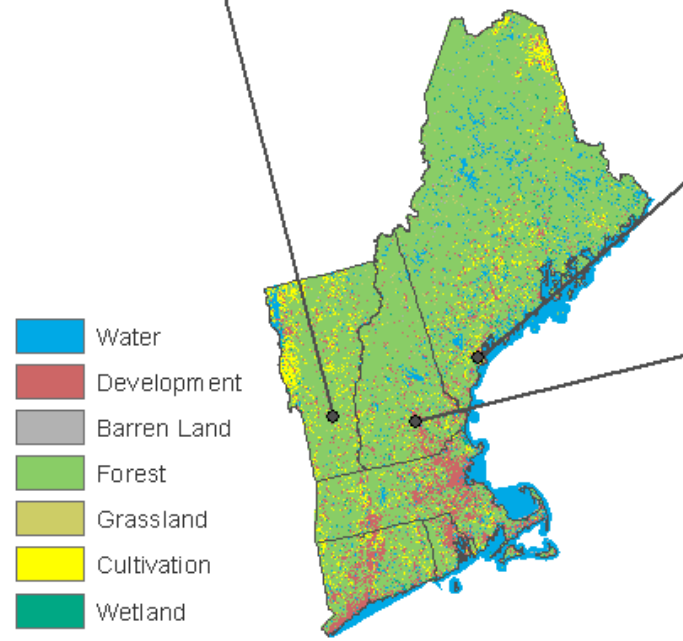
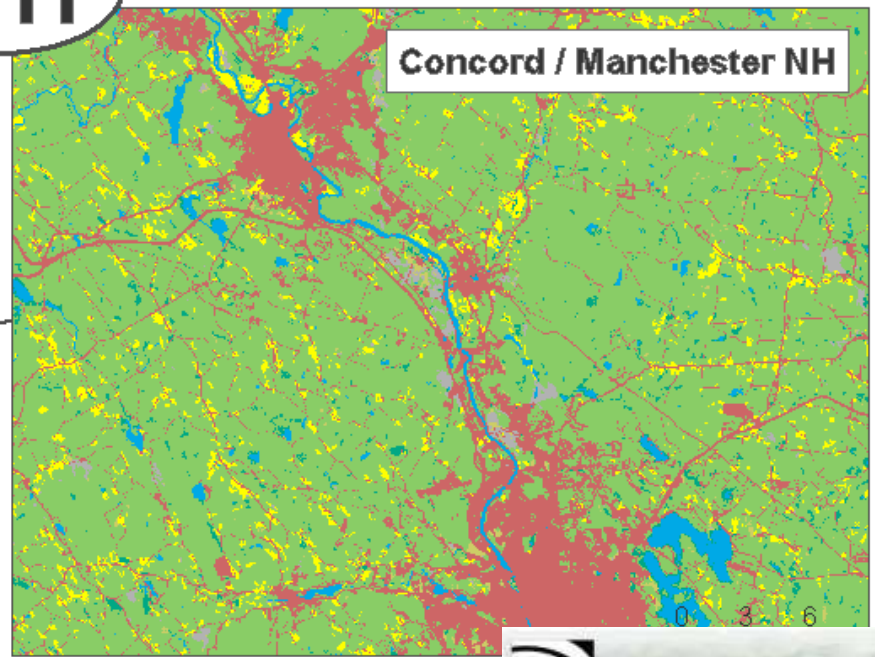
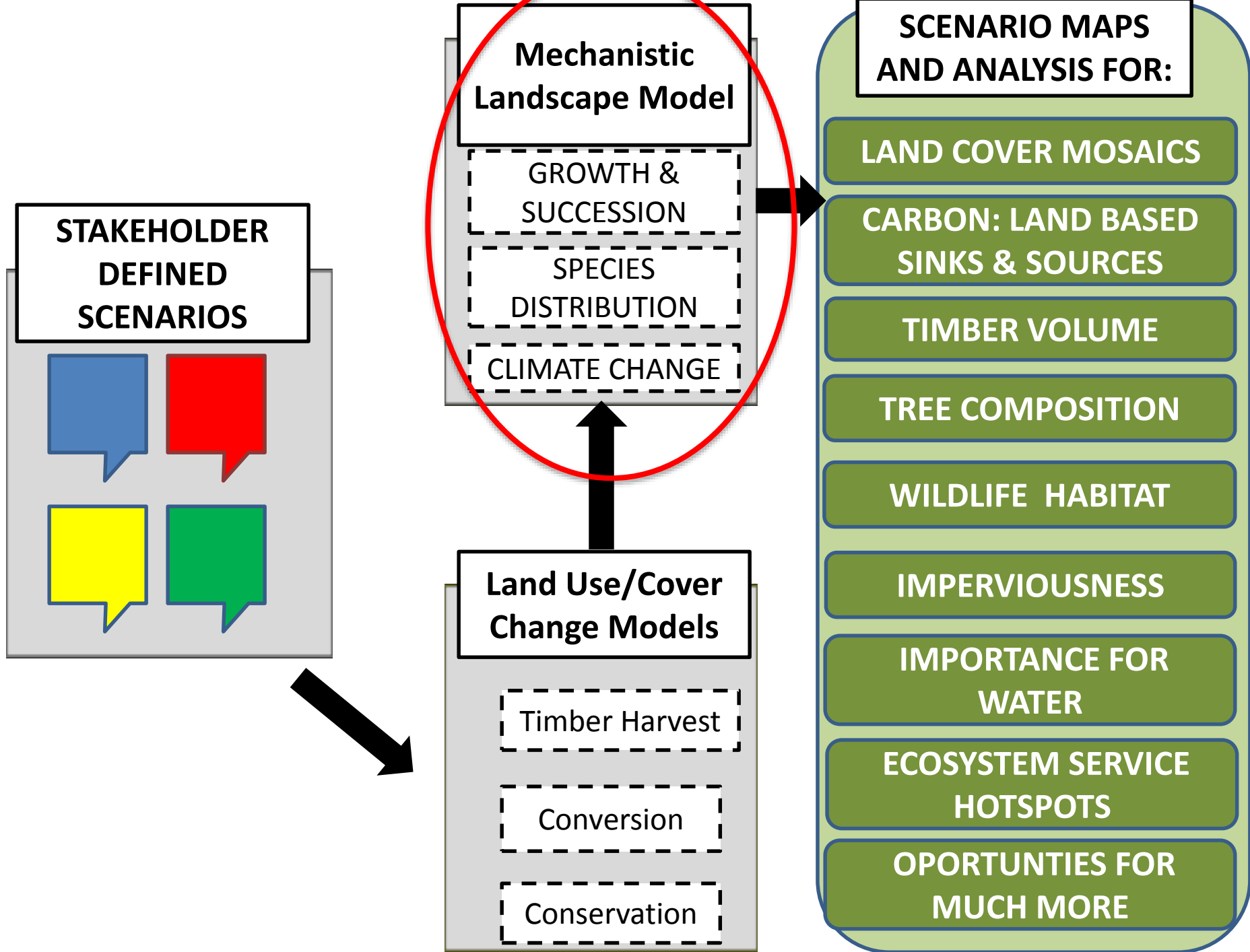


