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Ecosystem Management in Question: A Reply to Ruhl

BRUCE PARDY*

I. INTRODUCTION

In *Changing Nature: The Myth of the Inevitability of Ecosystem Management*,[1] I challenge the widely held view that ecosystem management (EM) is the only environmental strategy now possible. "Ecosystem management may in some circumstances be the best of the policy options to deal with a particular environmental problem, but to describe it as the only choice available is not accurate,"[2] the article reads, "[i]f ecosystem management does become inevitable, it will not be because of nonequilibrium or the absence of pristine systems, but because ecosystem management itself has altered systems past the point of no return."[3]

In *The Myth of What Is Inevitable Under Ecosystem Management: A Response to Pardy*,[4] Professor J.B. Ruhl objects to my objections and reasserts EM's status as the only legitimate environmental strategy, concluding, "I am afraid, Professor Pardy, that Ecosystem Management is simply inevitable any way you look at it."[5]

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1. Bruce Pardy, *Changing Nature: The Myth of the Inevitability of Ecosystem Management* (*Changing Nature*), 20 PACE ENVTL. L. REV. 675 (2003).

2. *Id.* at 691.

3. *Id.* at 692.

4. J.B. Ruhl, *The Myth of What Is Inevitable Under Ecosystem Management: A Response to Pardy* (*Response*), 21 PACE ENVTL. L. REV. 315 (2004).

5. *Id.* at 323. It should be pointed out that in *Changing Nature* I have attempted to do what Professor Ruhl says cannot, or should not, be done:

> The power of the ecosystem management idea, like ideas such as sustainable development and environmental justice, is that it offers only a binary policy choice and one of those choices is clearly incorrect. These normative expressions leave very little "yes, but" room. The term itself shapes the debate, so that it becomes a question of how much more ecosystem management (or sustainable development, or environmental justice) to have, not whether there should be any, or whether there is some alternative . . . . [n]o politically aware person wishing to rein in the spread and implementation of ecosystem management will do so by openly opposing

II. REPLY

I welcome Professor Ruhl's response because it illuminates the heart of the matter that my article addressed. First, let me identify points on which Professor Ruhl and I appear to agree. In no particular order, we agree (1) that environmental protection in its broad sense is important and should be ecosystem-based; (2) that ecosystem *mis*management is undesirable; (3) that government has a role in environmental protection; and (4) that he and other advocates of EM believe that EM is inevitable.

We differ on the following matters: (a) whether the arguments addressed in *Changing Nature* reflect the rationales for the conclusion that EM is inevitable; (b) the meaning of "management"; (c) the meaning of "nature"; and (d) whether EM allows utilitarian decisions. I will address each of these in turn.

A. Rationales for the Conclusion That EM Is Inevitable

In *Changing Nature*, I offer five arguments as the basis for the conclusion that EM is inevitable, and then proceed to criticize them. In his *Response*, Ruhl approves of the dismissal of these five arguments,[6] but maintains that "none of the series of arguments is an argument anyone representing Ecosystem Management would make."[7] Indeed, in setting out these arguments, Ruhl suggests that I "dramatically misrepresented Ecosystem Management and the work of scholars, researchers, and resource managers who support it."[8] It is true that no advocate of EM of whom I am aware has expressly articulated the reasons for the inevitability of EM in quite these terms. But that was not my claim. Instead, the purpose of the arguments presented in *Changing Nature* was to reflect the unexpressed, unarticulated rationales for the conclusion that there is no policy choice now available other than reliance upon EM; and they do, I maintain, just that.

> the idea of ecosystem management, for that would be tantamount to proposing ecosystem *mis*management.

J.B. Ruhl, *Ecosystem Management, the ESA, and the Seven Degrees of Relevance*, 14 NAT. RESOURCES & ENV'T 156, 157 (2000).

The purpose of *Changing Nature* was to do exactly that—i.e., to oppose the idea of ecosystem management while also opposing ecosystem mismanagement and decline. For an alternative to both, see my article, *In Search of the Holy Grail of Environmental Law: A Rule to Solve the Problem* (*Holy Grail*), 1 INT'L J. OF SUSTAINABLE DEV. L. & POL'Y 29 (2005).

6. Ruhl, *supra* note 4, at 317.
7. *Id.*
8. *Id.* at 318.

The belief in the inevitability of EM has become so well established as to be considered self-evident, a status which apparently does not require arguments or reasons.[9] Advocates of EM are often adamant about the pre-eminence of their approach, but it is not easy to find the logical basis for their faith. In his *Response*, Ruhl is clear that he believes EM to be inevitable, but even he is pretty sketchy about why.

