

FROM THE SUPERVISOR

Dear Friends and Stakeholders,

The past year has been a whirlwind of activity. Natural disasters such as flooding, tornadoes, a record-breaking winter of heavy snowfall, and the Schultz Fire, brought with them many challenges and long hours of work. They also showed how communities, friends and neighbors pull together and help each other in times of need.

I was especially honored to see Coconino National Forest employees give it their all—and then some—as they volunteered their personal time to help in natural disaster relief efforts.

The Stakeholders Report

Coconino National Forest is currently comprised of three districts, and each of them provides a brief snapshot in this Stakeholders Report of the type of work they, along with our partners and volunteers, accomplished in 2010.

We appreciate those volunteers who have helped further the mission of the Forest Service and have given so much of their own time to protect and improve the health of the forest.

You will also note in this Stakeholders Report that we now have a district officially named the Flagstaff Ranger District.

For many years, this district was actually two districts—the Peaks Ranger District and the Mormon Lake Ranger District—operating under one district ranger.

In October, the two districts were officially consolidated into one district, simplifying administrative operations, which in turn, strengthens the district's ability to achieve national and local goals.

Four Forest Restoration Initiative

Known as 4FRI, this initiative is a collaborative effort to restore forest ecosystems along the Mogollon Rim on portions of four National Forests—the Coconino, Kaibab, Tonto and Apache-Sitgreaves.

4FRI is a huge initiative that will involve many stakeholders, resources, funding and effort for many years to come, so we've dedicated the next page to explaining 4FRI in greater detail.

Tribal Relations

The Coconino National Forest continues to build a positive working relationship with our Tribal neighbors with the creation of the Tribal Relations Specialist position. This position reports directly to the Forest Supervisor and provides a direct line of communication from the Tribes to the Forest Supervisor.

In 2010, we completed the first phase of a three-phase repatriation process in accordance with the Native American Graves Protection and Repatriation Act, as well as assisted Tribes with fuelwood permits to provide fuelwood to elderly Tribal members.

Additionally, in September the Coconino National Forest participated in an Intertribal Meeting in partnership with the Kaibab National Forest and the Grand Canyon National Park. This meeting provided an opportunity for Tribal members and federal employees to meet and get to know each other on an informal basis.

Forest Plan Revision

Forest management decisions are guided by a Forest Plan, which provides integrated, forest-wide guidance for all forest uses and activities on National Forest lands.

Our Forest Plan Revision Team is currently in the process of revising the Forest Plan, and it will take a lot of energy and time to complete.

The Plan's long-range goals attempt to strike a balance between diverse and often competing social values, public desires for services, products and uses, and health of ecosystems on the forest. We anticipate completing the revision process by the fall of 2012.

Resource Advisory Committee

In 2010, the Coconino Resource Advisory Committee was formed and is comprised of community members who represent many different interest groups ranging from industry, environmental groups and elected officials, to local people and Tribal representatives.

Committee members will recommend projects to the Forest Service that have been proposed by private, federal and other organizations that are focused on watershed improvement, road maintenance and forest ecosystem health.

