

## PROGRESS IN SUSTAINABLE FORESTRY

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## ABSTRACT

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Technological innovations and improved harvesting practices in the past few years have made more species available for wood and pulp and paper production. The forest products industry is taking the initiative to implement sustainable forestry principles and ensure both the availability of fibers and the health of the forest. Industry initiative case studies are presented and discussed in this paper.

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## INTRODUCTION

The past decade has seen the emergence and the steady growth of new approaches for developing strategies to protect and restore the biological diversity and ensure sustainable development of our forests. Sustainable development is the development that meets the needs of the present without compromising the ability of the needs of future generations. Implementing sustainable forest management practices through partnerships is vital in meeting the growing demand for forest products while preserving the integrity of the forest ecosystem. This paper presents and discusses the following industry initiative case studies.

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## NCASI

Since the early 1980s, partnerships with public and private research organizations have been important parts of NCASI's forestry-related programs. Working relationships with universities, Federal agencies, and the Electric Power Research Institute were developed initially through active participation in the National Acid Precipitation Program. Recently, NCASI has been collaborating with these and other partners on research topics as diverse as wetlands, wildlife, watershed management, global climate change, and long-term site productivity. NCASI has found that research partnerships can yield important benefits. We have been able to undertake and complete ambitious projects that would have been otherwise impossible. Moreover, our partners have shared expertise and ideas that have greatly enhanced the quality of our research efforts and facilitated communication and acceptance of the results.

## BOISE CASCADE CORPORATION

Federal land management agencies have accepted ecosystem management as the approach they will use for their land management programs. Ecosystem management requires a landscape approach to meet its various ecological objectives. Realizing this need, Boise Cascade Corporation has initiated an ecosystem management demonstration project in its Minnesota region to effectively interact with public agencies and private landowners and to document the contribution of its lands in meeting regional biodiversity and other economic, social, and ecological goals.

Specifically, the objectives of Boise Cascade's Minnesota ecosystem management project are to (1) develop a partnership network with northern Minnesota landowners for setting landscape level goals for desired ranges of future conditions; (2) establish terrestrial, wetland, and aquatic ecological classification systems that are compatible with those of other landowners; (3) develop an integrated forest management information system that incorporates data and analytical capabilities for timber, fish and wildlife, watersheds, wetlands, cumulative effects, and ecosystem analyses; and (4) demonstrate, through adaptive management programs, silvicultural options that can be used to produce or maintain selected ecological conditions in forested landscapes. The primary tool for this project will be an ecosystem diversity matrix described by the combination of existing stands of vegetation, as defined by overstory homogeneous vegetation, and a delineation of potential late successional vegetation for a site (e.g., habitat types). The formation of the ecosystem diversity matrix creates ecological units that will be used for forest planning, including habitat, watershed, and cumulative effects modeling. These area classifications will fit into a larger hierarchical classification to allow watersheds and

regional landscapes to be interpreted and modeled in an appropriate manner.

Boise Cascade believes that the most appropriate goal for ecosystem management is maintaining an adequate representation of ecological units across the landscape. The Minnesota demonstration project and the ecosystem diversity matrix will quantitatively describe what Boise Cascade is contributing to regional diversity and provide a basis for discussions of regional ecosystem management goals.

## **POTLATCH CORPORATION**

Potlatch Corporation owns 350,000 acres of forest in northern Minnesota that are being managed on a long-term sustainable basis. In an effort to demonstrate responsible forest management to the public, Potlatch has been involved with the Natural Resources Research Institute and helped provide input to Minnesota's Forest Bird Diversity Initiative. In addition, the company has shared information from their forest ownership for Dr. Peter Reich's study from the University of Minnesota titled "A Stand to Landscape Approach to Sustainability and Biodiversity in Harvested and Undisturbed Forests." Forestry personnel at Potlatch have also contributed significantly to the development of "Best Management Practices for Water Quality and Visual Quality Guidelines in Minnesota" and require implementation on all lands they manage. Potlatch helped develop Minnesota's Logger Education Program and serves on the board of directors and is a member of the Forest Resource Partnership. Finally, the company is cooperating with various counties and the Superior National Forest to develop land-type associations and share bio-physical inventory information to implement landscape management on multiple ownership of forested lands.

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