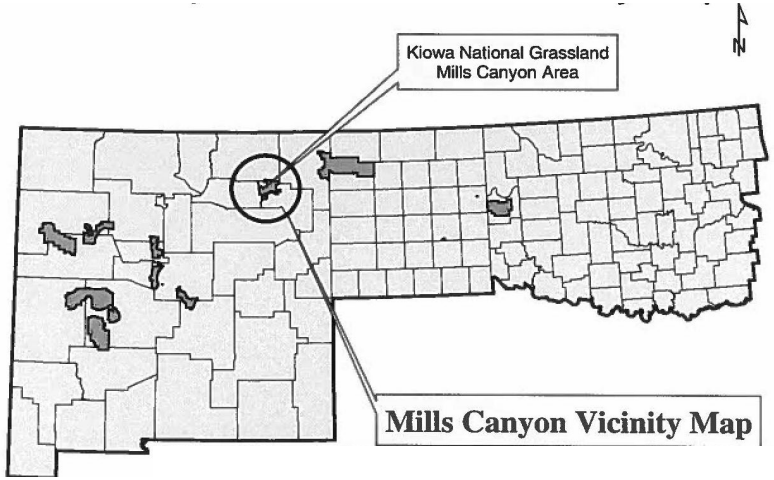
Canadian River Conifer Thinning Year 1 Restoration Project

- The Canadian River project takes place in Mill's Canyon on the Kiowa Grasslands, managed by the USFS, encompassing a critically important watershed within the western extent of the North American short grass prairie. Much of the Canadian River corridor in this areas is experiencing degradation from the encroachment of conifer species within the riparian ecosystem adjacent to the river, and the invasion by non-native species. The history of short-sighted land use and instruction of invasive species contributed to erosion related degradation across this watershed.

- Previous efforts have been essential steps towards restoring the resiliency and function of this area but further action is required to reach management goals in this area. The goals of this work include:
  - Reducing concentrations of conifers in riparian areas to enhance cottonwood health and recruitment
  - Halting the spread of invasive species such as Tamarisk and Siberian Elm
  - Increasing concentrations of native upland vegetation
  - Improving wildlife habitat in the riparian corridor

Project Contacts

USFS – Kristen Warren Kristen.Warren@usda.gov
NMDGF – Brock Lorenzen Brock.Lorenzen@dgf.nm.gov



Estimated Budget: $310,000

Proposed Management Action Google Earth Link

- The NMDGF, in collaboration with the USFS, will contract restoration work in the Canadian River in Mill's Canyon on up to a total of 1,139 acres in the first of three years of planned work for treatments including :
  - Hand and mechanical thinning and removal of conifer trees
  - Aerial and ground-based herbicide application on invasive plant species
  - Hand and mechanical removal of invasive plant species
  - Removal of protective cages from previous plantings
  - Complimentary native plant species plantings

- HSP Funds will be utilized for the payment of contracts to implement herbicide treatments, to conduct thinning and tree removal operations, to conduct removal of old protective cages, and to conduct native species plantings.

- Following the implementation, the NMDGF and USFS will monitor and evaluate the efficacy and effects of this landscape restoration effort as part of planning and implementing future years of this work.

