RHETORIC AND THE RESTORATION LANDSCAPE:
FOREST RESTORATION IN ENVIRONMENTAL DEBATE

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Forest restoration on federal land has become the focus of an ongoing public debate in the West. Interest groups on various sides have engaged in a rhetorical contest to define restoration in ways that accord with their own ideas about the use and management of the nation’s public lands. This study examines the positions taken by different groups and considers the rhetorical claims they make. Disputes over meanings and practices have thus far limited the chances for a meaningful restoration program. Science, industry, and the environmental community have all argued that their respective agendas and values should determine a public policy for restoration. Collectively, their arguments map out a middle ground in the “restoration landscape” where the various interest groups must eventually come to agreement. Although intransigent eco-politics have slowed progress toward a goal of restoring forest ecosystems, the continuing rhetorical exchange shows these competing interests moving toward inevitable compromise. The policy outcomes for restoration can include radical reform within the existing management structure: ecological restoration officially declared a federal priority in an equitable and realistic program prescribed under law. Thus the restoration debate gives us reason to hope that ecological health, sustainable use, and social accord may all be restored to western forests.
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1. INTRODUCTION

The Idea of Restoration

Around the West these days, anyone who follows forest issues has heard the buzz: the new direction in forest management is restoration. After a hundred years of headlong use and exploitation in the name of progress and development, now comes time to acknowledge the damage that has been done. Forest ecosystems have been altered and degraded by human actions—fire suppression, logging and road-building above all—to the point of failing health and ecological function. Everyone who cares now recognizes the problem. And as conditions go from bad to worse, restoration is touted and talked about on all sides as the cure for our ailing forests. But the cure may be slow in coming.

What does it mean, to restore forests? There is no real agreement. Ask different people and you get different answers. What, in reality, is the situation we’ve brought about? How do we deal with it, or hope to change it? Those questions are also open to wide disagreement, seemingly endless debate. Constantly now, in newspapers editorials, agency press releases, interest group position papers, and in the talk around timber towns, you hear people arguing the case for restoration in ways that support and attempt to further their own ideas about how forests should be managed—to what ends and for whose benefit. Because of that, to follow the debates and public pronouncements in which restoration gets invoked as the salvation of western forests is often to become more confused than informed.

For the new millennium restoration can be seen as a worthy goal, an ideal over which people must struggle before it can ever become a reality. At this juncture, restoration should be regarded more as rhetoric than reality—a situation in which the rhetoric outstrips and obscures the real possibilities of restoration. Each side in the debate imagines a program of restoration to serve its own ends. The talk that swirls around the subject is mostly meant to capture the idea of restoration, in support of particular agendas and radically different ideas about what our public lands should be, and where management should go from here.
For those who care none of it seems very convincing, as far as the possibilities and true potential for restoring ecosystems are concerned. Credible information gathered through experience is notably lacking; generalities are what you usually hear. Simplistic propositions are made about restoration of complex ecological processes, as well as the social implications of the management changes that are proposed along with them.

What the public discussion about restoration does offer in abundance are fascinating, sometimes frustrating lessons in environmental discourse: how the rhetoric surrounding controversial environmental issues functions and plays out; and some clear perspectives on how ideas are used and misused by partisans in environmental debate. The national forests of the West are already the focus of intense public discussion and disagreements about how public land will be managed and used. In the coming years they will be a proving ground for the idea of restoration. The debate over what that should mean blends ideology with ecological complexity, and thereby brings new notes of discord to forest management controversy. Making progress in restoration will mean coming to at least some agreement on definitions, methods, and goals. In the public discussion we hear a chorus of voices arguing over what those will be, still a long way from harmony.

What do people mean when they say they want to “restore” forests? As I have said, there is really no agreement. Therefore this essay will consider restoration as an issue of forest management that is being driven along—to the extent that it goes forward at all—by a rhetorical debate among competing voices and interest groups. My thesis regarding this debate is, first, that seemingly irreconcilable values and philosophies frame the debate and identify its key players, with different groups using the idea of restoration to argue their own version of an eco-social order. Second, that while definition and agreement are necessary before any program of meaningful restoration can go forward, the rhetoric on all sides makes that difficult; the situation now, with contending interest groups all trying to make their case for restoration by pitching it as something different, calls the actual practice of restoration into question. And finally, that compromise should be possible in deciding where and how to restore the public’s forests, and competing interests must come to it in the end.

Developing this thesis means, in effect, offering a rhetorical response of my own to what I hear in the debate. Starting out, I take on the job with rather more trepidation than
self-assurance. Readers may wonder what insight I can offer into forest restoration. My past experience as a worker and contractor on the national forests gives me some—a leg up in observations and opinions. Beyond that, I bring no real expertise to the discussion, especially where the politics of forest management are concerned (when you work on public lands you generally avoid the political wrangling that goes on around them, while at the same time listening always for rumblings of change in the air).

While my interest in restoration comes from a background in public-lands forestry, the essay itself has its foundation and draws from a collection of university coursework. Studies in sociology and environmental activism, fire science and forest ecology, and public-lands policy all combine to give the student a wider view of the restoration landscape—what forest restoration means, and the issues surrounding it.

My own views on forest management do not favor any one group’s ideas. Though I have had some logging jobs, I am not a logger. I worked a lot over the years with the U.S. Forest Service, but hardly at all as a Forest Service employee. As a non-scientist I can only admire what science contributes to environmental awareness and debate. I have never been an active environmentalist, though my sensibilities and sympathies mostly tend that way. This non-affiliation makes it necessary for me to declare my own rhetorical stance before going on: that of a skeptical citizen who is worried about the fate of public forests, one who listens hopefully (with more hope than conviction, one has to admit) to all the talk about restoring forests to sane and sustainable conditions of ecological health and human use.

I have no particular axe to grind with any of the people or factions who talk publicly about restoration. At the same time, I find a lot that is questionable in the arguments of them all—as would anyone who knows much about forests around the West, the condition they are in and how they got that way. The way these issues are talked about publicly begs some response from a public that so far has not made itself heard. The voices of ordinary citizens seem too easily lost in the debate, amid the clamor of factional rhetoric.

Another reason I will admit to a certain hesitancy about holding forth on the topic is that restoration in general is a huge, and enormously complex subject. The practice of forest restoration is still in its infancy; it takes in a wide range of forest types across vast
western ecoregions, and necessarily adds politics to further complicate scientific complexity. The marvelous and interconnected aspects of forest ecosystems must be considered as a whole: roads, streams, soils, vegetation, and animate life—none are separate from the rest in a forest ecosystem. They all need to be included and planned for as part of any genuine, effective restoration program. But we have yet to really approach forest restoration that way. What restoration efforts are undertaken are likely to be done piecemeal, seen as steps in a more practical “incremental” approach.

Despite the subject’s breadth and complexity, some key focal points emerge from the broader debate. One revolves around the area where management policy already confronts a basic problem in forest ecology: restoring fire as an ecological function in western forests. Whether that means restoring natural fire, or creating and maintaining manageable conditions in forests to allow for fire’s controlled use—in a genuine restoration program, bringing fire back to forests is a fundamental step in the larger process of restoring ecosystems, and the only real approach to forest health. How this should be done has already been the subject of much heated debate. Proposals by environmental advocates to institute restoration through radical legislation are another focus, one in which the issues are even more controversial, and the stakes higher. Thus my essay attempts to find its footing in a rhetorical landscape where particular aspects of natural science and politics may serve to make the range of arguments about restoration more manageable.
2. LOCATING THE RESTORATION DEBATE

_Montana in the Restoration Century_

I came to western Montana from Oregon, aware that Missoula was a place where
different people were trying to take a more active role in managing the region’s forests. I
arrived without much previous exposure to the range of arguments about restoration, but
with lots of experience of the forest conditions they are necessarily focused on. My
working life through the years left me with a feel for the woods and the work that is done
there, along with a familiarity with some of the problems that get talked about in the
restoration debate. I’ve done more than my share of reforestation, fuels reduction,
thinning—things that get often lumped under the heading of “restoration.”

Oregon and the Pacific Northwest, of course, have long been a center of controversy
over forest management. The crisis that focused on the northern spotted owl is the one
episode of forest management that most people know. The public lands where I worked
for many years, the eastside forests of Region 6, are under the same pressures of
ecological degradation and political stalemate as those here in the Rocky Mountain
Region. Travel north and east from Lakeview or Bend, through the Blue Mountains,
across north-central Idaho and into western Montana, and you see pretty much the same
thing: overgrown forests, and timber towns fallen on hard times. You’ll hear pretty much
the same talk, too—frustrated citizens of all political stripes lamenting the state of their
forests.

Wherever you go the talk revolves around forest politics, logging shutdowns,
hazardous fire conditions and management gridlock. Often as not these days, the
discussion turns to restoration as a cure, the salvation of both the forest and these
beleaguered timber towns. Yet no one seems to know how it’s really supposed to happen.
How to begin the work? Cut more trees to get it started? Or shut down logging
altogether? People choose up sides over the issues—what seems obvious to some is
violently opposed by others.
When you come to western Montana, especially as a university student, you hear even more widespread discussion about problems of forest management. It becomes your daily fare in the classroom, in news reports and public forums. By turns sophisticated, contentious, or opinionated—you soon become aware that as much as anywhere else, Missoula has become a critical center of the restoration debate.

That is hardly surprising. People here live closer and more connected to the public lands. In any direction from Missoula they can see their national forests right out the window. Questions of how they should be used and preserved are more bound up with people's lives here than elsewhere, and it is hard to find anyone who doesn’t have opinions about how public lands are managed. As in other parts of the West, citizens in Montana are forced to grapple with the wholesale changes that demographics and changing values have brought to western forests. Many people see restoration as a force for change, a new direction in forest management that seems to signify hope in a new era.

But as time goes on and you take it all in, amid the hopeful talk you find that restoration takes on profoundly different meanings, depending on who’s doing the talking. In common with other divisive issues about forest management, the confusion of claims that are made about restoration leaves you wondering whether they may help or hinder in getting it started. You find yourself working hard to sort them all out.

*The Voices of Forest Restoration*

In the new era there is as much dissension as there is discussion when the subject is forest policy and management. Among the voices calling for restoration, different groups contend for ideological turf and a homeground in making their positions known. The range of their collective arguments draws the boundaries in the restoration debate.

There are, for instance, the professional proponents of restoration—the academic researchers and agency scientists whose work as a whole reveals the marvelous, if humbling complexity of forest ecosystems. They are responsible for what technical understanding we now possess about ecological processes and biological diversity, disturbance cycles, the role of fire in forest ecology and more. As technical specialists they tend to speak in complicated terms of what is theoretically possible in ecological restoration. While their science-based arguments are persuasive, they are perhaps not as
influential as they should be, given that the language of science is often neither accessible nor intelligible to the general public. But they are respected and well-represented here in Missoula—in fact, much of the key knowledge about fire-dependent forests has come from researchers based in western Montana.

Timber industry supporters have lately become vocal and insistent in their calls for restoration work on public lands. They argue that the way to restoration involves putting public forests back on a paying basis, by putting damaged and diseased trees to use. They like to point out that the skilled and knowledgeable workforce necessary to carry on the business of restoring degraded forests is available in the existing, down-but-not-out, free-market timber industry. Their call for active management on a big scale by those whose livelihoods are most dependent on the woods has a certain logic, and perhaps a rough justice behind it. At the same time it is suspect, seen by many as self-interest on the part of the same people whose commercial activities have been responsible for the ecological damage that now must be expensively remedied.

The most prominent voices in the restoration debate are environmental advocates—the activists who identify themselves as “the forest protection community.” Big-scale ecological restoration is their vision for public forest lands, and an expression of their governing values. The ravages of industrial exploitation can be countered, they maintain, through restoration efforts done in part as a program of public works—an ambitious agenda that ultimately aims to change the priorities and direction of federal forest management. Activists have declared this the “Restoration Century” while arguing that forest lands hold the potential for developing a “restoration economy” in place of the previous century’s extractive timber economy. In this they claim to speak for a majority of Americans who want to see federal forests preserved and protected, managed for other purposes besides short-term commodity values. While conceding that times have changed, they are nonetheless committed to their vision—not least in their insistence that forest management conform to existing laws and regulations for environmental protection.

Those various positions are expressed in the voices you will hear arguing distinctly different viewpoints and ideas about what restoration means, here in the northern Rockies. Throughout the West similar interest groups frame the debate.
One other group, and a key player that is not so clearly represented in the public
discussion, must be accounted for. Thus far, the U.S. Forest Service seems to hold itself
apart from the restoration debate. That might seem odd for the professional custodians
and managers of the nation’s forests. But I think it makes a point about the currency of
restoration as an idea-cum-issue. In the absence of any clear directives under the law,
Forest Service personnel have become followers rather than leaders in defining what
restoration is, and what it should mean on public forest lands. Typically, you hear the
Forest Service respond in rhetorical kind to whichever side happens to be arguing their
points about restoration, whether the call is for more timber, less management, or better
science. The other players in the restoration debate take turns using the agency as an
authority, a foil, or a scapegoat, depending on the drift of the argument at the moment—
not surprising, if the agency is unwilling to take any clear position on restoration of its
lands.

In fact, at every level the agency’s public pronouncements about restoration seem to
speak merely opportunism. The top brass will invoke restoration when it is politic to do
so, when it fits with and furthers other agency objectives. Districts will plead their case
that restoration work costs money, and has to be budgeted for. Line officers routinely cite
“restoration” as an objective in scoping and planning all kinds of questionable project
work. None of it shows much real thought about where restoration should be heading, nor
a commitment to it in any sense as a policy.

