



# Draft Changes to Buffer Regulations

COMAR 27.01.09.01

Buffer Stakeholders

May 14, 2009

# Buffer Management Plans

- Limits of Disturbance incl. type & size of vegetation removed
- Landscape schedule incl. species, size and spacing of proposed plantings
- Maintenance plan incl. invasive control, watering, monitoring
- If more than 4,000 square feet of plantings required, also incl. long-term guarantee, e.g., bond

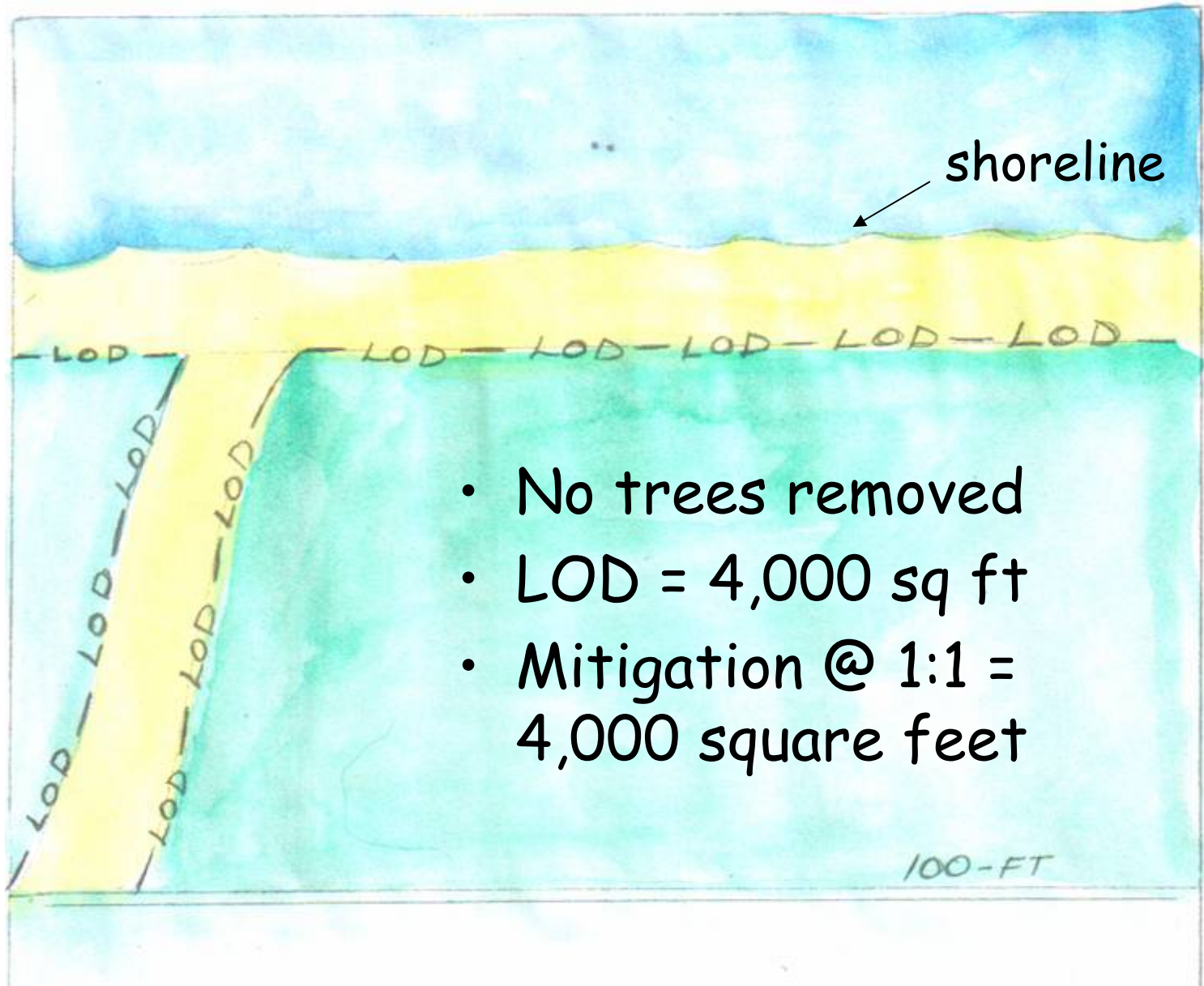
# Buffer Mitigation

- New areas of managed lawn or turf **PROHIBITED**
- Only native species may count
