

# Upper Susquehanna Coalition

*Innovative Approaches for Watershed  
Management*

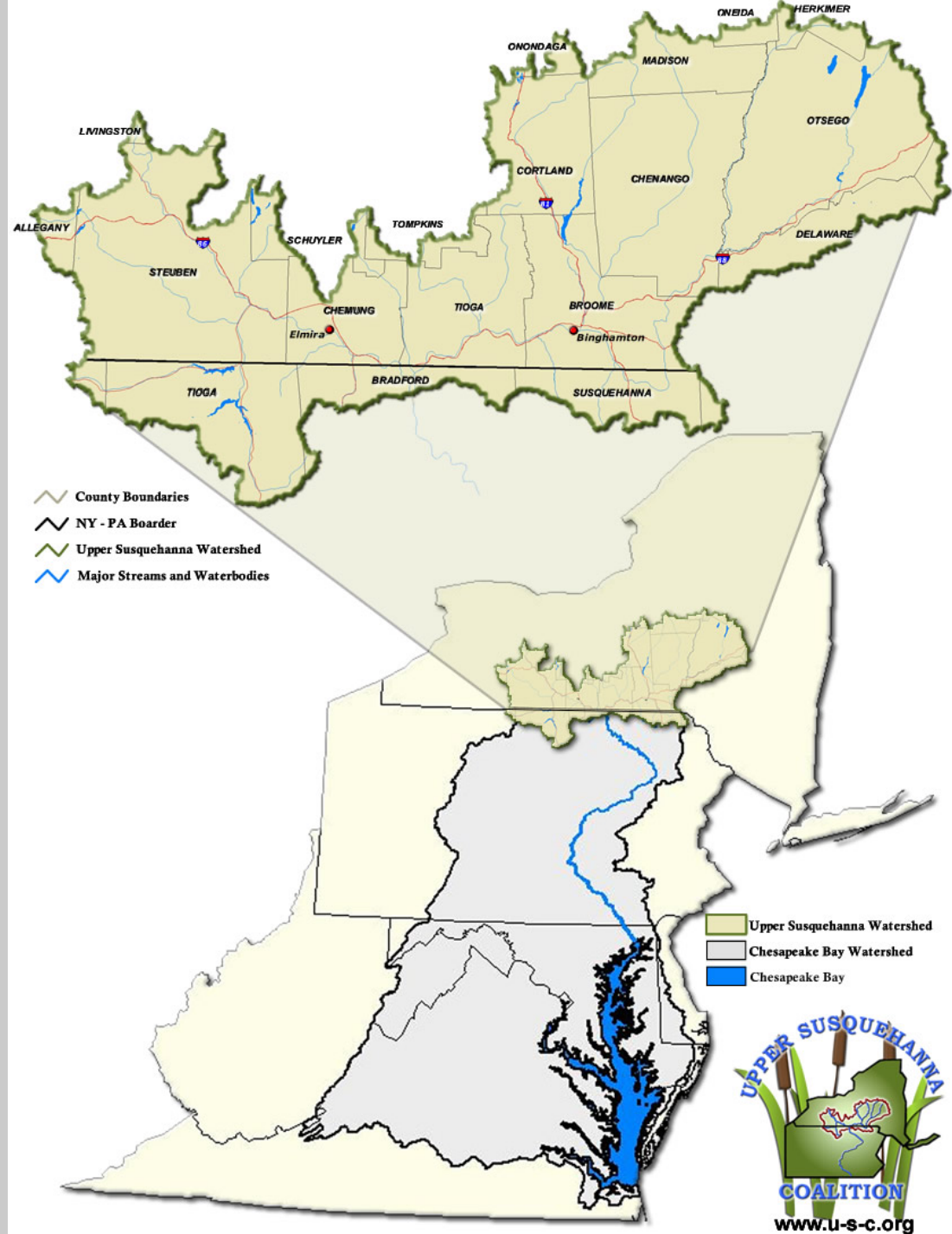
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**U-S-C.org**

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# Upper Susquehanna Coalition

