

From New Perspectives to Ecosystem Management

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This paper summarizes a report by the Pinchot Institute on the implementation of New Perspectives.

Prelude

The July 1990 "Policy Update" column in the Society of American Foresters' *Journal of Forestry* quoted George Leonard, the U.S. Forest Service Associate Chief, as saying that changes in national forest management to protect the northern spotted owl "could be the most rapid and far-reaching that we have ever seen." Then the author turned to a Forest Service initiative called New Perspectives that was, he said, "expected to help the Forest Service to respond more flexibly to public concerns while maintaining forestry's traditional science base" (Rockwell 1990).

The author had made his point: the currents of change were tearing at the Forest Service; New Perspectives might—just might—help the agency navigate the conflicting currents. Within the agency there were those who hoped New Perspectives might even help put it in the forefront of change in forest management.

By the late 1980s the Forest Service was under siege. The old issues of clearcutting and below-cost timber sales (sales that don't recover what it cost to put them up for sale and build access roads), within the public eye for more than a decade, had been joined by another—the loss of "ancient forests" on the national forests in the Pacific Northwest. The debate over the ancient forests focused on the survival of the northern spotted owl, which, by virtue of the Endangered Species Act, gave Forest Service critics a legal handle for forcing change in management of the most timber-productive forests in the National Forest System.

On the Andrews Experimental Forest on the Willamette National Forest in Oregon, however, Forest Service old-growth researcher Jerry Franklin and his colleagues were experimenting with an ecologically sen-

sitive approach to timber harvesting that they called "New Forestry." New Forestry, which emphasizes maintaining the ecological structure of the forest while permitting some timber harvest, was attracting attention. It was an example of Forest Service ingenuity—research working with managers to provide answers to real management challenges. While the Forest Service had to carefully distinguish between Franklin's New forestry and New Perspectives, New Forestry's integration of research and management became a major theme of New Perspectives.

If the actual origins of New Perspectives are obscure, it was a long time in development. Hal Salwasser, the original director of New Perspectives, recalls that Chief F. Dale Robertson told a congressional committee in the late 1980s that the Forest Service was planning to embark on something called "New Perspectives in Forestry." A task force apparently was put to work to further develop the concept, with Salwasser as a member.

By 1989, Salwasser, the assistant director of the Forest Service's Wildlife Management staff in the Washington Office and a highly respected wildlife biologist, had been put in charge of the fledgling New Perspectives effort. Salwasser was made responsible to both the Deputy Chief of the National Forest System and the Deputy Chief for Research—the first evidence of what was to be one of the principal themes of the effort—a more intense collaboration between managers and scientists.

To further shape New Perspectives, Salwasser set out on an odyssey to national forests around the country to see what new ideas were being applied in the field. He concluded that individual national forests were displaying a lot of initiative that needed to be exploited. Thus there arose another New Perspectives premise—the program would concentrate on stimulating innovation in the field, capturing ideas, and disseminating them around the National Forest System (Salwasser 1990).

The formal public launch of New Perspectives took place in June 1990. The Pinchot Institute for Conservation convened some 60 persons at the Morris Arboretum in the Philadelphia suburbs for what was labeled a "strategy retreat" on New Perspectives. The purpose was, in the words of the chronicler of the meeting, "to stir ideas for program action, not to carve recommendations in stone." Salwasser told the group that New Perspectives would "function on an evolutionary model [with] incremental change in response to shifting incentives, new scientific knowledge, and broadened goals for public lands and resources" (Ebenreck 1990).

It was more than a year before Chief Robertson approved a charter for New Perspectives, evidence both of the difficulties of conceptualization of a new management initiative within the framework of multiple-use and the continuing evolution of Forest Service thought. According to the charter, New Perspectives was to: 1) strengthen the ecological basis of land management; 2) sustain the diversity and productivity of the land for multiple-resource values and uses through ecosystem management; and

3) improve the responsiveness of land management to public concerns (Salwasser 1991).

Behind the rhetoric, however, were the basic New Perspective principles established through more than two years of field work by Salwasser and his small staff and extensive discussions with Forest Service personnel, citizens, and academics: stimulation of innovation in the field; a close working partnership between managers and researchers, and involvement of the public in national forest management decisions.



