



## Success Stories from the Western Region

### Aspen, Elk, and Landscape Resiliency: The Wyoming Front Aspen Restoration Project

#### Objective

The Wyoming Front Aspen Restoration Project (WYFARP) is focused on improving the ecological condition of aspen stands on Bureau of Land Management (BLM) and private lands on a landscape level along the Wyoming Range Front in western Wyoming. The project consists of approximately 9,000 acres of aspen treatments on BLM land to be implemented over a 10-year period. The general project area covers 243,800 acres, of which 173,900 acres are BLM, 57,300 acres are private lands, and 12,000 acres are State of Wyoming Trust lands.

The objective of the project is to mechanically remove conifer trees from aspen stands to reduce competition for water and nutrients as well as stimulate aspen suckering by creating a disturbance within mature decadent stands that are not showing healthy reproduction.



**Maki Creek – treated aspen stand (left) vs. untreated (right) - 2009**

*Photo credit: Curt Yannish*

#### Partners

To date the project has brought together 15 partners. They include federal and state agencies, the Rocky Mountain Elk Foundation (RMEF) and other non-profit organizations, local landowners, and numerous contractors, including the Wyoming Game and Fish Department, the U.S. Forest Service, Wyoming State Forestry, Wyoming Landscape Conservation Initiative, Wyoming Wildlife and Natural Resource Trust, RY Timber, Northwest Management, Worman Forestry Inc., Leo Ault, Pro-Inc., Craig and Skye Thomas, Terra Firma, Bray Ranches, Copeland Ranches, and Guio Ranches.

#### Implementation

In 1998, in Section 347 of the 1999 Interior Appropriations Act, Congress authorized the Forest Service to use Stewardship End Result contracts and agreements for a trial period. Initial efforts were encouraging, and Congress subsequently extended the stewardship contracting authority through 2013 and made it available for use by the BLM as well as the Forest Service. Initiated in 2007, the WYFARP was the first significant Stewardship Assistance Agreement that RMEF entered into with the BLM.

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The initial agreement to undertake a stewardship project was signed by the BLM and RMEF in April 2005. An RMEF Assistance Agreement/Stewardship Contract of \$50,000 per year for 10 years was signed in September 2006 to allow the partners to grow into and adapt to the project. National Environmental Policy Act work was completed early in 2007 for the WYFARP with modifications and adjustments allowed in the Annual Operating Plans. Stated objectives include hazardous fuel reduction, aspen restoration and wildlife habitat enhancement.

In the first five years of the ten-year BLM/RMEF agreement, the WYFARP has treated 2,632 acres of high-risk aspen stands to reduce conifer presence and restore stands and associated forage to a younger, more vigorous, condition by slashing/removing conifers in the summer, leaving a fuel bed one to two feet high over 80% of the unit, then using prescribed fire the following spring. Re-introducing fire into the aspen ecosystem stimulates suckering in stands that are not showing signs of regeneration due to lack of disturbance. In some cases, the treated stands have shown a nearly 500 percent increase in stems per acre from the pre-treatment data taken in 2007 (from 735 stems per acre pre-treatment to 3,600 stems per acre post-treatment), and approximately 90 percent of the encroaching conifer trees have been removed from some of those stands.



**Camp Creek Rx1 - 2011** Photo Credit: Greg Reser

The aspen treatments benefit plant community health, wildlife habitat, and restore floral and faunal diversity into the ecosystem. Increasing aspen stand vigor by reducing conifer dominance improves habitat interspersion, ecological function, progress towards allotment and range-land health objectives, improves habitat for declining aspen-dependent species and creates “nature’s” fuel breaks to reduce the size and impacts of catastrophic fire in the stand replacement fire regimes found in the project area.

The “pure” aspen stands created by the project are helping to counteract the growing number of acres that have been taken over by conifer trees now decimated by the Mountain Pine Beetle and ripe for catastrophic fire events. The healthy aspen stands create anchor points and safety zones for firefighters during suppression actions.

Through the use of the stewardship contracting authority, the WYFARP also has made forest products available to the local economy as well as creating jobs for local citizens through the production of 1.1 million board feet of saw timber.

The project is also contributing to the diversification of the forest products industry. The project lead, Greg Reser, is a member of the Biomass Utilization Working Group and is using the group’s diverse knowledge to develop more forest products with the WYFARP-produced biomass. To date, approximately 2,000 tons of biomass have been sold and utilized for bio-energy, mulch, and landscaping chips. One hundred and fifteen tons were sold to the oil and gas industry as a new product for well site mitigation. These numbers do not include the approximately 1,500 tons of fuel wood produced as well as the 1,500 Christmas trees harvested. All profits from the sale of these forest products have been used to treat additional acres within the project.





