



## **Policy Statement Update: Climate Change and Forests**

*Original Climate Change Statement Approved 9/10/2008*

*Revised Version Approved 6/5/2015*

### **Summary**

Forests have an effect on, and are influenced by, changing levels of carbon dioxide and other greenhouse gases (GHG) in Earth's atmosphere and the resulting changes in climatic conditions. This policy statement outlines management that enhances forests' ability to adapt to climate change and mitigate the effects of climate change through increased carbon sequestration and storage or forest restoration activities that reduce risk of high-severity fires. The first priority is to protect and prevent the conversion and deforestation of forestland. The second priority is to protect and restore ecological functions and full stocking to impaired forests, to afforest lands not recently in forest cover where appropriate, and to reforest harvested or disturbed forests where appropriate. The third priority is to implement excellent forestry practices and public policies designed to increase the proportional yield of long-lived forest products that will foster the sequestration and storage of carbon over these time frames.

Scientific data and conclusions of the United Nations Intergovernmental Panel on Climate Change overwhelmingly indicate that the climate of the world is changing primarily because of human-caused emission of carbon dioxide (CO<sub>2</sub>) and other GHG's. It is important to reduce GHG emissions through energy conservation and efficiency improvements, and the appropriate substitution of renewable for non-renewable energy sources. The Forest Guild believes that forest conservation and management can enhance our forests' capacity to mitigate and adapt to changing climatic conditions, and thereby continue to help support biotic life and human livelihoods.

### **The Forest Guild and its members have a responsibility to act; forests and forest management can be part of the problem or part of the solution**

Landowners' land use and forest management decisions impact the role forests play in, and how they influence and are affected by, climate change. Depending on these human choices and natural events, forests can be potential sources of carbon emissions as well as potential carbon sinks. Members of the Forest Guild have a responsibility to use their management skills to help our forests serve as part of the solution to this multi-generational challenge. Forest management practices can enhance and maintain forest characteristics that confer resilience and resistance to stresses caused by climate change. Many of these practices also help to mitigate climate change by increasing carbon storage and sequestration. Whenever feasible Forest Guild members will use forestry practices that help forests adapt to climate change and mitigate increasing CO<sub>2</sub> levels by sequestering and storing greater quantities of carbon where ecologically appropriate. In addition, the organization and its members will seek to serve as innovators of new practices and develop place-based models that demonstrate their effectiveness in mitigating climate change. The Forest Guild report *Climate Change, Carbon and the Forests of the Northeast* identifies some of these practices.

([www.forestguild.org/publicationsw/research/2007/ForestGuild\\_climate\\_carbon\\_forests.pdf](http://www.forestguild.org/publicationsw/research/2007/ForestGuild_climate_carbon_forests.pdf)).

## **Adaptation – forest management in support of ecological resistance and resilience**

Forestry that uses nature as a model (e.g., excellent forestry) is a good approach for ensuring healthy ecosystems that are best able to adapt to a changing climate. Excellent forest management is designed to maintain ecological characteristics critical to forest adaptation such as biological legacies, structural and compositional heterogeneity, and appropriate recovery periods between disturbance events. Forest management that enhances and maintains characteristics that promote resilience and resistance to stress and change must deal holistically with a full range of forest threats. Management decisions that improve ecosystem health will help forests resist the perturbations driven by climate change. Similarly, healthy ecosystems are better able to respond to and recover from disturbances. Forestry that encourages a naturally diverse forest community will facilitate adaptation in the face of uncertainty. However, as climate changes, novel natural communities will develop and a management focus on maintaining ecosystem function and process may become more important than preserving community composition. Adaptation practices will also need to consider the protection and maintenance of aquatic and soil resources through the modification of riparian buffer decision frameworks, harvest operations best management practices, and timing of management activities.

## **Mitigation - forest management and public policy in support of carbon storage and sequestration**

Avoiding deforestation and the diminishment of the forestland base is critical to mitigating the effects of climate change. Conversion of forestland to any other use releases stored carbon and damages global capacity to sequester and store carbon. Forest conservation also protects genetic diversity, provides refugia for threatened species, and facilitates species movement as the climate changes. Forestland can be protected through conservation easements and other tools including acquisition, robust zoning incentives and regulations.

Forest management choices made by landowners and foresters also play a role in determining forests' ability to mitigate rising atmospheric GHG (greenhouse gas) levels. Trees and forests have adapted over millennia to efficiently store carbon - a major component of their biomass. Therefore, the natural forest carbon cycle is our best model for carbon sequestration and storage that will also maintain biodiversity, clean air, pure water and a sustainable flow of forest products for human use. Forest management systems designed to maintain or increase the volume of above and below ground biomass will encourage the resilience of our existing forest communities by conserving soil moisture and minimizing the effects of rising temperatures on soil temperatures. In some cases this may require longer rotations, along with the maintenance of closed-canopy stands.

**Mitigation and Forest Products.** An important goal is the development of markets for wood products that remain in use for long periods of time and thus maximize long-term carbon sequestration benefits. Forest management outcomes that promote the production of long-lived wood products can reduce carbon releases in the short to intermediate term and should be encouraged. When wood is used for energy, public policies and investments should promote

accountability measures for forest sustainability on wood furnished to energy facilities as well as minimum (energy production) efficiency standards and local sourcing to minimize risk of greenhouse gas emissions in excess of fossil fuel alternatives. When harvesting wood for bioenergy, managers should implement the practices described in the Guild's Forest Biomass Policy and regional Forest Biomass Retention and Harvesting Guidelines or in similar guidelines, such as those available in the Lake States. These should be modified as necessary based on any emerging science to help ensure that biomass removals do not harm ecological structures and processes.

To promote forests serving as carbon sinks, the Forest Guild also supports the further development and adoption of GHG emissions offset markets that include rigorous accounting and accountability measures for forest sustainability, including regular third-party verification and integration of forest certification that is consistent with the Forest Guild's certification policy. To ensure the longevity and maximum potential benefit of these programs for both forest protection and carbon sequestration, the Guild supports forest carbon protocols that include strong forest management, additionality, and permanence requirements while allowing sufficient flexibility for foresters and landowners to practice excellent regionally-appropriate silviculture. Outside of offset markets, the Guild supports forest management that restores old forest structure and the function and structure of fire-dependent systems.