

BURNED AREA REPORT
(Reference FSH 2509.13, Report FS-2500-A)

PART I - TYPE OF REQUEST

1. Type of Report

- ☐ A. Funding (Request for estimated PFF funds)
☒ B. Accomplishment Report

2. Type of Action

- ☐ A. Initial (estimated funding is first requested)
☐ B. Interim

☐ Updating the initial funding request.
☐ Supplying information for accomplishments to date
on emergency work underway.
☒ C. Final

☐ Best estimate for funds needed to complete eligible
rehabilitation measure.
☒ Following completion of funded work.

PART II - FIRE LOCATION

1. Fire Name (from Form FS-5100-29): **Coyote**
2. Forest Supervisor's Fire No. (from Form FS-5100-29): **419**
3. State: **New Mexico**
4. County: **Bernalillo**
5. Region: **03 (Southwest)**
6. Forest: **03 (Cibola)**
7. Ranger District: **05 (Sandia)**
8. Date Fire Started: **5/24/89**
9. Date Fire Controlled: **5/28/89**
10. Estimated Suppression Costs: **\$240,000**
11. Fire Suppression Damages Repaired with NFFF PF12 Funds:

 2.5 miles (firelines waterbarred)
 .75 acres (firelines seeded)
 1 acre Other (identify) fire camp and staging areas rehabed
12. Fire Intensity: _____ % (low) 10 % (medium) 90 % (high)

PART III - NATIONAL FOREST SYSTEM PROBLEM INVENTORY

1. Watershed No.: **046**
2. NFS Acres Burned: **337**
3. Water Repellant Soil: **5% of NFS acres burned**

4. Vegetation Types: Pinyon pine & One-seed Juniper
5. Geologic Types: Madera Limestone and sandstone
6. Soil Erosion Hazard Rating:

_____ % (low) _____14 % (medium) _____86 % (high)

7. Erosion Potential: 19,830 cu. yds/sq. miles
8. Miles of Stream Channels by Regional Order or Classes: Order 1 Order 2
9. Miles of Forest Service Trails: 0 1.3 .6
10. Miles of Forest Service Roads by Maintenance Levels:

0 miles (Level I) 0 miles (Level II)
0 miles (Levels III, IV, V)

PART IV - CALCULATED RISK AND CLIMATIC EVALUATION

1. Estimated Vegetative Recovery Period: 5 years.
2. Chance of Success Desired by Management: 66 percent.
3. Equivalent Design Recurrence Period: 10 years.
4. Related Design Storm Duration: 24 hours.
5. Related Design Storm Magnitude: 2.4 inches.
6. Related Design Flow 262 cfs.
7. Estimated Reduction in Infiltration: 5 percent.
8. Adjusted Related Design Flow: 500 cfs.

PART V - SUMMARY OF SURVEY AND ANALYSIS

1. Skills Represented on Burned Area Survey Team ("x" appropriate boxes):

☒ Hydrology ☒ Soils ☐ Geology ☒ Range
☐ Timber ☒ Wildlife ☐ Fire Mgmt. ☒ Engineering
☐ Contracting ☒ Local Mgmt. ☐ Research ☒ Other (identify)

USAF: Lands, agronomy

2. Describe Emergency: PJ crown fire/man caused wildfire FS: archeology
3. Emergency Rehabilitation Objective: protect site productivity and watershed
4. Probability of Completing Treatment Prior to First Major Damage Producing Storm: (Poor rainfall distribution since seeding may cause loss of seed.)

Land 100 % Channel _____ % Roads _____ % Other _____ %

5. Net Environmental Quality Benefit Index:

☒ Significant ☐ Not Significant

6. Net Social Well Being Benefit Index:

☐ Significant ☒ Not Significant

7. Benefit/Cost Ratio: 3.8 : 1
8. Net Benefits: \$12,781 (FS costs)
9. Cost Effectiveness Index: ☐ I. ☒ II. ☐ III. ☐ IV.

PART VI - ELIGIBLE EMERGENCY REHABILITATION MEASURES OR TREATMENTS
AND SOURCE OF FUNDS

NOTE: Emergency rehabilitation is work done promptly following a wildfire and is not to solve watershed problems that existed prior to the wildfire.

