Exchange

"Restoration" vs. "Habitat Management"

A recent guest editorial by Lynn Starnes of the U.S. Fish and Wildlife Service, reporting the creation of the Fish and Wildlife Relationships to Mining Committee (R&MN 2, p. 56) brought an interesting response from Reed Noss down in Florida—and this in turn elicited a thoughtful reply from Ms. Starnes.

From Mr. Noss:

I read with interest Lynn Starnes' guest editorial on mine reclamation/restoration, having done some environmental assessment work on that process myself. Restoration of mined lands (or any lands) implies the guided return of ecosystems similar to those that occupied a site prior to human disturbance. This goal is not at all clear in Ms. Starnes' editorial, however, and in fact may be precluded by her rather limited conception of wildlife habitat.

A major problem I saw in mine reclamation efforts in Ohio was that restoration of natural communities was not an objective. Priority reclamation was concerned with one thing only: elimination of immediate threats to human health, safety, and property. This usually involved stabilization of a site, for example, to decrease sediment loads entering watersheds and causing flooding downstream, and thus provided some subsidiary nonhuman environmental benefits. But if no human beings were immediately affected, then the streams could go on running "yellowboy," and the hills could remain barren.

But occasionally, if public lands were involved, the mine reclamation people would consult wildlife biologists for advice. Can we expect anything better for the environment in these cases? Ms. Starnes writes that "... as always in wildlife management, diversity is a critical consideration," and "plans for forest restoration should include grasslands, for example, in areas where grouse or turkey populations exist but are prevented from expanding because of poor or limited habitat for raising young birds." These statements portray the traditional wildlife establishment's idea of diversity and narrow emphasis on game species. Why are grouse and turkey mentioned instead of black-and-white warblers and red-shouldered hawks? Why should *restoration* introduce and maintain anthropogenic grasslands on an area that was naturally forested? Would you restore prairie by planting trees?

Wildlife management plans, for reclaimed mines and elsewhere, persist in an outmoded attempt to maximize habitat diversity on a site-by-site basis. The result is an artificial interspersal of habitats that benefits most those weedy, opportunistic species that thrive following human disturbance. It just so happens that

many of these species are huntable. But if *restoration* is our goal, perhaps we should focus as much on the landscape *context* of an area as on the *habitat content* within the area. Context is what provides perspective. The question should be: "What can we do here that will contribute most to the restoration of native species composition and abundance patterns in this landscape?" For strip-mined land in most of the eastern United States, existing in fragmented and disturbed landscapes, the answer will be "let the trees return."

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Lynn Starnes replies:

My editorial article was intended to introduce the "Fish and Wildlife Relationships to Mining" Committee and its goals. This being the case, I avoided talking about specific industries, regulations, and other constraints. If the editorial conveyed a "limited conception of wildlife habitat," that is a result of literary overgeneralization and not a lack of regulatory understanding or a lack of mining field experience.

Let's look at the coal industry and the status of regulations pertaining to fish and wildlife resources. Then we'll discuss realities at the mine site where I am most comfortable addressing the mining industry.

The Surface Mining Control and Reclamation Act of 1977 provides federal control of coal surface mining and surface disturbance at underground mines. The days of new mines creating threats to health, safety, and property have been over since 1977 so there are no more mines running "yellowboy." Sections 515(b)(2) and 516(b)(10) of the Act, 30 USC 1265(b)(2) and 1266(b)(10) require the operator to restore mined land to a condition capable of supporting the uses which it was capable of supporting prior to any mining—or to higher or better uses.

In fact, by requiring revegetation with native species in most cases, the 1977 Act was an important step toward environmentally sensitive restoration practices. The Act emphasized vegetation, however, and had little to say about animals. For this reason, seeking to implement the requirements of the Act, and of other statutes and regulations protecting fish and wildlife resources, Interior's Office of Surface Mining (OSM) promulgated a series of regulations pertaining to the protection or enhancement of wildlife and wildlife resources in the reclamation of mined lands. These regulations required that information on fish and wildlife

be included in mining permit applications and reclamation plans and were entered in the Federal Register on March 13, 1979 (44 FR 15356, 15359, 15364, 15369, 15410, 15437).

