

RESACA DE LOS FRESNOS FIRE BURNED AREA REHABILITATION PLAN

**U.S. FISH AND WILDLIFE SERVICE
LOWER RIO GRANDE VALLEY NATIONAL WILDLIFE REFUGE
SEPTEMBER 2005**

FIRE DATE: July 18, 2005

AGENCY/UNIT: U.S. Fish and Wildlife Service
Lower Rio Grande Valley National Wildlife Refuge
Route 2, Box 202a
Alamo Texas, 78516
Phone: 956-784-7500

LOCATION/SIZE: La Feria, Cameron County, Texas
31.8 acres

PREPARED BY: U.S. Department of Interior
U.S. Fish and Wildlife Service
Chris Best, Plant Ecologist

Submitted By: _____

Date: _____

Jeff Rupert, Refuge Manager, Lower Rio Grande Valley National Wildlife Refuge

BURNED AREA REHABILITATION PLAN REVIEW AND APPROVAL

I. Project Leader approval that the Burned Area Rehabilitation Plan meets approved land management plan management objectives.

Kenneth L. Merritt, Project Leader, South Texas Refuge Complex

Date

II. Regional Fire Management Coordinator concurrence that the plan fits the technical definition for use of Rehabilitation finding.

Regional Fire Management Coordinator, Region 2

Date

III. Rehabilitation Funding Approval (check one box below):

Approved

Approved with Revision (see attached)

Disapproved

Regional Director, Region 2

Date

Resaca de los Fresnos Fire
(21550-9141-B0GY)
BURNED AREA REHABILITATION PLAN

UNIT: Lower Rio Grande Valley NWR, Resaca de los Fresnos Tract

LOCATION: La Feria, Cameron County, Texas

DATE: September 11, 2005

PREPARED BY: Chris Best, Plant Ecologist

EXECUTIVE SUMMARY

Introduction

This Burned Area Rehabilitation Plan has been prepared in accordance with Department of the Interior and U.S. Fish and Wildlife Service (FWS) policy, the Lower Rio Grande Valley (LRGV) National Wildlife Refuge (NWR) Comprehensive Conservation Plan (CCP), and the South Texas Refuge Complex (STRC) Fire Management Plan. This plan provides rehabilitation recommendations for all land burned within the Resaca de los Fresnos Fire. Primary objectives of the Resaca de los Fresnos Fire Burned Area Rehabilitation Plan are to:

1. Suppress wildfires and protect lives and property through integrated hazardous fuel management.
2. Reduce hazardous stands of introduced, invasive grass species, to less than 5% total vegetative cover.
3. Restore a stable shrubland ecosystem at the burn site, utilizing native plant species and restoration techniques that will minimize recolonization by introduced grasses and the susceptibility of this site to wildfire.
4. Restore the wildlife habitat corridor in order to enhance the recovery of Federally-listed endangered species, including the ocelot, jaguarundi and *Ayenia limitaris*, as well as flora and faunal species protected by the State of Texas.

This plan implements the recommendations for rehabilitation that were documented in the Resaca de los Fresnos Burned Area Assessment Report by the LRGV NWR Plant Ecologist on September 9, 2005. This assessment includes:

1. Background information on the fire, including the cause, fuels, and impacts to infrastructure and historic sites.
2. An accurate map of the area affected by the fire.
3. Site history and land use, including analysis of aerial photography from 1974, 1983, 1987 and 2002.
4. Fire impacts on vegetation, wildlife and other natural resources, including rare, threatened and endangered species.
5. Compilation of site characteristics that are pertinent to restoration and management, including climate, geology, topography, soils, existing and potential vegetation, and wildlife habitat values.
6. Specific recommendations for restoration, monitoring and management of natural resources at the site.
7. Estimate costs associated with the recommended specifications.

The Burned Area Assessment Report is attached in Appendix V. Appendix II contains the National Environmental Policy Act (NEPA) compliance documentation summary. The Burned Area Rehabilitation Maps are found in Appendix III. Appendix IV contains photographic documentation. Site monitoring reports and other supporting documentation are included in Appendix V. Part E is a summary of costs by jurisdiction. Rehabilitation treatment specifications and monitoring are described in Part F.

Fire Background

The Resaca de los Fresnos Fire (21550-9141-B0GY) was discovered on the Resaca de los Fresnos tract of LRGV NWR on July 15, 2005. It was contained on July 17 and declared out on July 18, 2005. The burned area is bounded on the west by the FM 800, on the north-east by the vegetated levee of the Arroyo Colorado, and on the south by a portion of the tract that was successfully revegetated in 1999. The fire appears to have been caused by a lightning strike.

Fire Damages and Threats to Human Safety and Natural and Cultural Resources

The fire perimeter was mapped with d-GPS on September 7, 2005, and the burned area was determined to be 31.8 ac (see attached map, Resaca de los Fresnos Burn 2005). The entire burned area is contained on refuge-owned land. The main fuel was dense, dry Kleberg bluestem (*Dicanthium annulatum*), as well as guineagrass (*Urochloa maxima*). Weather at the time of the fire was hot and dry, but the prevailing southeast winds were relatively light. The fire and fire suppression activities caused minor damage to portions of the refuge-owned fence FM 800. No other damages to infrastructure or historic sites occurred. However, if the fire had not been controlled, it could have spread along the Arroyo Colorado, threatening residences and other structures situated along the north bank of the Arroyo. Furthermore, smoke drifting across the highway could create significant hazards to motorists.

