

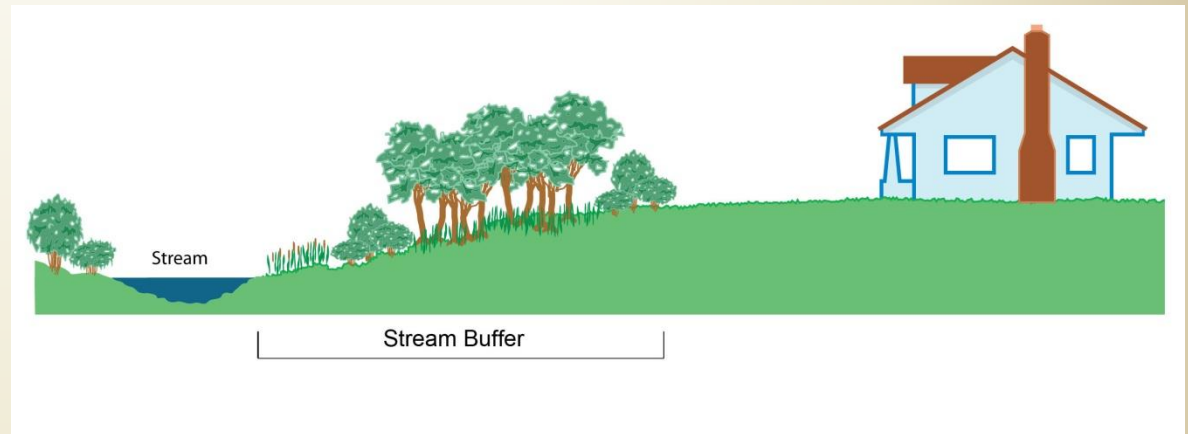


Stream Buffer Requirements

**STREAM
BUFFER
DO NOT
DISTURB**

Call City of Chattanooga 311
to report disturbances or
for more information
about the City's Water Quality Program

www.chattanooga.gov/waterquality



Mo Minkara, Ph.D., P.E., CPSWQ
Water Quality Manager

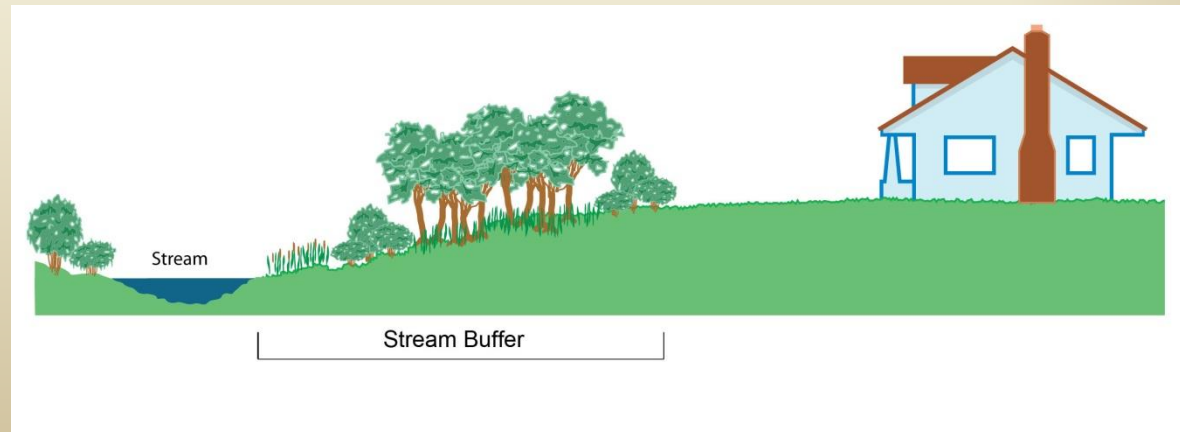


Stream Buffer Definitions

Set back from Top of Bank
of Undisturbed area

containing

Trees, shrubs and herbaceous
vegetation or reestablishment of
native vegetation





Why Protecting Stream Buffer?





Why Protecting Stream Buffer?





