

The Importance of River Corridors and Their Protection

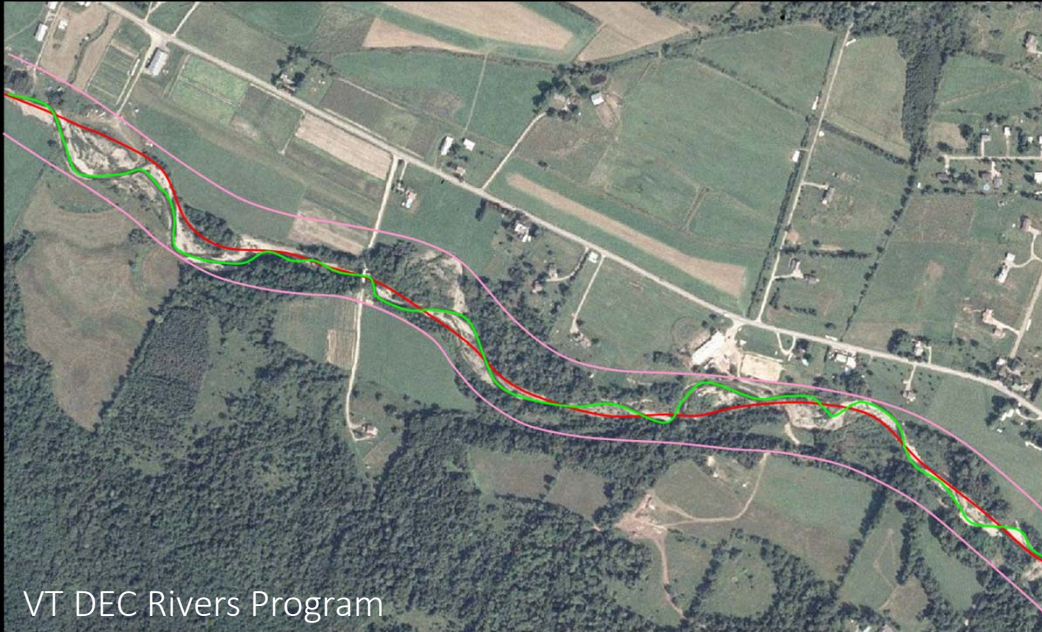




Photo Credit: Friends of the Winooski



Photo Credit: Burlington Free Press



Photo Credit: Valley News



Photo Credit: Trout Unlimited

WHAT IS GOOD TROUT HABITAT?

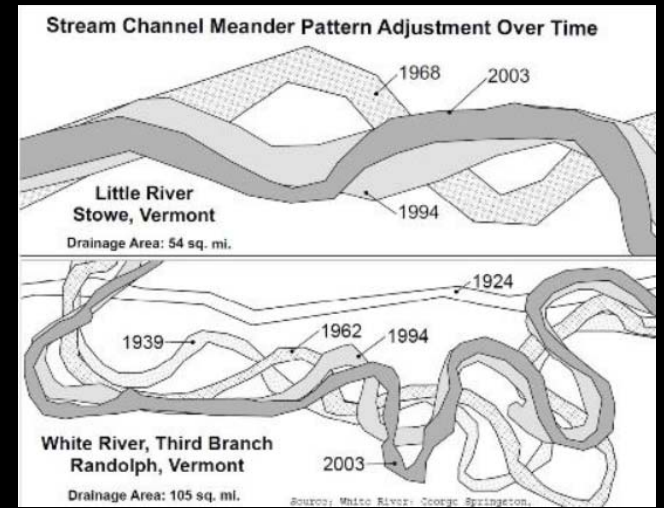
Intact forested riparian area provides shading to keep temperatures cool.

Root systems stabilize streambanks.

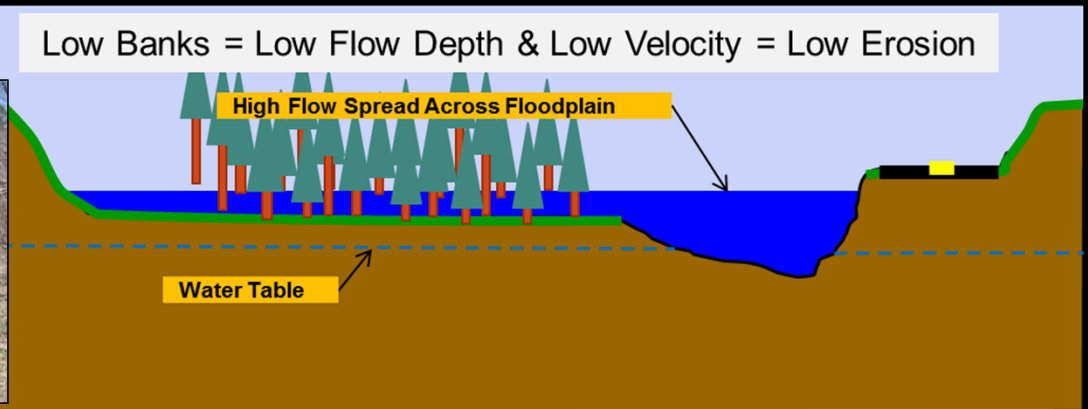
Downed trees and boulders form diverse and complex habitats for different fish species and sizes.

