



**Good morning!**

**Welcome to CTAP Track IV:  
Environmental Protection, Land Use,  
and Open Space**



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# **How to Prioritize Environmental Protection, Land Use, and Open Space Protection:**

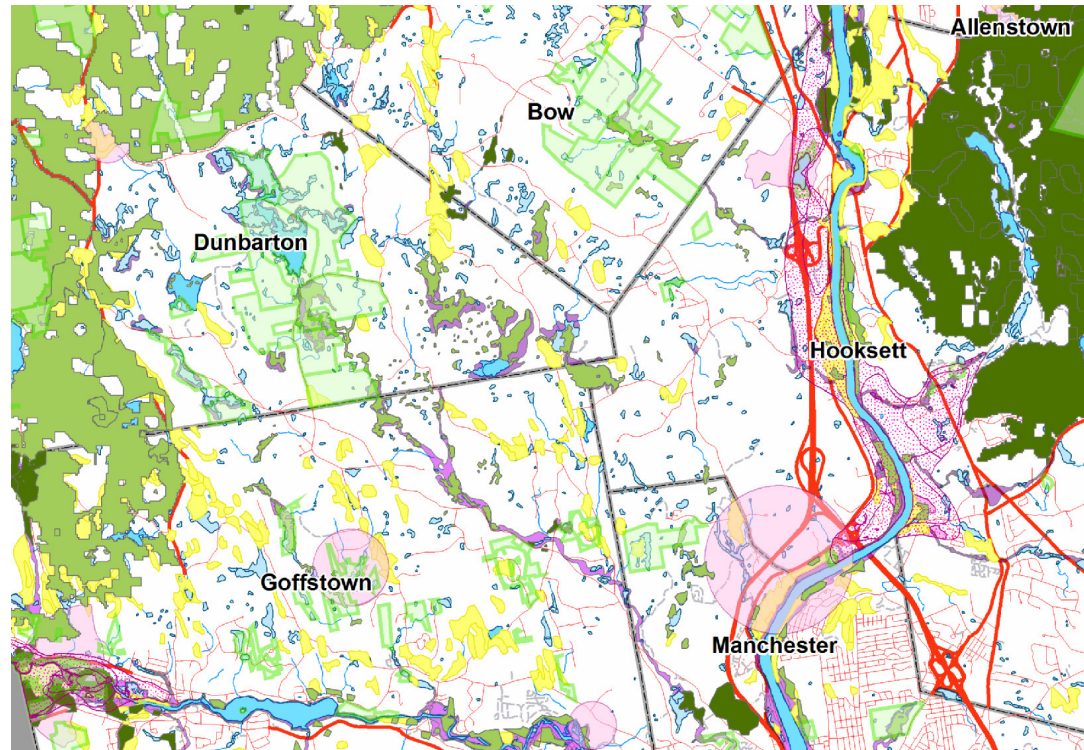
## **A Regional Conservation Framework & Natural Services Network**

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# JUST RELEASED!

## The Natural Services Network: A foundation for planning



Presented by Kate Hartnett and Maura Leahy, The Jordan Institute; Carol Foss, NH Audubon; Fay Rubin, UNH Complex Systems Research Center

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# NH Response to Growth

First 100 years  
**Land protection**

Land  
Acquisition

Conservation  
Easements

**Now add...**

21<sup>st</sup> century  
**Diversify!**

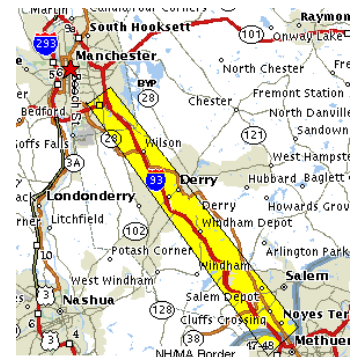
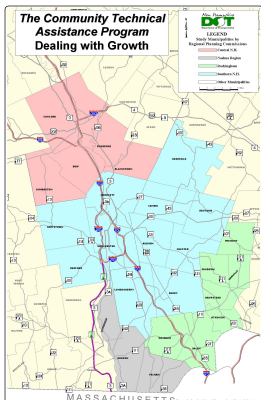
Innovative  
Land Use  
Regulations

Voluntary  
Practices



# A Quiz

- What does CTAP stand for?
- Who sponsors CTAP?
- How many towns are in the CTAP region?
- How many people are expected to move into the CTAP region by 2040?
- When did CTAP planning begin?
- What's the CTAP budget?
- Why does CTAP exist?



