



Contact:

Chet Arnold
Associate Director
Center for Land Use Education and Research
University of Connecticut
(860) 345-5230
chester.arnold@uconn.edu

Mark Tedesco
Director
EPA Long Island Sound Office
(203) 977-1541
tedesco.mark@epa.gov

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STAMFORD— A new study indicates that wetland and stream protection regulations in Connecticut are having an effect in retarding — but not stopping — development close to coastal streams.

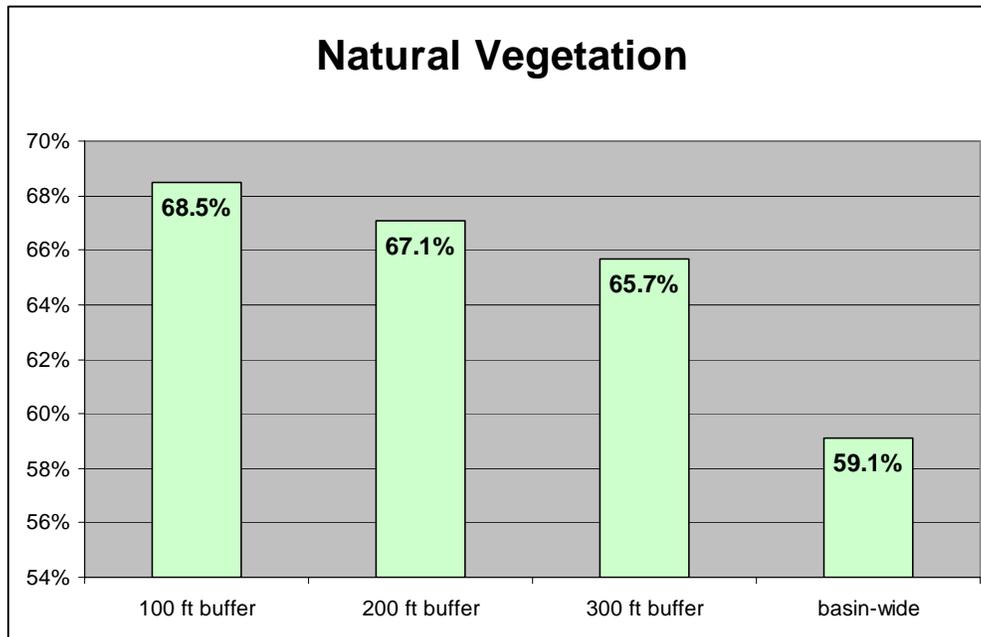
The study, conducted by the University of Connecticut Center for Land Use Education and Research (CLEAR) and released today at the Long Island Sound Study's spring Management Committee meeting in Stamford, looked at changes in the landscape within 100, 200, and 300 feet of all of the state's coastal rivers, streams, and wetlands. The study was funded by the Environmental Protection Agency's Long Island Sound Office, which administers the Long Island Sound Study National Estuary Program, a partnership between the EPA and the states of Connecticut and New York to restore and protect the Sound.

"There's a lot of research that shows that streamside areas, called riparian corridors or buffers, are critical to stream stability and pollutant removal, and to the quality of both aquatic and terrestrial wildlife habitat," said Mark Tedesco, Director of the EPA Long Island Sound Office in Stamford. "This study was intended to give us a broad scale view of the status of Connecticut's riparian corridors, and help to focus federal, state and local agencies on the areas that are in the most need of protection and restoration."

CLEAR researchers used satellite data to determine the changes in landscape type, or land cover, of the streamside land from 1985 to 2002. Overall, the study found that in 2002, the percent of natural vegetation (forest and wetland) was greatest, and the percentage of developed land was lowest, nearest to the streams. "Within the 100 foot corridor, the average amount of natural vegetation was 68.5%, and this number decreased steadily in the 200 foot and 300 foot corridors until it reached 59.1% when you looked at the overall basins," said Emily Wilson of CLEAR, the principal researcher of the study (Figure).

Landscape change from 1985-2002 mirrored this result, showing that increases in development were not as great right next to the streams as they were in the overall watershed area. The overall increase in development in the 100 foot corridor was 1.7% of that corridor area, or about

2,700 acres, whereas the average for the entire study area was about 2.6%. Taken together, these results provide “strong, although indirect, evidence that the state’s tidal wetlands and inland wetlands and watercourses laws are having at least some effect in slowing down the rate of development in coastal riparian corridors,” said Chet Arnold, CLEAR Associate Director.



In 2002, natural vegetation (forest and wetlands) was appreciably higher in the riparian corridors than in the basins overall, and increased with proximity to the stream.

The study also identified specific regions where the pace of development along the streams was the most rapid. These “hot spots” are in southeastern Connecticut, in the stretch of shoreline from East Lyme to Stonington, and in the western coastline region draining to the Bridgeport area. Arnold noted that “this is not a huge surprise, since these areas were identified in CLEAR’s statewide land cover study as overall hot spots for development.”

Tedesco stated that “Most agencies and states do not have the advantage of a study like this, which provides a broad perspective, in both space and time, on what’s happening to our coastal riparian areas. Of course, the real challenge is whether this new understanding can spur federal, state and local entities to work together to better protect and restore these critical areas.”

The Center research team intends to update the riparian study with its soon to be released 2006 land cover data, and extend it to cover the entire state. Results of the riparian corridor study, including a public summary, charts and an interactive web map, can be found on the CLEAR website at: http://clear.uconn.edu/projects/riparian_buffer/riparian_buffer.html