

Jordan Watershed Riparian Buffer Protection Ordinance

Information Session
December 8 & 15, 2010



Jordan Rules Status Update



- Chapel Hill Land Use Management Ordinance (LUMO) amended December 6, 2010 to include Section 5.18 Jordan Watershed Riparian Buffer Protection
 - Provides buffer protection along intermittent and perennial streams, and perennial waterbodies

- Stormwater runoff from new development
 - January or February 2011, DWQ releases approved "new development" model ordinance
 - Town submits draft ordinance to state for approval by the EMC six months later
 - State has nine months to approve or disapprove
 - Town has three months to implement approved ordinance

- State's Jordan Rules also regulate
 - Stormwater runoff from existing development
 - Wastewater discharges
 - Agriculture
 - Fertilizer management



Overview

- Applicability
- Buffer Widths
- Diffuse Flow
- Existing and Ongoing Uses and Activities
- Table of Uses and Activities
- Authorizations and Variances
- Mitigation
- Forms



Applicability

- All landowners and other persons conducting activities in the Jordan watershed
- Change in use or activity triggers Jordan buffer requirements
 - Rules don't apply to parts of buffer where use is existing and ongoing
 - Only the footprint of the existing use or activity is exempt
- Activities outside of the buffer with hydrological impacts in violation of the diffuse flow requirements
- DWQ regulates activities by local, state, and federal agencies



Applicability

Applies to:

- Intermittent streams
- Perennial streams
- Lakes
- Reservoirs
- Ponds
- Streams

Does not apply to:

- Manmade ponds & lakes outside natural drainage ways
- Ephemeral streams
- Ditches or manmade conveyances
- 404 Wetlands



Applicability

A surface water shall be subject if the feature is approximately shown on one of the following references:

- Most recent paper version of the soil survey map prepared by the U.S. NRCS
- Most recent version of USGS 1:24,000 scale quadrangle topographic maps
- Town-prepared map approved by the Geographic Information Coordinating Council and EMC

