

Terrestrial Carbon Sequestration in the Northeast

Part 6: Assessment and Summary

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Reports available at

<http://conserveonline.org/workspaces/necarbonproject/>



Overall questions addressed:

- How do each of land management options compare in total and across the region?
- For each land management options, where in the region is the greatest potential CO_2e gain, at the lowest marginal costs?
- What combination of location and land management option provides maximum CO_2e at lowest marginal costs?

All data presented are for a 20 year period for agricultural lands and for a permanent contract on forest lands

Total potential estimated tons of CO₂e sequestered for each land use

	Agricultural Lands				Forest Lands		
	Afforestation of Cropland	Afforestation of Pasture	No-till	Non-cultivated crops	Restocking understocked Stands	5 year Rotation Extension	Riparian Buffer
	million tons CO ₂ e						
Connecticut	7	16	0.2	0.5	0.08		0.1
Delaware	35	0	2	5	0.23		
Maine	10	46	1	2	3.42	7	0.7
Maryland	92	12	6	16			
Massachusetts	15	6	0.4	1	0.19		0.2
New Hampshire	0.9	12	0.1	0.3	0.25	1	0.4
New Jersey	4	0.001	1	3	0.77		
New York	98	340	8	19	2.29	3	0.9
Pennsylvania	86	387	13	32	6.18		0.2
Rhode Island	1	0.8	0.0	0.03	0.05		
Vermont	30	17	0.7	1.6	1.19	1	0.1
All States	379	837	33	82	15	12	2.6

Assuming 20 year period for agricultural lands, and permanent contract for forest lands

Area weighted mean marginal costs for all Land Uses examined (at 20 yrs)

	Agricultural Lands				Forest Lands		
	Afforestation of Cropland	Afforestation of Pasture	No-till	Non- Cultivated Crops	Restocking understocked Stands	5 year Rotation Extension	Riparian Buffer
\$/t CO ₂ e							
Connecticut	87	52	18	168	152		26
Delaware	70	52	22	120	0.34		
Maine	100	31	11	168	15	8	150
Maryland	121	97	22	53			
Massachusetts	87	51	14	130	40		34
New Hampshire	98	50	12	138	10	6	103
New Jersey	100	82	23	85	11		4
New York	99	48	19	178	9	5	101
Pennsylvania	107	84	19	140	-12		28
Rhode Island	100	78	19	104	57		28
Vermont	90	40	14	165	-3	5	100
All States	103	64	18	139	5	6	84
Minimum	36	13	10	-137	-251	3	0.11
Maximum	254	265	29	348	693	21	240

* Negative numbers in average cost estimates indicate that the projects would potentially generate profits over the cycle.

Land Use with lowest marginal cost (\$/ton CO₂e at 20 yrs)

Land Use

- 5 yr Rotation Extension
- No-Till
- Non-cultivated crops
- Restocking under-stocked stan
- Riparian Buffers

*Biomass energy excluded from comparisons

