

COTTAM FIRE BURNED AREA REHABILITATION PLAN

**U.S. FISH AND WILDLIFE SERVICE
LOWER RIO GRANDE VALLEY NATIONAL WILDLIFE REFUGE
SEPTEMBER 2006**

FIRE DATE: July 24, 2004

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: Granjeno, Hidalgo County, Texas
52.2 acres

PREPARED BY: U.S. Department of Interior
U.S. Fish and Wildlife Service
Lower Rio Grande Valley National Wildlife Refuge BAER Team

Submitted By:

Date:

Ken Merritt, Project Leader, South Texas Refuges Complex

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

Cottam Fire
(21550-9141-A75G)
BURNED AREA REHABILITATION PLAN

UNIT: Lower Rio Grande Valley NWR, Cottam Tract

LOCATION: Granjeno, Hidalgo County, Texas

DATE: September 30, 2006

PREPARED BY: Mitch Sternberg, Wildlife Biologist

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 Cottam Fire. Primary objectives of the Cottam Fire Burned Area Rehabilitation Plan are to:

1. Reduce stands of introduced invasive grass species that pose a fire hazard, to less than 5% total vegetative cover.
2. Rehabilitate 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.
3. Rehabilitate the wildlife habitat corridor in order to enhance the recovery of Federally-listed endangered species, including the ocelot and jaguarundi, as well as flora and faunal species protected by the State of Texas.

This plan continues actions that were conducted through an Emergency Stabilization Plan initiated on July 19, 2004, and a Burned Area Rehabilitation Plan approved on July 28, 2005. The current plan is expected to complete the rehabilitation of this site. These plans implement the recommendations for stabilization and rehabilitation that were documented in the Burned Area Assessment Report by the LRGV NWR Plant Ecologist on July 20, 2004. This assessment includes:

- Descriptions of the burn site history, probable cause of the fire, fuels, vegetation, topography, soils and potential native vegetation;
- Analysis of aerial photography from 1983, 1987 and 2002;
- Damages to vegetation;
- D-GPS map of the burn, overlaid on DOQQ images;
- Recommended strategies for eradicating the invasive grass fuels and restoring native shrubland vegetation;
- Estimated costs to implement these strategies.

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 Cottam Fire (21550-9141-A75G) was discovered on the 1,036-ac Cottam tract of LRGV NWR at

1800 hrs on July 15, 2004. The fire occurred at the southern end of a 5,100-ft long by 1,400-ft wide peninsula of abandoned cropland, surrounded on the east, south and west by the Rio Grande and the international border with Mexico. FWS fire management personnel and units of the McAllen Fire Department responded to the incident. The fire was contained at 0100 hrs on July 16, 2004, and declared out at 1800 hrs on July 24, 2004. The city of Reynosa, Tamaulipas, Mexico, with a population of over 500,000, is immediately across the Rio Grande to the southeast of the Cottam tract. The fire was caused by burning debris from an uncontrolled trash dump on the Mexican side of the Rio Grande. The debris was carried about 700 ft to the point of initiation by the prevailing southeast wind. Ambient weather conditions at the time included low relative humidity, high winds, and temperatures exceeding 100° F.

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

The Cottam Fire consumed 52.2 ac, entirely within the Cottam tract of LRGV NWR. Fire suppression activities did not cause any identifiable damages. The fire burned over two distinct areas, consisting of a 32.9-ac abandoned crop field, and 19.3-ac of levee along the south, west and north perimeter of the old crop field. This appears to be a natural levee of the river which has been supplemented and extended to the west and north with dredged soil. The vegetation of both areas is dominated by a dense 3-ft tall cover of buffelgrass (*Pennisetum ciliare*), with scattered emergent small trees up to 20 ft tall, mainly honey mesquite (*Prosopis glandulosa*), huisache (*Acacia minuta* subsp. *minuta*), sugar hackberry (*Celtis laevigata*) and granjeno (*Celtis pallida*). The density of trees and shrubs is somewhat greater on the levee. Stands of guineagrass (*Panicum maximum*), from 3- to 8-ft tall, occur mainly in the shade of the scattered trees and shrubs. All trees and shrubs within the fire perimeter were defoliated by the fire. Some trees were killed outright, but the majority survived and produced new growth within the next few weeks. In general, the taller trees produced new twig growth and leaves from major branches, while smaller trees were top-killed but formed root coppices.