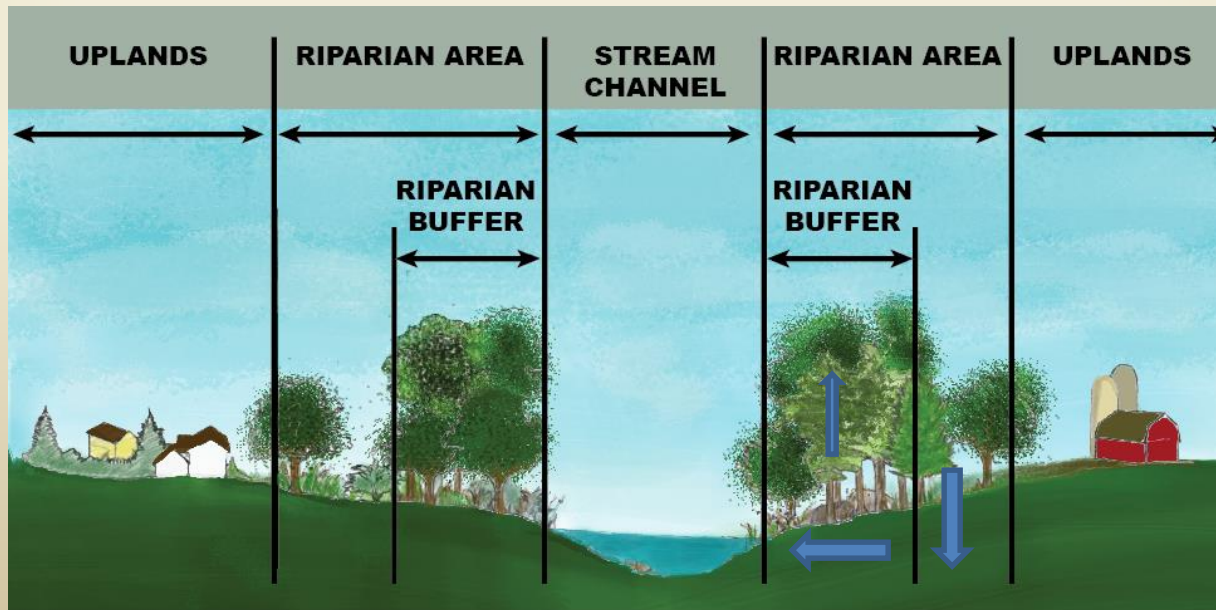
Why Protecting Stream Buffer?





Stream Buffer Goals

- Preserve undisturbed vegetation
- Protect stream habitat, canopy cover and native plants
- Provide structural integrity to stream banks
- Provide flood protection
- Intercept stormwater runoff through sheet flow (reducing runoff velocity)
- Provide filtration, infiltration, and evapotranspiration.



An aerial photograph of a rural landscape. A stream flows through the center, surrounded by a dense line of trees. The surrounding area is a mix of green fields, brown plowed fields, and a wooded area. The sky is clear and blue.

**Construction Buffer
(CGP)
and
Water Quality Buffer
(MS4)**



Water Quality Buffer

Streams:

- **Basins less than 1 square mile:**
 - All streams 30 feet buffer: no averaging
 - Streams on Impaired or Exceptional Tennessee: All streams 60 ft., During construction, no less than 30 ft. minimum
- **Basins greater than one square mile:** All streams 60 ft. buffer: may be averaged but no less than 30 ft. at any one point. **(a hardship will have to be established and can not solely be based on difficulty or cost)**

Lakes and ponds with hydrologic connectivity:

- The water quality buffer shall be twenty-five (30) feet from normal pool.

Jurisdictional Wetlands (USACOE)

- The water quality buffer shall be thirty (30) feet with no disturbance.



Construction Buffer

- **30-foot natural riparian construction buffer shall be left undisturbed adjacent to all streams**
- **For sites that contain/adjacent to a receiving stream designated as Impaired or Exceptional TN waters, a 60-foot buffer is required**





Construction Buffer (City Code Sec. 31-323.2) Water Quality Buffer (City Code Sec. 31-324.2)

- 60-foot average width / 30-foot minimum at any measured location
 - From top of bank to construction area
 - At each side of the stream
 - Shall be left undisturbed