- *Coalition of 19 Soil and Water Conservation Districts*
- *16 counties in NY, 3 in PA*
- *7500 square miles*
- *Headwaters of the Chesapeake Bay*
- *USC implements nonpoint source projects to address watershed issues*
- *Major Basin Issues:*
  - *CB TMDL regulations*
  - *Flooding*
  - *Gas development*







Alternate water sources

USC follows the NY Agricultural Environmental Management (AEM) Program: intensive grazing, shown here, is a very good way to reduce erosion and decrease feed costs



Cows excluded from wetlands



Cows coming home after a happy day in the pasture



Cows in the creek, fenced and stream barbs, note how the bank reformed











CVS Pharmacy

Freshtown  
MARKET

08/28/2011



Major rainfall events can cause severe erosion due to the combination of topography and poor planning



*Meads Creek Watershed after a 5 inch rainfall event*



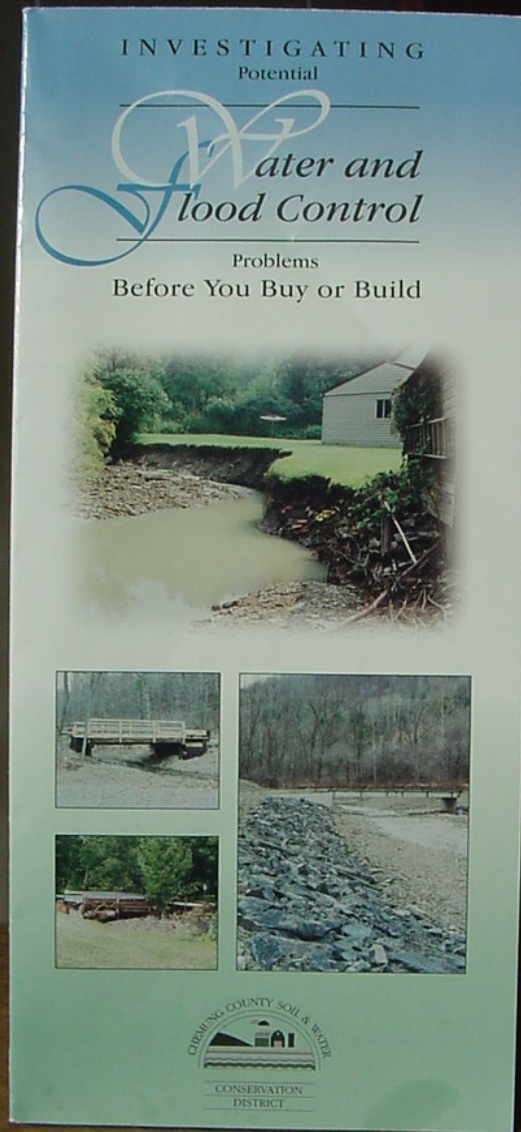
# Hydroseeding Program- Road Bank Stabilization

- Estimated soil loss of 99 tons/bank mile/year
- District stabilizes approximately 15 acres / year of road banks





# Flooding in the Catatonk Watershed, 1996







Across the landscape - Permanent Enhancement of the Floodplain



FEB 10 2002



MAR 8 2002



# Post-Flood Emergency Stream Intervention Training

*Return the channel to a condition such that the natural processes of streams can begin to return it to its natural state*

by

Delaware County Soil & Water Conservation District  
Stream Corridor Management Program





# The USC Wetland Program

- Attenuate Floods
- Improve Water Quality
- Enhance/Restore Habitat
- Increase Species Diversity





