ASH FIRE

Burned Area Emergency Stabilization Accomplishment Report

Ash Meadows National Wildlife Refuge
U. S. Fish and Wildlife Service

Prepared by Matt Burks, Intern - Nevada Conservation Corps
February 10, 2006

Burned Area Emergency Stabilization
Accomplishment Report
Ash Fire

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BURNED AREA REHABLITATION PLAN
ASH FIRE

PART A - FIRE LOCATION AND BACKGROUND INFORMATION

Fire Name	ASH
Fire Number	NV-AMR-A9U1
Agency Unit	FWS
Region	California/Nevada Operations
State	Nevada
County(s)	Nye
Ignition Date/Cause	March 9, 2005 Human
Zone	Western Great Basin
Date Fully Contained	March 10, 2005
Jurisdiction	Acres
U.S. Fish & Wildlife Service	70
Bureau of Land Management	10
Private	0
Total Acres	80
Date Controlled	March 11, 2005

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PART B—ACCOMPLISHMENT REPORTS

Since the containment date of March 10, 2005 every acre of the fire has been mapped by a GIS specialist. Multiple maps showing the locations of native as well as invasive species have been created. Over one hundred non-native Date Palms (Phoenix Dactylifera) have been removed. Approximately 20 acres have been treated for Saltcedar(Tamarix Ramissima) resulting in negligible re-growth within treated areas. Three acres of cattails have been removed in order to promote the health of Big Springs outflow. A double wide trailer, large barn, feeding pens and several fence lines were removed from the burn site. The debris filled six, thirty yard dumpsters. Two threatened species: Spring Loving Centaury (Centaurium Namophilum) and Ash Meadows Gum Plant (Grindelia Fraxino-Pratensis) have been located at the Ash Fire and their populations are being monitored. No cultural resources were identified during the survey and recommendations to where to proceed as planned.

Photo& Other Documentation: Photos, Monitoring Reports, Summary of Funds Expended Table, Summary of NFPORS Reporting Information.

Six of these containers were filled with debris from the Ash Fire

I-2, Power Pole Removal

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Date Prepared:	***BAER Plan Name:***	***Location (Region, Agency/Tribe):***
February 10, 2005	Ash Fire	California/Nevada Operations Fish and Wildlife Service, Ash Meadows NWR

Prepared by:	***Project Implementation Leader:***
Sharon McKelvey (USFW) Matt Burks (NCC)	

Line Item:	***Specification Title:***
V-1, Noxious Weed Control	Noxious Weed Control

Percentage of Spec. Completed:	***Total funds Expended:***	***Type of Funding Used:***
70%	$13,931.35	ES

Narrative:

The refuge Biologist, Cristi Baldino updated Pesticide Use Permits (PUP) for this treatment and initiate consultations with Ecological Service. The PUP has been written and approved. Matt Burks (NCC) with the help of other refuge staff mapped the invasive plants within the burned area. The initial estimate of 45 acres of invasive plants within the burned area turned out to be low. Matt has mapped over 70 acres of invasive weeds. The primary invasive species that were identified during mapping are Five Hooked Bassia, Malta Star Thistle, Salt cedar and Flixweed. Approximately 30 acres of Salt cedar have been successfully treated at the north end of the burn. There are extensive populations of Saltcedar on the refuge and in the burned area. Chemicals and supplies have been purchased to treat the species growing in the burned area. An NCC crew worked to clear the cattails out of the outflow of Big Springs reducing the overflow of water onto private lands. Luke Harrison (NCC) removed over 100 invasive palms from the burn area.

The specification has been approved and will continue under the Ash Burned Area Rehabilitation Plan, pending funding requests are received for the 2006 FY and subsequent years.

Date Completed:
Not completed

Photo& Other Documentation: Photos, Monitoring Reports, Summary of Funds Expended Table, Summary of NFPORS Reporting Information.

