

## Appendix I

### Stream Habitat Designation Criteria

#### Cold, Cool, and Warmwater Habitat Designations

##### I. Fish Species Composition

Fish species commonly associated with habitat types and widely distributed within those habitat types in North Carolina:

Coldwater – brook, brown, and rainbow trout, mottled sculpin, longnose dace, blacknose dace, and central stoneroller.

Coolwater – small mouth bass, rock bass, walleye, sauger, creek chub, river and bluehead chub, whitetail shiner, white sucker, Tennessee shiner, mirror shiner, warpaint shiner, northern hog sucker, fantail darter, greenside darter, greenfin darter.

Warmwater – largemouth bass, striped bass, Roanoke bass, white bass, black crappie, yellow perch, variety of catfish species and bullheads, redbreast sunfish, bluegill, pumpkinseed, variety of redhorse suckers, American eel, redbfin pickerel, chain pickerel, golden shiner, creek chubsucker, margined madtom, pirate perch, warmouth, tessellated darter.

**NOTE:** These lists do not include many species with limited distributions. They are only intended to provide generalized fish community structures that would be encountered in North Carolina.

##### II. Temperature Regimes

Suggested temperatures thresholds conform to the generally accepted maximum temperatures that will sustain each community structure type. In reality, there is overlap in these tolerances and, in some cases; physical habitat may have a greater influence on species present. For example, a stream may have a temperature regime suitable for trout, but high silt load or channel degradation may prevent trout from inhabiting an area. Therefore, temperature regimes alone may not be the determining factor for classifying a certain stream or stream segment. These cases would also serve to identify places where stream restoration or watershed projects would result in a given stream being able to reach its full potential in terms of fishery resources. Suggested temperatures thresholds are as follows:

Coldwater: Summer temperatures generally do not exceed 20 C (68F).

Coolwater: Summer temperatures generally do not exceed 25 C (76 F).

Warmwater: Summer temperatures generally do not exceed >25 C (>76 F).

##### III. Geographic Guidelines

The following geographic list is intended to be a guide to the location of cold-, cool-, and warm water habitats in North Carolina. While the list provides a generalized guide to the location of these habitats, the user must remember that tributaries and headwater streams, particularly in the mountains may fall in different categories due to such things as elevation, slope, aspect, and land use within the watershed. However, it is appropriate to assume that all tributaries to trout waters/cold waters are to be categorized as cold-water streams.

#### Hiwassee River Drainage

- Hiwassee River (Chatuge Dam to Mission Dam, including all tributaries) – coldwater
- Hiwassee River (Mission Dam to Hiwassee Reservoir, excluding tributaries) – coolwater
- Hiwassee River tributaries, except Nottely River (Mission Dam to Hiwassee Reservoir) – coldwater
- Hiwassee River (Hiwassee Reservoir dam to Tennessee state line, including tributaries) – coldwater
- Nottely River (Georgia state line to Hiwassee Reservoir, including tributaries) - coolwater
- Tellico River (headwaters to Tennessee state line, including tributaries) – coldwater

#### Savannah River Drainage

- All streams – coldwater

#### Little Tennessee River Drainage

- Little Tennessee River (excluding tributaries) from Georgia state line to Fontana Reservoir – coolwater.
- Little Tennessee River tributaries (Georgia state line to Fontana Reservoir) – coldwater
- Cullasaja River (headwaters to Ellijay Creek, including tributaries) - coldwater
- Cullasaja River (Ellijay Creek to Little Tennessee River, excluding tributaries) – coolwater
- Cullasaja River tributaries (Ellijay Creek to Little Tennessee River) – coldwater
- Nantahala River – (headwaters to Fontana Reservoir, including tributaries) – coldwater
- Tuckaseegee River (Barkers Creek to Fontana Reservoir, excluding tributaries) – coolwater
- Tuckaseegee River tributaries (Barkers Creek to Fontana Reservoir) - coldwater
- Tuckaseegee River (headwaters to Barkers Creek, including tributaries) – coldwater
- Cheoah River (headwaters to Santeetlah Reservoir, including tributaries) – coldwater
- Cheoah River (Santeetlah Reservoir to Little Tennessee River, excluding tributaries) – coolwater
- Cheoah River tributaries (Santeetlah Reservoir to Little Tennessee River) - coldwater