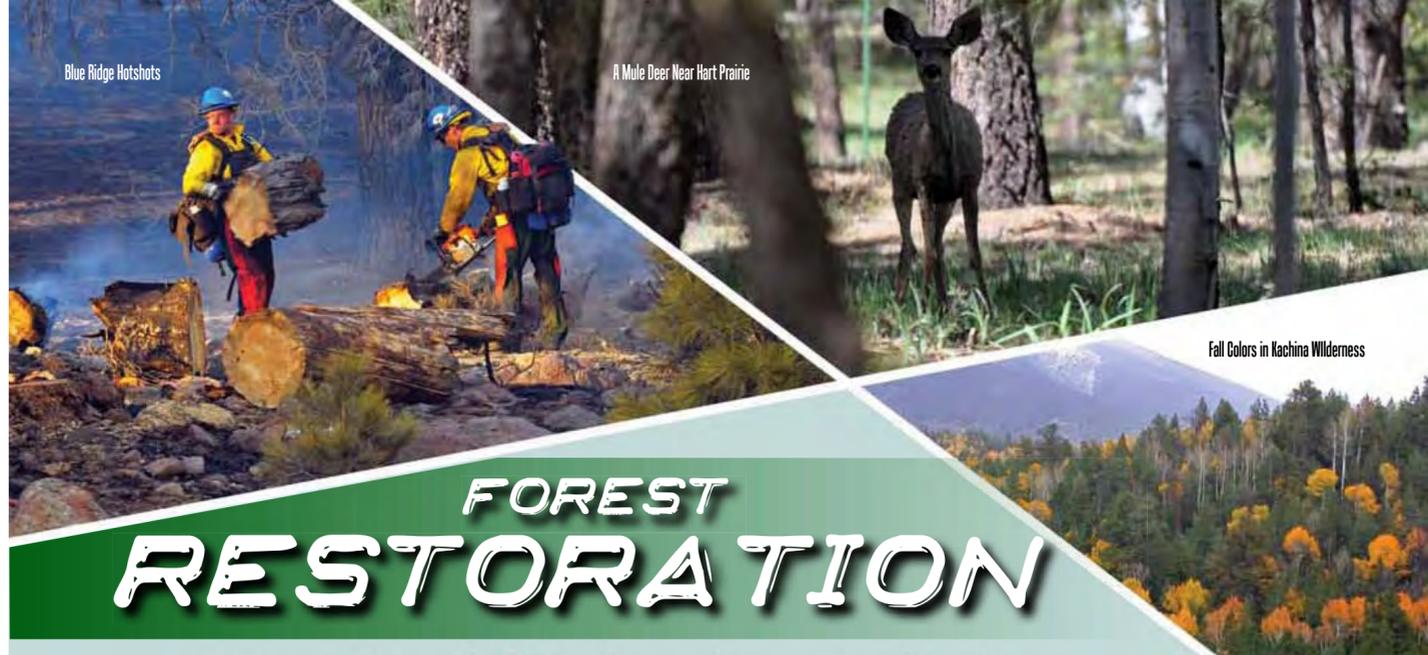
Projects that have been recommended and approved will be funded through the Secure Rural Schools Act. This committee is another great example of how Coconino National Forest and community members are working together to improve the conditions of the land.

As you read through the Stakeholders Report, I believe you will find that there has been a lot of great work that has been accomplished.

There is much more to do, and we look forward to working with our partners, volunteers and you as we care for this beautiful land and preserve the precious resources our National Forests provide us.

M. Earl Stewart

M. EARL STEWART
Forest Supervisor



FOREST RESTORATION

Four Forest Restoration Initiative

Many areas of forest have been degraded by unsustainable historical land uses and fire exclusion. The result is overgrown forest with thin, unhealthy trees and the threat of unnaturally severe wildfire.

The Four Forest Restoration Initiative (4FRI) is the largest landscape-scale restoration effort in the history of the southwest.

4FRI endeavors to implement ecological restoration treatments at strategic locations within 2.4 million acres of four National Forests—the Coconino, Kaibab, Apache-Sitgreaves and Tonto.

We plan to treat approximately 50,000 acres per year over a 20-year span using mechanical thinning and fire as primary methods to restore health and resilience across the four forests.

This initiative is a cooperative effort between the Forest Service and a large group of public and private stakeholders such as local government, research, U.S. Fish and Wildlife Service, environmental organizations, private industry and more.

Treatments that use fire will result in smoke that may impact communities. However, fire is a necessary component of our ecosystem, as it stimulates food and browse for wildlife and maintains habitat structure.



BEFORE: Taken in 2003, the area shows crowded, unhealthy and dangerous conditions.



AFTER: Taken in 2005, the same area shows restored health after being treated mechanically and with fire.

Accordingly, mechanical thinning will not be the only means by which we restore the forest to healthy conditions.

As well, using prescribed fires and managing natural fires means that the smoke will be less dangerous and thick than that produced by large, uncontrollable wildfires that would ultimately be the result if nothing is done. For more information on prescribed fires, see pages 10-11.

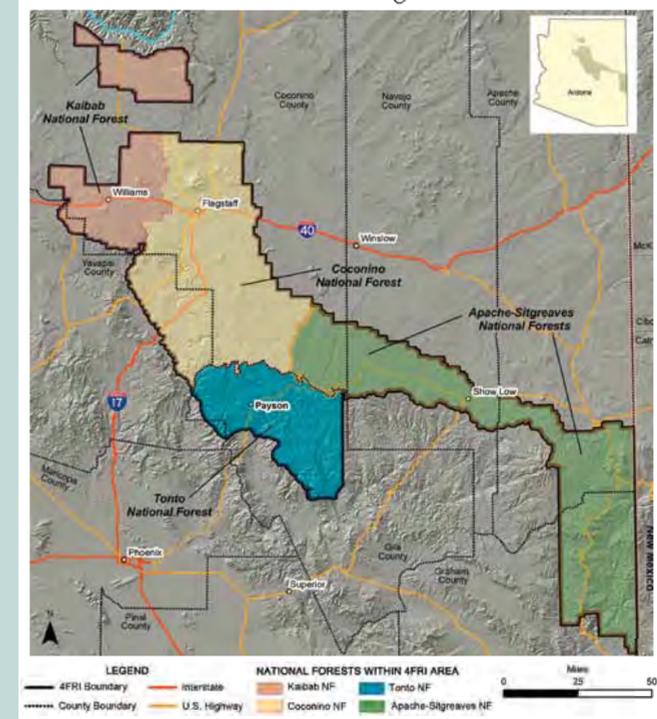
The Forest Service does not have the financial capability to pay for restoration treatments on a landscape-scale.