New Perspectives was about institutional change in the Forest Service. Through on-the-ground demonstrations, problem-focused research, and constituent engagement, New Perspectives was designed to stimulate initiative and innovation. Messages from the Washington office on New Perspectives implementation emphasized principles, broad objectives, and expected results, but did not provide specific direction on how land and resources were to be managed.¹

Reading the charter of New Perspectives, four themes emerge:

- ◆ Ecological systems were to be sustained for a wider variety of benefits and uses now and in the future;
- ◆ The decision-making process was to be opened to more effective participation by people in making choices on what to do about their resources;
- ◆ Scientists and resource managers were to be brought into stronger partnerships for adaptive land and resource management; and
- ◆ All aspects of natural resources conservation were to be integrated.

While many within the Forest Service took advantage of New Perspectives to change management direction and practices, others wanted more specifics. Understandably, there was a tension between philosophy and prescription—one that remains as the Forest Service seeks to implement New Perspectives' successor, Ecosystem Management.

New Perspectives was not without controversy. Critics inside and outside the Forest Service viewed it as "smoke and mirrors," heavy on public relations, light on substance. In at least one instance,

environmentalists charged that the Forest Service promoted a plan to harvest timber in a sensitive watershed under the guise of New Perspectives, subverting an implicit agreement that would have limited harvests.² While a number of National Forests recognized the opportunities in New Perspectives and embraced the effort, on some forests the reception was lukewarm at best. Nonetheless, Forest Service Chief F. Dale Robertson made it clear that New Perspectives was one of the three legs of Forest Service long-term planning, along with the

forest plans and the 1990 Resources Planning Act (RPA) Program—the agency's long-range strategic plan.³

In 1992, the Pinchot Institute initiated a retrospective evaluation of New Perspectives under a cooperative agreement with the Forest Service. One purpose was to find out what the experience with New Perspectives could tell those charged with implementing ecosystem management.

Three Perspectives on New Perspectives

Pinchot Institute researchers visited three National Forests—the Ouachita (Arkansas and Oklahoma), the Klamath (California) and the Shawnee (Illinois). On each forest, researchers talked to forest staff and representatives of forest interest groups. They also went into the field to look at what forest personnel felt were their best examples of New Perspectives and ecosystem management in action.

The three forests chosen for field visits differ in size, biophysical features, work load, budgets and staff, and political setting. Consequently, New Perspectives took on a much different shape on each forest. Nonetheless, each forest used New Perspectives to address challenging social, economic, and political issues.

On the 1.6-million-acre Ouachita National Forest, the impetus for New Perspectives was strong local opposition to clearcutting. Under an agreement with Arkansas Senator David Pryor,

Forest Service Chief F. Dale Robertson imposed strict limits on the use of clearcutting and designated the Ouachita a lead "New Perspectives forest."⁴

With an explicit focus on alternatives to clearcutting,⁵ the centerpiece of New Perspectives is a long-term research package. With the help of special funding from Congress, more than 40 scientists from Forest Service research units and a half-dozen universities are working with forest managers on a three-phase research program that will last at least 30 years.⁶ The intent is to develop alternative silvicultural systems that recreate the natural shortleaf pine-hardwood forest—an intermediate stage of succession that is the product of fire and disturbance. Thus some harvesting is important to maintain the desired successional stage.

However, ecosystem management on the Ouachita also emphasizes, in the words of forest ecosystem management coordinator Bill Pell, "more cooperative relationships with citizens, organizations, and local communities."⁷ The Ouachita's brand of New Perspectives is further distinguished by a 13-person advisory committee of technical experts—ecologists, foresters, and social scientists, among others—from outside the Forest Service.⁸

Whereas the Ouachita was designated a New Perspectives lead forest by Chief Robertson, Klamath National Forest personnel simply declared the Klamath a "New Perspectives forest." To

Klamath staff, New Perspectives offered a chance "to show we could manage for resources beyond timber."

Consisting of 1.68 million acres in Northern California (and a small area in Oregon), its coastal mountains and high desert make the Klamath a biological mixing place. The highly productive (for timber) western districts of the forest were extensively cut for three decades following War II. About 40 percent of the forest burned in 1987. Today, there is a need to rehabilitate lands recovering from past harvesting and fire.