Line Items	NFS Lands					Other Lands			All Lands
	Units	Unit	No. of	NFFF	Other \$	No. of	Federal \$	Non-Federal	Total
		Cost	Units	FW22		Units		\$	\$
				\$	ident.		ident.	identify	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
A. LAND									
a. Seeding	Acres	11.85	337	3.994					
b. (FS costs)									
c.									
d.									
e.									
B. CHANNELS									
a. Opening water									
courses	Miles								
b. Stabilizing									
streambanks	Miles								
c.									
d.									
e.									
C. ROADS AND TRAILS									
a.									
b.									
c.									
D. MAJOR STRUCTURES									
a. Preplanned -									
from Forest									
Plans									
Salary				633					
E. TOTAL				\$4,627	\$		\$	\$	\$

PART VII - APPROVALS

/S/ _____
Forest Supervisor (Signature)

Date

/S/ _____
Regional Forester (Signature)

Date

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Line Items	NFS Lands					Other Lands			All Lands
	Units	Unit	No. of	NFFF	Other \$	No. of	Federal\$	Non-Federal	Total
		Cost	Units	FW22		Units		\$	\$
				\$	ident.		ident.	identify	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
A. LAND									
a. Seeding	Acres	25.66	337	8,650					
b.									
c.									
d.									
e.									
B. CHANNELS									
a. Opening water									
courses	Miles								
b. Stabilizing									
streambanks	Miles								
c.									
d.									
e.									
C. ROADS AND TRAILS									
a.									
b.									
c.									
D. MAJOR STRUCTURES									
a. Preplanned -									
from Forest									
Plans									
Salary				1,300					
E. TOTAL				\$9,950	\$		\$	\$	\$

PART VII - APPROVALS

/S/ Phil Smith
Forest Supervisor (Signature)

5/30/89
Date

N/
ARRP

/S/ Noel DeLuzan
Regional Forester (Signature)

6-1-89
Date

Acting Deputy Regional Forester

Revised

EXAMINING IMPACTS OF MANAGEMENT ALTERNATIVES FOR AN
EMERGENCY PROGRAM
(Reference FSH 2509.13)

Fire Name

Coyote

Date of Report

5/27/89

A. ENVIRONMENTAL QUALITY BENEFIT INDEX

Environmental Factor (a)	Weight Factor (b)	Without Treatment		With Treatment		Difference	
		Actual (c)	Weighted (d)	Actual (e)	Weighted (f)	Actual (g)	Weighted (h)
1. Erosion and sediment	8	2	16	1	8	1	8
2. Aesthetic land quality	4	1	4	0	0	1	4
3. Water quality	3	1	3	0	0	1	3
4. Site productivity	7	2	14	1	7	1	7
5. Wildlife habitat	5	1	5	0	0	1	5
6. Fish habitat	NA						
7. Other							
8. TOTAL	27	XXXXXXXX	42	XXXXXX	15	XXXXXX	27
9. Average weighted index	XXXXXXXXXX	XXXXXXXXXX	1.6	XXXXXX	.6	XXXXXXXXXX	1.0
10. Net environmental quality benefit index	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX	XXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	1.0

B. SOCIAL WELL-BEING BENEFIT INDEX

Social Criteria (a)	Weight Factor (b)	Without Treatment		With Treatment		Difference	
		Actual (c)	Weighted (d)	Actual (e)	Weighted (f)	Actual (g)	Weighted (h)
1. Life, health, safety	10	0	0	0	0	0	0
2. Employment	1	0	0	0	0	0	0
3. Recreational opportunity	1	0	0	0	0	0	0
4. Economic stability	2	0	0	0	0	0	0
5. Income distribution	1	0	0	0	0	0	0
6. Preserve special sites	5	2	10	1	5	1	5
7. Other							
8. TOTAL	20	XXXXXXXX	10	XXXXXX	5	XXXXXX	5
9. Average weighted index	XXXXXXXXXX	XXXXXXXXXX	.5	XXXXXX	.25	XXXXXXXXXX	.25
10. Net social well-being benefit index	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX	XXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	.25