The fire burned through a very sparse stand of Texas ebony, huisache and tepeguaje trees that were planted in 1992. These trees range from 3 to 7 m in height. Some of the native woody plants were killed outright by the fire, while the majority were top-killed and are coppicing from the bases of the trunks. The herbaceous vegetation though most of the burned area consists of nearly 100% cover of Kleberg Bluestem (*Dicanthium annulatum*), an introduced, invasive grass, which recovered quickly after the fire. Another introduced, invasive grass, guineagrass (*Urochloa maxima*), predominates in those few shaded portions of the burned area. The major impact of the fire to native vegetation was the reduction of the size, density and cover of native trees and shrubs, and the stimulation of vigorous regrowth of Kleberg bluestem. Kleberg bluestem has relatively little value as a forage grass for domestic livestock, and essentially no value to rodents, quail and other seed-eating fauna, as well as the predators that depend on these prey. The rapid regeneration of Kleberg bluestem, and the ability of this grass to suppress native plants (perhaps through allelopathy), creates a fire-adapted non-native plant community that promotes, and is perpetuated by, frequent wildfires.

The recommended treatment of the burned area consists of thorough eradication of invasive non-native grass species, followed by restoration of native subtropical evergreen forest that is far less susceptible to wildfire. The invasive grass species, primarily Kleberg bluestem, will be treated 6 times over the course of 12 to 18 months with glyphosate herbicide. Follow-up spot treatments with glyphosate and/or imazapyr herbicides may be made following establishment of native woody plants. The timing of repeated herbicide treatments is critical for success.

Restoration of native subtropical evergreen forest will be accomplished, following effective control of invasive grasses, by transplanting seedlings of native trees and shrubs, and direct seeding of native herbaceous plants. The rapid establishment of native herbaceous plants, consisting of sub-shrubs, grasses and forbs that reproduce quickly in the field, will minimize subsequent re-invasion by Kleberg bluestem. Transplantation will be accomplished between September 15 and December 15, 2007, provided that natural rainfall has restored available soil moisture to a depth of no less than 18 inches. Direct seeding will be conducted immediately prior to seedling transplant. Seedlings for this project

will be grown under contract by local vendors; these contracts must be established no later than January, 2007.

This site occurs within the Rio Grande delta in alluvial mud of Quaternary origin. Soil at this site, classified as Harlingen Clay, is extremely level, with low permeability and slow runoff. It is subject to a high degree of shrinking and swelling as moisture levels change, resulting in deep cracks that aid in the establishment of trees and shrubs. The subtropical climate is characterized by long periods of hot, dry weather. Annual rainfall is sporadic, averaging about 24 inches per year. Very heavy rainfall often results from tropical storms that are most frequent from late August through October; cold fronts from October through December, colliding with warm moist air masses from the Gulf of Mexico, also result in heavy rains. Due to availability of soil moisture, the shorter day length, and the more moderate temperatures, the optimal season for tree and shrub establishment is mid-September through mid-December.

Nearly all of the native vegetation in the Rio Grande delta was cleared during the early 20th century for agriculture. Remnants of native vegetation occur along the Arroyo Colorado, and in isolated tracts, such as the Harlingen Birding Festival, Noriega, Garza-Cavazos and Ranchito tracts (LRGV NWR), and Longoria and Resaca de la Palma tracts (TPWD). These sites provide models for the potential vegetation at the Resaca de los Fresnos burn site. These are extremely dense, subtropical, evergreen forests, ranging from 5 to 15 m in height. Dominant tree species include Texas ebony (*Chloroleucon ebano*), anacua (*Ehretia anacua*), honey mesquite (*Prosopis glandulosa* var. *glandulosa*), tenaza (*Havardia pallens*), border palo verde (*Parkinsonia texana* var. *macrum*), jaboncillo (*Sapindus saponaria*), Wright's Acacia (*Acacia wrightii*) and sabal palm (*Sabal mexicana*). A good indicator of very old-growth stands is the presence of large guayacán (*Guaiacum angustifolium*), Texas persimmon (*Diospyros texana*), Sierra Madre torchwood (*Amyris madrensis**), Vasey's Adelia (*Adelia vaseyi**), brasil (*Condalia hookeri*), coma (*Sideroxylon celastrinum*), mescal bean (*Sophora secundiflora*) and limoncillo (*Esenbeckia runyonii**). The very dense, diverse shrub understory includes snake-eyes (*Phaulothamnus spinescens*), crucita (*Eupatorium odoratum*), blue mist-flower (*Eupatorium azureum*), Mexican Trixis (*Trixis inula*), David's milkberry (*Chiococca alba**), brush holly (*Xylosma flexuosa**), colima (*Zanthoxylum fagara*), elbow bush (*Forestiera angustifolia*) and lotebush (*Ziziphus obtusifolia*). Species indicated with an asterisk are rare, endemic or peripheral. A Federally-listed endangered plant species, *Ayenia limitaris*, occurs in this habitat type along the Arroyo Colorado near Harlingen. A pilot reintroduction of this species was established in 1999 in the site revegetated just south of the burn site. The *Ayenia* seedlings survived and have reproduced spontaneously at the site, indicating that additional reintroductions are possible here.

The subtropical evergreen forests of the Rio Grande delta are considered critical habitat for two Federally-listed endangered felids, the ocelot (*Leopardus pardalis*) and jaguarundi (*Herpailurus yaguarondi*); the jaguar (*Panthera onca*) was extirpated from this region in 1946. This habitat type is utilized by numerous species of neotropical migratory birds, such as the tropical parula, Altamira oriole and tropical kingbird. Resident neotropical birds include the chachalaca, green jay and great kiskadee. The chachalaca and white-winged dove are important game species.

Due to the relatively small size of the Resaca de los Fresnos fire, only one Burned Area Assessment Report was prepared.

Lower Rio Grande Valley Management Requirements

The suppression of wildfire and restoration of native vegetation are provisions of the refuge Comprehensive Conservation Plan (established as an Interim Comprehensive Management Plan and Draft Environmental Assessment, approved by Regional Director Lynn B. Starnes, September 24, 1997):

S.5.1.A. Acquisition and Land Status Objectives (p. 42).

2. Acquire lands (tracts) that will: (1) Provide for the protection of endangered species; (2) Assist in the achievement of a contiguous river wildlife corridor; (3) Enlarge established brush tracts or create corridors connecting tracts of native habitat; (4) Enhance or connect existing refuge tracts not on or near the river; and (5) Protect isolated tracts of desirable habitat.

