained soils that occur on uplands in the Coastal Plain portion of the county. These soils developed in old deposits of clay or silty clay. When moisture content is favorable, the Keyport soils are not difficult to work. These soils are limited for some uses by impeded drainage, slow movement of moisture, slope, and the hazard of erosion. In level areas, artificial drainage may be needed (Matthews and Lavoie 1970).

PREHISTORIC CONTEXT

The regional Delmarva chronology as developed by Jay Custer (Custer, Coleman, and Jagers 1988) will be employed in the discussion of the prehistoric context for the project area.

Paleo-Indian (12,000 – 6500 BC)

The Paleo-Indian cultural period encompasses the final disappearance of Pleistocene glacial conditions, and the emergence of more modern Holocene environments. A distinct feature of this period is an adaptation to cold and alternately wet or dry climates. Spruce and pine boreal forests with small amounts of deciduous trees dominated and provided optimal habitats for game animals. The hunting and gathering lifestyle of the Paleo-Indian period necessitated a specialized tool kit. Archaeological sites from this time period are generally identified by the presence of well-crafted projectile points made from high quality lithic material, including chert

Table 1 Synthesis of Northern Delaware Prehistory

Environmental Period	Date Range	Traditional Eastern Chronology	Delmarva Chronology
Late Pleistocene	13000 – 8000 BC	Paleo-Indian	Paleo-Indian
Early Holocene	8000 – 6500 BC	Early Archaic	
Middle Holocene	6500 – 3000 BC	Middle Archaic	Archaic
	3000 – 1000 BC	Late Archaic	Woodland I
Late Holocene	1000 BC – AD 1	Early Woodland	
	AD 1 – 1000	Middle Woodland	
	AD 1000 – 1600	Late Woodland	Woodland II

and jasper. Many Paleo-Indian sites are noted in the Delaware Coastal Plain and are often associated with poorly drained swampy areas.

Archaic (6500 – 3000 BC)

Forests of oak and hemlock characterized the environments of the Archaic period. Open grasslands became sparse, which in turn caused the extinction of many of the grazing animals hunted during the Paleo-Indian period. A rise in sea level associated with the beginning of the Holocene in Delaware resulted in a general rise in the local water table, also creating a number of large interior swamps. These swamp settings were able to support large base camps. Small procurement sites in bay/basin areas, favorable for hunting and gathering, are known in Delaware’s Coastal Plain region. Tool kits from the Archaic period are less specialized than those from Paleo-Indian times. As people expanded into new environments, advantage was taken of expedient, locally available material. Diagnostic stone projectile points associated with the Archaic period include bifurcate base points, side-notched, and various stemmed points. Plant processing tools such as grinding stones, mortars, and pestles were also part of Archaic tool kits.

Woodland I (3000 BC – 1000 AD)

Dramatic environmental and climatic alterations are evident in the Woodland I period. Grasslands became common once again and sea level rise had decreased, resulting in stabilized riverine and estuarine environments, which allowed for seasonally predictable populations of shellfish and anadromous fish. Floodplains and estuarine swamp areas became important settlement locations for larger base camps. Several sites of this type are evident in the Delaware Coastal Plain, including Barker's Landing, Coverdale, Hell Island, and Robbins Farm. A relatively sedentary lifestyle was established by the end of the Woodland I period. The tool kit from this period saw not only variations from previous Archaic tool kits, but also the evolution of container technology with the addition of stone and, subsequently, ceramic containers. These vessels were made for more efficient cooking and may have also doubled as storage containers. Common point styles from this period are triangular, stemmed, and side-notched.

Woodland II Period (AD 1000 – 1650)

During this time, agricultural food production systems began to achieve a more important role in the subsistence pattern across the Middle Atlantic region; however, in the Delaware Coastal Plain there is little evidence of this trend. Hunting and plant utilization remained the dominant subsistence methods from this period up to European Contact. The disappearance of non-local influences on mortuary practices as well as a breakdown of trade and exchange networks mark changes in social organization during the Woodland II period.

