# Vermont Highlights Peg Elmer Hough, AICP

RMLUI March 2015







IRENE IMPACTS
90% of towns
>20% of state
highway miles

<u>Carosaurus</u>

Lars Gange / Mansfield Helific

- 200 bridges
- 3500 homes/ businesses
- 13 isolated towns

# **Before Irene**

MALL MARKEN

- Fluvial Erosion Hazard Zones fluvial geomorphology...
- meander easements
- state match incentives via state Emergency Relief and Assistance Fund (ERAF)
- aquatic-friendly culverts

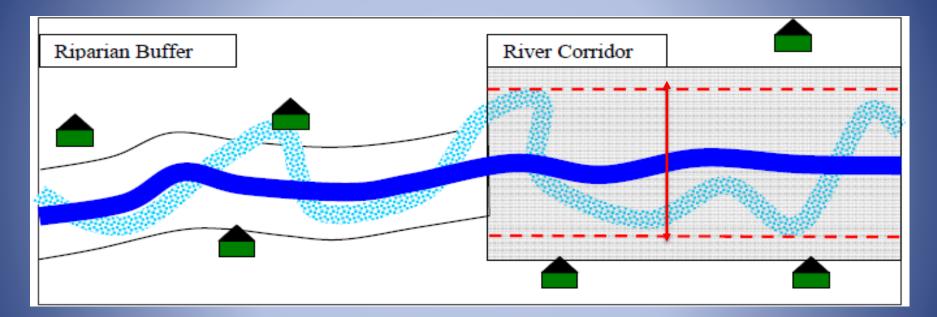
MILL BROOK

CULVERT PIPE FISH LADDER



#### What is the Fluvial Erosion Hazard Zone?

Science-based determination of where a stream or river will naturally move (meander) over time



Dark blue line illustrates existing, straightened river Light blue line illustrates natural river course over time Grey area illustrates the mapped "river corridor" which includes the land within which the river will move over time

Excerpted and modified from the Agency of Natural Resources *Municipal Guide to Fluvial Erosion Hazard Mitigation* 

## Post Irene

#### River Corridors ERAF state match incentives

- 7.5%: starting point
- 12.5%: uniform state stds;
   NFIP participation; LEOP;
   LHMP
- 17.5%: River Corridor
   Protection or CRS and no new development in FHA





#### Post Irene - Silo busting

 VT Climate Cabinet: ANR, Vtrans, Admin, Commerce, Housing & Community Dev, Health, Agriculture, State Buildings, Public Service

- Resilient VT Network
- http://floodready.vermont.gov



#### Post Irene - so many plans!

#### Flood Resilience Plan Element required in all town plans as of June 2014



### Streambank Stabilization Compost socks and blanket demonstration

Vtrans standard 6" grub soil to larger rocks,

washed away

Control Transect – just rocks - almost identical to Vtrans' soil covered and Compost socks and blankets stay in place after river rises above them, to help hold base for seed and shrubs. Also holds moisture in dry

vock conditions



Emergency management & incident command

11

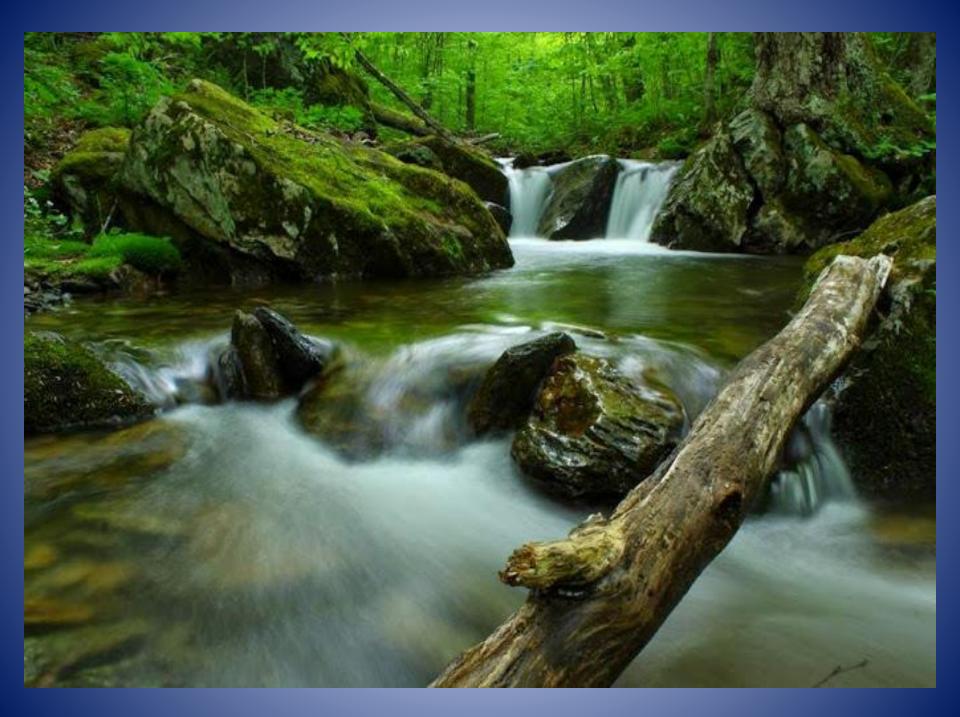
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Environment & conservation

. postations .

Social services & long-term recovery Building resilient communities by breaking down silos, conducting climate adaptation work, completing hazard mitigation tasks, and strengthening engagement.





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