USA: Colorado: Uncompahgre Plateau Project

Overview

The Uncompahgre Plateau (UP) Project was formalized in a 2001 Memorandum of Understanding (MOU)/ Cooperative Agreement (CA) by the Public Lands Partnership (PLP), Bureau of Land Management (BLM), Colorado Division of Wildlife (CDOW) and U.S. Forest Service (USFS). Western Area Power Administration (WAPA) and Tri-State Generation joined the partnership in 2004. These organizations formed a collaborative to restore and sustain the ecological, social, cultural and economic values of the Uncompahgre Plateau. The UP area, located in southwest Colorado, comprises over 1.5 million acres of private, state and federal lands. Approximately 75% of the area is public land. The goals of the UP Project are 1) to improve ecosystem health on the Uncompahgre Plateau through active management based on best available science and local community interests and 2) to partner with others in the restoration of native plant communities on the Colorado Plateau. The primary role of UP is to help coordinate and facilitate restoration activities on the Plateau. UP does not supercede management authority on any federal, state, or private lands. The primary UP programs are: Landscape Scale Project Planning, Invasive Species Management, a Native Plant Program, On-The-Ground Treatments, and Education and Technology Transfer. The UP Project directs, coordinates and/or facilitates these activities across jurisdictional boundaries. The UP Project functions in a collaborative approach among the partners, community and interested stakeholders. Public meetings are held throughout the year as a forum for community participation and communication. Field trips, information programs, demonstrations, newsletters, a website, special information sheets and other tools are used for education and outreach.

Project Details

Lead entity types:

- Governmental Body

Adaptive management

Describe adaptive management processes and mid-course corrections taken to address unforeseen challenges and improve outcomes in each of the following categories:

Other:

The Uncompahgre Project is an example of well-funded, effective collaboration at a bioregional level. The development of current efforts such as the Colorado Plateau Native Plant Initiative place the UP as an effective leader in its region in terms of ecological restoration science and collaborative planning and facilitation. The UP illustrates that collaborative processes allow for the numerous interests found in the Western United States to be sorted out in an effective way to promote regional restoration solutions.

State of Progress:

- Implementation

Project Start:

2000-01-01

Project End:

2008-01-18

Total budgeted expenses:

- USD 2-5 million

Global Regions:

- Northern America
- Americas
- World

Countries:

- United States of America

Ecosystem Functional Groups / Biomes:

- Temperate-boreal forests and woodlands biome

Extent of project:

- Other

Extent of restoration:

- Other

Degradations:

- Invasive species
- Urbanization, Transportation & Industry
- Unsustainable grazing
- Other forms of unsustainable agricultural practices
- Extractive industry development
- Other industrial and urban development

Description:

