

Columbia County Forests: An Essential Resource



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Agroforestry Resource Center



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Overview of Presentation:

- History of NYS forests
- Threats to forests
- Benefits of forests
- Resource for Columbia County

Northern hardwood forest – 1700: New York was extensively forested, probably near 90%. The only areas of young timber were the result of storm damage, floods, or fires. Most regeneration took place in the gaps created by fallen canopy trees.



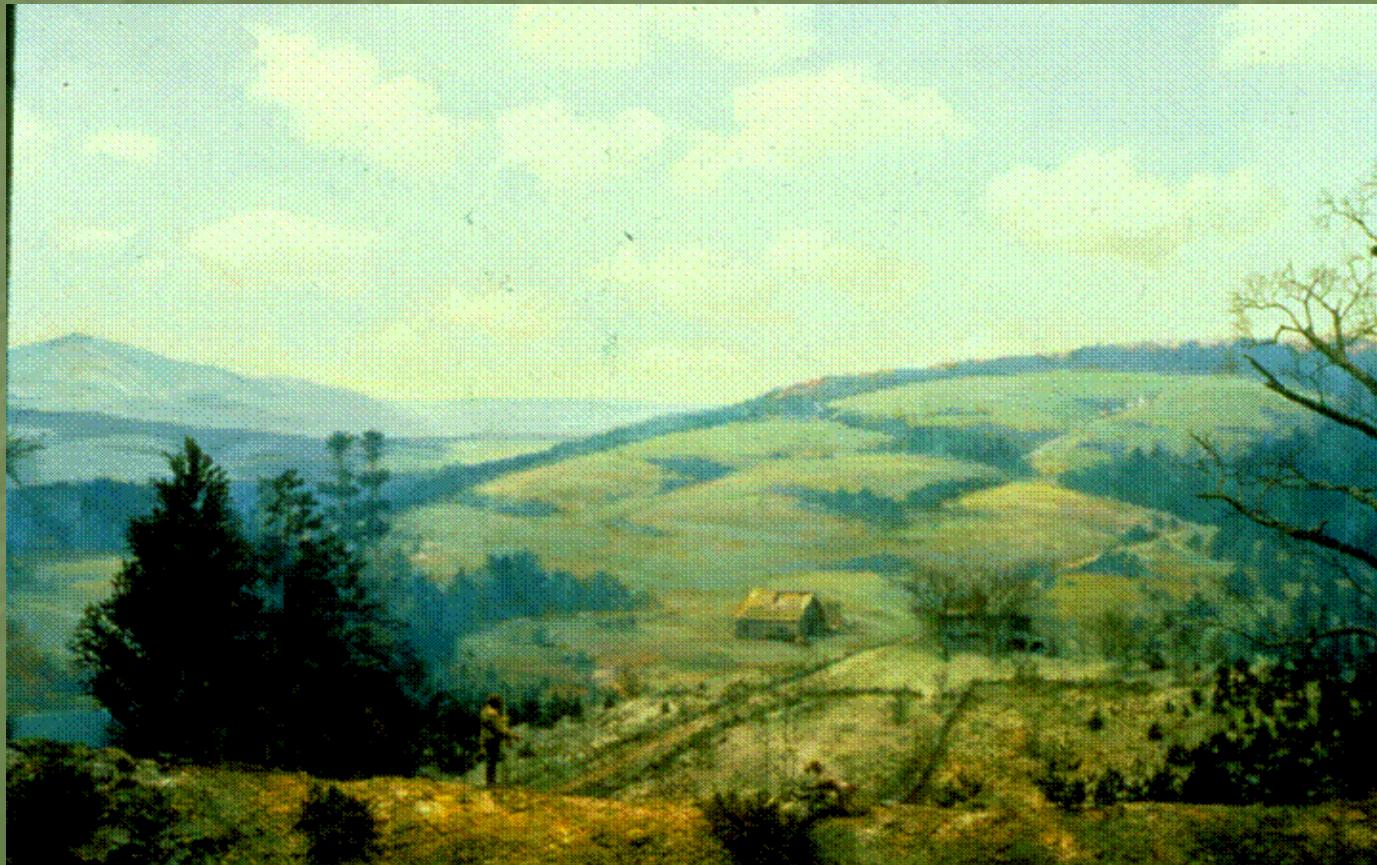
Pioneer subsistence farming – 1740: Forests were considered an impediment to civilization, which depended entirely on farming. Every community had a sawmill that used the pine & hemlock, as the hardwoods were too large & heavy to be of much utility. Most of the “inexhaustible” wood supply was burned.