- Mitigation meant to offset area disturbed and ecosystem function lost
- Individual trees removed will be mitigated based on caliper. Every one inch in diameter equals 100 square feet of mitigation
- Understory mitigated on a square footage basis
- Forested areas mitigated by square footage and by trees removed

# Mitigation Ratios

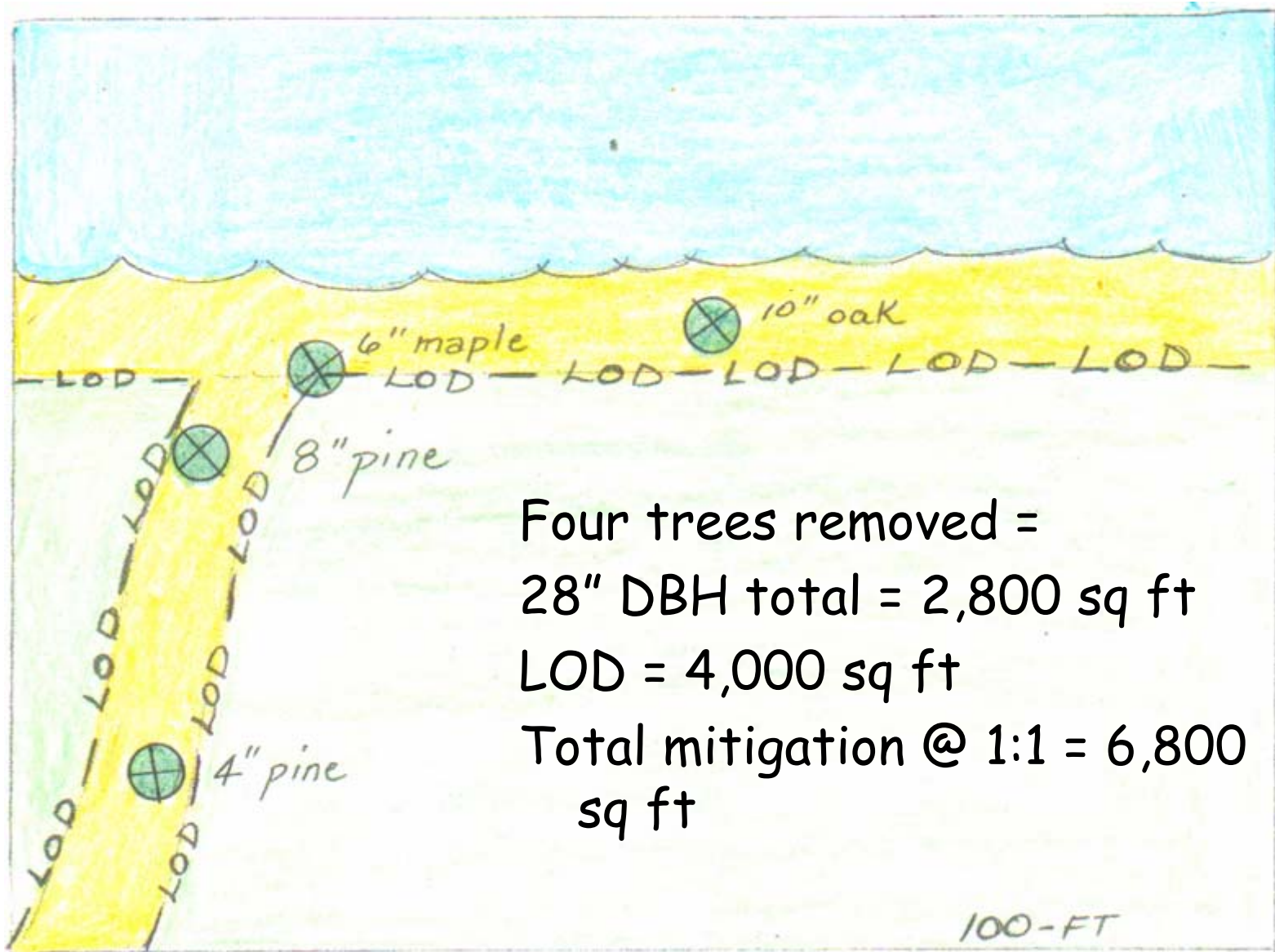
- Shore erosion control 1:1
- Riparian water access 2:1
- Water-dependent facilities 2:1
- Hazard, dead, dying, diseased trees 1:1
- Invasive removal 1:1
- Variance 3:1
- Violation 4:1