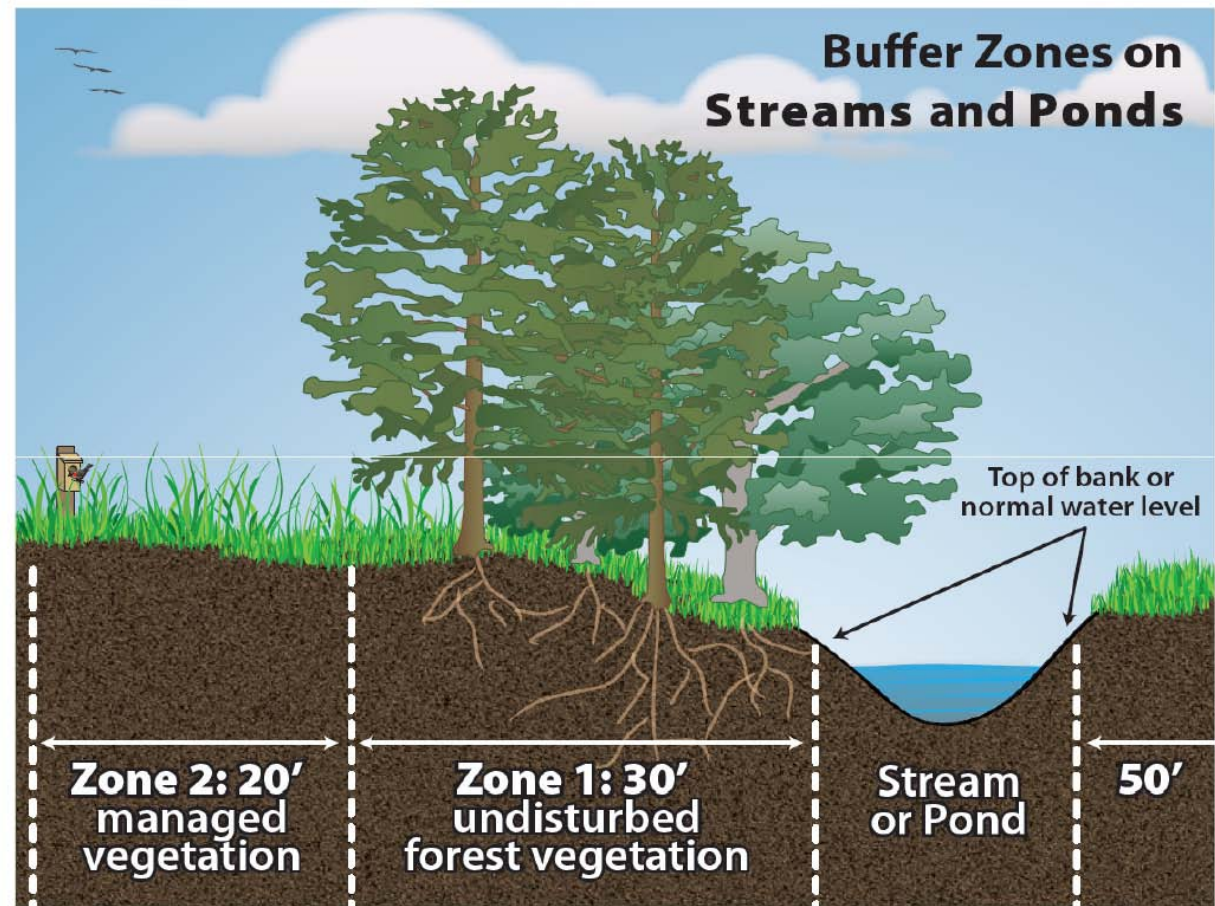


Buffer Widths

- Requires 50-foot buffers for all perennial and intermittent streams and perennial waterbodies
- **Zone 1** – 30 feet from bank or normal pool elevation (waterbody)
- **Zone 2** – Extends 20 feet from Zone 1