The principal impacts of this wildfire to natural resources were destruction and suppression of native, woody vegetation, and increased spread and cover of the introduced, invasive grasses.

There are no known cultural resources at the site of the fire.

Two petroleum wells exist at the burn site. Although neither unit was damaged, wildfire burning around petroleum facilities presents a significant potential threat to human safety, property and natural resources. Damages to pumps, powerlines, or sensitive electronic controls can result in accidental release of oil or natural gas. Additionally, a small *colonia* (housing development), identified in Part F as *Colonia Anzaldúa*, is located along the north boundary of Cottam tract, 5,500 ft north-west (downwind) of the burn site. Dense buffelgrass fuel covers this entire portion of the Cottam tract. If the July 2004 fire had not been suppressed, it is likely that this fast-moving grass fire would have threatened those structures.

The recommended treatment of the burned area consists of thorough eradication of invasive non-native grass species, followed by rehabilitation of native shrubland vegetation that is far less susceptible to wildfire. The native shrublands provide a less-hazardous fuel load that can limit fire spread. Thus, this rehabilitation project will also facilitate the suppression of wildfires and protection of lives and property. The invasive grasses, primarily buffelgrass, will be treated 6 times over the course of 12 to 18 months with glyphosate herbicide; follow-up treatments with grass-specific herbicide may be made following

establishment of native woody plants. The timing of repeated herbicide treatments is critical for success. Note that one effective treatment was made in June 2004 through the Cottam ESR. Restoration of native shrubland will be accomplished, following effective control of buffelgrass, by transplanting seedlings of native trees, shrubs and understory plants. The rapid establishment of understory species, consisting of native sub-shrubs and herbaceous plants that reproduce quickly in the field, will minimize subsequent re-invasion by buffelgrass. Transplantation will be accomplished between October 1 and November 30, 2006, provided that natural rainfall has restored sufficient soil moisture. Seedlings for this project will be grown under contract by local vendors; these contracts must be established no later than January, 2006.

The vegetation composition of the restored site will be modeled on existing old-growth shrubland found on similar soils at Gabrielson tract, 1.8 miles upstream along the Rio Grande. This diverse vegetation type is unique to the Tamaulipan shrublands of south Texas and northeast Mexico; it is critical habitat for the listed endangered felids, ocelot and jaguarundi, and provides important nesting, feeding and stopover habitat for neotropical migratory birds. Establishment of dense shrubland, relatively free of buffelgrass, at the Cottam burn site will provide an effective fire break between the remainder of the tract and the source of most of the wildfires. The restored vegetation can then serve as an anchor for continued grass eradication and revegetation with native shrubland in the future, and will contribute to the reestablishment of a contiguous wildlife corridor linking isolated habitat fragments along the Rio Grande.

Due to the relatively small size of the Cottam fire, only one Burned Area Assessment Report was prepared (the July 28 memorandum, Revised Restoration Planning and Costs at Cottam Tract Fire, LRGV NWR, attached).

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.

The Cottam and Pate Bend tracts have a long history of wildfire; wind-blown burning debris from the Reynosa trash dump is a frequent cause of these fires. These tracts, totaling 1,478 ac, were acquired in 12 separate parcels between 1977 and 1988. Cooperative farming agreements were not established at Cottam or Pate Bend; the existing cropland was simply abandoned without attempted restoration of native vegetation, and was subsequently invaded by buffelgrass. One attempt was made in 1996-1997 to eradicate established buffelgrass and plant native tree seedlings on 125.2 ac. A single application of glyphosate killed the actively-growing portion of buffelgrass bunches. Following transplanting of tree seedlings, the "dead" buffelgrass bunches resprouted from dormant tillers that were not affected by the herbicide application. Buffelgrass completely recolonized the site within 6 months. Resulting survival of tree seedlings was about 20%. Subsequent experience has shown that up to 6 well-timed, repeated applications of glyphosate are required to eradicate buffelgrass bunches as well as viable seed in the soil seed bank. Tree seedling survival on well-prepared sites should range from 70% to 90%.