That, anyway, is my impression of the U.S. Forest Service’s lackadaisical, seemingly
non-committal role in the restoration debate. Although it is hard find a consistent policy
in the Forest Service position to single out and discuss separately, it is easy to see where
the agency’s responses to proposals made by different groups have their influence on the
arguments of everyone involved. Whether expressed or implied, they inevitably become
part of the public discussion.
3. SCIENCE IN THE RESTORATION DEBATE

Science is the foundation and necessary first step in any restoration effort. Collectively, scientists across disciplines give voice to what restoration means, what it involves and where it should go. That means they have a public role, like it or not, in the restoration debate. But among all the sciences whose studies involve different aspects of ecosystem function, restoration in theory can mean different things for restoration in practice. This is especially true of restoring forests; differences in what scientists have argued as restoration practices often mirror disagreements in the larger public debate.

Individual researchers and some institutions, speaking for science, have taken an active part in promoting restoration as a policy. The academic community assumes its own role in teaching the practice of restoration and the science behind it. To understand what they all bring to the debate, one has to consider the “science-based” arguments that are made for how restoration of western forests should go forward.

Restoration Ecology in the University

If you venture to study restoration in the university (for instance, the University of Montana) you learn starting off that the diverse science of restoration is organized into what may be called a “holistic” discipline. Restoration Ecology is the rubric for this grab-bag of scientific pedagogy; interdisciplinary by nature, correspondingly big-picture and broad in its aims. A student soon comes to grasp what vast fields of study this covers.

Restoration ecology is now established as a discipline in its own right, although a relatively new one. The discipline has its roots and foundation in a professional association, the Society of Ecological Restoration International (SER), which speaks as the voice of “restorationists” both in and outside of the academy. As the full name indicates, SER has individual members and a number of chapters worldwide. It functions as a network for restoration professionals in all fields and a clearinghouse for information internationally.
Probably its most important role has been to attempt formal definitions for ecological restoration (“Ecological restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed”); and also for terms and concepts that go along with it—definitions that tend to get longer and more involved, the more precise they try to be. For instance, “ecosystem health” (to pick one shorter example):

Ecosystem health is the state or condition of an ecosystem in which dynamic attributes are expressed within ‘normal’ ranges of activity relative to its ecological stage of development. A restored ecosystem expresses health if it functions normally relative to its reference ecosystem, or to an appropriate set of restored ecosystem attributes.³

Just as deliberately, SER authors have laid out and articulated a comprehensive set of guidelines meant to give the practice of restoration a credible methodology. The rhetorical foundation they lay for ecological restoration is important and influential, as promulgated in teaching restoration ecology. But it can also bring a confounding set of problems and contradictions to debates about restoration. In many situations, ecological restoration sets standards that are unattainable under the current management regime, given the hard realities of environmental politics. Concepts like “full ecological restoration” as they apply to most public forest lands seem to distract from what’s truly possible. In effect, restoration ecology encourages people to think first in visionary terms, and scale their expectations downward from there.

This is especially true when it comes to restoring fire-dependent forests on large areas of managed forest land—which means most of the degraded lands in national forests. Yet restoration proponents continue to invoke ecological restoration of public forest lands as an article of faith, without a clear picture of the restoration they propose.

One fundamental idea restoration ecology teaches is that ecological restoration may be either passive or active. Active restoration means direct human intervention in ecological conditions, actions that are taken to change something about an ecosystem’s structure or function. This typically involves attempts to recreate physical characteristics on a given site, as when silvicultural practices are used to return forest stands to a more historically natural density. Passive restoration, by contrast, means allowing natural processes to recover ecological conditions without intervention, after damaging activities
have been stopped. The two are not necessarily separate or exclusive; passive restoration may be planned to follow an initial round of restoration measures, and vice versa.

Also fundamental is the importance of *scale* in restoration—temporal and spatial scale as essential ecosystem attributes. Thus, restoration ecology argues, in practice restoration must always consider its plans for restoring a given site or process in the context of larger landscapes and longer periods of time. Scale is indeed important in ecosystem recovery. The principle is especially pertinent to doing forest restoration in any meaningful way. Few of the documented successes that restoration ecology can talk about have been done, or even attempted so far, on the scale that “landscape-level” public forest restoration will require.\(^4\)

You will also learn in the classroom that ecological restoration typically involves small-scale efforts, the kind of showcase projects that can be clearly displayed in a presentation and pointed to *right there* as proof of restoration’s potential: bank contouring and channel stabilization structures in streams; culvert replacement and road rehabilitation; “before and after” shots of grazing exclosures and mine reclamation plots, and so on. While all such projects are important in themselves, and while restorationists are right to speak of “incremental progress,” demonstrating forest restoration is another matter. The scale at which forest ecosystem restoration must be done to be effective makes showcasing it hard—and thus hard, it seems, for restorationists to get their minds around.

In the journal *Restoration Ecology* one finds a surprising dearth of coverage of western forest ecosystems.\(^5\) It is as if the combination of intractable politics and degraded conditions on an almost unimaginable scale makes professed restorationists shy away from public-lands restoration as an issue. Scientists are not commonly thought of as idealists, though some are. While SER provides restoration with an authoritative voice in its journal and website, it also holds itself somewhat apart from the general debate, with the authors themselves remaining in the background. A pose of scholarly detachment does not discount the idealism behind restoration science. One can’t help but think of others who have declared that advocacy has to be part of their science, and who involve themselves publicly in policy discussions. Restoration ecology has not yet committed
itself to that kind of political involvement; advocacy for a program of public-lands restoration is noticeably absent from its rhetoric.

**Fire Ecology and Restoration**

Much of what we now know about fire-dependent forests and the condition they are in comes from the work done over the past thirty years by researchers based here in western Montana.

Studies in fire ecology and what we might call “postmodern” silviculture suggest a possible course of action for restoration on a meaningful scale. In a changing climate of public-lands policy, the people behind these studies are now making themselves heard by advocating for management actions that focus on replicating the effects of fire in forest ecosystems. What this brings to the restoration debate, one might say, is debatable.

There has been for several years now a vigorous, acrimonious and widely publicized debate revolving around so-called “fuels reduction” projects being promoted and sold as restoration work. Indeed, an enormous backlog of work in the national forests involves somehow dealing with the excessive growth of understory trees that represents altered and interrupted cycles of fire, “fire regimes” in the scientists’ term. The object, both ecological and managerial, is to reduce the hazards (and the costs) of forests that burn with much greater intensity than their presumed “natural” norm.

Disagreements over how this should be done are at the heart of the restoration debate—they say a lot about what people on the various sides base their arguments on. Thus attitudes toward fire management in national forests stand in as a sort of “restoration indicator.” They raise the question of whether we as a society can be committed to truly restoring ecological processes; or whether we will try to substitute an artificially managed disturbance regime, merely seeking to manipulate forests for certain ecological effects in ways that serve our own ends.

Fire ecology has grown to be its own field of study. It can now demonstrate and argue convincingly the crucial role that fire plays in forests, particularly those of the inland West. Simply put, a forest’s development and structure are caused and controlled by fire. Another way of saying it is that cycles of disturbance and renewal, which are the
key to ecosystem health and function, are the result of fires that burn through on a more-or-less predictable schedule. The intervals vary in different forest types, but fire always comes in due course. Interrupt the cycle by suppressing fire, and the various ecological functions that depend on it begin to break down, causing forest ecosystems as a whole to deteriorate.

In short, that tells a tale of what has gone wrong in western forests. Fire scientists make their point in the telling: that effective restoration means returning natural or prescribed fire to forest land, or somehow replicating the range of effects it has on ecological processes. All these options pose problems; they raise questions that fuel most of the disagreements over what forest restoration should mean.

One key concept drawn from fire ecology bears directly on the idea of restoring fire as a goal for ecosystem management: the fact that distinct forest types develop and maintain themselves under different fire regimes (again, in the ecologists’ term). Fire regimes are classified by *interval* and *intensity*—how often fires recur in a given forest type, and the overall effects of how they burn: Do fires burn, on average, every twenty years, or every hundred or more? Are most of the trees killed off, or only some here and there? As a basic premise of fire ecology, the concept of fire regimes is taking hold and coming to be understood by non-scientists, meaning an increasingly interested public. The idea has a natural-order, common-sense sort of ring to it that is easy to grasp. At the same time, its use in restoration discourse should keep people thinking about the ecological complexity that underlies the concept, and resists science’s attempts at classification.

All of which points out again that different forest types require different approaches to begin restoration, and that degraded forests of the same type will vary in their condition and the kind of remedial actions they require. Ecological restoration measures that are effective and achievable in low-country stands of ponderosa pine, for instance, may be worse than useless in mixed forests at higher elevations. Experience with measures that work in a given forest type is critical for restoration ever to go forward across diverse forest landscapes.

*Restoration Forestry and Management*
In the northern Rockies, a number of forestry scientists have now entered into the restoration debate by offering up their research for public discussion. The most notable are Stephen Arno and Carl Fiedler, whose combined expertise led them jointly to write a non-technical book that incorporates lessons from fire ecology and techniques in silviculture to promote what they call “restoration forestry.” The book is meant partly to counter the confusion and hesitancy that has resulted from disagreements over what restoration means. Their argument challenges public officials and landowners around the forested West to move the practice of restoration on to the crucial next steps. To get things started, the authors provide a working definition—as an alternative, we may assume, to intransigent, either/or restoration discourse:

“Restoration forestry does not have a well-established definition. We use it to designate the practice of reinstituting an approximation of historical structure and ecological processes to tree communities that were in the past shaped by distinctive patterns of fire...this is a narrower, more immediate, and more attainable goal than restoration of the entire forest ecosystem, known as ‘ecological restoration...’”

Arno, an ecologist now retired from the Forest Service, spent his career documenting forest types and their fire regimes. Fiedler, a University of Montana forestry professor, has taken the lead in promoting the use of silvicultural techniques “with a restoration objective” in managed forests. Both men are well respected; in making their case they come across as the voice of reason in modern forestry. Through their arguments science strives for a kind of middle ground and mediating role in the restoration debate.

Partly because it draws from a body of research done in Northern Region forests, the architects of restoration forestry have had some success in getting their ideas out to a receptive public. Studies of fire and forest types from other researchers outline the range of ecosystem effects and conditions restoration forestry might try to “approximate” in different situations. From higher elevations (where large, contiguous tracts of public land are the rule) down to where the drier, forested foothills reach the valley bottoms (literally in people’s backyards), restoration forestry can sketch out a general course for restoration of every forest type. That gets the public’s attention, since it speaks to real needs in western Montana.

The essential element in these scenarios of possibility, and the point restoration forestry drives home in the larger debate, is that restoration means management. Better
management, ever-more management, probably endless management. Looking closely at the methods of restoration forestry, the way ahead starts to look a lot like what’s behind. There is an almost fatalistic irony in this kind of restoration: we now manage forests to physically turn back the ravages and destructive practices of past management. We might have known. The irony is not lost on more eco-minded restoration advocates, who reject the idea of ever-increasing management on public lands. Who will be in charge, they wonder, pulling the strings and calling the shots? What ever happened to the notion of restoring fully-functioning, self-sustaining ecosystems? Was it naive from the beginning?

“Today, the concept of restoration forestry is broadly accepted by federal land managers, but scarcely known to the public.”10 This last may be true of a public that lives apart from its national forests; not so much, though, for people who have a stake in the issues and follow the progress of restoration efforts. As for its broad acceptance by land managers, we might wonder whether that is really a credible endorsement. Federal managers talking about doing restoration forestry is a slippery slope, leading down to a familiar rhetorical chasm where things too often are not what they seem. The word “restoration” is already routinely tacked on as a goal in management plans and proposals. Is the Forest Service now going to bill project work as “restoration forestry” without having to account for how it fits with any other objectives in ecological restoration?

The tendency to lose sight of broader ecological goals in public lands management is something that restoration advocates have had to take into account. Admittedly, it is a hard thing for officials to overcome, for reasons that can’t simply be shrugged off. Restoration on public lands is inherently political, perennially underfunded, and is typically planned and done by managers who are not trained restorationists. Those are no doubt among the reasons why restoration ecology seems to keep its distance, in the messy debates that characterize western forest issues. The more general distrust of managers and their motives is something that must be put aside by people who talk about restoration. Everyone will finally have to sit down with their ideas and disagreements on the table, and hammer out alternatives together.

Those who are philosophically opposed to management and question its “inevitability,” whose gut-feeling is a distaste for our unrelenting drive to remake and control nature—what can we say to them? In an age when management has become about
as certain as death and taxes, there is no good answer, and nothing much in the restoration debate that will satisfy them. The reality is that restoration on public lands can only go forward by making its peace with management—by incorporating itself into management, like it or not.

On the public lands most in need of restoration, ecosystem conditions are already so badly altered that natural recovery through passive restoration is not, in any practical sense, going to be possible. Where invasive species have overwhelmed native plant communities, or where accumulated fuel loads make fires far outside the normal range of severity inevitable, active management in some degree will be the only viable approach to restoring forest ecosystems. And in many situations, restored ecosystem conditions will only be maintained on managed landscapes through continued management.