Thus, it is essential we attract appropriately-sized

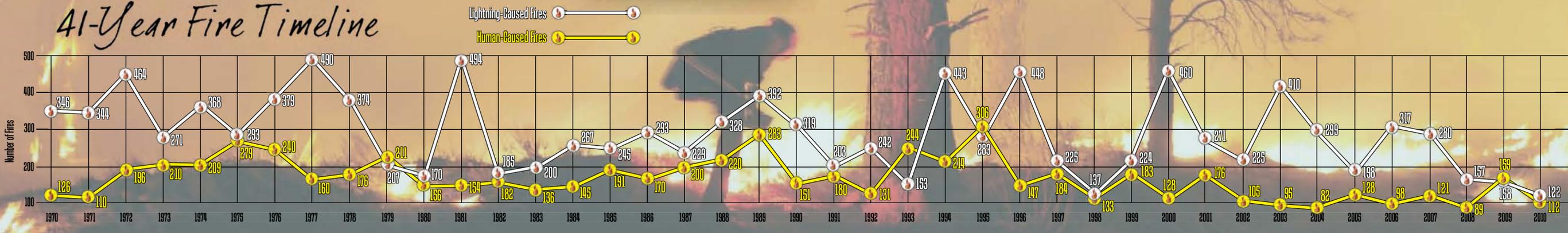
industry to offset these costs of restoration treatments, as the industry will be a tool to help us accomplish the goal of restoring this fire-adapted system.

Engaging and working with partners and stakeholders in this effort has been an ongoing and important part of this initiative, and we look forward to continued collaboration in future years. To stay informed or get involved, visit www.fs.usda.gov/goto/kaibab/4fri.

4FRI Boundary Map



41-Year Fire Timeline



Sunset at Mormon Lake

Red Indian Paintbrush

FLAGSTAFF RANGER DISTRICT

Note: Formerly known as the Peaks/Mormon Lake Ranger Districts

Removing the Writing from the Wall

In September, the District joined forces with the Arizona Regional Association Grottos of the National Speleological Society, and the Peppersauce Cave Conservation Project to remove graffiti from the Lava River Cave.

At least 30 separate graffiti tags – ranging from drawings to profanities – covered more than 2,000 square feet of the cave.

Over three days, approximately 15 volunteers used sandblasting equipment and wire brushes to clean and restore the cave. The group removed paint from walls, ceilings, and splashdown rocks.



Photo courtesy of Jansen Candy

One of the many volunteers helps remove graffiti from a section of the Lava River Cave by using a sand blaster. The 3,820-foot-long cave was found in 1915 by loggers and is as cool as 42 degrees in the summer.

One marking was five layers deep and so thick it took nearly five hours to remove.

Thanks to the volunteers with their specialized equipment and expertise, the Lava River Cave can continue to be enjoyed by the many visitors which frequent the site each year.

The individual responsible was eventually found. He plead guilty to damaging a cave and paid thousands of dollars in restitution and fines.

"Friends" Contribute to Forest



Volunteers of Friends of Northern Arizona Forests help build and repair fences around stands of young aspen to keep wildlife from entering.

The Friends of Northern Arizona Forests (FoNAF) is one of the District's largest volunteer contributors, involved in community interest projects such as back country permits, trail patrol, and fire lookouts, as well as aspen protection efforts.

In 2010, FoNAF adopted 22 exclosures – the fences around stands of young aspen that exclude elk, deer, and livestock, protecting the saplings from destructive browsing. Almost all of those exclosures were in disrepair.

Browsing animals had easy access to young aspen through breaks in the fence and low-sagging segments.

The Friends mended openings and raised drooping sections of exclosures on more than 6 miles (32,000 feet) of aspen fence throughout 2010! Contact the Flagstaff Ranger District to find out how you can volunteer.

Habitat Restoration at Slate Mountain

Animals such as elk, deer, and pronghorn call grasslands home because they provide plentiful foraging opportunities and clear, unobstructed views, which leave few places for predators to hide. As trees become established in grasslands and meadows, wildlife habitat deteriorates.