For ponds, lakes
and wetland:
30-foot



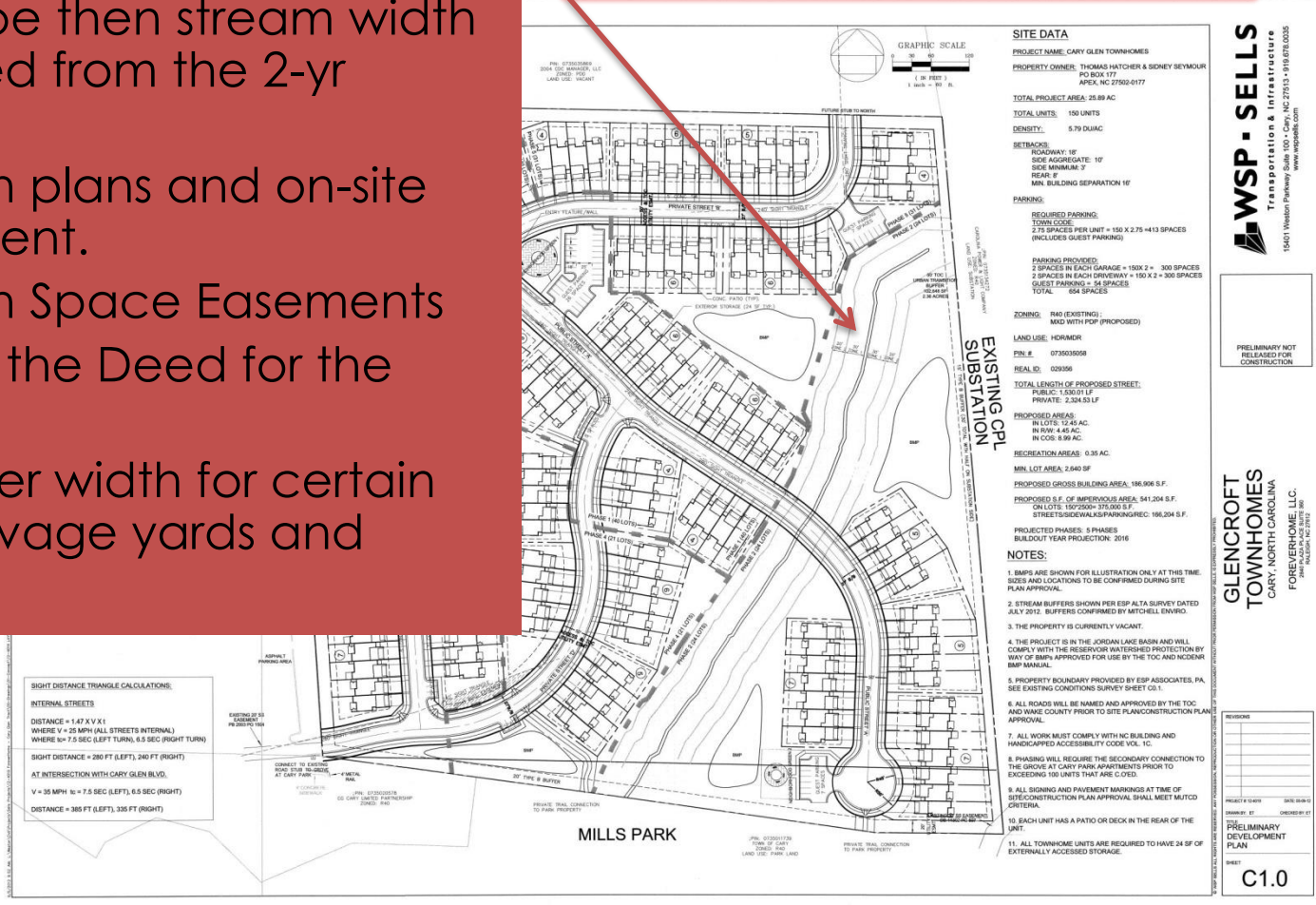


Buffer Requirements



- No unapproved clearing.
- Avoid concentrated flow going through the buffer.
- If top of bank can't be identified from break in slope then stream width can be calculated from the 2-yr frequency storm.
- Clearly mark on plans and on-site during development.
- Placed in Open Space Easements
- Recorded with the Deed for the Property
- Additional buffer width for certain activities (e.g. salvage yards and waste recycling)

Streams, rivers, jurisdictional wetlands, springs, reservoirs, lakes and ponds with hydrologic connectivity, and sinkholes.