**2011**



- Water
- Development
- Barren Land
- Forest
- Grassland
- Cultivation
- Wetland

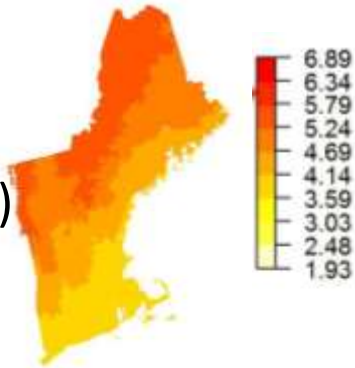




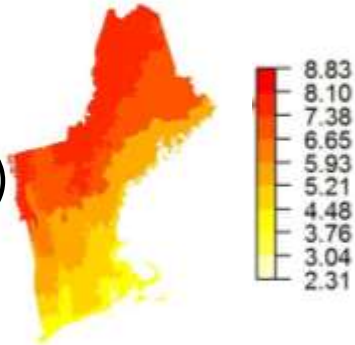
# SIMULATION FOREST ECOSYSTEM PROCESSES

**Year 2065**

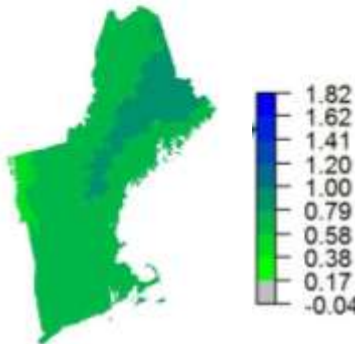
$\Delta$  Maximum  
Temperature ( $^{\circ}\text{C}$ )



$\Delta$  Minimum  
Temperature ( $^{\circ}\text{C}$ )

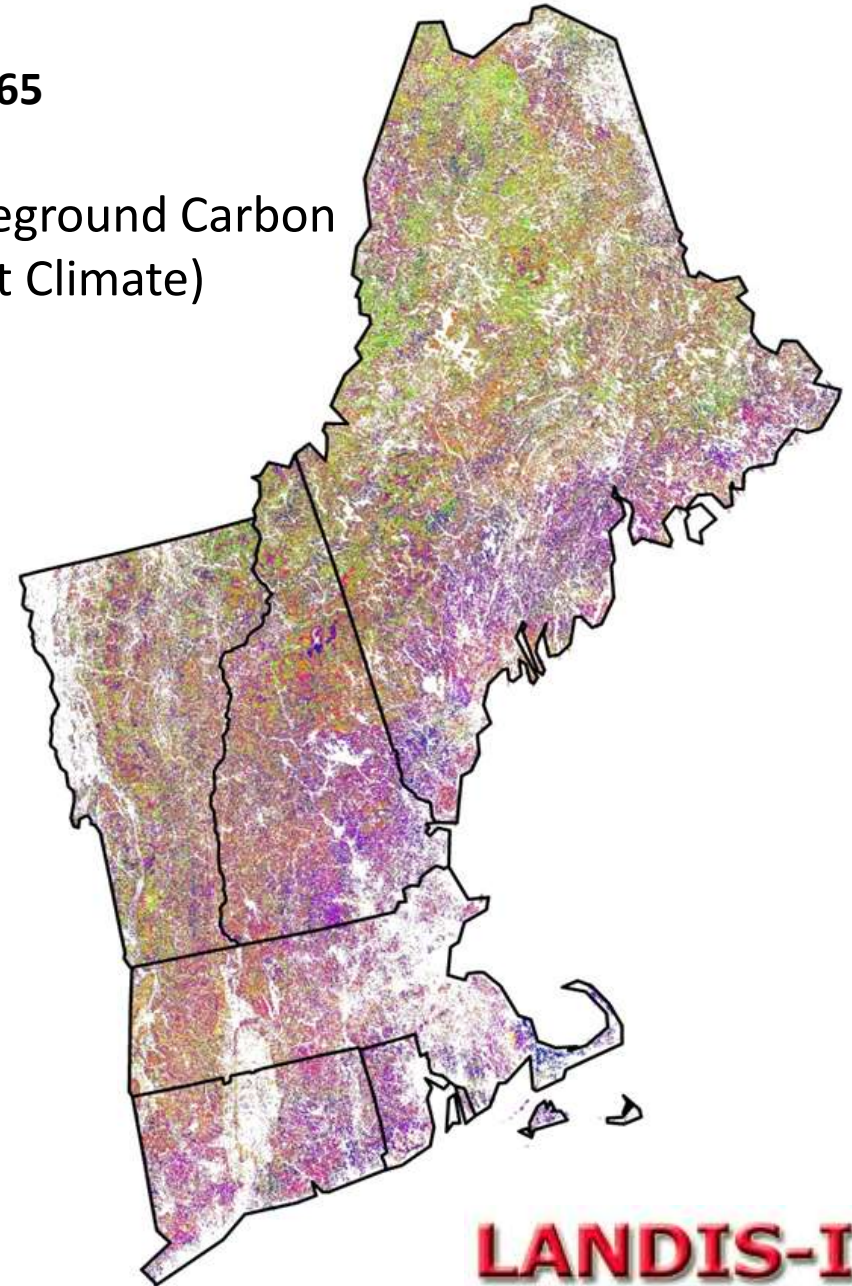


$\Delta$  Precipitation  
(mm/day)

