

ENVIRONMENTAL services



WHAT WE DO

CEHMM is a 501(c)(3) non-profit corporation that has created a wide range of cutting edge programs that work toward practical solutions to issues that affect both human health and the environment. These projects serve the community, the region, and the state through cooperative conservation, educational outreach, job creation, and research leading to resolution of important technical and environmental challenges.

- Our **Environmental Services** division, is dedicated to providing a variety of environmental consultation and assistance. These include expediting permit authorizations regarding work on state and federal lands and pipeline trench surveillance.
- Our **Reseeding & Reclamation** programs are custom designed to meet the conditions of the work site using approved methods.
- CEHMM has nationally recognized **Conservation Programs** in habitat conservation and management.

PERMITTING

Conduct reviews, assist with writing and submitting Application for Permit to Drill (APD), BLM Form SF-299, and Environmental Assessments (EA) to the satisfaction of regulatory agencies.

FOR A FULL LIST OF PERMITTING SERVICES, VISIT OUR WEBSITE.

WETLANDS DELINEATION

If you're planning a development project, state and federal regulations require you to know the current boundaries of wetlands on your property in order to avoid and/or minimize wetland loss.

RESEEDING & RECLAMATION

Provide for site reclamation and restoration per BLM guidelines.

Services include, but are not limited to:

- Caliche removal with re-contour to natural grades
- Erosion mitigation and repair
- Custom seed mixes
- Reseeding capabilities with state of the art equipment

SURVEYS

Surveys include:

- Raptor
- Karst
- Special Plant Species (SSPS)
- Archeological



CONTACT US

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RESEEDING & RECLAMATION services



CEHMM can provide pertinent planning for site preparation and appropriate plant species selection for seeding. Services include the following:

- Caliche removal with re-contour of rights-of-way back to normal grades to conform and re-establish natural integration with the surrounding landscape.
- Interim reclamation and removal of extant infrastructure to include legacy fences, roads, power lines or service equipment.
- Erosion mitigation and repair.
- Reseeding capabilities with state of the art equipment, including a Truax OTG seed drill.
- Create custom-made seed mixes.
- Fertilization.
- Technical expertise in rangeland management to include range assessments, plant inventories, animal inventories, and grazing regiments.
- Provide liaison services between parties and BLM and/or State Land Office.



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WETLANDS DELINEATION services



The existence of wetlands or waters on a property can potentially reduce the acreage available for future development. Therefore, wetlands identification is most often conducted as part of Phase I site assessments, or as a preliminary action to development. Wetland boundaries are delineated by making observations of and/or sampling the physical and biological characteristics on a property. If you're planning a development project, state and federal regulations require you to know the current boundaries of wetlands on your property in order to avoid and/or minimize wetland loss. In many cases, site development can be designed around existing waters and wetland areas or development including some wetland impacts can proceed after a wetlands permit has been obtained from the U.S. Army Corps of Engineers. CEHMM has completed the US Army Corps of Engineers training program for wetland determinations and delineation. CEHMM performs all wetland delineations in accordance with the US Army Corps of Engineers Wetland Delineation Manual and with state and regional delineation methods where applicable.



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LESSER PRAIRIE CHICKEN & DUNES SAGEBRUSH LIZARD

CANDIDATE CONSERVATION AGREEMENTS



CEHMM, Bureau of Land Management (BLM) and the U.S. Fish & Wildlife Service (FWS) are working in cooperation and consultation with land owners and industry in support of conservation measures for the lesser prairie-chicken (LPC) and the dune sagebrush lizard (DSL). For several years BLM, FWS and CEHMM worked together to develop a Candidate Conservation Agreement to set up a mechanism to conserve LPC and DSL habitats while the species were still in candidate status. Landmark legal agreements were signed by federal and state authorities on December 8, 2008. The Candidate Conservation Agreement (CCA) covers land that is administered by a federal government agency such as the BLM. The Candidate Conservation Agreement with Assurances (CCAA) applies to state and privately owned lands. On March 27, 2014, the FWS listed the LPC as threatened under the Endangered Species Act. Following a court order on September 1, 2015, the LPC was removed from the List of Endangered and Threatened Wildlife on July 19, 2016. The FWS is currently assessing the status of the LPC by conducting a Species Status Assessment to be completed in 2017. The existing agreements allow CEHMM, BLM and FWS to work with private land owners and industry in habitat restoration projects. These projects are funded by contributions, predominantly from industry, and managed by CEHMM.



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PROJECTS

CCA funds will be used to complete the highest priority projects that benefit the species. Reclamation projects are those that improve habitat for the species; research projects are projects that help improve the knowledge of the species and their habitats. *Projects include:*

BRUSH CONTROL

By selectively reducing the amount of ground occupied by woody invasive species, such as mesquite, there is a noticeable increase in desirable species. This methodology provides for habitat enrichments that benefit both wildlife and domestic livestock

DEFRAGMENTATION OF OUR LANDSCAPES

Habitat has been fragmented by industry such as oil and gas and CEHMM is working towards putting these landscapes into a more contiguous habitat by removing unused roads and well pads and reseeding these disturbed areas with native flora.

ESCAPE RAMPS

There are concerns regarding the serious threat of livestock watering tanks on indigenous wildlife throughout the arid southwest. This threat is not exclusive to birds, but also to insects and small mammals such as bats. When an animal falls into a livestock tank while attempting to access water, they inherently struggle to the sides of the tank in an attempt to escape. Once a ramp is installed, it provides an available mechanism to facilitate the entrapped animals' escape. CEHMM escape ramps are modeled after proven BLM standard ramp design.