S.5.1.D. Revegetation and Habitat Management Objectives (pp 44-46).

1. Continue to protect and restore refuge lands containing any of the 11 biotic communities identified in the Land Protection Plan (LPP).
2. Continue to revegetate up to 1000 acres of refuge cropland per year with appropriate native plant species...Prioritize revegetation of fields according to the following scale (with A being the highest priority): A) fields located immediately adjacent to the Rio Grande which would directly link habitat corridor segments.
3. The primary objective of revegetation is to restore high-quality habitat on disturbed sites (mainly croplands), modeled on undisturbed sites with similar characteristics, in the minimum length of time.
4. a) Provide a diversity and composition of native plant species modeled on the vegetation of undisturbed sites with similar characteristics.

d) Minimize the impact of perennial exotic species, the most significant of which are the exotic grass species and Russian Thistle (*Salsola kali*).

S. 5.1.E. Fire Management (p. 47).

1. Use a combination of strategies such as discing [sic], prescribed fire, and herbicides (depending on location and other factors) to control and lessen fuel loads in areas susceptible to high growth levels of bermuda and other exotic grasses and Russian thistle, especially tracts within the Hidalgo County District as 40% of all suppressed fires in the LRGV are in that area. Areas would not be reforested until these exotics are removed.
2. Presuppression / Suppression --- The refuge will maintain a standing force of fire program personnel whose primary duty will be to detect and suppress those wildfires found on the refuge.

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PART A - FIRE LOCATION AND BACKGROUND INFORMATION

Fire Name	Resaca de los Fresnos
Fire Number	21550-9141-B0GY
Agency Unit	SRR
Region	2
State	TX
County(s)	Cameron
Ignition Date/Cause	07-15-05 / Lightning
Zone	SACC
Date Fully Contained	07-18-05
Jurisdiction	FWS 31.8 Acres
<i>other jurisdictions</i>	None
Total Acres	31.8 Acres
Date Contained	07-17-05

PART B - NATURE OF PLAN

Type of Action (check one box below)

<input checked="" type="checkbox"/>	Initial Submission
<input type="checkbox"/>	Amendment to the Initial Submission

PART C - REHABILITATION ASSESSMENT

Rehabilitation Objectives

1. Suppress wildfires and protect lives and property through integrated hazardous fuel management.
2. Reduce the primary fuel source at the burn site, which is a dense stand of introduced, invasive grass species, to less than 5% total vegetative cover.
3. Restore a stable evergreen forest ecosystem at the burn site, utilizing native plant species and restoration techniques that will minimize recolonization by invasive grasses and susceptibility of this site to wildfire.
4. Restore the integrity of the wildlife habitat corridor, in order to enhance the recovery of Federally-listed endangered species, including the ocelot, jaguarundi and *Ayenia limitaris*, as well as faunal species protected by the State of Texas.

PART D - TEAM ORGANIZATION, MEMBERS, AND RESOURCE ADVISORS

I. Burned Area Emergency Response Team Members and Resource Advisors.

Position	Team Member (Agency)
Team Leader, Plan Preparation	Chris Best, Plant Ecologist, LRGV NWR (FWS)
Public Information	Patty Alexander, Public Outreach Specialist, STRC (FWS)
Operations	Patrick Pearson, FMO STRC (FWS)
NEPA Compliance & Planning	Ernesto Reyes, Ecological Services (FWS)
Vegetation, GIS and Photography	Chris Best, Plant Ecologist, LRGV NWR (FWS)
Wildlife Biologist	Mitchell Sternberg, Wildlife Biologist, LRGV NWR FWS
Fire Ecologist, Resource Advisor	Mark Kaib, Fire Ecologist Southwest Region FWS
Resource Advisor	Jeff Rupert, Refuge Manager, LRGV NWR FWS

PART F - INDIVIDUAL SPECIFICATION

TREATMENT NAME	Apply glyphosate herbicide	PART E SPECIFICATION #	1
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2006
NFPORS TREATMENT TYPE *	Chemical	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	La Feria	IMPACTED T&E SPECIES	Ocelot, Jaguarundi, <i>Ayenia limitaris</i>

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

I. WORK TO BE DONE (describe or attach exact specifications of work to be done):

<p>Number and Describe Each Task:</p> <p>A. General Description: Apply glyphosate herbicide four times to 31.8-ac old at Resaca de los Fresnos burn.</p> <p>B. Location/(Suitable) Sites: 31.8-ac old field</p> <p>C. Design/Construction Specifications:</p> <ol style="list-style-type: none"> Apply 13.1 oz/ac (active ingredient) glyphosate herbicide in 5 – 10 gal water/ac, with 1.7 lb/ac NH₄SO₄, and surfactant and marking dye at label rates, with overhead boom sprayer. The refuge will supply the quantity of glyphosate herbicide, NH₄SO₄, surfactant and marking dye. Contractor shall supply all necessary spraying equipment, fuel, water and transport to site. Herbicide shall be applied to entire 31.8-ac area four times between October 1, 2005 and September 30, 2006, while target grass is actively growing. Refuge personnel will indicate when applications should be made (minimum of 1 week advance notice). From 10 to 20 days after each main application, herbicide shall be re-applied as described above to all areas that were not adequately treated during the main application, as evidenced by lack of herbicide symptoms (yellowing, wilting and tissue necrosis). Re-treatment is not necessary if specification number 4 has been met. Additional re-treatment(s) shall be made until Specification number 4 is met. Each of the 4 treatments (plus re-applications as necessary) is complete when untreated areas comprise less than 1% of the total treated area. <p>D. Purpose of Treatment Specifications: Eradicate all established Kleberg bluestem bunches and Kleberg bluestem germinating from seed.</p> <p>E. Treatment Effectiveness Monitoring Proposed:</p> <p>Refuge personnel will walk at least 10 transects through treated area, 7 – 10 days following treatment, and will map any untreated areas with GPS equipment. Refuge personnel will provide contract sprayer with maps showing location and size of untreated areas. Refuge personnel will inspect site within 10 days following re-treatment(s) to certify compliance with specifications listed in part C (above).</p>