V-1, Noxious Weed Control

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Prepared by:	***Project Implementation Leader:***
Sharon McKelvey (USFW) Matt Burks (NCC)	

Line Item:	***Specification Title:***	
V-2, Native Plantings	Native Plantings	
Percentage of Spec. Completed:	***Total funds Expended:***	***Type of Funding Used:***
60%	$9,111.86	ES

Narrative: A contract with NCC was set up for an intern, Matt Burks and Restoration Crews to assist with the implementation of this specification. The original estimate of 10 acres has been significantly increased to over 30 acres of upper level canopy plants that need to be replaced. The Ash fire burned very hot in the stands of Mesquite and Ash preventing the regrowth of these species in many areas. However, the aggressive invasive Saltcedar has found it easy to propagate in these areas. Replanting the Mesquite and Ash will restore the upper canopy and prevent the spread of the Saltcedar.

The refuge is working in conjunction with Nevada Community College in Las Vegas and their lead Horticulturalist Beth Hewitt to grow Mesquite and Ash for replanting. Due to the harsh conditions at Ash Meadows it is necessary to plant established trees from one gallon buckets. These take approximately one year to grow at the nursery.

Salt grass seed was collected by Nevada Conservation Corps members during the fall of 2005 and spread across a five-acre area of the burn. Preliminary monitoring of this site indicates salt grass is becoming reestablished.

Using Refuge maintenance dollars the site where the trailer and other facilities has been cleared to prep for planting this spring.

The specification has been approved and will continue under the Ash Burned Area Rehabilitation Plan, pending funding requests are received for the 2006 FY and subsequent years.

Date Completed:
Not Completed

Photo& Other Documentation: Photos, Monitoring Reports, Summary of Funds Expended Table, Summary of NFPORS Reporting Information.

V-2, Native Planting

Fish and Wildlife Service
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Prepared by:	***Project Implementation Leader:***
Sharon McKelvey (USFW) Matt Burks (NCC)	

Line Item:	***Specification Title:***	
V-3, Vegetation Recovery, Noxious weed monitoring and Planting Success	Vegetation Monitoring	
Percentage of Spec. Completed: ***90%***	***Total funds Expended:*** $7,204.42	***Type of Funding Used:*** ES

Narrative:

The original estimate of 45 acres of invasives has been increased to 70 acres after monthly monitoring by NCC intern Matt Burks. Above normal precipitation last winter created a bumper crop of Bassia and Saltcedar throughout the burn area. The Saltcedar is spreading throughout the irrigation ditches, along the outflow, in the burned Mesquite fields and wherever there is standing water. However, previously treated areas for Saltcedar by Ash Meadows staff Mark James have shown little regrowth.

The Salt Grass is returning very strong. After the fire it has returned healthier than before the fire. However the Bassia is equally as aggressive and will shade out the low growing Salt Grass. Patches of Burdock and Malta Star Thistle have been identified and it is imperative to continue treatments while the populations are still small.

The refuge Biologist, Cristi Baldino in coordination with USGS have been developing monitoring protocol to determine treatment effectiveness for the noxious weed control and native planting specifications. This information can be applied to restoration treatments throughout the Refuge. They are installing permanent plots in fire and non fire areas for short and long term monitoring. USGS and ASME staff are working closely with the Lake Mead NRS EPMT Coordinator to time treatments and planting for best results

The specification has been approved and will continue under the Ash Burned Area Rehabilitation Plan, pending funding requests are approved for the 2006 FY and subsequent years.

Photo& Other Documentation: Photos, Monitoring Reports, Summary of Funds Expended Table, Summary of NFPORS Reporting Information.

BURNED AREA EMERGENCY STABILIZATION
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PART C—MONITORING REPORTS

Area where structures were removed: To be planted with Salt Grass and Mesquite.