Height of intensive farming – 1830: Estimates are that 80% of New York and New England were being farmed.



Intensive farming abandoned – 1850: The eroded and worn-out soils caused many farmers to seek employment in factories that were springing at the start of the industrial revolution. The abandoned fields were ideal nurseries for pine, maple, and ash.



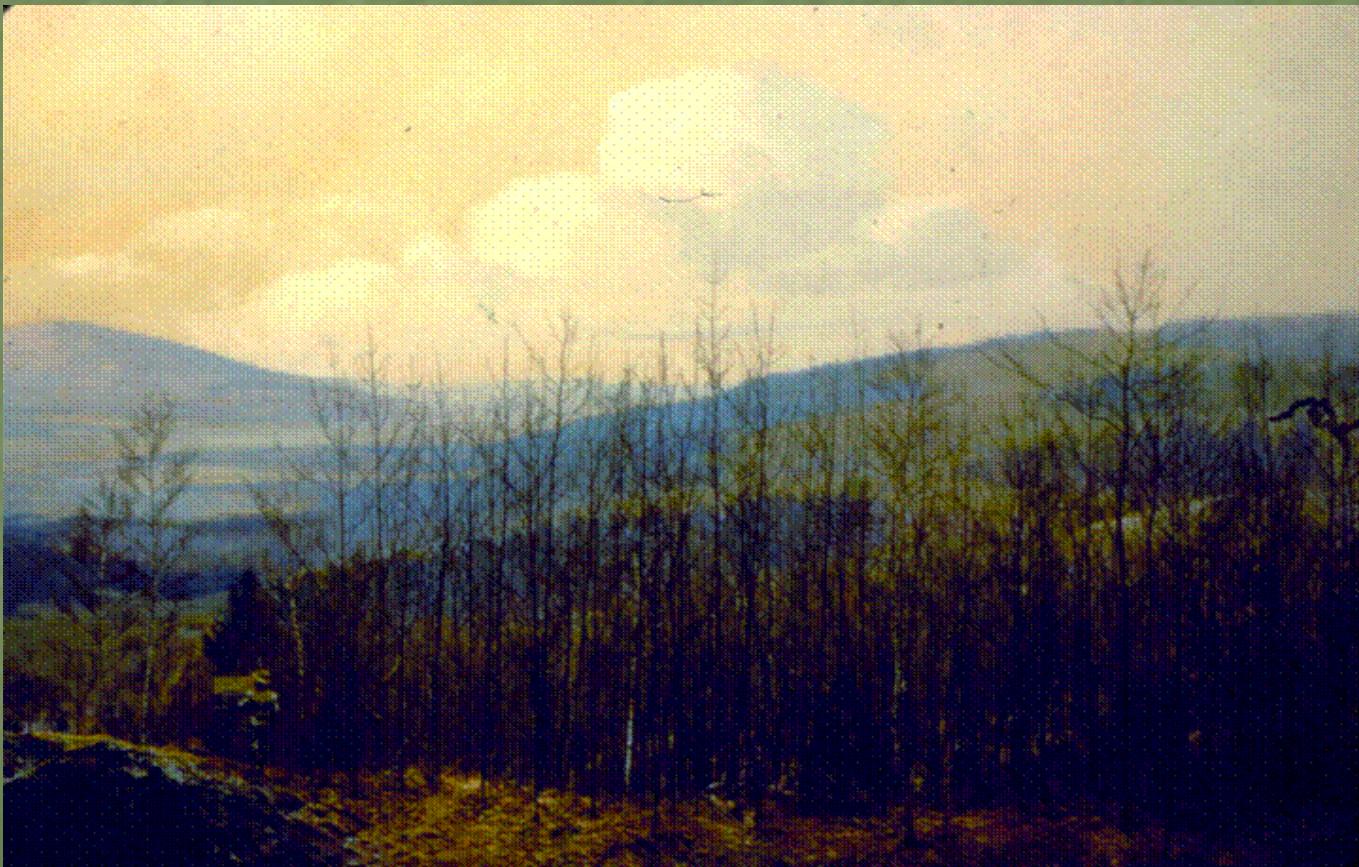
First crop of old-field white pine – 1910: From 1895 to 1925 an estimated 15 billion board feet of pine were harvested from the former farms.