II. LABOR, MATERIALS AND OTHER COST:

< PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	COST / ITEM
TOTAL PERSONNEL SERVICE COST	n/a
< EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	COST / ITEM
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	n/a
< MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	COST / ITEM
Glyphosate + adjuvants @\$15/ac x 31.8 ac x 4 applications x 1 year	
TOTAL MATERIALS AND SUPPLY COST	\$1,908

< TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):		COST / ITEM
TOTAL TRAVEL COST		n/a
< CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):		COST / ITEM
23.5 ac x \$65.00/ac x 4 applications		\$8,268
TOTAL CONTRACT COST		\$10,176

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY2006	10/01/05	09/30/06	SC	acres	\$320	Invasive Grass Eradication	\$10,176
FY__							
FY__							
FY__							
TOTAL							\$10,176

Work Agent: CA=Coop Agreement, FA=Force Account, G=Grantee, P=Permitee, SC=Service Contract, TSP=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	C
2. Documented cost figures from similar project work obtained from local agency sources.	
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.
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TREATMENT NAME	Apply glyphosate herbicide, Old Field	PART E SPECIFICATION #	2
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2006, 2007
NFPORS TREATMENT TYPE *	Chemical	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	La Feria	IMPACTED T&E SPECIES	Ocelot, Jaguarundi, <i>Ayenia limitaris</i>

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

I. WORK TO BE DONE (describe or attach exact specifications of work to be done):

<p>Number and Describe Each Task:</p> <p>A. General Description: Apply glyphosate herbicide one time to 31.8-ac old field at Resaca de los Fresnos burn.</p> <p>B. Location/(Suitable) Sites: 31.8-ac old field</p> <p>C. Design/Construction Specifications:</p> <ol style="list-style-type: none"> Apply 13.1 oz/ac (active ingredient) glyphosate herbicide in 5 – 10 gal water/ac, with 1.7 lb/ac NH₄SO₄, and surfactant and marking dye at label rates, with overhead boom sprayer. The refuge will supply the quantity of glyphosate herbicide, NH₄SO₄, surfactant and marking dye. Refuge shall supply all necessary spraying equipment, fuel, water and transport to site. Herbicide shall be applied to entire 31.8-ac area two times between October 1, 2005 and November 30, 2006, while target grass is actively growing. From 10 to 20 days after the main application, herbicide shall be re-applied as described above to all areas that were not adequately treated during the main application, as evidenced by lack of herbicide symptoms (yellowing, wilting and tissue necrosis). Re-treatment is not necessary if specification number 4 has been met. Additional re-treatment(s) shall be made until Specification number 4 is met. The treatment (plus re-applications as necessary) is complete when untreated areas comprise less than 1% of the total treated area. <p>D. Purpose of Treatment Specifications: Eradicate all established Kleberg bluestem bunches and Kleberg bluestem germinating from seed.</p> <p>E. Treatment Effectiveness Monitoring Proposed:</p> <p>Refuge personnel will walk at least 10 transects through treated area, 7 – 10 days following treatment, and will map any untreated areas with GPS equipment. Refuge personnel will provide contract sprayer with maps showing location and size of untreated areas. Refuge personnel will inspect site within 10 days following re-treatment(s) to certify compliance with specifications listed in part C (above).</p>

II. LABOR, MATERIALS AND OTHER COST:

< PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	COST / ITEM
GS 7 @ \$24/hr x 54 hours x 2 years	
TOTAL PERSONNEL SERVICE COST	\$2,592
< EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	COST / ITEM
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	n/a
< MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	COST / ITEM
Glyphosate + adjuvants @ \$15/ac x 31.8 ac x 2 years	
TOTAL MATERIALS AND SUPPLY COST	954
	COST /

< TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	ITEM
TOTAL TRAVEL COST	n/a
< CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	COST / ITEM
TOTAL CONTRACT COST	n/a

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY2007	10/01/06	11/30/07	FA	acres	\$112	Invasive Grass Eradication	\$3,546
FY__							
FY__							
FY__							
TOTAL							\$3,546

Work Agent: CA=Coop Agreement, FA=Force Account, G=Grantee, P=Permitee, SC=Service Contract, TSP=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	FA, M
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.
--

TREATMENT NAME	Rip seedling rows to 20" depth	PART E SPECIFICATION #	3
NFPORS TREATMENT CATEGORY*	Mechanical	FISCAL YEAR(S) (list each year):	2006
NFPORS TREATMENT TYPE *	Chemical	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	La Feria	IMPACTED T&E SPECIES	Ocelot, Jaguarundi, <i>Ayenia limitaris</i>

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

I. WORK TO BE DONE (describe or attach exact specifications of work to be done):

<p>Number and Describe Each Task:</p> <p>A. General Description: Rip seedling rows to 20" depth, 9-ft apart, with single-shank ripper.</p> <p>B. Location/(Suitable) Sites: 31.8-ac old field portion</p> <p>C. Design/Construction Specifications:</p> <ol style="list-style-type: none"> Rip seedling rows to 20" depth with 3-pt single-shank ripper. Parallel seedling rows shall be ripped 9 ft apart. <p>D. Purpose of Treatment Specifications: Alleviate soil compaction in old farm field.</p> <p>E. Treatment Effectiveness Monitoring Proposed:</p> <p>Refuge personnel will visit site following operation to certify fulfillment of specifications listed in part C, above.</p>
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II. LABOR, MATERIALS AND OTHER COST:

< PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	COST / ITEM
TOTAL PERSONNEL SERVICE COST	n/a
< EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	COST / ITEM
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	n/a
< MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item): (All necessary material supplies were previously acquired by the Refuge).	COST / ITEM
TOTAL MATERIALS AND SUPPLY COST	n/a
< TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	COST / ITEM
TOTAL TRAVEL COST	n/a
< CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	COST / ITEM
31.8 ac x \$25/ac	\$795

TOTAL CONTRACT COST \$795

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY2007	08/01/06	09/15/06	SC	acres	\$25	Invasive Grass Eradication	\$795
FY__							
FY__							
FY__							
TOTAL							\$795

Work Agent: CA=Coop Agreement, FA=Force Account, G=Grantee, P=Permitee, SC=Service Contract, TSP=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	C
2. Documented cost figures from similar project work obtained from local agency sources.	
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.