# Buffer mitigation for Shore Erosion Control

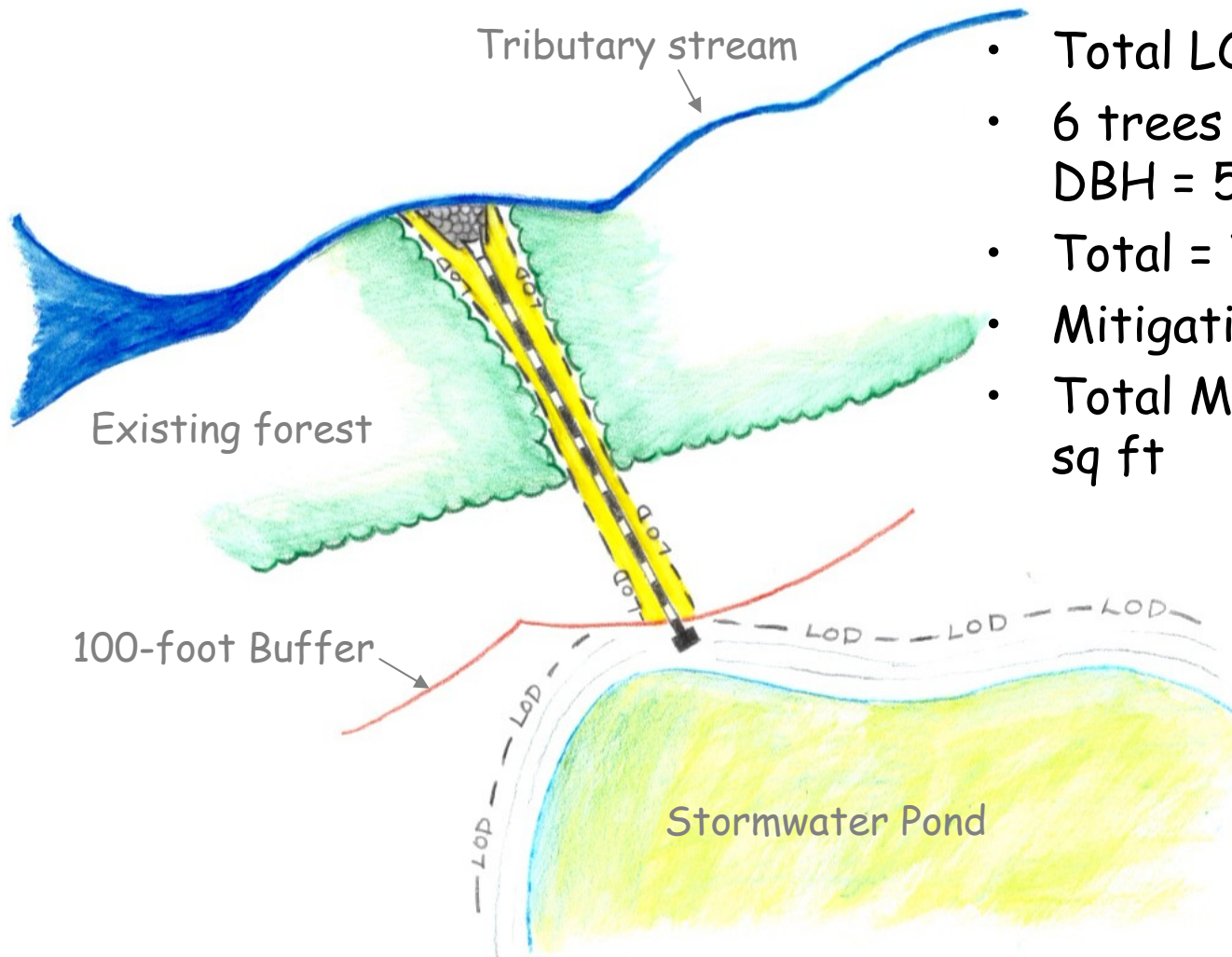


- No trees removed
- LOD = 4,000 sq ft
- Mitigation @ 1:1 = 4,000 square feet