To provide habitat for the northern spotted owl, 55 percent of the Klamath's 1.68 million acres are closed to any timber cutting, and timber management is constrained on another 22 percent.⁹ Over the past decade the timber program has been in free-fall. From a harvest of about 350 million board feet a year a decade ago, the FY 1993 projection is for 15 to 17 million board feet.

Because of the reduced timber program, the Klamath is facing severe budget and staff cuts. The forest is desperately seeking funding for their ecosystem projects—the key, in the words of managers, to holding on to a core multidisciplinary organization.

Personnel on the Klamath see their forest as a microcosm of "the Forest Service of the future," presumably a pared-down, multidisciplinary core staff working closely with the forest's publics to manage ecosystems for sustained production of a variety of ecological, so-

cial, and economic benefits. They foresee a time when, through ecosystem management, they manage the forest not for specific quantities of commodities or uses but for a desired future condition that includes both ecological health and direct benefits to society.

On the Shawnee, "New Perspectives existed before it got a name." By this, forest personnel mean that they initiated innovative, New Perspectives-type programs well before the official New Perspectives program began.

Established during the Great Depression from worn out farmland, the Shawnee National Forest is a small forest incorporating 256,000 acres in four ranger districts scattered across southern Illinois. The Shawnee's forest plan, amended in the late 1980s to implement agreements settling appeals by environmentalists, emphasizes the restoration of native ecosystems to pre-settlement patterns. Though the Shawnee's ecosystem restoration programs were launched well before the advent of New Perspectives, forest personnel say New Perspectives validated their innovative approaches.

Distinctive Approaches, Common Themes

It is clear that each forest has put its distinctive stamp on New Perspectives, although restoration is a common theme. The Ouachita is experimenting with alternatives to clearcutting in the hopes of restoring something approaching a "natural" vegetative mix. The

Klamath is seeking to restore watersheds hit hard by timber harvesting and fire, and the Shawnee is working to maintain existing native ecosystems (i.e., limestone barrens) and to break up the expansive non-native pine plantations to diversify wildlife habitat.

But one can see more subtle applications: on the Ouachita, silviculturists charged with marking a single-aged stand to create a future two-aged stand discovered a swath of younger growth regenerated after a blowdown some years ago. By leaving the swath untouched, they were able to create a three-aged stand (the retained overstory, the younger swath, and new growth) and provide greater habitat diversity.

On the Klamath, the Ukonom ranger district is experimenting with intensive public involvement in planning for the management of a large watershed.¹⁰ The Oak Knoll district has developed a course in natural history for teens at risk at a local high school; the forest is the students' laboratory.¹¹ On the Happy Camp district, managers and researchers are investigating ways to accelerate the development of interior forest conditions through the deliberate cutting of sparse stands to stimulate denser growth of trees.

The Shawnee has enlisted the aid of an impressive number of cooperators, including The Nature Conservancy, Quail Unlimited, Ducks Unlimited, and state agencies, in its restoration projects.

In response to our question "What does New Perspectives

mean to you?", personnel on all three forests struck some common themes: freedom, openness, and consideration of the human dimension to forest management. A Ouachita staff member: "Ecosystem management depends as much on social and political sensitivity as biological knowledge." To a Klamath staff member, New Perspectives was "A philosophy, a new way of doing business. Equality of all resources." And for a Shawnee manager, "New Perspectives is a more open style of management."

To be sure, New Perspectives was not always a positive experience. To some, the lack of financial support (and incentives), the inherent time lag from planning to implementation, and continuing emphasis on meeting timber targets all contributed to feelings of frustration and skepticism.

Survey Results Supported Field Findings

To complement the field research, Anne Black, a research assistant at Grey Towers National Historic Landmark, conducted a survey of randomly-selected Forest Service personnel seeking to find out to what degree New Perspectives contributed to change taking place in the agency. Survey results echoed much of what we heard in the field.

- ◆ Some 73 percent of respondents agreed that New Perspectives was a step in the overall transition of the agency from commodity production to ecosystem management.
- ◆ Asked to rank seven possible

long-term objectives of New Perspectives, "To respond to and incorporate changing social values into Forest Service management," was far and away the leader.