TREATMENT NAME	Seedlings	PART E SPECIFICATION #	4
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2006
NFPORS TREATMENT TYPE *	Biological	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	La Feria	IMPACTED T&E SPECIES	Ocelot, Jaguarundi, <i>Ayenia limitaris</i>

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

I. WORK TO BE DONE (describe or attach exact specifications of work to be done):

<p>Number and Describe Each Task:</p> <p>A. General Description: Produce seedlings of native trees and shrubs, according to standard contract specifications used by LRGV NWR (attached).</p> <p>B. Location/(Suitable) Sites: Contract nursery(s).</p> <p>C. Design/Construction Specifications: Standard seedling contract is attached. Contractor(s) will produce seedlings and deliver to LRGV NWR on or before September 15, 2006.</p> <p>D. Purpose of Treatment Specifications: Revegetate site of Resaca de los Fresnos burn.</p> <p>E. Treatment Effectiveness Monitoring Proposed: Refuge personnel will inspect tree seedlings upon delivery to determine compliance with standard seedling contract specifications (attached).</p>
--

II. LABOR, MATERIALS AND OTHER COST:

< PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	COST / ITEM
TOTAL PERSONNEL SERVICE COST	n/a
< EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	COST / ITEM
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	n/a
< MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	COST / ITEM
Plant Bands @\$0.049 each x 10,971	
TOTAL MATERIALS AND SUPPLY COST	\$538
< TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	COST / ITEM
TOTAL TRAVEL COST	n/a
< CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	COST / ITEM
9,540 seedlings x \$0.854/seedling	
TOTAL CONTRACT COST	\$8,147

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY2006	01/15/06	09/15/06	C	Seedling	\$0.91	Produce seedlings for revegetation	\$8,685
FY__							
FY__							
FY__							
TOTAL							\$8,685

Work Agent: CA=Coop Agreement, FA=Force Account, G=Grantee, P=Permitee, SC=Service Contract, TSP=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	C
2. Documented cost figures from similar project work obtained from local agency sources.	
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

<p>List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.</p> <p>Standard LRGV NWR Seedling Contract Specifications attached in Appendix V.</p>
--

TREATMENT NAME	Seedling Transplant	PART E SPECIFICATION #	5
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2007
NFPORS TREATMENT TYPE *	Biological	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	La Feria	IMPACTED T&E SPECIES	Ocelot, Jaguarundi, <i>Ayenia limitaris</i>

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

I. WORK TO BE DONE (describe or attach exact specifications of work to be done):

<p>Number and Describe Each Task:</p> <p>A. General Description: Transplant seedlings of native trees and shrubs.</p> <p>B. Location/(Suitable) Sites: Resaca de los Fresnos Burn site.</p> <p>C. Design/Construction Specifications:</p> <ol style="list-style-type: none"> Seedlings shall be transplanted between October 1, 2006 and November 30, 2006. Seedlings shall be transplanted in ripped rows at spacing specified by Refuge personnel. Measuring ropes, provided by the Refuge, shall be used to measure spacing between seedlings within rows. <p>D. Purpose of Treatment Specifications: Revegetate site of Resaca de los Fresnos burn.</p> <p>E. Treatment Effectiveness Monitoring Proposed:</p> <p>Refuge personnel will inspect transplanting operation at least once per day and following completion.</p>

II. LABOR, MATERIALS AND OTHER COST:

<p>< PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).</p>	COST / ITEM
TOTAL PERSONNEL SERVICE COST	n/a
<p>< EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.</p>	COST / ITEM
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	n/a
<p>< MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item): (All necessary material supplies were previously acquired by the Refuge).</p>	COST / ITEM
TOTAL MATERIALS AND SUPPLY COST	n/a
<p>< TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):</p>	COST / ITEM
TOTAL TRAVEL COST	n/a
<p>< CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):</p>	COST / ITEM
9,540 seedlings x \$0.30 per seedling	\$2,862

TOTAL CONTRACT COST \$2,862

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY2007	10/01/06	11/30/06	C	Seedling	\$0.30	Transplant seedlings	\$2,862
FY__							
FY__							
FY__							
TOTAL							\$2,115

Work Agent: CA=Coop Agreement, FA=Force Account, G=Grantee, P=Permitee, SC=Service Contract, TSP=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	C
2. Documented cost figures from similar project work obtained from local agency sources.	
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.
--

TREATMENT NAME	Direct seed native grasses and forbs	PART E SPECIFICATION #	6
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2006
NFPORS TREATMENT TYPE *	Biological	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	La Feria	IMPACTED T&E SPECIES	Ocelot, Jaguarundi, <i>Ayenia limitaris</i>

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

I. WORK TO BE DONE (describe or attach exact specifications of work to be done):

<p>Number and Describe Each Task:</p> <p>A. General Description: Direct seed native grass and forb seeds.</p> <p>B. Location/(Suitable) Sites: Resaca de los Fresnos Burn site.</p> <p>C. Design/Construction Specifications:</p> <ol style="list-style-type: none"> Seeds shall be planted between August 1, 2006 and September 30, 2006 Seeds shall be planted with a no-till rangeland drill, equipped with a fluffy-seed box, at a rate of 20 PLS per square foot. Planting depth shall be controlled at 0.5 cm (0.2 inches). <p>D. Purpose of Treatment Specifications: Revegetate site of Resaca de los Fresnos burn.</p> <p>E. Treatment Effectiveness Monitoring Proposed:</p> <p>Refuge personnel will inspect seeding operation continuously during operation and following completion. Seed germination and establishment will be monitored at 3 month intervals for 12 months.</p>