In *Changing Nature*, one of the five arguments I describe as a basis for the conclusion that EM is inevitable is that ecosystems are thought to be past the point of no return.[10] The argument is set out as follows:

> *There are no pristine systems left. (This statement is correct.)*
>
> *Therefore, humans have changed all ecosystems. (This statement is correct.)*
>
> *Therefore, there are no fully natural ecosystems left. (This statement is correct.)*
>
> *Therefore, there is no nature left to preserve. (This statement is not correct and does not follow logically.)*[11]

Professor Ruhl emphatically rejects this reasoning as a basis for the inevitability of EM, and agrees that the proposition that there is no nature left to preserve is wrong.[12] Yet, the reasons he provides for the inevitability of EM in his *Response* consist of the following:

> The reality is that there simply is no way to "preserve" nature without in some sense managing it somewhere with some human-defined purpose . . . . If we were to make "preservation" of an estuary our overriding purpose, we would have to manage upstream watershed and distant air shed locations in some way. Assuming those locations are in ecosystems too, well, then we would be managing those ecosystems in order to preserve other ecosystems. Also assuming we do not intend to drive humans completely out of all ecosystems, we would necessarily be confronted with the need to manage some ecosystems in order to preserve other ecosystems . . . . The problem is that very few ecosystems are immune to the effects of humans . . . . It would

9. Indeed, Professor Ruhl's response gives credence to my suggestion at the beginning of *Changing Nature* that to ask whether nature should be preserved may no longer be treated as a legitimate question. *See* Pardy, *supra* note 1, at 675.

10. Pardy, *supra* note 1, at 690.

11. *Id.*

12. Ruhl, *supra* note 4, at 318.

> be nice if we did not need Ecosystem Management. The dream of letting nature alone is quite appealing. But it is too late.[13]

Despite his dismissal of the "past the point of no return" argument, Ruhl's underlying rationale seems to be a variation of it. His reasoning appears to be something like this:

> *There are no pristine systems left. (This statement is correct.)*
>
> *Therefore, humans have changed all ecosystems. (This statement is correct.)*
>
> *Therefore, there are no fully natural ecosystems left. (This statement is correct.)*

Therefore, it is not possible to preserve the natural characteristics that remain because it is too late and there are no tools other than EM. (This statement is not correct and does not follow logically.)

The leap to the conclusion is murky indeed. Of course, resort to EM is easy if it is defined broadly to include the use of rules, laws, or intervention of any kind, which leads to the second point of contention, the definition of "management."

B. The Meaning of "Management"

If one defines "management" to mean any kind of law or government intervention, then of course management *is* inevitable. But that is far too broad a definition. EM is a particular kind of process in which decision-makers have broad discretion to weigh conflicting priorities to craft appropriate results one situation at a time to fit specific facts about the system under consideration. It is not based upon general rules, as in a statute, but is instead indeterminate and ad hoc. EM is anathema to a rule- or precedent-based system of law.[14] Therefore, management is not simply the application of any kind of rules, laws, or prohibitions, but is a particular kind of decision-making process.[15]

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13. *Id.* at 321-22.

14. Ruhl himself has described environmental pragmatism, a school of thought that embraces ecosystem management, in this way. *See* J.B. Ruhl, *Working Both (Positivist) Ends Toward a New (Pragmatist) Middle in Environmental Law*, 68 GEO. WASH. L. REV. 522, 531 (2000) (book review). Ruhl has written that ecosystem management is "as slippery as it needs to be to win the day." J.B. Ruhl, *A Manifesto for the Radical Middle*, 38 IDAHO L. REV. 385, 394 (2002).

15. Since EM is ad hoc, rather than rule- or precedent-based, one might even say that management and law are mutually exclusive, because the former lacks those features that characterize systems based upon the rule of law.

