USDA-FOREST SERVICE

Date of Report: 14 January 1990

# BURNED AREA REPORT (Reference FSH 2509.13, Report FS-2500-8)

### PART I - TYPE OF REQUEST

1.	Type of Report
	[ ] A. Funding (Request for estimated NFFF-FW22 funds) [X] B. Accomplishment Report
2.	Type of Action
	[ ] A. Initial (estimated funding is first requested) [ ] B. Interim
	<ul> <li>a. [] Updating the initial funding request.</li> <li>b. [] Supplying information for accomplishments to date on emergency work underway.</li> <li>[X] C. Final</li> </ul>
	<ul><li>a. [] Best estimate for funds needed to complete eligible</li><li>b. rehabilitation measure.</li><li>[X] Following completion of funded work.</li></ul>
	PART II - FIRE LOCATION
a. b. c. d. e. f. g. h. i.	Fire Name (from Form FS-5100-29):Bray I/Bray II  Forest Supervisor's Fire No. (from Form FS-5100-29):P38642  State: Arizona  County: Coconino  Region: 03  Forest: Coconino  Ranger District: Long Valley  Date Fire Started: 4 June 1990  Date Fire Controlled: 8 June 1990  Estimated Suppression Costs: \$500,000.00  Fire Suppression Damages Repaired with FFF 102 Funds:  1. 4.1 miles (firelines waterbarred)  2. 6.0 acres (firelines seeded)  3 Other (identify)
1.	Fire Intensity: 20 % (low) 25 % (medium) 55 % (high)
	PART III - NATIONAL FOREST SYSTEM PROBLEM INVENTORY
a. b.	Watershed No.:15020008 (Clear Creek) 15060203 (East Verde)  NFS Acres Burned: 633 Total Acres Burned: 633  Ownership type: (list acres if known)  ( )State; ( )BLM; ( )PVT; ( )Other

c. d. e. f.	Water Repellant Soil: 17 % of NFS acres burned (45% of COC NF area)  Vegetation Types: Pipos/Quga Abco/Psmez/Pipos/Quga  Geologic Types: Kaibab Limestone Cocomino Sandstone  Soil Erosion Hazard Rating: (From TES)
	65 % (low) 0 % (medium) 35 % (high)
g. h. i. j.	Erosion Potential: 67.9 Tonnes/hectare (25% slopes) 1.9 T/Ha (2% slopes) Miles of Stream Channels by Regional Order or Classes: I-0.6 Miles of Forest Service Trails: 0 Miles of Forest Service Roads by Maintenance Levels:
	0 miles (Level I) 0.13 miles (Level II) 0.6 miles (Levels III, IV, V)
	PART IV - CALCULATED RISK AND CLIMATIC EVALUATION
a.	Estimated Vegetative Recovery Period: 2 years. (grasses)
b.	Chance of Success Desired by Management: 80 percent.
c.	Equivalent Design Recurrence Period: 2 years.
d.	Related Design Storm Duration: 6 hours.
е.	Related Design Storm Magnitude: 1.6 inches.
f.	Related Design Flow 402 cfsm.
g.	Estimated Reduction in Infiltration: 90 percent (on 105 acres treated)
h.	Adjusted Related Design Flow: 170 cfsm.
	PART V - SUMMARY OF SURVEY AND ANALYSIS
a.	Skills Represented on Burned Area Survey Team ("x" appropriate boxes):
	<pre>[X] Hydrology [X] Soils [ ] Geology [X] Range [ ] Timber [ ] Wildlife [X] Fire Mgmt. [ ] Engineering [ ] Contracting [ ] Local Mgmt. [ ] Research [ ] Other (identify)</pre>
ъ.	Describe Emergency: see attached report
с.	Emergency Rehabilitation Objective: reduce erosion/sedimentation hazard preserve site productivity
đ.	Probability of Completing Treatment Prior to First Major Damage Producing Storm:
	Land: 100 % Channel: 100 % Roads % Other %
е.	Net Environmental Quality Benefit Index:
	[X] Significant [ ] Not Significant
f.	Net Social Well Being Benefit Index:
	[X] Significant [ ] Not Significant
g.	Benefit/Cost Ratio: 2.8
h.	Net Benefits: \$ 20,000.00
i.	Cost Effectiveness Index: [X] I. [ ] 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.