Canadian River Conifer Thinning *(and continued restoration)* Year 1

Kiowa National Grassland, Cibola National Forest & Grasslands

New Mexico Department of Game and Fish

Canadian River Conifer Thinning *(and continued restoration)* Year 1

Project Contacts

Brock Lorenzen
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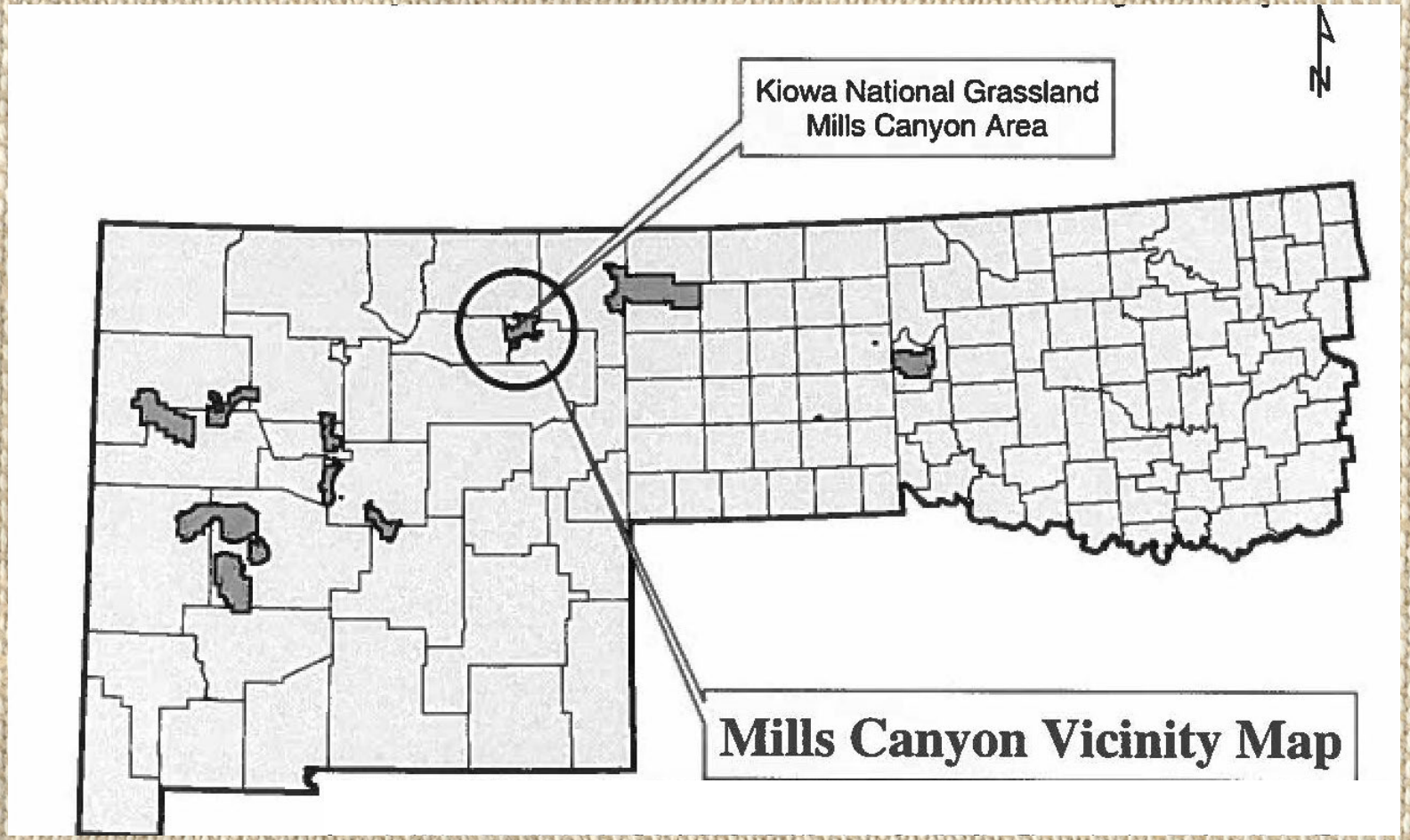
Kristen Warren
Kristen.warren@usda.gov

