

# Restoring Desert Grasslands

## Creosote Treatments in Southern New Mexico

*Reducing the density of creosote shrubs to allow native prairie vegetation to flourish, improving watershed conditions and wildlife habitat*



Creosote-dominated landscape before treatment



Creosote-dominated grassland 5 years after treatment

Creosote is a highly adaptable, invasive shrub that releases toxins to prevent other plants from seeding. When lands are disturbed, creosote can spread, becoming a monoculture where few other plants can gain a foothold. Historic overgrazing of desert grasslands allowed shrub species to invade disturbed areas. As a result, millions of acres of desert grasslands in southern New Mexico have converted into shrublands that are dominated by creosote and mesquite.

The first step in restoring native desert grasslands is the use of herbicides that kill the creosote. Once creosote densities are reduced, more desirable native grasses and forbs can reestablish themselves. Watershed benefits from this conversion back to desert grasslands include stabilized soils, greater diversity of plant species and improved wildlife habitat. Deferment of grazing for up to 5 years by participating livestock producers assures the restored grasslands produce the seedcrops needed to assure long-term benefits. Prescribed fire will then be used to maintain the condition of the landscape and return the historic fire cycle to the land.

### Case Study: Las Cruces District

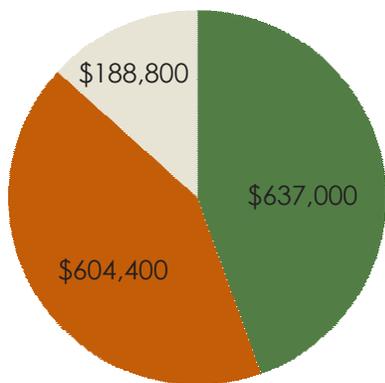
Starting in early 2000, interdisciplinary teams were formed to assess and evaluate rangeland health across entire watersheds in the Las Cruces District. The Jornada Basin, a desert grassland located east of the Rio Grande in Sierra and Doña Ana Counties, was identified as a top priority.

An environmental assessment for the Basin, covering over 500,000 acres, has been completed. Since 2007, the office has completed 100,000 acres of creosote treatments in this watershed. Another 16,000+ acres of creosote were treated in other parts of the District.

BLM's partners in this effort include livestock operators, the Natural Resources Conservation Service (NRCS), Quail Unlimited, National Fish and Wildlife Foundation, New Mexico State Land Office, the New Mexico Department of Game and Fish and local grazing permittees.



# Las Cruces District Creosote Treatments



- BLM One-Time Funding = \$637,000
- BLM Base = \$188,800
- Partner contributions = \$604,400

### BLM One-Time Funding From:

- Rangeland Betterment Funds (8100)
- Fire - Fuels Management (2823)
- Threatened and Endangered Species (1150)

### Used For:

- Contracts to supply and apply herbicide

### BLM Base Used For:

- Planning/NEPA
- GIS mapping & database
- Landscape assessments
- Contract administration

### Partnership Contributions From:

National Fish and Wildlife Foundation	\$10,000
NRCS - private EQIP program	\$536,000
Quail Unlimited	\$10,000
Private landowners	\$19,500
NM Association of Conservation Districts	\$28,900
<b>TOTAL</b>	<b>\$604,400</b>

## Future Goals

for Restoring Desert Grasslands in Southern New Mexico

Treatment	Future Acres	Estimated Cost/Acre	Total Funding Needed
Creosote	425,000	\$30	\$12,750,000
Mesquite	350,000	\$30	\$10,500,000
Prescribed Fire	60,000	\$30	\$1,800,000
Riparian	2,000	\$1,500	\$3,000,000
Mechanical	1,500	\$500	\$750,000
Defragmentation	300	\$3,000	\$900,000
<b>TOTAL</b>	<b>838,800</b>	<b>\$35*</b>	<b>\$29,700,000</b>

\*Average Cost/Acre