II. LABOR, MATERIALS AND OTHER COST:

< PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	COST / ITEM
GS 7 @ \$24/hour x 54 hours	
TOTAL PERSONNEL SERVICE COST	\$1,296
< EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	COST / ITEM
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	n/a
< MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	COST / ITEM
Native grass and forb seeds @ \$200/ac x 31.8 ac	
TOTAL MATERIALS AND SUPPLY COST	\$6,360
< TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	COST / ITEM
TOTAL TRAVEL COST	n/a
< CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	COST /

	ITEM
n/a	
TOTAL CONTRACT COST	n/a

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY2007	10/01/06	9/30/06	FA	acres	\$241	Transplant seedlings	\$7,656
FY__							
FY__							
FY__							
TOTAL							\$7,656

Work Agent: CA=Coop Agreement, FA=Force Account, G=Grantee, P=Permitee, SC=Service Contract, TSP=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	C
2. Documented cost figures from similar project work obtained from local agency sources.	
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.
--

TREATMENT NAME	Spot Application of herbicide	PART E SPECIFICATION #	7
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2007, 2008
NFPORS TREATMENT TYPE *	Biological	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	La Feria	IMPACTED T&E SPECIES	Ocelot, Jaguarundi, <i>Ayenia limitaris</i>

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

I. WORK TO BE DONE (describe or attach exact specifications of work to be done):

<p>Number and Describe Each Task:</p> <p>A. General Description: Spot apply glyphosate and/or imazypyr herbicide to Kleberg bluestem</p> <p>B. Location/(Suitable) Sites: Resaca de los Fresnos Burn site.</p> <p>C. Design/Construction Specifications:</p> <p>Technician will inspect rehabilitation site 4 times per year for two years, and will spot-apply herbicide as needed to Kleberg bluestem</p> <p>D. Purpose of Treatment Specifications: Prevent re-establishment of Kleberg bluestem at Resaca de los Fresnos burn.</p> <p>E. Treatment Effectiveness Monitoring Proposed:</p> <p>Refuge personnel will sample rehabilitation site to determine % cover of native versus introduced vegetation.</p>
--

II. LABOR, MATERIALS AND OTHER COST:

< PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	COST / ITEM
GS 7 @ \$24/hour x 44 hours/year x 2 years	
TOTAL PERSONNEL SERVICE COST	\$2,112
< EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	COST / ITEM
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	n/a
< MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	COST / ITEM
Imazypyr herbicide at \$280/gal x 3 gal	
TOTAL MATERIALS AND SUPPLY COST	\$840
< TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	COST / ITEM
TOTAL TRAVEL COST	n/a
< CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	COST / ITEM
TOTAL CONTRACT COST	n/a

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY2007	10/01/06	9/30/07	FA	Acres	\$45	Treat Invasive Plants	\$1,476
FY__	10/01/07	9/30/08	FA	Acres	\$45	Treat Invasive Plants	\$1,476
FY__							
FY__							
TOTAL							\$2,952

Work Agent: CA=Coop Agreement, FA=Force Account, G=Grantee, P=Permitee, SC=Service Contract, TSP=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	FA, M
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.
--

TREATMENT NAME	Water transport and supplemental assistance	PART E SPECIFICATION #	8
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2006
NFPORS TREATMENT TYPE *	Biological	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	La Feria	IMPACTED T&E SPECIES	Ocelot, Jaguarundi, <i>Ayenia limitaris</i>

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

I. WORK TO BE DONE (describe or attach exact specifications of work to be done):

<p>Number and Describe Each Task:</p> <p>A. General Description: Transport water to project site for herbicide application; assist in locating and mapping site; equipment transport.</p> <p>B. Location/(Suitable) Sites: Resaca de los Fresnos Burn site.</p> <p>C. Design/Construction Specifications:</p> <p>Technicians will transport 200 gal water in refuge fire engine, as needed for force-account herbicide application. Other equipment hauling and assistance will be provided as needed to assist in force-account operations.</p> <p>D. Purpose of Treatment Specifications: Eradicate buffelgrass at Resaca de los Fresnos burn.</p> <p>E. Treatment Effectiveness Monitoring Proposed:</p> <p>Refuge personnel will sample rehabilitation site to determine % cover of native versus introduced vegetation.</p>
--

II. LABOR, MATERIALS AND OTHER COST:

< PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	COST / ITEM
GS 7 @ \$24/hour x 160 hours	
TOTAL PERSONNEL SERVICE COST	\$3,840
< EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	COST / ITEM
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	n/a
< MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	COST / ITEM
TOTAL MATERIALS AND SUPPLY COST	n/a
< TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	COST / ITEM
TOTAL TRAVEL COST	n/a
< CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	COST / ITEM

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY2007	10/01/05	9/30/06	FA	Acres	\$123	Treat Invasive Plants	\$3,840
FY__							
FY__							
FY__							
TOTAL							\$3,840

Work Agent: CA=Coop Agreement, FA=Force Account, G=Grantee, P=Permitee, SC=Service Contract, TSP=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	FA
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.
--

TREATMENT NAME	Planning/Implementation/Monitoring, Plant Ecologist	PART E SPECIFICATION #	9
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2005, 2006, 2007
NFPORS TREATMENT TYPE *	Other Treatment	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	La Feria	IMPACTED T&E SPECIES	Ocelot, Jaguarundi, <i>Ayenia limitaris</i>

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

I. WORK TO BE DONE (describe or attach exact specifications of work to be done):

<p>Number and Describe Each Task:</p> <p>A. General Description: Plan, implement and monitor Resaca de los Fresnos Burned Area Rehabilitation Plan</p> <p>B. Location/(Suitable) Sites: Resaca de los Fresnos Burn site.</p> <p>C. Design/Construction Specifications:</p> <ol style="list-style-type: none"> Develop and submit plan before 09/30/05 Write contract specifications and monitor contract and force account work through project completion. <p>D. Purpose of Treatment Specifications: Rehabilitate site of Resaca de los Fresnos burn.</p> <p>E. Treatment Effectiveness Monitoring Proposed:</p>
--

