(*Nyssa biflora*), large gallberry (*Ilex coriacea*), myrtle leaf holly (Ilex myrtifolia), manyhead rush (Juncus polycephalus) and Virginia chain fern.

4.3 Streams Identification and Methodology

TTL used the *North Carolina Division of Water Quality – Methodology for Identification of Intermittent and Perennial Streams and Their Origins v. 4.11, September 1, 2010 (NC Method)* technical 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 Stream and Ditch Findings

TTL identified eleven channels within the delineation area consisting of approximately 8,658 linear feet (1.454 acres) of channels (S-1-S-11). The channels consist of three non-jurisdictional ditches as well as ephemeral, intermittent, and perennial streams. These channels are located throughout the delineation area. Stream S-1 has an intermittent flow regime along one reach and ephemeral flow along another reach. Stream S-11 has an intermittent flow regime along one reach and perennial flow along another reach. All streams drain to Boone Creek. Table 4 summarizes the stream findings below.