Not surprisingly, however, the coal industry, as well as the States of Virginia and Illinois, and several environmental groups challenged the regulations, claiming that they were legally inconsistent with the 1977 Act. (*In re: Permanent Surface Mining Regulation Litigation* No. 79-1144; D.D.C., 1980.)

In considering this case, the district court, holding for the plaintiffs, remanded the regulations requiring fish and wildlife information while at the same time upholding the Secretary of the Interior's authority to promulgate additional requirements. (*In re: Perm. Surf. Mining Reg. Litig.* 653.F.2d 514, 527; 1981.)

Not satisfied with half a loaf, however, the coal industry appealed this decision, contesting the authority granted to the Secretary. In response, the court of appeals not only upheld the Secretary's authority in general but reinstated the suspended regulations. (*In re: Perm. Surf. Mining Reg. Litig.* II, No. 79-1144.) Under this ruling, OSM finally reinstated its regulations in February 1985 and, as of this writing, is drafting proposed rules that would amend the reinstated regulations.

Why detail the history of fish and wildlife regulations under the Reclamation Act of 1977? Primarily to make the point that since the comprehensive Act was passed we have been without regulations requiring fish and wildlife resources information in permit applications and reclamation plans.

Despite this, however, progress has been made toward the genuine restoration of mined lands as state and federal regulators, working without a mandate to consider fish and wildlife, have worked with the industry on a case-by-case basis.

My point is that, while emphasizing the more traditional categories of fish and wildlife may fall short of a commitment to complete community restoration, long experience has convinced me that at least under existing circumstances, this represents an important step in this direction—possibly the only step available to us.

To see what I mean, let's move from the regulatory and abstract into the real world. In my work with coal mine permitting, which was in a problematic situation, even advocating fish and wildlife resources was lonely and discouraging. Surveys for fish and wildlife resource information were requested but not required. Consultants hired by the coal companies rarely went to the mine site to perform baseline surveys but usually relied on existing information. The data they provided were vague, often erroneous, and mostly useless. The fish and wildlife post-mining land use plans were anything but plans. What was most discouraging was that the "system" was ignoring fish and wildlife habitat development even when it could have been a cost-effective reclamation alternative. Fortunately, this situation has recently improved somewhat. But the task is far from finished.

How then do you get an industry to become enlightened enough to take at least the fish and wildlife habitat step toward restoration? First, you work continuously on the local, state and federal levels to effect regulations that encourage restoration of fish and wildlife. Second, you do all you can to encourage funding and sponsor research related to fish and wildlife on mined lands. Then using the reports and publications from this work you contact mining representatives, consortia, etc., write articles, and raise the general level of consciousness about the benefits to the industry of reclamation projects that include fish and wildlife. You help the industry develop better seed sources and planting techniques. And you develop a network of people interested in working with individual coal companies to convince them to incorporate "fish and wildlife" into their mine plans.

Having worked with the coal industry more years than I care to admit, my academic idealism has been tempered by reality. I know how to sell an environmentally sensitive reclamation plan to doubting Thomases in the coal fields. One of the easiest ways is to take the company president on a tour—or even better to take him or her hunting or fishing on a successfully reclaimed mine. Typically, he (and his pocket-book) and his mine are yours to plan and plant after a successful trip. After demonstrating to the miner that there are benefits in planning for fish and wildlife, you can then work to establish "black-and-white warblers and red-shouldered hawks" or any other goal you may have. But, if you walk into a mine office and start preaching the need for restoration of "native species composition and abundance patterns" you may be listened to but will never be invited back.

In summary, I believe it is easy for misunderstandings to occur in this area. The reason I did not discuss "restoration of native species" in my guest editorial was that in this area that goal for vegetation is addressed in the regulations (Section 515(b)19). In the absence of effective regulations pertinent to animals, however, we have had to work toward the ultimate goal of restoration by appealing to something the industry recognizes as valuable—and practical. In many cases, that has meant talking the language of fish and wildlife. But that need not be the end of the story.

In fact it should be only a beginning. My main point was and is that national legislation such as the Surface Mine Control and Reclamation Act gives us the opportunity for enlightened restoration of vegetation, and fish and wildlife—including various native "non-game" species. If this is not being done in Ohio, as Mr. Noss indicates, then there is a problem. Instead of writing editorials we should both be out talking to state and federal regulators! That is how to effect needed adjustments to the system.

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