"PROVIDING ASSISTANCE TO PRIVATE LANDOWNERS WITH THE PLANNING AND IMPLEMENTATION OF RESOURCE MANAGEMENT PRACTICES."

This program is administered in the State of Nevada through a partnership with the US Forest Service and the State of Nevada Division of Forestry, to promote sustainable forest management practices on non-industrial private forest lands (NIPFs).

The program consists of three major goals.

Technical Assistance - Technical assistance is free of charge and can include aid in the planning and on the ground assistance in project implementation.

Educational Assistance – This includes the development, creation and distribution of technical/educational materials. Public workshops and training sessions can be requested.

Financial Assistance – When available cost-share to Private Landowners can occur. NDF can also supply assistance in working with USDA-NRCS to

There are many different forms of "project" assistance that is available through this program. Below are the 'top 10" and one more for good measure!

Forest Stewardship Plan Development

Assistance to private-non industrial landowners and groups representing landowners in developing sound forest land practice plans and practices for the protection, management, and enhancement of all forest resources. This includes assistance in grant writing and project management.

When Cost shares are available, projects can include the preparation of an "Approved Forest Stewardship Plan" by a private sector natural resource professional

Afforestation and Reforestation

Afforestation is the process of starting a new forest in an area where none existed but soil and other requirements are present to support plantings.

Reforestation is to replant an area that was previously forested.

Cost-shares can be used for establishment of forest planting on non-forested land as well as traditional reforestation practices. Eligible practices include site preparation, prescribed burning, trees, seeding and tree shelters, amendments, protection measures etc. A minimum of 200 trees must be planted.

Not eligible for cost share are landscape projects, gates, orchard, ornamental nursery, or Christmas tree production.

Forest Stand Improvement

This practice is for improvement of forest stand productivity and forest health on forest land with existing tree cover. Eligible practices include non-commercial thinning, pruning, control of undesirable species, and prescribed burning.

Not eligible for cost share are gates, irrigation systems or plants for orchard, ornamental nursery, or for Christmas tree production.

Agroforestry

Agroforestry is land management for the simultaneous production of crops and trees.

Windbreaks

For our purposes a windbreak is a layered barrier of mixed shrubs and trees placed to protect a crop, field, agricultural structure or livestock from strong winds. Windbreaks exist to bear the brunt of the wind and snow, anything else they do is a bonus (or a bane), they help to protect your crops, trees, agricultural

buildings, livestock. They also can provide excellent wildlife habitat. This practice is not intended for landscaping purposes on non agricultural lands.

Windbreak, Duckwater Tribe, 2003.

Eligible practices include materials and labor for site preparation, plants, irrigation, mulching and weed control. Fencing is eligible only if required to protect the practice and if recommended by the plan developer. Windbreak projects must have a minimum of 200 trees planted unless waived by the Stewardship Coordinator based on other values and resource benefits.

Projects irrigated from a domestic well are limited to the capabilities of the well.

Not eligible for cost share are the purchase or establishment of plant materials for landscaping, orchard, ornamental, nursery or Christmas tree production.

Silvopastoral systems

Diversification of land management operations is becoming increasingly important as changes take place in the renewable resource industry. The Silvopastoral System offers private landowners the opportunity to combine two traditional practices, forestry and agriculture, into a profitable, sustainable operation.

Perhaps the oldest agroforestry systems used in the world, these systems occurs where forages and/or livestock and trees are cultivated together on the same unit of land. These agroforestry systems are deliberate, managed agro ecosystems, using both the science of range management and extensive grazing under trees as tools. Grazing under forests has a long history with the production of both animals and tree crops.

Alley Cropping

Alley cropping is broadly defined as the planting of rows of trees and/or shrubs (single or multiple) at wide spacing, creating alleyways within which agricultural crops or horticultural crops are produced. The trees may include valuable hardwood veneer or lumber species, nut or other specialty crop trees/shrubs, or desirable softwood species for wood fiber production.

Alley cropping is an agroforestry practice intended to place trees within agricultural cropland systems. The purpose is to enhance or add income diversity (both long and short range), reduce wind and water erosion, improve crop production, improve utilization of nutrients, improve wildlife habitat or aesthetics, and/or convert cropland to forest.