New Mexico Department of Game and Fish

Project Overview: Location



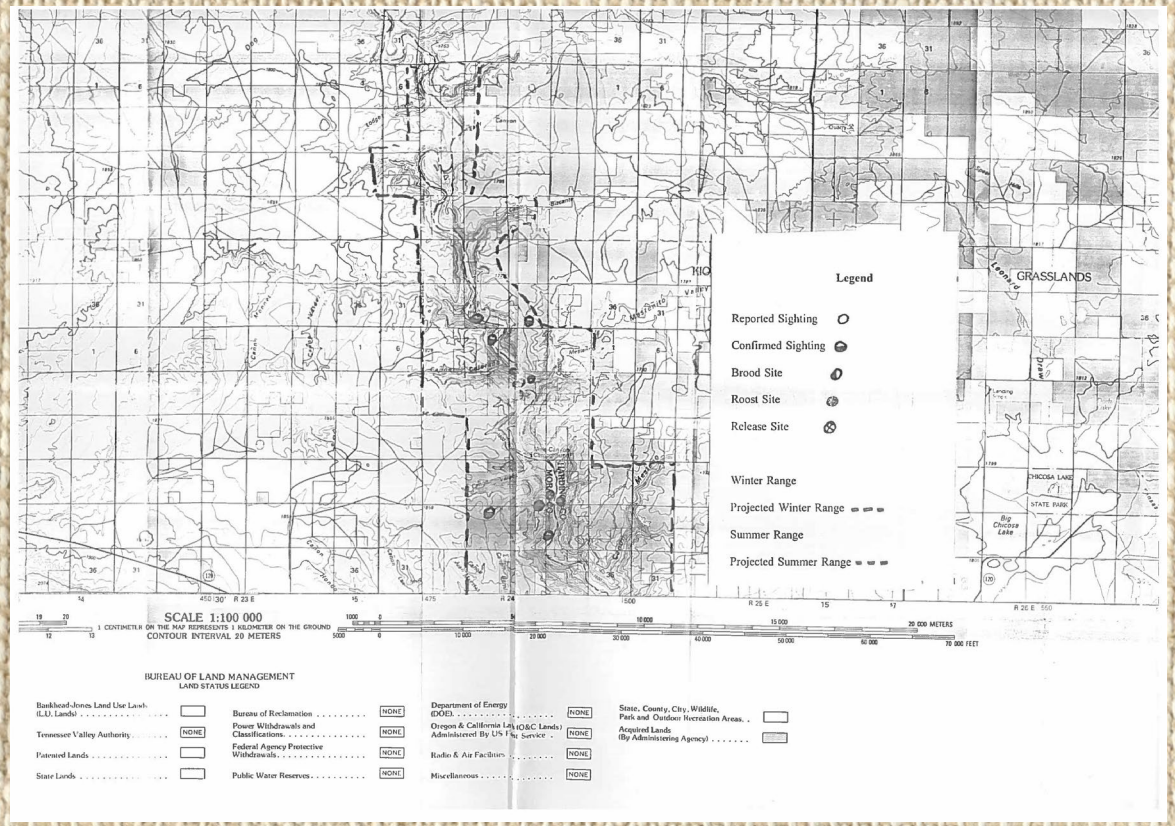
Harding and Mora Counties, NM

Kiowa National Grassland Units: K-87, K-91E, K-91W, K-135, K-136

New Mexico Department of Game and Fish

Background

- 1992 – NMDGF Turkey transplant in Canadian River Drainage (HSP funds)
- 2007 – Canadian River Tamarisk Control Project EIS signed
- 2009 - Aerial treatment of Tamarisk
- 2010 – Present - Follow-up treatments including mulching standing dead Tamarisk, cut-stump herbicide treatment of resprouts
- 2019 - NMDGF funds upland and riparian plantings
- 2021 - Northern NM Riparian, Aquatic, and Wetland Restoration Project EA signed