**Red Canyon RX Aspen #2 - WY Game and Fish personnel doing post-burn monitoring** *Photo credit: Eric Maichak*



**Upper Billies Rx fire aspen treatment (Sprint) - 2012**  
*Photo Credit: Jill Randall*

## Keys to Success

The RMEF's strong conservation reputation and trust from private landowners has opened doors and fostered relationships that would have been difficult for the BLM to develop alone. The WYFARP stewardship agreement between the BLM and RMEF is a stellar example of what was envisioned when the Stewardship End

Nearby elk feedgrounds will be monitored to see how treatment activities are affecting local elk feeding and movements. Through coordination with the grazing permittee, and controlled with fencing, cattle will be kept away from the treated areas for two years allowing them to rest. A National Aspen Monitoring Protocol will be employed to measure results. Photo points have been located across the landscape.

## Restoration and Maintenance of Landscape Resiliency

The WYFARP treatments benefit, on a landscape level, plant community health, wildlife habitat, restore floral and faunal diversity into the ecosystem, and reduce hazardous fuel loadings. Increasing aspen stand vigor by reducing conifer dominance improves habitat interspersion, ecological function, and progress towards allotment and rangeland health objectives. Healthy aspen stands support as many as 200 wildlife species, more than any other western habitat type except riparian areas. They provide critical calving and winter habitat for elk and moose, summer habitat for mule deer, and nesting habitat for songbirds. Aspen stands can produce up to 3,000 pounds of forage per acre compared to conifer stands that typically produce around 200 pounds per acre. Aspen provide material for construction of beaver dams as well. Those dams increase stream and riparian health by raising the water table, and enhancing willow production which provides forage for moose and cover for Colorado River cutthroat trout.

Healthy aspen stands can attract elk from feedgrounds earlier in spring and hold elk later in autumn, reducing dependence of elk on artificial feeding and opportunity for possible transmission of brucellosis, chronic wasting disease, or other pathogens.



Result Contracting authority was granted to the BLM in 2003. This project has enabled the partnerships to evolve and strengthen. It has allowed the addition of new partners as the project has evolved. RMEF's leadership in project coordination has improved the relationship between the BLM and the Wyoming Game and Fish Department and is improving the communication and coordination in the implementation and monitoring of other projects within the BLM's Pinedale Field Office. The partnership has helped develop stronger relationships between the BLM and local landowners who were interested in treating similar aspen stands on their private property. The ability of the project to treat stands that cross federal, state, and private lands allows for a more continuous treatment that benefits the entire landscape instead of blocks of lands determined by political boundaries.

Through the use of the stewardship authority, the WYFARP project was able to offset the service work costs with the sale of vegetative material coming off the project. The project's per acre costs were comparable to other similar projects. And the benefits have significantly out-weighed the initial costs of the treatments. In addition, the treatments will continue to provide benefits to wildlife, forest health, sportsman, and fire suppression for years to come.

One of the most successful financial strategies of this project has been to leverage BLM funding to access outside funding sources to increase the scope of the project. For example, in 2009, the BLM brought approximately \$150,000 in funding to the project and RMEF utilized a variety of grants, primarily from the Wyoming Game and Fish and the Wyoming Wildlife Natural Resource Trust Fund, to bring another \$303,000 to the project. The BLM has worked to combine multiple funding resources such as forestry, Wyoming Lands Conservation Initiative (WLCI) and fuels management to increase the funding levels.

Another financial tool is utilizing the value of forest products sold to assist in accomplishing more treatment acres. Not only does the WYFARP project look to "traditional" wood products, but it has worked aggressively to expand into new biomass products, especially as the timber market has declined. This has led to utilization of biomass for co-gen energy in a potato processing facility in Idaho and the development and sale of biomass for well pad mitigation activities in the BLM's Jonah and Pinedale Anticline gas fields with the Encana and Questar companies. The commercial sale of Christmas trees and fire wood has also brought in more monies for the project.

## **Lessons Learned**

Local labor was difficult to find because of the Pinedale oil/gas boom. As a result, RMEF subcontracted with Ecosystem Research Group (ERG) Missoula and they brought in workers from Idaho.

The sawmills in west-central Wyoming and southeast Idaho are few and small. The cost to transport the logs to the nearest mill in Livingston, Montana, was more than they were worth. Consequently, a local sort-yard with portable mills to cut up firewood, saw boards out of logs, make post and poles and grind up the biomass - all for local consumption - is being considered. Oil and gas operators in western Wyoming are importing wood from Texas to build drill pads; this wood could be supplied locally by creating a local logging facility.

Liability concerns that arose on an unrelated RMEF project in Idaho led RMEF to withdrawn from all their stewardship contracting agreements in 2011, but the WYFARP project activities are continuing as BLM and its partners develop a revised implementation strategy.

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