# USC Wetland Program

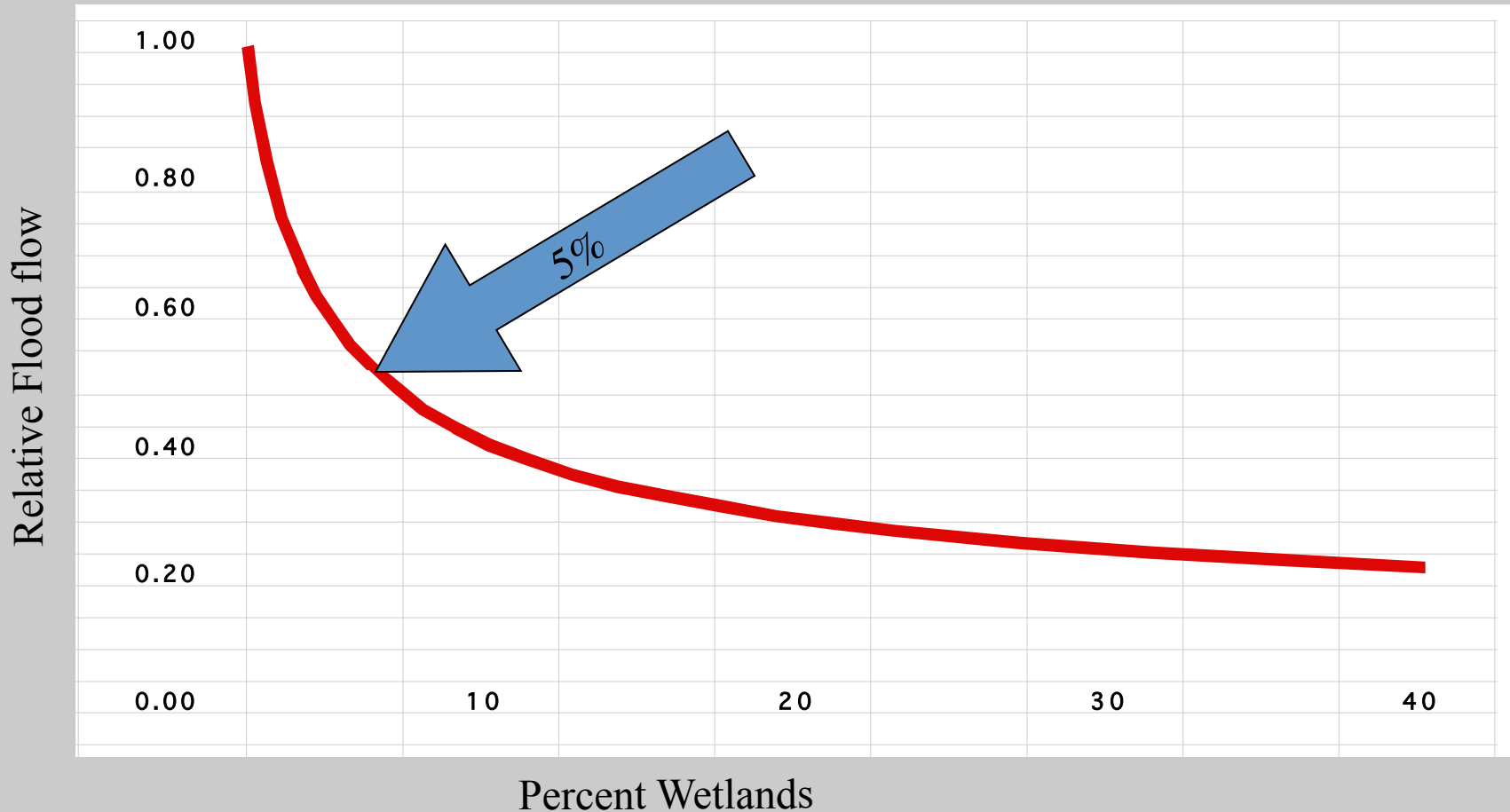
## “vertically and horizontally integrated”

- USC has its own wetland database
- USC Wetland staff design and construct
- Own equipment
- Land Steward: The Wetland Trust
- BU and ESF research Partners
- CU Law School support
- Restoration on private and public lands - upwards of 500 acres of all wetland types





# The effects of wetlands on flood flows



Novitski, R.P: Hydrologic characteristics of Wisconsin's wetlands and their influence on floods, stream flow, and sediment. American Water Resources Association, 1978.



**In 2010 a TMDL mandated nutrient and sediment reductions for all states in the Chesapeake Bay Watershed**





# Challenges

- Find funding and farmers to meet the TMDL
- Educate Municipal officials on what really can be done to reduce effects of flooding
- Rehabilitate Streams with limited funding
- Address effects on the landscape from gas development if it intensifies



[www.u-s-c.org](http://www.u-s-c.org)

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