HISTORIC CONTEXT

In 1638, Swedish settlers established Fort Christiana at the confluence of the Brandywine and Christiana Rivers, in what is now Wilmington, Delaware. Fort Christiana, the first permanent European settlement in Delaware, soon became the nucleus of scattered Swedish and Finnish farm settlements known as New Sweden. The Dutch built Fort Casimir near present-day New Castle, Delaware in an attempt to block Swedish commercial control on the Delaware River. English claims to the region were made in 1663 when Charles II granted his brother James, Duke of York, the territory between the Connecticut River and the Delaware River. After seizing Dutch settlements on the Hudson River, a group of English soldiers arrived in Delaware, where the Swedes readily—and the Dutch with some reluctance—surrendered. The English seizure began what was known as the second Anglo-Dutch war, ended in 1667 by the treaty of Breda. In 1673, during the third of these wars, the Dutch reoccupied New Netherland, relinquishing the territory once again in 1674. From this point forward, English rule in Delaware went unchallenged (Reed 1947:71).

William Penn received a charter for Pennsylvania from Charles II in 1681. The following year Penn acquired proprietary rights to Delaware and established the lower three counties of New Castle, Kent, and Sussex. The counties were divided into political units called "Hundreds." The project area was located in Appoquinimink Hundred, the southernmost hundred in New Castle County.

English immigration into Delaware was slow, prompting Penn and his agents to aggressively promote settlement in the lower Delaware Valley. In the three decades after Penn's arrival, large numbers of English and Welsh immigrants took up land in New Castle County. Due to the growing importance of Wilmington as an industrial and mercantile city, the state's population and most valuable farms became concentrated in the north (De Cunzo 1993:18; Munroe 1954:147).

Delaware was part of the principal food-producing area of the Colonial seaboard, the so-called Bread Basket of America. Swedish, Finnish, Dutch, and English farmers principally grew tobacco, rye, and barley. By the close of the seventeenth century, Delaware's counties had become largely integrated into Philadelphia's agricultural and commercial hinterland. Almost every farm was situated within twelve miles of navigable water. During this time period, many northern and central Delaware farmers shifted from subsistence-oriented to market-oriented agriculture. In order to achieve this transformation, farmers concentrated on wheat production and shipped their crops to local mill sites. Early settlers focused their energies on establishing good roads, mills, and landings (De Cunzo 1993:17; Munroe 1954:27).

A combination of rapid population growth, land exhaustion, and falling wheat prices spelled economic disaster for many of Delaware's farmers during the late eighteenth and early nineteenth centuries. Real prosperity did not arrive until after 1840, when the growth of urban population centers along the eastern seaboard created a larger and more diversified market for fruits, vegetables, and dairy products.

Agricultural reforms beginning at approximately 1830 profoundly affected farms in New Castle County and spread southward through the state. Reformers encouraged farmers to utilize and experiment with new drainage techniques, fertilizers, and machinery. By 1860 New Castle County had become one of the premier agricultural counties in the nation (De Cunzo 1992:25; Reed 1947:373 – 374).

The Delaware Division of the Philadelphia, Wilmington, and Baltimore Railroad was the most important transportation route in the state. The nearest train stations to farmers in the project area were about nine kilometers to the west; it was easier to haul farm products to landings on Blackbird Creek or Duck Creek (Rea and Price 1849) (Figures 3 and 4). With easy access to the Delaware Bay and River, residents of the project area found it simpler to send their goods to market by boat. Duck Creek's name was changed to the Smyrna River after it was opened to steam navigation.

The cultivation of peaches on a large scale began in the 1830s near Delaware City in New Castle County. As the Delaware Railroad was extended southward, peach growing became more widespread. Increasingly farmers devoted their attention to other kinds of fruit and market garden produce, especially in southern Delaware. The poultry industry, concentrated in Sussex County, took hold in the 1920s. New Castle County became the state's dairy center. Farmers in the project area augmented their income by trapping muskrats and other wildlife in the nearby coastal marshes and cedar swamp. Fishing and crabbing also became important to the local economy. Profits could be enormous for these diverse commercial ventures, yet corn and wheat remained the mainstay of Delaware's agricultural economy (Reed 1947:387, 397).

Development of Thoroughfare Neck

Blackbird Hundred was set off from the southern part of Appoquinimink Hundred in 1875 with Blackbird Creek as its northern boundary. Duck Creek formed the southern boundary of the hundred and divided Blackbird Hundred from Duck Creek Hundred in Kent County. Blackbird Hundred, in which the project area is located, was described as densely wooded until the latter half of the nineteenth century. By 1908, forest clearing and marsh reclamation had resulted in three-quarters of its territory coming under the plow. The area to the east of the project area included a great cedar swamp (see Figure 4). Years of harvesting the trees for shingles, fences, boats, lumber, and firewood diminished the formerly great stands of cedar. Subsequent fires and saltwater inundation further reduced the number of cedars (Conrad 1908:571; Weslager 1956:9 – 10).