Clean gravels for spawning.

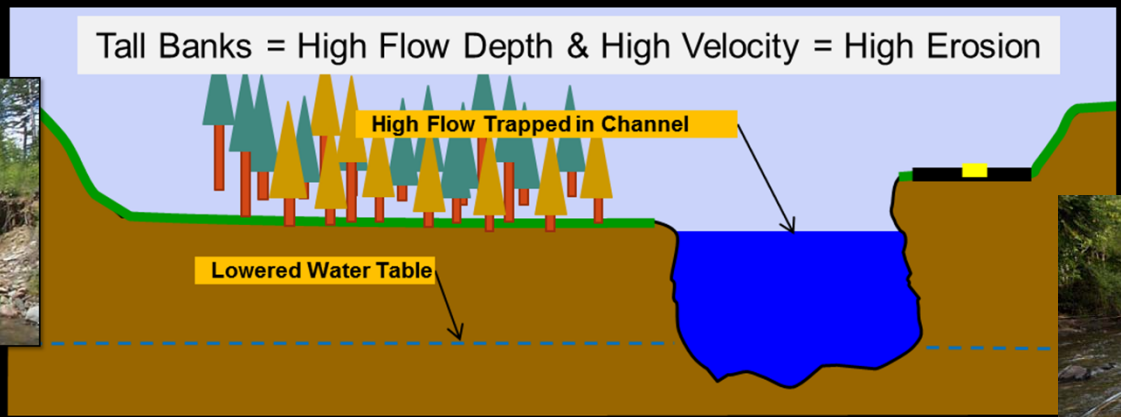


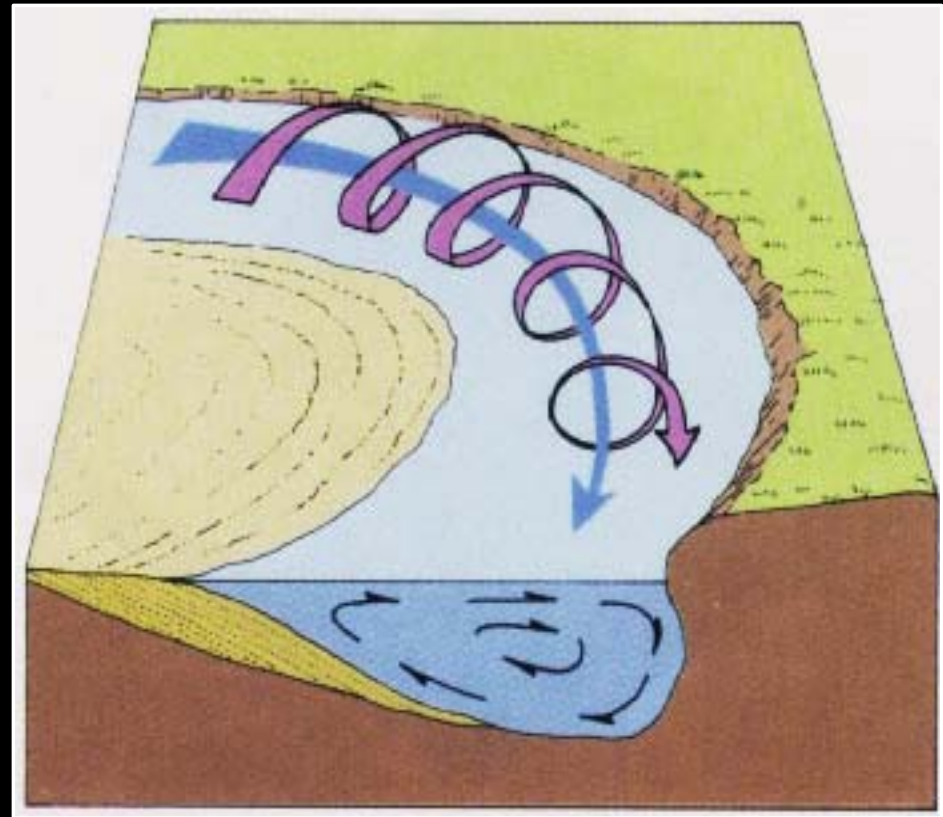