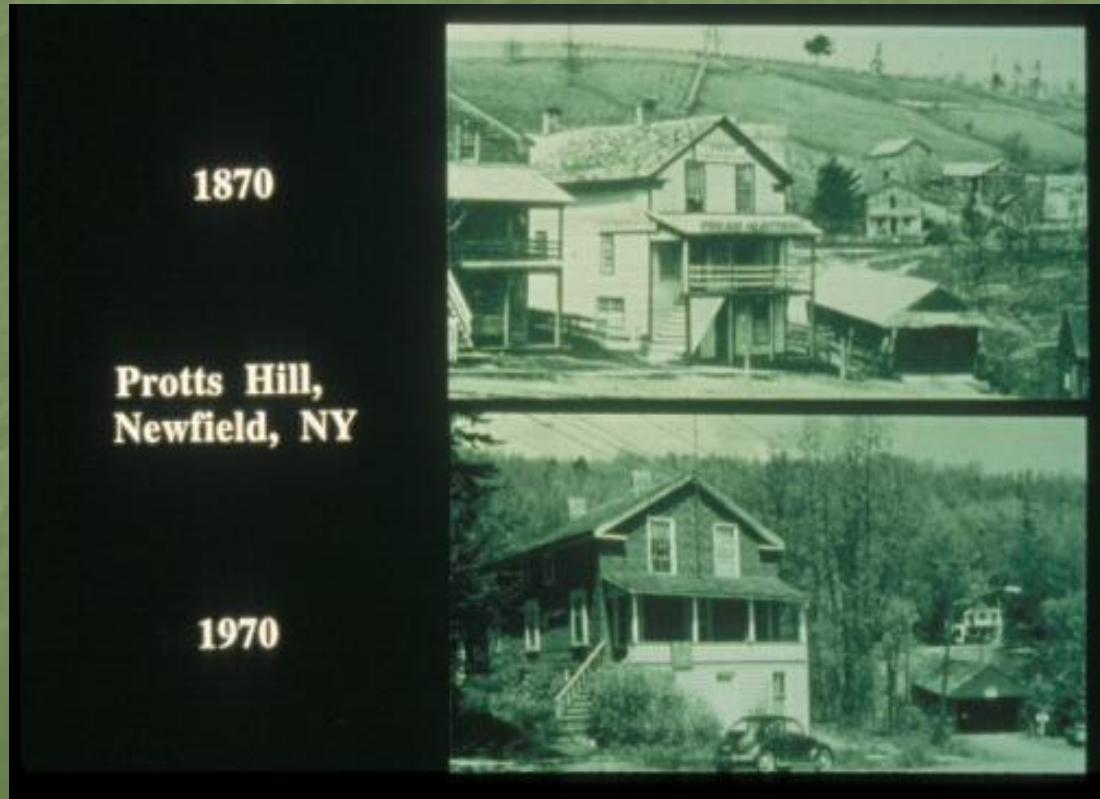
Volunteer Hardwood Regeneration – 1915: The clearcutting of the pines released the advanced regeneration of maple & beech from the understory. Clearcuts of hardwoods for charcoal created favorable conditions for cherry, oak, and ash.



Hardwoods form second crop – 1930: Thinning for firewood and cordwood from these stands resulted in the nicest stands we have today.