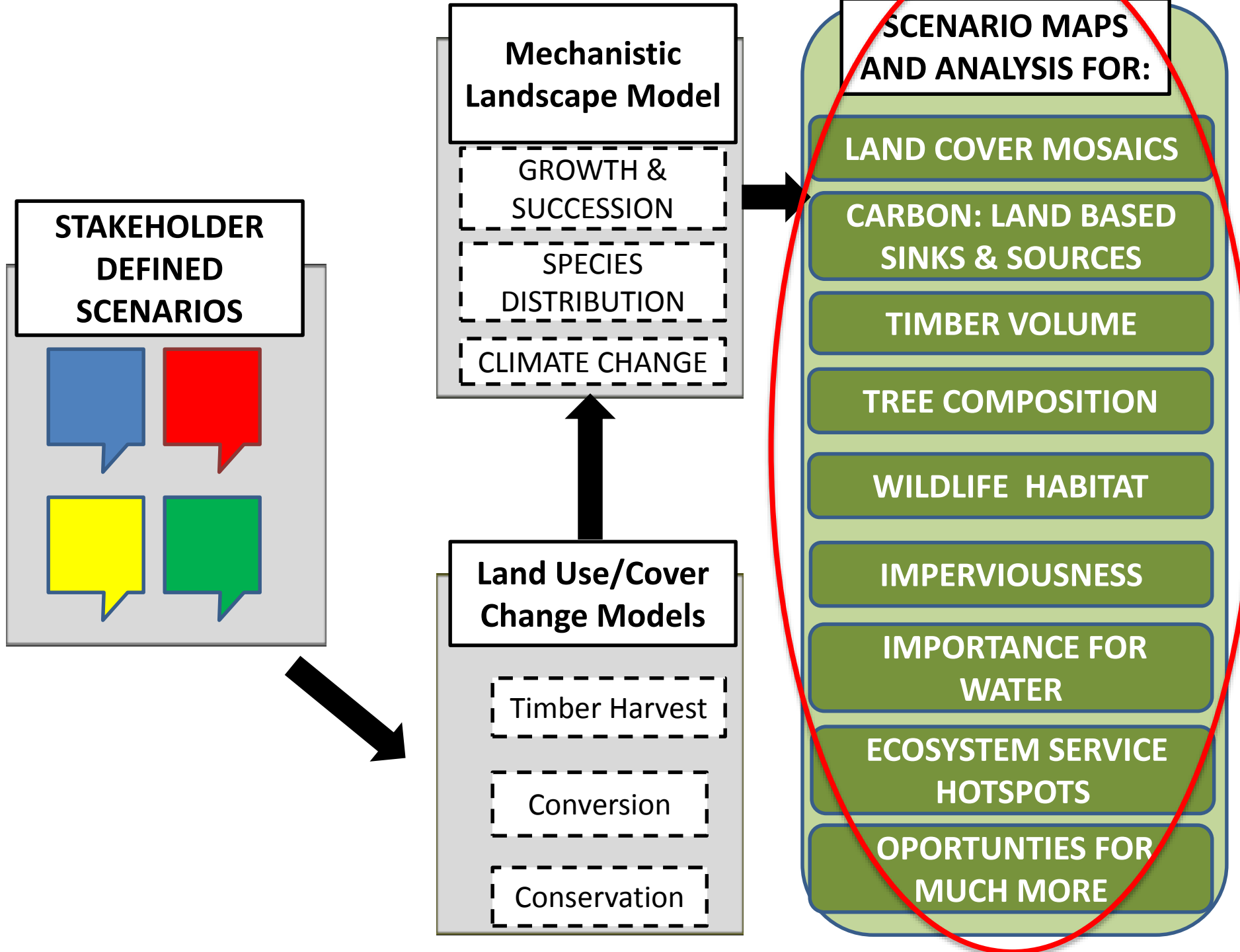


**YEAR 2065**

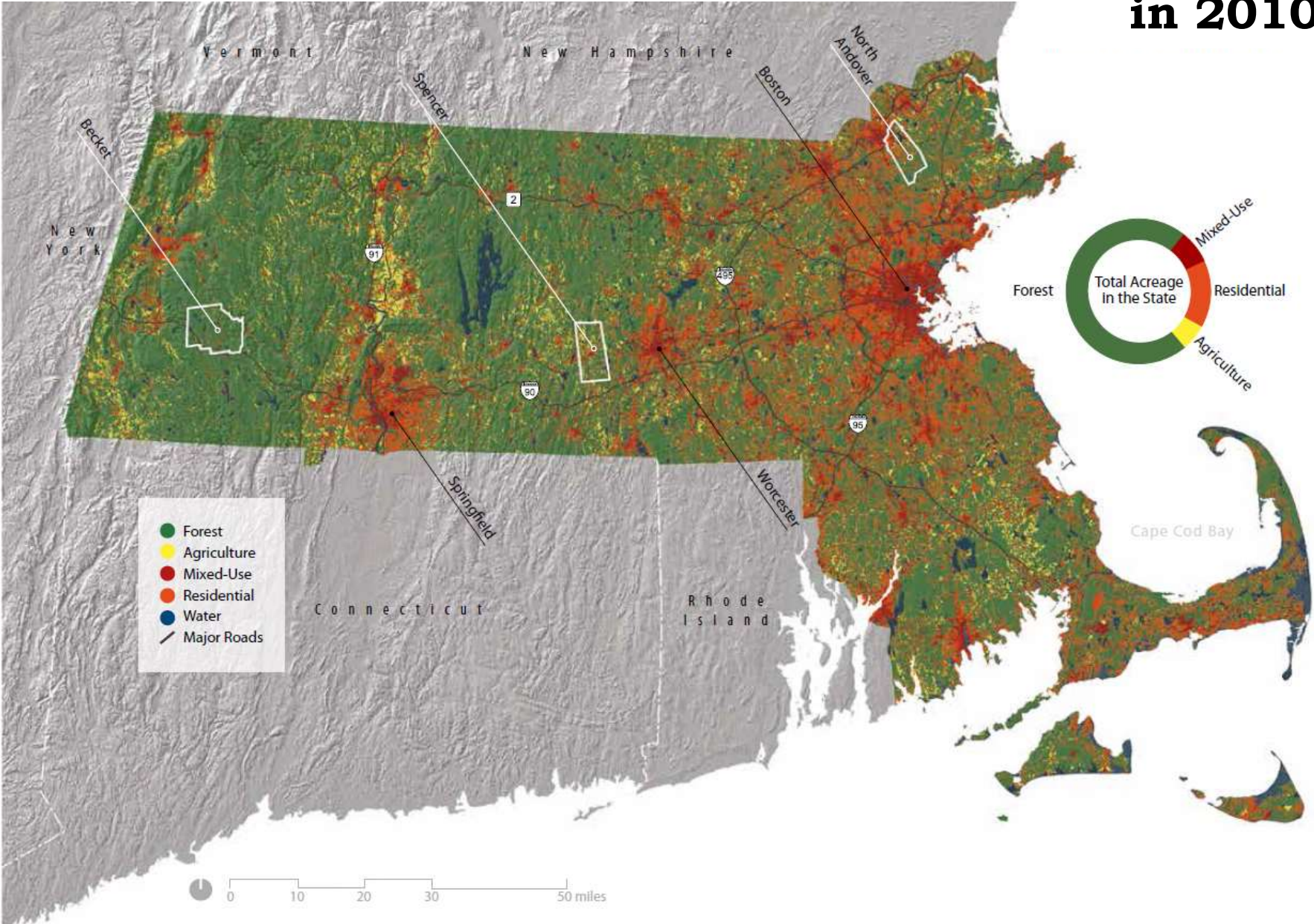
$\Delta$  Aboveground Carbon  
(Current Climate)