Both buffelgrass and guineagrass are of African origin, and are considered invasive in south Texas. Both are fire-adapted species that produce abundant fine fuel that is extremely prone to wildfire. Tall guineagrass growing beneath trees also serves as a ladder fuel that carries wildfire into canopies and greatly increases damages and mortality to native vegetation. The introduced grasses resprout quickly after fire, and greatly suppress the establishment of native plants due to their aggressive competition for light, water and nutrients; these grasses may also be allelopathic. In south Texas, introduced invasive grasses, once established, form self-perpetuating, fire-adapted communities that support frequent wildfires. Species diversity of native plants and animals, and wildlife utilization of areas dominated by invasive grasses, remains very low.

Summary of Accomplishments and Remaining Treatments and Activities

The 32.9-ac old field was initially treated with glyphosate herbicide, under the initial Emergency Stabilization Plan, in August 2004 by a contract sprayer. This contractor was unable to treat the area effectively, and subsequently submitted an unrealistically high bid (\$156/ac) for continued herbicide application. Refuge personnel shredded the site in May, 2006, and a second contractor completed an application of glyphosate in June 2005 for a price of \$57.90/ac. The refuge Plant Ecologist monitored the treated area and determined that more than 99% of the area had been effectively treated.

Three additional glyphosate applications were completed by refuge personnel, in August and November, 2005, and April 2006. The refuge Plant Ecologist established data collection points for long-term vegetation monitoring, within the burned area and in an adjacent untreated area which serves as a control. In January, 2006, we determined a 96% cover of buffelgrass in untreated area; only four plant species (two native and two introduced) were detected. Following the first three successful applications of glyphosate, 94% of the original buffelgrass bunches were permanently killed. Buffelgrass cover was reduced to 18%, and the density of buffelgrass from recently sprouted seed was about 1 per m².

Heavy rainfall in late May and June stimulated abundant buffelgrass seed germination from the soil seed bank. However, due to criminal activity in the area and concerns about personal safety, we were not able to resume application until July 26. We treated about 12 acres when our sprayer broke. Concurrently, station policy was amended to require all applicators to obtain Texas Non-Commercial Applicator's licenses (Texas does not require licensing for application of glyphosate, Fusilade (Fluazifop-p-butyl) or Garlon (Trichlopyr) herbicides). We have now obtained a new spray rig, and all project personnel have passed the Texas Department of Agriculture exams required for Non-Commercial Applicators. These delays have allowed the sprouted buffelgrass plants to produce a new crop of viable seeds; therefore, additional treatments with glyphosate, before transplanting seedlings, and Fusilade, after seedling transplant, will be required to reduce the soil seed bank of viable buffelgrass seed. Currently, we are treating the area with glyphosate and expect to transplant seedlings to the entire Cottam Burn site by December at the latest.

The remaining activities and treatments at Cottam include (items indicated with an * are covered under the current plan):

- 3 Glyphosate applications (September, October and November, 2006, depending on rainfall and seed germination) on 32.9-ac old field.
- 5 applications of glyphosate on 19.3-ac levee prior to transplanting (September to November, 2006).
- Create seedling furrows with subsoiler, November 2006.
- Transplant seedlings currently being grown under contract on 32.9-ac old field and 19.3-ac levee, late November or early December 2006.
- 3 Fusilade applications on 32.9-ac old field, as needed from February - July 2007*.
- 5 Fusilade applications on 19.3-ac levee, following seedling transplant*. If this operation is required (depending on buffelgrass seed germination), it would be performed through Force Account or under a continuation in FY 2008.
- Collect data on vegetation composition and cover in burned area and adjacent untreated area (September 2007*, Forestry Technicians).

