

**2004 Sustained Yield Calculation  
For Lands Managed by the  
Montana Department of Natural Resources and Conservation**

**Executive Summary**

Pursuant to MCA 2003 77-5-222, a sustainable harvest level of 53.2 MMbf has been calculated for forest lands managed by the Montana Department of Natural Resources and Conservation.

This sustainable yield calculation meets all of the administrative rules adopted by the State Land Board in September 2003, the objectives outlined in the 1996 State Forest Land Management Plan, as well as other policies, goals and objectives specified by the Department.

There is excess inventory on the state forest lands. Annual harvest could be increased to 58.4 MMbf for 70 years before falling back to the 53.2 MMbf sustainable yield level. Accelerating the harvest would provide more revenue to the trust beneficiaries (a 15% increase in Present Net Value) and move the forest toward the desired future condition at a rate similar to the strict non-declining yield harvest level of 53.2 MMbf.

The 53.2 MMbf sustainable yield is about 26% greater than the 42 MMbf sustainable yield calculated in 1996. The increase is attributed to a more complete inventory, an increase in manageable acres, better inventory data, consideration of a wider variety of management opportunities, and structural differences between the forest models used to make the calculation.

The 53.2 MMbf sustainable yield is 55% of the maximum biological potential of 95 MMbf. The biological yield is achievable only if using optimal regimes harvested at the optimal time. Most of the reduction is due to limited management opportunities on about 13% of the state forest land, withdrawals for Grizzly Bear core and buffer areas, and decreased productivity associated with uneven-aged management regimes. A variety of other management constraints had a lesser impact on potential harvest levels. This report estimates the incremental cost, in terms of both harvest levels and Present Net Value, of each set of management constraints.