Buffer Widths





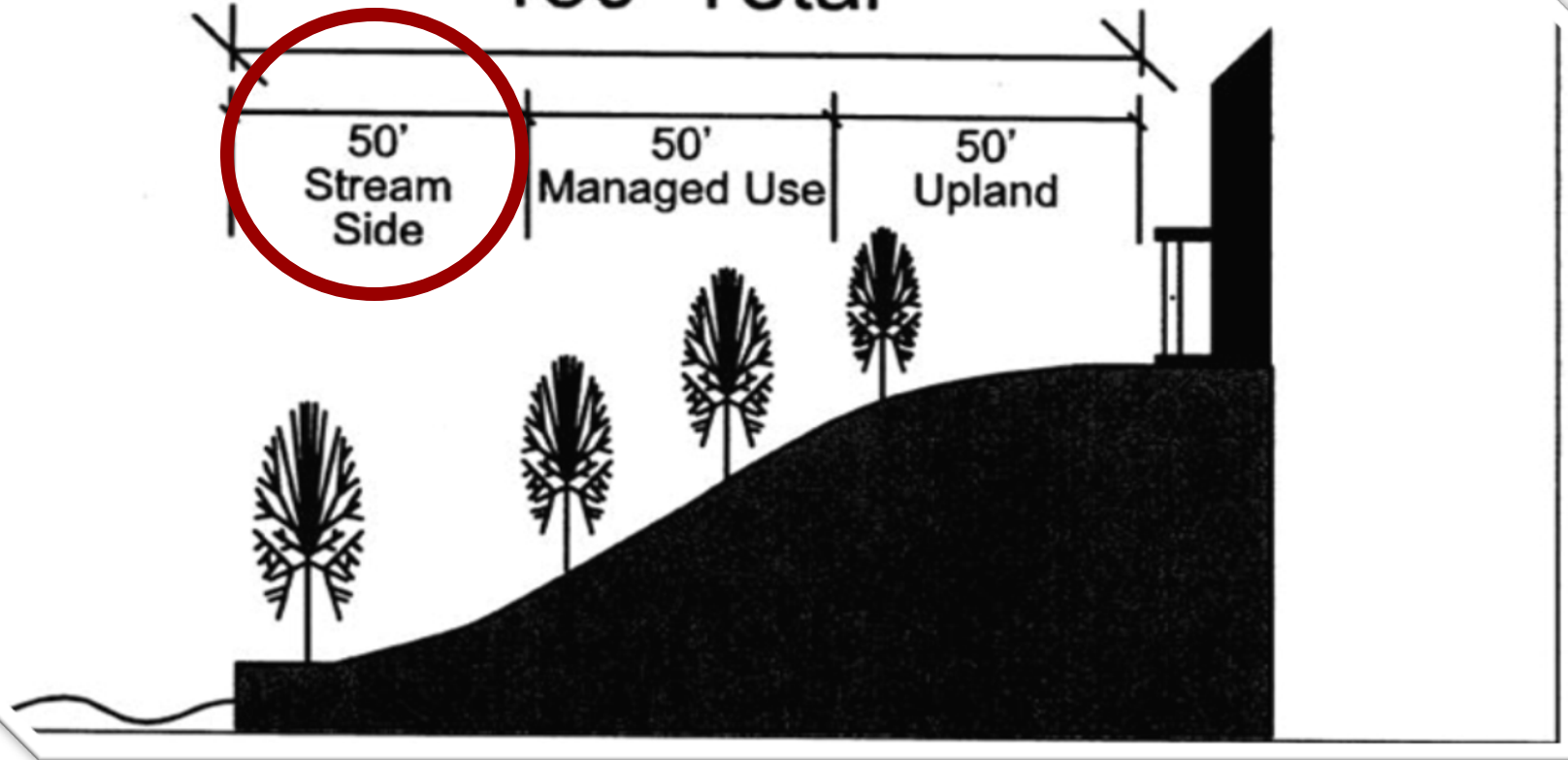
Buffer Widths

150' Total

50'
Stream
Side

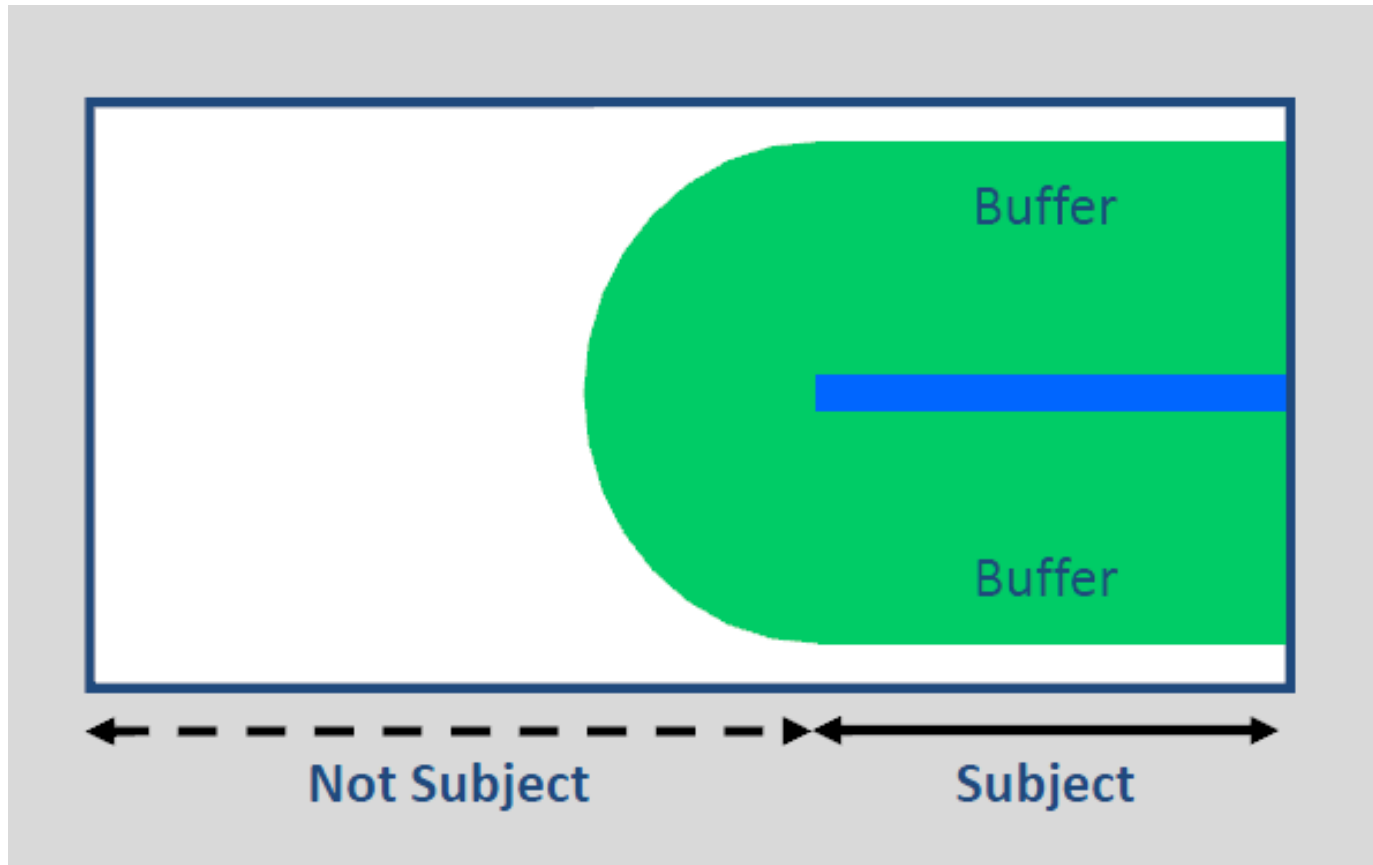
50'
Managed
Use

50'
Upland



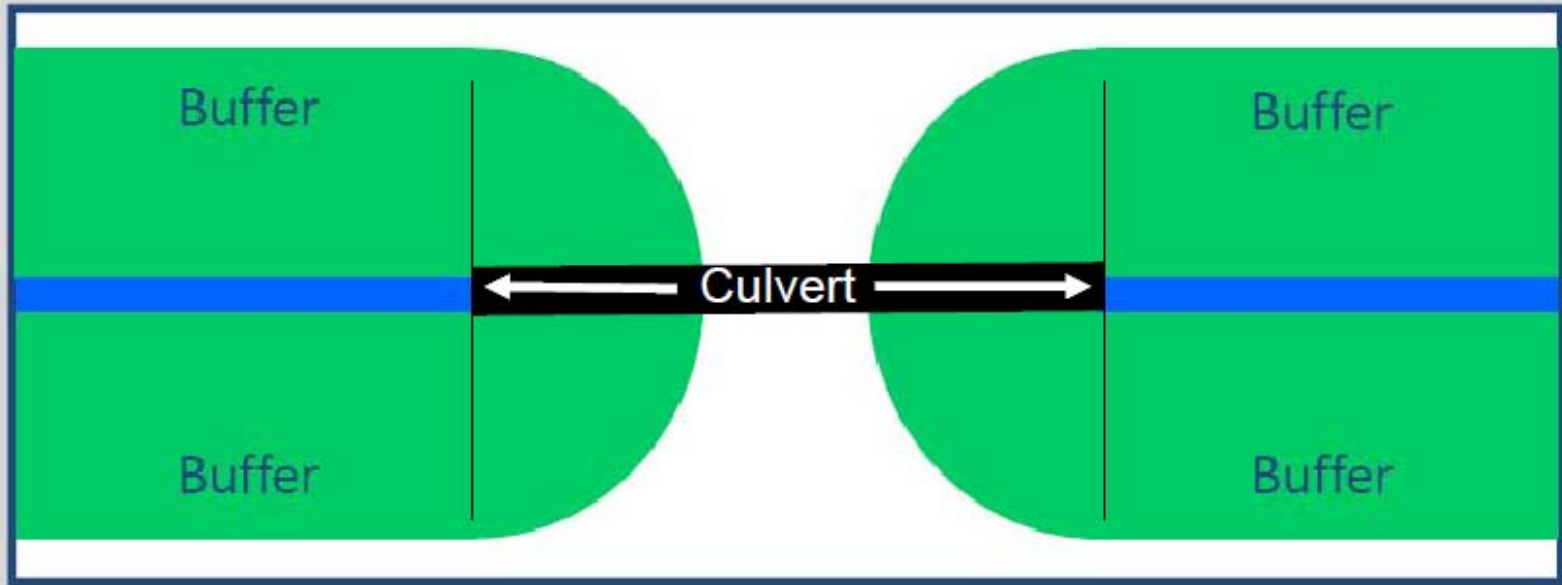


Buffer Widths



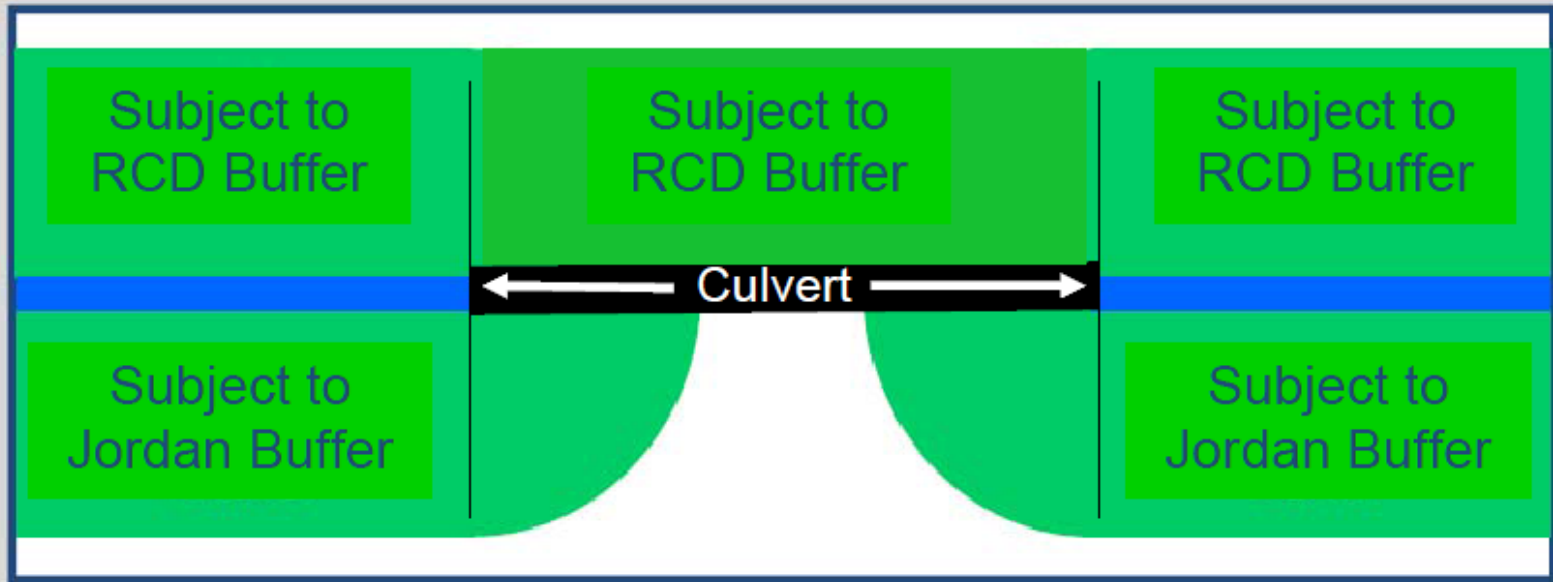


Buffer Widths





Buffer Widths





Diffuse Flow

- Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow and re-establishing vegetation
- Concentrated runoff shall be converted to diffuse flow before runoff enters the buffer
- Periodic maintenance to restore diffuse flow and impede the formation of erosion gullies
- No new stormwater conveyances are allowed through the buffers except for those permitted in the Table of Uses and Activities
- Diffuse flow requirement still must be met regardless of amount of land disturbance and when there are no impacts to any riparian buffers