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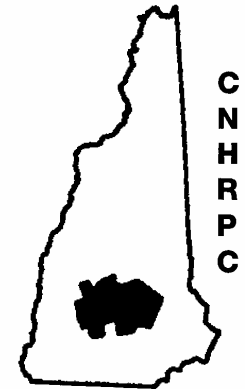
## The next 75 minutes:

1. Introduction to natural services
2. Natural Services Network for the CTAP region
3. Exploring the NSN in your town
4. The NSN in practice
5. Thoughts for CTAP





# Natural Services Network Partners



- The Jordan Institute
- NH Audubon
- NH Department of Transportation
- 4 Regional Planning Commissions
- NH Department of Environmental Services
- NH Fish and Game Dept.



**Rockingham  
Planning  
Commission**



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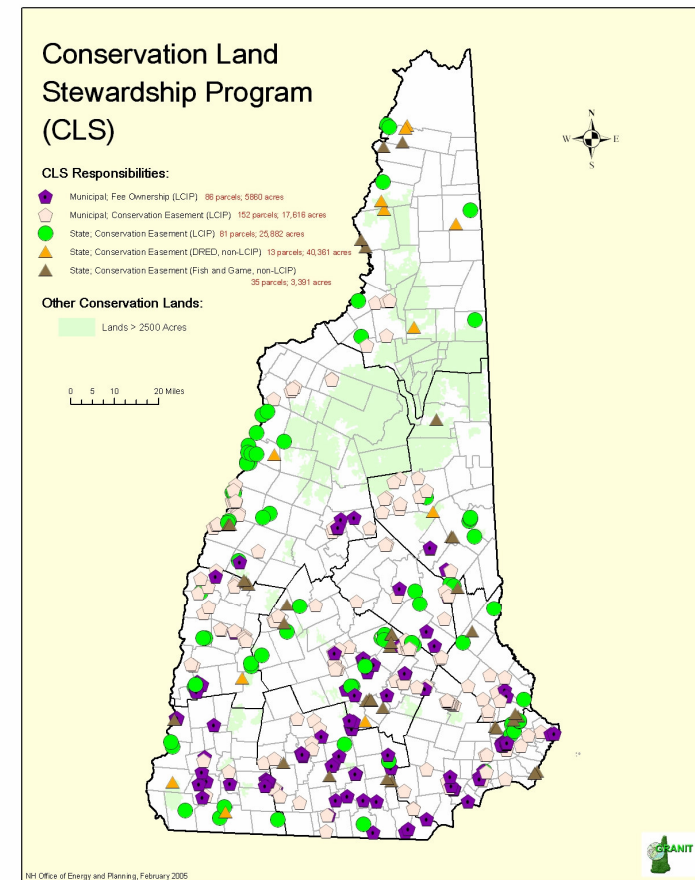
**Consider  
three  
categories  
of land...**