It seems reasonable to assume that restoration forestry can help in this by showing us a way to begin that is acceptable to most people. In fact, the methods of restoration forestry are already being tried on both public and private land in western Montana.11 Citizens and officials together have proposed projects in restoration forestry and cooperated in learning as they go. The contributions of the region’s scientists in bringing their home-ground research to the debate challenges local interests to work out what forest restoration is supposed to mean through reasoned discussion. Even the limited and clearly stated goals of restoration forestry can lead to dissension, though—most of which, thus far, has focused on the sale of timber that is cut in the course of restoration work.

Summing up the Science
A foundation of science underlies the debate over public lands restoration, but one in which we still find contradictions and conflicting currents. In common with management officials, those who advocate scientific approaches sometimes dodge key questions about where they see restoration headed. Reconciling the practical limits of restoration forestry with the high standards of restoration ecology will not be easy, and may prove impossible in the long run. But a goal of restoring the fundamental ecosystem process in fire-dependent forests should set the course for further efforts, with a greater commitment to ecological restoration down the road. Of all the players, science has taken the lead in trying to define what restoring western forests actually means. Here in Montana,
respected voices have tried to build trust between opposing camps in the restoration debate. In the long run, how this all plays out will finally be the story of forest management for the new millennium—and while it does, we should bear in mind that there are different sides to every story.
4. RESTORATION AND THE TIMBER INDUSTRY

What can we say about the timber industry that hasn’t been said before? That it has lately been calling for a program of restoration on public lands may surprise people—since when does industry care about restoring forests? Considering that the timber industry has never been shy about speaking out in its own interests, what it proposes as a restoration program should surprise no one: logging to restore damaged forest lands. Whatever one thinks about that, and about the part logging has played in the general forest-health crisis, there is no denying the voice of industry its place in the restoration debate. It is now making itself heard—sometimes loudly and luridly, other times with subtle reasoning—by invoking restoration as a call to arms, in a war being fought across a landscape of diseased forests and dying timber towns.

Throughout the West you can hear industry’s *cri de coeur*: “Eastern Oregon’s forests and communities are in a death spiral. Can anything be done to save them from certain disaster?” Industry leaders pointedly blame “obstructionists,” “serial litigants” who “file appeals for the hell of it.” While that kind of rhetoric clearly aims for dramatic value to get the point across, it also prompts us to ask how much in the timber industry’s arguments might actually be true.

We should recognize first, in asking, that “the timber industry” itself is a somewhat misleading phrase. The voices that speak for and in support of industry run the gamut: they include spokespersons for trade associations and the bigger companies; millowners and company foresters; politicians representing rural districts; small town editors and boosters of all sorts; but also ordinary citizens who write letters in support of the idea that public forests should contribute to local economies. Workers themselves, though, often seem as a group to remain silent and in the background.

“Loggers versus environmentalists,” a pat expression that dumbs down every aspect of contested forest issues. Unfortunately, the timber industry does its share to encourage that thinking in the arguments it brings to the restoration debate. One is tempted to
dismiss those arguments as shameless self-interest. But industry makes its point by at least getting people to think about the kind of management actions they might support, and what effective restoration might look like. “You can’t log your way back to forest health,” say timber industry opponents. Where ecological restoration is concerned, that is clearly true. But industry’s position deserves a hearing, in the questions it raises about how timber cutting fits with a restoration program—assuming that it can fit at all.

**Doghair, Ladder Fuels, and Forest Thinning**

The timber industry has talked for years about the alarming condition of western forests. Our forests are dying, they say, overgrown, underused, and neglected; ravaged by disease and insect infestation; and beyond doubt, headed for certain destruction by fire. “Dealing with the consequences of success,” was how one industry-sponsored forum in the ‘90s put it. They argue that this is already happening, and recount ever-worse fire seasons to prove the point.

Forests that are ripe for fire vary greatly across the West. The threat and what should be done about it is different from place to place, across a broad range of forest types. This is often referred to as “condition class,” a fire-management model based on vegetation type, fuel loads and topography. What industry avoids saying is that most everywhere, stands in hazardous condition-class are the direct result of human actions in past management—i.e. the combination of of timber harvest and fire suppression. Citing fire exclusion alone as the cause of unhealthy forests is a tactic meant to draw attention away from logging itself as a cause of forest deterioration.

Industry apologists do routinely point to fire suppression as the cause of overgrown and unhealthy forests. A hundred years of fire exclusion most certainly has allowed unnaturally thick growth to come in on vast tracts of land. But that isn’t the whole story. Logging in the past is just as much to blame for the conditions we see now. Taking out trees in any forest creates openings that become crowded with seedlings. Scarifying the ground prepares new seedbeds that encourage even more regrowth. Selective logging for more valuable species changes forest composition directly. Water retention, soil formation, and nutrient cycling are all disrupted. These effects pile up and all influence each other, until finally what you see is what we’ve got now—forests that are badly
overgrown and seriously weakened. Ecosystem functions no longer can sustain themselves; above all, the resilience of growth-and-disturbance cycles under natural fire regimes is lost.

In many places unnaturally thick regrowth has developed into a “ladder fuel” understory of successor species (those that seed in following logging and/or fire suppression) beneath bigger and older trees. Where understory trees are well-grown, taking them out can turn a stand back toward a more open condition, and offer enough return on the wood to attract purchasers in the commercial market. In other situations there is little or no value in the trees that need to be removed, and thus no incentive for anyone to deal with them, as a restoration measure or otherwise.

People who want to promote market opportunities in a restoration program disagree. There has been much talk in recent years about the commercial possibilities of biomass thinning—meaning the mass of small trees and brush that must somehow be dealt with in overgrown stands. Under this scenario such combustible material is clipped and bunched mechanically, to be hauled off and burned as “hog fuel” in small-scale generating plants or for other, more specialized uses. The idea draws plenty of criticism. Environmentalists protest that biomass harvesting would only start yet another round of industrialization on public lands; common sense argues that removing this material on a big scale means disrupting soil formation and nutrient cycles. Fortunately (or unfortunately, depending on one’s views), while biomass is widely talked about, economic realities clearly limit its potential. Industry cannot simply create a market for such low-value material; nor can it finance on its own the facilities that could handle substantial biomass, a commodity whose unit-value under large-scale production could only go down—or at best fluctuate wildly, as the market prices for chip and pulp already do. All over the West, biomass projects that have been proposed face the same problems. Short of large federal subsidies and price supports, those who hope for a boom of restoration business dealing in biomass are pretty sure to be disappointed.

The commercially valueless “dog-hair” thickets that impress the need for restoration on the public’s mind are not what the timber industry proposes to restore. Bigger trees, farther out in the woods—forests on public lands it claims are now “stagnating” from
neglect and management paralysis—that is where industry argues most strongly the need for restoration. To industry, dead trees represent management failure and unconscionable waste; in their view this calls for a massive program of *thinning* to restore forest health while resuming a supply of timber from federal lands. Its use of the term in this sweeping sense makes it necessary to ask what thinning actually means in forest restoration, and how it is used in the restoration debate.

When controversial issues are discussed, people vie for the rhetorical high ground by attempting to “capture” terms of the debate, imposing their own meanings in ways that appeal to the public they are trying to reach. A clear example of that is how the timber industry uses the words “thinning” and “restoration.” Industry spokesmen make a case for thinning as the de facto practice of restoration forestry. And indeed, thinning done under various prescriptions is an essential element of restoration forestry. But that general statement is far from the whole story; to a large degree, it obscures what is meant when industry talks about thinning to restore forests. A *commercially viable* thinning program is what the timber industry tries to promote as restoration—logging, in other words. The term “thinning” merely sounds better, more environmentally benign, more acceptable to a public aware of the damage logging has done in the past. People who use it that way tend to play down what such a program really means, while insisting on the need for it.

Thinning covers a range of practices that are not accounted for in industry’s restoration arguments. In simplest terms, thinning means taking out some trees to promote growth and vigor, to reduce forest fuels, and to open stands up to a more natural density. But, which trees to cut and which to leave? Foresters may “thin from above” or “from below,” meaning they target either the overstory or understory trees in the forest canopy; some thinnings combine both methods. “Commercial thinning” removes trees that can be sold as logs or as chip. “Pre-commercial thinning” is done where the trees are too small to have any value, so that trees that are left will put on more growth toward an eventual harvest. So-called “shelterwood” and “seed-tree” cuts (which are really nothing more than clearcuts) are seen as thinning by many people. Here in Montana, the term “slashing” is used to mean cleaning up and thinning out what is left on a site after logging. Fuels reduction and fire-regime restoration will usually involve understory thinning and slashing—and so on.
The point is, thinning isn’t any one thing. Likewise, what it isn’t is the cutting of trees with a primary goal of commercial return. That is logging—to call it what it is. But these distinctions too often fall through the cracks of industry’s arguments and are lost on people, in the repeated calls for an urgently needed program of thinning to restore damaged forests. We should be clear: in the timber industry’s book, the thinning they call for as restoration means a resumption of logging—specifically, commercial thinning done under the aegis of the existing timber sale program. As for the term “restoration” itself, one can only conclude that what the people who propose thinning-as-restoration want most to restore is not forests, but the timber industry.

**Timber Management and Credible Restoration**

To be fair, industry makes no secret of its priorities and agenda for restoration. It is adamant in calling for active management to restore public forests—and in the industrial mind, active management has always meant timber production. Arguing the point challenges everyone involved to think hard about what it is going to mean, to restore forests we already manage; that is, where the modern human presence is a fact of life, and a dominant force in the ecosystem. To what extent is management even compatible with ecological restoration? What kind of restoration will fit with our continued management? So far, neither the timber industry nor its opponents have tried very hard to answer those questions.

When industry supporters talk about the need to restore “a landscape that includes the human community,” they have a point. The public forest lands most in need of restoration are also the most contested, in the sense that all of them have a history of use, for timber production and otherwise. As such they have been bound up with people’s lives for a long time. Long-term investments have been made over the years for silviculture and other human-centered “improvements.” An array of current uses and management priorities now determines what will be allowed to happen on these lands—and nowhere is that made more clear than in the continued suppression of fire on nearly all federal land. Will restoration be planned to include these human influences?

If ecological restoration is the goal, then presumably it wouldn’t be. The timber industry counters with an argument that speaks to its own goals: “Active management
gives far more predictable results than nature ever will." That might sound promising—or does it merely sound a note meant to add the ring of scientific authenticity to the argument? “Outcomes” in this industry sense means ends, end-points, forests seen only in relation to human actions and needs. “Sure,” the eco-minded would say, “we can predict what those outcomes will be, we see them all around us in degraded natural systems.” Predictable outcomes are neither a sign nor a necessary attribute of properly-functioning, self-sustaining ecosystems. The outcomes that industry imagines are forests where fire can be controlled and managed, and the consequent resumption of a timber supply, on some level, from federal forest lands.

The voices that argue most loudly for restoration through timber management make up a loose “wise-use” coalition of industry spokesmen representing mill-owning interests, the logging and wood products trade associations, and a group of vocal, pro-business forest institutes and foundations. These last are, in the genuine sense, the industry’s propaganda arm. As such they pull no punches in branding their opponents as radical environmentalists whose own restoration objectives, in the industry’s mind, amount to a ruinous “hands-off” policy on federal forest lands, both ecologically and socially.

The Evergreen Foundation, based here in Montana, has become well known for arguing the industry position, and airing its frustrations. The foundation’s efforts to promote timber management as restoration go back twenty years. In that time, the timber industry has seen its fortunes fall all over the West, with the federal timber sale program cut back drastically and the resulting management impasse going from bad to worse. The northern Rockies have seen mill closures, disastrous fire seasons, and high-profile lawsuits over plans for timber management—all of which are cited by industry supporters as proof of failed public policy. “Nothing changes, nothing gets done” says industry. Again, they make their point. The frustration has steadily grown, and is evident in the weary resignation and bitter retorts of people like the Evergreen Foundation’s Jim Petersen, (former) Kootenai country mill owner Jim Hurst, and Montana Wood Products Association spokeswoman Ellen Engsted.22

Why then, we may ask, if industry is right in much of what it argues—why do policies remain unchanged? Why should the proscription and restriction of timber management on public lands persist in the way it does? Why have court rulings
consistently and continually gone against the timber industry’s positions? If all the efforts of its supporters, under an actively pro-business administration, cannot make headway in turning management policy around—one would think that the industry might stop to ask itself, in all honesty, why.

It seems pretty clear that a significant part of the public doesn’t trust industry to do what is right on public lands. Industry counters that this merely represents the views of an urban-based population that doesn’t understand the issues. On the contrary, the issues are clear. That the timber industry now calls for forest restoration is all well and good; but not much in its supposedly “science-based” arguments gives any real assurance that a program of thinning would further restoration objectives. A skeptical public can’t help but notice that timber companies have not shown any interest in restoring their own damaged timberlands. Industry supporters also lose credibility by giving easy answers about what restoration means, along with alarmist rhetoric about forest holocausts and dying rural communities. In the public’s mind, it hasn’t been shown how any of that leads to truly restored national forests.

**Industry’s Role in a Restoration Century**

Thus the restoration century arrives with the timber industry down—meaning severely downsized—but clearly not out. In fact, there is hardly a chance that it will fold up its tent and go away. What role it might play in restoring public forests, though, remains to be seen. Lately, industry spokesmen here in Montana have painted a dire picture of a whole region left without an industry “infrastructure” to absorb and use the mountains of material a large-scale restoration program would generate. They also report that of the mill owners who remain, some have given up entirely on timber from public lands and refuse to deal with the federal managers—not surprising, given the circumstances.

