



Whatever you can do, or dream you can, begin it. Boldness has genius, power, and magic in it.

-Johann von Goethe

I hold the most archaic values on earth ... the fertility of the soul, the magic of the animals, the power-vision in solitude, ...the love and ecstasy of the dance, the common work of the tribe.

- Gary Snyder

6 MISSION AND GOALS

Dave Foreman

(This chapter, originally written for the New Mexico Highlands Wildlands Network Vision, was modified with the author's permission to reflect differences in ecoregion characteristics and Southern Rockies Wildlands Network Vision conservation goals.)

1. Mission

The mission of the Southern Rockies Wildlands Network Vision is to protect and rewild the regional landscape. The vision justifies and provides references for design decisions for a wildlands network made up of core protected areas, wildlife movement and riparian linkages, and compatible-use areas. The vision proposes (1) to protect all remaining natural habitats, native species, and natural processes; and (2) to heal the region's ecological wounds by developing and implementing a conservation vision for the region.

2. Healing the Wounds Approach to Ecological Restoration

Until recently, conservation has focused primarily on protecting wildlands and wildlife from development and further wounding. A hallmark of recent conservation, however, is ecological restoration. Unfortunately, much of what is called ecological restoration today falls far short of the mark. Soulé (1996) warned against "restoration" that seeks only to put back the process, but not the community. Soulé wrote that "it is technically possible to maintain ecological processes, including a high level of economically beneficial productivity, by replacing the hundreds of native plants, invertebrates and vertebrates with about 15 or 20 introduced, weedy species." The contributors to *Continental*

Conservation cautioned that "process and function are no substitute for species" (Simberloff et al. 1999: 67).

"Regional and Continental Restoration" (Simberloff et al. 1999), Chapter 4 in *Continental Conservation* (Soulé and Terborgh 1999), provides state-of-the-art guidance for wildlands restoration. In setting goals, the question of which point in time is referenced for "the full range of native species and ecosystems" must be answered. Simberloff and his co-authors explain that restoration can never achieve an exact reproduction of a system that existed at some previous time. Instead, they recommend,

Thus, restoration should be aimed at returning to the point on this trajectory of change that would have obtained in the absence of human disturbance, rather than trying to replicate the precise system that once was present (Simberloff et al. 1999:66).

Therefore, we work to put all the pieces back into an ecosystem instead of trying to recreate a poorly understood ecosystem at some arbitrary point before significant human disruption.

In addition, restoration needs to be done on a landscape level because wide-ranging species require large areas; and ecological disturbance (such as fire) can only be restored in a large area. The "dynamic, nondeterministic character of natural communities requires restoration of large areas in order to promote the long-term viability and adaptability of populations and communities" (Simberloff et al. 1999: 69). Less-than landscape-scale restoration produces "ecological museum pieces — single representatives of communities that, although present because of unusually large restoration and maintenance investments, do not exist in any ecologi-

cally meaningful way” (Simberloff et al. 1999: 71). A medical analogy would be keeping an otherwise terminally ill patient permanently on life support at high cost.

The Southern Rockies Wildlands Network Vision calls for ecological restoration, and the specific restoration approach adopted by our vision is based on healing the ecological wounds discussed in the previous chapter. In general, the Southern Rockies Wildlands Network Vision follows the direction from *Continental Conservation*: “Restoration methods for wildlands can be divided into three categories: control of invasive nonindigenous species; reestablishment of natural abiotic forces; and reintroduction or augmentation of native species” (Simberloff et al. 1999:72).

The Southern Rockies Network Vision is also based on *rewilding*, which calls for the recovery of large carnivores and protection of their core habitats and the connectivity between cores. Ecological restoration and rewilding are closely related. Loss of large carnivores is a common result of human disruption. Not only are species lost, but also the important ecological process of top-down regulation through predation is lost. Rewilding, then, is a way of healing the wounds caused by loss of large carnivores.