			NFS Lands			1	All Lands		
Line Items	Units	Unit	No. of	NFFF-	Other \$	No. of	Federal\$	Non-Federal	Total
)	1	Cost	Units	FW22		Units		\$	\$
	1			\$	l			l	
					ident.		ident.	identify	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	<u> </u>
A. 1) Land	. <u> </u>	ļ	<u> </u>	<u> </u>	1		<u> </u> 	<u> </u>	l
a. Seeding	Acres	\$15.	105	  \$1575.	. <del></del>	! 	! [	! [	1 ]
b.	<u> </u>			1	1	<u>.                                    </u>	İ		<u>,                                     </u>
c. Contour falling	Tree	\$3.4	5 200	\$ 690	i				
d.	Ì			İ	İ	1	İ		
е.									
. 2) Channels		l							
a. Opening water				<u> </u>					
courses	Miles					!			
b. Stabilizing							L		
streambanks	Miles					ł		<u> </u>	<u> </u>
с.						1	<u> </u>	]	
d.						1			
е,								]	
						[	<u> </u>	<u> </u>	
B. ROADS AND TRAILS									
a.						1			
b.						1	1		
c.			1			-			
				1		ŀ			
C. MAJOR STRUCTURES			<u> </u>				1		
a. Preplanned -							<u> </u>	<u> </u>	
from Forest							<u> </u>		
Plans			<u> </u>		1		<u> </u>		
		<u>.                                    </u>			1	<u> </u>	<u> </u>		<u> </u>
D. TOTAL	-			\$2265.	\$	1	\$	\$	<b> </b> \$

from Initial

United States
Department of
Agriculture

Forest Service Coconino National Forest 2323 E. Greenlaw Lane Flagstaff, AZ 86001

Reply to: 2510

Date: 11 June 1990

Forest Service Policy requires that all fires greater than 300 acres be evaluated for watershed damage. This letter documents the findings of the Tonto National Forest and Coconino National Forest burn rehabilitation teams for the Bray Fire.

#### Burned Area Information

The Bray Fire began on June 4th and was declared controlled on June 8th, 1990. The fire was located primarily is Sections 17,18,19 of T 12 N, R 10 E. Of the approximately 633 acres burned, 233 were located on the Coconino NF: the remainder was on the Tonto NF.

The Tonto portion of the fire was located primarily on the face of the Mogollon Rim where the terrain is extremely rocky and very steep. The Coconino portion of the fire was located on relatively flat ground. The southern edge of the burned area on the Coconino is along the top of the Mogollon Rim and drains toward Bray Creek which is a tributary of the East Verde River. The remainder of the fire on the Coconino was located in small draws which drain to the north and are part of the West Clear Creek Watershed.

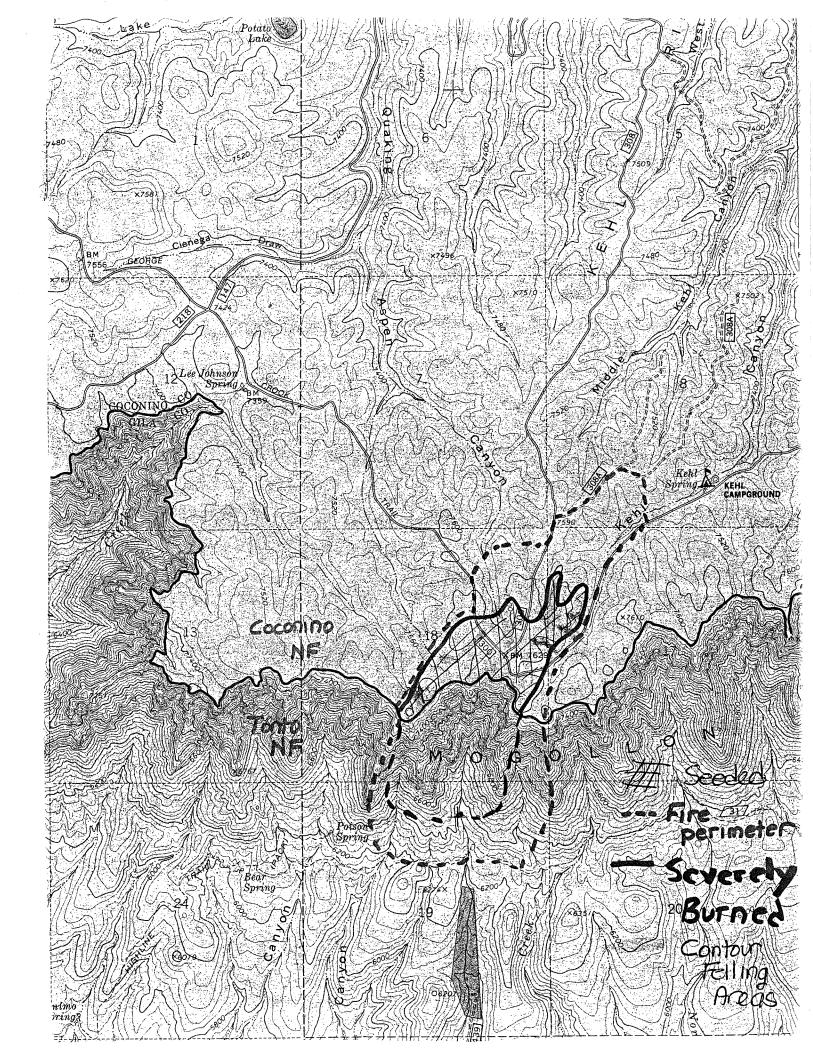
The soils in the area are dervived from sandstones and limestones and are deep. Along the rim the soils are very gravelly with surface rock comprising approximately 60 percent of the surface. Vegetation is primarily Ponderosa Pine/Gambel's Oak along the ridges, and Mixed Conifer/Gambel's Oak in the draws.