#### French Broad River Drainage

- French Broad River (headwaters to US 276 bridge, including tributaries) – coldwater
- French Broad River (US 276 bridge to Tennessee state line, excluding tributaries) – coolwater
- French Broad River tributaries (includes all tributaries unless stated otherwise)
- Mills River (entire basin) - coldwater
- Cane Creek (headwaters to SR 3138 bridge) – coldwater

Cane Creek (SR 3138 bridge to French Broad River) - coolwater

Bent Creek (entire basin) - coldwater

Swannanoa River (headwaters to Sayles Bleachery) – coldwater

Reems Creek (entire basin) - coldwater

Ivy River (headwaters to US 19-23 bridge) – coldwater

Ivy River (US 19-23 bridge to French Broad River) – coolwater

Big Laurel Creek (headwaters to US 25-70 bridge) – coldwater

Big Laurel Creek (US 25-70 bridge to French Broad River) – coolwater

Spring Creek (entire basin) - coldwater

Shut-In Creek (entire basin) – coldwater

All other tributaries – coolwater (Note: Trout may be present in headwaters of some of these streams. A field survey would be required to confirm their presence)

Pigeon River (headwaters to confluence of East and West Forks, including tributaries) – coldwater

Pigeon River (confluence of East and West Forks to Tennessee state line, excluding tributaries) – coolwater

Pigeon River tributaries (confluence of East and West Forks to Tennessee state line - coldwater

Nolichucky River (confluence of North Toe River and Cane River to Tennessee state line, excluding tributaries) – coolwater

Nolichucky River tributaries (confluence of North Toe River and Cane River to Tennessee state line) - coldwater

North Toe River (headwaters to SR 1121 bridge, including tributaries) - coldwater

North Toe River (SR 1121 bridge to Nolichucky River, excluding tributaries) – coolwater

North Toe River tributaries (SR 1121 bridge to Nolichucky River) – coldwater

Cane River (headwaters to US 19E bridge) – coldwater

Cane River (US 19E bridge to Nolichucky River, excluding tributaries) – coolwater

Cane River tributaries (US 19E bridge to Nolichucky River) – coldwater

#### Broad River Drainage

- Broad River (headwaters to Lake Lure, including all tributaries) – coldwater
- Broad River (Lake Lure to South Carolina state line, including tributaries) – coolwater
- North Pacolet River – (headwaters to NC 108 bridge, including tributaries) – coldwater
- North Pacolet River – (NC 108 bridge to South Carolina state line, including tributaries) – coolwater
- First Broad River (entire basin) – warmwater

#### Watauga River Drainage

- Elk River (entire basin) – coldwater
- Watauga River (headwaters to NC 105 bridge, including tributaries) - coldwater
- Watauga River (NC 105 bridge to Tennessee state line, excluding tributaries) – coolwater
- Watauga River tributaries (NC 105 bridge to Tennessee state line) – coldwater

#### New River Drainage

- North Fork New River (headwaters to Sharp Dam, including tributaries) – coldwater
- North Fork New River (Sharp Dam to New River, excluding tributaries) – coolwater
- North Fork New River tributaries (Sharp Dam to New River) – coldwater
- South Fork New River (headwaters to Middle Fork New River, including tributaries) coldwater
- South Fork New River (Middle Fork New River to New River, excluding tributaries) – coolwater
- South Fork New River tributaries Middle Fork New River to New River) – coldwater
- New River (excluding tributaries) – coolwater
- New River tributaries – coldwater

#### Catawba River

- Catawba River (headwaters to Curtis Creek, including tributaries) – coldwater
- Catawba River (Curtis Creek to Lake James, excluding tributaries) – coolwater
- Catawba River tributaries (Curtis Creek to Lake James) – coolwater unless noted below
- Mackey Creek (entire basin) – coldwater
- Buck Creek (headwaters to Lake Tahoma, including tributaries) – coldwater
- Buck Creek (Lake Tahoma to Catawba River, including tributaries) - coolwater
- Catawba River tributaries to Lake James (unless listed below) - coolwater
- North Fork Catawba River (headwaters to SR 1569 bridge, including tributaries) coldwater
- North Fork Catawba River (SR 1569 bridge to Lake James, including tributaries) –coolwater
- Linville River (headwaters to Lake James, including tributaries) - coldwater
- Catawba River (Lake James to John’s River, excluding tributaries) – coldwater
- Catawba River tributaries (Lake James to John’s River, excluding Warrior Fork and John’s River) – warmwater
- Warrior Fork and tributaries (unless listed below) – coolwater
- Steels Creek (headwaters to SR bridge) – coldwater
- Irish Creek (headwaters to NC 181 bridge) - coldwater