C. REMARKS

ON-SITE AND OFF-SITE DEVELOPMENTS SUBJECT TO HAZARDS¹

D. EXPECTED DAMAGE REDUCTION BENEFIT SUMMARY

Note: At current Water Resources Council interest rate 8.625 percent

Economic Benefit Indices (a)	Units of Measure (b)	Damage Expected				Expected \$ Damage Reduction (g)
		Without Treatment		With Treatment		
		No. of Units (c)	Present Value (\$) (d)	No. of Units (e)	Present Value (\$) (f)	
I. Watershed Impacts Sediments	XXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
1. Downstream water storage						
2. Sediment removal	cu. yd.	19,934	34,256	9,966	16,848	17,408
3. Fish habitat						
4. Water quality						
II. Flood Water	XXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
1. Land						
2. Water Improvements						
3. Subtotal, Watershed	XXXXXXXXXX	XXXXXXXXXXXX		XXXXXXXXXXXX		
III. Resource Related Impacts	XXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
1. Range						
2. Wildlife and Recreation						
3. Timber						
4. Subtotal, Resource Related	XXXXXXXXXX	XXXXXXXXXXXX		XXXXXXXXXXXX		
IV. Other Impacts	XXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
1.						
2. Subtotal, Other	XXXXXXXXXX	XXXXXXXXXXXX		XXXXXXXXXXXX		
V. TOTAL DOLLARS	XXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX

REMARKS

USDA-Forest Service

ON-SITE AND OFF-SITE DEVELOPMENTS SUBJECT TO HAZARDS¹

(Reference FSH 2509.13)

Fire Name			Date of Report
Coyote			5/27/89
Line Items (a)	Type of Units (b)	Number of Units (c)	Estimated Value \$ (d)
1. Community and urban development	People		
2. Municipal and domestic water supply	People Served		
3. Transportation systems	Miles		
4. Water distribution system (irrigation)	Miles		
5. Agricultural development (crops, facilities)	Acres		
6. Industrial development (dams, power, manufacturing)	Number		
7. Power and communication lines	Miles		
8. Recreation development	PAOT		
9. Fish habitat	Miles		
Culverts	pipes	5,000 8	\$40,000
10. Other (specify) Live Fire Range (buildings & earth works)			\$100,000
2	XXXXXXXXXX	XXXXXXXXXX	
11. Total Hazard Potential	XXXXXXXXXX	XXXXXXXXXX	\$140,000

12. Narrative (Optional- if additional space is needed, attach another sheet).

300 acres of the burn are within Madera canyon a roughly 5000 acre watershed which is a tributary to Arroyo del Coyote 13000 acres. Arroyo del Coyote runs through the test facility area of Kirtland Air Force Base, Sandia Labs, and DOE.

¹ Hazards from floods, floating debris, erosion, or sediment because a watershed is impaired by wildfire. (Do not include value of resources damaged or destroyed by the fire reported on FS-5100-29.)

² Indicates values threatened by design storm. Does not enter into the B/C.