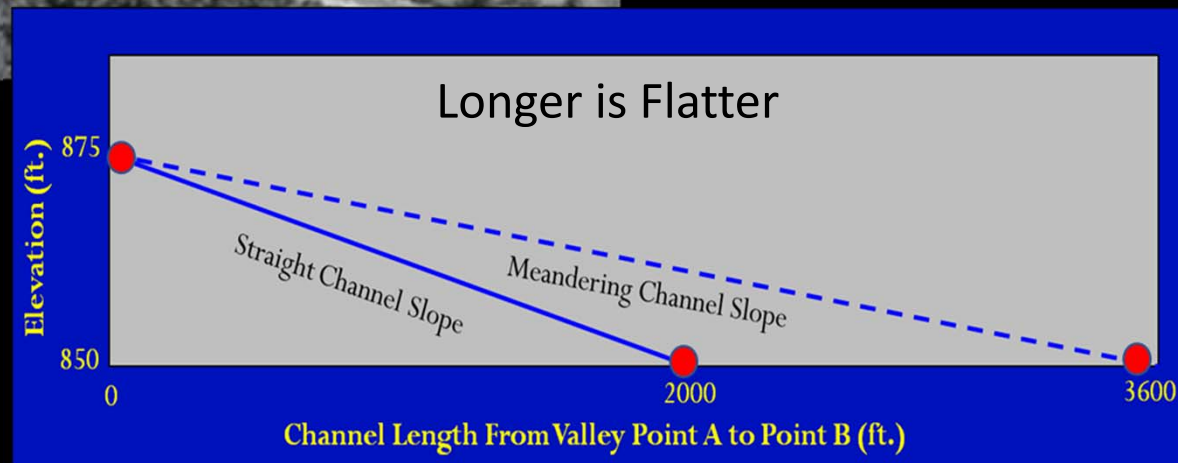
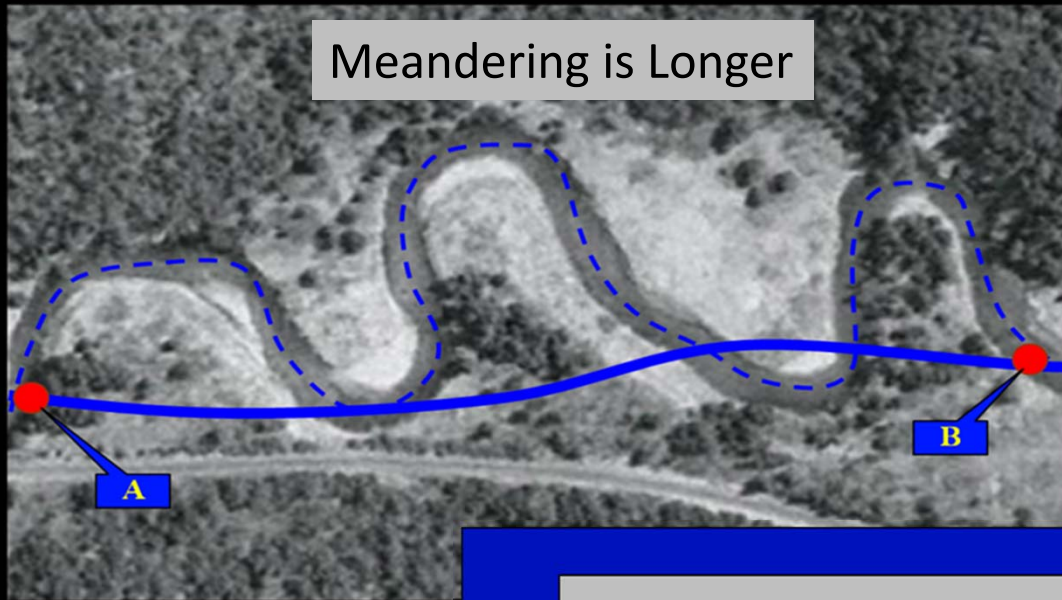
Low Banks = Low Flow Depth & Low Velocity = Low Erosion

