

Proposed Model for Riparian Buffer Corridor with Relation to Upland Review Areas

The following is a brief language model designed for municipalities as an example and illustration of the potential regulatory document. It is not state or town regulation and does not substitute one. The structure of this document and three models presented here are examples that can be developed into full regulation model. Upland Review Areas are specific for Connecticut only and the presented document illustrates their relationship with riparian buffer corridors.

Examples of Basic, Specific Area and Variable Area Models are possibilities that should be considered in potential regulatory document. The language presented here should/can be modified according to specific localities (i.e. townships, municipalities, etc.) and their environmental and economic conditions.

The following examples of full regulatory documents can be considered in drafting the final document (PDF files are available on the Riparian Toolbox website):

1. "Model Stream/Wetland Buffers Ordinance", prepared By State of Rhode Island. Considers Basic or Variable Area Models.
2. "Model Ordinance For Wetland Protection", prepared by Westchester County, NY. Considers Basic or Specific Area Models
3. "Riparian Buffer Zones: Functions and Recommended Widths", prepared for the Eightmile River Wild and Scenic Study Committee. Considers Basic, Specific Area and Variable Area Models.

PROPOSED RIPARIAN BUFFER CORRIDOR MODEL APPLICATION GUIDELINES**

The following provide simple (Basic Model) and more complex (Specific Areas and Variable Area Models) examples.

1. **Basic Model:** Certain activities (***) if conducted within the RBC (identified as 100 feet for perennial streams and 50 feet for intermittent streams) are prohibited.
See ****.
2. **Specific Areas Buffer Model:** Certain activities (**) if conducted within a specified distance from a specific wetland or watercourse are prohibited.
Examples of specific distances include:
 - (1) within _X_ feet measured horizontally from the ordinary high water mark of _X_ lake, pond or other waterbody
 - (2) within _X_ feet horizontally from the boundary of the _X_ swamp, wetland or marsh (*)
See ****.
3. **Variable Area Model:** Certain activities (**) if conducted within a specified distance from a specific wetland or watercourse and on areas of a specific slope and soil types are prohibited.
Example of specific distance and areas include:
 - (1) within _X_ feet measured horizontally from the boundary of any wetland or watercourse provided that the measured distance shall be increased by five feet for each one percent increase in slope greater than five percent, but not more than _X_ feet total.
 - (2) on slopes greater than _X_ percent and highly erodible soil types _(list)_(*)
See ****.

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* Wetlands definition may be based on either hydric or other soil types, hydrologic characteristics, hydrophytic vegetation, or a combination according to the regulatory authority. For example, in Connecticut, wetlands are defined by soil drainage group (poorly drained, very poorly drained), flood plain and alluvial soils as designated by the USDA NRCS. Determination of wetlands and field delineation (mapping) has to be made by qualified soil scientist. (Useful contact info: Society of Soil Scientists of Southern New England: <http://www.nesoil.com/ssssne>)