# DEVELOPED LAND

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# PROTECTED LAND

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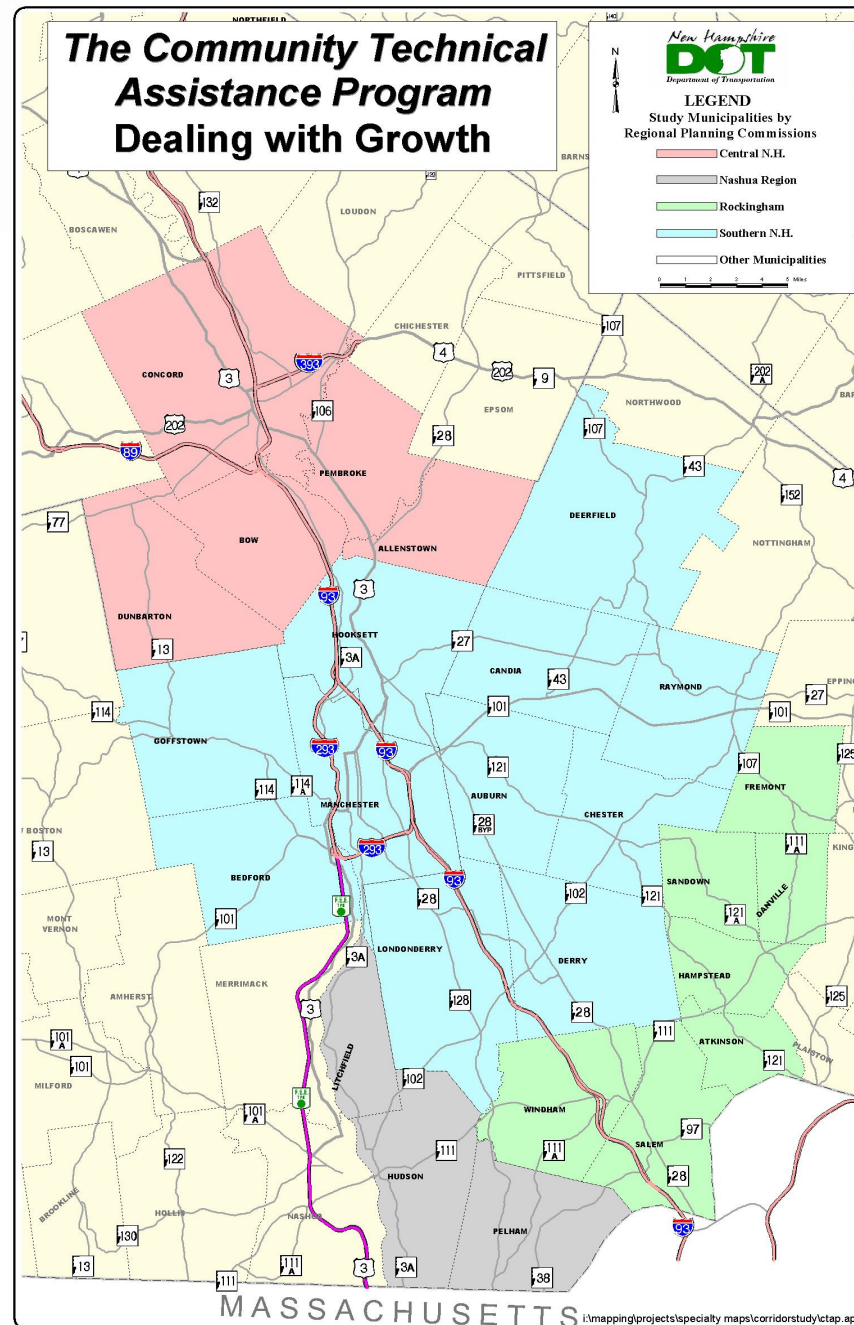


# **“LAND IN PLAY”**



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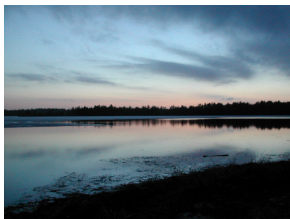
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**Natural services** are the benefits nature provides “free” to humans:

*“fundamental life-support services without which human civilizations would cease to thrive.”* (Daily et al. 1997)





## For instance, nature:



- Supplies, protects, and stores water
- Prevents soil erosion
- Pollinates crops and other plants
- Cycles nutrients
- Gives us opportunities for recreation

## Economic value of natural services

How much money do people spend on recreation, wildlife observation, birding, etc?



How much does it cost to build dams, filter water, recover from floods, etc?