Ecological restoration is a growing science that will play a crucial role in healing many of the ecological wounds identified in the previous section. The Society for Ecological Restoration (SER) has developed project policies and guidelines that provide the methodologies for implementing a successful restoration project (<http://www.ser.org/reading.php?pg=primer2>). Their Project Policies include information on project planning, contending with exotic species at project sites, integration of a project into a larger landscape, planting of regional ecotypes, local stewardship, and project evaluation. The Project Guidelines give detailed information on the process of an ecological restoration project from start to finish, including: conceptual planning, preliminary tasks, installation planning, installation planning tasks, post installation planning tasks, and evaluation.

Ecological restoration within designated Wilderness Areas may be necessary in special circumstances to restore ecological integrity. Mechanized equipment may be necessary in certain cases (Sydoriak et al. 2000). However, Crumbo (unpublished) cautions:

All management decisions affecting wilderness, including restoration or visitor use, should conform to the minimum requirement concept derived from the Wilderness Act (Section 4(c)). In wilderness, any management action must be based on the minimum intervention necessary to achieve wilderness conservation goals. Wilderness’s minimum requirement concept simply com-

prises the most rigorous interpretation of a general precautionary approach applicable to all public lands.

Unfortunately, even the largest protected Wilderness Areas are spatially inadequate to maintain native biodiversity (Newmark 1995, Noss and Cooperrider 1994). Many reserves, including Wilderness, may require some degree of active management since they are simply too small and isolated for essential ecological processes to operate. But management actions in wilderness, if deemed necessary at all, must be viewed as interim measures and the minimum required to achieve the long-term goal of a wild, self-sustaining wilderness (Noss et al. 1999).

3. Healing the Wounds Goal-Setting

A conservation strategy is more likely to succeed if it has clearly defined and scientifically justifiable goals and objectives. Goal setting must be the first step in the conservation process, preceding biological, technical, and political questions of how best to design and manage such systems. Primary goals for ecosystem management should be comprehensive and idealistic so that conservation programs have a vision toward which to strive over the decades. They should address both preventing additional wounding and healing existing wounds. A series of increasingly specific objectives and action plans should follow these goals and be reviewed regularly to assure consistency with primary goals and objectives (Noss 1992).

The order of implementation steps to achieve goals for the Southern Rockies ecoregion may be complex and interdependent. For instance, the reintroduction of predators into certain regions may first require the restoration of vegetation and prey before the ecosystem is able to support them. Strategies to increase the biomass food base may include revitalizing the vegetation through the reintroduction of fire, reversing the encroachment of woody vegetation into former grasslands/savannas, and replacing livestock with grazers that are available to predators. However, reintroduction of formerly extirpated predators like the wolf (*Canis lupus*) may ultimately help restore native vegetation through top-down regulation of grazers and browsers. Thus, goals and the objectives for achieving them are integrally connected, although it is not always clear what action should be the prerequisite for another because of the complexity of ecosystems.

4. Goals and Objectives

Goal 1: Protect and Recover Native Species

Protect extant native species from extinction or

endangerment and recover all native species to the region.

Some of these species are listed in our focal species group, and others are not. That is only because we tried to select focal species based on complementary habitat needs, and we did not list species that duplicated needs.

Objectives

Maintain viable populations of focal and other key species through protected large core areas and functional landscape connectivity, allowing for redundancy in the system in anticipation of future natural and anthropogenic changes.

1. Protect, recover, or reintroduce declining or extirpated native carnivores, including but not limited to, wolf, grizzly bear (*Ursus arctos*), river otter (*Lontra canadensis*), lynx (*Lynx canadensis*), wolverine (*Gulo gulo*), American marten (*Martes americana*), and black-footed ferret (*Mustela nigripes*).

2. Protect, recover, or reintroduce other declining or extirpated native species, including, but not limited to, bison (*Bison bison*), bighorn sheep (*Ovis canadensis*), pronghorn (*Antilocapra americana*), beaver (*Castor canadensis*), prairie dog (*Cynomys* spp.), and cutthroat trout (*Oncorhynchus clarkii*).

3. Protect federally listed Threatened and Endangered species and other species throughout the region, including but not limited to northern goshawk (*Accipiter gentilis*), Mexican spotted owl (*Strix occidentalis*), burrowing owl (*Athene cunicularia*), sage grouse (*Centrocercus urophasianus*), mountain plover (*Charadrius montanus*), and willow flycatcher (*Empidonax traillii*).