Therefore, it is incorrect to equate management with environmental governance writ large. Unfortunately, this is what Ruhl does in his *Response*. He appears to equate "management" with any use of rules or directives in the environmental sphere.[16] In order to ridicule the possibility of leaving ecosystems alone to run their courses as dynamic, naturally changing systems, he states that such an objective would require intervention (which is correct); and, therefore, would require ecosystem management[17] (which is not correct). As I explain in *Changing Nature*, to question EM does not question the use of rules or other legal instruments to achieve environmental objectives.[18] There are other, better choices than the broadly discretionary, ad hoc process that characterizes EM.[19]

C. The Meaning of "Nature"

One of the flaws in modern environmental governance is that it is highly discretionary. Environmental decisions are often made on the basis of whether the effects of any particular activity or development will be "good" or "bad." The problem is that "good" and "bad" only have meaning in human terms, and are usually evaluated only with the short-, or possibly medium-term, timeframe in mind. In other words, "good" and "bad" have no meaning in purely ecological terms. A forest does not care whether it is a forest or a glade. Only humans care whether a pasture turns into a desert. Wetlands are only "good" from a particular human point of view; in ecological terms, a wetland has evolved from something, and will evolve into something else. Ecology is the science of systems, not a system of values.

When the "good" and "bad" dichotomy is allowed to have a major role in environmental law, it results in a system of discretionary judgment calls. Unfortunately, once the door of discretionary decision-making has opened, everything is up for grabs—

16. Indeed, Ruhl broadens the definition further by suggesting that management includes "[t]he very act of defining an ecosystem." Ruhl, *supra* note 4, at 323. If that is so, then, of course, any inquiry into the state of ecosystems is management and ecosystem management *is* inevitable; but that is as meaningless as saying that everything that humans do is natural. It strips the term of usefulness and makes the conversation pointless.

17. Ruhl, *supra* note 4, at 322.

18. Pardy, *supra* note 1, at 677.

19. Lest Professor Ruhl be dubious about this possibility, I invite him to consider *Holy Grail*, *supra* note 5, in which I describe an approach to environmental protection based upon generally applicable, abstract rules and precedent-based adjudication.

any particular decision can be justified by social, economic, political, cultural, or aesthetic benefits if they are thought to outweigh the permanent effects caused to ecosystem function (allowing alteration of an ecosystem because, for example, the economic benefits will "improve the overall human environment," or some such other doublespeak). When all such decisions are added together, the overall result is cumulative ecosystem degradation. The solution is to do away with "good" and "bad" and substitute an alternative dichotomy: natural and unnatural. That would prevent decision-makers from allowing human-caused ecosystem change.[20]

In order for a shift to natural/unnatural to be accomplished, a workable definition of "natural" is necessary. In his *Response*, Ruhl suggests that the only definition of "natural" I offer in *Changing Nature* is that "'ecosystems continue to change through time even when they are free from human influence.'"[21] Far from relying on such a vague statement, I articulate a meaning for "natural" based upon the economic analogy of a perfectly competitive marketplace.[22] No doubt the enterprise of defining the line between "natural" and "unnatural" is difficult, but it is possible to be more concrete and substantive than the discretionary and politically laden judgment calls between "desirable" and "undesirable" that occur within EM.[23]

D. The Utilitarianism of Ecosystem Management

Professor Ruhl and I may share a vision about what the world, ecologically speaking, should be like. Ruhl quotes with approval Edward Grumbine's description of five principal goals of EM: maintaining viable populations of all native species *in situ*; representing, within protected areas, all native ecosystem types across their natural range of variation; maintaining evolutionary and ecological processes; maintaining the evolutionary potential of

20. Of course, every rule has exceptions. The challenge in providing the exceptions is to allow the ability to carry out actions, for example, that are necessary for short-term human survival in an emergency situation. What the exceptions should not do is submit the whole enterprise to the discretion of political officials, who can be counted on to shift the test away from purely ecological considerations and towards short-term economic and social considerations, which is what has produced ecosystem problems in the first place.

21. Ruhl, *supra* note 4, at 319.

22. Pardy, *supra* note 1, at 683-85.

23. For a detailed attempt to define a bright-line rule for ecosystem protection, *see Holy Grail*, *supra* note 5.

species and ecosystems; and accommodating human use and occupancy within these constraints.[24] The system of environmental governance that I advocate might well produce such results.