The Uncompahgre Plateau had long been a favorite hunting ground of Native Americans when the first Spanish explorers came to Southwestern Colorado in the 1760's. The Ute Indian tribes consisted primarily of highly mobile hunting and gathering groups who had adapted their lifestyles to the seasonal variation and movement of the regional flora and fauna. Over time, they formed attachments to special places for hunting, fishing, gathering, and ceremonial uses. They also developed noticeable, well-established trails from one place to another. The Utes were very dependent on horses, which they adopted in the 1600s. By the 1800s, there were many horses per family. Therefore, grazing of horses would have been an ongoing activity on the Plateau for over a century prior to the arrival of Euro-American settlers. However, impacts to the range would have been limited or localized because of the highly mobile lifestyle of the Utes. The Ute Indians continued to inhabit the Plateau as an ever-increasing number of trappers, explorers and prospectors came to the area. European settlement brought about rapid changes on the Uncompahgre Plateau after the Ute Indians were relocated to Utah by the US government in 1881. Settlers built towns and roads, mined minerals, harvested timber, introduced cattle, diverted and stored water, cleared land and cultivated crops, and built railroads to import and export commodities. Soon after the Utes were forced to leave the Plateau, the cattlemen moved in with their herds. The lands were unmanaged, grazing was uncontrolled, and livestock numbers increased rapidly. On the south end of the Plateau, Placerville became the number one railhead in the world for shipping cattle (Marshall 1981). Grazing was a free-for-all and range disputes were commonplace. According to Marshall (1981), "Competition for grass reached self-destruct excesses when the range was wide open. The herds were enormous"¦ Many of the huge cattle companies were absentee owners... they mined grass the way they mined gold veins - to get it all and get out"□. Domestic sheep were introduced to the Plateau early in 1915 and further increased grazing pressure (Smith 1937). A 1944 BLM Range Management Plan for the Escalante Unit of the Uncompahgre Plateau (BLM 1944) provides some perspective on how quickly the Plateau changed after settlement. According to this document, Jefferson Davis Dillard, a cowboy that began working on the Plateau in the 1880's, "claimed (that initially) the creeks and streams on the mountain (Uncompahgre) were flowing on top of the ground, meandering through the meadow grass, without the deeply defined channels now present. There was no underbrush in those days and a cow was visible for long distances unless hidden by the tall lush grass. He often spoke of how many of the streams had cut deep channels lowering the bed of the stream many feet in the space of 40 years or less and of how the underbrush and aspen had come in so thickly during his lifetime. The Indians made a practice of burning if off in the early days"□. As a result of the 1934 Taylor Grazing Act, the federal government regulated grazing on the public domain. This congressional act had a major impact on the West. Cattle numbers on the Plateau fluctuated based on demand and drought but numbers generally remained high well into the 1940's. As a result of modern grazing management practices initiated by agencies and ranchers, range conditions have significantly improved in most areas during the last 50 years. Extensive logging operations in the 1880's were the result of demand for lumber in the growing communities around the Plateau. Sawmills were constructed on the Plateau and moved to the timber sources as the need arose. Timber operations occurred along the entire length of the Plateau. Some of the best timber was found on the south end. Marshall (1981) describes the cost of lumber sold by the military at $40 per thousand board feet (in the 1880's), but in a short time so many sawmills were working on the Plateau that competition and efficiency had brought the cost of lumber to $8 per thousand. Marshall (1981) further describes the impacts of logging. "In those boom construction days when mushrooming towns, mines, and railroads were lumber hungry, many of the mills ran all winter, right through deep snows. The lumber was loaded from the mill onto bobsleds and dragged by horse or oxen down to an altitude where the snow could be coped with better by wheels than runners. There it was loaded onto wagons and hauled the rest of the way to Montrose, Olathe and Delta and by railroad to Ouray, Nucla, Norwood, Grand Junction, and other points east, west, north and south. As lumber companies moved onto the Plateau, roads were hacked in, opening up stands of timber pre-empted by the Stone and Timber Act. Logging roads, contemporaneous with salt roads provided some of the earliest access routes on the mountain"□. The Uncompahgre National Forest was established in 1905 to manage natural resources, including planning and regulating timber harvest, grazing, road building and other activities. This was the beginning of active management on the Plateau. Local logging began to greatly diminish in the 1970's as a result of numerous factors, including outside competition, tighter regulations on waste burning and air quality, reduced availability of timber sales, NEPA appeals, environmental compliance and other factors. Very few new roads have been authorized for construction since the mid 1980's as a result of the reduction in timber sales by the USFS. Intensive gold and silver mining activity began in the San Juan Mountains just to the south of the Plateau in the 1870=s. With the exception of some placer mining for gold along the San Miguel and Dolores Rivers, very little precious metal mining actually occurred on the Plateau. The Dave Wood Road was built across the Plateau in 1881to haul supplies to the mines and the Plateau became a source of timber, wild game meat, and livestock for the miners. Intensive exploration and mining for uranium and vanadium occurred on the northwest part of the Plateau between the 1930s and 1980s. The effects of this industry (i.e., roads, runways, seismic lines, mines, mills, and tailings) are readily apparent between Nucla and the Unaweep Canyon. Reclamation of prior mining and milling sites is now the primary focus of the uranium/vanadium industry on the Plateau. Early settlers followed many of the trails used by the Ute Indians. It is speculated that many of the existing roads were constructed along these routes. As demand for lumber for mining camps and settlements increased, logging expanded throughout the Plateau resulting in