The practice is especially attractive to landowners wishing to add economic stability to their farming system while protecting soil from erosion, water from contamination, and improving wildlife habitat. Another method is in which rows of a crop are sown between rows or hedges of nitrogen-fixing plants, the roots of which enrich the soil. One such practice might include growing of hybrid poplars for small diameter wood products, pellets, or firewood with traditional crops or grazing. Tree protection fencing and shelters would be eligible.

Water Quality Improvement and Watershed Protection

The Great Basin is an arid region with extremely limited water supplies. Water is vital to the health of the Nevada's unique ecosystem and the economic viability of its communities.

This practice must be aimed at improving water quality and maintain soil productivity on forest land with existing tree cover on eroded, gullied sites and on abandoned roads, trails, and firebreaks. Eligible practices include the cost of materials and planting of trees, shrubs and herbaceous forbs and grasses including site preparation, erosion control structures, mulch and other erosion control efforts. Practices to improve stream crossings on roads and trails are also eligible if not caused from lack of maintenance.

Not eligible are water rights reallocation, transfers, or purchases, management or operation of reservoirs,

clean-up of polluted sites under permit, superfund sites, or mine de-watering. Also not eligible for cost share are road or trail construction and maintenance, gates or irrigation.

For areas burned over in wildfires refer to #10.

Fish and Wildlife Habitat

Fisheries/Aquatic Habitat: This practice provides for in-stream habitat improvement for native fisheries and amphibian habitat in water bodies associated with forest land. Eligible practices include habitat improvement plantings, structures, and restoration of natural streams and wetlands.

Projects to enhance Threatened or endangered fish or amphibian habitat are eligible. Introduction or reintroduction of native animal species is not eligible through cost-share but is highly supported by the program. Partnerships with NDOW and USFWS to reach these goals are recommended.

Examples of other practices not eligible for cost share are any practices that would adversely affect any threatened or endangered species, the enhancement of a commercial aquaculture operation, new pond installation, the purchase of fish or fish food.

Wildlife Habitat Enhancement

This practice is for the establishment and enhancement of wildlife habitat on forest land or associated lands. Eligible practices include site preparation, prescribed burning, planting, nest boxes, roost poles, wildlife guzzlers, fencing, seeding, planting, restoration of meadows, springs and streams, and spring developments for wildlife purposes, (excludes the cost of gates and boundary line fences).

Not eligible for cost share are practices that would adversely affect any threatened or endangered species, well drilling, supplementing a "put and take" wildlife operation, pond installation, gates or irrigation.

Riparian and Wetland Management

Provides for protection or restoration of riparian zones or wetland areas on forest land or rural lands capable of supporting riparian buffers. Eligible practices include tree and shrub planting, streambank stabilization and restoration of the original hydrology, and fencing. Not eligible for cost share are the cost of gates and boundary line fences, irrigation, or any practice that would result in the loss of wetlands, or impair wetland or riparian functions and values.

Forest Health and Protection

Forest Insect and Disease

There are multiple insects and diseases which infect the coniferous tree forests, aspen, sagebrush, riparian forests and Pinyon Juniper woodlands in Nevada. NDF has on staff an insect and disease specialist to provide assistance. There are several areas which are currently at moderate levels of insect and disease activity but remains a high risk due to surrounding forest conditions.

Forest practices aimed at promoting forest health on the private lands within impacted watersheds will reduce the susceptible conditions. Forests and woodlands in general are overstocked and in need of management for forest health.

Eligible are all cutting, pruning, prescribed burning, seeding, herbicide and pesticide treatments, and other forestry practices that promote the control of the insect and disease problems.

Invasive Plant Species Control

Management of noxious weeds: A noxious weed is a plant that has been defined as a pest by law or regu-

lation. Both Nevada and the U.S government maintain lists of plants that are considered threats to the well being of the state or the country. Eligible are herbicide treatment, cultural and biological treatments. Temporary fencing, irrigation, seeding and planting are all examples of eligible practices.