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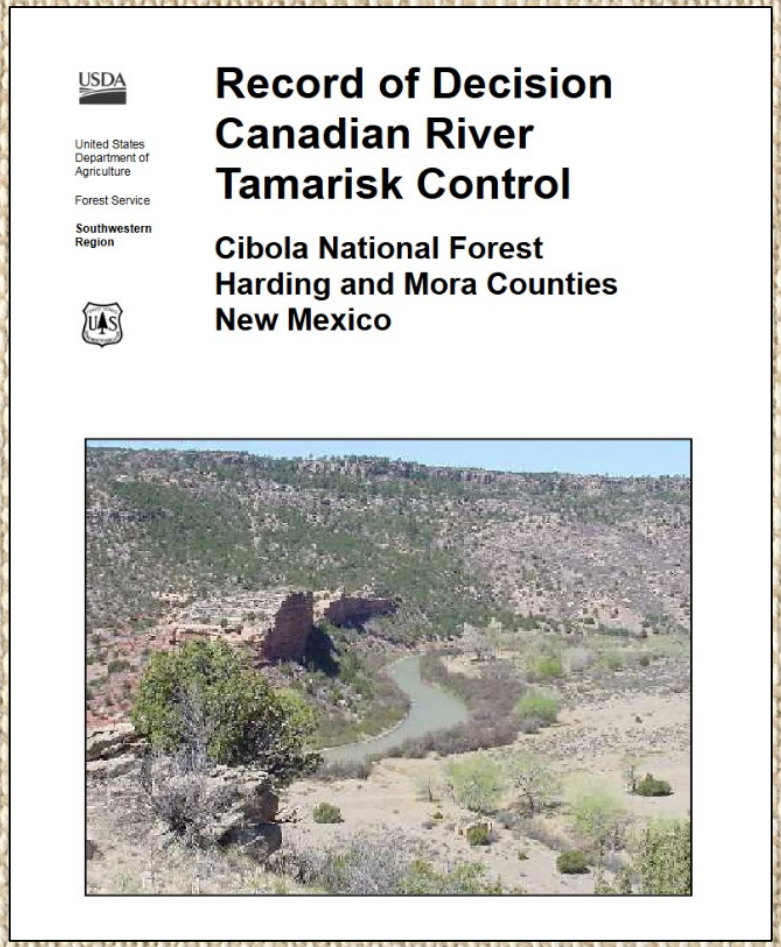
USDA

United States Department of Agriculture

Forest Service

Southwestern Region

Record of Decision
Canadian River
Tamarisk Control

Cibola National Forest
Harding and Mora Counties
New Mexico

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Canadian River before saltcedar treatment (top)

After treatment (center), 2009

Early vegetation recovery on banks (bottom), 2014

New Mexico Department of Game and Fish

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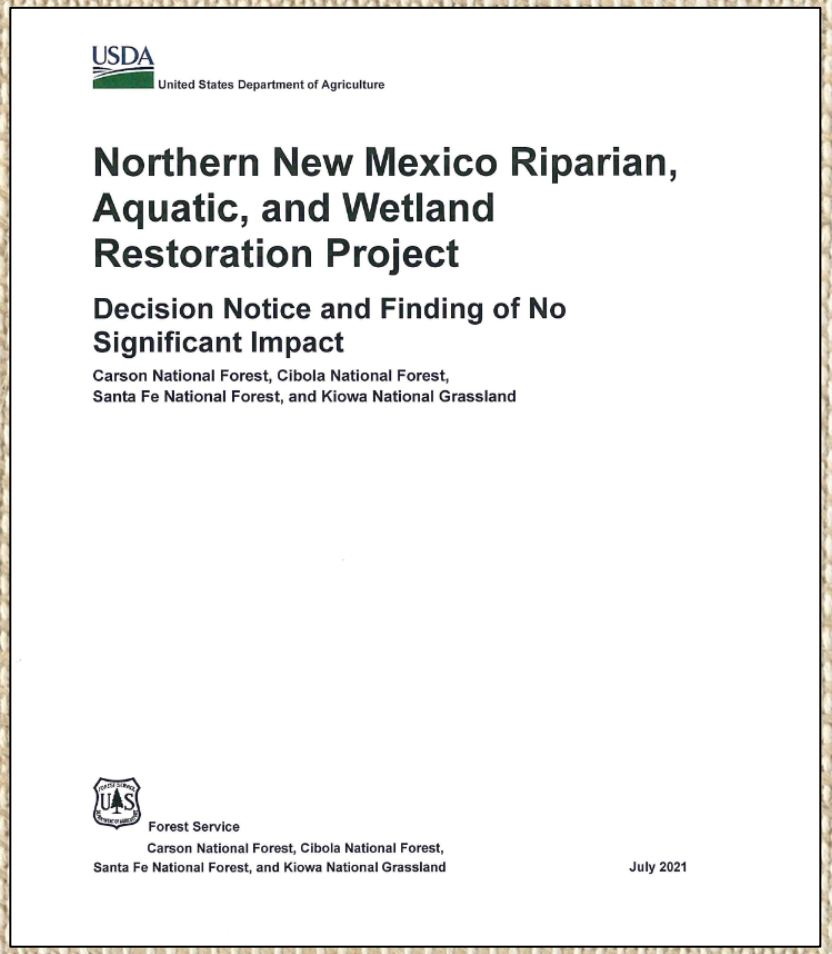