These gloom-and-doom scenarios have become the common coin industry throws down in making its case for renewed management. Unfortunately, that is about all it brings so far to the restoration debate. One has to ask whether a more conciliatory approach might not pay off. It is understandable that the industry finds it hard to accept the changes that have overwhelmed and derailed forest management in recent years. By the same token, the timber industry that remains seems willing to take a part in any
management scheme for restoration that includes some assurance of a timber supply, however small. It seems inevitable that in the long run, restoration will have to accommodate some timber production, and vice versa.

A common charge made for many years now is that the timber industry has always been the beneficiary of government largesse—“corporate welfare” in a big way—while railing against “socialistic” tendencies in resource policy. And there is plenty of truth to the charge. Industry might now make amends, and help its own cause by bringing its voice and political clout to bear on the economic realities of forest restoration. That means talking realistically about the cost of fire-regime restoration everywhere—not just in the stands of merchantable timber industry covets, where it can argue that restoration forestry will pay for itself. Where the last century’s timber economy could attract private enterprise to an industry going whole-hog under federal sponsorship, the succeeding round of restoration cannot; not now, and probably not ever. Industry may well end up arguing along with its opponents for subsidies to support the kind of restoration it envisions for itself.

In doing so, the industry also ought to acknowledge the root of its problem: a failed timber management program that never was sustainable, ecologically or economically, from the beginning. Further management cannot undo that; the national forests could not have continued to sell timber in the coming decades the way they did in the past. If the timber industry imagines we can somehow turn back the clock and keep cutting, it is both kidding itself and undermining its position in the restoration debate.

**Summing up the Industry Position**

The timber industry argues that a large-scale thinning program must be the first priority in overgrown public forests. Industry voices, however, commonly simplify issues and obscure meanings in the restoration debate. Their use of the term “thinning” raises questions about motives underlying the industry’s call for restoration forestry. Spokesmen insist on active management of federal lands, attempting rhetorically to link restoration to timber production in the public’s mind with no accounting of how management would meet other restoration objectives. Public support for this restoration
agenda is spotty, with people skeptical about how a resumption of timber cutting can be expected to restore forest ecosystems.

What the timber industry envisions is something less than ecological restoration, while at the same time bringing something more to the discussion. Less, because restoration efforts that are focused on timber removal likely will not serve to restore other ecosystem values. More, in that restoring forest land under continuing human presence and influences will prove to be, in most places, the only viable course for restoration.

Everyone involved should stop to consider where that leaves us, while asking themselves the obvious question: admitting all the excesses of the past, can the timber industry now take a responsible part in management efforts that include genuine ecological restoration? We should hope so, and encourage it where we can, since there is no indication that industry is ready to fade from the scene. On the contrary, as restoration goes forward the timber industry will remain a key player and voice in the ongoing debate.
5. THE FOREST SERVICE IN THE DEBATE

A Legacy of Management

The declining fortunes of the timber industry can hardly be separated from those of the U.S. Forest Service. That the once-respected agency has suffered a serious loss of credibility and public confidence is no longer news. People on all sides of controversial forest issues single out the agency’s inability to act as the biggest problem in forest management. Social change and political shifts in the West have left the Forest Service scrambling, at times floundering, to reorder its priorities while keeping up with its existing management obligations. As part of this reordering, federal managers must now figure out what restoration means and where it fits in the larger management framework.

I asserted earlier that a Forest Service position is hard to locate in the restoration debate. Lacking a clear mandate to restore forests, the agency pays lip service to the idea with its management rhetoric in response to the competing demands of interest groups for restoration. Historically, the Forest Service has had a persistent habit of telling the public what it wanted to hear: that more and better management could resolve resource conflicts on the national forests. Where proposals for a commercial thinning program are concerned, the timber industry’s current frustrations can be traced back to expectations the agency itself has fostered with its management practices. A review of the history is necessary to understand how this legacy of management has shaped different arguments in the restoration debate.

Historical studies of national forest management show clearly how the Forest Service evolved the management philosophy it operates under today.25 Quite deliberately, priorities under this philosophy instituted a long-term management agenda that sought to bring forests under human control for maximum timber production; everything else was secondary to timber in this scheme. The kind of management undertaken, on the scale it was done, had multiple and ever-increasing impacts on forest ecosystems. Thus
management itself can be seen as the cause of damaged forests on public lands that now need to be restored.

How it happened is a complicated story to explain and sum up. In simplest terms, goals for timber production became the primary management objective under what was supposed (in policy pronouncements and agency rhetoric) to be multiple use. Those goals, which were further supposed to be set under principles of sustained yield, were increased repeatedly, unrealistically beyond all reason, through management sleight-of-hand over a fifty-year period. Forests were cut at a pace that could not be sustained into the future—much faster than they could regrow and recover themselves naturally. With the allowable annual timber harvest on a given forest tied to the future supply, the Forest Service decided that active and ever-increasing management could be used to project faster growth-rates in determining future supply, thus making room for the allowable harvest to increase in the present. That is, ever-higher levels of logging were justified by calculating a supply based on management activities such as replanting, thinning for stand improvement, protection from losses by wildfire and insects—as well as through planning to continually bring more land under management in the “timber base.” Where timber management was seen to conflict with other uses and resource values—watersheds and wildlife, for example—new rounds of intensive management would resolve the conflicts and provide for so-called “non-timber” values.

For decades a willing or complacent public accepted this, and the managers’ invocation of science and technology to justify endlessly increasing forest management. Accelerating management in turn supported the managers themselves. Intensive management developed into a kind of cult among Forest Service personnel, whose mission and very jobs depended on continuing, and continually increasing, human control over forest ecosystems. Timber production would always take precedence under the cult philosophy. Amid the frenzy of accelerating management, “non-timber” ecological values played second fiddle, if they were considered at all. In a very real sense active management itself caused the damaged forests we now see around us, throughout the West.

This legacy of management enters into the restoration debate in various ways, not all of them obvious. First is the simple fact that the West encompasses big areas of public
forest land that are already managed, as timberland and otherwise, and will remain so. Whether those should now be managed even more intensively toward certain restoration objectives is an open question. Clearly, timber interests believe they should be, and particularly that the Forest Service should resolve the existing management impasse to begin restoration forestry; hence the industry’s frustration that management seems stalled.

A strong counter-argument is the undeniable environmental damage already done under management, in the name of management. The environmentalists’ response to calls for more active management is simple: that changing current policy to stop the damage is the first, most essential step in forest restoration. Some advocates argue that management should be phased out entirely on large blocks of public land; such “re-wilding” would leave ecosystems to recover on their own, the passive restoration mentioned earlier. Others insist that at the very least, ecological values must always come before timber in public lands policy. And if advocates remain suspicious that the Forest Service will continue to put timber first, they are also dubious that managers can ever decide to back off and let forests recover naturally.

The people for whom management history causes the most problems are probably the managers themselves. For half a century, the Forest Service failed to develop a management scheme that protected environmental values while providing timber for industry, even after such protections were prescribed under law. Political pressure from timber interests was one reason; inadequate knowledge of what ecosystems require was another. But the most telling reason is simply that managing forests for a single objective like timber is much easier—in setting attainable goals, for instance, or justifying funding requests—than trying to manage ecosystem complexity will ever be.

The agency now views the results of this management legacy with that kind of rueful hindsight. The view must be humbling, as officials try to conceive of making a start at restoring forest ecosystems. Far from being able to move with assurance toward known objectives, restoration requires completely rethinking the agency’s former approach to management. Often that seems to make officials reluctant to talk publicly about restoration.
That reticence was plain to hear during a recent visit to a fuels-reduction project on the Seeley Lake Ranger District here in western Montana. Work being done on the site met all the criteria of responsible restoration forestry. The treatment removed a modest amount of understory timber to restore a more open structure and enhance habitat characteristics in a stand of old-growth western larch. Though the district ranger and his wildlife biologist were eager to show how these objectives were being met, both were careful not to overstate the project’s overall value as restoration. Neither were they willing to get ahead of themselves in planning further management for restoration objectives. While both said they would like to follow up with prescribed fire on the site, the district so far has not had funds to plan and carry it out—not to mention the funding to properly monitor what has already been done. So, for the time being, restoration of the site stops there.

The example illustrates one reason why the Forest Service seems to hang back in discussing a restoration program: the difficulty of planning for long-term objectives in an environment where funding is uncertain. Another is that managers are only now beginning to try out and learn restoration techniques. Despite barely having begun, voices from all sides call on federal managers to document ecosystem conditions and progress made in restoring specific sites. Already required to manage forests for multiple and often conflicting objectives, the agency is sure to displease some people, in responding to other people’s expectations about what a restoration program should involve.

That is familiar—though hardly comfortable—territory to Forest Service personnel, and thus they seem practiced and cautious in their approach to restoration as an issue. But the issue calls for more from them; the agency cannot continue to sidestep key questions in the restoration debate. Yet in the absence of a mandate and clear commitment to restore the nation’s forests, about all the Forest Service can do is reassure first one side, then the other, that yes, we are working to include restoration measures in our management plans, in ways that will address everyone’s concerns. Reassurances aside, the agency’s rhetoric makes the chances for a real restoration program sound doubtful.
Management Directives and Restoration

Forest Service management has traditionally been decentralized, with decision-making left primarily to ranger districts and forest supervisors’ offices within the various regions. Landmark laws that imposed measures for environmental protection are the exception, and have affected how decisions are made—“top-down” directives that managers have learned to accept and provide for in their own district’s planning. But legislation has never been passed requiring managers to undertake restoration in a concerted way. Instead, they are provided with options for doing restoration work as part of other management planning.

Forest Service personnel can see as well as anyone what needs to be restored on their districts. Yet where they are faced with making a start, they may find little to guide them in sorting out and prioritizing their goals, or in reconciling how these fit with other agency objectives. The existing directives for management involving restoration are general guidelines set out in recent legislation and various policy declarations that are focused on considerations other than restoring whole ecosystems. For example, the federal interagency “Comprehensive Strategy” for fire management calls on agencies to “restore fire-adapted ecosystems” with the primary aim of reducing wildfires and their potential costs. But that doesn’t specify how these ecosystems are to be restored, nor does it advise that fire-regime restoration should be done in the context of a larger restoration program.

Similarly, the much-maligned and debated “Healthy Forests Restoration Act” (HFRA) of 2003 focused on forest thinning for fuels reduction with no mention of other restoration measures or ecosystem values. The use of the word “restoration” in the bill’s title was a clearly calculated rhetorical ploy. The law itself is a pastiche of provisions covering fuels-reduction on both public and private land. Among its other problems, the Act made no attempt at all to define “restoration” or “forest restoration.” Nevertheless, it got people thinking about what restoring forests should mean—and in the process got some people’s hopes up that an aggressive commercial thinning program would soon be started. Three years later, that hasn’t happened. Instead, the Forest Service once again finds itself caught up in high-profile legal challenges (not surprisingly, in both Oregon
and Montana) over logging proposed under the HFRA’s provisions, and billed as “restoration.”

Companion legislation to the HFRA also authorized a program of stewardship contracting under which agency managers may plan and fund restoration work. This carries more weight as a restoration directive, under a complicated system of long-term contracts with multiple objectives; they trade “goods for services,” favor local contractors, and require collaborative planning in setting goals. Most significant for restoration efforts are the opportunities they afford district managers to exchange some of the value from timber sold for other work performed by the purchaser—e.g. culvert and road repair done outside the sale, within an identified, larger-scale management area. The law’s provisions also allow individual districts to retain timber receipts above contract costs, and use the money to fund other needed restoration work.34

These arrangements have come in for their share of criticism, by tying restoration measures to the continued removal of trees for commercial purposes. But to the extent that it relies on collaborative efforts in planning; targets local economies; helps to integrate management over larger landscapes; and works to “adapt” future management through experience and monitoring—in those ways stewardship contracting may be seen as furthering restoration objectives in accord with important “core principles” espoused by restoration advocates.

One recent study, which reviewed Forest Service budgets at the district level for managerial “decision space,” also evaluated a stewardship project for its adherence to restoration principles. The work it presented as a case study was judged to be at odds with other key restoration principles, mainly because the stewardship contracting “goods for services” trade-off continues and sanctions the logging that advocates see as ecologically damaging. The study also found that district officials have considerable latitude in using funds across budget “item-lines” wherever managers, together with other stakeholders, identify the need to fund restoration measures. This is “decision space”—which, if managers were motivated to use it creatively (notes the study’s author), would lessen the need to use receipts from timber sales to fund restoration.35

One more directive should be considered in connection with public lands restoration. For fifteen years now ecosystem management has been a stated federal policy and
guiding management principle. It has never been defined under law, and to this day has no exact, agreed-upon meaning—although agency heads, scientists and others have tried. Attempts to articulate the concept turn on general rhetoric rather than management specifics: “[E]cosystem management is the integration of scientific knowledge of ecological relationships within a complex sociopolitical and values framework toward the general goal of protecting native ecosystem integrity over the long term” (in one of the more concise examples). Whatever else it may mean, ecosystem management is essentially a rethinking of the multiple-use concept to include eco-social connectedness in the management scheme. As a policy it is frankly utilitarian, hands-on rather than hands-off, and is primarily concerned with sustaining the “resource base” under human use and influence.

Ecosystem management is interesting as an example of the kind of policy directive that has little meaning until it is put into practice. The same could be said about policy directives that call for forest restoration. People may wonder, and reasonably ask, where ecological restoration fits with ecosystem management. If one assumes there should be a connection, that ecological restoration might be a method or goal under ecosystem management, one is likely to be surprised, and understandably confused.