Invasive Plants

NDF and this program are focusing on woody invasive plants. All problem plants may not be listed as "noxious". An invasive plant species is certainly a weed, not only out of place, but also out of its country or region of origin. It is introduced plant species that is aggressive such as cheat grass, whitetop, Russian knapweed, russian olive and tamarisk in Nevada.

NDF crews: removal and herbicide treatment of tamarisk in Southern NV.

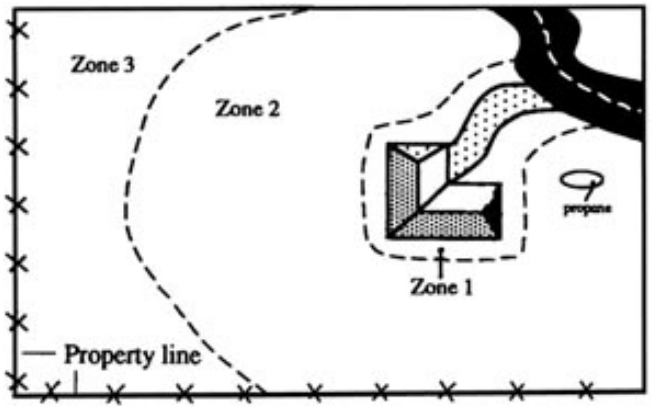
The Nevada Weed Association has identified over 30 invasive weed species in Nevada that are viewed as serious threats to our rangeland and riparian ecosystems. Tamarisk, or salt cedar, and Russian olive is increasing throughout Great Basin riparian ecosystems and, if not controlled, may become the dominant water consumers in the region. Many invasive species are so widespread that containment is the only option, while eradication remains a possibility with isolated introductions.

These species aggressively compete with native perennials following wildfire, and then alter the wildfire cycle after achieving dominance, making it virtually impossible for native shrubs and grasses to recover. NDF is focusing efforts on control and irradication of invasives and taking it one step further in development of "restoration of native habitat" after removal of the exotics.

Fire and Catastrophic Risk Reduction

Fuels Reduction

The primary objective is to reduce and control the insect and disease problems in these plant community types thorough Forestry practices. Goals should extend beyond the development of defensible space around the homes and outbuildings into larger areas of fuels reduction (zones 2 and 3 shown below). Parallel goals must include maintaining a healthy stand of trees, shrubs, grasses and wildflowers where possible, and to plant grasses and forbs that are more fire resistant and to inhibit the potential for increases in cheat grass density.



Green stripping

Green strips are long, narrow bands of fire retardant vegetation. Green strips are created by seeding plants. Green strips work by reducing the chance of a fire starting and by slowing the rate that the fire spreads. The drop in intensity and speed allows firefighters a better opportunity to control and extinguish the blaze. Green strips are used in a number of ways. Some of the more common uses of green strips in Nevada include:

- Adjacent to roads and railways to prevent ignitions from cigarettes and sparks from trains,
- Around individual homes or neighborhoods situated in high fire hazard rangelands,
- "Breaking up" large blocks of highly flammable, continuous annual vegetation,
- Protecting high value areas such as mule deer winter range, sage grouse and other endangered species habitat.

Fire Catastrophic Event Rehabilitation

Watershed/soil stabilization, Reseeding and replanting: The goal of this practice is to rehabilitate and restore watersheds, to closely match historical or

pre-fire ecosystem structure, function and diversity and dynamics. Projects will focus on restoring watershed function, including protection of basic soil, water resources, biological communities, and prevention of invasive species.

Biological rehabilitation emphasizes planting native grasses, forbs, shrubs, and trees. Projects require planning, consultation, design, and contracting and may take several years to fully implement. This practice must also address fish and wildlife habitat restoration, invasive plant treatments, grazing management, and cultural resource site protection.

A variety of methods are eligible including seeding, plantings of shrubs and trees, fencing to protect from off road vehicles or livestock grazing during restoration period, wildlife habitat, guzzlers etc.

Goats are being used to control Russian knapweed and tamarisk on the muddy river. (MMREIAC, 2004)

A landowner wishing to participate in the Program should contact their local Nevada Division of Forestry for assistance.

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