WSP - SELLS
 Transportation & Infrastructure
 15401 Watson Parkway Suite 100 • Cary, NC 27513 • 919.878.0035
 www.wspgroup.com

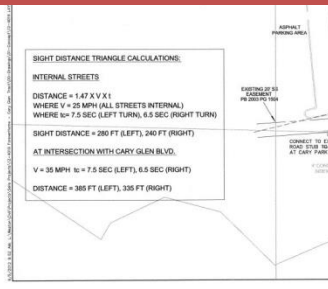
PRELIMINARY NOT
 RELEASED FOR
 CONSTRUCTION

**GLENCROFT
 TOWNHOMES**
 CARY, NORTH CAROLINA
 FOREVERHOME, LLC.
 2008 WATSON PARKWAY, SUITE 100
 CARY, NC 27513

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT # 2014-0101
 DRAWN BY: EJ
 CHECKED BY: ET
 DATE: 08/08/14
 SHEET # 1
 TOTAL SHEETS 1
**PRELIMINARY
 DEVELOPMENT
 PLAN**
 SHEET
C1.0





Prohibited Activities

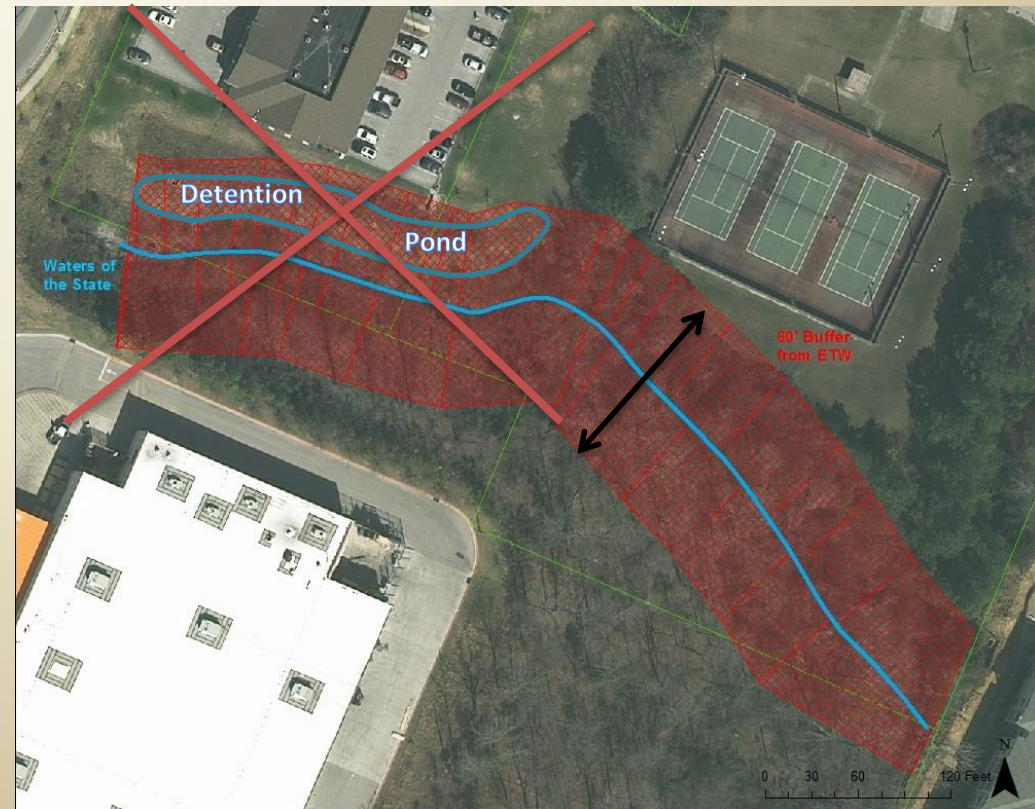
- No construction activities or Land Disturbing Activities including but not limited to: parking, movement of vehicles, storage of materials, clearing, applying gravel, concrete washouts, etc.) shall take place within the buffer zones.





Prohibited Activities

- Buffer Cannot be used for sediment control
- No installation of construction BMPs (such as silt fence, sediment basin, etc.).
- No installation of permanent BMPs (such bioretention, bioswale, ponds, etc.)





Permissible Activities

- Buffer Enhancement & Rehab
- Enhanced landscaping
- Utilities and road crossing
- Passive footpath or
- A sidewalk can be considered
(width shall be added back)
- View Corridor

- Landscape Management Plan
- Restoration Plan





Variance Procedures

City have the authority to grant **appeals** for variances of this ordinance in accordance to **Sec. 31-324.2.**

- Problem is not self-created
- Demonstrate hardship (unique conditions/use of the property such lot size/shape, set backs, etc.)
- **Provide alternatives (to reduced buffer width) – Restoration Plan**
 - **Riparian zone (stream banks and/or buffer area) restoration/mitigation/improvements**
 - Revegetation, habitat improvement, bioengineering, additional water quality and volume protection
 - **Alternatives need to provide comparable improvements to the width reduction**



Thank You