II. LABOR, MATERIALS AND OTHER COST:

<p>< PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).</p>	COST / ITEM
GS 11 @ \$44/hour x 325 hours	
TOTAL PERSONNEL SERVICE COST	\$14,300
<p>< EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.</p>	COST / ITEM
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	n/a
<p>< MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):</p> <p>(All necessary material supplies were previously acquired by the Refuge).</p>	COST / ITEM
TOTAL MATERIALS AND SUPPLY COST	n/a
<p>< TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):</p>	COST / ITEM
TOTAL TRAVEL COST	n/a
<p>< CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):</p>	COST / ITEM
TOTAL CONTRACT COST	n/a

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY2005	09/5/05	09/30/05	FA	Hour	\$44	Project Lead	\$1,430
FY2006	10/01/05	09/30/06	FA	Hour	\$44	Project Lead	\$6,435
FY2007	10/01/06	06/30/07	FA	Hour	\$44	Project Lead	\$6,435
FY__							
TOTAL							\$14,300

Work Agent: CA=Coop Agreement, FA=Force Account, G=Grantee, P=Permitee, SC=Service Contract, TSP=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	P
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.

TREATMENT NAME	Planning/Implementation/Monitoring, Technician	PART E SPECIFICATION #	10
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2006, 2007
NFPORS TREATMENT TYPE *	Other Treatment	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	La Feria	IMPACTED T&E SPECIES	Ocelot, Jaguarundi, <i>Ayenia limitaris</i>

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

I. WORK TO BE DONE (describe or attach exact specifications of work to be done):

<p>Number and Describe Each Task:</p> <p>A. General Description: Implement and monitor Resaca de los Fresnos Burned Area Rehabilitation Plan</p> <p>B. Location/(Suitable) Sites: Resaca de los Fresnos Burn site.</p> <p>C. Design/Construction Specifications:</p> <p>2. Monitor contract compliance, create GPS maps of burned areas and treatments, collect data on treatment effectiveness.</p> <p>D. Purpose of Treatment Specifications: Rehabilitate site of Resaca de los Fresnos burn.</p> <p>E. Treatment Effectiveness Monitoring Proposed:</p>

II. LABOR, MATERIALS AND OTHER COST:

<p>< PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).</p>	COST / ITEM
GS 7 @ \$24/hour x 420 hours	
TOTAL PERSONNEL SERVICE COST	\$10,080
<p>< EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.</p>	COST / ITEM
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	n/a
<p>< MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):</p> <p>(All necessary material supplies were previously acquired by the Refuge).</p>	COST / ITEM
TOTAL MATERIALS AND SUPPLY COST	n/a
<p>< TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):</p>	COST / ITEM
TOTAL TRAVEL COST	n/a
<p>< CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):</p>	COST / ITEM
TOTAL CONTRACT COST	n/a

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
FY2006	01/01/06	09/30/06	FA	Hour	\$24	Monitoring and implementation	\$5,040
FY2007	10/01/06	06/30/07	FA	Hour	\$24	Monitoring and implementation	\$5,040
FY__							
TOTAL							\$10,080

Work Agent: CA=Coop Agreement, FA=Force Account, G=Grantee, P=Permitee, SC=Service Contract, TSP=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	P
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, E = Equipment M = Materials/Supplies, T = Travel, C = Contract, F = Suppression

III. RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

List Relevant Documentation and Cross-Reference Location within the Accomplishment Report.
--

PART G - RESTORATION REQUIREMENT

The following are post-rehabilitation implementation, operation, maintenance, monitoring, and evaluation actions beyond three years from fire control to ensure the effectiveness of initial investments. Estimated annual cost and funding source (subactivity) is indicated.

1. Monitor seedling survival and growth rates at 3-month, 6-month and 1-year post-planting (\$384 – 1261).
2. Monitor invasive grass re-colonization and germination from dormant seed at 3-month, 6-month and 1-year post-planting (\$384 – 1261).
3. Spot application of glyphosate or imazypyr herbicide, as needed, at 1- and 2-years post planting (\$1000 – 1261).
4. Monitor native plant and invasive plant densities and relative dominance at 5-years post-planting. (\$1,280 – 1261).
5. Long-term wildfire detection and suppression (\$10,000 – 9141).

PART H – CONSULTATIONS

U.S. Fish and Wildlife Service
Ernesto Reyes, Wildlife Biologist
Ecological Services
956-784-7560

U.S. Fish and Wildlife Service
Mitchell Sternberg, Wildlife Biologist
Lower Rio Grande Valley NWR
956-784-7592

U.S. Fish and Wildlife Service
Patrick Pearson, Fire Management Officer
Lower Rio Grande Valley NWR
956-784-7602

U.S. Fish and Wildlife Service
Mark Kaib, Regional Fire Ecologist
Region 2 Regional Office
505-248-6819

APPENDIX I - BURNED AREA ASSESSMENT REPORTS

1. Resaca de los Fresnos Burned Area Assessment (attached).

APPENDIX II - ENVIRONMENTAL COMPLIANCE

Federal, State, and Private Lands Environmental Compliance Responsibilities

All projects proposed in the Resaca de los Fresnos Burned Area Rehabilitation Plan that are prescribed, funded, or implemented by Federal agencies on Federal, State, or private lands are subject to compliance with the National Environmental Policy Act (NEPA) in accordance with the guidelines provided by the Council on Environmental Quality (CEQ) Regulations (40 CFR 1500-1508); Department of the Interior and U.S. Fish and Wildlife Service. This Appendix documents the Burned Area Emergency Response team considerations of NEPA compliance requirements for prescribed rehabilitation and monitoring actions described in this plan for all jurisdictions affected by the Resaca de los Fresnos Fire.

