

IV. RESULTS OF INVESTIGATIONS

The survey area consists predominantly of recently developed residential areas. There are also some smaller wooded sections and some cultivated areas. Many areas were noted to be wetlands, or at least had standing water present at the time of the survey. Approximately 50 percent of the project area was not testable either because of wetlands or development. Systematic subsurface testing was conducted in all undisturbed and/or sufficiently dry sections of the project area. Shovel test transects were excavated parallel to Porter Road, with test pits placed at 50-foot intervals. In the large, open portions contained within the stormwater management areas, shovel tests were also excavated along 50-foot transect intervals. In Stormwater Management Area 1 both surface collection and shovel testing were utilized, with shovel test pits placed systematically as well as judgmentally. A total of 101 shovel tests were excavated during the survey. The location of all shovel tests and surface collections are depicted in Figures 2 through 9.

The investigations recorded one archaeological site in the project area, in Stormwater Management Area 1. The site was given the preliminary designation of Site 1 (see Figures 1 and 2). In addition, one isolated historic find was recorded on the north side of Porter Road near Station 50+00 (see Figure 5).

The isolated find at Station 50+00 consisted of one black-glazed redware ceramic sherd located in the plowzone of Shovel Test 5, Transect I (see Figure 5). No other cultural materials were recovered in any of the adjacent shovel tests. No radials were excavated around this shovel test as the find was located in the plowzone, and neither Shovel Tests I-4 nor I-6 yielded cultural materials. The isolated find is assumed to represent field scatter. The soil profile along Transect I in the vicinity of Shovel Test I-5 consists of a plowzone layer 0.8 feet thick. The soil is a 10YR 4/3 brown clay loam. Beneath this, and to a depth of at least 2.0 feet, is a 7.5 YR 5/6 strong brown loamy clay.

Stormwater Management Area 1 is located at the intersection of Porter Road and State Route 896, at the western end of the project area (see Figures 1 and 2). In the project plans provided by DelDOT it is designated as a 500x200-foot area. The actual area surveyed, however, included a roughly 800x1,000-foot area from Stations 129+00 to 137+00 along State Route 896, and from the intersection of Porter Road and State Route 896 to Station 10+00 along Porter Road (see Figure 2). This surveyed area consisted primarily of a soybean field, with wooded areas and wetlands in the eastern portions of the proposed management area. Approximately 50 percent of the actual portion within Stormwater Management Area 1 consisted of wooded wetlands. The other half was located in a soybean field, with an artificial drainage cut running east-west through the middle of the proposed management area. In addition to the wetlands located in the eastern portion of the survey area, low areas with standing water were dispersed throughout the soybean field (see Figure 2).

Immediately adjacent to Porter Road, and extending southward 25 feet from the existing road surface, was an area of disturbance caused by prior road construction. A drainage ditch parallels State Route 896 on the eastern side. Besides plowing of the field, no other disturbance was noted.

A surface collection was performed in the northwestern portion of Stormwater Management Area 1 encompassing an area approximately 400 feet north/south and 700 feet east/west (see Figure 2). A datum point was established at the northwestern corner of the field, at the southeastern corner of a metal utility/traffic signal control box. From the datum point, compasses and measuring tapes were used to mark a baseline at the western boundary of the field with transect flags placed at 50-foot intervals, and labelled A-H. Flags were also placed at 50-foot increments along the northern boundary of the soybean field and labeled with distance in feet from the datum. Transects were walked moving west to east, with collections made every 25 feet if artifacts were present. This method allowed a representative sample to be obtained in an expedient manner.

All artifacts were mapped on a base map by transect and distance east from the baseline. No significant concentrations were noted during the surface collection, and no collection provenience yielded more than four artifacts. After artifacts were mapped, judgmental shovel test pits were placed in areas where at least three artifacts had been recovered. A total of six judgmental shovel test pits were excavated in the area of surface collection: A 200, B 175, B 300, C 275, D 150, and E 500. Additionally, radials were placed around Shovel Test Pits B 300 and C 275 at 10-foot intervals, with a total of nine additional shovel tests excavated (see Figure 2). A total of 37 test pits were excavated in Stormwater Management Area 1.