To all appearances, the Forest Service has avoided linking its ecosystem management to a restoration program. One interagency forum, “Perspectives on Ecosystem Management,” produced more than a dozen papers by officials (including Forest Service Chiefs Mike Dombeck and Jack Ward Thomas) from which the word “restoration” is notably absent. Something separates the two concepts in the managerial mind—different implications for how we use and maintain forest ecosystems? Whatever the case, the adoption of ecosystem management has not brought about an equal commitment to ecological restoration.

**Summing Up: Restoration and Collaboration**

A history of intensive management underlies arguments in the current restoration debate. Forest Service policies that focused on timber production at the expense of other values now find managers trying to incorporate forest restoration with other management planning on a meaningful scale. Changing the management scheme to do that means
officials have to rethink their priorities and take an innovative approach in finding opportunities to do restoration work. This uncertain course may make them hesitant to talk about their ideas for restoration. Legislative and policy directives encourage managers to include restoration measures along with other management objectives; but collectively, these directives still haven’t presented the agency with a comprehensive policy for forest restoration.

The patchwork of directives under which the Forest Service operates falls short of an actual restoration program. But there is one element common to all these policy initiatives that draws federal managers into the restoration debate. Federal fire-management strategy, “healthy forests” and stewardship legislation, and ecosystem management all require public participation and collaboration in agency decision-making. Since restoration has (or should have) a part in all these policies, the agency will inevitably be called on to account for the restoration it does, or ought to be doing, as part of the overall management scheme. As much as it might wish to avoid getting tangled up with yet another set of poorly defined, terribly complicated management goals, it can’t. The U.S. Forest Service will have to do more to make itself heard in discussion about what restoration means, and where it goes from here.
6. ENVIRONMENTALISM IN THE RESTORATION CENTURY

The Forest Service does in fact bring groups together in collaboration where restoration planning is part of the discussion. Environmental advocates, local contractors and industry representatives, paid consultants (and sometimes mediators), various and sundry community leaders and citizens bring a broad range of stakeholder concerns to management planning. Here in western Montana, environmentalists are sure to be at the table when the talk turns to restoration. Perhaps more than anyone else, they are making their voices heard in the restoration debate as part of a larger movement for “forest protection.” In public, their advocacy often turns on rhetoric where it is short on specifics and detail. But the ideas they deal in are big—they are key to the meaning of restoration and its future.

Forest advocates have declared this the “Restoration Century,” an era in which sincere restoration efforts will heal the land and atone for the abuses of the past century. Certain activist groups have set out to make their program the first priority in public lands forest management. The sweeping changes they call for would completely overturn federal forest policy. National forests would be restored and preserved for uses and values other than commodity production. Logging would be stopped; ecological restoration would become the goal and guiding management principle. Management itself would be scaled back on restored wildlands. The value of “non-market ecosystem services” and of other, even less tangible assets would be credited against the cost of restoring forest land. A sustainable state might thus be achieved between humans and nature, people and forests—something new under the sun in the American West. Many in the environmental movement see that as the ultimate goal of a restoration program.

It should be noted that different environmental groups are not always in agreement, whether nationally or here in the West, and that discord can be heard among voices
within a broader environmental community calling for restoration. Often enough, grassroots activists have disavowed the actions of other advocates, while more “mainstream” groups tend to distance themselves from what they see as extreme positions.\textsuperscript{39} In western Montana, a cadre of grassroots groups has joined to promote forest restoration as part of a program for radical eco-social reform. These are the people who are most committed to seeing that ecological restoration becomes the first priority in public-land management.

Whether restoration can truly be done that way remains to be seen. Along with their vision, environmentalists bring a stubborn streak of political idealism to the restoration debate that has to make you wonder. Radical calls for a complete prohibition of logging on public lands, or for the creation of a “national restoration corps,” seem more romantic than realistic, more visionary than practical. Nonetheless, eco-social activists have put their proposals out there and worked to keep them current by documenting a clear need to restore the nation’s forest ecosystems. As we have noted, their ideas are big and audacious—but environmentalism has not gotten to be the political force it has by thinking small.

As everyone knows, forest activists have had many detractors among other interest groups, and have often made enemies of those opponents. Charges that environmentalists are elitists, out of touch, uncaring and insensitive to human needs, and unrealistic about people’s place in the natural order all can be heard again in the restoration debate. Whatever the truth in those charges, they beg the question of what forests need now to recover and sustain themselves. Whether one wants to think in practical terms of restoring forests to sustain human uses, or in terms of any ethical obligation we might have to restore what we have damaged through use, environmentalists call on westerners to now decide the future of their forests. They pose the challenge to the public deliberately; wherever one stands on the issue, their arguments hit nerves and strike chords that stir up the debate.

As I said earlier, although I am mostly in sympathy with environmental causes I am not an environmentalist. I do not necessarily subscribe to their restoration program or the ideas behind it, for reasons discussed farther along in this section. That said, I find their
arguments more compelling than others simply because environmentalists bring some actual vision to the table, in contrast to industry blandishments and officialdom’s cautious hedging around the management status quo. Their challenge to timber management is straight-out. They call for real change in management priorities—but more than that, changes in people’s attitudes about what forests are for.

Environmentalists aim for the moral high ground in appealing to an evolving eco-social conscience in support of forest protection. In doing so they invite closer questioning and criticism than some others; environmentalists, in my view, should be held to higher standards of probity and accuracy in how they argue the case for restoration. If I address myself more personally to examining their arguments, it is in this spirit of engagement—that, and the fact that my own working background gives me some insight into what advocates propose. The radical proposals for forest restoration as a program of eco-social reform draw me into the debate, as I know they do others.

**Environmentalists in the Restoration Landscape**

"Environmentalists,” “environmentalism,” “forest advocates”—I have so far been using the terms indiscriminately, aware that they require some clarification. That labels and affiliations matter is as apparent in environmental debate as in any other political discourse. Around the West, in many places the term “environmentalist” is virtually a slur, a pejorative on the order of “redneck” or “Freddie,” used with no actual reference to anyone’s politics. The word can mean anything, anarchist tree-sitters or Washington lobbyists, or describe anyone from John Muir to Al Gore. So who are we talking about, when we single out an “environmentalist position” in the restoration debate?

The environmentalists who have taken up restoration as a cause make it pretty clear who they are. They are professed activists who argue and organize for radical reform; they believe that wildland ecosystems should be restored and protected from the ravages of modern industrial society. They identify themselves with an environmental movement going back several generations, which has had notable success at winning support for forest protection through high-profile political actions, i.e. direct-action campaigns, legislation, and litigation. Around the country there has been a base of support (at times wavering or qualified) for such actions among the big, well-known “nationals,” groups
like the Sierra Club and the Wilderness Society. In the Northern Rockies and elsewhere, regional groups work to carry on—and build on—the past successes of environmental activism. But as time has gone on, these groups have found that they need to rethink their agendas and goals.

The historic high point of victories for forest preservation in the ‘90s has passed on to a time of regrouping and changing course. After viewing the outcomes of that period (“dealing with the consequences of success”), working environmentalists, along with an increasingly skeptical public, have come to realize that forest protection involves more than injunctions and legislation. Restoration ecology and environmental sociology can both argue that the idea of preserving forest ecosystems in stasis and protecting them by excluding human use and influence is at best misguided—neither possible nor desirable, ecologically or socially. Coming to terms with that means environmentalists have had to find a new approach to forest protection, to assert their standing and hold on to their base of support.

Thus, environmentalists in the new century have taken up the issue of forest ecosystem restoration. In many ways it is a departure from action focused on challenging management decisions head-on and from the outside. Arguing for restoration allows environmentalists to speak more reasonably to people’s concerns: anyone with any sense is alarmed by conditions in our national forests. Part of their pitch is the jobs that could come out of a restoration program, an economic boost for communities fallen on hard times because of restrictions on timber cutting. Taking up the cause of restoration secures forest advocates a place at the collaborative table—proactive involvement with management from the inside, and the chance to present themselves as cooperative instead of combative.

These efforts to get out in front of management trends, with restoration as the central issue, represent a clear strategy shift for environmentalists: activist groups working to make national forest restoration a priority by arguing its advantages to people who live close to them—but also through public appeals made on the national stage.

Montana environmentalists are taking the lead in that, having put themselves front and center in the restoration debate. A number of small groups based in Missoula share both a philosophy and a mission that involves restoring public lands. A list of names
speaks to an orientation and outlines an agenda: the National Forest Protection Alliance; the Native Forest Network and the Ecology Center (these last two now merged into the Wild West Institute); the Wildlands Center for the Prevention of Roads (Wildlands CPR for short); the Alliance for the Wild Rockies. They are not noticeably well-funded, but are well-organized and run even while operating at a modest scale. They represent themselves as “grassroots” organizations—meaning groups that operate independently and are organized around a base of local support. But being effective at the grassroots level also means networking with groups involved in similar efforts across the country.

The people behind these groups might fairly be described as “pragmatic bioregional idealists”—radical environmentalism in its next, more settled phase. They hold strongly to a vision of what the western public lands should be, and make no bones about what they believe. As activist-strategists who are accustomed to the trench warfare of environmental politics, one doesn’t imagine that they hold many illusions about what can be accomplished through policy negotiations at the local level.

Behind the local organizing and regional focus, however, lies a national platform that raises the stakes for restoration enormously. The platform is outlined in a citizen’s manifesto of restoration principles, and in proposed legislation that would require ecological restoration to go forward on public lands. Montana environmentalists have signed on to these initiatives (and in one case helped draft them) that take the idea of a restoration program to a whole new level. What they propose for public lands are management changes so sweeping as to seem fantastic. Their rhetoric raises new questions about the meaning of restoration; also about the effect radical proposals might have on the chances that it can go forward. Clearly, though, one has to hand it to environmentalists: they bring the most contentious and compelling of arguments to the restoration debate.

Eco-Politics in the Restoration Debate

Policy changes environmentalists call for would provide the “clear mandate” for doing restoration the federal agencies currently lack. The two initiatives mentioned above are of a piece, part of a package that argues for radical management reform. They lead advocates to further promote the idea of a “restoration economy” that could be built on
restoring federal lands. That idea has a powerful appeal, and is being talked about in many circles. Everyone with a stake in forest management should look dispassionately at the claims made by environmentalists in arguing their vision of restoration.

In 2003, activists representing western environmental groups published “A Citizens’ Call for Ecological Forest Restoration: Forest Restoration Principles and Criteria,” under the heading “Science and Advocacy” in the journal Ecological Restoration. In 2005, a bill HR 3420 was introduced in Congress as “The National Forest Preservation and Restoration Act” by representatives from Iowa and New York; not for the first time. While no official connection is made between the two initiatives, together they outline the environmentalist agenda and proposal for a restoration program on public lands. In that respect they may be seen as rhetorical devices as much as policy documents and considered for what they argue, as well as what they don’t.

“A Citizens’ Call” is a declaration of the environmental movement’s position in the restoration debate. Its articulation of principles is meant to give advocates credible standing for participating in general restoration policy and specific management decisions. Despite the reference to science, this is pure advocacy: all ten contributing authors are staff members from a roster of environmental organizations. The paper presents no research findings or scientific syntheses. Rather, apart from listing restoration principles, what it really wants to argue are the visionary eco-politics of these restoration advocates.

The authors seem to have started out writing in response to the Bush administration’s Healthy Forests Initiative, which was designed to advance its forest policies by sidestepping legal challenges from activists. Environmentalists opposed the measure; they found the use of the word “restoration” to describe timber sales done as fuels reduction especially galling. With this paper they offer a counter-proposal for a program of ecological restoration that also works to advance a policy of forest protection. The advocates adopt the SER restoration planning and procedures guidelines for their own “principles and criteria.” They then go considerably further by incorporating these into an activist social program that includes an “Ecological Economics Core Principle” and a “Communities and Work Force Core Principle.” While those principles are not very well-
developed in “A Citizen’s Call,” the manifesto as a whole presents an intriguing—and challenging—overview of what big-scale restoration would involve.

The activists outline their restoration agenda in a consciously moderated way. In common with some industry apologists, their measured tone is calculated to lend an air of objectivity to undeniably partisan arguments. This has the effect of playing down the key points environmentalists are arguing. The paper’s “Economic Incentives Criteria” hides the elephant in the room on its back-page “restoration checklist”: “Successful restoration on public lands requires reforming federal agency funding mechanisms and contracting procedures to remove incentives for ecologically and socially damaging activities...[t]he current timber sale program continues to give priority to economic interests and is not appropriate for restoring forests.” 47 A further objective is implied there, though not clearly stated: to stop all logging on the national forests. In turn, the previous mention of “agency funding mechanisms” raises the unavoidable next question in the restoration debate: who’s paying?

“A Citizen’s Call” asserts that public lands restoration should not include any timber cutting done under the existing management scheme. But this back-door approach to ending logging by starting restoration finds environmentalists dancing around key questions about what their program for ecological restoration would be. They seem noticeably reluctant to call it what it is—what it could only be under the principles they outline: a major public-works program originating in top-down policy legislation, and subject to all the vicissitudes of bureaucracy and national politics. There are any number of reasons why people might find the idea hard to swallow—even more so, if a skeptical public were to hear the particulars of such legislation debated in Congress. Restoration advocates know that, but some still cling to the idea. There is often a disdain for political reality that shows through environmentalists’ rhetoric; it casts their vision for ecosystem restoration in a different light, and may have the effect of discrediting the idea altogether in the public’s mind.

