

MEMORANDUM

To: RGGI Staff Working Group
cc: RGGI Governors and Commissioners
From: The Nature Conservancy
Sarah Woodhouse Murdock, Senior Policy Advisory
617-542-1908 x204; smurdock@tnc.org

Re: Further input on Model Rule provisions related to Permanence of Afforestation
Offset Credits

Date: 6/8/06

This memorandum is to provide further data and explanation to support The Nature Conservancy's comments on the draft Model Rule related the permanence of carbon offsets from afforestation projects.

As delineated in the draft model rule, there are two components for ensuring the permanence of carbon offset credits generated from afforestation projects. One component is to require a permanent conservation easement. The second component is to require a 20% discounting of carbon credits generated.

In our comments, the Conservancy has recommended amendments to the provisions to address permanence. Primarily, we have recommended that the percentage discounting of carbon credits be lowered to at least 10% or less.

We also put forth a second option to address permanence and propose that project developer be given the choice of which option they prefer to use. The second option we propose is to allow for temporary crediting of the afforestation offset credits. The temporary credit must be replaced at the end of the project period, and a contract must be in place to ensure that the buyer or seller of the credits be responsible for replacement of the credits should the carbon be lost. At the end of the project period, the developer will also have the option of placing a permanent conservation easement on the lands and by doing this would convert the temporary credits into permanent credits.

Summary of Conservancy Permanence Recommendation

The Project Developer must pick one of the two options at the outset of the project.

Option one:

1. A permanent easement, that requires the land to be maintained in a forested state in perpetuity at least at project carbon density levels, and managed in accordance with environmentally sustainable forestry management practices, and
2. A 5% or less discount of credits to account for loss of carbon from wildfire, pests and pathogens and extreme weather related activities.

Option two:

1. Require that a liability contract be in place that requires the user of the credits to replace any carbon lost over the project life time (20 or 40 or 60 years), and
2. After the project lifetime, all the credits must be replaced.

Could also choose to:

3. Place a permanent easement on the property at end of project lifetime to turn temporary credits into permanent credits.

Below we provide further data and information to support each of these comments.

Discounting of carbon offsets from afforestation projects

Based on the data presented below and our supporting points made, the Nature Conservancy now feels that a 5% or less discount would be more than adequate to address carbon permanence for afforestation offset projects.

The Conservancy feels that a 20% discounting of carbon credits generated from afforestation offset project is far too high. It is our understanding that this provision was meant to address loss of carbon due to natural events such as wildfires, damage due to pest and pathogens and weather related events. The data provided in the attached Table 1, indicates that this 20% is far too high. In our initial comments, we suggest that this amount be lowered to at least 10%. Given the data collected, we now feel that this could be lowered even further to 5% or eliminated altogether.

The data presented summarizes the average area per year of forests damaged by wildfire, Spruce budworm and Gypsy moth. We then calculated the percentage per year and multiplied that by ten to represent a percent average over ten years. The percent area damaged by wildfires over ten years is 1.02% and the percent area affected by Spruce budworm is 0.9%. Spruce budworm is known to kill trees and thus the carbon reduction due to this infestation should be considered a measure of mortality. The percent area affected by Gypsy moth is 18.53%. While this area is much greater than the other two measurements, Gypsy moth merely eats leaves and does not cause trees to die.

Therefore, while tree growth might be slowed slightly, it will not stop, and carbon will not be lost.

Another measure we present in Table 1 is the overall forest mortality in the region. Forest mortality is due to natural causes, natural mortality of trees as well as mortality from other threats such as from wildfires, pest and pathogens and storm related damage. The percentage volume mortality over ten years for the whole region is 6.54%. It is important to keep in mind that this is a mortality rate for natural forests of all ages; if the forests involved in credit projects are newly planted and young, their mortality rates will be far below the regional average.

Two additional important points should be considered when setting this discount rate. First, even if trees die, much of the carbon would be retained as deadwood and should not be considered to be totally lost. Additionally, the forests will re-grow. While carbon is lost due to natural causes, it is also being replaced by new growth. Second, during the life of the project, measuring, monitoring and verification will be taking place at least every five years. Given this, if carbon is lost at a particular project site, the project developer will be obligated to replace this carbon with carbon from another project site, with other non afforestation offset credits or with allowances. Given this, there is no justification for applying a discount during the life of the project.

Allowing the temporary crediting of afforestation offset credits

In an effort to provide greater flexibility to project developers, the Conservancy strongly recommends that developers be given the option to generate temporary credits from afforestation projects. We are concerned that requiring a permanent conservation easement will likely prohibit many viable projects from moving forward as this is a commitment and economic sacrifice that many landowners may not be willing to make.