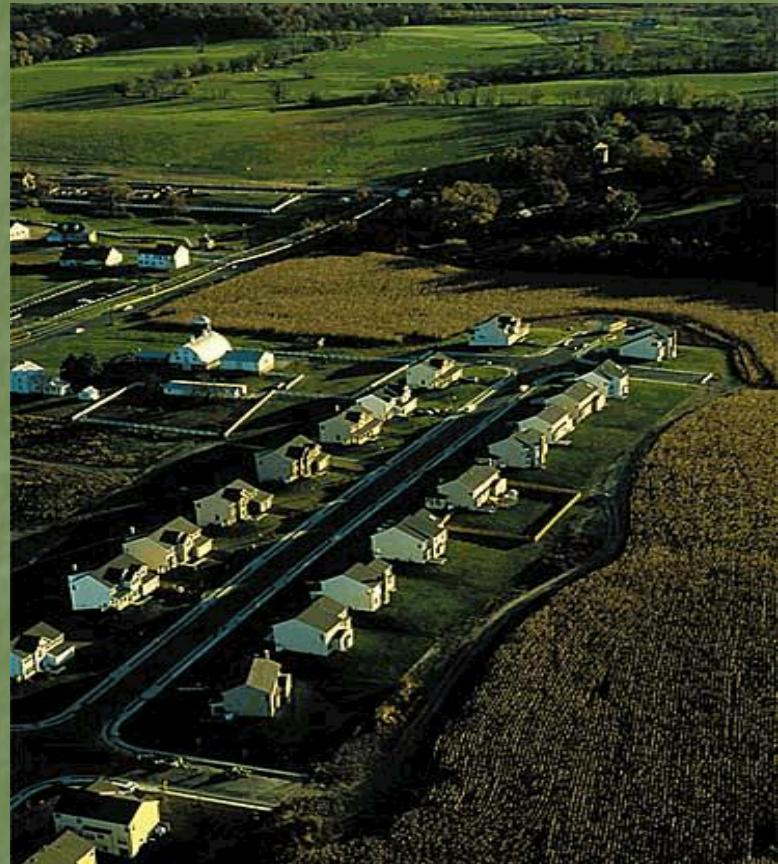


Prott's Hill, Newfield (Tompkins Co.), NY 1870 and 1970:
Illustration of the dynamics and resiliency of our forests. Note
that the house and covered bridge are in both photos.



Threats to Forested Lands

Parcelization from development pressures



Parcels size of forests have been shrinking. The average was 40-50 acres in the 1950's and are now under 15.

Forest fragmentation



Forest fragmentation prevents viable economic opportunities and results in a decline in biodiversity.

Minimal forest planning

Planning is not a single event, but a series of continuous steps leading to a desired goal & are for forests, by necessity, long-term. The plan guides activities for decades, providing continuity through successive generations of owners. The first step is to determine priorities, set goals & identify the activities to reach those goals.



Literature shows that about 10% of private forest landowners actively managed their forests (5% with management plans) and there is no focus on regeneration.



**Harvesting without
professional advice may
result in a diminish forest.**



Other neighboring states have forester/harvester licensing or certification processes, which New York does not have.

High grading or exploitation harvest

“Take the best and leave the rest”



Invasive Species



NEW YORK INVASIVE SPECIES

The New York Invasive Species Clearinghouse
Cornell Cooperative Extension invasive species
program NYIS.info



Emerald Ash Borer

Found in 2002 – Michigan

Found in western NY in 2009

Found in Greene & Ulster Counties in
2010, and Albany & Orange in
2011.

Be Prepared !



Asian Long Horned Beetle

Original infestations

- NYC (1996)
- Solid wood – packing material

Initial spread from point sources seems to be relatively slow, but multiple species of trees are attacked (maple, beech birch, aspen, elm, ash & cottonwood).



Hemlock Wooly Adelgid

HWA was first detected in New York State in the early 1980s. Outbreaks have expanded from initial infestations on Long Island and in the Hudson Valley to the Rochester area, the Catskill Mountains, and recently into the Finger Lakes region.