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While western environmentalists may play their restoration cards close to the chest, the radical policy changes they advocate are presented and spelled out in proposed legislation, a bill known as the National Forest Protection and Restoration Act
The bill has had a long, if uneventful history; first introduced in the mid-’90s (and several times since), it has never made it to the House floor for debate. In 2005 it was reintroduced in substantially the same form. If passed, the law would require federal agencies to immediately begin a restoration program in accord with what is outlined in “A Citizen’s Call.” While the NFPRA might seem to embody environmentalism’s vision for a Restoration Century, skeptics may wonder where national legislation fits with the advocates’ rhetoric about “community-based” restoration programs. The bill’s own rhetoric raises the stakes in the restoration debate, and should be closely considered.

The proposed legislation was introduced in the House most recently by Representatives Leach of Iowa and Slaughter of New York. The bill’s authors characterize the NFPRA as comprehensive reform legislation intended to redirect forest management on federally-owned lands. The bill explicitly provides for the first objective in the environmentalist restoration agenda; among its other provisions, the law would abolish federal timber sale programs administered by the Departments of Agriculture and the Interior, and replace these with a mandated public-works program for ecological restoration.

As proposed, the NFPRA is sweeping legislation that would bring about a complete overhaul of agency land management. To my knowledge there has never been anything proposed and debated in Congress that comes close to this bill in its scope as a restoration plan. In essence, the NFPRA incorporates the priorities and goals of the national “Zero-Cut” campaign (inactive now but not forgotten) which promoted radical environmentalism’s program as the direction public-land management should take. The politics in this cannot be separated from the bill’s restoration goals.

As written, the Act’s provisions include ten sections: the three most important deal with canceling the timber sale program, funding the law, and directing the restoration program to go forward under the Secretaries of Agriculture and the Interior. Briefly, the law phases out all federal timber sales after two years, while directing that the revenue from existing sales and all general-fund appropriations having to do with the timber-sale program—sale administration, roads and road maintenance, inventory and monitoring, “forest-land vegetation management,” and other expenses “related to commercial logging”—be put into an account that will be used exclusively to fund restoration. The
bill also provides for worker recruiting and retraining. You can’t do restoration without money, and the law’s funding provisions attempt to deal decisively with that fact. This wholesale reallocation of appropriated funds (in the hundreds of millions annually) is the engine meant to drive the “restoration economy” to which environmentalists have hitched their wagon.

Section 7 of the bill, “Natural Heritage Restoration,” provides an agency management framework and guidelines for developing rules and restoration plans. This kind of policy legislation does not normally specify in detail how management will be done, and the NFPRA is no exception. There are certain specific provisions in Section 7 about restoration in principle and in practice, but what they specify is pretty general (if that makes sense—this is Congress, after all). What “restoration” actually means is not made clear under the law. Where the Act’s “definitions” exhaust themselves in spelling out such critical terms as “timber sale” and “commercial logging,” the bill offers no definition whatsoever of the terms “restoration” or “ecological restoration.”

We should briefly mention some other provisions. The NFPRA does expressly call for ecological restoration, seemingly as both a process and a goal. Under Section 7, its “General Purposes” explains: “The purpose of this section is to protect and restore the natural heritage of the Federal public lands through the restoration of native biodiversity and natural complexes and processes. In most circumstances, natural processes will heal damaged areas without assistance...” The emphasis is mine, and if we notice a disconnect there between the idea of an expanding restoration economy and that statement above—well, as already noted this is politics, not restoration in practice.

Farther along in the same section, “Emphasis of Ecological Restoration Projects” offers an example of the bill’s restoration philosophy: “In most cases, ecosystems are inherently resilient if left to function without interference from man, but in some cases action is necessary to stop immediate resource damage. Therefore, ecological restoration projects shall emphasize the removal of barriers that prevent ecosystems from restoring themselves.” Logging, of course, ranks first among those barriers.

Perhaps most important to note are the directives to agencies responsible for carrying out the NFPRA’s general provisions. The Secretaries of Agriculture and the Interior are both charged with establishing a “National Heritage Restoration Corps” under their
respective agencies’ direction, “for the purpose of (a) conducting ecological restoration of native biodiversity,” along with monitoring and law-enforcement. The bill does not specify what these corps are expected to comprise—a casual or skilled labor force, technical specialists, professionals in research and applied science? It does say, however, that the agencies may hire “other personnel, which may include private contractors,” and also gives preference to displaced workers.51 At this point we can only imagine such a corps in action, deployed out across the landscape to do ecological restoration.

The agencies are also directed to develop “Natural Heritage Restoration Plans” at the regional level (also for individual units of the National Parks and the National Wildlife Refuge system), which are to be completed within eighteen months initially and revised on a ten-year schedule. Presumably these plans would be done in addition to the planning required for other management activities by the various agencies. To think only of the Forest Service, where management planning has become a monumental and endless undertaking, the idea of wholesale restoration planning as directed seems wildly unrealistic. The bill declares that these plans would be subject to compliance with all NEPA procedures for alternatives scoping, public commentary, appeals procedures and the like. Apparently the bill’s proponents anticipate few challenges to their restoration agenda.

One key assertion made about public lands policy should be challenged. Under its “findings” the NFPRA claims that “[p]olls conducted by the Forest Service show that a strong majority of Americans think that natural resources on Federal public lands should not be made available to produce consumer goods.”52 Exactly which polls those are isn’t specified, and the claim seems doubtful. As with any issue, public opinion about resource policy depends on who is asked, and how the questions are posed in the political or economic heat of the moment. Even if the claim were valid in other parts of the country, it must surely be far less true of the West, where a resource economy has always involved public lands. One wonders how the supposed majority would respond to the question: “should taxpayers nationwide be required to directly subsidize the West’s economy in its transition from public-lands resources to one based on restoration?”

Nationally, the public would no doubt have plenty to say about the NFPRA’s general-fund appropriations for restoration. A windfall of appropriated funds would
certainly appeal to a West that has never missed a chance at its share of the federal dole. In essence, the restoration economy environmentalists envision represents more of the same. (“It shakes down to a platform,” wrote historian Bernard Devoto, nearly sixty years ago: “get out and give us more money”—the irony is that this time around, we see conservationists lining up ahead of business interests at the public trough.53) Its basis would not be any noticeable production of goods and services. Rather, people would see only a massive outpouring of public money funneled down through the federal bureaucracy, in a program that seemed merely to substitute social welfare for corporate welfare. The idea would be an awfully hard sell to the taxpaying public.

Can restoration ever be funded and done under this kind of law? Probably not, within the political system as things now stand. Reading the bill, one is struck by the political naiveté (as it seems) of its authors. One doesn’t have to be a political insider to understand why the NFPRA was essentially dead on arrival, and has remained that way ever since. The radical changes it calls for are poison to the majority of politicians, especially those from western states; they are simply not going to happen. Overall, as proposed and written the NFPRA is not credible legislation, and may even do more to discredit the idea of ecological restoration than to promote and provide for it. The danger of that is probably slight, though—so far the bill has not been taken seriously enough to draw attention away from other, more plausible arguments in the restoration debate.

And yet, in an important sense the NFPRA does address one reality that has not found clear enough expression in the restoration debate. It was the energy of unrestrained market forces that damaged the forest land we are now called on to restore; the natural capital of timber fueled and financed the degradation, but there is no comparable value in restoration work.54 If we are going to restore public lands at all, everyone needs to agree that it will require public support to get started—in which case there will be no need for anyone to ask who is paying.

Rhetoric and the Restoration Economy
Where the NFPRA may give environmentalism’s political program a distinctly unreal air, the equally questionable rhetoric of some environmentalists makes their vision of a restoration economy sound naive, if not contrived and calculating.
Forest advocates and others promote the idea that actively doing restoration work can be the basis of a reformed and revitalized economy in the West. At this point the restoration economy is mostly talk, more rhetoric than reality. But the talk can be heard going around in all the voices of the restoration debate, industry and officials as well as environmentalists; here in Montana, for instance, a recent high-profile governor’s conference got people talking. The actual potential of a restoration economy—the technical and management challenges, the politics and economics involved—is a subject for another study entirely. My interest here is in how environmentalists use the idea to argue their restoration program.

A restoration economy means different things to different people, as we might expect. People in the West’s timber towns may want to see restoration moving forward by the truckload, from the woods to local mills. Environmentalists see it otherwise; they reject the idea that commercial/industrial activities must inevitably be the focus of a public-lands restoration economy. Restoration advocates want to persuade both the potential beneficiaries who live closest to the national forests, and a larger public with no direct connection or knowledge of forest work, that restoration jobs must be non-commercial to be ecologically sound. Trying to sell their idea of publicly-funded restoration, western environmentalists paint a picture of restoration work without much reference to experience or common sense.

Why should it matter whether forest advocates make unsupported claims about the economic potential of restoration? Because actual restoration needs a foundation in reality, one which the environmentalists’ program does not provide. Public funding for restoration under the NFPRA? Sure, if Congress would only come through with several hundred million annually, we’d have a restoration economy—just like that. A rural revival, with hundreds and thousands of workers given jobs by a beneficent federal government, jobs that would support communities betrayed and abandoned by traditional resource economies? The idea may sound good to people—perhaps too good to be true?

Unfortunately, the truth is that most (not all) environmentalists know little about the work they imagine all those people doing on public lands, on the public payroll. The phrase “hundreds of local jobs” that repeatedly gets thrown around is meant to suggest that public-lands restoration means manpower, that it primarily involves handwork. The
idea of a “National Restoration Corps” calls to mind a picture of stalwart crews marching out, tools in hand, and bending their backs to forest work—like their grandads may have done in FDR’s Civilian Conservation Corps (the “CCC”). The image evoked is utopian, nostalgic, simply too pat. Yet environmentalists’ rhetoric consistently calls up that kind of imagery in arguing their vision for public-lands restoration.

The appeal to nostalgia is apparent to anyone who has experience doing forest work. No one knows how many hands-on forestry jobs restoration would provide—and evidently it is arguable how they should be calculated. The Forest Service uses an arcane computer model that spins out and multiplies the economic effects of forest work to show a larger number of jobs than would otherwise be the case.57 (I was in touch last year with someone from the Native Forest Network about the group’s public statements. When asked about the claim of “hundreds of local jobs” doing restoration work on one ranger district, the representative said, with no apparent irony, that he had taken the figures from the Forest Service’s own EIS analysis.58 These were picked up and passed along without qualification—though other aspects of the EIS were closely critiqued—because they served to make an immediate point.)

How much demand there would be for such jobs, what they might pay, whether they would be long-term or temporary, seasonal or year-round—in the restoration debate environmentalists can avoid cluttering up their argument with such details, simply because they don’t know. It is easy for advocates to declare in a “Work Force Core Principle” that “a highly-skilled, well-compensated work force is essential for restoration.”59 Imagining substantial numbers of people employed that way is harder. One thinks, on the one hand, of the grunt-work of planting trees or hand-piling slash, brush cutting or broadcast burning; and on the other, of the work that is now commonly done—say, handling small material in thinning projects—where one machine replaces any number of workers. Environmentalist rhetoric doesn’t account for such limiting aspects of a restoration economy.

Where would the jobs be in forest restoration? There would be some need for people skilled in the labor-intensive, “handwork” forestry jobs mentioned above, though not on the scale advocates would have us imagine. Biomass and other small material utilization will be economically viable only if they are done by machine, minus the heavy expense
of labor. “Full road removal and recontouring,” which is enormously costly and can only be done on a limited basis, is also a restoration method that relies on equipment, not hand labor. The same is true for the most-needed work in stream restoration. Planning and administration would employ a certain number more; but chances are that in most places, few of these jobs would be filled by local workers.

Thus the promise of abundant employment and a restored rural workforce might only be a mirage on the restoration landscape. At some point, shouldn’t someone be able to sit down and come up with specifics about jobs in public-lands restoration? There is really no way to know unless a restoration program were in place and underway. Aside from that, the activists’ curious boosterism raises other questions the jobs rhetoric does not address.

Environmentalists avoid noticing—or at any rate admitting—that the idea of lots of forest workers actively doing restoration seems to conflict with core beliefs they hold about ecosystem recovery. In both the canon of restoration principles and the provisions of the NFPRA, less management, not more, is always better; passive restoration is preferable and should be allowed wherever possible; and the goal should be to ultimately leave restored ecosystems to their own devices, without the need for human intervention or maintenance. No matter how enormous the need and backlog of public-lands restoration, under this vision the employment picture looks considerably less robust.

A corollary that is not talked about is preservation: whether under the environmentalists’ program restored forests would be preserved forests, public lands “taken out of production,” as industry would say (meaning the timber base). Wise-use proponents are violently opposed to the idea, and to any suggestion that this should happen. But environmentalist’s insistent rhetoric about “no more commercial logging on public lands” makes it clear that is precisely what they envision, and what they intend.

So, do some restoration work in an area, close it off and move on? Forestry work under a program like that appears no more tenable or sustainable than jobs in any resource economy, maybe even less so. Expansive claims about the potential of a restoration economy sound patronizing and false to workers, as well they might. When environmentalists say, whether arrogantly or sincerely, “We’ve decided that there’s a generation’s worth of work that should go forward,” communities closest to the action
could reasonably be expected to reply: “great, what happens after that?” Working people aren’t so easily persuaded, let alone fooled. Common sense suggests some caveats before people buy into all the talk about jobs in a restoration economy.