Euro-Americans began acquiring land from the area's Native American inhabitants in the 1670s. Ephraim Herrman bought nearly 1,300 acres of land between Duck Creek and the Cedar Swamp in 1680. Ephraim was the son of Augustine Herrman, the surveyor who first developed trade routes between the Delaware and Chesapeake watersheds. As early as the 1670s, Augustine Herrman envisioned building a canal system to connect Appoquinimink Creek on the Delaware to Bohemia Creek on the Chesapeake. Ephraim and his brother, Casparus, inherited their father's interest in trade and internal improvements. Sometime before 1740 Herrman cut a thousand foot-long ditch into Delaware Bay, "The Thoroughfare," so vessels could bypass thirteen miles of Duck Creek's meandering. The new course became the creek's main channel and has since developed into a broad tidal estuary (Thoroughfare Canal, National Register Nomination; Works Progress Administration 1938:477).

The project area traverses Thoroughfare Neck, a neck of land that extends north to south between Blackbird Creek and the Smyrna River and eastward from US Route 13 to the Delaware River and Bay. Thoroughfare Neck got its name from the ditch dug by Ephraim Herman. Thoroughfare Neck Road (presently Paddock Road) was officially laid out in 1780 to give the residents of Thoroughfare Neck a connection to the main road (presently US 13) running between Smyrna and Odessa (Figure 5).

Morris Liston, an English Quaker, settled on some 900 acres along the Delaware. The Listons gave their name to the point of land that became the arbitrary spot where Delaware Bay officially ends and the Delaware River begins. A windmill was built on the Liston farm to grind locally grown wheat and corn. When peach orchards spread southward into Blackbird Hundred, the Liston family farm became the area's largest producer, employing up to a hundred pickers during the harvest and shipping two thousand baskets a day to Philadelphia. The Peach House Ditch dug by the Listons to haul their peaches out to the Delaware River is still visible north of Liston Point (Scharf 1888:1026; Weslager 1956:15).

One of the early settlers in Thoroughfare Neck was Abraham Staats, a resident of Manhattan Island until the English takeover and subsequently of Staten Island, for whom the latter was named. Abraham was the progenitor of a large family whose descendants occupied numerous farms in Blackbird Hundred, including several in the project area (Rea and Price 1849) (see

Figures 3 and 4). The Staats family is noted for operating Delaware's only known tidewater mill on a marshy tributary of Blackbird Creek. The mill was in operation by the 1720s and continued up until the time of the American Revolution (Conrad 1908:572; Scharf 1888:1026; Weslager 1970:59 – 60).

Much later a steam saw mill was built alongside State Route 9 on the farm of Isaac R. Staats. The saw mill operated from 1873 until it burned down in 1879. Staats built another saw mill that was still in operation when William Baist published his map of the area in 1893 (Scharf 1888:1027) (see Figure 4).

Small villages developed near the project area at Taylor's Bridge, Deakyneville, and Fleming's Landing. Taylor's Bridge, near the northern end of the project area, developed around an early bridge that crossed Blackbird Creek. The village had a post office, a few stores, a soft drink bottling plant, and a tomato cannery; it also contained two schoolhouses, to separately educate the African-American children living in the area. The post office, which had been established in 1871, was shut down in 1933 (Conrad 1908:575; Smith 1984:40; The Yesterday and Today Committee n.d.: n.p.).

In the nineteenth century, the project area was referred to as Taylor's Bridge Road and ran from Cantwell's Bridge (now Odessa) to Duck Creek (see Figure 5). Taylor's Bridge Road terminated at a point on Duck Creek where a landing was established to ship out the area's farm produce, such as peaches, tomatoes, wheat, corn, oats, and marsh and forest products, such as salt hay, cattails, and lumber. A village developed around the landing, known at different points in its history as Fleming's or Barton's Landing. Over time, Taylor's Bridge Road in the project area came to be known instead as Fleming's Landing Road. Commercial enterprises at Fleming's Landing included a store, a leadite factory, and a tomato cannery. Leadite was a caulking used to insulate sewer pipe (Scharf 1888:1023; The Yesterday and Today Committee n.d.: n.p.).