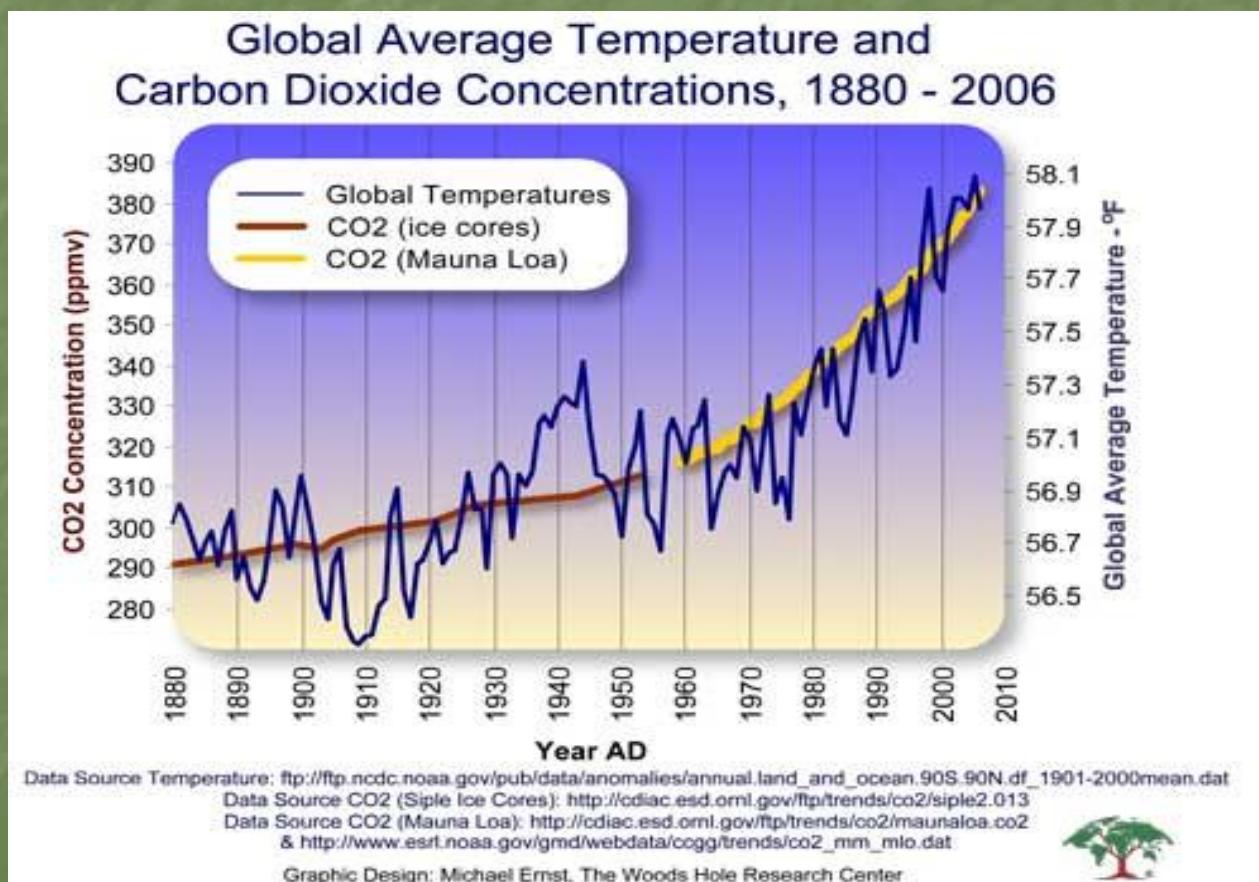


Don't Move Firewood !

Current regulations prohibit the import of firewood into New York unless it has been heat treated to kill pests. The regulation also limits the transportation of untreated firewood to less than 50 miles from its source within NYS.
Insert new info with DEC don't move firewood campaign

By transporting firewood, you could be spreading diseases and invasive insects that can quickly kill large numbers of trees. Help STOP THE SPREAD and obey the Firewood Regulation.