# Buffer Mitigation for Shore Erosion Control

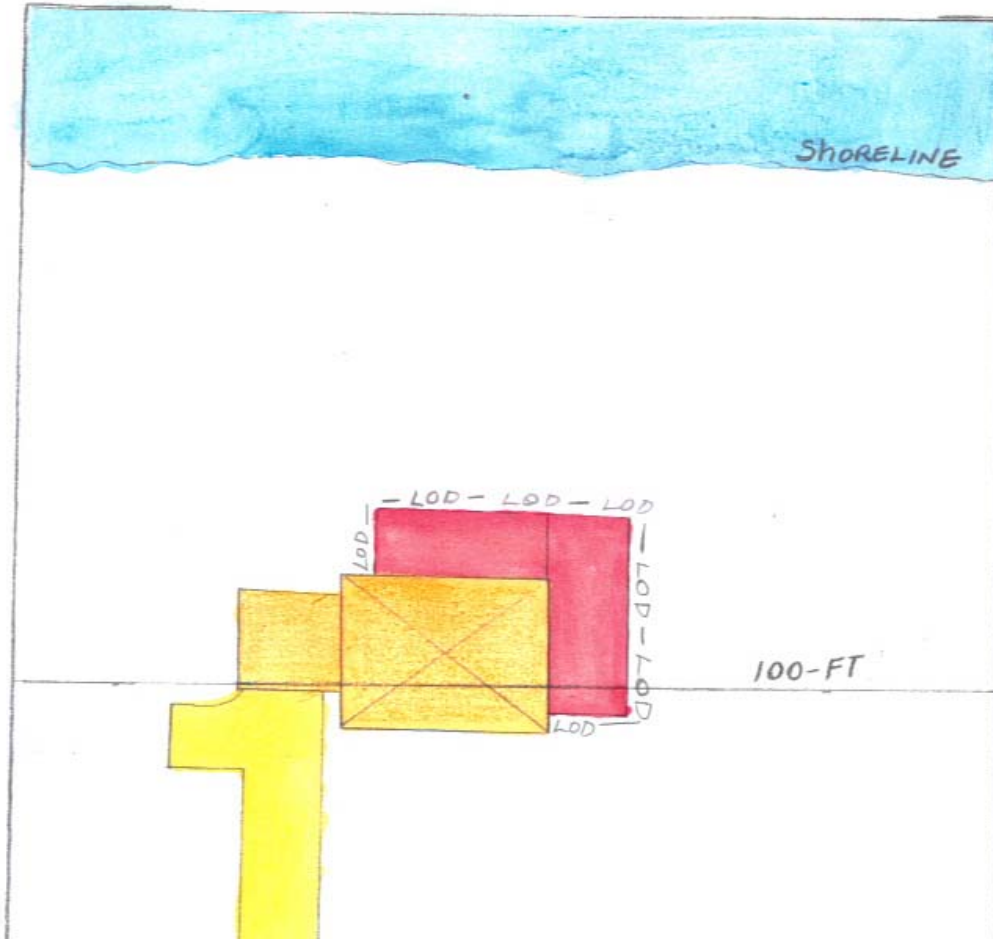


# Buffer Mitigation for Water-Dependent Activity



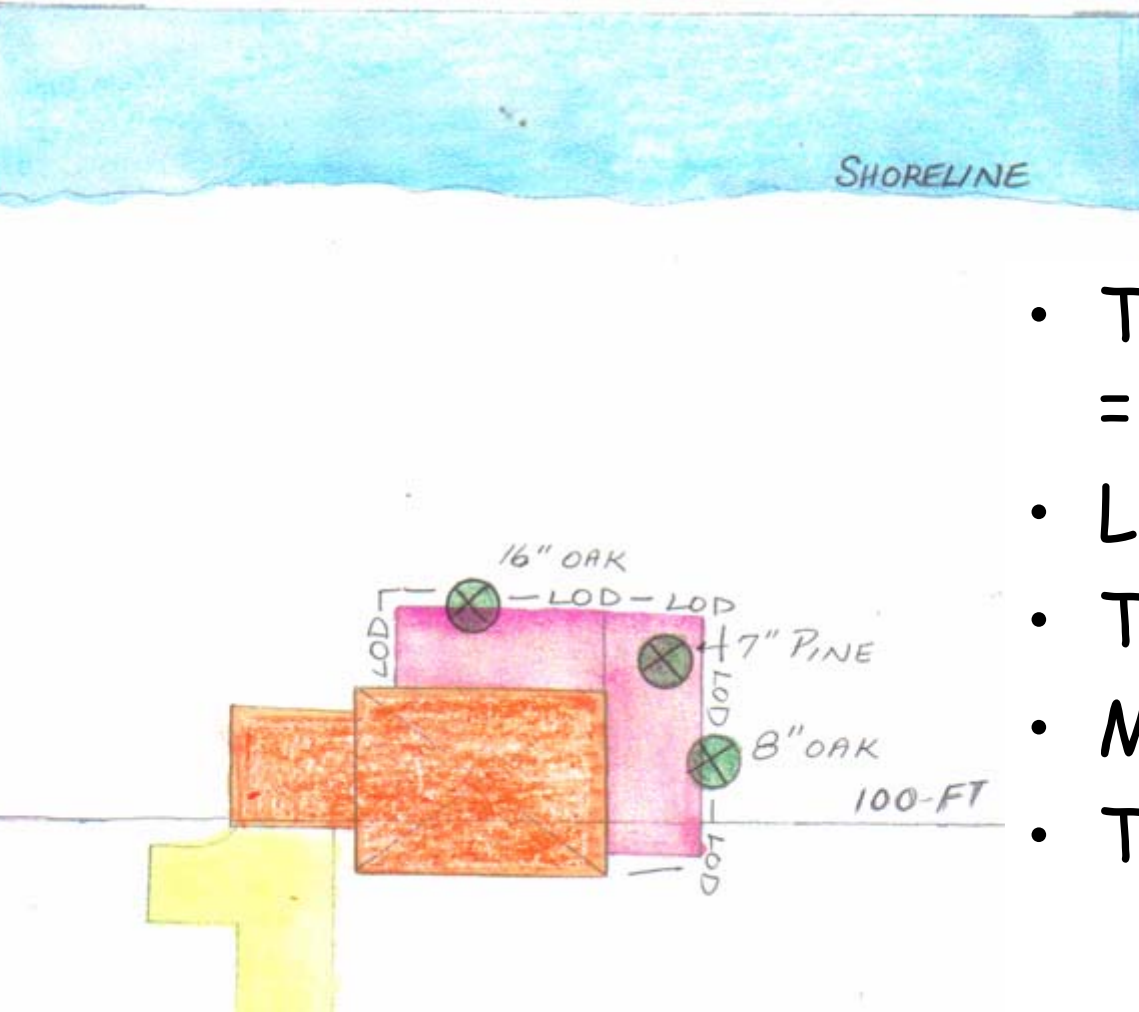
- Total LOD = 1,700 sq ft
- 6 trees removed = 54" DBH = 5,400 sq ft
- Total = 7,100 sq ft
- Mitigation @ 2:1
- Total Mitigation = 14,200 sq ft

