

"Rachel Thomas"
<badger@theriver.com>
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To: "USFS Carolyn Wisdom" <cwisdom@fs.fed.us>
cc: "USFS Dale Bosworth" <Dale.Bosworth@usda.gov>, "USDA Secretary Anne Veneman" <Ann.Veneman@usda.gov>, "USDA Mark Rey" <Mark.Rey@usda.gov>
Subject: Scoping comments on Toolbox Fire Recovery Project, Fremont National Forest, Lake County, OR.

Carolyn Wisdom, District Ranger,
Silver Lake Ranger District
PO Box 129
Silver Lake, OR 97638.

Reference Federal Register November 1, 2002 (Volume 67, Number 212) pertaining to the Toolbox Fire Recovery Project, Fremont National Forest, Lake County, OR.

The US Forest Service must comply with the following in the preparation of the Environmental Impact Statement.<?xml:namespace prefix = o ns = "urn:schemas-microsoft-com:office:office" />

1. **All** of the National Environmental Policy Act with emphasis on the following.
 - a. The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity.
 - b. Provide the impacts of proposed actions on the physical, biological, social and economic aspects of the human environment. This should include a thorough and complete economic impact analysis.
 - c. Include a professional prepared economic impact analysis.
2. White House Council on Environmental Quality (CEQ) February 5, 2002 Guidance Memorandum on Cooperating Agency Status which emphasizes the importance of including state, tribal and local governmental entities in the preparation of federal Environmental Impact Statements (EISs).
3. The "Small Business Regulatory Enforcement Fairness Act of 1996".
4. Executive Order 13272, Proper Consideration of Small Entities in Agency Rulemaking?
5. Environmental Justice. USFS must provide for the fair treatment and meaningful involvement of all people regardless of race, culture, gender, national origin, business, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.
5. Federal Data Quality Legislation (Act). Since government information routinely serves as the basis for regulation and resource allocation, it is imperative that the information on which the government bases these decision be accurate and valid. The new Data Quality provisions furthers this goal by promoting transparency, the use of sound science, and formulation of rational regulatory policy.

Our Forest must be managed for the health of the forest and **ALL** the species, the watershed and the economic impact for the communities. They must be managed to stop future destructive fires such as what has been and is happening all across the west.

For the areas that have been destroyed by fire, the proven system of using cattle for restoration should be a consideration included in all management plans. Documentation is provided as Enclosure 1 and 2.

Sincerely

Rachel Thomas
Box 4637
Huachuca City, Arizona 85616

cc

USDA Secretary Ann Veneman
Mark Rey, USDA Under Secretary for Natural Resources and Environment
Dale Bosworth, Chief of the Forest Service

Enclosure 1, The Holistic Remediation Process

The Holistic Remediation Process

The ability of nature to heal itself, by using the inter-action of many of the natural processes including influences of large grazers and primitive man, has been on-going since the very earliest dawn of time. Unfortunately, most of this knowledge has been lost by modern science trying to develop mechanical applications to replace natural systems, saying that natural systems are no longer valid.

In 1986, Terence O. Wheeler an Ecologist, evaluating the inability of modern applied science to heal nature with the most sophisticated applied technologies of the day, began to redirect his focus to the natural process

The primary area where Wheeler began to develop a newly articulated concept of using planned application of the tools of nature in concert with the tools of man, was on mine tailings, Wheeler had a long history of doing reclamation and remedial work, using accepted methodologies with varying degrees of success on both disturbed industrial sites and native range sites. He had long been a part of the frustrating inability of scientist to stabilize copper mine tailings ,long thought to be toxic waste piles.

It was not until Wheeler began to look at mine tailings from an ecological standpoint that he was able to realize that we are not dealing with a toxic problem, but instead an ecological opportunity.. Armed with that information he began to develop a new management concept using livestock as a primary component of soil building and nutrient cycling. This new knowledge was first formally put to use in a major pilot project with Cyprus Miami Mining co. in April of 1989. It has since evolved into the management philosophy of choice by the company.

Since that time, Mr. Wheeler has used this concept successfully to remediate forest and range fires on BLM lands on a large ranch he managed in western Colorado and on mine sites for a number of mining companies, in AZ, NM and NV. Presently, revegetation and stabilization technology and implementation has changed little since the time he proposed the first use of cattle to stimulate and accelerate the natural process. In actuality, it's one natural process aiding another natural process.

He employs the same principals; that of using domestic herbivores and tools, for managing soil stability as the basis for the management of watersheds for sustainability, diversity and clean water delivery. In reality the animals perform a number of very important functions, cost effectively, that methods cannot do.