This summer, the Flagstaff District, with the help of the Coconino Rural Environment Corps, Arizona Game and Fish Department, and the Arizona Elk Society, cut encroaching trees from grasslands near Slate Mountain to maintain openness, encourage productivity of grasses and forbs, and sustain overall grassland health to improve habitat quality.



The unusual occurrence of natural disasters created a busy year for the Flagstaff District.

Employees rearranged their work priorities to respond to record-breaking winter storms, the Schultz Fire, flooding, and tornados.

Despite these challenges, however, the district still completed a tremendous amount of work beyond disaster response such as habitat improvement, aspen restoration and improvements to recreation sites.

Many of this year's accomplishments – only a handful of which are highlighted on these pages – were made possible because of the dedication of our partners and volunteers.

I'm honored to work with a group of employees and stakeholders with such enthusiasm and initiative.

Our partners not only provided labor, but in many cases they also taught us, bringing new perspectives and insights to projects.

I look forward to the challenges and opportunities of the coming year knowing we have strong partnerships with dedicated and capable individuals and organizations.

MIKE ELSON
Flagstaff District Ranger

Best Cooperative Partnership

The National Park Service/U.S. Forest Service Interpretive Partnership was awarded the *Flagstaff Tourism Award for Best Cooperative Partnership* for their collaborative efforts in interpretive visitor services.

The award recognizes an outstanding working relationship between two or more partners that promote and facilitate tourism in the Flagstaff area.

The Interpretive Partnership is a group of individuals who dedicate their time each summer to providing a variety of educational programs for forest visitors of all ages.

The group presents interpretive hikes, campground presentations, and ranger talks across the Coconino National Forest and the Flagstaff Area National Monuments on topics such as flora, fauna, fire, and geology

More than 15,000 people were reached this summer.



The "Hart" of Forest Health



A fence protects aspen seedlings from wildlife.

Healthy forests and healthy communities go hand in hand. Forests that are overcrowded with trees that act as fuel and are not fire-resistant can be dangerous for the forest and communities it surrounds.

The Flagstaff District has been working on the *Hart Prairie Fuels Reduction and Forest Health Project* as part of an effort to restore the forest to healthier conditions and protect aspen. Aspen, with their lush understories, act as a natural fire break since they are naturally more resistant to burning.

One of the main goals of the project is to restore more than 3,000 acres of aspen in and around Hart Prairie.

The project calls for a variety of treatments including prescribed fire, removing conifers from aspen and meadows, and jackstrawing (leaving cut trees in crisscross patterns on the forest floor) to create natural protective barriers for aspen sprouts.

In addition, the forest is supporting efforts of Arizona Game and Fish Department to reduce elk numbers in the area to reduce the impacts of elk browsing on aspen.

The district currently has 40 aspen exclosure fences to protect aspen seedlings from browsing, and these fences are monitored and maintained by a variety of volunteer groups.

How You Can Help...

- ▶ Leave aspen fences intact! Do not cut or bend them!
- ▶ Report aspen fence damage to your local ranger station.
- ▶ Learn about the Hart Prairie project and know what to expect with prescribed fires and thinning in the area.
- ▶ Join the volunteers that maintain aspen fences, which includes Friends of Northern Arizona Forests, the Coconino Sportsmen, the Flagstaff Nordic Center, the NAU Forestry Club, W.L. Gore, the Ecological Restoration Institute, and various individuals.

Did You Know...

All of the aspen trees within a clone sprout off a single, massive root system and are considered to be "clones" or genetically identical. While an individual aspen usually only lives 80-120 years, the root systems can live for thousands of years.

Aspen communities are declining due to a number of factors including encroachment by conifer trees and browsing from wildlife and sometimes livestock. A severe frost in 1999 combined with years of drought have made aspen more susceptible to insects and disease. New sprouts are struggling to survive. This phenomenon has been dubbed "Sudden Aspen Decline" or SAD.

Fall Colors Near McClintock Ridge

Sunflowers Along Lake Mary Road

MOGOLLON RIM RANGER DISTRICT

Building Fences & Strengthening Partnerships

A Road Less Traveled



Did You Know...



Volunteers build and mend fencing that will ultimately protect fish habitat in the Buck Springs area and other riparian areas.



BEFORE: A road in the East Clear Creek Watershed area branches off the main road to the left.



AFTER: Volunteers use soft-closure techniques to effectively close the road.

The Mogollon Rim Ranger District had a very productive year. Employees, volunteers, and partners collaborated on a number of projects to improve the quality of services to our visitors and restore natural processes to our forest.

If you lived in or visited this area over the late summer and fall, you undoubtedly noticed smoke in the air.