USDA
United States Department of Agriculture

Northern New Mexico Riparian, Aquatic, and Wetland Restoration Project

Decision Notice and Finding of No Significant Impact

Carson National Forest, Cibola National Forest,
Santa Fe National Forest, and Kiowa National Grassland

Forest Service
Carson National Forest, Cibola National Forest,
Santa Fe National Forest, and Kiowa National Grassland

July 2021

New Mexico Department of Game and Fish

Current Conditions

- Increased pinyon pine and juniper tree density in riparian habitat, river floodplain, and on canyon slopes
- Poor Cottonwood recruitment
- Popular turkey hunting area in NE NM
- Active beaver population

New Mexico Department of Game and Fish

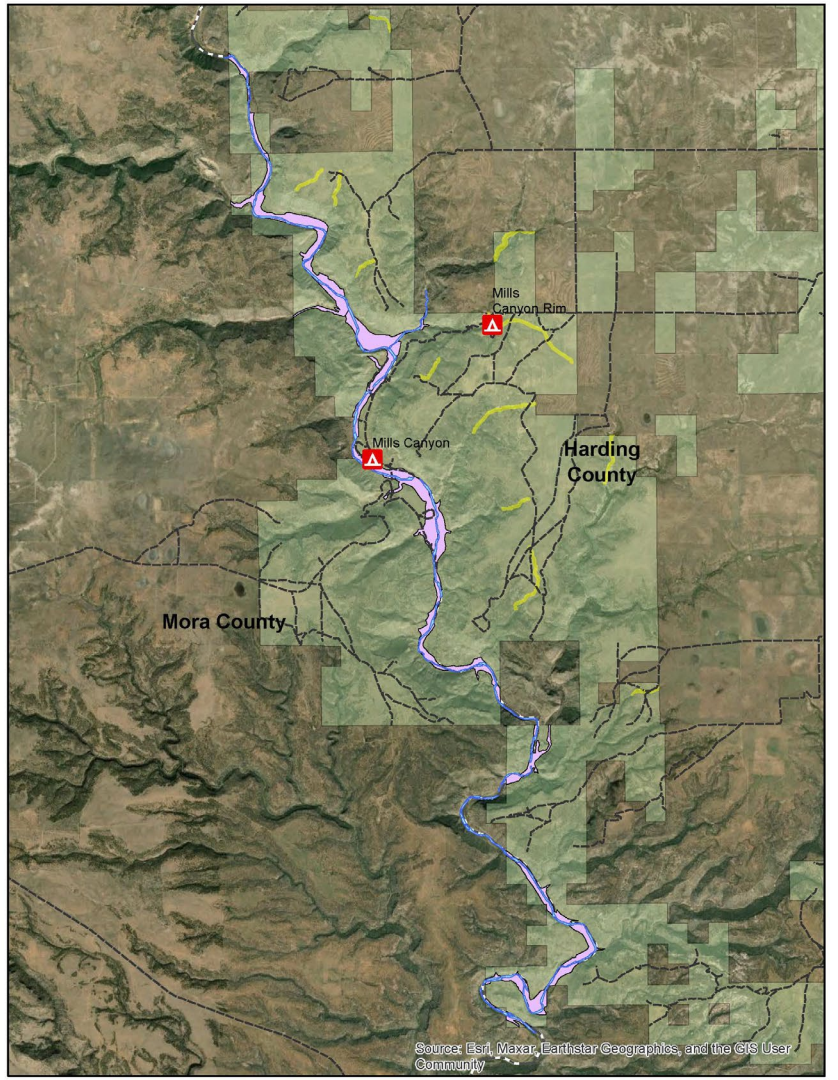
Proposed Actions

- Reduce the density of pinyon and juniper trees on up to 1,139 acres within Mill's Canyon and Canadian River Riparian corridor:
  - Improve the health and rigor of the cottonwoods and improve recruitment of seedlings
  - Decrease the amount of heavy fuels that could contribute to high severity wildfire