- ◆ Some 27 percent of respondents said that New Perspectives "pushed us to look at some things we wouldn't have otherwise." Some 18 percent said it "gave us freedom to experiment and try new approaches." On the other hand, some 22 percent felt that New Perspectives did not make a difference, while 6 percent felt that it was "simply a hoop to jump through."

And just how successful was New Perspectives in addressing the charter's four principles? Responses were ambiguous. Sustaining ecosystems got the highest marks—44 percent of responses were in the positive range, while about 32 percent were neutral and about 25 percent felt that New Perspectives was unsuccessful in meeting its objectives. Success in seeking integration of resources also got positive marks. But for the two other principles—building partnerships and opening the process—assessments of success were only middling. Neutral ratings led for both principles. While there were more positive than negative votes for building partnerships (35 percent to 29 percent); negative votes actually outpaced positive ones for "opening the process."

Written comments accompanying survey responses reinforced

these themes. To one respondent, New Perspectives meant "airing opinions, working together, scientific changes." Another said that the "trust level increased with more open communication [with people with other resource backgrounds]." And "New Perspectives [gave] us permission to see beyond the targets and determine the best methods of protecting and managing the ecosystem."

The survey also sought to identify obstacles to the implementation of New Perspectives principles (or Ecosystem Management). The budget process and Congressionally set production targets (both closely linked) were seen as the major obstacles to change. In answer to the question "What do you think is/are the major obstacle(s) to change," 35 percent of respondents rated the budget process number one, while Congressional targets were not far behind with 32 percent. Lack of internal support for change (19 percent) was a distant third.

While not directly identified as an obstacle in the questionnaire, respondents gave a relatively low rating to the adequacy of current knowledge in systems ecology, especially when compared with knowledge about single species. Respondents also saw deficiencies in knowledge of the social values of local and regional users. However, respondents also said that knowledge was poor on markets and production.

There was no clear consensus on the most important next step—an important point in and of itself.

Asked to rank seven possible actions, there was only a spread of five percentage points between highest and lowest. "Focus on changing the Forest Service's organizational culture" was the top choice but—but was selected by only 89 persons (17 percent). "Revise the budget system" and "define terms and establish guidelines at the national level" each were the number one choices of 15 percent of respondents, while 14 percent gave priority to communicating lessons learned.

There was, however, broad agreement that "unless expectations for outputs change, even strong verbal mandates will have little effect"—a perception that could have serious implications for the implementation of ecosystem management as well as other agency initiatives.

Differences between Forest Service researchers and their National Forest System counterparts also are worth noting, given the increased reliance on research and adaptive management in the implementation of ecosystem management. (Since researchers as a group tend to be in higher grade levels, their responses were compared with those of respondents in comparable grade levels in the National Forest System.)

Overall, researchers viewed their relationships with the National Forest System more positively than did their NFS counterparts; researchers were positive while NFS respondents were only lukewarm. Researchers rated Forest Service commitment to New

Perspectives principles higher than the NFS sample and were more positive about the overall success of New Perspectives.

New Perspectives Did Stimulate Change

From our field examinations and the survey results, we conclude that New Perspectives has indeed stimulated change. However, because of its relatively short life "on-the-ground" results are difficult—if not impossible—to assess. Some projects—the intensive silvicultural research on the Ouachita is an example—have been attributed to New Perspectives, yet one can reasonably conclude that given the political turmoil, something would have been done—New Perspectives or not. Nonetheless, New Perspectives did prove a convenient vehicle for action. Similarly, Klamath personnel had to do something to respond to dramatic changes in their working environment; New Perspectives permitted them to expand their vision and argue for their new forest perspective. The Shawnee is proud of its ecosystem restoration efforts which officials believe reflect the "New Perspectives spirit" even though it began its barrens restoration efforts as far back as 1987.¹² Similarly, survey respondents felt that there were relatively few totally new projects inspired by New Perspectives, but indicated that New Perspectives principles were injected into a number of ongoing projects.