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PART A - FIRE LOCATION AND BACKGROUND INFORMATION

Fire Name	Cottam
Fire Number	21550-9141-A75G
Agency Unit	SRR
Region	2
State	TX
County(s)	Hidalgo
Ignition Date/Cause	07-15-04 / Human
Zone	SACC
Date Fully Contained	07-16-04
Jurisdiction	FWS 52.2 Acres
<i>other jurisdictions</i>	None
Total Acres	52.2 Acres
Date Controlled	07-24-04

PART B - NATURE OF PLAN

Type of Action (check one box below)

	Initial Submission
X	Amendment to the Initial Submission

PART C - REHABILITATION ASSESSMENT

Rehabilitation Objectives

1. Reduce stands of introduced invasive grass species that pose a fire hazard, to less than 5% total vegetative cover.
2. Rehabilitate 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.
3. Rehabilitate the wildlife habitat corridor in order to enhance the recovery of Federally-listed endangered species, including the ocelot and jaguarundi, as well as flora and 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	Mitch Sternberg, Wildlife Biologist, LRGV NWR (FWS)
Plan Preparation	(Vacant), Plant Ecologist, LRGV NWR (FWS)
Public Information	(Vacant), Public Outreach Specialist, STRC (FWS)
Operations	Patrick Pearson, FMO STRC (FWS)
NEPA Compliance & Planning	Ernesto Reyes, Ecological Services (FWS)
Vegetation, GIS and Photography	(Vacant), Plant Ecologist, LRGV NWR (FWS)
Wildlife Biologist	Mitch Sternberg, Wildlife Biologist, LRGV NWR (FWS)
Fire Ecologist, Resource Advisor	Mark Kaib, Fire Ecologist Southwest Region (FWS)
Resource Advisor	(Vacant), Refuge Manager, LRGV NWR (FWS)

PART E - SUMMARY OF ACTIVITIES AND COSTS

The summary of activities and cost table below identifies rehabilitation costs charged or proposed for funding from sub activity 9262 funding sources.

REHABILITATION ACTIVITIES COST SUMMARY TABLE - Cottam Fire

Spec #	Title	Unit	Unit Cost	No. Units	No. Times	Work Agent	Cost
1	Apply fusilade, 32.9-ac old field.	Acre	\$65	32.9	3	C	\$6,416
1	Purchase fusilade and adjuvants, 32.9-ac old field.	Acre	\$45	32.9	1	C, FA	\$4,442
2	Apply fusilade herbicide, 19.3-ac levee	Acre	\$65	19.3	5	C	\$6,273
2	Purchase fusilade and adjuvants, 19.3-ac levee	Acre	\$45	19.3	5	C, FA	\$4,343
3	Spot application of herbicide (Technician, GS 7)	Hour	\$24	28	5	FA	\$3,360
4	Personal safety equipment for tractor and sprayer operators	Total	250	1	1	FA	\$250
5	Herbicide sprayer parts: spray tips, hoses, clamps, valves, and calibration supplies	Total	250	1	1	FA	\$250
6	Planning/Implementation/Monitoring, (Wildlife Biologist-GS 11).	Hour	\$44	120	1	FA	\$5,280
7	Planning/Implementation/Monitoring, (Technician-GS 7)	Hour	\$24	488	1	FA	\$11,712
7	Contract implementation	Hour	\$10	120	1	C	\$1,200
8	Water transport and other supplemental assistance, (Forestry Technicians-Fire)	Hour	\$24	168	1	FA	\$4,032
9	Collect vegetation data	Hour	\$24	100	1	FA	\$2,400
	TOTAL COST						\$49,958

PART F - INDIVIDUAL SPECIFICATION

TREATMENT NAME	Apply Fusilade herbicide, Old Field Purchase Fusilade herbicide	PART E SPECIFICATION #	1
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2007
NFPORS TREATMENT TYPE *	Chemical	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	Colonia Anzaldua	IMPACTED T&E SPECIES	Ocelot, Jaguarundi