Yet such hazily focused and inconsistent rhetoric is how Montana environmentalists have often too made themselves heard in the restoration debate. The way it gets presented makes their radical program sound like what it mostly is: just talk. Other people—advocates for labor, forest products researchers, would-be eco-entrepreneurs—are trying to locate and/or create a sustainable economy in the restoration landscape. Small material utilization, as fuel or craft wood, and non-timber forest products all sound good in theory, but if there were actually much to them as economic alternatives they would already be going concerns. Regardless, whatever is proposed or tried will be up for discussion by all sides in the restoration debate. Listening to environmentalists here in Missoula one can imagine most aspects of a genuine—meaning viable and self-supporting—restoration economy running up against their dogmatic insistence that the commerce and industry of modern man has no place in forest ecosystems.

Environmentalist arguments offer lessons that everyone in the restoration debate should take to heart. Self-serving or excessive or empty rhetoric undermines sincere efforts to get restoration started. A stance of “no compromise” does nothing to restore and care for the earth, its ecosystems, or the human communities that are part of the whole. The restoration program environmentalists argue publicly is not going to win many people over to their vision. Among other things, activists need to put aside the confrontational mindset—and tired negotiating tactic—of arguing for far more than they think is possible in hopes of getting a larger share of what they want. Nor should they have it both ways, holding out conciliatory promises while pressing other players in the restoration debate with an “all bets are off” ploy like the NFPRA legislation. Restoration advocates would do well to tone down the one, and give up the other.

Forest activists should reconsider their program and revise their strategies toward more honestly attainable goals. Questionable rhetoric aside, there are signs that the environmental community has been outgrowing and moving on from its no-win eco-radical stance. As one activist put it, “The public’s not paying attention; to build trust we
need to get out in front with positive work.” The admonition applies just as well to
everyone who wants to see restoration go forward on public lands.

Montana environmentalists have lately been reaching out to local forest communities
in the spirit of cooperation, by arranging workshops where people can learn about and
discuss restoration forestry in diverse groups; how it applies to the “community
protection zone” (debatable) as well as how it should be done farther out in the woods.
Also, they have recently involved themselves with long-term watershed restoration
planning on their local ranger district, even doing some fundraising on their own to
supplement a limited Forest Service budget. That kind of legwork has gotten the project
notice and publicity it would not have received otherwise. These efforts are good things
in themselves; but beyond that they give us reason to hope that environmentalists and
others in the restoration debate may soon be able to agree on a course and a progress for
meaningful forest restoration, and get on with making it happen.

Summing Up Environmentalism’s Position
Montana environmentalists argue for a radical and visionary program of public-lands
restoration, one that favors ecological integrity and “non-market” ecosystem values over
human use and manipulation. The local environmental community draws support from a
national network of groups that endorses ecological restoration as part of a larger
movement for forest protection. While their program and tactics reflect
environmentalism’s historical success at playing eco-politics on a national stage,
changing times and attitudes call on advocates to rethink and restate their position. The
program they advocate calls for profound changes in federal agency land management
that would seem to be practical and political impossibilities. Environmentalists argue
convincingly that sound restoration principles must be the foundation of a restoration
program under federal auspices. But their support for ill-conceived legislation costs them
trust and credibility in the restoration debate. Unrealistic arguments and empty rhetoric
only serve to alienate the people ecosystem restoration must first come to terms with. The
environmental community has begun to acknowledge that, and has stepped up to support
restoration efforts at the local level in cooperation with others who are interested in
seeing restoration go forward.
Environmentalism serves as a kind of lightning rod for all the arguments at issue in the restoration debate. Forest advocates themselves have been more vocal than other players, and have gone further in taking their vision to the public arena. This assertive stance forces other groups to argue their own positions more clearly. For all that, western environmentalists seem at times to have painted themselves into a corner with their dogged insistence that they can win the public over to their cause while holding federal management accountable in the courts. This stubbornness has won them neither friends nor increased support; rather, it has threatened to leave them standing out in the cold when restoration policy is made. (When forest activists complain that “the Montana congressional delegation won’t even talk to us,” one hardly has to ask why.65) What has finally gotten them in the door has been a willingness to accept some realities, and get on with the harder work of conciliation and compromise—which, in the long run, is how meaningful restoration will finally be done.
7. CONCLUSION: RECOMMENDATIONS AND REFLECTIONS

My discussion through the preceding sections has outlined the issues and mapped out the contested ground on different sides, across what I have called the “restoration landscape.” Environmentalists now seem to hold the high ground there; they consistently raise the big questions about public lands in ways that bring other groups’ positions into the discussion, and thereby into some measure of perspective. The breadth of current arguments requires that all players in the restoration debate make their case for restoration in the context of larger eco-social and political concerns. When they do, it shows the need for realism in arguing over restoration, and makes it easier to separate the mere polarizing rhetoric from arguments that speak to what might truly be possible.

Thus the restoration debate gives us some basic insight into how rhetoric operates in environmental discourse, by trying mightily to shove environmental policy one direction or another. The way various arguments play off each other, and hold meaning mostly in relation to what opponents say; how the rhetoric of certain groups calls for a response from others; whether the exchange of views is helpful or completely off the wall... the give-and-take, the framing and reframing of issues ad nauseam shows environmental discourse, almost in spite of itself, constantly trying to find a balance—a point that is not always apparent.

What finally becomes clear is that no group comes out on top in getting what it wants. Environmentalists are not going to end all timber cutting on all national forests and preserve them entire. Industry cannot turn back the clock and log from public lands on the scale it imagines. Science can hardly expect to hold restoration in the real world to its high-minded standards. The Forest Service will not be able to hang back and maintain its non-committal stance while paying lip-service to restoration. All that being the case, we are led to ask: which arguments actually matter?

The clearest conclusion one can draw from reviewing and comparing the various arguments is that the true potential of public lands restoration lies in the middle ground,
in every sense. Compromise among interest groups is the initial goal and inevitable outcome of the restoration debate—just as with all contentious political discourse. That is what the student or other interested observer hears above the din of the restoration debate. The realization leads to certain common-sense observations about specific compromises that might help restoration negotiate the middle ground and beyond. In this following section I offer some examples, perhaps only the more obvious. Anyone familiar with the challenges facing public-lands restoration could add to a list of suggestions for keeping the public discussion of restoration more realistically grounded and productive.

**Resolve the problems of definition**, so as not to hold restoration hostage to restrictive and unrealistic standards, whether scientific or eco-political. Throughout this essay I have used the term “restoration” in the general sense, meaning any action taken to remedy and recover degraded ecosystems, or particular eco-social conditions that affect them. “Ecological restoration” sets itself as a benchmark, and in effect defines restoration as only what is done in accord with its own established standards. But in many places the public forests will require a kind of restoration that falls short or departs from identified standards.

Restoration must therefore be defined and understood to necessarily include the idea of recreating or recovering *manageable conditions* in forest ecosystems: conditions restored to the point that artificial ecosystems in varying degrees are maintained across permanently managed landscapes. The problem of disrupted fire regimes is an obvious example.66 Because of other values and management objectives, only on a small fraction of public forest lands will natural fire ever be allowed to resume its key role as an ecological process. If some degree of ecological integrity is a management goal, then conditions under which prescribed fire may be used must be established and maintained. Short of that, certain effects of fire would still need to be replicated by other methods. Either way, that means a kind of artificiality in restoration goals that advocates may find hard to accept. Nonetheless such “compromised” objectives must be acknowledged and included in a true working definition of restoration; trying to insist otherwise means holding restoration to prohibitive standards. That kind of “partial” approach will necessarily play a big part in any comprehensive restoration program.
As a science and a discipline, restoration ecology should commit itself to a declared activist program, as the Society for Conservation Biology has done, and for the same reasons. It may seem contradictory, questioning environmentalists’ rhetoric while calling on others to come forward with an activist posture and make their voices heard in the public arena: the scientists, whom we often picture as reclusive and studious types, doing research and publishing their findings from a position of calculated disinterest in politics and policy-making. The SER rhetoric makes this seem true of restoration ecologists, and the journal *Restoration Ecology* even more so. We know that individually, many scientists defy the stereotype and make themselves heard. But if we have now reached the point where ecological restoration becomes a matter of urgent need, as well as a practical necessity in public-lands management—then how can restoration ecology as a discipline avoid committing itself to advocacy for restoration in the public-policy arena? If it means compromising a position of supposed scientific detachment, so much the better. Since SER has set itself up as the arbiter of meaning in restoration discourse, what they say matters.

Admit the limitations of a public-lands restoration economy. Market return from restoration activities and by-products should not be sold as the answer to funding restoration. At the same time, it is hard to imagine that public funding for restoration can ever match the need. Advocates and working people need to understand that the number of jobs involved in doing restoration on public lands will be limited; most of the work will be done by contractors and workers who already know the business. Where does that leave a restoration economy on public lands—strapped for cash, or seemingly just another boondoggle? The idea that the federal government would employ large numbers of people in a kind of idealized eco-social jobs program is pure fantasy, an insult to the common sense of taxpayers and working people alike. It does nothing to promote the idea of restoring public lands—just the opposite, in fact. Funding restoration work will require even more realistic discussion and compromise; we can hardly expect Congress to write a
blank check before advocates and adversaries come to enough agreement that restoration has a chance to prove itself.

_Bring the idea of forest “zoning” into the restoration debate._ As the problem of definition makes plain, the diversity of forest lands call for a range of restoration efforts, both in kind and degree. The West’s public lands show such a great range of conditions from place to place—eco-regions, forest types, historical circumstances, current use and management—that simply advocating for forest restoration argues nothing specific about what the goals and expected benefits should be in particular parts and areas of the national forests. How do we decide what the places themselves would be, once they were restored?

In a practical sense, planning to restore any of it means breaking the restoration landscape down into manageable parts and categories, and organizing efforts toward identified goals and purposes. Inevitably this suggests what some have called _dominant-use zoning_ of forest land as a key principle of a restoration program. The concept is not new in public-lands management. In the 1950s, zoning was considered and much-discussed as part of controversy surrounding the “multiple use” concept (the Wilderness Act, for instance, was first conceived as a zoning-for-preservation measure). The idea of apportioning forest lands for different uses and benefits was resisted, and finally rejected, by those who wanted to open all lands that held stands of merchantable timber. In hindsight, one might wish that zoning had been tried. Now, in the Restoration Century the idea’s time may have come.

A system of zoning forest land for different levels of use and preservation would serve a restoration program in several ways. It would apply initial efforts where they could actually be planned to ecological restoration standards, on a meaningful scale. These first restoration reserves would function as “land laboratories” (in the true sense of Aldo Leopold’s phrase); experimental goals would include watershed rehabilitation, habitat restoration, species recruitment and overall biodiversity conservation through ecosystem protection. They would target the most damaged lands first, meaning primarily the more marginal timberlands around the West—sensitive terrain in drainages that never should have been roaded and logged in the first place.
On forest lands designated for purposes involving more use and direct management, restoration measures and their stated goals would be modified, tailored and/or scaled back accordingly. Uses and restrictions prescribed under so-called dominant-use zoning would not necessarily have to be exclusive or cut and dried. Various schemes for combining uses with preservation of ecosystems features have been suggested by forest ecologists and conservation biologists—combinations which are too detailed to recount here. The point to note is that designating forest management areas for different purposes, and restoring forest ecosystems to achieve them, means that everyone’s vision of restoration will likely have application somewhere; under comprehensive management zoning, no one’s agenda would dominate the restoration landscape.

Propose new legislation that deals realistically with restoration issues. Formalizing such a system of forest zoning under prescriptive legislation would be the key to planning in any genuine restoration program. Of course, the legislation currently on the table allows for no such compromise. Of all the rhetorical flops in the restoration debate, none seems so senselessly divisive as the NFPRA. Environmentalists and their allies need to dump this failed legislation. In its place, they should craft a bill that deals honestly with political realities; one that is open to sensible negotiation and revision. If those who want to legislate restoration would have us think big—then why not think even bigger? The Forest Service clearly needs a specific and comprehensive mandate for ecosystem restoration. Why not lobby for a prescriptive law that would supply one: a substantial rewriting of NFMA (the National Forest Management Act of 1976) to guide restoration into the new millennium? Specific provisions of such a law might include the following:

- Institute the dominant-use zoning mentioned above, and designate ecological reserves that would receive first consideration in experimental restoration planning.
- Require the Forest Service nationwide to reassess the “timber base,” identify and begin ecological restoration on the most damaged and/or ecologically important areas, as part of a policy of withdrawing marginal lands from timber production.
• Provide substantial long-term funding for the active restoration and maintenance of high-use, high-value managed landscapes; this should include trial subsidies in price supports for biomass “hog-fuel” and other sub-marginal restoration by-products.

• Commission studies of the actual employment potential and administrative challenges in advance of any public-works restoration program under agency management.

• Define ecosystem restoration in accord with the accepted science and ethical principles; but along with that, devise a “scale for application” that recognizes the need to compromise restoration methods and objectives to achieve a variety of eco-social goals and ecosystem conditions.

Agencies and interest groups would naturally line up to flesh out this bare outline with other provisions and details. Certainly, it would be a monumental legislative undertaking—and of course, controversial. But the time seems right for it.

