

The Progressive Farmer  
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## Nevada Department of Wildlife Expands Restoration Efforts



The Nevada Department of Wildlife (NDOW) has dedicated a significant amount of time and funds to restore sagebrush rangelands and habitats. After the 2006 wildfire season, NDOW coordinated with many private landowners to restore vegetation on private lands in burned habitats. Approximately 175,000 acres of private land burned in the 2006 fires and NDOW was able to assist in the restoration of more than 25,000 acres of burned private lands and about 5000 acres of federal lands containing critical wildlife habitat.

To combat the many threats to rangeland habitats such as wildfire, cheatgrass invasion, and pinyon-juniper (P-J) expansion, NDOW has committed to continue its restoration efforts on an annual basis. During heavy fire years, efforts will focus on quick reseeding of burned habitat. When fires do not create a critical need, restoration efforts will continue in the form of cheatgrass conversion, green stripping, seedling plantings, and P-J removal in important sagebrush habitats.

Cheatgrass will be attacked from many angles including the use of herbicides such as Plateau, and seeding of native species and introduced forages that

are known to compete well with cheatgrass. Initially, cheatgrass conversion will focus on private rangelands that have been impacted by cheatgrass. NDOW is seeking private land partners to implement large scale cheatgrass conversion projects. Interested landowners are encouraged to contact Dave Pulliam, NDOW Habitat Bureau Chief at (775) 688-1560 or email at [dpulliam@ndow.org](mailto:dpulliam@ndow.org).

The cumulative impacts of fire, cheatgrass, and P-J cause a loss of over one million acres per year of sagebrush habitats. Efforts to protect and restore rangeland habitats must be expanded. Nevada's economy and rural communities cannot afford to lose its sagebrush rangelands and associated wildlife.

The Nevada Department of Wildlife (NDOW) is responsible for the protection, restoration and management of fish and wildlife resources, and the promotion of fishing, hunting, and boating safety. NDOW's wildlife and habitat conservation efforts are primarily funded by sportsmen's license purchases and a federal tax on hunting and fishing gear. Support wildlife and habitat conservation in Nevada by purchasing a hunting, fishing, or combination license. For more information, see NDOW's web site at [www.ndow.org](http://www.ndow.org).

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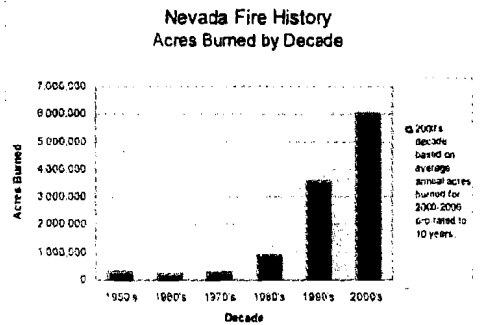
Invasive non-native annual grasses like cheatgrass and red brome displace native plants, increase the fire return interval, and provide very poor forage and wildlife habitat.

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and forbs. Soils under P-J lose the capability to trap, store, and slowly release water and are more prone to erosion. Dense stands of P-J are highly susceptible to fire with very poor post-fire regeneration. While P-J can provide thermal cover for wildlife, the forage and habitat value is minimal when compared to the sagebrush habitats it is displacing.

Nevada is facing unprecedented threats to its wildlife, rural communities, agriculture, public safety, and outdoor recreation. The State is losing its natural vegetation and dependent resources at an alarming rate. The greatest of these threats include wildfire, invasive annual grasses, and pinyon-juniper encroachment. These threats are decimating the sagebrush ecosystems that have made Nevada the unique, great State it is.

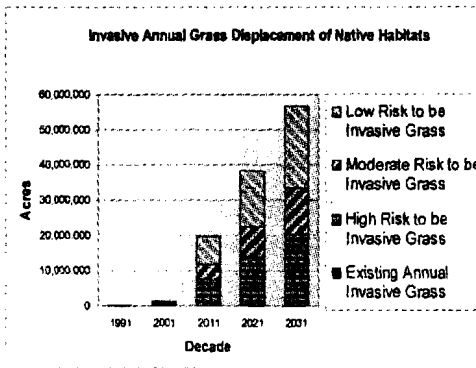
The chart below shows the rapid increase in wildfire's impact. Prior to the 1980's, burned lands averaged less than 25,000 acres per year. Nevada's average acres burned per year has steadily increased by twenty-four times to the current average of more than 600,000 acres burned per year.



Fire fighting expenditures and threats to public safety have dramatically increased, while native species populations, grazing lands, and wildlife habitat have declined.

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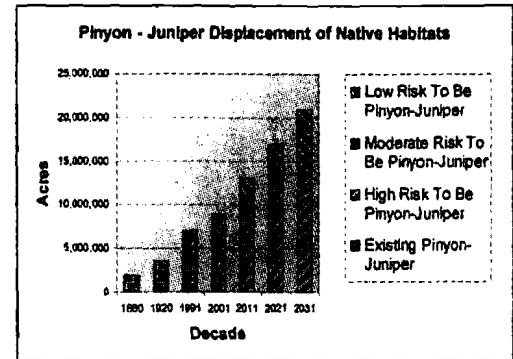
Nevada currently has over 1.2 million acres dominated by invasive grasses. Dr. Wisdom's book, "*Habitat Threats in the Sagebrush Ecosystem*" estimates that Nevada is at high risk to lose an average of 600,000+ acres per year over the next 30 years to invasive grasses.