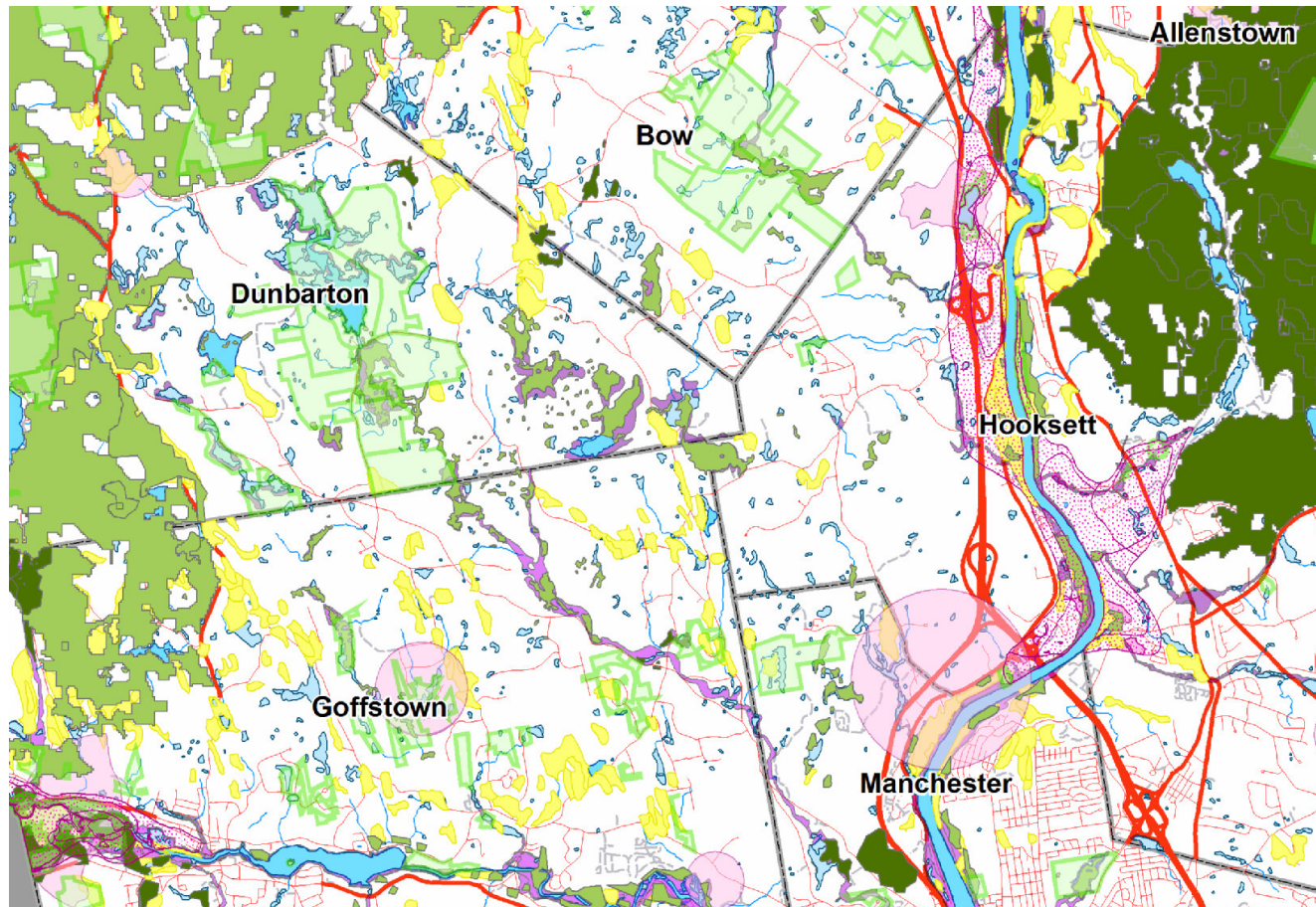
Valued at \$6.3 billion for all of Massachusetts...  
Over **\$200 million** in the CTAP region!\*

Mass Audubon, "Losing Ground," 2003. MA value per acre extrapolated to acreage in CTAP region.