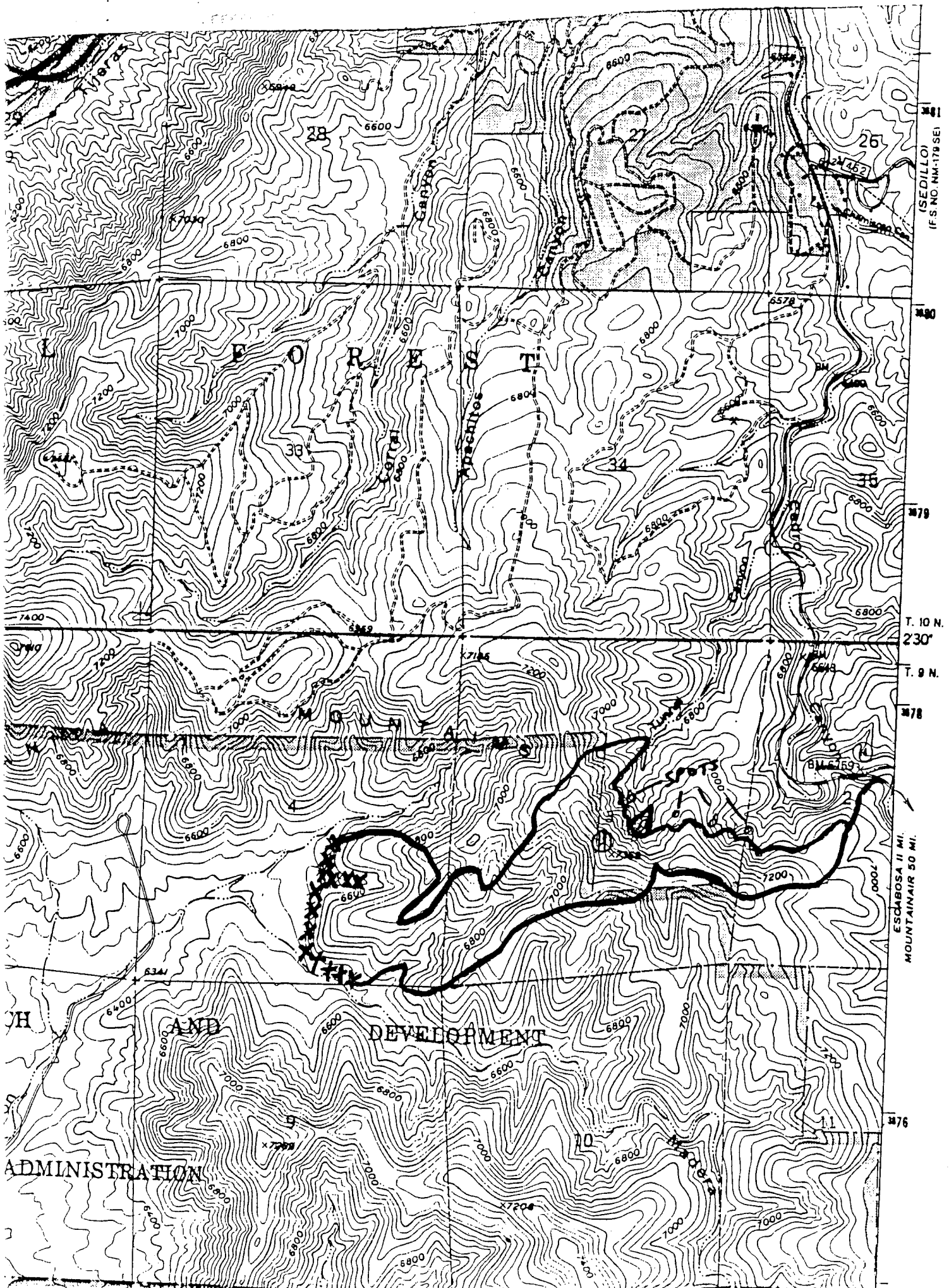
Fire Name CoyoteSUMMARY OF EMERGENCY REHABILITATION NEEDS BY LANDOWNERSHIP
(Reference FSH 2509.13)Date of Report 5/28/89

Landownership	A. Acres Burned	B. Emergency Rehabilitation Needs			
		(1) Land (acres)	(2) Channel (miles)	(3) Road & Trail (miles)	(4) Other
Federal (NFS)	337	337			
Other (specify)					
Subtotal (NFS)					
Non-Federal (State & County)					
Indian Reservation					
Private					
Subtotal (Non-Federal)					
TOTAL	337	337			

C. Source of Emergency Rehabilitation Funds for Needed Work (\$)

Landownership	1. NFFF		2. Emergency Flood Prevention	3. FR & T	4. Other Federal (Enter fund)	5. Non- Federal (Enter fund)	6. Total
	(a)FW22	(b)PF12					
Federal (NFS)	9950	4300					
Other (specify)							
Subtotal (NFS)	9950	4300					
Non-Federal (State & County)							
Indian Reservation							
Private							
Subtotal (Non-Federal)							
TOTAL	9950	4300					

D. Remarks



(SEDILLO)
(F.S. NO. NM-179 SE)

T. 10 N.
230'
T. 9 N.

Escabosa 11 MI.
MOUNTAINAIR 50 MI.