This grass invasion will accelerate the frequency and size of wildfires; greatly reduce forage available to livestock; displace critical wildlife habitat; and threaten rural communities, public safety, and tourism.

Pinyon pine and juniper ( P-J ) have spread into sagebrush habitats, greatly reducing the presence and diversity of understory grasses

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Prior to settlement, Nevada contained less than 2 million acres of pinyon-juniper. The chart shows the increase of P-J and indicates that sagebrush habitat is being lost to P-J at a rate of over 150,000 acres/year.

The cumulative impacts of these threats will devastate over one million acres of sagebrush habitat per year. Charting the history of these threats shows the losses will grow more rapidly with each passing decade. The sagebrush losses will lead to: federal listings of multiple species as threatened or endangered; exorbitant expenses for fire fighting and public safety; and severe economic losses for agriculture, rural communities, and tourism.



# Restoring Wildlife Habitat

The Nevada Department of Wildlife (NDOW) and the Bureau of Land Management (BLM) have established priorities and begun restoration work in the **1.46 million acres of land burned by wildfires in the summer of 2006**. "This is really a triage approach; we're treating those areas where we see the greatest need and the greatest potential for success," said Dave Pulliam, Habitat Bureau Chief at NDOW. "Our resources are extremely limited in comparison to the scope of work that really needs to be done," he added.

NDOW is focusing its efforts on areas prioritized for their wildlife values. **Wildlife face significant winter die-off in burned critical winter habitats. NDOW is relocating up to 350 antelope and held emergency antelope and mule deer hunts this fall to reduce herds to levels the land can sustain.**

Critical areas for these animals are being reseeded using a variety of methods. It is vital that burned areas be seeded with forbs, grasses and shrubs that can compete with invasive grasses such as cheatgrass.

Cheatgrass, prevalent in northern Nevada, matures early in spring, and sucks essential nutrients and moisture from the soil. It "cheats" native plants from the essentials they need to flourish. Additionally, because cheatgrass matures and dries out early in the summer, it fuels wildfires, continuing the cycle of habitat destruction.

Interagency cooperation between NDOW, BLM, and the U.S. Forest Service (USFS) is a key step to restoring wildlife habitat. BLM and NDOW share the common goal of restoring wildlife habitat burned during the 2006 fire season. In order to accomplish that goal, the agencies share resources and work together at every opportunity.

Cooperative restoration is especially critical in areas like the "checkerboard" of alternating sections of public and private land or parcels of private lands surrounded by public lands. BLM and the USFS can only spend

stabilization and restoration funds on public land. NDOW, however, can gain permission to complete work on private lands from private landowners. By working together, the agencies are able to accomplish habitat rehabilitation work on large areas of critical habitat that cross ownership boundaries.

BLM has two levels of restoration for post-fire activities. The first level is called Emergency Stabilization and includes work for erosion control, water quality protection, weed control, etc. Stabilization work is normally done within the first year following a fire. The second level is called Rehabilitation, which is aimed at rehabilitating wildlife habitat, rangelands, and repairing/replacing small structures such as fences or cattle guards. Rehabilitation Plans usually last for two or three years, although critical seeding is done the fall and winter following the burn to meet the "window" of opportunity of the first winter's moisture before invasive weed competition becomes established.

BLM stabilization work in watershed areas is beneficial to burned areas in many important ways. Protection of watersheds not only benefits wildlife and helps maintain grazing, but also helps keep people and their communities safe from the danger of flooding.

Thus far, BLM has purchased nearly one million pounds of seed of various species. Nearly 20,000 acres have been drill seeded (using heavy equipment to plant seed directly into the ground), and 10,000 acres have been aerial seeded in watersheds. An additional 165,000 acres of aerial seeding is planned for this winter in northeastern Nevada. An estimated 250,000 pounds of sagebrush seed and 14,200 pounds of bitterbrush seed is on order. Later this winter, BLM plans to apply various species of big sagebrush and low sagebrush seed on specific sites within the burn perimeters of 28 wildfires, encompassing several hundred thousands of acres of public lands, with a major emphasis on wildlife habitat rehabilitation.

Seeding efforts are ongoing for planting bitterbrush seed on various public land burn areas through the BLM, which places a major emphasis on wildlife habitat rehabilitation.

The following is a summary of this year's fire rehabilitation projects that have been completed or are under way.