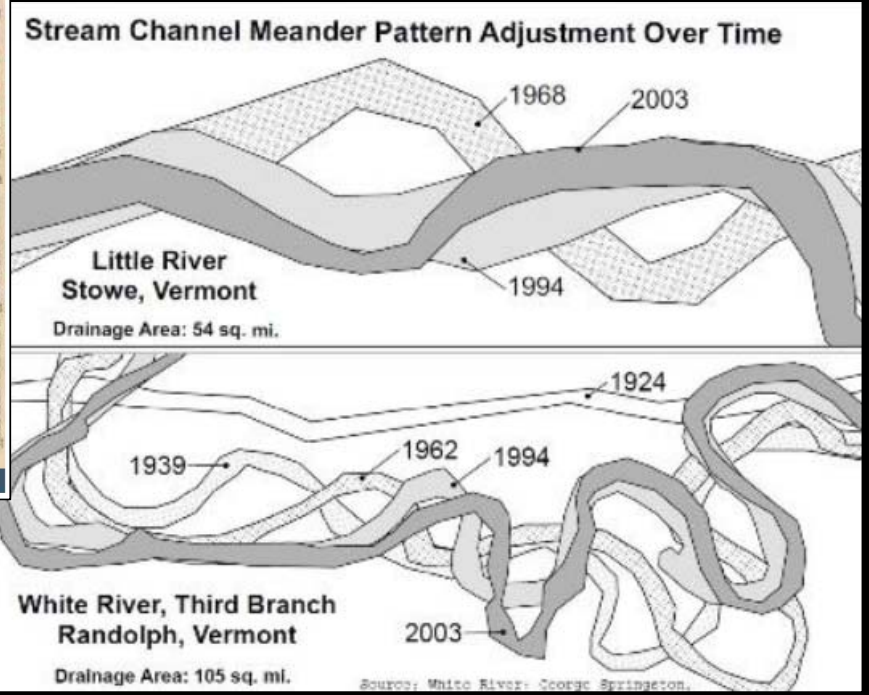
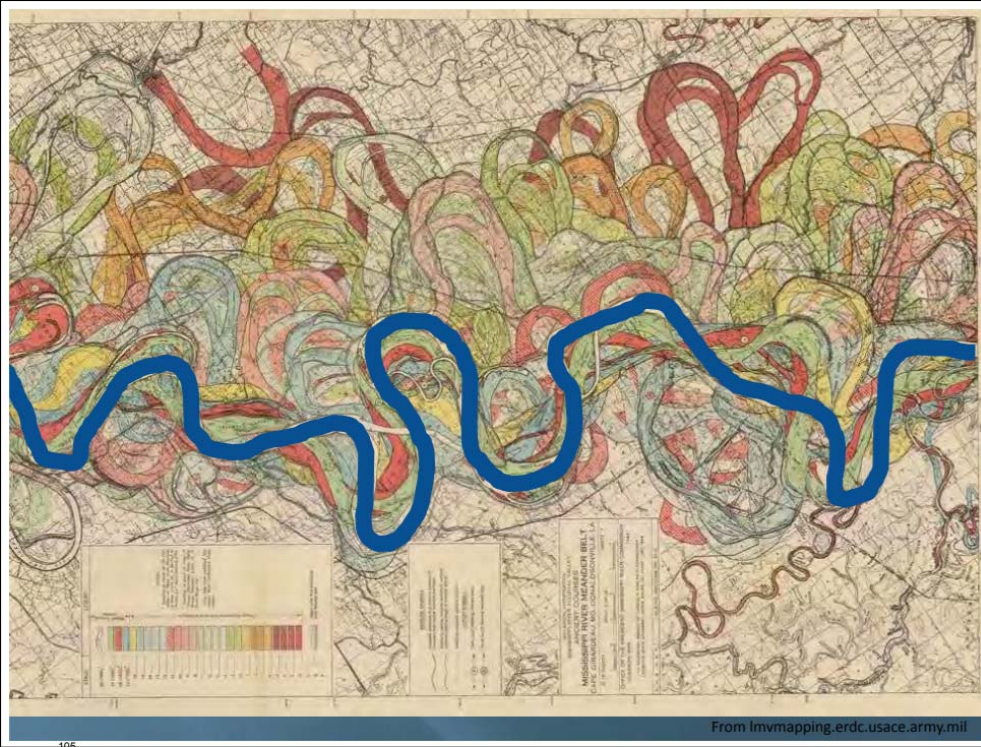