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# Natural Services Network



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# Natural Services Network



**Water supply**  
**Flood storage**



**Economically  
important soils**



**Wildlife habitat**



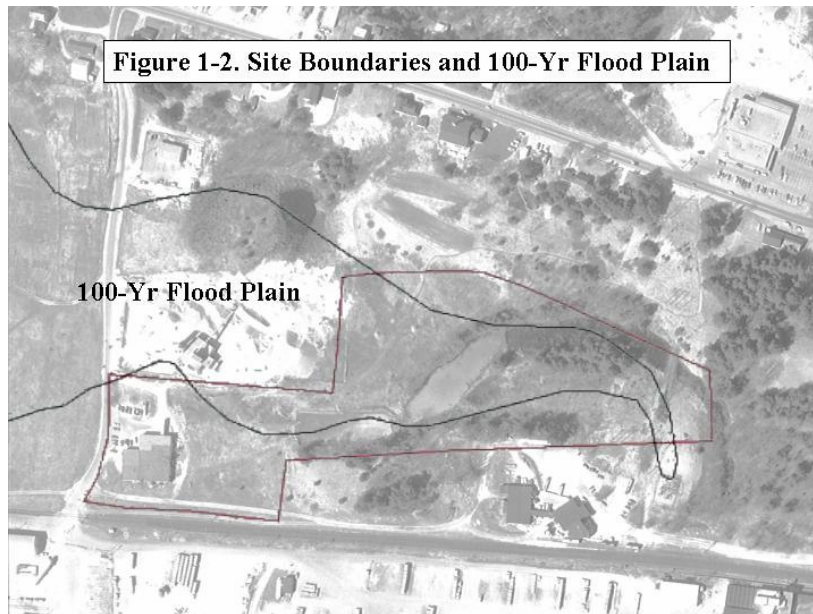
+ Hydrologic and  
wildlife **connectivity**

+ **Strategic overlays**: Developed,  
protected, unbuildable, working farms,  
local conservation priorities...



- ## **Water supply lands**
- **Highly transmissive**
  - **Favorable gravel wells**





# Flood storage

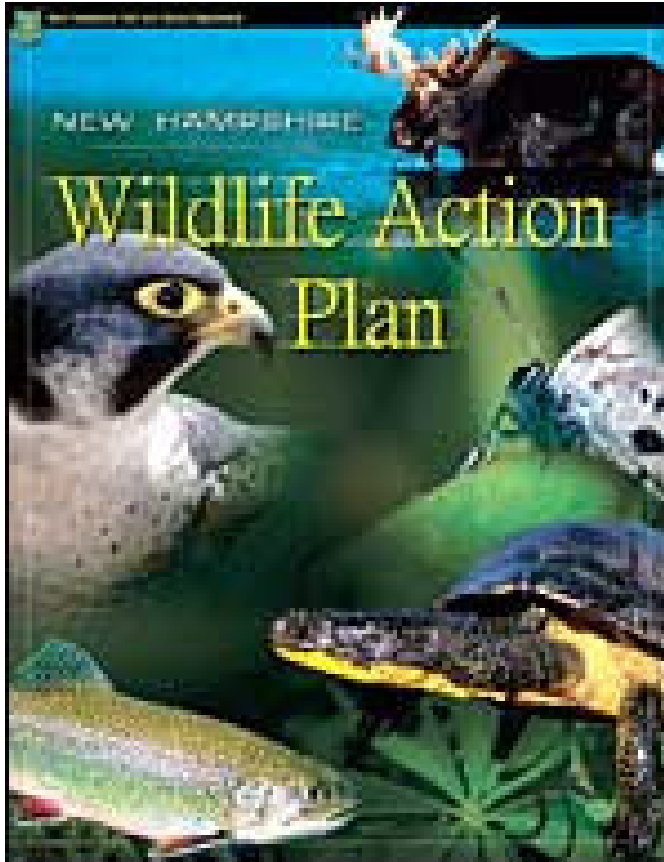
- FEMA maps
- USFWS National Wetland Inventory