the construction of numerous roads. As cattle and sheep grazing increased, salt trails and roads expanded into more remote locations. Uranium and vanadium exploration and mining resulted in extensive road development in the northwest portion of the Plateau. Hunters and outdoors recreational enthusiasts continue to expand the road and trail system. Unregulated hunting and habitat changes brought about by settlement resulted in the extirpation of elk, wolves and grizzly bears from the Plateau early in the 20th century and deer numbers were greatly reduced. A cowboy reminisced that in the 1920's ""¦if one of the men saw a deer during the course of a day's ride that it was worthy of mention that evening to the rest of the men."□ (BLM 1944). By the late 1930's, deer numbers on the Plateau began to noticeably increase, presumably as a result of restricted hunting and habitat changes favorable to deer. Livestock grazing and the absence of fire likely caused forbs and shrubs preferred by deer to replace grass. Agricultural areas in the Uncompahgre Valley and around the Nucla/Norwood areas also benefited deer. By the 1950's, deer numbers had soared and there was concern deer were becoming too numerous and destroying their habitat. Hunting seasons and bag limits were greatly liberalized in an attempt to control the exploding deer population. Deer numbers probably reached their peak in the late 1950's and early 1960's. By 1970, deer had declined to the point that hunting was restricted to bucks only and management was directed once again towards trying to increase deer numbers. The deer population rebounded in the late 1970's and early 1980's only to go into a steady decline in the 1990's despite the elimination of doe harvests. Elk were reintroduced to the Plateau in 1923 with a release of 18 animals west of Montrose. Over the next 34 years, elk numbers slowly increased resulting in the first legal hunting season on the Plateau being held in 1957. Elk numbers began to increase very rapidly during the 1970's and 1980's reaching an estimated post-hunt population of approximately 9,000 in 1990. Over the last decade, greatly increased cow elk harvest has maintained the elk population at approximately 9,000. Between the 1930's and the early 1970's, extensive habitat treatments occurred on the Plateau primarily to benefit livestock. These treatments included contouring, plowing, chaining of pinyon-juniper, herbicide spraying of sagebrush and Gambel oak, burning, and water developments. Most treatments were not re-seeded or were re-seeded with non-native species such as crested or intermediate wheatgrass. These treatments reached their peak between 1956 and 1965. According to Kufeld (1979), ""¦during the 1956-65 period when deer populations were very high and the heaviest harvests were achieved in an effort to reduce deer herds in an overpopulated range, vast acreages of deer range were being sprayed (27,112 acres) and chained (4,699) on the north half (of what is currently Game Management Unit 62), with perhaps detrimental effects to deer habitat, while large areas (8,642 acres) were being modified to improve conditions for deer on the south half through pinyon-juniper chaining. Prior to European settlement, Native Americans frequently used fire to improve hunting conditions and remove undergrowth to facilitate movement. In a last act of defiance, the Utes set large fires on the Plateau before they were forced to leave in 1881 (Marshall 1981). After settlement, fires were suppressed to protect timber and property. Throughout most of their existence, the USFS and the BLM have had policies to actively suppress natural fires on public lands. In the past 120 years the Plateau has been grazed, fenced, logged, sprayed, plowed, contoured, chained, seeded, mined, quarried, laced with an extensive network of roads, subdivided and developed, used for a wide variety of recreational activities, crossed by electrical transmission and pipe lines, invaded by exotic plants and altered by water diversions and developments. Some of these activities have been benign, some have been beneficial, and others have had negative effects on the overall health and sustainability of the natural systems of the Plateau ecosystem.

Planning and Review

Goals and Objectives

Was a baseline assessment conducted:

unsure

Was a reference model used:

UNSURE

were_goals_identified:

YES

Goals and objectives:

- Other

Goals Description::

The overarching goal of the UP Project is to improve the ecosystem health and natural functions of the Uncompahgre Plateau. Specific goals include: 1) Increase the species and age diversity and quality/productivity of native plant and animal communities. 2) Change the distribution of plant age classes to match a more natural distribution. 3) Improve watershed health, water quality and yield. 4) Improve habitat quality for most wildlife species. 5) Increase the recruitment and natural survival of mule deer. 6) Improve the distribution and quality of the mule deer winter range. 7) Prevent the reproduction and spread of noxious weeds on the Plateau. 8) Develop community partnerships to promote the health of the Plateau while sustaining social and cultural values. 9) Provide new stewardship opportunities for sustaining community-based natural resource businesses. 10) Demonstrate a collaborative partnership between communities and agencies working together in an adaptive approach to ecosystem management tailored to restoration efforts across jurisdictional boundaries.