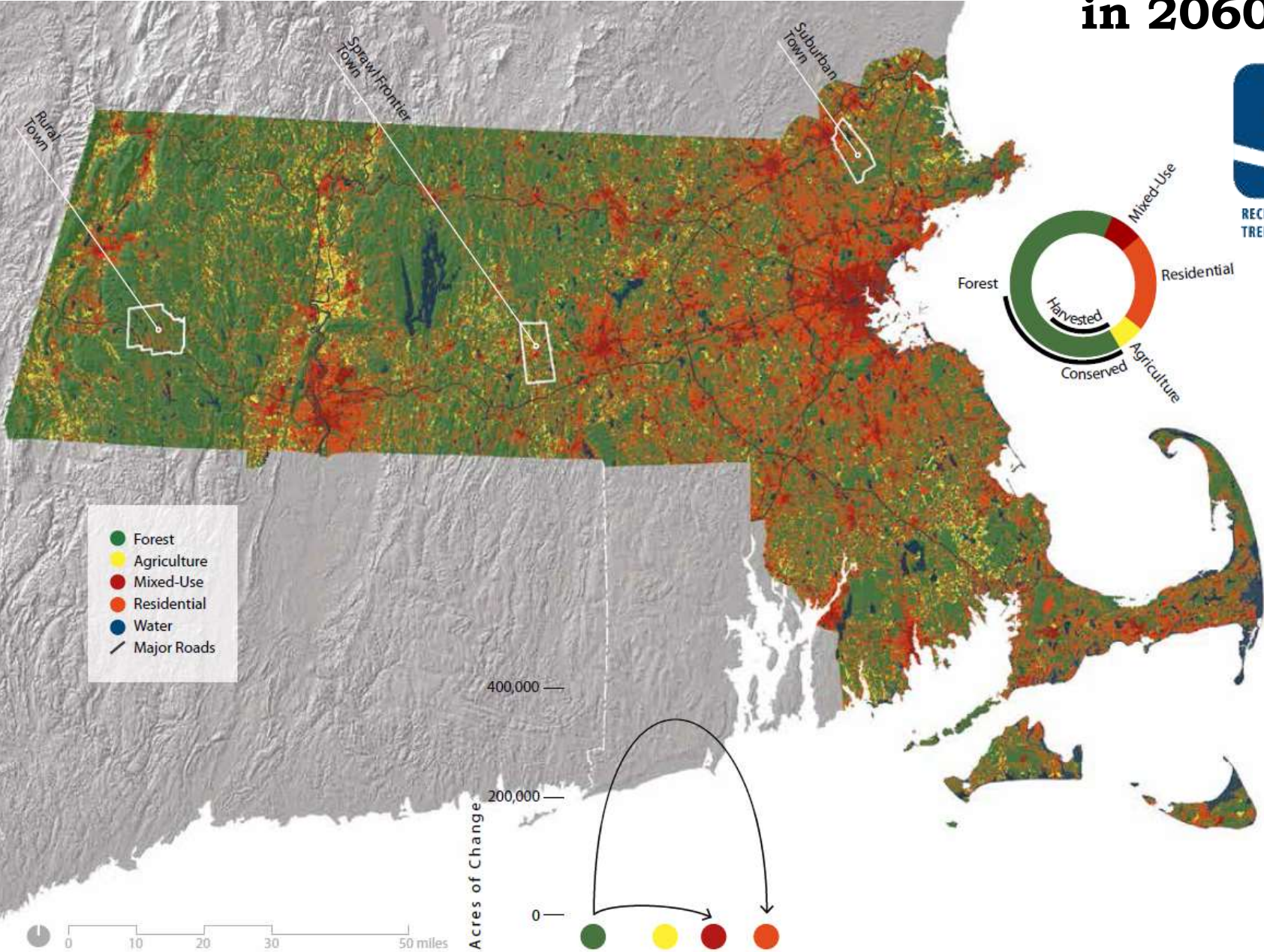
**LANDIS-II**



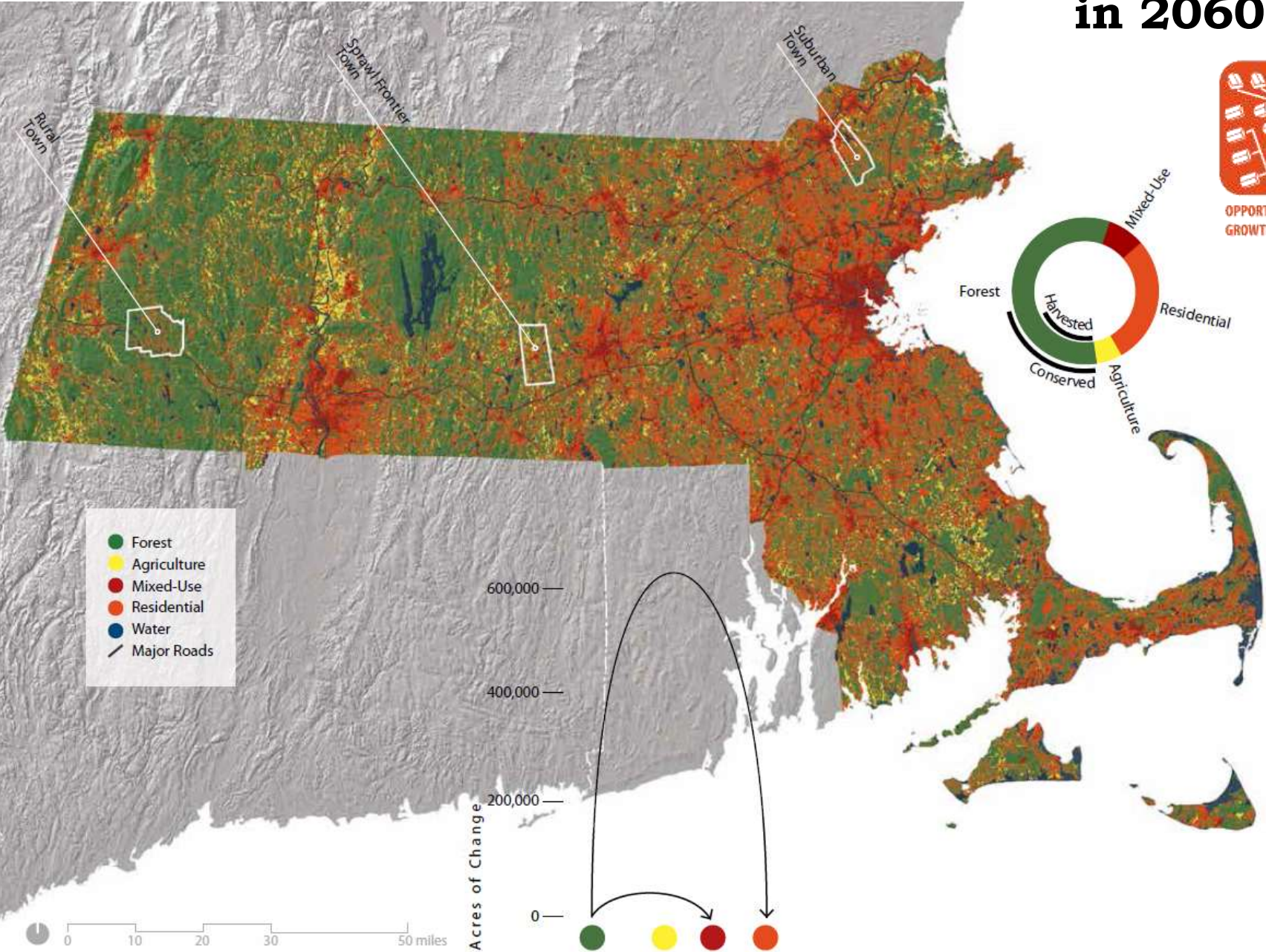
# Massachusetts in 2010



