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City of Lilburn Riparian Buffer Restoration Guidelines
Effective January 1, 2019

Riparian buffer zones surrounding streams and other waters of the state provide important functions and benefits. They help reduce sediments, nitrogen, phosphorous, and pesticides by filtering these and other pollutants out of stormwater and runoff. Healthy riparian buffers also increase wildlife habitat, stabilize water channels and streambanks, improve water quality, provide stream shade and temperature control, and improve aesthetics. A high-quality stream buffer is densely vegetated with native plants, a diverse tree canopy, shrubs, and ground layer vegetation. A healthy buffer is also free from invasive species and eroding soils.

The City of Lilburn protects waters of the state, which includes streams, lakes and springs. A Riparian Buffer Restoration Plan prepared by a licensed professional is required to demonstrate adequate mitigation for encroachments into a buffer. These guidelines are intended to provide a framework for developing an appropriate revegetation plan to restore and enhance the buffer where encroachment has occurred or is proposed.

The City may review site conditions and landscape plans to determine whether to allow a reduction in, or departure from, the number of trees, shrubs and groundcover required by these guidelines. If a reduction of these plantings is approved, each mature Canopy tree shall have a spread of 30' and each mature Understory tree shall have a spread of 25'.

Special consideration should be given to selecting plant material to match site conditions. Selection of plant material should be based on the proximity of state waters and the associated flood zone. Areas within buffers must have 100% coverage of all exposed soils. The plants listed on the following pages, or equivalent alternatives as determined during Plan Review, shall be installed in the following proportions:

Plant Distribution/categories

25% Large Canopy Trees (1 inch to 3 inches in caliper)

25% Small Trees (1 inch to 3 inches in caliper or multi trunked 4 to 6 feet in height)

25% Shrubs (1 gallon to 7 gallon containers)

25% Groundcovers/Perennials/Grasses/Forbs (flats to 2" pots to 1 gallon containers). Grasses may be established using seed.

Generally no more than 33 % of the plants in each category may be of any one species.

Plant Coverage

One (1) large Canopy Tree per 200 sq. ft.

One (1) Understory Tree per 100 sq. ft.

One (1) Shrub One per 16 sq. ft.

One (1) Groundcover/Perennials per 4 sq. ft.

In addition:

1) All plants must be native to the Georgia Piedmont Region.
2) Removal of invasive species is highly recommended.
3) Planting credits may be given for existing preserved trees with root zones intact.
4) Plants must be installed manually (no motorized vehicles).

5) Compacted soils must be loosened prior to planting.
6) Soil disturbance is limited to digging individual holes for plants and according to the nursery/plant producer's recommendations.
7) Additional organic matter or compost to help establish root system must be used in lieu of fertilizer.
8) The entire restoration area (including around trees) must be mulched with 2"-3" of shredded or chipped wood or other approved mulching material.
9) Slopes steeper than 3:1 may require additional stabilization.
10) Weekly watering is required in the absence of adequate rainfall (1" per week) for 13 weeks.
11) Trees and shrubs planted must be warranted for 2 growing seasons (min 12 months).