Stakeholder Engagement

Were Stakeholders engaged?:

unsure

Description of Stakeholder Involvement:

The UP Project was originally formalized in a 2001 Memorandum of Understanding (MOU)/Cooperative Agreement (CA) with an expiration date of December 31, 2006. On November 1, 2006, a new MOU/CA was signed by the partners, replacing the original following its expiration. The MOU/CA was developed for the purpose of clarifying the intent of partners to coordinate on the restoration and sustainability of the ecological, social, cultural and economic values of the Uncompahgre Plateau. Partners in the project include: U.S. Forest Service - Grand Mesa, Uncompahgre, and Gunnison (GMUG) National Forest. There are three USFS Ranger Districts represented on the Plateau: Ouray, Norwood, and Grand Valley. Bureau of Land Management - Grand Junction and Uncompahgre Field Offices. Colorado Division of Wildlife - SW Region, Montrose Area Office (18). Each agency manages land within their jurisdiction for their respective goals. Agencies take into account a complex array of rules, regulations and jurisdictional authorities prior to implementing projects. Most of the Plateau's public lands are currently being managed for multiple-use. Prescriptions for grazing, logging, fuel-wood cutting, wildlife habitat, recreation, mining, transportation, watershed protection and reducing fuel loads are the primary management practices occurring on the Plateau. Private lands are primarily managed for farming, ranching, recreation, summer homes and development. Additionally, other notable project partners include Public Lands Partnership, Western Area Power Administration, and Tri-State Generation. The UP project has a formalized structure to facilitate decision-making. That formal structure consists of the following: Executive Committee--The Executive Committee is comprised of the managers of: the Colorado Division of Wildlife (SW Region, Area 19); the Forest Service (the Grand Mesa, Uncompahgre and Gunnison National Forests [GMUG]); the Uncompahgre and Grand Junction Field Offices of the Colorado BLM; Western Area Power Administration, an agency of the Department of Energy; Tri-State Generation and Transmission Association, Inc., an electric cooperative; and the Public Lands Partnership. The Executive Committee is responsible for final approval of the UP Plan and for annually reviewing project progress and addressing future resource commitments by each partner. Technical Committee--The Technical Committee is the working group and backbone of the UP Partnership. Each Partner (BLM, USFS, PLP, CDOW, WAPA and Tri-State) has one or two representatives on the Technical Committee. Their role is to promote collaboration and interagency/community cooperation to achieve the goals of UP. The Technical Committee meets monthly to handle coordination of activities, meet with outside members, review project requests, and recommend budgeting and project approvals. Each committee member is a liaison for their organization and takes information back to their organization for review and approval. The members of the Technical Committee bring potential opportunities for collaboration to the table; discuss areas where the Partners can coordinate efforts; and test the ecological, social and economic soundness of specific actions and proposals to be carried out under UP. Once a decision is agreed upon by all parties, it is implemented and progress monitored. Public Partnerships--The UP Public Partnerships are constituted by members of all UP Partners, members of the broader public, and interest groups at large. Public Partnerships are called upon by UP when formal public input is needed regarding any specific action. The UP Project is continually seeking feedback from the public on what is it that we want for the Plateau, what are the things we value about it; what do we want to see protected, enhanced or managed for specific landscape, economic and social purposes.