Fire crews and other resource specialists managed several low intensity wildfires to accomplish resource objectives during that time.

Forested stands of the nearly 6,000 acres in the District burned by these fires, along with 8,300 acres of prescribed burning, will be much less susceptible to high-severity wildfire in the future.

Volunteers and partners also played a huge role in our accomplishments this year.

We were fortunate to have 486 volunteers work more than 7,500 total hours on a number of projects ranging from wildlife and livestock water inventories to fence repair and removal to hosting at campgrounds and completing work at our administrative offices.

Many of these projects would not be accomplished without partners and volunteers to coordinate and complete the work. I can't express my appreciation enough to all of you who participated!

The opportunities to expand our partnership and volunteer program are exciting, and I look forward to growing this aspect of the District's program in 2011.

Natural fires that are ignited by lightning are often managed for resource benefits. Fire managers keep watch over the fire as it burns, effectively cleaning up the forest floor much like a janitor, and getting rid of thick pine needles and other things that can act as fuel for large fires.

The Ranger Complex Fire, pictured above, was ignited by lightning on July 17, 2010 and burned 545 acres in and around C.C. Cragin Reservoir (formerly Blue Ridge Reservoir) and was declared out in December.

Four other fires were managed for resource benefits on the Coconino NF, which brings the total to 7,447 acres in 2010.

A recent study conducted by NAU showed evidence that fires like these have less of an impact on the environment than large, high-severity wildfires—which pump huge amounts of CO2 into the atmosphere, kill off all vegetation, and produce much thicker plumes of smoke that are much more dangerous than the smoke from prescribed fires or natural fires that are managed for resource benefits.

A significant volunteer effort on the Mogollon Rim District last summer resulted in 14 miles of fence maintenance and 7 miles of unneeded fence removal around Buck Springs Allotment.

Although the work was accomplished by the Arizona Elk Society, wildlife beneficiaries include Little Colorado Spinedace fish habitat downstream and all wildlife that depend on precious riparian areas.

Riparian areas such as the one surrounding Buck Springs hold water like a big ecological sponge. By fencing cattle out, springs and meadow stay healthier.

The army of volunteers numbered about 80 folks from all over Arizona, including wranglers on horseback to help pack supplies along all those miles of fence.

Arizona Game and Fish Department also assisted with the project.

The 1,365-hour weekend volunteer effort was equivalent to a crew of four Forest Service employees working eight and a half weeks.



A load of re-used fencing is brought in, while old sections were hauled out and recycled to lessen the impact to the environment.

Did You Know...

The Coconino National Forest plans to implement a national policy called the Travel Management Rule (TMR) in 2011. The Rule designates a system of roads in the Forest that are open to motorized travel and prohibits motorized cross-country travel—a practice that has led to destruction of sensitive riparian areas (as seen right) and has created new roads like those mentioned in the story above.

TMR will help protect the Forest while still providing for extensive travel throughout the land. After TMR is finalized and implemented, a free Motor Vehicle Use Map will be available to the public which displays the roads, trails and lands that are designated for motor vehicle use.

The map will also identify the types of vehicles that are allowed on each route and area, as well as any seasonal restrictions that apply.

Each National Forest in the United States was directed to implement TMR, so check with the nearest Ranger Station of the Forest you are visiting to find out which forest roads are open, which require 4-wheel drive, and which are closed to public use.



On the Mogollon Rim Ranger District, the Grand Canyon Wildlands Council (GCWC) has worked alongside the Forest Service to reduce invasive species, conduct spring inventories, and help with road closure and obliteration projects in the East Clear Creek Watershed.

In 2006, the Forest Service completed an Environmental Assessment that identified roads within the East Clear Creek Watershed that were creating resource conflicts with riparian areas and threatened endangered species.

The District and GCWC worked together to close the roads identified, using "Soft-Closure" techniques. Soft-closure techniques consist solely of hand-work with no mechanized equipment to "disguise" a road entrance.

Disguising roads is accomplished by spreading slash, needles, logs, transplanting grass-plants, and "dead-planting" small trees to make the road appear that there are trees growing in the old road bed.

By leveraging the GCWC's strong volunteer network, its environmental education emphasis, and its ability to secure grants from funding sources not available to government agencies, the District was able to expand efforts to restore ecosystems within the Forest.

Since 2006, approximately 37 miles of invalid roads have been closed by approximately 400 volunteers within the East Clear Creek Watershed.

The techniques used and the partnership developed on the Mogollon Rim Ranger District have been nationally recognized as one of 19 success stories for partnerships and road management in the Forest Service.

The recognition is shared by our partners and we greatly appreciate the volunteers and organizations that help us accomplish our mission.