BURNED AREA EMERGENCY STABLIZATION
ACCOMPLISHMENT REPORT
TREATMENT EFFECTIVENESS MONITORING REPORTS

SPECIFICATION TITLE:	**NOXIOUS WEED CONTROL**	**JURISDICTION:**	**FWS-ASME**
PART E: LINE ITEM:	**V-1, Noxious Weed Control**	**FISCAL YEAR:**	**2005/2006**
SITE ID:	**n/a**	**SPECIFICATION TYPE:**	**ES**

I. TREATMENT EFFECTIVENESS REPORT

A Objectives:

Utilize integrated pest management practices (herbicides, biological mechanical, and cultural control methods), as appropriate to prevent the spread and establishment of noxious weeds and undesirable exotic species known to exist within the fire perimeter of the Ash Fire and as defined by monitoring.

A. Prescribed Treatment:

- Control noxious/non-native weeds within the burn area and as identified by monitoring. Known infestation sites contain primarily), Hyssop bassia (*Bassia hyssopifolia*), and Saltcedar (*Tamarix spp.*) Multiple treatments will be required with a variety of control techniques. Ground application of chemicals including but not limited to Garlon, Glysophate, Crossbow®, Arsonal® may be required. The AMNWR staff should consult with the US Fish and Wildlife Service's Ecological Services office in the development of Pesticide Use Proposals for specified treatments. Time of year of application may need to be adjusted to ensure treatment of each species is conducted in the proper phenological stage to ensure the protection of recovering native and endemic species.
- Follow-up control in the fall or subsequent years (a request for Emergency Rehabilitation funding will be necessary), on treated sites.
- Locate, map, and document (using photography, topographic maps, and Global Positioning System--GPS—technology), new weed occurrences within burned area. Provide GPS shape file to aerial contractors for use in GPS guided applications. Document percent control or kill of noxious weeds.
- Initiate Agency approved control measures on new weed occurrences where monitoring demonstrates the establishment or expansion of known weed populations.
- Complete supplemental funding request for ESR funding for noxious weed control of new weed populations within the burned area.

B. Treatment Modifications:

More weeds than originally estimated in BAER Emergency Stabilization plan.

C. Treatment Effectiveness Monitoring:

Spot checking of noxious weed sites to ensure control methods are meeting management objectives. A staff person from the AMNWR will visit sites controlled every week after initial treatment; this is especially important for weed populations that are sprayed to ensure effectiveness of herbicide application. If both spring and summer/fall applications are used then visits will occur during both these times.

D. Quality Control Inspection:

Weekly monitoring will occur by Ash Meadows Refuge Staff.

SPECIFICATION TITLE:	**NATIVE PLANTING**	**JURISDICTION:**	**FWS-ASME**
PART E: LINE ITEM:	**V-2, Native Planting**	**FISCAL YEAR:**	**2005**
SITE ID:	**n/a**	**SPECIFICATION TYPE:**	**ES**

I. TREATMENT EFFECTIVENESS REPORT

A Objectives:

Native grasses and forbs will be hand-planted by contract crews to re-establish native vegetation within moderate to high burn severity areas. Native seed will be collected and propagated at federal and private nurseries to produce tublings for planting. The need for replanting and application rates was developed in consultation with the local staff from the FWS. The plantings will be conducted in conjunction with noxious weed control and is intended to reduce encroachment by non-native invasive species and protect biological diversity of plant communities and critical T&E habitats. Approximately 10 acres will be planted with native species.

E. Prescribed Treatment:

- The species selected for replanting the burn area will include but not limited to willow, ash, mesquite, and saltgrass (alkali sacton). Seed will be collected from local species and propagated under contract with federal and private nurseries.
- Container stock, grass plugs and willow cuttings will be planted by contract crews under the guidance of Refuge staff**.**
- Application timing and completion date: Application timing will correspond to local conditions and predicted success. For fall application, plantings will be applied after the first fall or winter rains and after the fall weed treatment.

F. Treatment Modifications:

Planting area has increased from 10 acres to 30 acres.