Goal 2: Protect and Restore Native Habitats

Protect and restore all habitat types from further degradation and loss.

Objectives

1. Protect remaining roadless areas as National Wilderness Areas, National Parks/Monuments, or special management units with high protection.

2. Identify, protect, and restore riparian forests, wetlands, watersheds, and watercourses to maintain habitat integrity and connectivity.

3. Reduce erosion and restore eroded areas.

4. Expand key private lands under protective management through purchase, conservation easements, and other mechanisms.

5. Protect native forests (old-growth and other generally intact forests) and restore large areas of previously logged or degraded forests to recover old-growth characteristics.

6. Protect native grasslands and restore areas previously overgrazed and degraded.

7. Encourage ecological grazing management that allows for restoration of natural forest and grassland conditions and processes on private ranches.

8. Protect or restore native species that have important roles in maintaining native habitats, such as large ungulates and keystone species.

Goal 3: Protect, Restore and Maintain Ecological and Evolutionary Processes

Protect functioning ecological and evolutionary processes, and restore and maintain disrupted ecological and evolutionary processes.

Objectives

1. Restore native predators to their historical range, when and where appropriate, to maintain predation and its top-down ecological functions.

2. Restore natural fire within the special restrictions of Wilderness Areas management and constraints of the wild-urban interface; and reduce or eliminate the disruptive role of livestock grazing on natural fire cycles.

3. Implement management policies that allow natural insect and disease outbreaks to take their course.

4. Restore flooding and hydrologic cycles by allowing natural flooding to occur where feasible, mimicking seasonal flooding cycles below reservoirs, and removing unnecessary dams and rip-rap from rivers.

Goal 4: Protect and Restore Landscape Connectivity

Protect the land from further fragmentation, and restore functional connectivity for all species native to the region.

Objectives

1. Identify and protect terrestrial, riparian, and aquatic linkages and areas important for wildlife movement.
2. Develop management standards and legal protection for such linkage areas.
3. Prevent road construction, logging, off-road vehicle use, mining, and other disruptive activities in Forest Service and BLM roadless areas.
4. Promote the closure, removal and complete rehabilitation of old logging roads and other roads and ORV routes that no longer serve a legitimate purpose.
5. Promote modification of barriers (highways, *etc.*) to allow the safe movement of wildlife.

Goal 5: Control and Remove Exotic Species

Prevent further spread of exotic species, and eliminate or control present exotic species.

Objectives

1. Implement a comprehensive program to remove, control, and mitigate exotic species, including non-native pests and disease organisms.
2. Prevent or minimize new introductions of other exotic plants, animals, and disease organisms.

Goal 6: Reduce Pollution and Restore Areas Degraded by Pollution

Prevent or reduce further introduction of ecologically harmful pollutants into the region, and

remove existing pollutants.

Objectives

1. Close and/or remediate polluting mines and restore river ecosystems affected by mining activities.
2. Promote clean-up of polluted sites (including nuclear waste), especially those that affect surface and ground water.
3. Discourage additional mining and oil and gas development in ecologically sensitive areas.
4. Reduce sedimentation loads in streams and rivers to natural levels.

5. A Prescription for Healing the Wounds

The Southern Rockies planning team believes that a healing-the-wounds approach is an excellent way to analyze conservation problems and to accomplish visionary but achievable goals across a landscape. Healing the wounds is also a powerful metaphor that can move conservationists to action and inspire the public. Healing ecological wounds can change people from conquerors to plain citizens of the land community (Leopold 1966). Unless we heal the wounds, we will have a continent “wiped clean of old-growth forests and large carnivores”; we will “live in a continent of weeds” (Terborgh and Soulé 1999). However, if we can achieve our goals to heal the wounds, we can restore integrity to ecological systems and safeguard the rich biodiversity of the Southern Rockies. To succeed at this will lead to a healthy and more sustainable relationship between natural and human communities.

While the goals and objectives of a conservation vision should be bold, even audacious, they should also be achievable. The Southern Rockies Wildlands Network Vision specifies realistic implementation tactics to address the wounds of the Southern Rockies. Action plans will be developed for each implementation step (see Chapter 10).