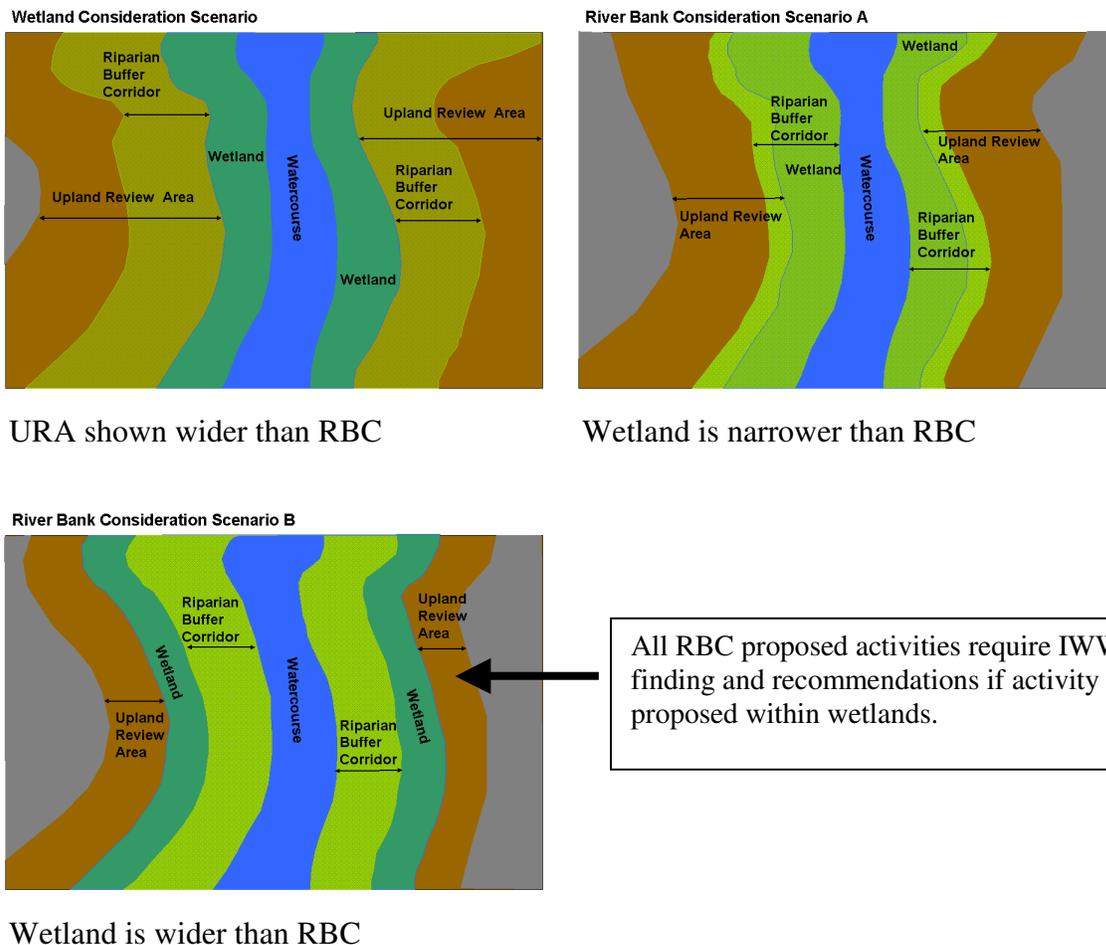
** Actual regulations would look like

http://www.eightmileriver.org/Tier_One_Tools/MgmtIssue1RipCorr.pdf (see pages 18-19)

*** Examples of prohibited activities in RBC (unless there is no reasonable alternative with less adverse impact on the RBC, or the proposed project will have insignificant impact on RBC): clearing, grubbing and grading; construction, alteration or pollution; deposition or removal of material; discharge of storm water or other contaminated runoff; excavating; filling; paving.

**** The Inland Wetlands and Watercourses Commission may rule that any other activity located within the URA (or any other non-wetland or non-watercourse area, if their regulations allow) is likely to impact or affect wetlands or watercourses and is a regulated activity. Said activity may also occur in the RBC, which may not be allowable under zoning regulations.

Figure 1. Relationship between RBC and URA (when buffer distances are defined according to Basic Model).



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TERM DEFINITIONS, VARIOUS METHODS TO MEASURE WIDTH, AND STATUTE EXCERPTS

Riparian Buffer Corridor (RBC):

Defined as “an undisturbed, naturally vegetated area contiguous with and parallel to an intermittent or perennial stream that serves to attenuate the effects of development” (modified from CT DEP, Inland Fisheries Division, Policy Statement, Riparian Corridor Protection). However, in many other references the definition of these areas also include lakes, bays and their adjacent side channels, floodplain, and wetlands.

Upland Review Areas (URA):

Defined as “non-wetland or non-watercourse area in which certain activities may be regulated” (Guidelines, Upland Review Area Regulations, Connecticut’s Inland Wetlands & Watercourses Act, CT DEP, Wetlands Management Section, Bureau of Water Management, June, 1997).

Relationship Between RBC and URA:

URA helps protect RBC by providing an added area of review where activities may be **regulated by Inland Wetlands and Watercourses Commission (IWWC)**. RBC helps protect water quality and habitat in streams and wetlands where certain activities are **prohibited by Planning and Zoning Commission (PZC)** (unless, for example, there is no reasonable alternative with less adverse impact on RBC, or the proposal project will have insignificant impact on RBC). See Figure 1 for further explanation.

- Perennial:* Flow is steady throughout the year
Intermittent: Flow is seasonal and driven by precipitation events
Wetland: An area that is covered by water at least some part of the year (general definition, see*)

Measuring the Riparian Buffer Corridor:

Using fixed or variable distances, RBC can be measured from:

- edge of riparian inland wetlands (*) adjacent to stream (see Figure 1: Wetland Consideration Scenario)
OR
- edge of stream bank based on bank-full conditions (see Figure 1: River Bank Consideration Scenarios A&B)

See Figure 1 for an illustration of three possible combinations of RBC and URA boundaries with fixed buffer distances.

NOTE: URA is measured from edge of jurisdictional wetlands or watercourses.

Excerpt from Connecticut General Statutes (CGS):

The decision of the zoning commission shall not be rendered on the site plan application until the inland wetlands agency has submitted a report with its final decision (CGS Sec. 8-3, 8-26).