G. Treatment Effectiveness Monitoring:

See Vegetation Monitoring Specification.

H. Quality Control Inspection:

Peer inspected.

SPECIFICATION TITLE:	**VEGETATION MONITORING**	**JURISDICTION:**	**FWS-ASME**
PART E: LINE ITEM:	**V-3, VEGETATION MONITROING**	**FISCAL YEAR:**	**2005**
SITE ID:	**N/A**	**SPECIFICATION TYPE:**	**ES**

I. TREATMENT EFFECTIVENESS REPORT

A. Objectives:

Monitor noxious weed treatment effects and native plantings recovery within the burned area to determine if management objectives are being met and to identify any future planting or noxious weed control needs. Plants to be monitored include Saltcedar, Bassia and plantings of Ash, Willow, and Mesquite.

Monitor for new occurrences of undesirable plant species (noxious and exotic), within the burned area. Monitoring will occur in un-infested areas having a high potential for weed invasion. Monitor for success of noxious weed treatments.

Monitor for establishment of planted native grasses the first year following treatment to determine if revegetation efforts are meeting management goals.

B. Prescribed Treatment:

- Prepare annual reports and a final report analyzing the data for burned and unburned sites to determine shrub cover, shrub height, and forage availability.
- Conduct short-term monitoring on known noxious weed occurrences and in areas of potential spread within burned area to determine spread of noxious and invasive plant species. Monitoring protocols will be determined by Ash Meadows National Wildlife refuge staff.
- Locate, map, and document (using photography, topographic maps, and Global Positioning System--GPS—technology), new weed occurrences within burned area.
- Initiate Agency approved control measures on new weed occurrences where monitoring demonstrates the establishment or expansion of known weed populations.
- For native planting areas, monitoring transects should be established to determine survival rates of planted species including healthy, sick, dead or missing plants. This data may be used to determine if additional Emergency Stabilization actions will be required.

C. Treatment Modifications:

More weeds than originally estimated in BAER Emergency Stabilization plan.

D. Treatment Effectiveness Monitoring:

As described in this specification. This treatment will produce a report on treatment effectiveness.

E. Quality Control Inspection:

Saltcedar treatment has been effective.

2005 ASH FIRE

TREATMENT SPECIFICATION	UNIT	UNIT COST	# OF UNITS	APPROVED FUNDS	ADDITIONAL FUNDS APPROVED	SPECIFICATION TOTAL	TOTAL FUNDS OBLIGATED	TOTAL FUNDS EXPENDED	TOTAL FUNDS REMAINING
Noxious Weeds Control	Acre	$649.00	45	$29,205.00	$0.00	$29,205.00	$13,727.00	13,931.35	15,273.65
Native Plantings	Acre	$2,518.20	10	$25,182.00	$0.00	$25,182.00	$8,831.94	9,111.86	16,070.14
Monitor Noxious Weeds & Native Planting Treatments	Survey	$1,169.30	12	$14,031.60	$0.00	$14,031.60	$14,032.00	7,204.42	6,827.18
GRAND TOTAL				**68,418.60**	**0.00**	**68,418.60**	**36,590.94**	**30,247.63**	**38,170.97**