Deakyneville, named for a prolific family in the area, was spread out along Paddock Road, Thoroughfare Neck Road, the Deakyneville Road, and Taylor's Bridge Road (State Route 9). Deakyneville had a schoolhouse, several stores, and a brickyard. A post office serviced the village from 1862 until 1900. A daily stage connected Deakyneville to Townsend, a town on the Delaware Railroad (Scharf 1888:1028; Smith 1984:36).

In 1782 Friendship Methodist Church was built on an acre of land on Thoroughfare Neck Road (now Paddock Road) in Deakyneville (see Figure 5). The first Friendship Church, built of cedar logs, was the center of religious life for many of the residents in the project area. A new frame church replaced the old log church in 1867. Bishop Levi Scott was among those presiding over the rededication services. By the 1880s, Friendship Church had about one hundred members on its rolls (Scharf 1888:1025 – 1026).

Levi Scott became Delaware's first Methodist bishop. Scott was born a slave in a log cabin not far from the project area in Odessa. Converting to Methodism while a young man, Scott became an itinerant preacher in Delaware, Maryland, and Pennsylvania. Prestigious posts followed, culminating in Scott's election to bishop in 1852. The following year, Scott traveled to Monrovia, Liberia to establish a Methodist conference among former American slaves. Bishop

Scott settled down in the Odessa neighborhood in which he had been born and was by far the area's most illustrious resident (Wilson 1969:183 – 184).

In the 1850s a resort developed at Collins Beach on Delaware Bay, four kilometers east of the project area. Steamboats from Philadelphia and Wilmington transported excursionists out of the sweltering cities. A hurricane destroyed the pier, resort buildings, roads, and beach area in 1878. The main hotel, Hygenia House, was moved southward to Woodland Beach in 1904. The Shell Oil Company eventually bought up most of the Collins Beach area (Fleming 1978:186; Scharf 1888:1028; The Yesterday and Today Committee n.d.:n.p.).

Although much of Blackbird Hundred has remained rural into the twenty-first century, the ever-expanding suburban corridor extending south from Wilmington and north from Dover has lately spawned residential development along the area's main roads.

Transportation History of the Project Area

In earlier centuries, road travel was secondary in Delaware to transportation by boat. By the early nineteenth century, however, the state had begun to develop a turnpike system, beginning with the Newport and Gap Turnpike, constructed in 1808. By the 1830s, the railroad became the primary method of transporting people and goods in Delaware. The Delaware Division of the Philadelphia, Wilmington, and Baltimore Railroad was the most important transportation route in the state. However, the nearest train stations to farmers in the area surrounding Bridge 447A were about nine kilometers to the west. It was easier for farmers to haul their products along roads such as State Route 9 to landings on Blackbird Creek or the Smyrna River and ship their goods to market by boat.

The history of State Route 9 is not entirely clear. A road must have been in existence in the approximate current location of State Route 9 by at least the early 1800s, if not earlier, to transport goods south to Fleming's Landing for shipping and north to the Staat family's gristmill. The road may have been improved during its history as the importance of market farming grew. Farmers needed to transport tomatoes, peaches, and other perishables grown in the region to area canneries and other goods to the docks for shipment by water.

In the nineteenth century, State Route 9 was referred to as Taylor's Bridge Road and ran from Cantwell's Bridge (now Odessa) to Duck Creek (now Smyrna River). The road was renamed Fleming's Landing Road when the town of that name grew into a modestly sized shipping port. The road was also known as Road 449 in the early-to-mid-twentieth century. Thoroughfare Neck Road, another early road, was officially laid out in 1780 to give the residents of Thoroughfare Neck a connection to the main road running between Smyrna and Odessa (now US Route 13).

It was not until the invention of the automobile and the growth of its use in the early twentieth century that road development again became a focus in Delaware. Road construction and improvements were further expedited by the passage of the Federal Aid Highway Act of 1916. This act spurred the creation of the Delaware State Highway Department to receive funds appropriated under the act.

By the 1930s, many of the state's primary transportation corridors had been completed and the Highway Department turned its attentions to developing a system of secondary roads. The three counties in Delaware had also been involved in developing these smaller roadways. The years of 1917 – 1934 were especially productive in New Castle County, where over 200 miles of road were constructed or resurfaced. In 1934, New Castle County, as well as Sussex and Kent Counties, turned over road and bridge construction and maintenance responsibilities to the State Highway Department.