Declining forest health from climate change





Seriously – Potential for shift in tree species

Impacts of climate change will exacerbate pest and pathogen problems

Tree species range maps will likely change

Possible regional species impacted:

- Sugar maple
- Yellow birch
- Paper birch
- Red spruce
- Quaking and Bigtooth aspen
- Northern white cedar

Replaced largely by oak-hickory



Benefits of Forested Lands

Forests provide clean water

They are natural filters, prevent erosion, fill reservoirs and create “new water”. Forests are buffers against flooding, especially along streams.



Forests and forested watersheds have an essential role in sustaining and protecting water supplies for domestic, agricultural, and other needs in downstream areas.



**Forests clean the air.
They sequester
carbon and filter air
pollutants.**



Renewable Energy

Integrate production of energy from forest biomass into biorefineries, co-generation facilities or other energy streams.



Forests support
numerous plants and
animal species



Forests supports healthy,
sustainable rural
economies –value added
forest products, tourism,
hunting, fishing and
recreation.





**Forests provide
mental and
physical health
benefits.**



Green Medicine

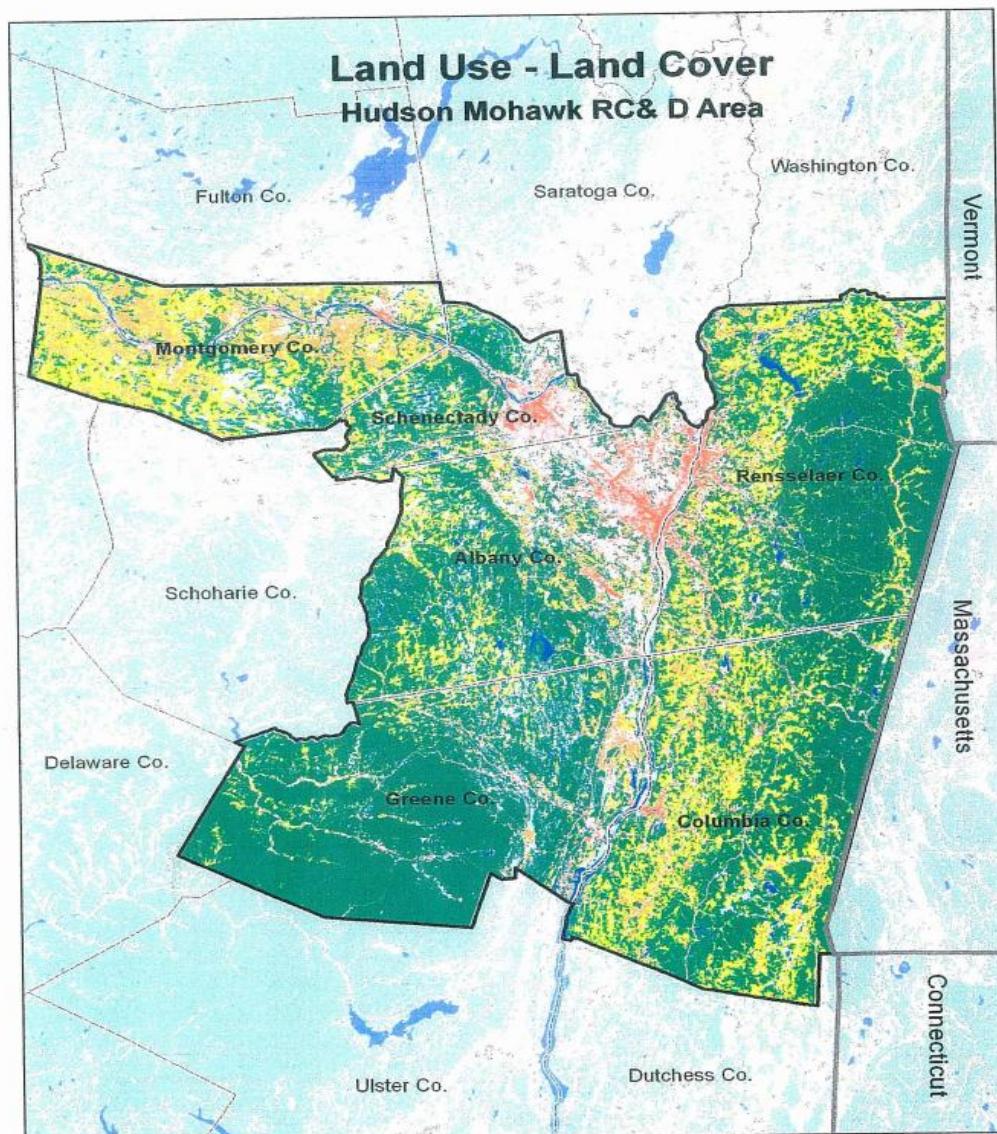
Prescribing a dose of outdoors to prevent or treat a range of health illnesses from heart disorders to attention deficit disorder.