AND
DEVELOPMENT
ADMINISTRATION

With Out Treatment

T/Ac		337 Ac	.71T kayd	\$/cu yd 2	5.625 Discount Factor	Value	
22	7	414	10	442	20 884	.92	19213
10	3	370	4	746	9 492	.85	8068
5	1	685	2	373	4 746	.78	3701
3	1	011	1	424	2 848	.71	2022
2		674		949	1 898	.66	1252
				<u>19 934</u>			<u>34 256</u>

With Treatment

1	10		3	370	4	746	9 492	.92	8733
2	5		1	685	2	373	4 746	.85	4034
3	2			674		949	1 898	.78	1480
4	2			674		949	1 898	.71	1348
5	2			674		949	1 898	.66	1253
						<u>9 966</u>			<u>16 848</u>

Benefit Costs 17408

Peak Q.

WS 1 + 2 - Harbor, S. C.

10 yr. 24 hr storm
= 2.4 inches

a) peak Q after fire = 320 cfs
b) peak Q before fire = 182 cfs

100 yr 24 hr storm
= 3.6 inches

a) peak Q after fire = 740 cfs
b) peak Q before fire = 460 cfs

1st order channel - 4800 ft
2nd order " - 3000 ft

WS 3 Tunnel

10 yr. 24 hr storm

a) peak flow after fire = 180 cfs
b) peak flow before fire = 80 cfs

100 yr 24 hr storm

a) peak flow after fire = 300 cfs
b) peak flow before fire = 180 cfs

1st order channel - 2200 ft

COYOTE FIRE REHAB - 1989
SEEDING INFO

SEED MIX:

seeds PLS/42

Weeping lovegrass - Eragrostis curvula (Ercu) - 1/2lb per ac
Needle and thread - Stipa comata (Stco) - 2lbs per ac
Sideoats grama - Bouteloua curtipendula (Bocu) - 1lb per ac
Siberian wheatgrass - Agropyron sibiricum (Agsi) - 3lbs per ac
Yellow sweetclover - Melilotus officinalis (Meof) - 1lb per ac

17
1
1
9
6
34

7 1/2 pounds per acre for the seed mix (PLS - Pure Live Seed)

7.5#/ac

Approx. 45 seeds per square foot

100 pounds - Ercu
650 pounds - Stco
350 pounds - Bocu
1000 pounds - Agsi
350 pounds - Meof

2550 pounds of seed (mixed & delivered)

ALBUQUERQUE, NEW MEXICO 87101

MIX FOR: Cibola National Forest
Attn: Steve McWilliams
10303 Candelaria, NE
Albuquerque, NM 87112

Coyote Fire Rehab.
PO# 40-83D5-9-0346

from seed
back on
Coyote rehab

Bocu -

Agsi -

meof -

	PLS#	BULK#
Sand Dropseed, Not Stated	50	61.30
Weeping Lovegrass, Morpa	200	221.20
Sideoats Grama, Vaughn	350	433.30
Siberian Wheatgrass, Not Stated	1000	1058.00
Yellow Blossom Clover, Madrid	350	391.65
Four Wing Saltbush, Not Stated	300	453.90
Lehmann Lovegrass, Not Stated	100	125.60

TOTAL 2744.95

54-50# bags
1-45# bag

United States
Department of
Agriculture

Forest
Service

Southwestern
Region

517 Gold Avenue SW.
Albuquerque, NM 87102-0084

Reply to: 6520

Date: June 8, 1989

Subject: Emergency Burn Rehabilitation, Coyote Fire

To: Forest Supervisor, Cibola National Forest

Emergency burn rehabilitation funds (NFFF-FW22) have been approved for the .
Coyote Fire in the amount of \$9,950. You are authorized to incur obligations
against these funds pending allocation by AD-739.

/s/Larry J. Medlock for
ALON CARTER
Director, Program Development and Budget

cc:
WSA
J. Hammond
J. Acree

MESSAGE DISPLAY

To P.LUEHRING:RO3A

From: Steven McWilliams:RO3FO3A

Postmark: Jun 09,89 2:25 PM

Delivered: Jun 09,89 2:26 PM

Status: Certified

Subject: COYOTE REHAB COSTS

Message:

LOOKS LIKE THE COSTS WILL BE IN THE RANGE OF \$7500 NOW THAT THE AIR
FORCE'S POSITION IS MORE CLEAR TO US.

-----X-----