# Massachusetts in 2060



# Massachusetts in 2060

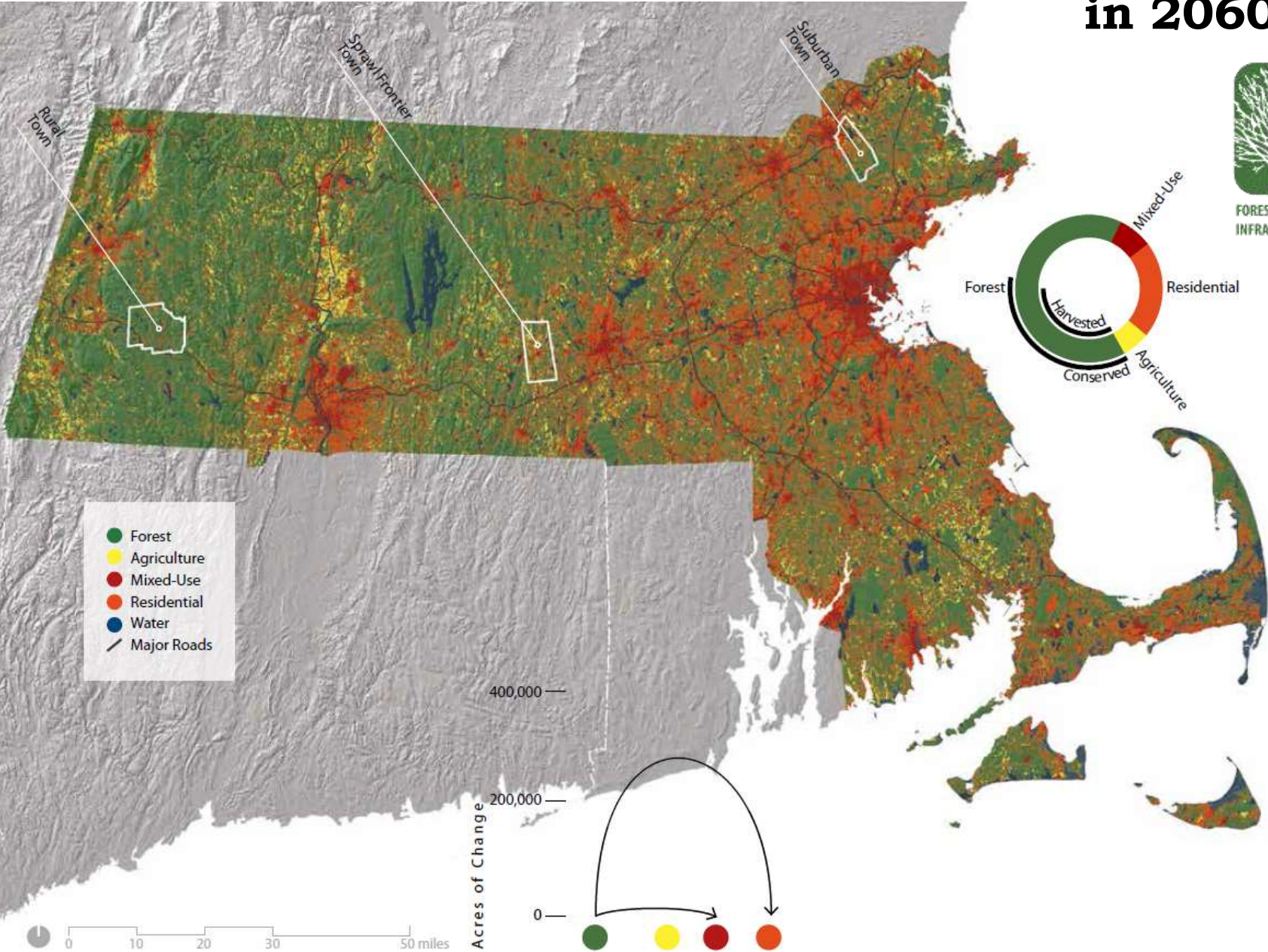
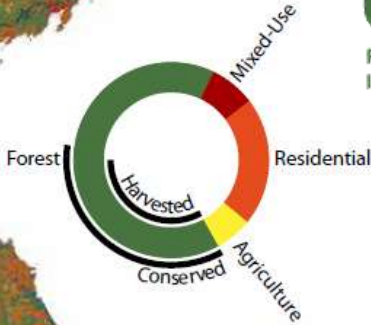