Related Plans and Cumulative Impact Analysis

Resaca de los Fresnos Burned Area Rehabilitation Plan (*approval date*). The Resaca de los Fresnos Fire Burned Area Rehabilitation Plan was reviewed and it was determined that actions proposed in the Resaca de los Fresnos Fire Burned Area Rehabilitation Plan within the boundary of the Resaca de los Fresnos Fire are consistent with the management objectives established in the Comprehensive Conservation Plan. The Comprehensive Conservation Plan NEPA compliance process (Environmental Assessment) specifically addresses:

- Biological Resources
- Air Quality
- Water Quality
- Wetland Preservation and Enhancement
- Compatibility and Service Policy on Recreational Uses
- Cultural Resources
- Socioeconomics

Cumulative Impact Analysis

Cumulative effects are the environmental impacts resulting from the incremental impacts of a proposed action when added to other past, present, and reasonably foreseeable future actions, both Federal and non-Federal. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time. The rehabilitation treatments for areas affected by the Resaca de los Fresnos Fire, as proposed in the Resaca de los Fresnos Fire Burned Area Rehabilitation Plan, do not result in an intensity of impact (i.e. major ground disturbance, etc.) that would cumulatively constitute a significant impact on the quality of the environment. The treatments are consistent with the above jurisdictional management plans and associated environmental compliance documents and categorical exclusions listed below.

Applicable and Relevant Categorical Exclusions

The individual actions proposed in this plan for the Resaca de los Fresnos fire burned area are Categorically Excluded from further environmental analysis as provided for in the Department of Interior and U.S. Fish and Wildlife Service categorical exclusions. All applicable and relevant Department and Agency Categorical Exclusions are listed below. Categorical Exclusion decisions were made with consideration given to the results of required emergency consultations completed by the Burned area emergency response team and documented below.

Applicable Department of Interior Categorical Exclusions

516 DM 2 App; 2, 1.6
516 DM 6 App. 7.4 L (3)

Applicable U.S. Fish and Wildlife Service Categorical Exclusions

516 DM 6 App. 1.4 B (1)
516 DM 6 App. 1.4 B (3) iii
516 DM 6 App. 1.4 B (5)

Statement of Compliance for the Resaca de los Fresnos Fire Burned Area Rehabilitation Plan.

This section documents consideration given to the requirements of specific environmental laws in the development of the Resaca de los Fresnos Fire Burned Area Rehabilitation Plan. Specific consultations initiated or completed during development and implementation of this plan are also documented. The following executive orders and legislative acts have been reviewed as they apply to the Resaca de los Fresnos Fire Burned Area Rehabilitation Plan:

- National Historic Preservation Act (NAPA).
- Executive Order 11988. Flood plain Management.
- Executive Order 11990. Protection of Wetlands.
- Executive Order 12372. Intergovernmental Review.
- Executive Order 12892. Federal Actions to Address Environmental Justice in Minority and Low-income Populations.
- Endangered Species Act.
- Secretarial Order 3127. Federal Contaminated
- Clean Water Act.
- Clean Air Act.

CONSULTATIONS

Not applicable.

NEPA Checklist: If any of the following exception applies, the Burned Area Rehabilitation Plan cannot be Categorically Excluded and an Environmental Assessment (EA) is required.

(Yes) (No)

- (X) Adversely affect Public Health and Safety
- (X) Adversely affect historic or cultural resources, wilderness, wild and scenic rivers aquifers, prime farmlands, wetlands, floodplains, ecologically critical areas, or Natural Landmarks.
- (X) Have highly controversial environmental effects.
- (X) Have highly uncertain environmental effects or involve unique or unknown environmental risks.
- (X) Establish a precedent resulting in significant environmental effects.
- (X) Relates to other actions with individually insignificant but cumulatively significant environmental effects.
- (X) Adversely effects properties listed or eligible for listing in the National Register of Historic Places
- (X) Adversely affect a species listed or proposed to be listed as Threatened or Endangered.
- (X) Threaten to violate any laws or requirements imposed for the "protection of the environment" such as Executive Order 1 1 988 (Floodplain Management) or Executive Order 1 1 990 (Protection of Wetlands).

National Historic Preservation Act

Ground Disturbance:

- None
- Ground disturbance did occur and an archeologist survey, required under section 110 of the NHPA will be prepared. A report will be prepared under contract as specified by the Burned Area Rehabilitation Plan.

A NHPA Clearance Form:

- Is required because the project may have affected a site that is eligible or on the national register. The clearance form is attached. SHPO has been consulted under Section 106 (see Cultural Resource Assessment, Appendix I).
- Is not required because the Burned Area Rehabilitation Plan has no potential to affect cultural resources (initial of cultural resource specialist).

Other Requirements

(Yes) (No)

- (X) Does the Burned Area Rehabilitation Plan have potential to affect any Native American uses? If so, consultation with affiliated tribes is needed.
- () Are any toxic chemicals, including pesticides or treated wood, proposed for use? If so, local agency integrated pest management specialists must be consulted.

I have reviewed the proposals in the Resaca de los Fresnos Fire Burned Area Rehabilitation Plan in accordance with the criteria above and have determined that the proposed actions would not involve any significant environmental effect. Therefore it is categorically excluded from further environmental (NEPA) review and documentation. Burned area emergency response team technical specialists have completed necessary coordination and consultation to insure compliance with the National Historic Preservation Act, Endangered Species Act, Clean Water Act and other Federal, State and local environment review requirements.

Wildlife Biologist, Ecological Services

Date

Project Leader, South Texas Refuges Complex

Date

APPENDIX III – MAPS

- GPS of Resaca de los Fresnos Fire overlaid on Sullivan City SE Digital Ortho Quarter Quad Color CIR Image.

APPENDIX IV - PHOTO DOCUMENTATION

See attached CD.

APPENDIX V - SUPPORT DOCUMENTS

1. Native / Non-Native Plant Worksheet
2. LRGV NWR Seedling Contract Specifications.