

# IN OR OUT OF THE BOX? USE OF VA IN ADAPTATION PLANNING



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# CENTURY BOG, MA

- ❑ Currently working cranberry bog
- ❑ Has valuable wildlife habitats in southeastern MA:
  - Cold water stream – anadromous brook trout (salters) and herring
  - coastal plain pond – specialized inverts and plants

State acquired site in 2010 because completes portfolio of acquisitions in this area (\$3,000,000)

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# CLIMATE CHANGE VULNERABILITIES

Two of most valued habitats at CB highly vulnerable to CC:

- Cold water stream habitat
- Coastal plain pond

Vulnerability assessment identifies these as particularly threatened

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# Red Brook – Access to Bog



# Red Brook – on the Bog (fish hot tub)



# Coastal Plain Pond



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# SITE RESTORATION GOALS

- Revegetate bog with riparian habitat
  - Protect coldwater stream and fish
  - Protect pond and species
  - Maintain as high recreational value site
  - Maintain as connecting link at landscape scale
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- Partners - MA DFW, MA DER, Trout Unlimited, The Trustees of Reservations, A.D. Makepeace, Manomet
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# Restoration Tensions

- Fish guys – protect brook trout at all costs
  - Restoration ecologists – create starting conditions for functioning atlantic white cedar swamp and let nature get on with it
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# OPTIONS

- Reduce exposure
  - Reduce sensitivity
  - Increase adaptive capacity
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# ADAPTATION AT CENTURY BOG

VA helps us focus and plan adaptation actions:

- Relocation of stream – exposure reduction
  - Shading of stream – exposure reduction
  - Punch holes in aquifer – exposure reduction
  - Enhance access to refugia – adaptive capacity
  - Reduce sensitivity through artificial selection?
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# BEYOND VA

- VA was originally important in identifying habitat vulnerabilities
  - VA is now acting as important tool in planning climate-smart restoration at site
  - Helping identify in- and out of-box options
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