# Buffer Mitigation - Variance



- No trees removed
- LOD = 900 sq ft
- Mitigation @ 3:1
- Total mitigation =  
2,700 square feet

# Buffer Mitigation - Variance



- Three trees removed  
= 31" DBH = 3,100 sq ft
- LOD = 900 sq ft
- Total 4,000 sq ft
- Mitigation @ 3:1
- Total mitigation =  
12,000 square feet

# Mitigation Credits

<u>Vegetation Type</u>	<u>Minimum Size</u>	<u>Mitigation credit</u>
Canopy tree	1" caliper or greater/6' high	100 square feet*
Understory tree	1" caliper or greater/6' high	75 square feet*
Large shrub	3 gallon or greater/3-4' high	50 square feet
Small shrub	3 gallon or greater/18" high	25 square feet
Planting Cluster Type A	1 canopy tree and three large shrubs or six small shrubs	300 square feet*
Planting Cluster Type B	Two understory trees and three large shrubs or six small shrubs	350 square feet*

\*to be discussed further

# Planting Location Priorities

When mitigation cannot be located on site within the Buffer due to site constraints it shall be planted according to the following order of priority:

- On site and adjacent to the Buffer;
- On site elsewhere in the Critical Area;
- Offsite in the Critical Area; or
- By the payment of a fee-in-lieu as described in §(? - to be drafted).

# Buffer Establishment Standards

- New areas of managed lawn or turf PROHIBITED;
- Only native plantings shall count towards Buffer establishment;
- Single species may not exceed 20% of total planting requirement;
- A minimum of 50% of the total required area shall be planted with canopy trees;
- A maximum of 40% of the total required area shall be planted with large and small shrubs;
- Long term protection for all Buffer areas established under this provision;
- For new subdivisions, signs shall be posted to delineate Buffer at no less than one per lot or 200 linear feet of shoreline