# Massachusetts in 2060



FORESTS AS INFRASTRUCTURE



- Forest
- Agriculture
- Mixed-Use
- Residential
- Water
- Major Roads

Acres of Change

400,000

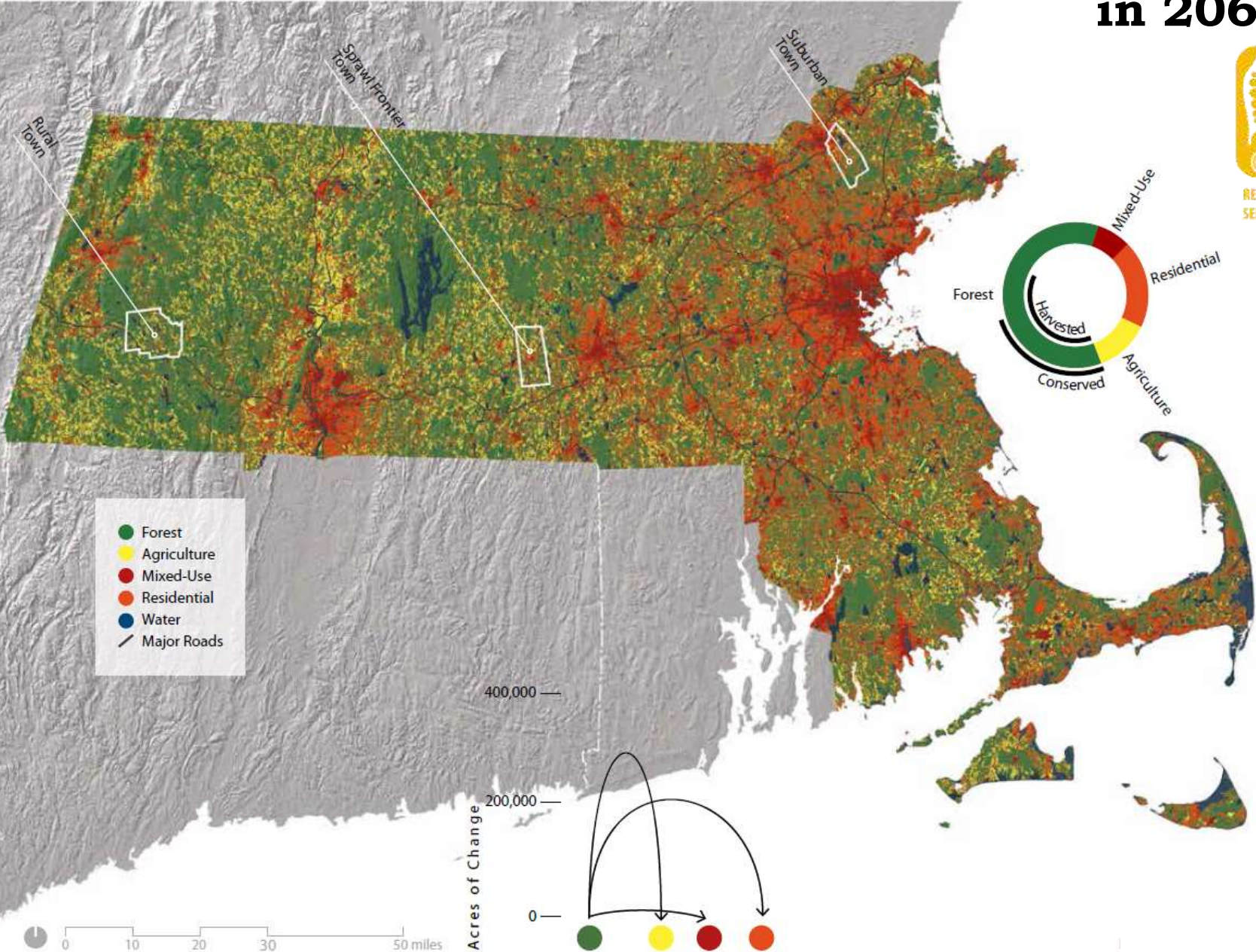
200,000

0

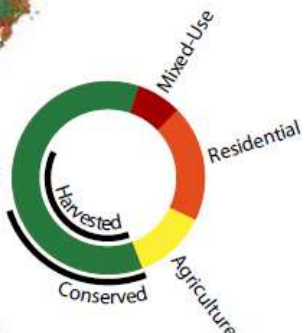
0 10 20 30 50 miles



# Massachusetts in 2060



- Forest
- Agriculture
- Mixed-Use
- Residential
- Water
- Major Roads

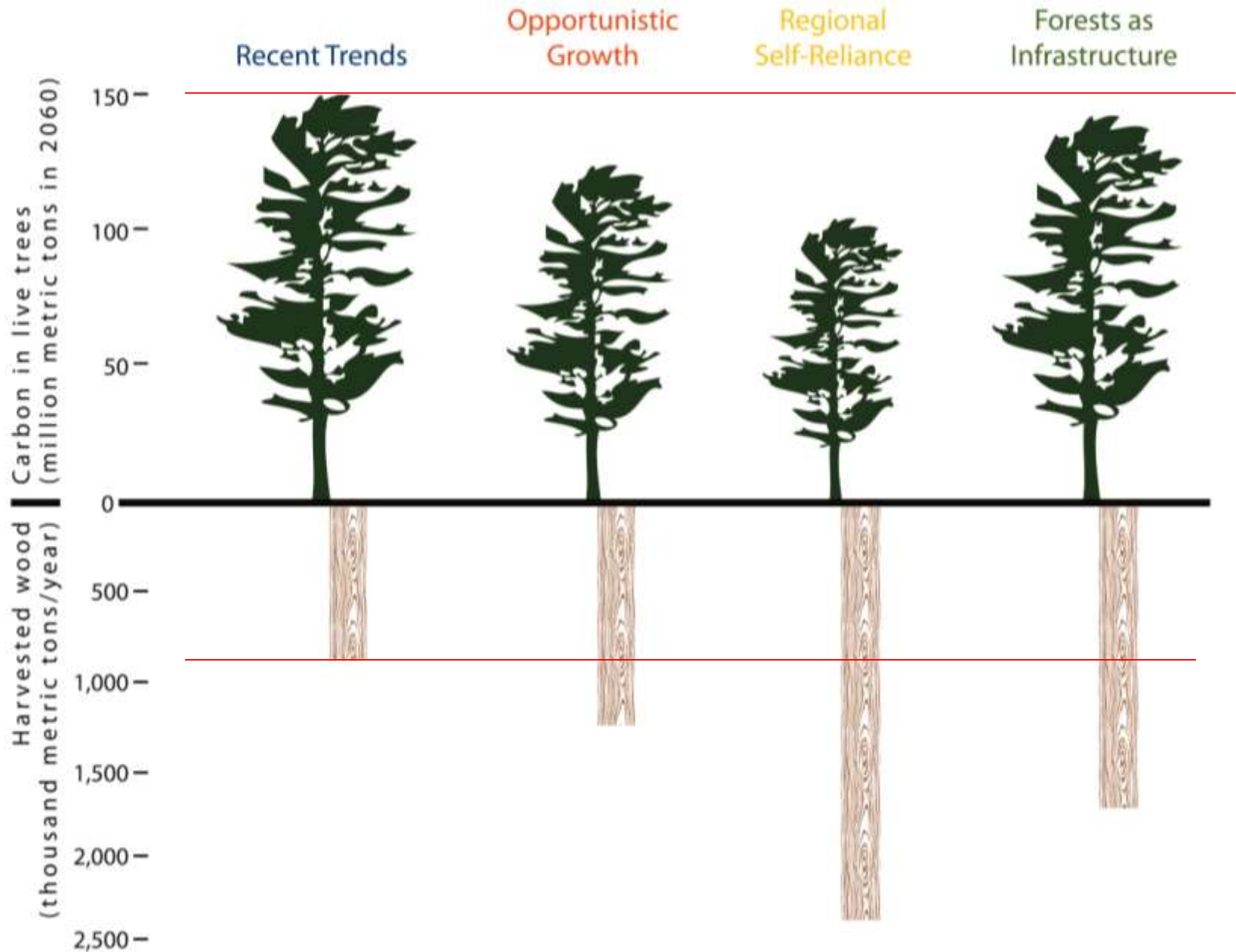


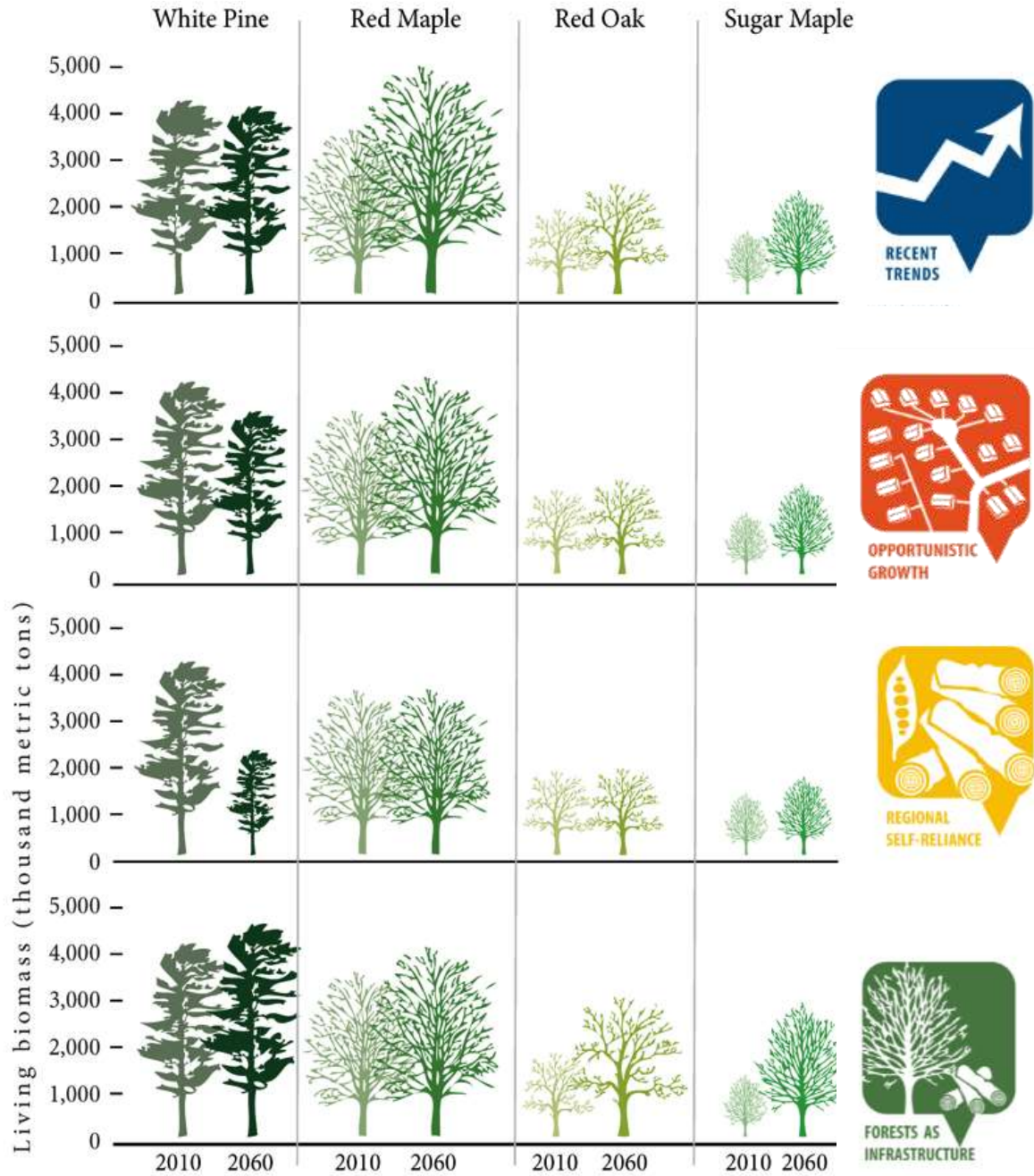