Tall Banks = High Flow Depth & High Velocity = High Erosion

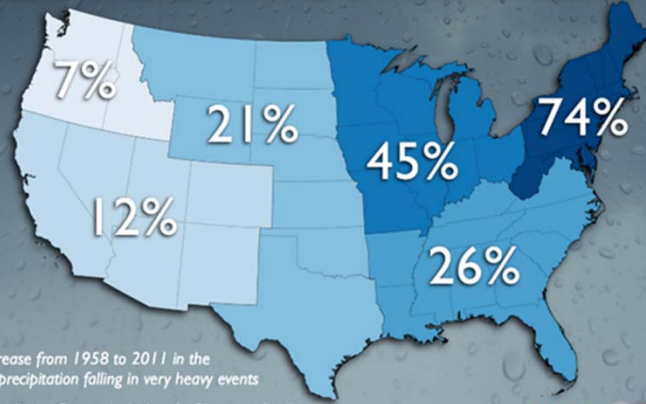








HEAVY DOWNPOURS INCREASING



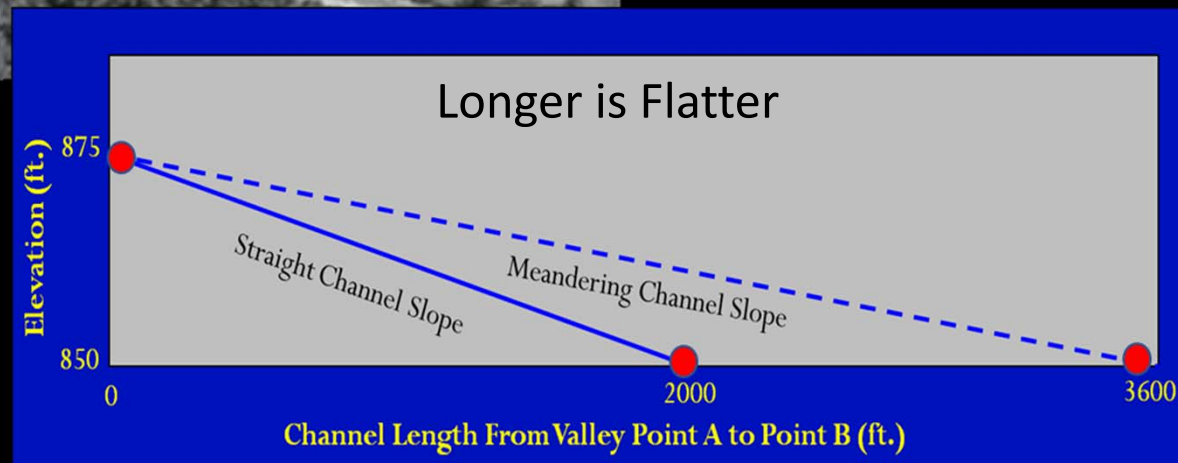
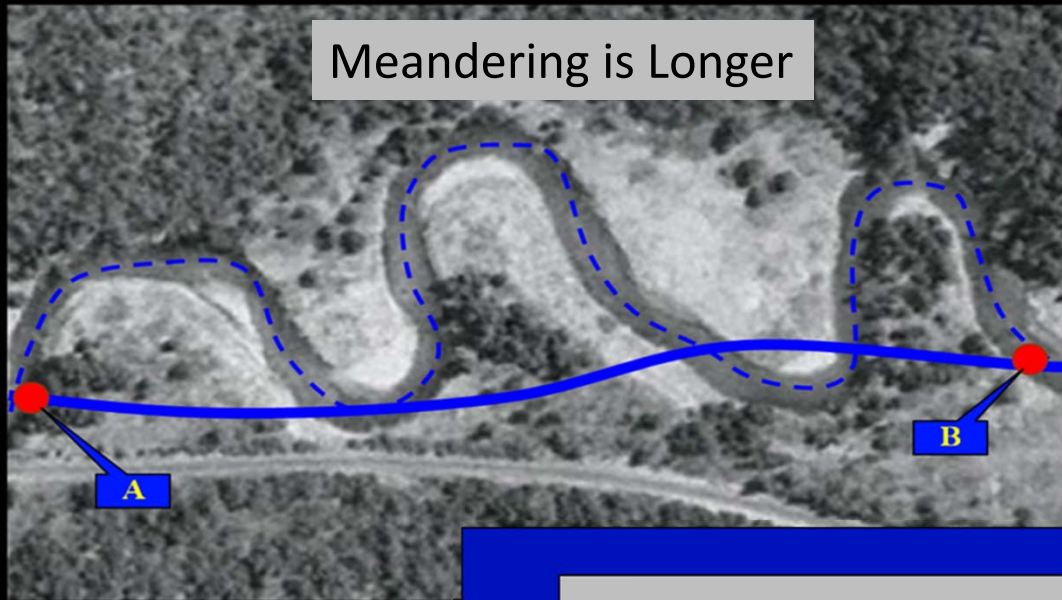
Percent increase from 1958 to 2011 in the amount of precipitation falling in very heavy events

Source: Kenneth Kunkel, Cooperative Institute for Climate and Satellites, North Carolina State University and NOAA NCDC