BURNED AREA ACCOMPLISHMENT REPORT
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PART D-- PHOTO DOCUMENTATION

Crew Removing Fire Debris

Saltcedargrowing in Wetland

Burned Mesquite with very little regrowth

Saltcedaraggressively returning after fire

Invasive Bassia Hyssopifolia

Area to be re-planted with Mesquite and Ash

BURNED AREA ACCOMPLISHMENT REPORT
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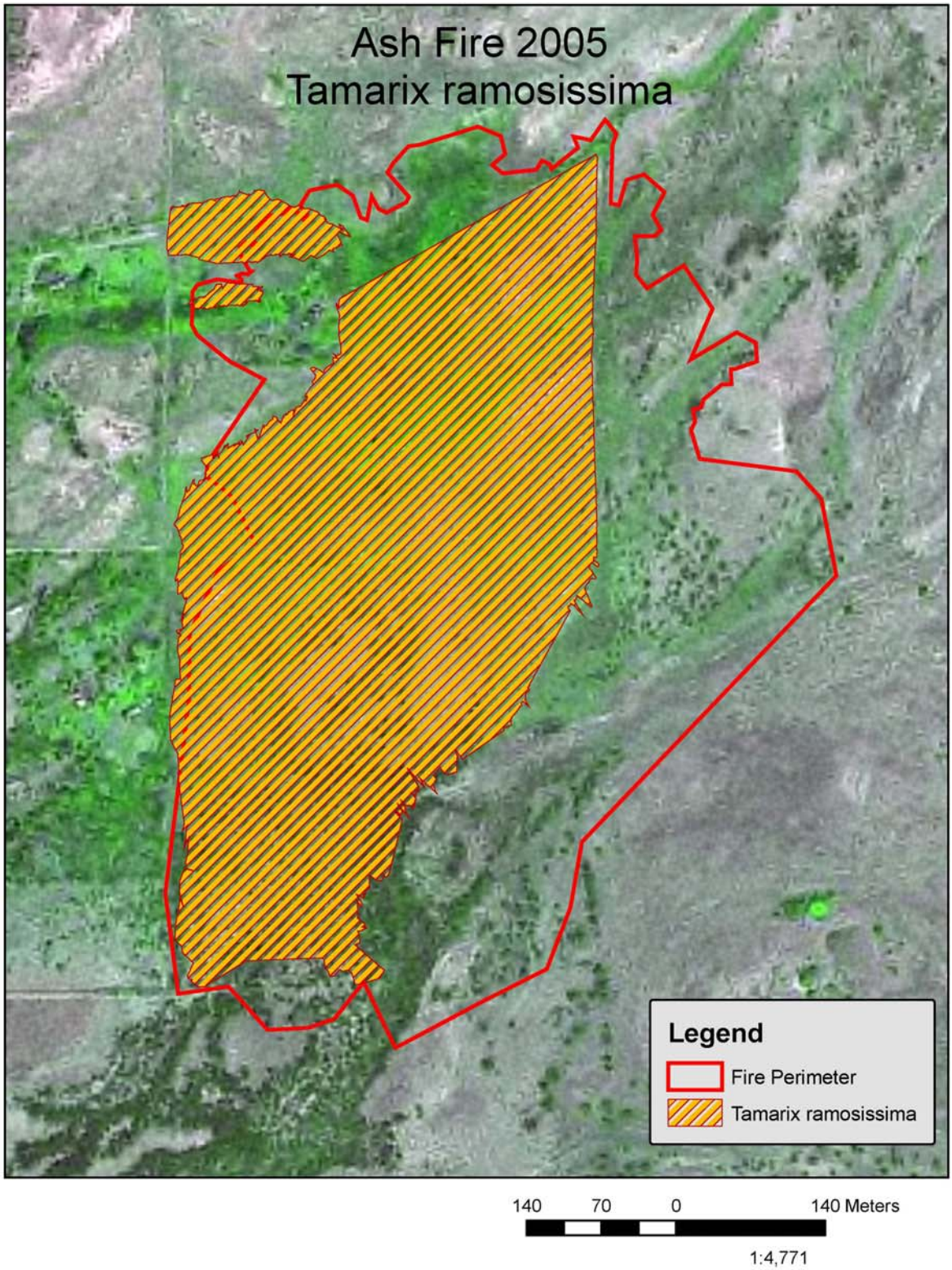
PART E – Maps


