

March 31, 2009

Dear Reader:

I'm pleased to present the 2006 Midcycle Report on Inventory and Growth of Maine's Forests. After the USFS published the five-year inventory report "The Forests of Maine" (RB-NE-164, September 2005), the MFS began to receive queries as to when we would be able to update that data and, more importantly, when we could provide more detailed information about the growth, removal, and mortality processes that influence the final inventory. This midcycle report addresses that stated need.

At first glance it would be easy to overlook the amount of work that went into generating this report. It is no exaggeration to state that it represents the culmination of several years of joint effort by many people within the Maine Forest Service and the FIA unit of the USDA Forest Service's Northern Research Station. I want to take this opportunity to express my personal appreciation to those many people mentioned in the Acknowledgement section of the report; their efforts were central to assuring the quality of the data, and the resultant assessments that are the core of this document.

- The plot data (2003 plots) represents 3 years of data collection by Maine Forest Service field crews (2004-2006);
- Each of these years USFS quality assurance crews remeasured and compared results from a subsample of the plots to assure that the data met national data quality standards and maintained spatial and temporal consistency;
- Each year's field data was aggregated and scrutinized by USFS data management staff at the Northern Research Station;
- The raw data for those three years' panels were then compiled independently by the MFS and USFS biometricians/statisticians to assure that there were no imbedded programming errors in the compilation routines; and
- When MFS and USFS biometricians finished debugging processes and agreed on compiled values, the MFS generated this report.

Beyond my appreciation for the dedication of the MFS and USFS staff who worked to make this report possible, I am also gratified and reassured by what the analyses show. Despite increased demands for raw materials from our various sawmills, pulp mills, pellet mills, biomass processors, and other wood-using industries, Maine's forests are growing more than is being harvested, and today Maine has 93% more standing timber than it did in the 1950's. Moreover, although a working forest landscape, Maine's forests continue to serve as a successful backdrop for our tourism and recreation industries. Along with their direct economic contributions, Maine's forests continue to provide watershed, environmental, wildlife, and amenity benefits. They remain a signature resource of that "quality of place" that makes Maine unique. Although they face increasing pressures from development and changing uses, exotic pests, and expanded markets for raw materials they are remarkably resilient, and, I believe, will have even greater value in the future than they have in the past. In addition to their value as the source of raw material for our existing forest products industry, consider what we are learning about forests' ability to mitigate climate change and help meet our energy needs.

The forest inventory program is a critical foundation component of the MFS's ability to monitor and manage the health and sustainability of our forests. Beyond that, it is important that reports such as this are valuable to you, our clientele. We welcome your thoughts on how future analyses on this might be refined. Moreover, where we have just completed collecting the full remeasurement of the inventory plots, the USFS will now begin working on their report on the complete resampling. If there are there are things you didn't see in this report that you would like to see in that report, this is an excellent time to let us know.

Again, I want to thank the many staff who made this report possible. I look forward to comments from you, our clients and cooperators.

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Alec Giffen". The signature is fluid and cursive, with a long horizontal stroke at the end.

R. Alec Giffen
Director Maine Forest Service

2006 MID-CYCLE REPORT ON INVENTORY and GROWTH OF MAINE'S FORESTS



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2006 Mid-Cycle Report On Inventory and Growth of Maine's Forests

Executive Summary

This mid-cycle report is based on a select series of 2,003 matched plots. The combined 3 years of data is strong enough to provide the following estimates:

- Maine remains 90% forested, and 97% of the forestland is productive timberland (Appendix A. Table 1). Nonetheless, this report estimates a net loss in timberland of 96,000 acres; 30,000 acres changed to forestland, and 66,000 acres became new non-forested land uses. The major losses occurred in the Eastern Megaregion (29,000 acres) and in the Southern Megaregion (26,000 acres).
- There has been significant increases in timberland acreage for the Corporate Investor owner class in three of the four megaregions (Appendix A. Tables 2A, 2B, and 2D) and Statewide (Table 2), with an overall increase of 2.4 million timberland acres.
- There have also been significant decreases in timberland acreage for the Forest Industry owner class in three of the four megaregions (Appendix A. Tables 2A, 2B, and 2D) and Statewide (Table 2), with an overall decrease of 2.7 million timberland acres.
- In 2006, Maine's forests had an estimated inventory of 285 million cords of merchantable wood (pulpwood quality or better); an increase of 11 million cords since the 2001 inventory estimate (Appendix C. Figure 3).
- Current pulpwood quality or better volume is estimated at an average of 16.5 cords per acre. This is a 0.8 cord per acre increase from 2001 (Appendix C. Figure 1).
- Since 2001, there have been no significant changes in growing stock net volume or sawtimber board foot volume in any species group, in any of the four megaregions, or statewide (Appendix A. Tables 19A, 19B, 19C, 19D, and 19. And Tables 27A, 27B, 27C, 27D, and 27).
- 79% of the timberland area is in desirable stocking classes (moderately stocked and fully stocked), a minor decrease of 2% from the 2001 estimate. (Appendix A. Table 10).
- The 2006 growth to harvest ratio for growing stock quality trees is 1.15, a substantial increase from the 2003 estimate of 0.97 (Appendix B. Table 29). Growth to harvest ratios, by megaregion, ranged from 1.0 for the eastern and northern, to 2.31 in southern, and 1.35 in the western.
- Tracking net change in individual species groups sees a comparable range. Balsam fir for the first time since 1971 has a positive net change, while the net change of spruces is still heavily influenced by harvest and is -0.02 cords/acre/year. Red maple continues its positive trend with a net change of 0.01 cord/acre/year, while the combination group of sugar maple/beech/yellow birch is impacted by mortality, quality degradation, and harvest; resulting in a -0.01 cords/acre/year net change (Appendix C. Figures 4 and 5).