

Description of Changes
For the
NCDWQ Intermittent and Perennial Stream Identification Manual Version 4.1

Version 4.1 of the manual replaces Version 3.1 (February 28, 2005) and reflects ten years of regulatory and academic experience. Clarifications and edits were made in several areas throughout the document to provide additional background on the methodology and improve readability of the manual. Changes to the indicators in the methodology were carefully considered based on their relative importance in identifying streams and do not affect the total scores for stream evaluations or the stream determination made by professionals using the methodology. Testing of the modified form is currently underway to assure scoring consistency.

Description of Major Changes

1. Title changed to "Methodology for Identification of Intermittent and Perennial Streams and Their Origins."
2. "Streambed Sorting and Soil Texture" was changed to "Particle size of stream substrate".
3. "Braided Stream" was deleted.
4. "Natural Levees" was deleted.
5. "Groundwater flow or discharge" was changed to "Presence of Baseflow"
6. "Water in Channel and < 48 Hours or Dry Season" was deleted.
7. "Hydric Soils" indicator label was changed to "Evidence of seasonal high water table."
8. "Iron Oxidizing Bacteria/Fungus" was moved to hydrology section and score changed from 0-1.5 to 0-3.
9. Macrobenthos indicator score changed from 0-1.5 to 0-3.
10. Order of indicators in biology section changed to reflect primary and secondary status.
11. Algae and periphyton score was changed from 0-3 to 0-1.5.
12. Additional explanations were made throughout the document for the purpose of clarification.
13. Citations were added throughout document.
14. Diagrams, pictures and illustrations were added throughout the document.

15. Descriptions of absent, weak, moderate and strong were previously explained only in geomorphology and part of hydrology sections, descriptions added to the biology section in v. 4.1.
16. The word “upland” was added to “Rooted plants in streambed” and upland plants are defined as FAC and drier plants.
17. “Wetland plants in channel” was changed to include FACW and OBL wetland plants only.
18. General organization of manual sections was improved for readability and “Scientific Justification” was added to Section 1.
19. A box was added to the stream form depicting ephemeral, intermittent and perennial, to indicate stream determination.

All other changes, edits, and corrections are relatively minor and too numerous to list in detail. Please send questions or comments to Periann.Russell@ncdenr.gov