Ecosystem Activities and Approaches

General Activities: Dry Creek/Spring Creek In 2003, the UP Mosaic Group, comprised by specialists from the BLM, USFS, CDOW, PLP, Western Area Power Administration (WAPA), Tri-State and other organizations worked together to complete the Dry Creek/Spring Creek Vegetation Management Strategy, a coordinated, interagency plan to guide land management at a watershed scale. Spring Creek and Dry Creek had been identified as priority watersheds by the UP Watershed Prioritization team, based on ecological needs and social and economic criteria. Based on this plan, in the spring of 2004, UP implemented a variety of on-the-ground restoration and vegetation management treatments in the Dry Creek/Spring Creek watersheds on the Uncompahgre Plateau. These combined treatments, which totaled roughly 4,966 acres, were designed to enhance the fire survivability of the power lines and aesthetic impact of the utility corridor, accomplish wildlife habitat goals and improve overall land health. Tools included hydro-ax, roller chop, prescribed fire and cheatgrass spray. Planning and implementation of on-the- ground projects were done collaboratively, with multiple interests being embraced, funds leveraged and shared, and tasks efficiently coordinated. Description of Projects: Sims Mesa Area *CDOW treated BLM land *Tools: Combination of hydro-ax and roller chopper. *Driver (primary goal):To improve Gunnison sage-grouse and mule deer habitat by reducing pinyon pine and juniper encroachment into the sagebrush parks, increasing the amount and diversity of shrubs, and restoring a native grass/forb understory in the sagebrush stands. Government Springs Area *Roller chopped on old chainings done in the 1960's. The CDOW completed more treatments in the general vicinity of the power lines. *Tool: Hydro-ax *Driver: The goal of these treatments was to improve mule deer habitat by reducing the pinyon-pine-juniper canopy enough to allow establishment of additional grasses and forbs and reinvigorate the existing mountain shrub community. The CDOW treatments were in previously untreated stands of mixed pinyon pine-juniper, sagebrush, and oakbrush shrubs. *In addition, prescribed burns took place and are ongoing near the power lines in areas that were roller chopped in 2001 and BLM land. *Tool: Roller chopper with scheduled prescribed fire. *Driver/goal: To reduce the fire hazard along the powerline and to improve the aesthetic impact of the corridor. *Work on private lands (HPP funds) was done within an old chaining where the young pinyon pine and juniper trees were becoming dense, and the shrub component old and decadent. *Tool: Hydro-ax *Driver/goal: to improve deer habitat and protect wildland urban interface (W.U.I.). *To accomplish the restoration and vegetation management efforts on BLM land along the power lines in the Government Springs area, Tri-State covered the cost of the cultural clearance for treatments along the right-of- way, Western Area Power Administration supplied four lineman for a week to help flag in

