

## **Michigan forest carbon program: Carbon Sequestration on Michigan Working Forest Lands**

Michigan Forest owners provide clean air and clean water for Michigan. Forests remove carbon from the air and hold it in their wood, leaves, and roots. They release oxygen as part of photosynthesis. Proper management and retention of forests will help reduce the amount of carbon in the atmosphere. To assist forest owners in receiving some revenue for providing this Ecosystem Service, the Michigan DNR obtained a federal grant for FY 2009 – 2010 from the US Forest Service to provide an incentive to private forest owners to enhance the carbon sequestration capacity of their forests. This is an expansion and evolution of a pilot project created in Michigan in FY07.

To participate in the carbon market, landowners must have a forest management plan, a baseline inventory, an agreement with aggregator, and a means of trading the additional carbon their forests sequester.

**The Michigan Forest Carbon Project** uses the Forest Stewardship Program (FSP) and other forest management programs to assist owners of working forests and small managed forests to access the Chicago Climate Exchange (CCX) in order to trade carbon credits. The Michigan DNR has developed a revolving technical assistance fund via a grant to the Delta Institute, to increase landowner participation by waiving initial inventory fees.

### **Basic Process**

Landowners sign a contract with the Delta Institute and enroll land in the program. In order to participate, a forester must inventory forest stands, with technical assistance fund covering costs for FSP lands. Delta institute serves as the “aggregator” of the carbon data and information for trading. A computer model uses the inventory data to enter into a CCX approved computer model to establish carbon baseline. Then, the model “grows” the forest stand each year to determine growth, rate of sequestration, and number of credits available for sale.

### **Why Do This?**

This project seeks to provide an incentive mechanism to reduce parcelization and fragmentation of forest land, as well as to enhance the sustainable management of forests owned by family forests, and encourage the use, promotion and acknowledgement of the ecosystem services that private forests provide.

This project will use trees and forests as a tool to address global climate change. This will be done using the strategies below:

- Promote the use of trees as a tool to reduce air pollution and cooling costs in cities and communities.

- Support the development of carbon markets that promote sustainable forestry.
- Promote actions to reduce the negative impacts of climate change on the forests of the Northeast.
- Increase public knowledge of the benefits of trees and forests in mitigating climate change.

Not only will carbon benefits be realized, but additional environmental co-benefits, such as improved habitat, reduced soil erosion to streams, drought resistance and watershed enhancement will occur.

Certainly, the economic implications for Michigan are substantial. Consider that Michigan has 10.6 million acres owned by non-industrial private landowners. The potential net revenue returned to landowners at 1 tons/ac/yr. is approximately \$14.8 million annually if the price is \$2.12 per ton. Returns shall increase as the price for carbon credits increases. These financial incentives could preserve family lands, develop rural economies, and limit urban sprawl.

#### **For More Information**

To find more information about the Michigan Carbon project, and how to enroll, please contact the Delta Institute or the Michigan Forest Stewardship Program. In Michigan, the contact is:

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There is also a program available for carbon sequestration on agricultural lands. You may find more information on that program at: <http://michiganclimate.org/>