CLIMATE CENTRAL

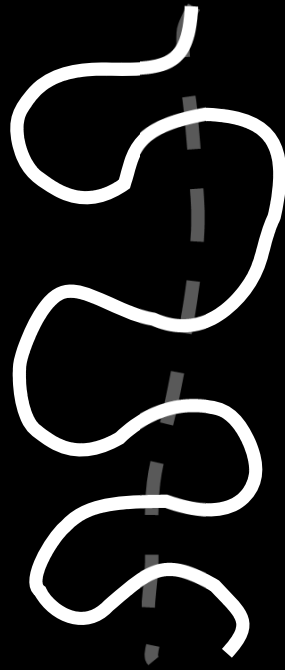
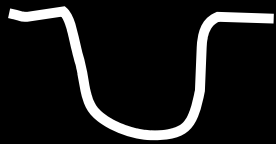


Winooski River. Springston et. al. (2014)

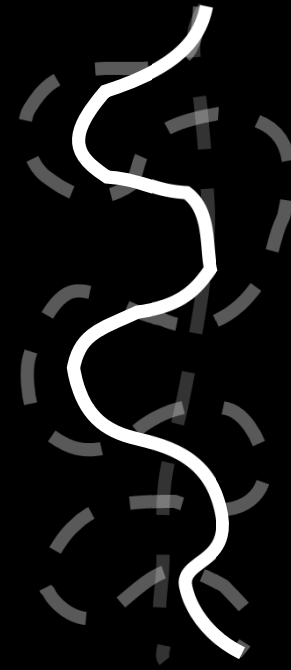




Too Straight = Too Steep = Erosion



Too Curving = Too Flat = Channel Infilling



Just Right = Self Maintaining Stable Channel





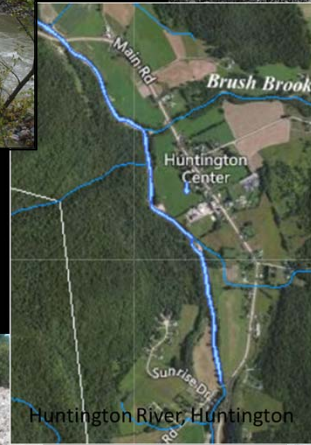
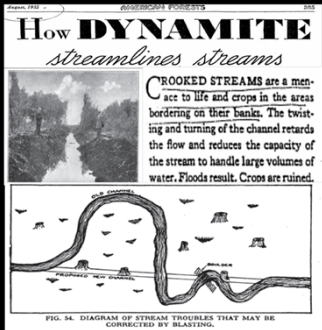
© Christa Alexander

