

2.0 ENVIRONMENTAL SETTING



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The SR 1 Frederica Interchange project APE is located within the Mid-Drainage zone of the Lower Coastal Plain Physiographic Province. The project APE predominantly consists of agricultural lands overlooking the estuary setting of the Murderkill River. Area 1 consists of a 3.4-hectare (8.5-ac) triangular parcel of ground situated between SR 1, SR 12, and the Murderkill River (Figure 2). This parcel of ground is a plowed agricultural setting that gently slopes south towards marshlands bordering Spring Creek and the Murderkill River (Photograph 1). Grassy banks line the edge of the roadways. The topographic setting of Area 1 is distinct from the flat uplands and steeply banked landforms found to the east and west of the APE.

Area 2 is composed of a 4.8-hectare (11.8-ac) parcel on the east side of SR 1 (Figure 2). A small grove of ornamental trees and plants are clustered along the east side of SR 1 at the intersection of SR 1 and SR 12. They represent the location of the non-extant Soulie Gray House (CRS #K-835). Two small farm ponds are found in a wooded grove to the north of the Soulie Gray House on the east side of SR 1. These spring-fed farm ponds flow to the southwest under SR1 into a small drainage on the west side of SR 12. Grassy, fallow land covers a small open area between the farm ponds and the Soulie Gray House. To the east and south of the Soulie Gray House, the landscape consists of gently rolling plowed fields (Photograph 2). Generally, the land slopes downward from north to south. Grassy banks line the edge of the roadway.

Area 3 consists of a smaller, 6.1-meter (20.0-ft) wide by 91.4-meter (300.0-ft) long grassy corridor on the west side of SR 12 (Figure 2). This parcel of ground serves as the shoulder for southbound SR 12 and contains evidence of buried utilities along its length (Photograph 3).

Area 4 encompasses a narrow, 18.3-meter (60.0-ft) wide corridor along the east side of SR 1 north of the farm pond and south of Barratt's Chapel (Figure 2). A combination of grassy bank right-of-way and plowed field comprises the landscape within Area 4.

Soils identified within the study area are within the Sasafrass-Fallsington association, and are described as dominantly level to gently sloping, possessing both well and poorly drained soils of moderate permeability on uplands (Matthews and Ireland 1971). Six soil types are mapped



Photograph 1: Area 1, upper right, with Spring Creek in foreground and SR 12 to the left, view looking north (April 2004).



Photograph 2: Plowed agricultural setting in Area 2, southeast side of Soulie Gray House, view looking northeast (April 2004).



Photograph 3: Grassy shoulder in Area 3, with adjacent wetlands and tributary to Spring Creek, view looking south. Note utility junction box at base of utility pole (November 2003).

within the project study area. These soils include Sassafras sandy loam, (SaA) 0 to 2 percent slope, (SaB) 2 to 5 percent slope, and (SaC2) located on areas of 5 to 10 percent slope; Fallsington sandy loam (Fa); Woodstown loam (Ws); and Mixed alluvial land (Mv) (Matthews and Ireland 1971).