The Nature Conservancy
Protecting nature. Preserving life.

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In Support of Bill 832 – AAC THE PROTECTION OF INLAND WETLANDS AND WATERCOURSES

Testimony of David Sutherland – Director of Government Relations Before the Environment Committee – February 9th, 2011

On behalf of The Nature Conservancy, I am here today to testify in support of the critical concept underlying Bill 832 - requiring municipal inland wetlands agencies to consider the effect of the proposed regulated activity on existing natural vegetation near wetlands and watercourses.

Riverfront areas, also referred to as riparian buffers, are transition zones between the surface water of rivers and streams, and adjoining upland areas. Vegetated riparian buffers are well-documented in the scientific literature as enhancing stream bank stabilization, stormwater and floodwater management, water quality and wildlife habitat. Intact vegetated buffers trap sediment and sequester nutrients and other chemicals from precipitation, groundwater *(underground water)*, and surface runoff *(water flowing over the surface of the ground)*. Vegetative buffers also serve as an ameliorating influence on peak flow and velocity within the stream by slowing down and absorbing surface runoff prior to its reaching the stream.

Numerous studies have shown that as the percentage of impervious cover – roads, roofs, and driveways – increases in a watershed, water quality in rivers and streams declines. Impervious cover, however, is the inevitable result of development, much of it development that is necessary and desirable; so in some watersheds we can not and should not avoid an increase in such cover. By more carefully directing that cover away from the most sensitive areas, though, we can disproportionately lessen some of the attendant degradation in water quality. Keeping as much impervious cover as possible out of riparian buffers, and as much native vegetation as possible in these areas, has a much greater effect on water quality than doing so in areas more distant from a river.

As just one indication of this connection between buffers and stream quality, a 2006 study by researchers from the University of Georgia noted: "When compared with stream segments having 30-meter wide buffers, our analysis indicated that individual stream segments with 15-meter wide buffers have 1) higher peak temperatures (average peak stream temperatures during the warmest week of the year increase by ~2.0 $\pm$ 0.3C, depending on summertime climate conditions); and 2) more fine sediments (fines in riffle habitats increase by approximately 25% of the observed inter-study site range). The data show that trout populations will respond markedly to these habitat changes. Linear regression and an associated Monte Carlo uncertainty assessment document an expected 87% reduction in young trout biomass...."

Protecting a river without preserving its vegetated riparian buffer is simply not adequate protection. We urge your support for this legislation.

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