## Economically important soils

- Statewide importance
- Prime agricultural

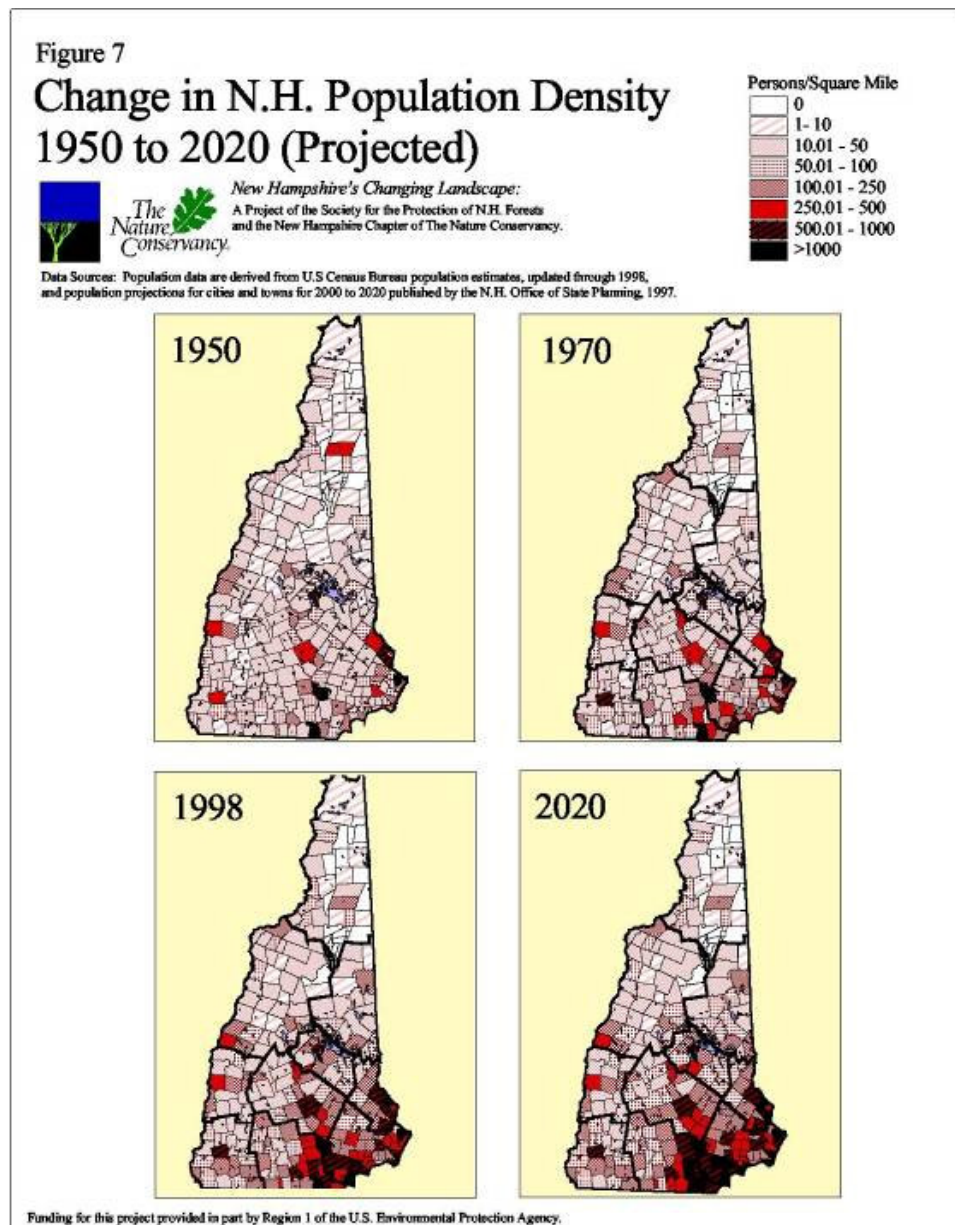




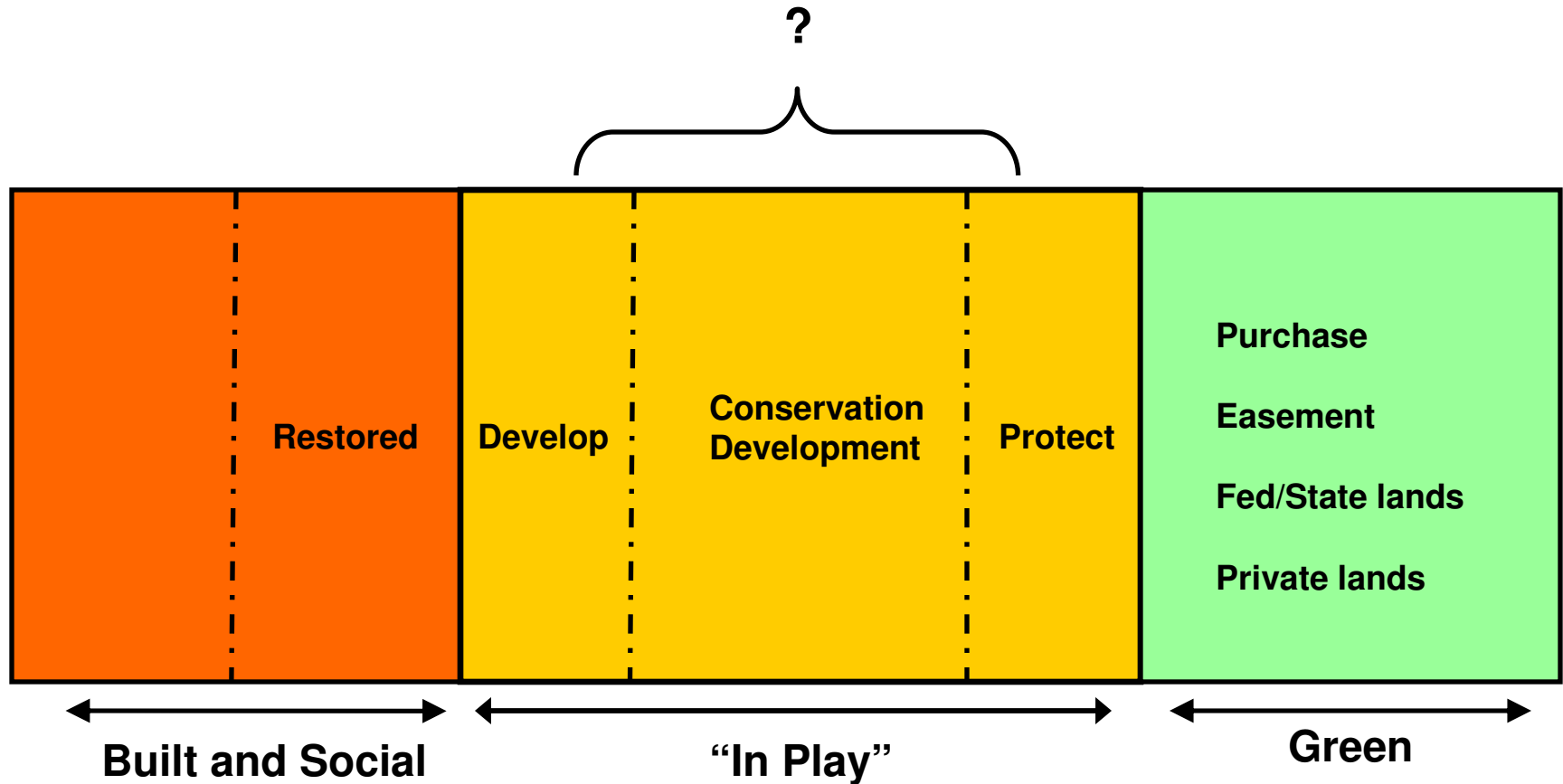
## **Significant wildlife habitat**

- **Statewide  
priority**
- **Ecoregional  
priority**

# Why is the NSN important in the CTAP region?



# Deciding Future Land Use



# NH Response to Growth

First 100 years  
**Land protection**

Land  
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**Now add...**

21<sup>st</sup> century  
**Diversify!**

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# **What does the Natural Services Network look like in YOUR town?**