0 10 20 30 50 miles

400,000 —  
200,000 —  
Acres of Change  
0 —

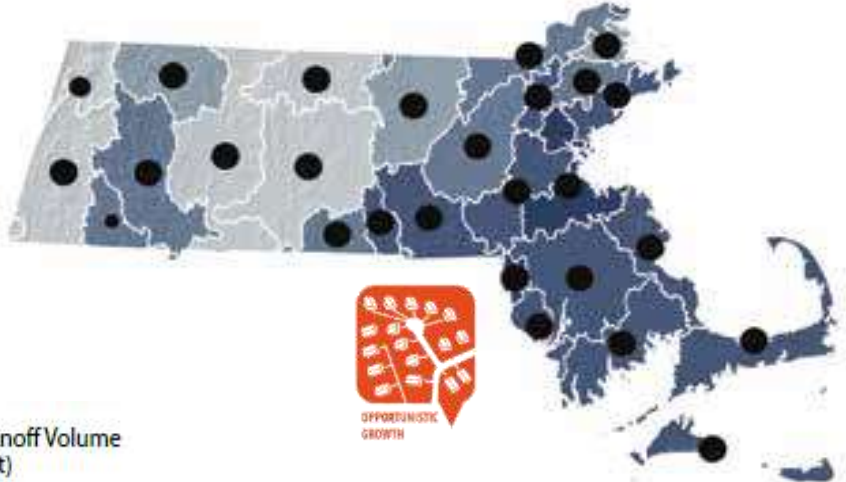
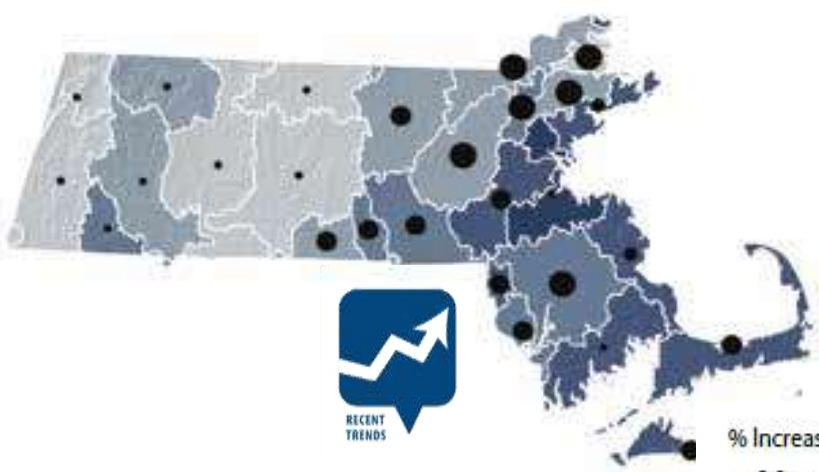


# Carbon Storage and Wood Harvest





# Annual Surface Water Runoff

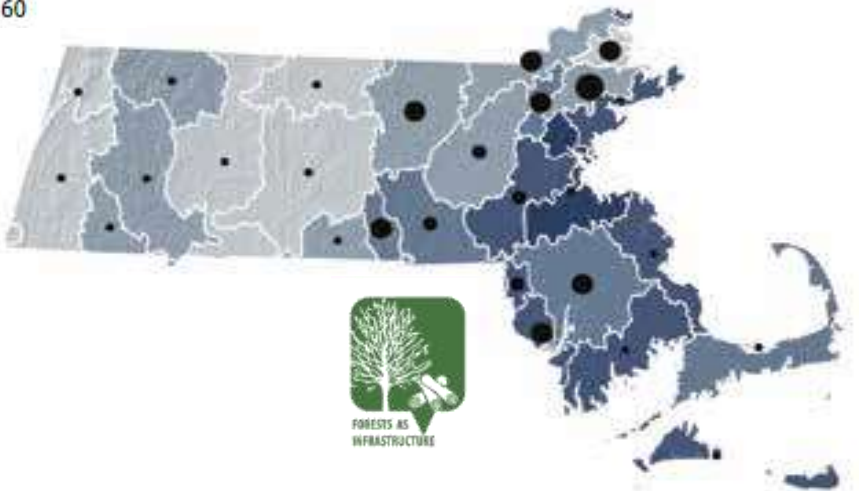
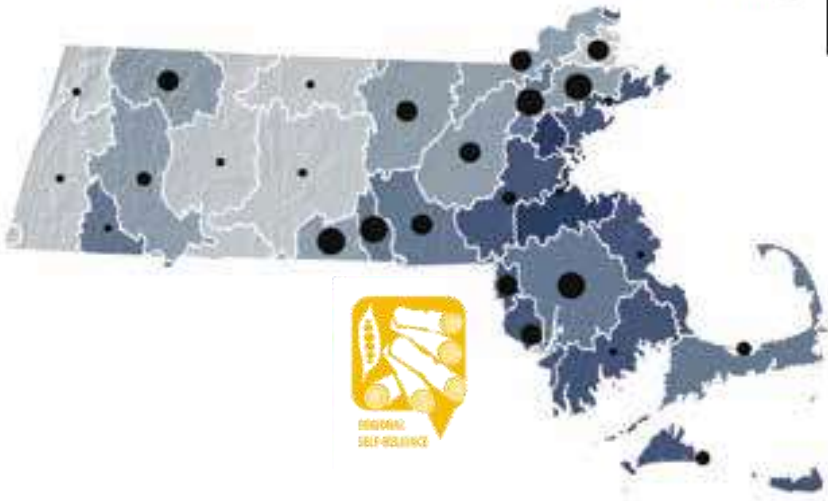


% Increase

- <9.0
- 9.0-9.5
- 9.5-10
- >10

Water Runoff Volume (acre-feet)

- <5,130
- 5,130-5,480
- 5,480-5,820
- 5,820-6,160
- >6,160





How can the landscape futures project help regional conservation partnerships?

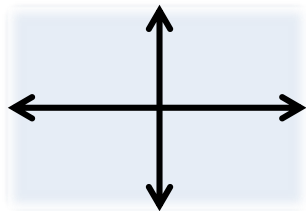
**Year 1:**  
Project  
Scoping

**Year 2:**  
Scenario-  
building

**Year 2-3:** Scenario  
Simulation

**Year 3:**  
Scenario  
Analysis

**Year 2-5:** Scenario  
Application



We are here

Thank you for listening.

Please contact me with ideas and questions:  
[jthomps@fas.harvard.edu](mailto:jthomps@fas.harvard.edu)