For instance, the Forest Service and the timber industry have always resisted the idea of reserving land from active management for timber production, let alone any suggestion that the timber base should be reduced as a matter of policy. But the timber base has already been effectively reduced over the past twenty years through management constraints imposed under existing law; agency managers and the timber industry have come to live with the fact. Much of the inland West (where the need for fire-regime restoration is most urgent) never had a real timber base to begin with, in terms of forest land that could regrow commercially valuable timber on a sustainable rotation. In such areas the idea of sustained yield was at best never more than a management delusion—at worst, simply a deception, especially here in the northern Rockies. The management problems that have resulted could now be addressed through reform legislation directing the Forest Service to continue timber management on proven productive lands, and to plan for restoration of other areas.

This is an example of the kind of argument a real-world restoration law would have to address, and try to resolve. The actual form such legislation should take would represent compromise in the truest sense, among diverse groups of advocates, agency officials, policy wonks and politicians all arguing their ideas for a workable restoration program. The result would be a far cry from environmentalism’s bid to simply stop all commercial
logging on public lands. Far more of a challenge as well, to craft legislation with an eye
toward actually having it enacted—as opposed to the sort of exercise in futility
represented by the moribund NFPRA. If forest protection has a strong base of support
nationally, advocates would do well to enlist that support behind a movement to
introduce new legislation, a bill providing for restoration that could actually be passed.

The preceding are only some examples of where compromise in public discussion
could move restoration forward. Anyone who thought about it could point out others.
One would hope to hear more such suggestions being discussed widely by an interested
public—meaning the vocal (and voting) citizenry of the millennial West. As I hope I
have made clear, I am not a party to any of these arguments I presume to discuss, or an
expert of any kind; only one westerner among many who care about the fate of our public
forests. One doesn’t need to be an expert in policy analysis, conflict resolution, or
anything else to understand that there can be no perfect accord on public-lands
restoration. By the same token, there can be no agreement at all until the voices in the
restoration debate offer arguments and proposals in the language of true possibility. All
those who presume to take part in the debate have a responsibility to argue their cases in
those terms, and to come to terms with each other’s positions, to move restoration
forward in the 21st century.

Restoration and Hope
Restoration as a political ideal is something new in human history, but also an idea whose
time has now arrived. For reasons this essay has outlined, as I asserted at the start the
western public lands will be the great proving ground for the idea of restoration. We may
also prove a good deal about ourselves in the commitment we make to it. Americans will
realize that building consensus for public-lands restoration means moving away from
historic values. Large-scale ecosystem restoration will also come to be seen as one of the
great experiments in natural science, as the original reserves of federal lands were a great
experiment in public policy—the kind of endeavor that always appeals to Americans’
national pride.
The West’s public lands in themselves are a great national legacy, unique in all the world. In large part they have made the West what it is, and shaped the society that has grown and matured here. That we now engage in debate about restoring these lands is in itself characteristically western: imagining new beginnings has always been the special province of the western mind. And thinking big about the possibilities comes naturally here; in time, the “rewilding” envisioned by radical environmentalists may be regarded as one of the great philosophical problems of the ages. Also the question of eco-conscience and redemption: can we atone for history and human nature, by restoring and caring for what we trashed the first time around? That the restoration debate should question basic tenets about values and human nature is exactly the point. Westerners bring a characteristic combination of hopefulness and skepticism to these ideas; they come well-armed for the discussion.

I have been writing in this essay as if the technical end of forest ecosystem restoration were mostly settled, and we knew enough now to begin and go forward with it everywhere. The truth, of course, is somewhat different. Starting out to “restore” western forests means confronting dynamic ecological complexity that will likely remain beyond our ability to comprehend, let alone actually “manage.” Under the circumstances, it is understandable that we approach restoration with considerable hesitancy and disagreement. Yet in many places people have made a start and are going forward with forest restoration; in some cases private landowners are showing public officials the way. The more obvious ecosystem problems we have caused are clear—and so are at least some of the things we should do to correct them, despite our imperfect knowledge. In other words, just about anywhere we choose to start we can see where restoration ought to begin, and how we might go about it.72

But ecosystem restoration done only here and there is not enough, and not what the idea should mean. Public commitment to restoration will reflect, as environmentalism envisions, a shift in cultural attitudes about our relation to nature. The more people understand that, the greater the chances that a groundswell of support will build for large-scale ecological restoration. And not only of western forests; also grassland biomes, rivers and their fish runs, estuaries and wetlands, the soils of our fields and farms, even the seas and skies—every part of the whole we have damaged in our unknowing or
uncaring. It is well within our power to imagine that all these should eventually be part of a public commitment to restoring the ecological whole.

Over half a century ago, Aldo Leopold wrote, “One of the penalties of an ecological education is that one lives alone in a world of wounds. Much of the damage inflicted on land is quite invisible to laymen.” That this is less true now than it was in Leopold’s time may mean only that the damage in our day is worse. In any case, people no longer live alone with their environmental awareness and concerns; the advancement of ecological education has been one laudable outcome of the restoration debate. But the collective voices of restoration could build on that and take it further, by appealing to more than just the eco-politics of resource issues. The idea of restoration should be a cause for hope, a counter to the pessimism and cynicism that concerned people too easily feel—say, those who come to environmental studies, or those who devote themselves to environmental advocacy, or other people whose lives and opportunities seem to diminish in a changing West—when they look out across the eco-social landscape, reflect on the problems they see there and consider the possibilities for change. I admit to those feelings myself, and I know I’m not alone.

People need that hope in the same way that ecosystems need healing: to recover their integrity and maintain their natural balance. If the talk about forest restoration is to be more than a mere gesture, now is the time to make it so. Everyone’s energy and imagination will be needed. How far we go with it, the actual forms our hope takes—in restored forest ecosystems and elsewhere—will continue to be points for debate in the public discussion. We may expect to find the disagreements sorting themselves out into a true commitment and workable program for restoring the West’s forests, as rhetoric gives way to real accord. Restoration can then be what we decide it should be—indeed, it can be nothing else.
Notes on Sources

Chapter 3  Science in the Restoration Debate

1 Restoration Ecology 465, taught jointly in Forestry and Environmental Studies.
3 SER “Primer on Ecological Restoration,” 2004
4 SER “Guidelines for Developing and Managing Ecological Restoration Projects,” 2000
5 Looking back through the scientific journal Restoration Ecology, a search of every number over the past ten years turns up notably few articles on the ecology of fire-dependent western forests—five, to be exact, in all that time. Of the five, four deal with restoration in southwestern ponderosa forests, and all four have the same man as either the lead or co-author.
7 See, for instance, Arno, Parsons, and Keane, “Mixed-Severity Fire Regimes in the Northern Rocky Mountains: Consequences of Fire Exclusion and Options for the Future,” 2000
8 Mimicking Nature’s Fire: Restoring Fire-Prone Forests in the West 2005
9 ibid. p. 2
10 ibid. p.12
11 ibid. Arno and Fiedler offer case-study examples from different forest types in western Montana

Chapter 4  Restoration and the Timber Industry

12 “Ring of Fire,” Evergreen Magazine, spring 2006
13 The Wilderness Society, 2003
14 The Plum Creek Lecture Series, “Forestry in the 21st Century: Dealing with the Consequences of Success.” University of Montana School of Forestry, 1998
15 U.S. Forest Service Fire Science Laboratory. Assigned condition class has been a point of controversy under the Healthy Forests Restoration Act, which exempts certain fuels-reduction projects done on forest lands in condition classes II and III from administrative appeal.
16 For the scientific opinion, see Mandak and Moore, “The role of nutrition in the health of inland western forests” 1994
17 One example from Oregon is the “Lake County Resources Initiative.” Almost a decade after a biomass co-generation facility was proposed for the town of Lakeview, no private partner has signed on to build it (this despite a broad coalition of support, an outgrowth of the area’s public-land status since 1950 as the “Lakeview Sustained Yield Unit”). Among other problems, potential investors regard any facility that has to plan on obtaining more than 30% of its material from federal forests as too politically uncertain to be feasible; the majority of forest land in Lake County is federally owned and managed. www.lcri.org 2005.
19 Commentary, Ellen Engsted, Montana Forest Products Association, KUFM radio August 2006
20 Petersen, Evergreen Magazine summer 2004
21 The Evergreen Foundation, www.evergreen.org; founded in Jackson County, Oregon, in 1987, the organization is now based out of Flathead County in Montana.
22 The Owens and Hurst mill in Eureka, Montana, closed in 2005, amid much media coverage and public commentary denouncing federal forest policy by owner Jim Hurst.
23 Editorial, Billings Gazette August 2006; see also the Evergreen Foundation website and magazine.
Chapter 5  The Forest Service and Restoration

25 Hirt, *A Conspiracy of Optimism*, 1994, gives the fullest account of the postwar policy and politics in national forest management. Also see Clary, *Timber and the Forest Service*, 1986, for an even more detailed analysis of what historians have called “timber primacy.”

26 The Multiple Use and Sustained Yield Act, “MUSY” of 1960, codified these principles, which were supposed to guide forest policy and timber management on federal lands.

27 Hirt, ibid., chapter 6 “Getting out the Cut.”

28 See O’Toole, *Reforming the Forest Service*, 1988, for the argument that managerial interest in “budget maximizing” was a chief motivating factor for continually increasing and intensifying management.

29 What Hirt discusses and describes as “the fight to protect non-timber values.” ibid. p. 151-170.


31 Examples are the National Forest Management Act, “NFMA” of 1976, which prescribes specific national forest protections; and the National Environmental Policy Act, “NEPA” of 1969, which requires that all federal agencies follow statutory procedures for environmental protection.


37 *Ecological Applications* vol. 6 (3) 1996, an issue devoted to ecosystem management in which all the federal agencies charged with implementing the policy are represented by a contributor.

Chapter 6  Environmentalism in the Restoration Century

38 National Forest Protection Alliance 2005. [www.forestandadvocate.org](http://www.forestandadvocate.org)

39 One example is the 2006 draft plan for the Beaverhead-Deerlodge National Forest, which was decried by preservationists because of concessions to timber production arrived at through a collaborative process that included certain, more arguably “mainstream” environmental groups.

40 The term “Freddie” is an epithet coined by radical environmentalists for Forest Service personnel, meant to be deliberately trivializing and disrespectful.

41 Zakin, *Coyotes and Town Dogs: Earth First! and the Environmental Movement*, 1993, is the best, most readable source for tracing the radical environmental movement from its historical antecedents on through this period.

42 In the new millennium the Missoula environmental community itself is small, tightly-knit, and somewhat incestuous; its member groups represent perfectly the changes environmentalism as a whole has undergone in the years since the spotted owl era, when western environmentalists were at the top of their game.

43 Staff members from the National Forest Protection Alliance and Wildlands CPR, respectively, are listed as co-authors of the “A Citizens’ Call” manifesto.

44 Not to be confused with the SER peer-reviewed journal *Restoration Ecology*—by its own admission, *Ecological Restoration* is not peer-reviewed; it is directed primarily at practicing restoration technicians.
In fact they issue from distinct political periods; the Clinton era fostered the NFPRA, while “A Citizen’s Call...” came in response to the (younger) Bush administration’s forest policy machinations. DellaSala et al “A Citizen’s Call...” Ecological Restoration, 2003. I truncate the title this way throughout the following discussion.

DellaSala et al  “A Citizen’s Call...” Ecological Restoration, 2003. I truncate the title this way throughout the following discussion.


By this I mean the proposed legislation I have discussed above, as well as the public statements of Montana environmentalists who speak in general terms, claiming that restoration jobs will somehow “support communities” without reference to substance or specifics. Between the two the pitch is empty rhetoric—an appeal to nostalgic imagery rather than to any environmental realpolitik.

IMPLAN, a computer model developed in the ‘80s at the University of Wisconsin that incorporates “multipliers” in calculating economic effects of resource development. The method is standard in economic analysis; but the calculations give an inflated impression of the numbers of people that would be employed primarily doing hands-on restoration work. www.fs.fed.us/institute/economic_center/implan_data_quality.

Native Forest Network, personal communication 2005.

“A Citizen’s Call” p. 16.

Claims that are made explicitly or implied in the rhetorical turns of “A Citizen’s Call,” the proposed NFPRA, and the SER restoration “Guidelines.”


Such efforts are only now getting started. Alliance for Sustainable Jobs and the Environment and Sustainable Northwest are two western NGOs organized to explore the possibilities and promote the goals of a restoration economy. Their efforts so far seem to result in an over-supply of initiatives, declarations, partnerships, multi-point plans, and working groups (see note 17 preceding); www.asje.org/index; www.sustainablenorthwest.org

National Forest Protection Alliance, personal communication 2005.

Some of the Missoula environmental groups named above have established a working relationship with the unincorporated community of Deborgia, Montana, a place in the Bitterroot Mountains surrounded on all sides by overgrown public forest lands (the Superior Ranger District, Lolo National Forest).

Native Forest Network, personal communication 2005.

Chapter 7 Conclusion: Reflections and Recommendations


See the Society for Conservation Biology website for such a declaration in their mission statement. www.conbio.org Conservation Biology is known for having been founded to act as an interdisciplinary corrective to the tendencies of science to avoid direct involvement in policy making.


The Bolle Report to Congress in 1970 examined in detail the management fallacy of sustained yield on marginal forest lands, and publicized the destructive practices it led to; Hirt ibid. p. 248-251 The Bolle Report could be said to mark the first round in the decades-long fight to overthrow the predominance of timber management on public lands.

For a technical elaboration of this idea, see Brown, Agee, and Franklin, “Forest Restoration and Fire: Principles in the Context of Place” 2004.


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**Bibliography**