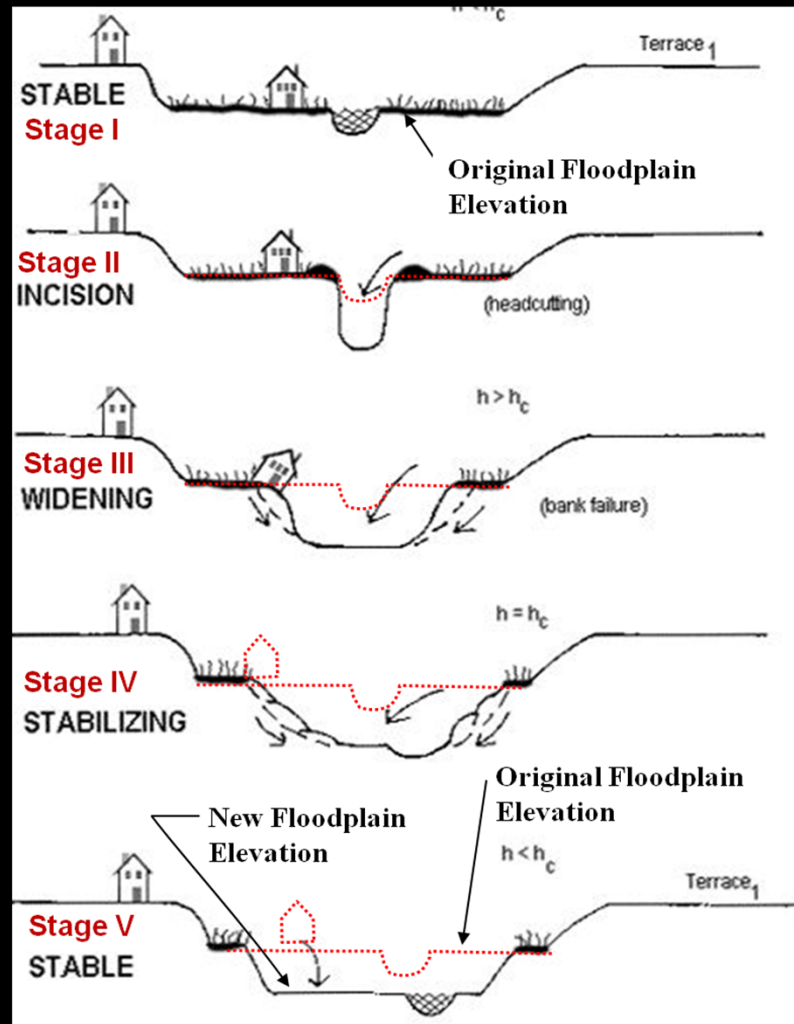


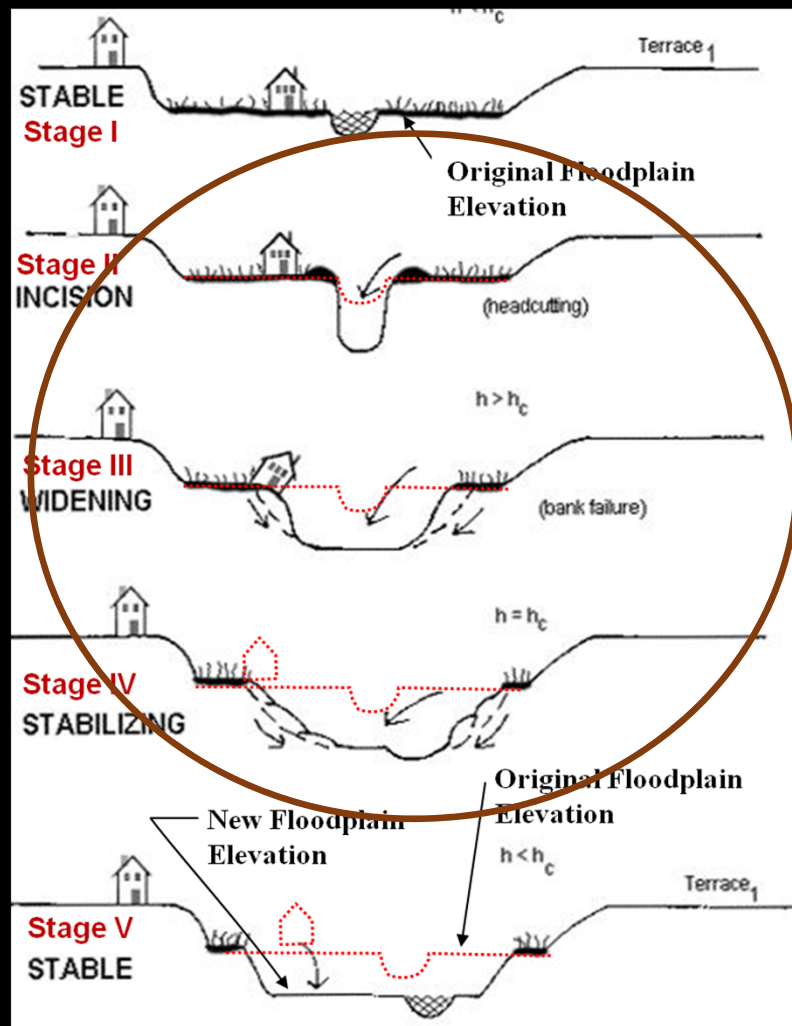
© Christa Alexander



© Vermont Department of Environmental Conservation







- 5,000 River Miles Assessed.
- 75% Disconnected from Their Floodplain.

Socio-Economic Consequences

Flood Costs

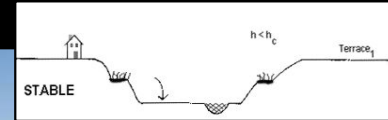
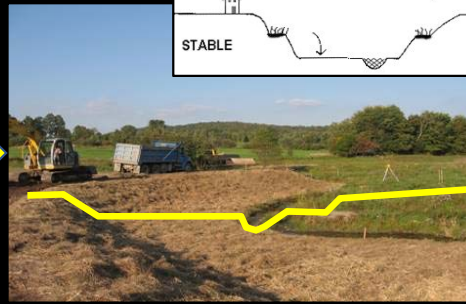
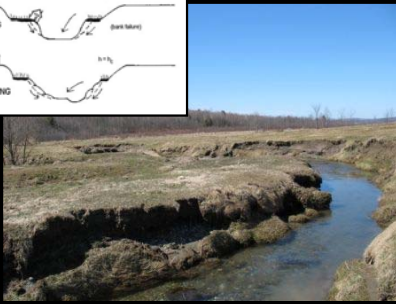
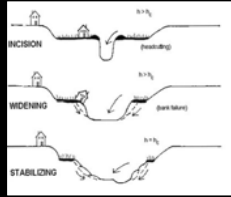
- 1990's Floods: \$140M
- Irene: 6 Lives Lost, \$750M