Brian Dykstra

BRIAN DYKSTRA
Mogollon Rim District Ranger



RED ROCK RANGER DISTRICT

Taming Use of a Wild & Scenic River

Did You Know...

Beyond using camouflage as a defense, the Horned Toad is capable of inflating its body up to twice its size, resembling a spiny balloon. Some species can also shoot blood from the ducts of their eyes up to a distance of three feet. It confuses predators and also contains a chemical that is noxious to coyotes and dogs.

Reflecting back on the work we accomplished in 2010, we had several mile markers on the Red Rock Ranger District.

In July, Irving Power Plant decommissioning was completed by APS and the area was turned back to the Forest Service.

We will sorely miss our APS partners who for 100 years have played a huge role in managing the area. We will work with the public to come up with a sustainable comprehensive river plan that will protect this precious resource for generations.

We are well on our way in designing permanent exhibits for the Visitor Center where we greet as many as 2,500 guests per day. By 2012, visitors from around the globe should find these exhibits both educational and entertaining.

Two Oak Creek campgrounds received major renovations and are ready to reopen to the public this spring.

The list of project accomplishments is long, thanks to our staff who is dedicated to protecting this beautiful and fragile landscape that we manage. We appreciate the support and assistance the community has provided in order to realize these accomplishments.

HEATHER PROVENCIO
Red Rock District Ranger

With its crystal clear waters, magnificent travertine formations, and diverse native fish, Fossil Creek is one of the most beautiful places on the Coconino National Forest. The creek is located in a remote area 30 miles southeast of Camp Verde and is one of the most difficult to manage, as thousands flock to the area,



Volunteers with the Lucky Llamas group help pack out trash from Fossil Creek.

leaving trash, crime, vandalism and graffiti.

Volunteers, local businesses, and Forest law enforcement worked endlessly in 2010 to spread the word about the new management restrictions re-

garding this newly designated Wild and Scenic River and help clean up the area.

Numerous issues continue to plague the Fossil Creek area, including off-road travel, damage to timber, unattended campfires, vandalized road signs, and sanitation and dumping of household waste.

On one Saturday alone last spring Coconino National Forest law enforcement officers, with the help of the Arizona Game and Fish and the Yavapai County Sheriff's Office, made more than 250 contacts, issued 59 warnings and 23 violation notices, arrested 2 felons, and helped remove 27 bags of trash.

The District is currently developing



Fossil Creek - designated a Wild and Scenic River in 2010.

the Fossil Creek Wild and Scenic Comprehensive River Management Plan, which will provide future management objectives for the river corridor and is expected to be complete in 2012.

"It's such a beautiful riparian area and it's being trashed because of the numbers of people impacting this oasis," said Lucky Llamas group leader Eric Souders. "We want our kids to understand the importance of preservation of our natural areas and the destruction that can be done by those who do not understand the accumulating damage of seemingly small actions of cutting trees to build fires and leaving trash in these fragile areas."



Trash and camping impacts found in Fossil Creek. Visitors are literally loving the area to death when they choose not to pack their trash out and disregard Leave No Trace ethics.

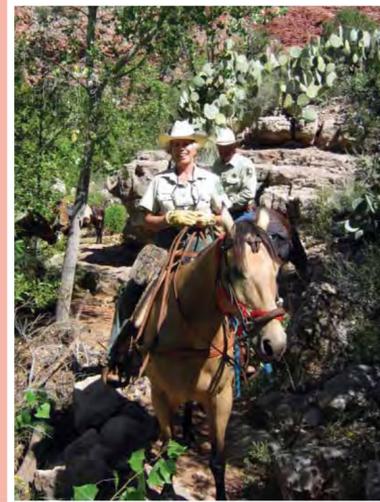
Helpers On Horseback

Volunteer Wranglers are key in making some on-the-ground range and wildlife habitat improvements.

The Wranglers, a sub-group of the Friends of the Forest, volunteer their time on horseback to help the Forest Service monitor sites and maintain improvements, such as fences and stock tanks.

Some Wranglers volunteer the use of their own horses for this work, while others care for and ride Forest Service horses.

According to Wrangler Helen Campbell, "One of the rewards in working alongside a Forest Service Ranger is learning



Helen Campbell, a volunteer Wrangler, works her way down Parsons Trail toward Sycamore Canyon to check fences and stock tanks in the area.

more about the land surrounding our community. We can begin to understand the larger picture of land management and wildlife habitat."

The work accomplished by the Wranglers to inventory current range conditions on the forest also helps us in our collaborative management with Arizona Game and Fish, and the U.S. Fish and Wildlife Service.