the treatment units, and BLM supplied funding for the roller chop work. The CDOW covered the cost of all their habitat treatments on both BLM and private lands. Ironhorse Analysis Area The Ironhorse Analysis Area (IAA) is a 65,000 acre landscape of ponderosa pine, pine-oak, aspen, pinyon-juniper woodland, and sagebrush rangeland located at the southern tip of the Uncompahgre Plateau approximately six miles east of Norwood, Colorado. The IAA was extensively modified during the settlement and homesteading era of the late 19th century and received heavy commercial use well into the middle of the 20th century before being acquired by the National Forest System. The fundamental changes in the forest and rangeland plant communities associated with this land use history resulted in the current legacy of vegetative conditions on the Ironhorse landscape. The primary effects of this land use were related to roads, homesteading, dryland agriculture, extensive livestock grazing, exploitive timber harvest and fire exclusion. While this situation describes the general condition and land use history of many low elevation ponderosa pine and dry forest types in the western United States, the extent of the impacts on the Ironhorse landscape are of a scope and scale that represents the more highly altered end of the disturbance scale. Vegetation structure, age, condition and spatial patterns within the IAA appear to be inconsistent with the estimated historic range of variability (Romme et al). This is in part due to the fact that many of the land use practices persisted on this landscape long past being discontinued on other areas primarily because of the easy access to its grazing and valuable ponderosa pine resource. The ponderosa pine community in the IAA both defines and makes it a fairly unique resource on the Grand Mesa, Uncompahgre and Gunnison National Forest (GMUG). Ponderosa pine communities represent a relatively small component (3.5 %) of the forested type on the nearly three million-acre GMUG NF. In comparison, ponderosa pine makes up 42.8% of the forested type within the IAA. The IAA contains 24% of the total ponderosa pine for the entire GMUG Forest. Ponderosa pine provides important habitat diversity for several of the forest management indicator species (MIS) and is highly desired for big game and livestock grazing, recreation, timber and aesthetic values. Therefore, the ponderosa pine communities within the IAA are an integral resource for the entire GMUG NF. A majority of the Ironhorse landscape (>50%) was in private ownership through the 1950s. The subsequent acquisition of the private lands into the National Forest System lead to some of the first efforts in large scale vegetation restoration on the GMUG NF. These restoration efforts were perhaps simplistic by contemporary standards, but did represent a successful operational effort to restore forest and rangeland cover through reforestation and rangeland seeding. There are, however, some unintended consequences related to the previous land uses and successional trajectories associated with past and current management direction, which suggest a need for timely management intervention. In addition to the legacy of past land use, the previous landowners and the GMUG NF have, for the most part, successfully implemented a fire suppression program that has resulted in fire exclusion in a landscape that was adapted to a relatively frequent, low intensity fire regime. It is estimated that 78% of the Uncompahgre Plateau is moderately to significantly altered from its characteristic fire regime (Romme). The cumulative vegetative and fuel conditions resulting from this collective history are the underlying challenge for current and future management of the IAA. Findings suggest a need to intervene or explore opportunities to move the landscape in the direction of pre-settlement (1870) structural and spatial restoration in the pine ecosystem. The application of a combination of active and passive restoration approaches are recommended to restore ecosystem function and resiliency, reduce the potential for unnaturally severe wildfires, and reduce susceptibility to abnormal levels of insect and disease mortality to this unique area. Current landscape conditions are predisposed for uncharacteristic disturbances that could disrupt societal expectations from this landscape. Native Plant Program It was an excellent year for seed production - both in the wild and in our increase and research fields. Kelly Memmott, UP Native Plant Program Coordinator, and his crew have been busy irrigating, weeding and harvesting sizeable amounts of seed from our fields at numerous locations in Utah and Colorado. To help with the workload, the UP purchased a tractor in April using BLM funds. The UP crew continues to collect data on our Cultivation, Life History and Species Adaptability study plots. They will spend the winter cleaning seed and compiling data from our numerous research studies. As we learn more about the different species within our program, we are able to focus our efforts on those that are most promising and demonstrate valuable characteristics such as drought tolerance, high germination rates, and ease of cultivation. Currently, we are working with 47 native species, of which 27 species are in the Seed Increase program and 34 are in cultural and/or life history studies. UP has 1 shrub, 4 grasses and 9 forbs that are ready to go to commercial growers within the next year (2007-2008). Plant Species Ready for Commercial Release: Scientific Name Common Name Estimated Seed in lbs. Bromus marginatus Mountain brome 50 Koeleria macrantha Prairie junegrass 60 Poa fendleriana Muttongrass 50 Poa secunda Sandberg bluegrass 35 Achillea lanulosa Western yarrow 135 Erigeron pumilis Shaggy fleabane 25 Erigeron speciosis Oregon daisy 80 Eriogonum umbellatum Sulfurflower buckwheat 30 Hedysarum boreale Utah sweetvetch 45 Heterotheca villosa Hairy goldenaster 35 Linum lewisii Lewis flax 25 Penstemon cyanocaulis Bluestem penstemon 30 Senecio multilobata Multilobed groundsel <20 Sphaeralcea coccinea Scarlet globemallow <20 Ephedra viridis Green ephedra 44 The UP Team is working closely with the Utah Crop Improvement Association in evaluating the various methods in which to release this native seed stalk. Species Adaptability Studies In Spring 2006, Species Adaptability Studies were initiated for 13 grass species at four locations in UT and CO. The studies compare 113 assesstions of these species - looking specifically at survivability, seed production and vigor of local populations compared to cultivars that are available on the commercial market. In Summer 2007, the sites were evaluated and seed collected. WIldland Native Seed Mix Trials This fall, UP planted a suite of our native species in two wildland settings near Fountain Green, UT - one natural wildland setting and one area that experienced a wildfire in the summer of 2007. These plantings will provide excellent public demonstration sites as well as provide useful data on the survivability of these local ecotypes when planted in a seed mix. Rogers Mesa Dr. Ron Godin, Research Scientist at Rogers Mesa and CSU Professor, has also been engaged in research studies including Life History, Irrigation Scheduling, and Spacing on a large number of our native plants. He stated that this year's seed crop is excellent and his team found innovative ways to harvest it including using a conventional lawn mower and a leaf blower. Using funds from a WSARE grant, Dr. Godin is also working with six local farmers who are interested in growing native plants. Seed Collection UP has been collecting seed from some of our most promising native plant species for further tests. Dr. Allan Stevens, Snow College, collected seed in western Utah and Tony Hoag, a local biologist, collected seed from 8 key grass species from multiple sites on the Uncompahgre Plateau. Using these collections, UP will expand their Species Adaptability Studies in order to better understand the local populations of the upper Colorado Plateau. Several study sites will be set up in western Utah on both USFS and BLM lands. Mountain and Wyoming big sagebrush seed was wildland collected on the Uncompahgre Plateau and seed was harvested from our cliffrose seed increase plots at Billy Creek, CO in November. Planting Fourwing Saltbush at the Nature Conservancy Fields In November, the UP planted 30 acres of irrigated fields owned by the Nature Conservancy along the San Miguel River with wildland-collected fourwing saltbush. These fields will provide an excellent opportunity for seed production as well as a study of cultural practices and harvesting techniques of this important, low-elevation shrub. In 2008, UP plans to plant native grasses between the rows for seed