Fire scorched soils have recently been described as being hydrophobic, which is incorrect because to be afraid of water the soils will have to think, which they don't do. None the less, when soils are exposed to high heat, the silica on and near the surface turns to glass and creates a layer impervious to water. The impact of the hooves of the herbivores breaks that capped surface allowing for water penetration. Animal impact also provides other important functions including: seedbed preparation by mulching the soil surface; planting the seed and making divots or little dams in the surface to hold rainwater thus giving it time to soak in before running off.

If hay for cattle feed or mulching is used, the animals incorporate it into the surface to become a soil binder and also a nutrient base for the microbial communities deposited in fecal material. The dung and urine are essential components of functioning life and mineral cycles. The rumen microbes are basically the same as the soil microbes, lost in

the fire, that decay plant material and are essential to growth. The manure also provides vitamins, minerals, and amino acids essential for plant and animal growth as well as provide habitat for a number of significant small creatures that are essential to healthy environments.

Used correctly, cattle can be used to stabilize fragile eroded fire damaged soils on critical watershed. To do this effectively will take knowledge of the ecological process, good planning with built in flexibility and effective implementation. Experience in this type of mitigation, although not essential, will expedite the project, increase the success ratio and should reduce costs.

Dams and erosion control structures built to curtail runoff following these severe burns can also be stabilized by animal impact to further insure their longevity.

Others have used Wheeler's concept to varying degrees of success. Between 1986 and 1989 Wheeler shared his idea with several of his associates and clients including Jessie Mitchell, his associate in several successful endeavors; Tommie Martin; Allen Savory; Steve Rich and Eric Schwennessen. In 1988 while working with Nevada rancher-client, Tony Tipton, Wheeler and Tipton evaluated the impact of the growing overburden dump resulting from a active gold mine. While viewing the problem, Wheeler pointed out what might actually be an opportunity using his newly developing reclamation concept.

Tipton jumped on the idea and successfully reclaimed the massive overburden pile. Since that beginning, Tony Tipton with his wife Gerry, have gone on to successfully restore functioning watersheds on both mined lands and deteriorated native landscapes. Wheeler and Tipton have both been successful in creating active water cycles on deteriorated watersheds resulting in the delivery of free water using herbivores as a tool.

The other associates mentioned have gone on to apply this technique successfully in many areas. The reason they have been successfully, where other imitators haven't is because they understand and pay strict adherence to the ecological process.

Terry Wheeler can be available to make a presentation regarding the application of this natural remediation concept; plan the implementation of the project including estimated costs and contract or oversee project implementation

Terry Wheeler can be contacted at:

Wheeler & Assoc. Inc.; PO Box 2792, Globe AZ 85502

Phone Number: (928) 425-3017

E-Mail wheelerassoc@theriver.com

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Success Stories

Revegetating Mined-out Lands, Nevada

From Mine Waste to Grassland, Arizona

Restoring a Desert Oasis, Arizona

The Healthiest Riparian Area in North America?, NM

From Mine Waste to Grassland, Arizona

One of the people who helped the Tiptons envision their ground-breaking project was Terry Wheeler, of Globe, Arizona. Terry had been planning for some time to undertake a restoration of his own and after the Tiptons' success he finally got his opportunity. His test, however, was even more challenging.

Instead of dirt, the material on which he chose to perform his restoration was mine tailings, an 1,100 acre pile of it 300 hundred feet thick located in the Sonoran Desert east of Phoenix. The tailings were made up of rock dust crushed to the consistency of talcum powder and treated with a mixture of chemicals that included cyanide to leach out the copper and other metals sought by the miners.

This photo shows the first time hay was tossed over the slopes that formed the edge of the tailings pile. At the time no one was sure cattle would even venture onto the powdery stuff. Notice how deep the animals have sunk into it—in some cases up to their chests!

After more hay was spread the cows could walk on the mat it formed without sinking as deeply. By pushing the hay into the tailings as they used it for "flotation", and by fertilizing it with the material from their gut the cattle created a soil layer up to a foot thick where none had developed in as much as 60 years of leaving the area to Nature.

After removing the animals and letting the mix of hay, tailings, seeds, and manure gestate, a healthy stand of grass grew to cover the 300 foot slope. Later, this cattle-grown grass rooted in one foot of cattle-created soil withstood a heavy rainfall while grass on an area reclaimed by a device called the hydro-seeder washed off. Again, Nature affirmed that the animal-based approach worked, and that it outperformed technology.