But if I agree with Ruhl and Grumbine about objectives, then what is the problem? Within EM, which is not rule-driven but based upon broad discretion and ad hoc, fact-specific decision-making, no one is in a position to define goals because no one is in a position to enforce them. Each individual decision-maker is able to develop an individual view about priorities; and those priorities often consist of placing short- and medium-term economic, social, political, cultural, and aesthetic considerations ahead of ecosystem function. To see that this is so, compare the description of goals from Grumbine above with the quote from Daniel Botkin referred to in *Changing Nature*. Botkin states:

> The task before us is to understand the biological world to the point that we can learn how to live within the discordant harmonies of our biological surroundings, so that they function not only to promote the continuation of life but also to benefit ourselves: our aesthetics, morality, philosophies, and material needs.[25]

The point is not that Botkin or Grumbine is right and the other wrong, but simply that these two prominent advocates of EM state priorities that are different. Grumbine's goals are ecosystem-oriented; Botkin's mandate encompasses utilitarian purposes—human needs, wants, and inclinations. At a minimum, EM makes a utilitarian approach possible. Indeed, Ruhl himself must recognize the utilitarian balancing act that EM performs when he acknowledges, "debate remains strong in discrete settings over how much to emphasize maintenance of native ecosystems versus accommodation of human use and occupancy . . . ."[26] In other words, sometimes the greatest good for the greatest number will be realized by putting the needs of modern human society ahead of the maintenance of native ecosystems. That is utilitarian reasoning. Ruhl may believe, like Grumbine, that one of the most important goals for EM is to preserve native ecosystems—but that is not what a system of EM *requires*. As I state in *Chang-*

24. Ruhl, *supra* note 4, at 316 n.5 (citing R. Edward Grumbine, *What Is Ecosystem Management?*, 8 CONSERVATION BIOLOGY 27, 31 (1994)).

25. Pardy, *supra* note 1, at 676 (quoting DANIEL BOTKIN, DISCORDANT HARMONIES: A NEW ECOLOGY FOR THE TWENTY-FIRST CENTURY 191 (1990)).

26. Ruhl, *supra* note 4, at 316.

ing Nature, EM provides the legal mandate "to measure, control and change ecosystems to produce the most desirable environment in human terms. Sometimes this means preserving particular ecosystems, but more often it does not."[27] Ruhl may not want EM to be utilitarian, but for a decision-maker with utilitarian objectives, EM is the ideal tool. Ruhl agrees that natural resources policy should not be directed at changing ecosystems to suit human preferences, but unfortunately he favors a process that, because of its discretionary nature, allows exactly that.

It is not possible to know what priority or emphasis any particular decision-maker doing EM will bring to the task precisely for the reason that EM is not governed by general rules. On a particular occasion, that decision-maker may indeed agree with Ruhl (and me) about the desirability of protecting native ecosystems, or alternatively may believe that priority should be given to meeting human values and aesthetic needs. EM is a process, not a substantive set of directives. Therefore, Grumbine is not in a position to declare its goals. And, because it is merely a process, EM is subject to the political, economic, and social winds of the time and place in which any particular decision occurs. Such winds usually favor business as usual: not ecosystems as they are, but human activities as they are, which, in the modern era, generally have the effect of cumulatively changing ecosystems.

III. CONCLUSION: ECOSYSTEM MANAGEMENT IN QUESTION

The discretionary nature of EM means that it is not possible to direct that priority be given to any particular interest, ecological or human; and thus it is inevitable that EM will lead to utilitarian decisions based upon "balancing" of interests, and thus to incremental ecosystem change. In other words, EM is a rearguard action whose prevailing function is to minimize the rate of ecological decline while facilitating business as usual as much as possible. Many advocates of EM do not intend such a result (their priority is environmental protection), but they are not in a position to control the results of discretionary and, therefore, ultimately political, decision-making. They cannot prevent the

27. Pardy, *supra* note 1, at 675. Lest there be any doubt whether it is acceptable to control and change ecosystems within Daniel Botkin's management paradigm, he also states, "From the new perspective, nature does not provide simple answers. People are forced to choose the kind of environment they want, and a 'desirable' environment may be one that people have altered . . . ." BOTKIN, *supra* note 25, at 189.

process from being influenced by interests—local, industrial, professional, or political—that do not share their ideas of what a proper outcome should be.

EM is a choice. There are other choices, too. Those who advocate EM should be expected to justify, coherently and persuasively, why it is the best of the choices—why it is necessary to place environmental futures in the hands of a professional elite empowered to shape conditions one ecosystem at a time as it sees fit according to its own technical or political judgment. Environmental managers are not even subject to the same systemic limitations as judges, because EM's main premise is that every decision is unique and, therefore, there is no room for the notion of precedent, and no such thing as a general rule. EM prevents environmental law from becoming a coherent, predictable discipline. The most effective excuse for arbitrary environmental decisions is to maintain at the outset that each case must be based on its own particular circumstances. In other words, the best way to acquire undemocratic control over environmental conditions is to insist that EM is inevitable.