Existing and Ongoing Uses and Activities

- Requirements do not apply to:
 - Uses and activities that are existing and ongoing - uses or activity must be present and ongoing within the riparian buffer as of December 6, 2010
 - Project or proposed development has a 401 Certification and 404 Permit and the Certification and Permit were issued prior to December 6, 2010
 - Project or proposed development project has the written approval from the Town prior to December 6, 2010
- The requirements will apply at the time an existing and ongoing use or activity is changed

Table of Uses and Activities



- Exempt:
 - Allowed in the buffer
 - Requires *Jordan Watershed Riparian Buffer Notice of Exemption* – if not part of a Zoning Compliance Permit Application

- Allowable:
 - Requires *Jordan Watershed Riparian Buffer Authorization Application*
 - Requires a finding of “no practical alternatives”
 - Requires written authorization

Table of Uses and Activities



- Allowable with mitigation:
 - Requires *Jordan Watershed Riparian Buffer Authorization Application*
 - Requires a finding of “no practical alternatives”
 - Requires an approved mitigation strategy
 - Requires written authorization
- Uses and activities not listed in the table are prohibited!
 - Unless a variance is granted
 - Mitigation may be required as a condition of the variance

Table of Uses and Activities



Use	Exempt ⁴	Allowable ⁵	Allowable with Mitigation ¹
Utility, non-electric, other than perpendicular crossings ^{4, 5} :			
• Impacts in Zone Two		X	
• Impacts in Zone One ¹			X

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- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed. Provided that, in Zone One, all of the following BMPs for underground utility lines are used. If all of these BMPs are not used, then the underground utility line shall require a no practical alternative evaluation by the Town, as defined in Subsection 5.18.8(c).
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain, except in the trench where trees are cut.
- **Underground cables shall be installed by vibratory plow or trenching.**
- **The trench shall be backfilled with the excavated soil material immediately following cable installation.**
- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Measures shall be taken upon completion of construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

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- **Perpendicular crossings are those that intersect the surface water at an angle between 75degrees and one hundred five (105) degrees.**

Authorizations and Variances



No Practical Alternatives Determinations

- aka "Buffer Authorization"
- Required for uses listed as allowable and allowable w/ mitigation
- Town has 60 days to issue authorization
- Town can attach conditions
- Appeals go to Director of DWQ

Authorizations and Variances



No Practical Alternatives Determinations (cont.)

Application Requires:

- An explanation of why the plan for the use or activity cannot be practically accomplished, reduced or reconfigured to better minimize disturbance to the riparian buffer, preserve aquatic life and habitat and protect water quality
- Plans for best management practices to control the impacts associated with the activity



Authorizations and Variances

No Practical Alternatives Determinations (cont.)

Applicant must certify that:

- The basic project purpose cannot be practically accomplished in a manner that would better minimize disturbance, preserve aquatic life and habitat, and protect water quality;
- The use or activity cannot practically be reduced in size or density, reconfigured, modified or redesigned to better minimize disturbance, preserve aquatic life and habitat, and protect water quality; and
- Best management practices shall be used as necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.

Authorizations and Variances



Variances

- Required for prohibited uses
- Minor Variances
 - Impacts to Zone 2 only
 - Reviewed and Issued by Town Board of Adjustment
- Major Variances
 - Impacts to Zone 1 or Zones 1 and 2
 - Preliminary findings by Town Board of Adjustment
 - Issued by the EMC



Forms

- Revised forms for most development applications
- New forms:
 - Jordan Watershed Riparian Buffer Authorization Application
 - Jordan Watershed Riparian Buffer Notice of Exemption