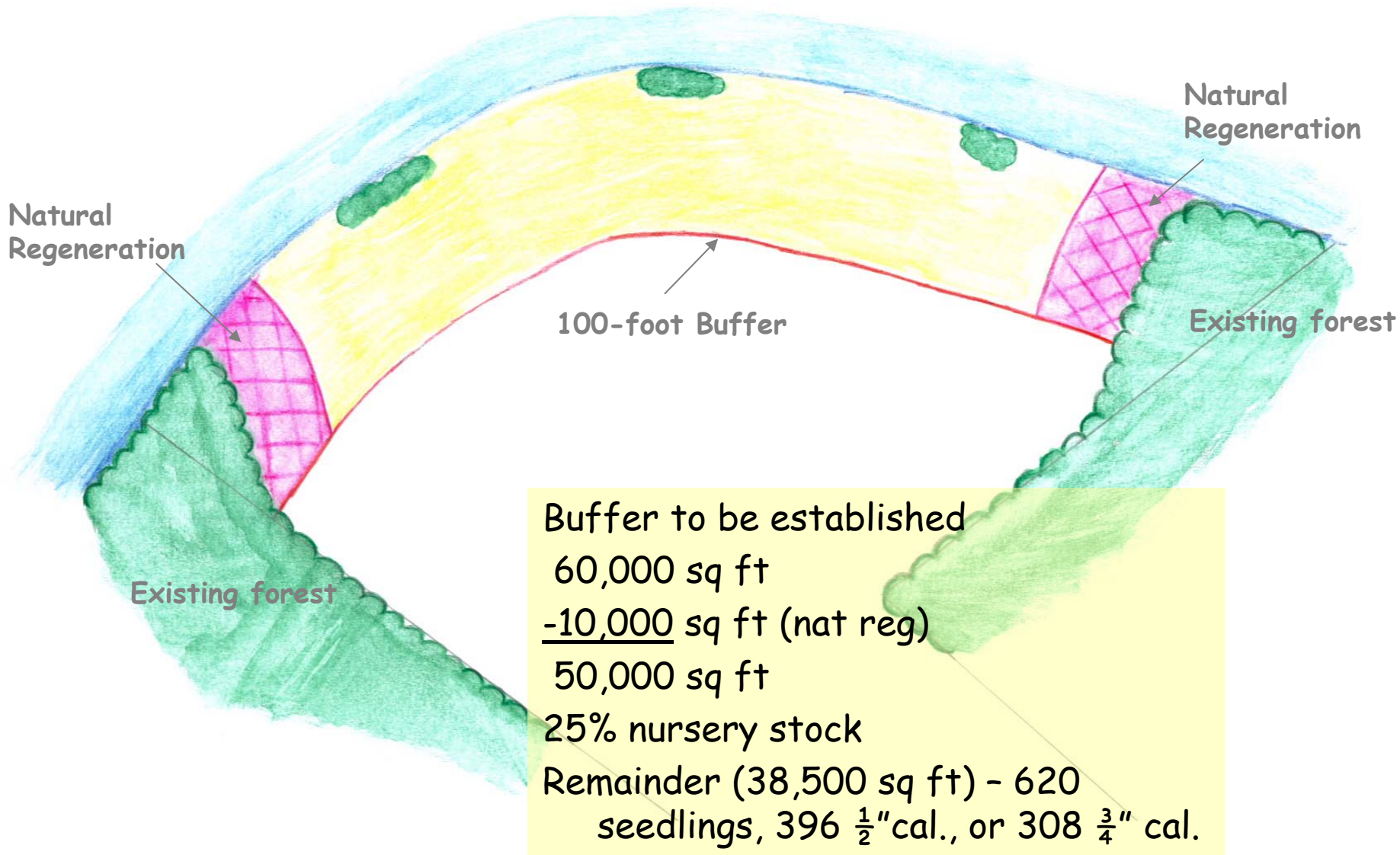
# Buffer Stocking Standards

<b>Area of Buffer to be established</b>	<b>Planting requirement</b>
$\leq \frac{1}{4}$ acre	Nursery stock as specified in mitigation section of this regulation
$> \frac{1}{4}$ acre to $\leq 1$ acre	Plant at least 50% of area with nursery stock as specified in mitigation section; plant remaining 50% using one or combination of tree stocking methods below
$> 1$ acre to $\leq 5$ acres	Plant at least 25% of area with nursery stock as specified in mitigation section; plant remaining 75% using one or a combination of methods below
$> 5$ acres	Plant at least 10% of area with nursery stock as specified in mitigation section; plant remaining 90% using one or a combination of methods below

# Alternative Stocking

<b>Stock Size (trees)</b>	<b># per acre</b>	<b>Required bond period</b>	<b>Partial bond release after 2 years possible if:</b>
Bare-root seedling/whip	700	5 years	80% survival, avg. height reached >3 ft
Container grown - $\frac{1}{2}$ " caliper/4' high min.	450	4 years	85% survival
Container grown - $\frac{3}{4}$ " caliper/5' high min.	350	3 years	90% survival

# Buffer Establishment



# Next Steps

- Stakeholders' meeting (other than local govts.)
- Buffer workgroup (Commission members)
- Begin intro to full Commission in June
- Possible Schedule:
  - 6/3 - Buffer workgroup/Commission intro
  - 6/11 - Next local stakeholders meeting
  - 6/? - Other stakeholders???
  - 7/8 - Buffer workgroup/Commission cont'd
  - 8/5 - Commission vote on proposed regs 🌴