John’s River (headwaters to Mulberry Creek, including tributaries) coldwater

John’s River (Mulberry Creek to Catawba River, excluding tributaries) – coolwater

John’s River tributaries (Mulberry Creek to Parks Creek) – coldwater

Catawba River (John’s River to South Carolina state line, except South Fork Catawba River and its tributaries) – warmwater

South Fork Catawba River and tributaries (unless listed below) - warmwater

Henry Fork (headwaters to SR 1919 at Ivy Creek, including tributaries) – coldwater

Henry Fork (SR 1919 at Ivy Creek to South Fork Catawba River, including tributaries) – coolwater

Jacob’s Fork (headwaters to South Mountains State Park Boundary, including tributaries) – coldwater

Jacob’s Fork (South Mountains State Park Boundary to South Fork Catawba River, including tributaries) – coolwater

#### Yadkin River

Yadkin River (headwaters to Jackson Camp Creek, including tributaries) – coldwater

Yadkin River (Jackson Camp Creek to W. Kerr Scott Reservoir, including all tributaries except as listed below) – coolwater

#### Yadkin River Tributaries

Buffalo Creek (headwaters to confluence with Joe’s Creek, including tributaries) – coldwater

Buffalo Creek (Joe’s Creek to Yadkin River, including tributaries) - coolwater

Elk Creek (headwaters to confluence with Dugger Creek, including tributaries) – coldwater

Elk Creek (Dugger Creek to Yadkin River, including tributaries) - coolwater

Stony Fork (headwaters to confluence with Left Prong, including tributaries) – coldwater

Stony Fork (Left Prong to Yadkin River, including tributaries) – coolwater

South Prong Lewis Fork (headwaters to confluence with Pumpkin Run, including tributaries) – coldwater

South Prong Lewis Fork (Pumpkin Run to confluence with North Prong Lewis Fork, including tributaries) – coolwater

North Prong Lewis Fork (headwaters to Little Fork Creek, including tributaries) – coldwater

Lewis Fork (confluence of South and North prongs to Yadkin River, including tributaries) - coolwater

Reddies River (headwaters to confluence of Middle and North Forks, including tributaries) – coldwater

Reddies River (confluence of Middle and North Forks to Yadkin River, including tributaries) – coolwater	Little Fisher River (NC 89 bridge to Fisher River) – coolwater
Yadkin River (W. Kerr Scot Reservoir to Ararat River, including tributaries except as listed below) – coolwater	Ararat River (headwaters to confluence with Yadkin River) – coolwater
Yadkin River Tributaries	Yadkin/Pee Dee Rivers (Ararat River to South Carolina state line, including tributaries) – warmwater
West Prong Roaring River (headwaters to confluence with Dungeon Creek, including tributaries) – coldwater	Dan River (Virginia state line to SR 1432, including tributaries) – coldwater
West Prong Roaring River (Dungeon Creek to Roaring River) – coolwater	Dan River (SR 1432 to SR 1652 at Danbury, including tributaries) – coolwater
Middle Prong Roaring River (headwaters to Double Creek, including tributaries) – coldwater	Dan River (SR 1652 at Danbury to Virginia state line, including tributaries) - warmwater
Middle Prong Roaring River (Double Creek to Roaring River) – coolwater	Lumber River (entire basin) – warmwater
East Prong Roaring River (headwaters to confluence with Big Sandy Creek) – coldwater	Cape Fear River (entire basin) – warmwater
East Prong Roaring River (Big Sandy Creek to Roaring River) – coolwater	Neuse River (entire basin) – warmwater
Roaring River (confluence of West and Middle Prongs to Yadkin River, including tributaries) – coolwater	Tar River (entire basin) – warmwater
Mitchell River (headwaters to Kapps Mill Dam, including tributaries) – coldwater	Roanoke River (entire basin) – warmwater
Mitchell River (Kapps Mill Dam to Yadkin River, including tributaries) – coolwater	Chowan River (entire basin) – warmwater
Fisher River (Virginia state line to NC 89 bridge, including tributaries) – coldwater	Minor Coastal Rivers and Tributaries (including, but not limited to) - warmwater
Fisher River (NC 89 bridge to Yadkin River, including tributaries) – coldwater	North River
Little Fisher River (Virginia state line to NC 89 bridge, including tributaries) – coldwater	Newport River
	White Oak River
	New River
	Lockwood Folly River
	Shalotte River
	Pamlico River
	Pungo River