Thus a fundamental question: To what extent would presumably "new" projects have been initiated

if there had been no New Perspectives? It is possible, even probable, that at least some would have emerged. But managers we talked to were adamant that New Perspectives gave them the freedom to take risks and try new approaches. Similarly, a significant number—51—of survey respondents agreed that New Perspectives stimulated their thinking and pushed them to try things they would not otherwise have tried, while another 33 respondents said it gave them the freedom to experiment and innovate. One can hypothesize that the “new” projects would have been considerably different, or implemented much more slowly, in the absence of New Perspectives.

Conversations with personnel on the three pilot forests, an examination of projects in the field, and analysis of the survey results confirm—if there was any doubt—that change is indeed taking place. It would be a mistake, however, to focus exclusively on projects; New Perspectives is a symbol for change in attitude and behavior that transcend individual projects. Moreover, individual forests are using New Perspectives and Ecosystem Management to respond to powerful social, economic, and political forces.

New Perspectives implies change in the very purposes and objectives of national forest management. The Forest Service already is finding itself de-emphasizing the production of raw material for commerce and increasing attention to non-commodity and

amenity resources. It may also be called upon to use the forests as tools for providing broader social benefits. On the Klamath, for example, the Oak Knoll Ranger District is working with at-risk youth at a local high school. (“We would not have done this without New Perspectives. New Perspectives gave us a chance to sit back and look at how we can do some things that have no immediate financial benefits.”)

Conclusions

What conclusions might be drawn from this?

In our view, **New Perspectives, and Ecosystem Management, is more a *process* than specific *projects* or *practices*.** As we have pointed out in this report, each of the three forests are approaching New Perspectives/Ecosystem Management in much different ways. People should not expect to see highly specific directives on field implementation. Rather, the emphasis should be on principles, goals, and standards of performance.

Experimentation should continue to be encouraged. New Perspectives put a premium on local experimentation and innovation. The original charter for New Perspectives was spare on directives while emphasizing general results anticipated. In this vein, the three forests were all trying something different, driven by what they perceived as their own needs. Forests need the freedom to experiment, to shape programs to address their special issues and opportunities. Nonetheless, forests need

tools to help them accomplish their New Perspectives/Ecosystem Management initiatives. From the Klamath: "It would have helped to have some examples of landscape management practices and terminology, some basic theory."

Ecosystem Management is going to be extremely complex and challenging. Ecosystem management requires attention to fine detail to keep "every cog and wheel." This will require skillful, innovative managers. Ecosystem Management means dealing with social, political, and economic systems, too. As one manager told us, "We may be good at addressing biological sustainability, not so good at social and economic sustainability." Survey respondents also gave low marks to the adequacy of knowledge about social values of forest users. And there is a need for management continuity—silviculturists and others who over time, come to thoroughly understand the biological opportunities and limits of a particular forest's ecosystems.

Functional organization and budgeting are barriers to implementation of true ecosystem management. Klamath personnel are distressed at how integrated projects were distributed among functional staff for review, destroying the integrity of ecosystem-based projects they had struggled to develop. For example, the forest's proposal for the Somes Butler landscape on the Ukonom Ranger District was returned with funding assigned individual resource projects rather than inte-

grated management of the entire landscape.¹³ In the view of forest personnel, it is difficult, under current procedures, to evaluate integrated projects. They argue further that the whole is more than the sum of its parts, and functional analysis fails to account for the real benefits in achieving a desired forest condition rather than outputs. Likewise, budgets and appropriations do not provide the flexibility required for long-term, holistic management. "We are testing New Perspectives with old perspectives organization and funding," was how one forest put it. Likewise, respondents to our survey also placed the budget system foremost among obstacles to change.

New ways of accounting for costs and benefits will have to be found. The return on investments in ecosystem health can't be fully captured in dollars. New methods of assessing costs and benefits that take account of multiple unpriced and priced benefits will be required. As one staffer on the Ouachita put it: "If we are going to be held responsible for sustaining ecosystems, we cannot just measure economic feasibility from a timber standpoint." Staff on another forest (Klamath) spoke of the need to identify and account (economically) for "ecosystem benefits." And another: "Fund us for management, not just to meet the ASQ (allowable sale quantity of timber)." Many survey respondents concurred; Congressional targets ranked second only to the budget process as an obstacle to

change. New approaches to management implied in Ecosystem Management will require the approval and cooperation of the Office of Management and Budget and the authorizing and appropriating committees of the Congress.

