

guideline to determine the most appropriate classification of each subject stream. This technical guideline for stream identification is the preferred methodology for distinguishing between intermittent and perennial streams in the southeast United States and requires evaluation of 26 attributes of the stream and assigning a numeric score to each on the *NC DWQ Stream Identification Form Version 4.11*. A four-tiered, weighted scale is utilized for evaluating and scoring the features categorized in sets of geomorphic, hydrologic, and biological attributes. Additionally, TTL utilized the *Regulatory Guidance Letter No. 05-05: Ordinary High Water Mark Identification* (USACE, 2005) as the basis for the delineation, mapping, and linear footage/areal estimations of on-site streams.

Identified streams were mapped using the method described in Section 4.1. Stream Identification Forms (v. 4.11) were used to classify streams that were not clearly perennial (i.e. flowing water at greater than 48 hours since rainfall, strong morphology and obvious biological presence). TTL traversed the stream channels on foot and placed blue flagging labeled with stream data point identifications near the observed ordinary high water mark (OHWM). The locations of the boundary flags were mapped with a Trimble Geo7x Global Positioning System (GPS) unit, which was set to sub-meter tolerances. Field data was post-processed using Trimble Pathfinder Office V 5.3 and exported to ESRI's ArcMap 10.2. Area features were manually digitized in ArcGIS using the flag locations; geographic coordinates and area quantities were calculated using ArcGIS "area" function.

#### **4.4 Streams and Ditches Findings**

TTL identified ten ditches within the delineation area consisting of approximately 7,807 linear feet of ditches (D1-D10). These ditches are jurisdictional where they are located within wetlands. In these areas, their acreage has been included within the wetland acreage. No jurisdictional streams were identified within the delineation area. The River Styx is shown in the western portion of the delineation area on aerial photographs for the site (Figure 2) but the channel of this stream was not identified within the delineation area. Table 4 summarizes the ditch findings below.