



Chatham County Watershed Protection Ordinance

Field Procedures for Classification of Streams and Waterbodies

November 13, 2007

(For use only by trained professionals and County staff)

This guidance document is a technical supplement to the Chatham County Watershed Protection Ordinance, Section 304. It describes the criteria and procedures required for use by trained professionals and County staff for classifying streams within Chatham County, North Carolina. County staff reserves the right to make field inspections with the granted permission requirement noted below. Professionals who have successfully passed the training and coursework for the "Stream and Surface Water Identification for Riparian Buffer Rule Applications- Piedmont and Coastal Plain, North Carolina" are eligible to make stream classifications.

Note: If the applicant for development is not the current landowner, the applicant or developer must obtain written permission from all affected landowners for access onto the property for the purpose of making stream classifications as required by Section 304. If required, written permission must be provided to the applicant prior to accessing the property to make stream classifications. The written permission must also include access by County staff if required.

Classification Criteria and Procedures

1. Ephemeral Stream Field Evaluation Method: Using the North Carolina Division of Water Quality (NCDWQ) Stream Classification Method, Version 3.1 or the most current version approved by NCDWQ, and the associated Internal Guidance Manual, an ephemeral stream or stream segment must meet all of the three following criteria: a). a well-defined channel must be present, b). evidence of an active conveyance of water due to precipitation must be observed and; c). must score a minimum of three (3) points. Its origin should be defined or identified by a head-cut or grade control feature although not mandatory. For scores of 19 points or greater, the stream will be classified as either "intermittent" or "perennial". Man-made ditches or canals, relic or inactive ephemeral channels and road beds are not ephemeral streams.
2. Intermittent Stream Field Evaluation Method: Using the North Carolina Division of Water Quality (NCDWQ) Stream Classification Method, Version 3.1 or the most current version approved by NCDWQ and the associated Internal

Guidance Manual, a stream or stream segment must score a minimum of 19 points for classification as “intermittent”. For the purposes of this Ordinance, linear wetlands will be buffered the same as intermittent streams even if the points are below 19. Linear wetlands are a channelized feature meeting the definition of a “wetland” as described in the 1987 US Army Corps of Engineers Wetland Delineation Manual.

3. Perennial Stream Field Evaluation Method: Using the NCDWQ Stream Classification Method Version 3.1 or the most current version approved by NCDWQ and the associated Internal Guidance Manual, a stream or stream segment may score thirty (30) points or otherwise meet the latest DWQ Internal Guidance for classification as “perennial”.

4. Seeps and Springs – For purposes of this Ordinance, seeps and springs are areas where groundwater intersects at or near to the ground surface either seasonally or permanently. These areas may or may not be considered jurisdictional by federal (ACoE) standards. Due to the broad variability in the size, number, location, connectivity, condition and other natural characteristics of seeps and springs, one or more of the following conditions must apply:

- a. Hydrophytic vegetation must be dominant. This is judged by the greater areal cover of plants (rooted in the putative seep or spring) with indicator status of obligate wetland (OBL) or facultative wetland (FACW) compared to the areal cover of plants (rooted in the putative seep or spring) with indicator status of upland (UPL) or facultative upland (FACU). Plants with facultative (FAC) indicator status are not considered. This definition may be summarized by the following formula: $(OBL + FACW) > (UPL + FACU)$. See Wetland Plants List.¹
- b. The seep or spring is considered a water of the State of North Carolina by the NCDWQ.
- c. The seep or spring meets the criteria of a wetland based on the 1987 U.S. Army Corps of Engineers Manual.
- d. The seep or spring has surface water present seasonally or permanently.

5. Wetlands – A jurisdictional wetland is a water of the State of North Carolina by the NCDWQ or meets the criteria of a wetland based on the 1987 U.S. Army Corps of Engineers Manual. (Please see definition.) For the purpose of field classifications, non-jurisdictional wetlands are subject to identification and buffering.

¹ See “National List of Vascular Plant Species that Occur in Wetlands” (U.S. Army Corps of Engineers, 1988 Official Wetland Plant List & 1993 Supplement).

6. Natural stream variations: Streams may not always fit into the exact parameters as the NCDWQ method for classifying streams. For instance, a well defined stream channel may disappear and then re-appear further down-slope or; a stream classification score may lower moving down-slope along the same tributary in a delta or floodplain and it may become braided without an observable top of bank(s). Therefore, discontinuous or variant stream segments functioning as a hydrologic component of a stream network will have the same classification as the up-slope channel to the point down-slope where the classification changes to the higher score level or at its confluence with another stream.

7. Unbroken segments and networks required for buffers: With continuous channels or where natural variations exist, stream classifications will be continuous (unbroken) and must be classified in the following stream order moving down-slope: ephemeral>intermittent>perennial. However, all three classifications may not exist. As an example, a stream origin may be classified as ephemeral with a down-slope breakpoint at a stream classified as perennial or a stream origin may be classified as perennial and the stream will therefore be classified as perennial down-slope to its confluence.

8. Ditches and Canals: With the exception of relocated or modified natural streams and jurisdictional wetlands, ditches and canals are not considered to be streams and are not regulated by buffers.

9. Modified natural streams: streams with man-made alterations (such as channelization, armoring, or relocation) that do not precisely meet the stream definitions and/or verification criteria and is clearly not a man-made ditch or canal are subject to classification as a stream. Relic roadbeds are not considered as streams.

10. Labeling and submitting stream break-points and origins to the County: When labeling classified stream segments, breakpoints and origins will be identified and labeled along its length. Break-points are locations where the stream classification (type) changes. As an example, an ephemeral and intermittent stream are connected and labeled "E/I". Origins are the beginning points of a classified stream and/or stream segments. As an example, the origin of an ephemeral stream will be labeled "OE" or intermittent origin will be labeled "OI". Break-points and origins will be identified during field classifications, using NCDWQ Stream Identification Form, Version 3.1 or the most current version approved by NCDWQ. All origins, breakpoints and waterbody boundaries will be clearly flagged, photographed and labeled in the field. Their location(s) and labels will be indicated or referenced on a hardcopy map and as a digital file

submitted to the County in either shapefile, ACAD layer or GPS (sub-meter) file with digital photographs for review and approval.