* 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: 1. Purchase a sufficient quantity of Fusilade herbicide for three applications to 32.9-ac old field. 2. Apply Fusilade herbicide three times to 32.9-ac old field portion of Cottam burn.</p> <p>B. Location/(Suitable) Sites: 32.9-ac old field portion of Cottam burn</p> <p>C. Design/Construction Specifications:</p> <ol style="list-style-type: none"> 1. Apply 24 oz/ac (product) Fusilade DX herbicide in 5 – 10 gal water/ac, with surfactant and marking dye at label rates, with overhead boom sprayer. The refuge will supply the quantity of Fusilade DX herbicide, surfactant and marking dye. Contractor shall supply all necessary spraying equipment, fuel, water and transport to site. 2. Herbicide shall be applied to entire 32.9-ac area three times between February 1, 2007 and July 16, 2007, while target grass is actively growing. Refuge personnel will indicate when applications should be made (minimum of 1 week advance notice). 3. 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. 4. Each of the 3 applications (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 buffelgrass 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
Fusilade + adjuvants @ \$45.00/ac x 32.9ac x 3 applications x 1 year	

TOTAL MATERIALS AND SUPPLY COST		\$4,442
< 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
32.9 ac x \$65.00/ac x 3 applications		\$6,416
TOTAL CONTRACT COST		\$10,858

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	02/01/07	07/16/07	SC	Acres	\$65	Invasive Grass Eradication	\$6,416
FY2007	10/01/06	01/30/07	FA	Acres	\$45	Invasive Grass Eradication	\$4,442
TOTAL							\$10,858

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,M
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, 19.3-ac levee Purchase Glyphosate herbicide	PART E SPECIFICATION #	2
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2007
NFPORS TREATMENT TYPE *	Chemical	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	Colonia Anzaldua	IMPACTED T&E SPECIES	Ocelot, Jaguarundi

* 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: 1. Purchase a sufficient quantity of Fusilade herbicide for three applications to 32.9-ac old field. 2. Apply Fusilade herbicide three times to 32.9-ac old field portion of Cottam burn.</p> <p>B. Location/(Suitable) Sites: 19.3-ac levee portion of Cottam burn</p> <p>C. Design/Construction Specifications:</p> <ol style="list-style-type: none"> 1. Apply 24 oz/ac (product) Fusilade DX herbicide in 5 – 10 gal water/ac, with surfactant and marking dye at label rates, with overhead boom sprayer. The refuge will supply the quantity of Fusilade DX herbicide, surfactant and marking dye. Contractor shall supply all necessary spraying equipment, fuel, water and transport to site. 2. Herbicide shall be applied to entire 19.3-ac area five times between October 1, 2006 and July 16, 2007, while target grass is actively growing. Refuge personnel will indicate when applications should be made (minimum of 1 week advance notice). 3. 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. 4. Each of the 5 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 buffelgrass bunches and buffelgrass 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	
< 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	
< MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	COST / ITEM
Glyphosate + adjuvants @ \$45/ac x 19.3 ac x 5 applications x 1 year	

TOTAL MATERIALS AND SUPPLY COST		\$4,343
< 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
19.3 ac x \$65.00/ac x 5 applications		\$6,273
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	07/16/07	SC	Acres	\$65.00	Invasive Grass Eradication	\$6,273
FY2007	10/01/06	12/15/06	FA	Acres	\$45.00	Invasive Grass Eradication	\$4,343
TOTAL							\$10,616

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, M
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	Spot application of herbicide	PART E SPECIFICATION #	3
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2007
NFPORS TREATMENT TYPE *	Biological	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	Colonia Anzaldua	IMPACTED T&E SPECIES	Ocelot, Jaguarundi

* 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 buffleggrass</p> <p>B. Location/(Suitable) Sites: Cottam Burn site.</p> <p>C. Design/Construction Specifications:</p> <p>Technician will inspect rehabilitation site 4 times per year for one year, and will spot-apply herbicide as needed to buffleggrass</p> <p>D. Purpose of Treatment Specifications: Prevent re-establishment of Kleberg bluestem at Cottam burn site.</p> <p>E. Treatment Effectiveness Monitoring Proposed:</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 28 hours/year x 5 applications	
TOTAL PERSONNEL SERVICE COST	\$3,360
< 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
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	12/30/07	FA	Hours	\$24	Treat Invasive Plants	\$3,360
TOTAL							\$3,360

