

**Research Natural Areas Program
USDA Forest Service**

**NATIONAL STRATEGY
-Opportunities for the Future-**

July 1993

INTRODUCTION

The Forest Service Research Natural Areas (RNA's) Program maintains a network of 289 established areas and over 300 candidate areas representing common and unique natural ecosystems on National Forest System lands in the United States. These areas are managed in conditions minimally disturbed by human activities for nonmanipulative research, monitoring, education and to maintain natural diversity and ecological processes. Prompted by desires to improve the effectiveness of the current program and realizing that opportunities exist for an expanded role for RNA's in ecosystem management, RNA Coordinators agency-wide have been meeting over the last 2 years to evaluate new directions for the program.

The current document condenses these evaluations into a set of strategies aimed at defining opportunities for the next 5-10 years. The Strategy was developed by RNA Coordinators representing all Regions and Research Stations, with input from the national headquarters, and is intended for all managers and researchers who have a stake in the RNA Program.

This Strategy is an evolving document; it does not formulate direction or policy for the agency but is intended to motivate thinking and catalyze action as the ecosystem management approach is implemented. Specifically, it is hoped that ideas presented here will provide incentives and guides for integrating RNA's fully with new ecological approaches to management as forest land and resource management plans (forest plans) are implemented, amended, and revised.

The intent of the Strategy is to initiate immediate action toward some goals and to motivate planning toward others. Different priorities will guide implementation at national, regional, station, and forest levels.

For this report, natural areas are defined as areas managed for minimal human disturbance to perpetuate natural or near-natural ecological conditions (e.g., RNA's), and reference areas are defined as natural areas (designated or not) that serve as control sites (research or monitoring context) for comparison with treatments on lands where human disturbance occurs.

FUTURE ROLE OF RESEARCH NATURAL AREAS PROGRAM

In line with the Mission, Vision, and Guiding Principles for the Forest Service, the role of RNA's in the future will be characterized as follows:

The RNA's help ensure that we maintain representation of diverse natural ecosystems for future generations. The RNA Program finds, establishes, and maintains a network of sites that provides ecological reference areas of critical importance for research, monitoring, and education. The RNA Program works with other disciplines and staffs to coordinate the biodiversity and monitoring functions of many types of minimally disturbed areas (e.g., wilderness, special interest areas, wild and scenic rivers, etc.). Appropriate management of RNA's and integration of these areas with monitoring and management of other lands at many spatial and temporal scales enhance the ability of RNA's to provide for biological diversity and to support ecosystem processes. At the same time, expanded research on RNA's allows RNA's to contribute ecological knowledge that is essential for carrying out the Forest Service commitment to ecosystem management. The RNA Program is supported by all staff involved with ecological management, especially forest supervisors, district rangers, and their staffs, who support and utilize the essential contributions of RNA's.

OPPORTUNITIES FOR PROGRAM REORIENTATION

STRATEGY 1:

Promote linkages of the Research Natural Areas Program with efforts to implement ecosystem management.

RATIONALE. Successful development of ecosystem management depends on availability and use of ecological baseline information on natural composition, structure, and function and on effective monitoring. RNA's provide excellent reference areas for monitoring, yet this opportunity has been under-utilized. Further, opportunities exist to improve the biodiversity and monitoring functions on National Forest System lands by coordinating efforts of the RNA Program with other Forest Service programs that manage lands for minimal human disturbance.

Goal A: Work with ecosystem management programs within Forest Service at regional, station, and especially forest levels to integrate RNA's into ecological management strategies, emphasizing opportunities to coordinate biodiversity, and monitoring functions of many types of natural areas (RNA's, wilderness, special interest areas, etc.) and to use areas as baselines for monitoring.

Goal B: Develop national and regional priorities for RNA's that are responsive to goals of ecosystem management and to biodiversity needs at multiple spatial and temporal scales.

OPPORTUNITIES TO CHANGE ADMINISTRATIVE PROCEDURES

STRATEGY 2:

Provide means to adequately fund the RNA Program, specifically ensuring support to the national forests.

RATIONALE. The RNA program currently operates on an ad-hoc budget, derived from many staff areas. Lack of secure funds limits the ability of the RNA Program to carry out its functions or to be of significant use in ecosystem management.

Goal A: Secure Federal funding for the RNA program at all levels in National Forest System and Research budgets.

Goal B: Encourage creative funding for individual RNA activities through partnerships and cost sharing.

STRATEGY 3:

Streamline RNA establishment procedures.

RATIONALE. The current process for establishing RNA's is burdened with outdated procedures involving redundant efforts and expending unnecessary staff time and money. The role of RNA management in forest plan implementation is unclear.

Goal A: Review establishment requirements for RNA's and develop a revised, efficient process.

Goal B: Clarify the role of forest plans and National Environmental Protection Act (NEPA) procedures in RNA establishment and management.

Goal C: Standardize procedures for RNA evaluation, selection, and establishment once a revised process is approved.

OPPORTUNITIES TO CHANGE PROGRAM MANAGEMENT AND IMPLEMENTATION

STRATEGY 4:

Within management direction provided by forest plans, review RNA monitoring and management strategies and adjust as appropriate, to protect the areas and promote desired ecological conditions (composition, structure, function, and natural succession) for the sites.

RATIONALE. Past intervention in natural disturbance regimes (e.g., fire and pest suppression), intensive management on adjacent lands, and heavy research and recreational use in some sites have created situations in which review and adjustment of monitoring and management strategies are needed to ensure that the natural diversity and succession for which the areas are recognized are protected. Lack of monitoring and appropriate management adjustment can result in degradation of the sites, making them useless as reference areas for ecosystem management.

Goal A: Review monitoring requirements for RNA's in forest plans and recommend standardized but flexible baseline approaches to ecological monitoring for RNA's.

Goal B: Expedite effective, timely RNA management, linked to monitoring, with appropriate forest plan amendment if needed.

STRATEGY 5:

Expand research in RNA's without impacting the ecological values for which the areas are selected.

RATIONALE. Although RNA's are specified for nonmanipulative use, this has been difficult to define and enforce. As a result, some RNA's have received inappropriate use for research and administrative studies. On the other hand, many RNA's are not used at all for research and are greatly under-used by Forest Service Research and National Forest System managers.

Goal A: Develop guidelines at regional and station levels for research and administrative studies on RNA's that ensure site protection, recognizing the need for flexibility due to the variable nature of different sites.

Goal B: Expand use of RNA's by Forest Service and external research communities in ways that contribute to forest plan goals and objectives.

Goal C: Establish flexible data management systems at regional and station levels that promote scientific study of RNA's and facilitate use of research and monitoring information in ecosystem management.

STRATEGY 6:

Improve support for the RNA Program through education, publicity, and communication.

RATIONALE. Lack of knowledge and support for the RNA Program within and outside the Forest Service currently limits the ability to establish new areas, manage established areas, use them within ecosystem management, and obtain scientific information from them.

Goal A: Develop a promotional program for National Forest System managers and researchers (Forest Service and external) that stresses the role of RNA's in ecological approaches to management.

Goal B: Develop promotional programs for the public emphasizing support and understanding of RNA's, not encouraging public use.