Northeast Public Radio
Photo Credit: Lake Champlain International

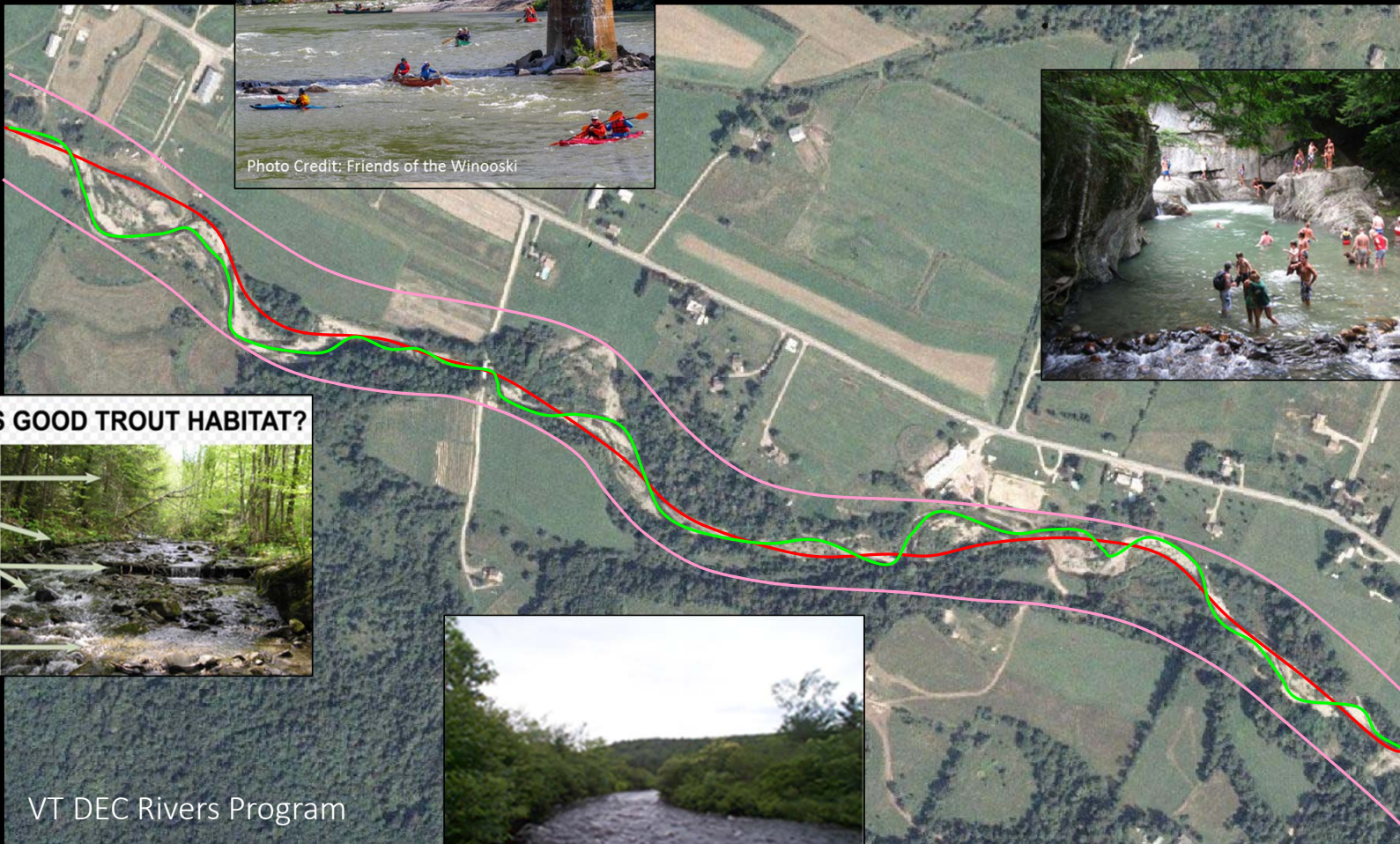




The Importance of River Corridors



Photo Credit: Friends of the Winooski



WHAT IS GOOD TROUT HABITAT?

- Intact forested riparian area provides shading to keep temperatures cool.
- Root systems stabilize streambanks.
- Downed trees and boulders form diverse and complex habitats for different fish species and sizes.
- Clean gravels for spawning.



VT DEC Rivers Program