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.	P
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	Personal safety equipment for tractor and sprayer operators	PART E SPECIFICATION #	4
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2007
NFPORS TREATMENT TYPE *	Other Treatment	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	Colonia Anzaldua	IMPACTED T&E SPECIES	Ocelot, Jaguarundi

* 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: Purchase safety equipment for tractor and spraying operations on 19.3 and 32.9-ac Cottam burn sites.</p> <p>B. Location/(Suitable) Sites: 19.3-ac levee and 32.9-ac old field portions of Cottam Burn site.</p> <p>C. Design/Construction Specifications: Purchase personal safety equipment.</p> <p>D. Purpose of Treatment Specifications: Protect personnel from the effects of mechanical and chemical exposure.</p> <p>E. Treatment Effectiveness Monitoring Proposed: </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
Safety Equipment @ \$250 x 1 x 1 year =\$250	\$250
TOTAL MATERIALS AND SUPPLY COST	\$250
< 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	

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	12/30/06	FA	Total	\$250	Safety of Personnel	\$250
TOTAL							\$250

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.	p
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.
--

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	7/16/07	FA	Total	250	Correct application of Herbicide	\$250
TOTAL							\$250

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.	P
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	Planning/Implementation/Monitoring, (Wildlife Biologist GS 11)	PART E SPECIFICATION #	6
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2007
NFPORS TREATMENT TYPE *	Other Treatment	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	Colonia Anzaldua	IMPACTED T&E SPECIES	Ocelot, Jaguarundi

* 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 Cottam Burned Area Rehabilitation Plan</p> <p>B. Location/(Suitable) Sites: 19.3-ac levee and 32.9-ac old field portions of Cottam burn site.</p> <p>C. Design/Construction Specifications:</p> <ol style="list-style-type: none"> Develop and submit plan before 09/30/06 Write contract specifications and monitor contract and force account work through project completion. <p>D. Purpose of Treatment Specifications: Rehabilitate site of Cottam burn.</p> <p>E. Treatment Effectiveness Monitoring Proposed:</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 11 @ \$44/hour x 120 hours	\$5,280
TOTAL PERSONNEL SERVICE COST	\$5,280
< 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
(All necessary material supplies were previously acquired by the Refuge).	
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
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	7/16/07	FA	Hour	\$44	Project Lead	\$5,280
TOTAL							\$5,280

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, (Forestry Technician GS 7) Contract implementation	PART E SPECIFICATION #	7
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2007
NFPORS TREATMENT TYPE *	Other Treatment	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	Colonia Anzaldua	IMPACTED T&E SPECIES	Ocelot, Jaguarundi

* 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 Cottam Burned Area Rehabilitation Plan</p> <p>B. Location/(Suitable) Sites: 19.3-ac levee and 32.9-ac old field portions of Cottam burn site.</p> <p>C. Design/Construction Specifications:</p> <ol style="list-style-type: none"> 1. Apply herbicide to portions of burned area not treated by contract sprayers. 2. Monitor contract compliance, create GPS maps of burned areas and treatments, and collect data on treatment effectiveness. 3. Contract implementation will require gathering information of contractors, inviting bids for various contractual work, selecting appropriate bids with FWS personnel, verifying from FWS personnel certification of contractual work, and paying contractors at the request of FWS personnel. <p>D. Purpose of Treatment Specifications: Rehabilitation of Cottam Burn site.</p> <p>E. Treatment Effectiveness Monitoring Proposed:</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
GS 7 @ \$24/hour x 488 hours	
TOTAL PERSONNEL SERVICE COST	\$11,712
< 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
(All necessary material supplies were previously acquired by the Refuge).	
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
	n/a

\$10/hour x 120 hours	TOTAL CONTRACT COST	1,200
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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	7/16/07	FA	Hour	\$24	Planning, implementation, and monitoring	\$11,712
FY2007	10/01/06	7/16/07	C	Hour	\$10	Planning, implementation, and monitoring	\$1,200
TOTAL							\$12,912