MONITORING

Completed projects, habitat and species will be monitored to determine success, trends, and necessary adaptive measures. This includes habitat restoration, on-sites, improved water and fencing infrastructure, grazing plans, vegetative monitoring, and species monitoring, which includes LPC lek surveys and DSL pitfall trap surveys. Compliance with permits, commitments, obligations and authorizations will be determined; problems in species habitat will be identified and remediation initiated, and the effectiveness of remedial measures will be evaluated with emphasis on habitat improvement/restoration.

RANGE IMPROVEMENTS

Water is an important component of habitat for wildlife; water improvements can be installation or repair of wells, drinkers, and solar pumps. Grazing management is necessary to restore habitat of the LPC. To ensure that grazing is maintained at a level consistent with the seasonal nesting and brood-rearing habitat requirements of the LPC, ranch operators voluntarily participate in a program to try to meet these standards through the adoption of a suitable grazing program for their land or lease allotment. This may involve an overall reduction in AUMs or acreage grazed, modification of fences and water sources, implementation of a more conservative, deferred or rotational grazing system that rests breeding areas in critical seasons to ensure adequate residual grass cover for nesting, and other related changes in management.

MESQUITE REMOVAL CONSERVATION BENEFITS

Honey Mesquite is universally accepted as an invasive and highly competitive shrub that may readily encroach onto landscapes that did not historically support the species. This landscape has experienced intense disturbance or change in natural ecological processes over a significant period of time. Through interspecific competition with other beneficial plant species, mesquite has increased in frequency, and subsequently led to a transition from grassland landscapes into shrub/grasslands which is less desirable for grassland birds, specifically lesser prairie chickens. Research shows that LPC avoid areas with more than 1% mesquite canopy cover due to changes in vertical obstruction and conversion to shrub-dominated landscapes, which greatly limits desirable habitat for this species. Mesquite outcompetes desirable grasses and forbs, thus reducing quality and quantity of nesting habitat for LPC. Removal or reduction of mesquite, followed with proper grazing management, can increase production and composition which will benefit grassland species.

FRAGMENTATION AND LOSS OF HABITAT FOR THE LESSER PRAIRIE-CHICKEN IS CONSIDERED A MAJOR CAUSE FOR THE DECLINE IN POPULATION OF THIS GRASSLAND BIRD ACROSS THEIR RANGE.

CONSERVATION BENEFITS:

- Improved grasslands habitat for lesser prairie-chickens
- Increase grasslands resiliency for drought conditions
- Removes vertical obstruction

MESQUITE CONTROL SERVICES:

- Aerial herbicide
- Hand application of herbicide

Aerial application affordably, and effectively controls large areas with high densities of mesquite

REMOVAL OF DEAD STANDING MESQUITE SERVICE:

- Shredding-Mowing

CEHMM returns to past herbicide treatments and removes the dead standing mesquite to eliminate vertical obstructions.



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GRAZING MANAGEMENT CONSERVATION BENEFITS



BENEFITS OF SUSTAINABLE GRAZING

- Improved rangeland for wildlife and ranching operations
- Improved quality and quantity of forage
- Heterogenic landscapes for all grassland species
- Drought resiliency



WHY IT'S A PRIORITY

The Lesser Prairie-Chicken (LPC) occupies four ecoregions in the Great Plains. In eastern NM and west TX, this region is known as "Sand Shinnery Oak Prairie" (SSOP) and is dominated by shinnery oak, sand/big-bluestem, little bluestem, sand drop seed and sand sagebrush. Ranching is the most common use of this large expanse of land. Grazing as a conservation tool for the LPC is an essential management component as this endemic species has evolved with large bovines for centuries.

The Dunes Sagebrush Lizard, a species of concern, is a secondary beneficiary of sustainable grazing. Attention to the treatment of their very specialized habitat and ability to survey on private lands has increased survey numbers and knowledge of this species.

CEHMM recognizes the mutual benefit between sustainable grazing and lesser prairie-chickens. Collaboration between enrollees and the efforts of the CCA/A via technical and financial assistance leads to improved grassland health.

WHAT'S INCLUDED:

CEHMM works with agreement enrollees on grazing, improving infrastructure and monitoring vegetation. CEHMM also offers assistance on such practices as brush management, water development, prescribed fire, fencing, and defragmentation through road and well pad reclamation.

For more information, please visit us online at www.cehmm.org.



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TEXAS HORNSHELL MUSSEL

CANDIDATE CONSERVATION AGREEMENTS



The THM is a freshwater mussel native to the Pecos River and Rio Grande drainages in New Mexico, Texas, and Mexico. The mussel is listed as endangered by both the New Mexico Department of Game and Fish and the U.S. Fish and Wildlife Service. In New Mexico, current populations exist only in a nine mile stretch of the Black River and approximately one-mile stretch of the Delaware River, representing less than 12% of its historic range.

The bivalve mollusk is in the family Unionidae, which is also known as the pearly mussels or naiads. The THM is an indicator species for the ecological health of an aquatic environment. The mussel is a filter feeder that uses incurrent and excurrent siphons to feed on suspended phytoplankton and detritus. The mussel requires perennially wetted habitat to avoid dehydration and death. In the Black River, THM are found where soft sediment gathers, such as crevices under travertine shelves and around large boulders.

THREATS INCLUDE:

- Steam Impoundments
- Sedimentation
- Drought
- Water Diversion
- Water Pollution
- Water Quality

PROJECT INFORMATION:

- CCA Program initiated in October 2017
- THM listed as federally endangered on March 12th, 2018
- The Black River in NM and the Delaware River in NM and TX are the main geographical focal points of the program
- Private landowners and industry sign a certification of participation or inclusion that is tailored to the conservation measures



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