# **The Natural Services Network in practice**

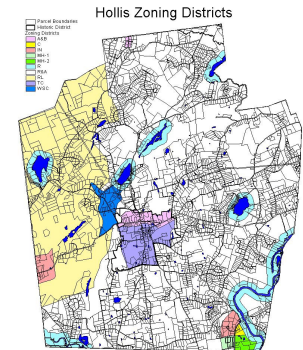
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# Potential Uses of NSN

- Local & regional **land protection priorities**
  - **Zoning district** overlays
  - Framework for **open space plans**
- Natural resource chapter of **master plans**
  - **Alternate build-outs** with NSN base
  - **Strategic overlay** analyses
- Initial scope/design with **developers**

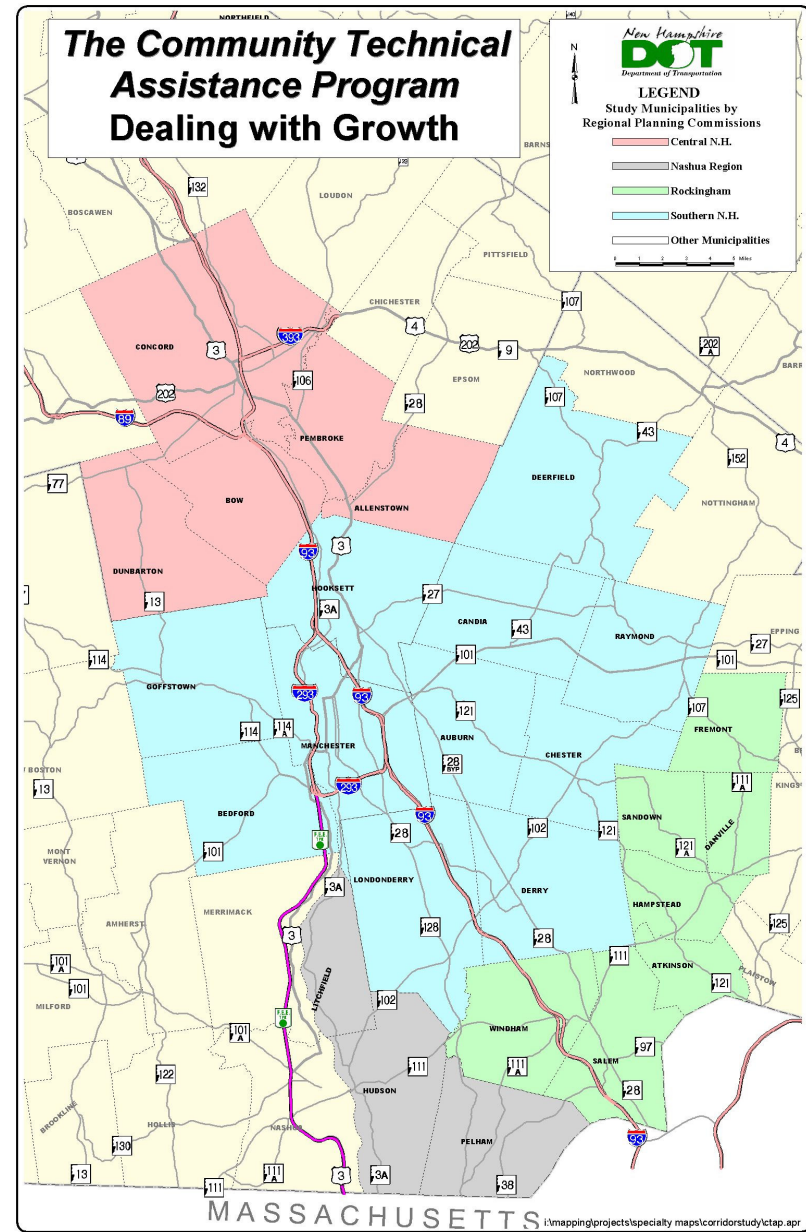


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# Thoughts for CTAP...



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## For more information...

Kate Hartnett, [khartnett@thejordaninstitute.org](mailto:khartnett@thejordaninstitute.org)

Maura Leahy, [mleahy@thejordaninstitute.org](mailto:mleahy@thejordaninstitute.org)



**The Jordan Institute**  
Concord, New Hampshire  
603-226-1009