One such project contributed towards maintaining fences to preserve wildlife corridors for elk.

In 2010, the Wranglers contributed more than 2,600 hours to the District!

Red Rock Pass Funds Improvements

More than 1.5 million people recreate and enjoy Sedona's breathtaking Red Rock scenery annually. Revenues from the Red Rock Pass Program have been critically important over the last decade to provide high quality recreation trails, trailheads, visitor information, and services as well as much needed restoration activities:

► Red Rock Pass funds are invested locally to help Sedona serve as an outstanding destination. Up to 500,000 visitors are contacted by ranger patrols and at multiple information gateways to provide critical "Leave No Trace" and fire prevention education messages.

► Pass funds are used to protect wildlife, soils and archaeology from visitor impacts. Resource protection and educational visitor exhibits are provided at the Red Rock Visitor Center and three world-class archaeological sites.

► Public exploration and enjoyment opportunities are enhanced at 25 trailheads, including erosion control protection for hundreds of miles of connecting trails.

► Red Rock Pass funds provide maintenance services such as public toilet cleaning, trash removal, recycling collection, and removal of multiple dump sites impacting National Forest lands.

► Visitor education signs and trail maps are provided to orient visitors and to share how to help protect fragile soils in the National Forest.

► Funds also assist the Forest Service in working with community partners for sustainable management of Red Rock Country, both environmentally and economically.

Without the Red Rock Pass Program, both visitor services and resource protection in Red Rock Country would suffer. Citizen comments can help us determine how to care for Red Rock Country in the future with the ultimate goal of sustainable high quality recreation, scenery, trails, visitor services and protection of cultural and natural resources. For more information or to make comments regarding the Red Rock Pass Program, please call the Ranger Station at (928) 203-7500.



Funded by dollars received through the Red Rock Pass Program, a crew with the Coconino Rural Environment Corps repairs a trail near Bell Rock.



FIRE MANAGEMENT

Facts About Prescribed Fire and Smoke

Fire and smoke come with the landscape in the southwest. Fire is a natural and necessary part of the ecosystem, and therefore will occur. A fire manager not only suppresses severe wildfires, but also seeks opportunities to embrace fire's fundamental role, either through managing a naturally ignited wildfire or through applying prescribed fire to the land.

Over the next several years, our prescribed fire program will likely become more aggressive. It's important for residents and visitors to understand prescribed fire.

Southwestern soils do not receive nutrients from decomposition as wetter areas of the country do. Wood does not decompose readily in our soils, but frequent, low-intensity fire returns nitrogen to the soil, supplying it



with the nutrients vital to vegetation growth. It helps grow grasses and plants that promote wildlife habitat, reduce erosion, and protect watersheds. It also reduces the threat of catastrophic fire by reducing the accumulated dead fuels that would otherwise contribute to hotter and bigger fires. Prescribed fires do not prevent wildfires, but they can change the behavior of an unplanned fire. In areas with less fuel to burn, fire behavior is less severe. Even during the catastrophic Schultz Fire that happened in June 2010, pockets of forest with less dense vegetation received less damage. The main focus of the prescribed fire program is the safety of communities and firefighters. Healthy forests are fire-resistant forests. Fire resistant forests provide safer conditions for residents and firefighters in the event of an unplanned fire.



Fire managers and fuel crew meet to go over the burn plan the morning of the prescribed fire.

The Planning

Planning a prescribed fire begins with the creation of a larger-scale forest health project, where specialists from all disciplines—from archaeologists to wildlife biologists—work with fire managers to create a “prescription” for a particular piece of land.

Just like a doctor prescribes treatments for a sick patient, forest specialists prescribe treatments to improve forest health. Treatments include a variety of actions including thinning and prescribed burning.

The next step is for fire managers to begin planning individual burns—prepping the land with thinning and preparing boundaries to use during ignition. A list of conditions must be favorable before any burning can take place. These include fuel moisture levels, air temperature, wind conditions, and relative humidity levels.

Prescribed fires are also dependent on personnel availability, and approval from the Arizona Department of Environmental Quality (ADEQ).

Though the conditions are usually ideal in the spring and fall, prescribed



Most prescribed fires are ignited by using drip torches that are filled with a mixture of diesel and gasoline.

burning is not based planned around a season. Prescribed burning may occur any time during the year when conditions are appropriate.

The Ignition

There are two types of prescribed burns. Broadcast burning involves applying fire along the forest floor.

Flames are typically low to the ground, though some torching (a single or small group of trees burn) can occur.

Pile burning is when crews ignite “slash piles”—branches, small trunks, and debris from forest thinning projects.