- Treat non-native invasive species including Tamarisk and Siberian Elm within Mill's Canyon to improve the vegetation and soil health on up to 600 acres

- Remove "cages" around past plantings, implementing additional complimentary plantings in the riparian area and upland habitats within the Canyon on up to 600 acres

Canadian River Canyon, Kiowa National Grassland
Conifer thinning areas for turkey: 959ac in Main Canyon, 180ac in Side Canyons



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Landscape Benefits

- Restoring the key ecological processes and functions for a self-sustaining riparian ecosystem
- Enhancing watershed health and upland forage production

New Mexico Department of Game and Fish

Wildlife Benefits

- We anticipate that turkeys will benefit from this action because they roost in and forage around cottonwood trees
- Reducing the understory below cottonwoods will increase the attractiveness of the habitat to turkeys and improve the vigor of the trees
- Grasses and forbs can become re-established under the former conifer canopy, benefitting foraging wildlife such as white-tailed and mule deer.
- The cutting of trees that remove groundwater can allow additional flow to enter the Canadian River, benefiting the native fish and wildlife in this watershed.

New Mexico Department of Game and Fish

Project Summary

- The Canadian River Conifer Thinning *(and continued restoration)* plan incorporates a new treatment type to the long-term restoration work being done on the Canadian River, expanding the scope and scale of ongoing restoration efforts

- The Canadian River Conifer Thinning *(and continued restoration)* plan encompasses 3 years of implementation work to cover the desired area at a total estimated cost of $925,000

- This HSP funding will cover the "Year 1" portion of this project amounting to a third of the total implementation cost at $310,000

- NEPA is complete, some compliance work remains for specific implementation areas

- Anticipated implementation start date of Spring 2026

New Mexico Department of Game and Fish

Project Name: Canadian River Conifer Thinning Year 1

Project relation to CAC advice or prioties:

This project benefits turkey and ungulates in the Mill's Canyon Landscape. This project also continues a legacy of restoration work in Canadian River cooridor. Once implemented this project will increase the health, resiliency, and scale of riparian habitat in Mill's Canyon, as well as improving turkey habitat, and ungulate forage.

Project Specific Details:

This project is the first year of a three year plan to remove conifer species encroaching on the riparian area, continue removing invasive Tamarisk, follow up previous planting by removing the protective cage enclosures, and implement complimentary plantings. This work may include the use of hand crews, heavy machinery, and aerial herbicide spraying.

Historical Data:

In 1992 NMDGF translocated turkey onto this landscape providing enhanced hunting opportunities on public land. From 2009 to present many entities have contributed to restoration work on this landscape, treating invasive Tamarisk and conduct upland and riparian plantings.

Itemized Use of Funds:

Hand thinning conifer: $600/acre
Mechanical thinning of conifer: $850/acre
Aerial application of herbicide: variable
Invasive cut stump herbicide: variable

Removal of planting cages: $25,000
Complimentary plantings: $50,000

Comprehensive Project Analysis:

This project will benefit wildlife species, including turkeys and ungulates by increasing the quality and quantity of roosting and foraging habitat. Thinning conifers will invigorate cottonwood growth and recruitment and create space for forb growth.

Monitoring Plan/ Strategy:

Mill's Canyon is is focal point of the Kiowa Grasslands garnering lots of attention and management. Continued monitoring of previous and ongoing projects is carried out by the USFS and NMDGF in this area. The proposed work will be monitored as a part of these actions.

Project Emphasis Species:

Turkey, Deer