Prescription includes the location of a green space, a trail and exact mileage.

Journal of Environmental Science and Technology



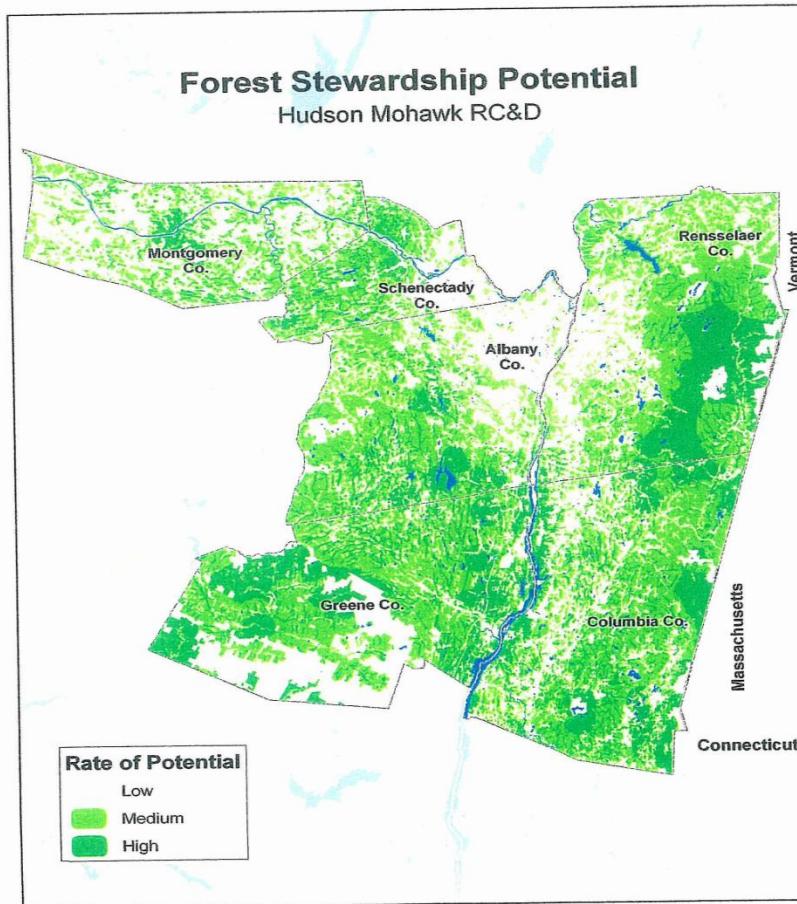
The opportunity for forest
stewardship in Columbia County .



Potential for Forest Stewardship

Authorized by the Cooperative Forestry Assistance Act of 1978, the Forest Stewardship Program (FSP) is "administered by the USDA Forest Service and implemented by State forest agencies to encourage private forest landowners to manage their lands using professionally prepared Forest Stewardship Plans." Technical assistance provided by the New York State Department of Conservation (NYS DEC) is given to non-industrial private forest (NIPF) owners to encourage and enable active long-term forest management.

The Potential for Forest Stewardship depicts the best management possibilities for New York State's private lands. Twelve different parameters assessing resource threat (development risk and forest health) and potential factors (private forest land, forest patch size, riparian corridors, public water supply, priority watersheds, threatened and endangered species, wetlands, proximity to publicly owned lands, conservation easements and slope) were used to determine the stewardship potential on private land in NYS. White areas do not have stewardship potential.



Questions?

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