Temporary credits are currently being awarded to LULUCF projects under the Kyoto Protocol. The credits are good for 5-20 years with an option to renew for up to 60 years if the carbon is still available. Currently, the EU Emission Tracking System (ETS) is considering allowing the use of LULUCF temporary credits in its system.

From our discussions with the RGGI SWG, an issue of concern related to the use of temporary credits is who bears the responsibility for those credits. This issue is also being currently discussed related to the use of temporary credits in the EU ETS. From our discussions, it appears that the recommendation for the EU ETS system is to have the user bear the responsibility.

The way this would work is that the offsets are measured, monitored and verified every five years. If it is found that some or all of the carbon from the project is gone, the amount of carbon credits equal to the amount of carbon that has been removed is debited from the users account. They are liable for replacing those credits with other temporary LULUCF offset credits, other permanent offset credits or permanent allowances. It is up to the user to decide how to replace the credits.

In general, temporary credits are tracked and labeled as such in the registry system. At every compliance period, the user's account is automatically debited the amount of temporary credits being used. It is then up to the user to verify those temporary credits still exist using the most current measuring, monitoring and verification data. If they provide the necessary documentation, the temporary credits can be continued to be used. If they cannot provide the necessary documentation, new temporary credits will need to be submitted for use or permanent credits or allowances used to replace the temporary credits.

Given this scenario, the regulators need not be liable for the existence of those credits. The regulators need only play an enforcement role should those credits be debited from the user account and need to be replaced. The enforcement role for the temporary credits would be no different than the enforcement role that the regulators will need to play to ensure the regulated entities are submitting sufficient allowances to meet their cap.

If temporary credits are being used, the Conservancy recommends requiring that a contract be in place between the buyer and the seller of the temporary offset credits that specifies one of the parties is responsible for the replacement of the credits should the carbon be lost. This legally binding document will ensure a process for recourse should a party default on its obligation to replace carbon credits and should they need to be replaced.

Finally, the BioCarbon Fund, which is currently the main buyer of temporary carbon credits, has developed a process for insuring these temporary credits. They are creating a pool of temporary credits to hold in reserve, to use as insurance, should any of the other temporary credits they have sold need to be replaced. This acts as a buffer pool of credits and in essence is an insurance against the risk of temporary credit loss. Ultimately, we recommend that the seller decide what type of insurance for temporary credits is necessary in the RGGI program. This is not an issue that needs to be delineated in the Model Rule.

Table 1

	Average Area of Forest land (1987-1997) ¹	Average area of forest land damaged by wildfire (1988-1997) ²	% forest land damaged by wildfire for ten year period	Average Area Affected by Gypsy moth (causes damage not mortality) (1986-1997) ³	% area affected by gypsy moth for a ten year period	Average Area affected by Spruce budworm (causes mortality) (1986-1997) ³	% area affected by Spruce budworm over a ten year period
	<i>1000 acres/year</i>			<i>1000 acres/year</i>		<i>1000 acres/year</i>	
Northeast	85400	87.1	1.02	1582.3	18.53	76.9	0.90
	Net Volume of timber on timberland (2002) ⁴	Net mortality of growing stock on timberlands (2002) ⁵	% volume of mortality (2002)	% volume of mortality over 10 years			
	<i>Thousand cubic feet</i>						
Connecticut	3403000	16344	0.48	4.80			
Delaware	738000	7868	1.07	10.66			
Maine	22307000	223378	1.00	10.01			
Maryland	5254000	36964	0.70	7.04			
Massachusetts	6140000	26437	0.43	4.31			
New Hampshire	9652000	50471	0.52	5.23			
New Jersey	2967000	16475	0.56	5.55			
New York	23035000	109260	0.47	4.74			
Pennsylvania	25771000	177131	0.69	6.87			
Rhode Island	536000	2841	0.53	5.30			
Vermont	9494000	48025	0.51	5.06			
Total	109297000	715194	0.65	6.54			

References:

- 1 Birdsey, Richard A.; Lewis, George M. 2002. Current and Historical Trend in Use; Management and Disturbance of United States Forest Lands. IN: Kimble, John et al. (eds.), The Potential of U.S. Soils to Sequester Carbon and Mitigate the Greenhouse Effect. Boca Raton, Florida, CRC Press. XXX p.
- 2 Ibid
- 3 Ibid
- 4 Smith, Brad et al. 2002. Forest Resources of the United States. Forest Service. U.S. Department of Agriculture. St. Paul, MN. p. 75
- 5 Smith, Brad et al. 2002. Forest Resources of the United States. Forest Service. U.S. Department of Agriculture. St. Paul, MN. p. 128