

Appendix 3. Carrboro Stream Sites, April-June 2013

Bolin Creek sites are numbered from most upstream (Site 1) to most downstream (Site 4). Samples from Bolin Creek and Morgan Creek were collected in June 2013; tributary sites were sampled in April 2013.

Bolin Creek 1. Site 1 was located upstream of the Winmore development, near the power line crossing. This site drains a largely rural and residential landscape; it is intended as a control site for the higher density residential areas further downstream. This portion of the stream may go completely dry during droughts.



Bolin Creek Site 1, June 2012.

This part of Bolin Creek averaged about 4-5 meters wide, with a substrate mainly composed of gravel and rubble. Both the substrate composition and the width, however, were highly variable. There were no significant habitat problems in this section of Bolin Creek.

Bolin Creek 2. Site 2 is located downstream of the Winmore development at SR 1777. There is private residence on one side of the stream that lacks a buffer zone. Consequently, there is significant bank erosion on one side of the stream.

Habitat problems included fewer riffles, bank erosion, lack of a buffer on one side and a decrease in habitat diversity. A beaver dam was observed slightly upstream of this site.



Bolin Creek Site 2, March 2010.

Bolin Creek 3. Site 3 is located near Waterside Drive. This section of Bolin Creek is very scenic, with a hiking and biking path along one side of the stream.



Bolin Creek Site 3, June 2013.

There are no significant habitat problems in this portion of the stream, but there was a lack of good bank habitat.

Bolin Creek 4. Site 4 was moved slightly downstream into Chapel Hill (Village Dr) in 2011, so that data from this site could be used by both towns.



Bolin Creek Site 4, March 2011.

This portion of Bolin Creek is similar to the site on Estes Drive, having good rocky substrate. Attached filamentous algae was very abundant at the Village Drive site in March 2011, but was not a problem in 2012 or 2013.

Morgan Creek at NC 54. Morgan Creek was chosen as a reference site, although this stream had also been affected by droughts. Prior surveys by the NC Division of Water Quality often produced a Good or Excellent bioclassification for this site, although it has only been rated as Good-Fair in the last two years.



Morgan Creek, NC 54, June 2012.

This catchment has a largely rural character, with some minor impacts from nonpoint source runoff. Habitat quality, stream width and substrate composition are similar to Bolin Creek, but with less residential land use. Residential land use, however, has

been increasing in the Morgan Creek catchment in recent years.

UT Tanyard Branch at Baldwin Park. This stream is on the border between Chapel Hill and Carrboro; it drains a highly urban watershed that includes parts of downtown Carrboro and a highly developed residential area.



UT Tanyard Branch, April 2013.

Jolly Branch near SR 1777 (just downstream of Bolin Creek 3). This site was accessed by walking about 100 meters downstream of SR 1777 (Homestead), crossing Bolin Creek, and going about 30 meters upstream on Jolly Branch. This small stream (1 meter wide) had good rocky habitat, but showed severe bank erosion in many places.

The surrounding area was largely forested, although there are residential areas further upstream. The aquatic life at Jolly Branch indicates that it may stop flowing (or go dry) during drought periods.



Jolly Branch, April 2013.

UT Bolin Creek, intersection of Greensboro Rd and Estes Drive Extension. This very small stream is likely to be intermittent, requiring that samples be taken in winter or spring.



UT Bolin Creek, aerial view.