Ash Fire 2005
Tamarix ramosissima
Legend
Fire Perimeter
Tamarix ramosissima
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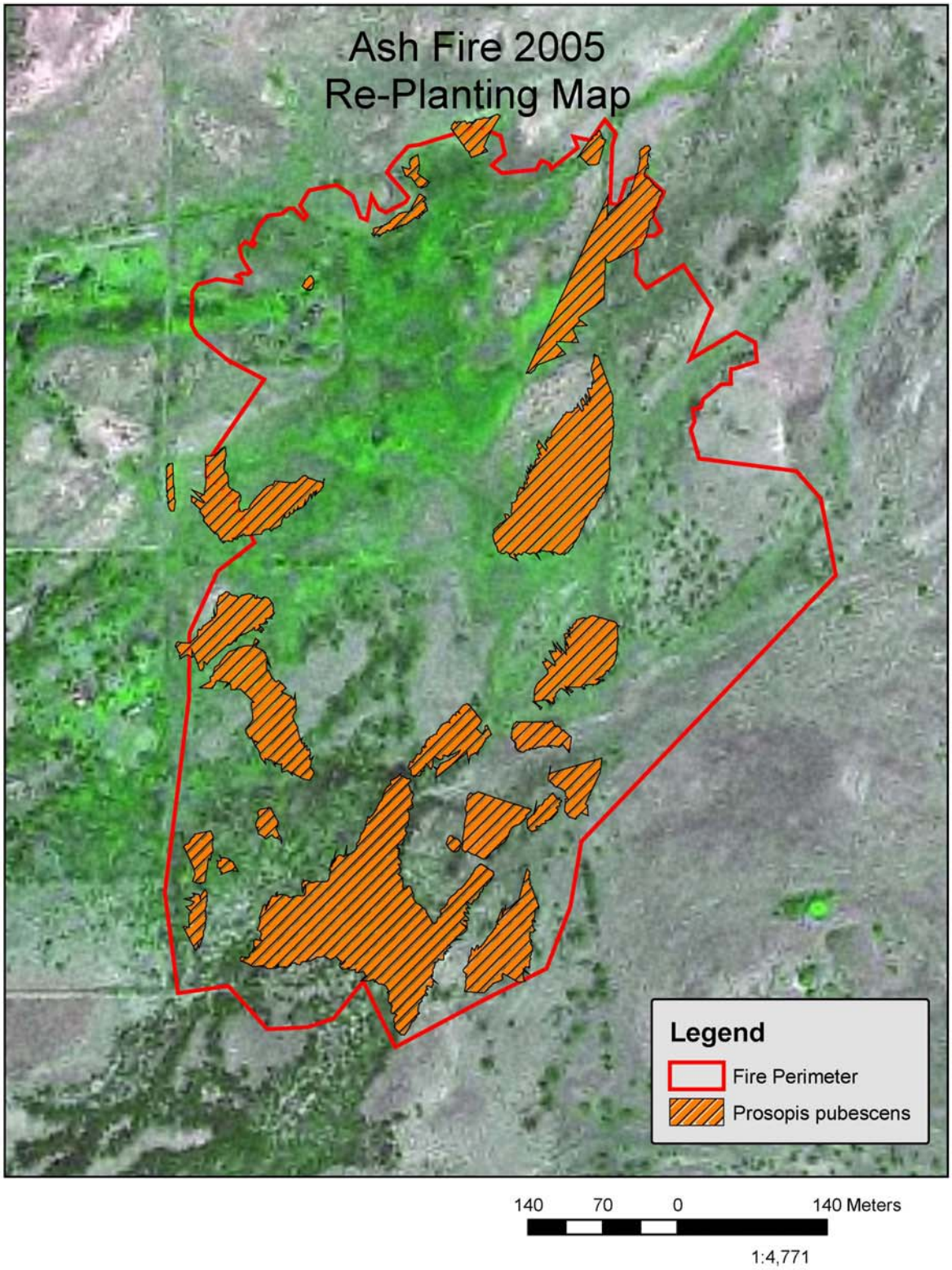
Ash Fire 2005
Re-Planting Map
Legend
Fire Perimeter
Prosopis pubescens
140 70 0 140 Meters
1:4,771