New systems of incentives and rewards for personnel should be developed. Forest personnel complain that they are evaluated on the production of only a few tangible "products"—not the overall quality of management or the maintenance of healthy ecosystems. The Forest Service must figure out a way of rewarding personnel for *quality* management of ecosystems *and* for achieving hard targets.

Stronger linkages between the national forests and researchers (public and private) are essential. Research involvement, especially that of Forest Service research, varies widely among forests. Progress is being made, but research and the national forests are still not working closely on major management questions. National forest managers often do not know how to ask for help; researchers have difficulty swiftly shifting project focus and priorities. (Interestingly, as survey results show, researchers have a far more positive perception of cooperation than do their National Forest System counterparts.) There is a need for knowledge of a kinder, gentler management; new ways of thinking to address integrated management—not stands and compartments. Inasmuch as ecosystem management

encompasses the human dimension, greater attention should be provided research in the social aspects of ecosystem management.

New ways of engaging the public will be required. The Chief's first principle of Ecosystem Management was to "engage the public in a higher level of dialogue." Forest interests are skeptical of New Perspectives and ecosystem management. The development of innovative ways of engaging the public in decision processes will be essential.

Managers require state-of-the-art technical tools, especially geographic information systems. The lack of state-of-the-art tools, especially geographic information systems, is a major obstacle to the management of ecosystems at larger scales. On the Ouachita, maps for an 8,500-acre landscape management plan were drawn by hand and Pinchot Institute consultant George Parker observed that landscape divisions were based more on current conditions than on ecological potential. Of the three forests visited, only the Klamath had access to an up-to-date geographic information system, made available through a partnership with the University of California at Davis.

The Risk of New Perspectives
New Perspectives was ambitious. The implicit objective was to do nothing less than to change the course of the Forest Service. And New Perspectives was bold—even risky. In challenging some of the basic precepts of the agency, it released agents of change through-

out the Forest Service. And therein lies the risk.

Throughout this report we have emphasized that New Perspectives—and Ecosystem Management in its broadest interpretation—is philosophy, attitude, and above all, *process*. In encompassing human social systems, New Perspectives—and Ecosystem Management—shrugged off the constraints of old definitions of resource management in order to maintain relevance in an increasingly complex and demanding society.

However, if Forest Service officials are unable to carry through with the promise of New Perspectives—or, perhaps worse, if Ecosystem Management degenerates into a standard set of practices backed up with page after page in the Forest Service Manual, a great

many people will be disillusioned. The agency will suffer a setback to creativity and innovation that will be difficult to overcome.

This said, there obviously is a need for some guidance. This can take many forms: broad definitions, general criteria, some standards of performance based on the achievement of healthy ecosystems. There will always be tension between those more comfortable with ambiguity and risk, and those who want the security of specific practices and prescriptions. Certainly, there is room for both in this world. However, Forest Service officials should not be too accommodating to those who want practices and prescriptions; the challenge will be to continue to encourage and nurture those who truly heard the message of New Perspectives and embraced it.

Notes

1. Salwasser, Hal, et. al. Charter: New Perspectives for Managing the National Forest System. March, 1991.
2. See, for example, Saul, Susan, "A New Perspective on New Perspectives," *The Legacy*, Pinchot Institute for Conservation, Issue No. 16; Lange, Jonathan I., undated, "Opposing Viewpoints on New Perspectives: A Preliminary Report on the Shasta Costa Process," unpublished report to the Forest Service; Foss, Tim, "Critical Response," and Miller, Greg, "Critical Response" in "Proceedings: Turning New Perspectives into New Realities," proceedings of New Perspectives National Conference, December 2-5, 1991, Roanoke, Virginia, pages 8 and 9.
3. Robertson, F. Dale. 1991. "Reaffirming the Forest Service's Pathway Into the Future: Taking Stock in Times of Transition." In *The Friday Newsletter*, December 1992.
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7. Ibid.

8. Pell, op. cit.
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