The surface collection and shovel tests in the surface collection area yielded both prehistoric and historic materials. This area, along with Shovel Test BB-3, was designated Site 1 (see Figure 2). The prehistoric artifacts included three fire-altered quartzite cobbles, two jasper flakes, one worked quartz flake, and three projectile points—including a Genesee-like jasper point base, a Brewerton-like expanding stemmed black/gray chert projectile point, and a large triangular point fashioned from a jasper flake. The historic materials included black-glazed redwares, slip-trailed redwares, whitewares, two possible pearlwares, one scratch-blue salt-glazed stoneware sherd, semivitreous ware, brick fragments, modern bottle glass, and modern window glass. Approximately 100 artifacts were recovered from Site 1.

In addition to the area surface collected the remainder of Stormwater Management Area 1 was tested using systematic shovel test pits placed at 50-foot intervals. Three transects with a total of nine shovel tests were excavated moving west to east in the northeastern corner of the stormwater area (Shovel Tests 1A-C, 2A-C, and 3A-C). None of the shovel tests yielded cultural materials. This area was characterized by wooded wetlands, and a small east/west running stream meandered through this area.

The southern side of the existing ditch which bisects the stormwater management area and east of the treeline was very wet and for the most part could not be tested. Two shovel tests

excavated in this area (AA-5 and AA-6) met with water at 0.9 feet below the surface. No cultural materials were present in either of these test pits. The northwestern portion of the stormwater management area was planted with very tall and dense soybeans that prevented surface collection. In this area a total of 11 systematic shovel tests were excavated at 50-foot intervals moving north to south along transects AA, BB, and CC. Only Shovel Test BB-3 contained cultural materials consisting of a red jasper flake recovered from the plowzone.

The soil profile in the area surface collected consisted of a plowzone which was approximately 0.8 feet thick, with brown sandy loam soil. Beneath this, and extending to 1.5 feet below the surface, was a yellowish brown compact sandy silt. Following this layer was a light gray clay to a depth of at least 2.0 feet. At approximately 1.8 feet water was usually reached. The wooded wetland area where Transects 1, 2, and 3 were excavated had a typical soil profile consisting of a 0.8-foot-thick surface layer rich in organics. The soil was a very dark grayish brown loam. Following this surface layer to a depth of approximately 1.1 feet was a very dark gray sandy loam. Water encountered at approximately 1.1 feet precluded further excavation. The southwestern portion of Stormwater Management Area 1 had a typical soil profile consisting of a plowzone to a depth of 0.8 feet which was a grayish brown silty sand. Following this, to a depth of 1.3 feet, was a light yellowish brown clay sand. Beneath this layer was a light gray sand mottled with orange iron oxides to a depth of at least 2 feet.

Site 1 contained both historic and prehistoric components. The historic materials are considered to be the result of field dumping episodes. The prehistoric materials are most likely related to sporadic hunting activities. No features were located with either component, nor were any sub-plowzone materials recovered. Based on the lack of subplowzone materials, the lack of features, and the relatively light concentration of materials, Site 1 does not appear to meet National Register eligibility criteria.

The previously existing stormwater management area on the north side of Porter Road was determined to have been subjected to prior stripping, and no testing was conducted in this area. On the south side of Porter Road, Stormwater Management Area 2 contained no cultural materials (see Figure 4). While a total of 10 shovel tests were excavated in this area, approximately 50 percent of the area was either too wet to test or disturbed by prior house construction and drainage systems. At the eastern project terminus, approximately 90 percent of Stormwater Management Area 3 was untestable due to wetlands or prior disturbance. Shovel Tests S-1 and S-2 were excavated in this area, and no artifacts were recovered (Figure 9). The locations of other transects along Porter Road are depicted in Figures 1 and 3, and Figures 5 through 8. Besides Site 1 and Isolated Find I-5, no other sites or isolated finds were discovered during the survey.