- Bitterbrush seeding in approximately 1,000 acres of private land of the Snow Canyon Fire area using a bulldozer and 4-wheelers is complete. This project treats critical deer winter range, and was accomplished using NDOW equipment and employees.
- Bitterbrush seed has been hand-planted on BLM public lands on an estimated 120 acres on the Winters and North Antelope Fire areas and 750 acres on the Snow Canyon Fire area.
- Bitterbrush seed was hand-planted on 200 acres of U.S. Forest Service lands in the Snow Canyon Fire area. This was done by students from Elko High School agriculture classes.
- NDOW will assist the BLM in seeding bitterbrush on portions of the 148,000-acre Charleston Fire burn.
- NDOW will seed nearly 30,000 acres with mostly sagebrush species in the Winters, Amazon, Snow Canyon, Charleston, Suzie, Elburz and Marble area fires. Lower elevations with significant threat of cheatgrass invasion will be aerially seeded with forage kochia (a non-native half shrub that provides high-quality fall and winter forage for livestock and wildlife), sagebrush, and grass mixes.
- Concurrent NDOW and BLM efforts will seed drainages on private land in the Amazon, Snow Canyon, Basco, and Mudd fire areas with special seed mixes for watersheds.
- NDOW, BLM, USFS and Ellison Ranching Co. recently completed reseeding efforts on 6,000 acres of mixed ownership lands on the Snow Canyon Fire. Mountain big sagebrush and key grass species were utilized in this reseeding effort.
- Volunteers will supplement BLM efforts in planting seedlings in the Basco and Mudd fire areas, focusing on stabilization.
- NDOW and the BLM will cooperatively plant seed in "greenstrips," areas around islands of un-burned habitat, in the Suzie, Winters, and Marble fire areas.

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### ELKO

2397 Mountain City Hwy.  
Elko Junction Shopping Center  
Elko, Nevada 89801-1496  
Phone: (775) 738-4083  
Fax: (775) 738-2582

NCUA



www.elkofcu.org

### SPRING CREEK

559 W. Spring Valley Ct., Ste. 7  
Spring Creek, Nevada 89815-6811  
Phone: (775) 753-6272  
Fax: (775) 753-6280



# The True Costs of Wildfires Revealed

*Report says negative impacts to the environment, tourism, agriculture and wildlife habitat occur long after major fires*

## **Nevada State Forester calls for increased investment into pre-suppression efforts**

CARSON CITY, Nev. -- A new report by the Western Forestry Leadership Coalition shows that the true costs from large wildland fires are much greater than the costs of suppressing the fire – up to 30 times more than commonly reported.

Annual fire suppression costs since 2000 for the U.S. Department of Agriculture and the Department of Interior exceed \$1 billion. The report shows that this number is a fraction of the true cost to society, which is anywhere from two to 30 times higher than the reported suppression costs.

“The cost of a wildland fire starts with suppression, but it doesn’t end there,” said Pete Anderson, Nevada’s state forester and co-chair of the Coalition. “After a fire a community could experience long term economic impacts due to the loss of tourism, agricultural operations and wildlife habitat. In these hard economic times, something like this will devastate a community.”

Reducing wildfire impacts is not only good for the environment but also good for the economy, the report says. The True Cost of Wildfire in the Western U.S. examines data from six large wildfires across the West in order to give an accurate account of the cost to communities and the environment.

True cost considers long-term and complex costs, including impacts to watersheds, property damage, business and individual financial losses, flooding, erosion, diminished water and air quality, healthcare costs, injuries and fatalities, lost tax revenue and a host of ecosystem service costs that extend into future. True costs are ultimately paid by tax payers.

“When we look at all the impacts that a large wildfire can have, it is obvious to see why a wise investment in preventing devastating wildfires makes sense in every way,” said Bov Eav, director of the U.S. Forest Service Pacific Northwest Research Station.

The report offers recommendations to help focus the way these costs might be better considered, including:

- Supporting improved data collection by government agencies to foster more effective budgeting
- Developing a new funding mechanism for emergency fire suppression activities that includes a partitioned account for wildfire suppression costs associated with emergencies, and
- Investing in management activities that improve forest health.

The report is available here: <http://www.wflcweb.org/infomaterials/reports.php>.

The Western Forestry Leadership Coalition is a unique state-federal partnership working with the people and resources in the west. The WFLC 34-person membership consists of western State and Territorial Forestry Agencies and the US Forest Service: western Regional Foresters, Research Station Directors, and the Forest Products Lab Director. The Coalition has staff support based in Denver, CO. Their mission is to promote science-based forest management that serves the values of society and ensures the health and sustainability of western forests. Please visit [www.wflcweb.org](http://www.wflcweb.org).



Nine hundred sawmills, pulp mills and paper mills have closed since 1990. 130 thousand men and women have been put out of work. Over half of our range livestock industry has been destroyed, all in the name of protecting the environment while in truth, our nations lands and resources continue to deteriorate

Estimates are that there has been more board feet of timber burned in 2000 than there was timber harvested from our national forest than has been harvested since the forest system was created in 1891.

From the Book  
"Eco-Freaks" by John Borian P 153

Mat Murphy of the Elk BLM Office  
said that in 1986, one million  
acres burned and they lost 450  
miles of fence.

At \$5,000 a mile, replacement  
cost would be, \$2,250,000

Steph :