Crews typically conduct pile burns after heavy rains or snow since the fuels are bigger and can burn hotter; moisture in the surrounding vegetation keeps the fire from spreading.

Crews monitor conditions before, during and after ignition, watching ventilation, local smoke impacts, and fire behavior.

Alternatives To Burning

There are some things we do with slash piles instead of burning them. Some slash is offered as firewood to the public.

Unfortunately, much of the firewood isn't taken and the remaining debris scattered across the ground increases fire danger.

Some piles are mechanically chipped and either spread along the forest floor or used as a filler layer at the local landfill.

Chipping thousands of acres, however, is not a reasonable option financially or logistically.

To date, there hasn't been much of a market for small-diameter timber—the main content of a slash pile—but the Forest Service is working with local partners to find a solution and create opportunities where the wood is cut and used by the local logging industry.

One such undertaking is the Four Forest Restoration Initiative (4FRI), which is a collaborative effort to restore forest ecosystems on portions of four National Forests: Coconino, Kaibab, Apache-Sitgreaves and Tonto.

4FRI includes restoration treatments across 2.4 million acres of ponderosa pine forest by treating about 50,000 acres per year over a 20-year period.

Prescribed fire will be one of the methods used, as well as engaging new industry so the cost of restoration is covered by the value of the products removed. For more information about 4FRI, visit <http://fs.usda.gov/goto/kaibab/4fri>.

It is important to remember that none of this replaces fire's role in the ecosystem. Fire must still occur, and it plays a necessary part in the health of the forest.



A firefighter stands in thick smoke to keep watch over a fire line during a prescribed fire to ensure it doesn't jump its prescribed boundary.

The Smoke

Coconino National Forest fire managers are challenged with finding the balance between the critical need for reducing the risk of severe wildfires and the importance of minimizing smoke impacts to the communities.

Fire Managers are very aware that smoke impacts the community. The men and women who conduct these burns put forth every effort to minimize smoke impacts.

Smoke from broadcast burning is typically heavier than that of pile burning.

Often, piles are completely consumed the same day as ignition, leaving little residual smoke, while broadcast burns typically continue to smolder



Fire personnel prepare “slash piles” for burning.

and smoke for several days after ignition.

Smoke is heaviest the day of the ignition and the night following the burn with a steady decrease in smoke production each day thereafter.

Fire managers must find the moment when fuels are dry enough to burn as thoroughly as possible, without being so dry that fire activity is too severe.

Waiting for rainfall to conduct a broadcast burn would likely produce immense amounts of smoke without effectively burning the fuel on the ground.

Studies show that prescribed burns have less of an impact on the environment than large wildfires—which force massive amounts of carbon dioxide into the atmosphere and kill carbon-storing vegetation.

Prescribed burning can even help reduce our carbon footprint because of the carbon-storing abilities of healthy trees and plants.

Larger fires also produce much thicker smoke that is much more dangerous, lasts longer, and travels farther than smoke from prescribed burns.

The Coconino works with local fire departments under a partnership called the Ponderosa Fire Advisory Committee (PFAC), as well as neighboring forests to coordinate burn plans and lessen the impact of multiple projects on a single community.

In addition, PFAC partners will often team-up on one prescribed fire project; with more personnel, fire managers can burn a larger block of land in one day instead of several smaller blocks over several days. This reduces the overall number of days smoke is in the air.

How To Get Informed

We try to ensure that the public and employees receive notification prior to prescribed burning. Because conditions can be unpredictable, we typically only know if and where we're burning a day or two in advance.

The Arizona Department of Environmental Quality monitors air quality during prescribed burns. For questions and information call (928) 779-0313 or go online to www.azdeq.gov.

The public can get prescribed fire updates from the Coconino via the following:

- ▶ Online: www.coconinoforest.us. Click on “Current Conditions” and then “Prescribed Fires.”
- ▶ E-mail: Sign-up for e-mail notifications at www.fs.fed.us/news/subscription.shtml. E-mails are sent at the end of the week with a list the following week's tentative projects/locations, as well as each day before a planned burn.
- ▶ Prescribed Fire Hotline: (928) 226-4607.
- ▶ Follow us on Twitter: www.twitter.com/CoconinoNF_Fire.
- ▶ Monitors: Visit www.phoenixvis.net/PPMmain.aspx to view data from various monitors that is updated hourly.
- ▶ For health concerns related to smoke, call the Coconino County Health Department at (928) 679-7272 or visit them online at www.coconino.az.gov/health.





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Sedona, Ariz. 86341
(928) 282-4119

***MOGOLLON RIM
RANGER DISTRICT***
8738 Ranger Road
Happy Jack, Ariz. 86024
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