production and to prevent invasive species infestation. Study of Seed Production of Mountain Big Sagebrush In the summer of 2006, two research study sites (one site on BLM and one site on USFS) were established on the Uncompahgre Plateau to examine the effect of reducing competition on seed production and shrub vigor of mountain big sagebrush. In November, the transects were monitored. Expansion of our Current Program In June, representatives from the US Forest Service, Bureau of Land Management, State Wildlife Agencies, Northern Arizona University and the Uncompahgre Plateau (UP) Project met in Moab, UT to discuss the formation of the Colorado Plateau Native Plant Initiative (CPNPI); an interagency, multi-state, native plant materials program. Recent major wildfires and declining wildlife populations highlight the need to enhance, recover and/or restore ecosystems within the Colorado Plateau. A stable and significant supply of native seed is needed to facilitate the restoration and rehabilitation of native plant communities within these wildland burned areas, fuels reduction treatment areas, depleted rangeland, wildlife habitat, energy development areas and for noxious weed prevention and treatment. As UP has learned, the development and production of native plants is a substantial and long-term commitment that requires a coordinated, regional effort. The CPNPI partners will benefit from a comprehensive interagency program that pools resources and maximizes efficiency. The program will build upon the established UP Native Plant Program and will continue to learn from the Great Basin Native Plant Selection and Increase Project.

