

Tough Management Problems Demand Ecosystem Approach

A conceptual approach to managing change in ecosystems crossing natural and political boundaries is set forth in a just-published book, *Ecosystem Management for Parks and Wilderness*, edited by James K. Agee and Darryll R. Johnson. The need for cooperation among government agencies as well as across disciplines prompted the National Park Service, the U.S. Forest Service and the University of Washington College of Forest Resources to sponsor an ecosystem management workshop for scientists, planners, and managers. Out of this workshop, the book grew.

From the workshop's prioritization process, three needs emerged: a precise definition of management objectives for park and wilderness lands and how to integrate them with objectives for surrounding lands; more information about physical, biological, and social components of park and wilderness ecosystems from both sides of political boundaries; and key indicators of ecosystem condition as well as methods for evaluating

management effectiveness.

In addition to an introduction that outlines a direction for ecosystem management in the next critical decades, the individual contributors cover laws governing park and wilderness lands; paleological records that reveal the historic effects of climatic variations on vegetation change; succession and natural disturbances in relation to the problems of what can and should be preserved; managing ecosystems for large populations of vertebrates; the management of large carnivores; effects of air pollution; lake acidification; human ecology and environmental management; the role of economics; cooperation in ecosystem management; and management challenges in Yellowstone NP.

The 246-page book, with figures, tables, and glossary, is available for \$20.00 from the University of Washington Press, P.O. Box 50096, Seattle, WA 98145-5096.