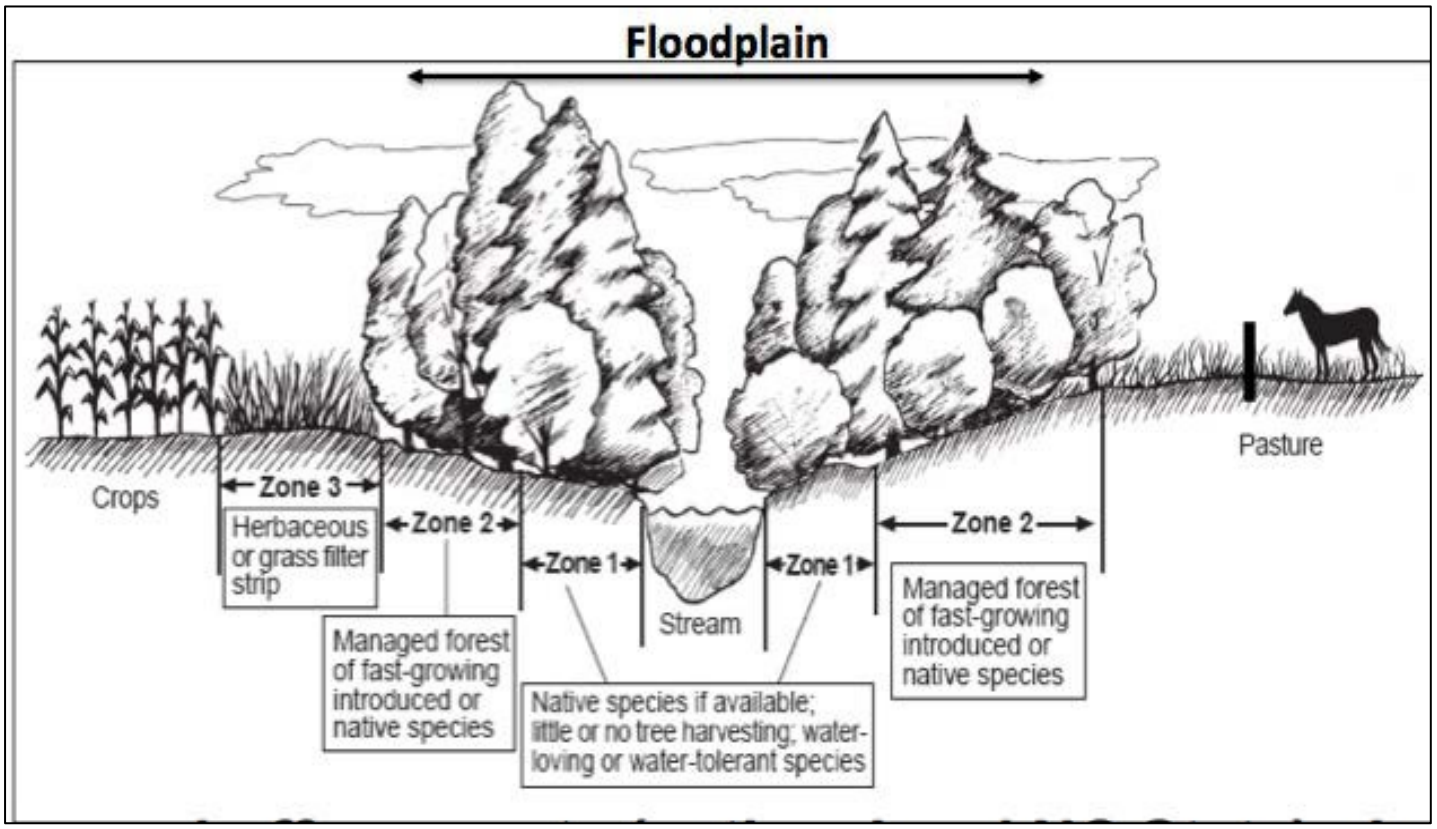
Riparian Zones

Below is a description and schematic of the riparian buffer zones intended to assist with planning and design.

Bank Zone (#1): The 25' Streamside Zone represents that portion of the buffer that is directly adjacent to state waters and is subject to regular inundation from "normal" hydrologic events. In situations where streambanks have been disturbed, additional consideration should be given to the proper design and execution of work to prevent streambank erosion. Work to be completed in this zone of the buffer may require specialized work including geotextile, soil bioengineering, structural elements and other techniques.

Overbank Zone (#2): The 50' Middle Zone represents that portion of the buffer that may receive periodic flooding dues to large storm events. See the Stream Buffer Protection ordinance for restrictions in this zone.

Upland Zone (#3): This Outer Zone is that portion of the buffer that will generally not be affected by flood events.



Suggested/Approved Plant List

Plants approved for buffer revegetation include native Canopy trees, Understory trees, Shrubs, Forbs/Groundcovers/Perennials, and Grasses. See *Section 109, Article V – Buffers, Landscaping and Vegetation*, Appendix "A" Tree Species List or Stream Buffer Restoration Plant List provided by the Planning Department. Plants not listed may be submitted for approval but in no case will invasive species be considered.