Project Outcomes

Eliminate existing threats to the ecosystem: A principal objective of the Uncompahgre Program has been to advance the science of plant community restoration. Re-establishment or improvement of native plant communities requires not only the availability of site adapted species and ecotypes, but includes the technology to change the species composition on large and diverse sites. Implementation of large-scale restoration projects requires the availability and use of considerable equipment and technical support. Land managers and agency personnel must be advised of the practices that can be satisfactory adopted and utilized. Many land managers and agency personnel have not dealt with the use of specific native species and have relied heavily upon planting introduced species as substitutes for restoration. Stabilization and recovery of many wildlife habitats have not been achieved through planting of introduced species, yet the acceptance and use of native species has languished as planting stock and planting practices have slowly evolved. A major part of the current program is to furnish information to working groups and agency personnel that are planning and developing restoration projects. Information concerning the availability and usefulness of native species being developed by the UP Project continues to be assembled and provided to land managers. Factors limiting recovery of the ecosystem: Farming & Ranching Farming and ranching are important industries on private land in the UP Project area. Farming primarily occurs in and around the Uncompahgre Valley with corn, pinto beans, alfalfa and grass hay, and onions among the major crops. Cattle and/or sheep grazing occurs over most of the Plateau on federal, state and private lands. Grazing allotments on BLM and USFS lands are tied to privately owned base properties in the UP Project area. Currently, sheep allotments only occur on the eastern part of the Plateau, south of Escalante Canyon. Regulated grazing on National Forest lands generally occurs in the period between June and October whereas regulated grazing on BLM lands primarily occurs in the period between October and June. Water rights to divert and store water for irrigation and livestock are an important part of the farming and ranching industry. Logging Commercial logging has occurred on the Plateau for 100 years. Reduced timber sales by the USFS have significantly decreased timber harvest on the Plateau. Small sales of saw logs and firewood are the current logging operations. Federal agencies also issue personal use permits for post cutting, Christmas trees and firewood. Recreation Recreational use of the Plateau has steadily increased. Sightseeing, hunting, fishing, off-highway motorized vehicle use, snowmobiling, mountain biking, river running, camping, hiking, four-wheeling and cross-country skiing are among the many recreational activities. Hunting is a major recreation use on the Plateau. The Division of Wildlife has divided the UP area into two Game Management Units, GMUs 61 and 62. GMU 61, the west side of the Plateau, has been managed as a quality elk unit since 1983 and as a quality deer unit since 1992. All GMU 61 licenses are limited and antlered licenses can take several years to draw. GMU 62, the east side of the Plateau, has historically been one of the most heavily hunted units in the state for deer and elk. It has been managed as an over-the-counter license unit for elk. Development The Uncompahgre area attracts many people because of its great scenic beauty, outdoor opportunities, and quality of life. Areas of rapid development on the Plateau include the Uncompahgre Valley, Ridgway/Loghill Mesa, Government Springs, Dave Wood Road, the Norwood area, the San Miguel Canyon, and the Iron Springs Mesa area. Land values and housing development have increased considerably on the south end of the Plateau due to proximity to Ridgway and Telluride. There are several major subdivisions currently being constructed as in-holdings within the BLM and U.S. Forest Service lands. Two examples include the Hideout Ranch and Cornerstone subdivisions totaling over 500 homes and each with an 18-hole golfcourse. Roads The Plateau has a high density of roads. Many roads follow trails used by Native Americans who took advantage of natural topographic features to facilitate travel. The Divide Road is the primary road on the Plateau, running northwest and southeast from one end of the Plateau to the other. Major roads connecting with the Divide Road include Dave Wood Road, Highway 90, the Transfer Road, and 25 Mesa Road. In addition to the major roads, an extensive network of minor roads have been created by agencies, counties, hunters, loggers, ranchers, miners, motorized recreationists, and others. Roads and traffic are a major impact on the resources on the Plateau. Mining and Energy Very little mining activity currently occurs on the Plateau. Much of the mining activity is related to reclaiming uranium and vanadium mines and mills on the northwestern portion of the Plateau. An open pit coal mine is still in operation near Nucla. Gravel and borrow mining is prevalent throughout the area and is primarily located close to development and towns. Federal land management agencies issue permits for commercial and private rock gathering. Several electrical and natural gas transmission lines, sub-stations and pumping facilities are located on the Plateau. Opportunities exist to enhance the maintenance, reconstruction and enhancement of transmission right-of-ways. Logical efforts include maintenance to enhance reliability and security. Opportunities for enhancing scenery management objectives include feathering the vegetation along the right-of-way for improved visual quality. With an increase in Oil and Gas exploration in the western United States, it is expected that the Uncompahgre Plateau will begin to see wells. The USFS and BLM are currently reviewing lease applications from several major Oil and Gas companies. This type of activity on the Plateau calls for careful planning and the restoration of native plant and animal communities during and after drilling occurs. Economic vitality and local livelihoods: The Uncompahgre Project is a unique example of a broad collaborative approach to landscape-scale restoration projects. By facilitating a transparent process, the UP has involved all interested parties in the discussion of landscape health and the processes attendant to ecological restoration in the region. Overall ecosystem health in this region is tied to the

livelihoods of many people with a large number of people still tied to the land through agriculture and ranching, and the UP supports the continuing improvement of ecological conditions to support the local economies. By acting as a clearinghouse for the ecological information and research being conducted on the various elements of the project, the UP has facilitated the dissemination of appropriate information to land-owners, agencies, and interested individuals through their publications, website, and workshops.

Monitoring and Data Sharing

Does the project have a defined monitoring plan?:

NO

Open Access URL:

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Long Term Management

STAPER

Assessment of opportunities for ecosystem restoration:

- A1. Assess degraded ecosystems
- A2. Identify/prioritize locations for meeting national contributions to Aichi Targets