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	C
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	Water transport and other supplemental assistance (Forestry Techs GS-7 fire)	PART E SPECIFICATION #	8
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2007
NFPORS TREATMENT TYPE *	Other Treatment	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	Colonia Anzaldua	IMPACTED T&E SPECIES	Ocelot, Jaguarundi

* 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 needed for herbicide applications; assist in site assessments and field reports; shred/mow grass fuels prior to herbicide application (as needed).</p> <p>B. Location/(Suitable) Sites: 19.3-ac levee and 32.9-ac old field portions of Cottam burn site.</p> <p>C. Design/Construction Specifications:</p> <ol style="list-style-type: none"> 1. Transport 300-gal clean water in refuge fire pump vehicle prior to each herbicide application (force account operations only). 2. Visit site to collect and report information on field conditions and contractor activities. 3. Shred/mow tall dry grass fuels to a height of 4 inches, prior to herbicide application. <p>D. Purpose of Treatment Specifications: Assist in development of site assessments, monitoring of contract compliance and herbicide applications.</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 168 hours	\$4,032
TOTAL PERSONNEL SERVICE COST	\$4,032
<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
	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	7/16/07	FA	Hour	\$24	Monitoring and implementation	\$4,032
TOTAL							\$4,032

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	Collect Vegetation Data, Technician GS-7	PART E SPECIFICATION #	9
NFPORS TREATMENT CATEGORY*	Other Treatment	FISCAL YEAR(S) (list each year):	2007
NFPORS TREATMENT TYPE *	Chemical	WUI? Y / N	Y
IMPACTED COMMUNITIES AT RISK	Colonia Anzaldua	IMPACTED T&E SPECIES	Ocelot, Jaguarundi

* 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: Collect vegetation data including vegetation composition, and structure.</p> <p>B. Location/(Suitable) Sites: 19.3-ac levee and 32.9-ac old field portions of Cottam burn site.</p> <p>C. Design/Construction Specifications: Sample vegetation composition and structure at 10 replicate locations in burned area and adjacent untreated areas.</p> <p>D. Purpose of Treatment Specifications: Determine the effectiveness of rehabilitation efforts</p> <p>E. Treatment Effectiveness Monitoring Proposed:</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 50 hours x 2 applications	\$2,400
TOTAL PERSONNEL SERVICE COST	\$2,400
< 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
(All necessary material supplies were previously acquired by the Refuge).	
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
TOTAL CONTRACT COST	

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	02/01/07	07/16/07	FA	Acres	\$24	Invasive Grass Eradication	\$2,400
TOTAL							\$2,400

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 Fusilade DX herbicide, as needed, at 1- and 2-years post planting (\$1000 – 1261).
4. Monitor native plant and invasive plant densities and canopy cover at 3 and 5 years post-planting. (\$2,560 – 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
Mitch 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. Memorandum dated July 28, 2004: Revised Restoration Planning and Costs at Cottam Tract Fire, LRGV NWR (attached).

APPENDIX II - ENVIRONMENTAL COMPLIANCE

Federal, State, and Private Lands Environmental Compliance Responsibilities

All projects proposed in the Cottam 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 Cottam Fire.

Related Plans and Cumulative Impact Analysis

Cottam Burned Area Rehabilitation Plan (*approval date*). The Cottam Fire Burned Area Rehabilitation Plan was reviewed and it was determined that actions proposed in the Cottam Fire Burned Area Rehabilitation Plan within the boundary of the Cottam 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 Cottam Fire, as proposed in the Cottam 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 Cottam 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 Cottam Fire Burned Area Rehabilitation Plan.

This section documents consideration given to the requirements of specific environmental laws in the development of the Cottam 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 Cottam Fire Burned Area Rehabilitation Plan:

- National Historic Preservation Act (NHPA).
- 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.

APPENDIX III – MAPS

1. GPS of Cottam Fire overlaid on Hidalgo NE Digital Ortho Quarter Quad Color CIR Image.
2. Locator map for Cottam Fire.

(See Attached CD)

APPENDIX IV - SUPPORT DOCUMENTS

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

(See Attached CD)