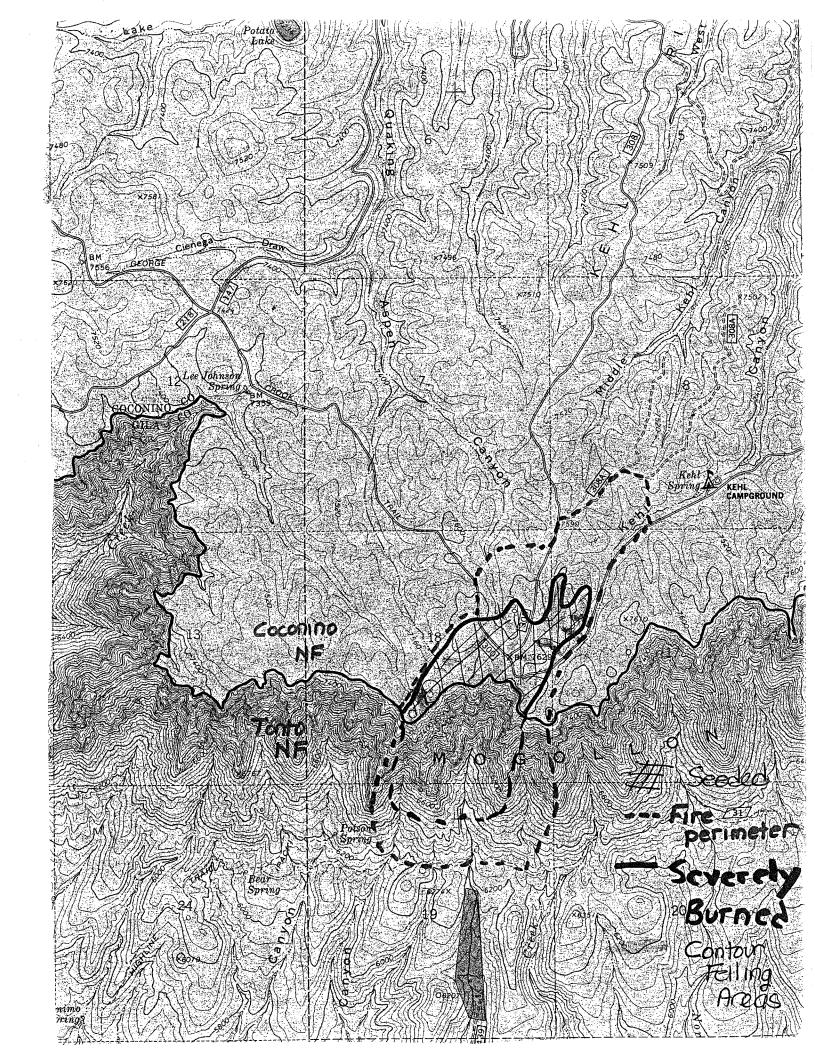
Rm

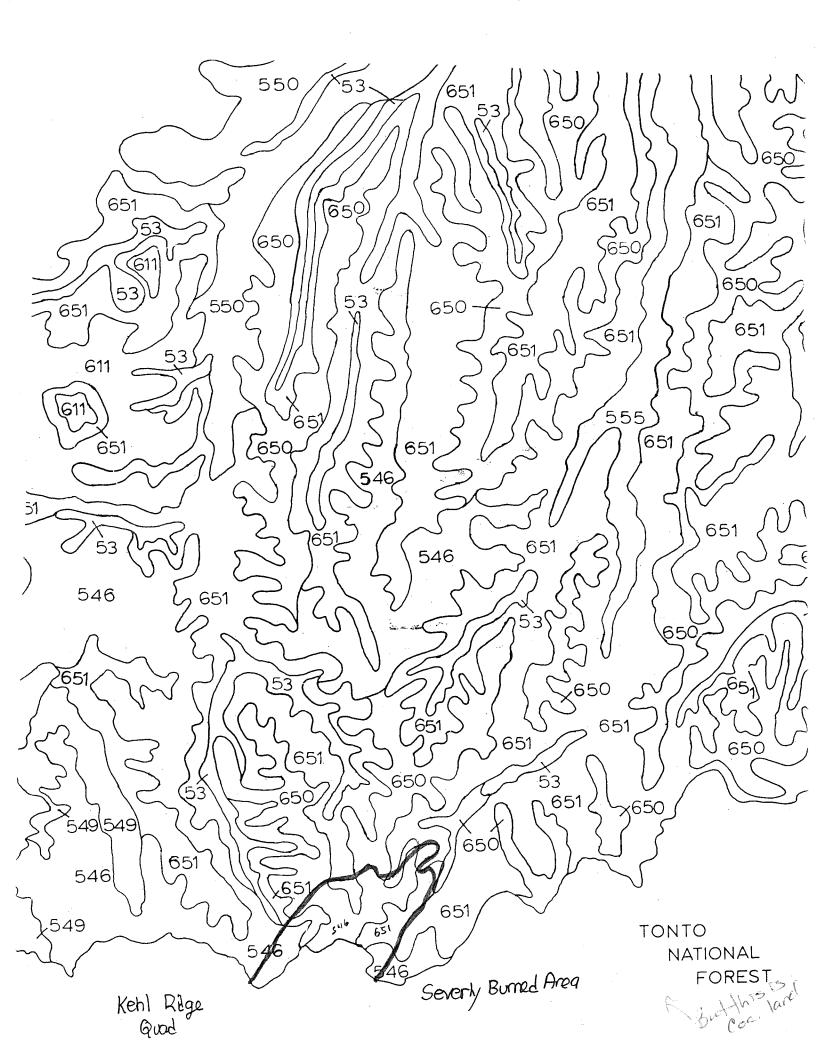
The southern edge of the fire on the Tonto NF was adjacent to private land located on Bray Creek. There are no other significant improvements within the burned area. The General Crook Historic Trail was burned over on the Coconino.

#### Analysis of Burned Area Rehabilitation Needs

The burned area on the Tonto NF was located primarily on the face of the Mogollon Rim. The Tonto Rehabilitation Team determined that rehabilitation measures such as erosion control structures were not physically or economically feasible. Approximately ten acres of land adjacent to Bray Creek Ranch were seeded and residual debris from the fire was removed from the Bray Creek channel. Fire lines were waterbarred and reseeded.







update

USDA-FOREST SERVICE

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	TIME TO THE TOTAL TOTAL
ì.	Fire Name (from Form FS-5100-29):Bray I/Bray II
٠.	Forest Supervisor's Fire No. (from Form FS-5100-29):P38642
٠.	State: Arizona
i.	County: Coconino
e .	Region: 03
ſ.	Forest: Coconino
ζ.	Ranger District: Long Valley
1.	Date Fire Started: 4 June 1990
ί.	Date Fire Controlled: 8 June 1990
١.	Estimated Suppression Costs: \$500,000.00
ζ.	Fire Suppression Damages Repaired with FFF 102 Funds:
	1. 4.1 miles (firelines waterbarred)
	2. 6.0 acres (firelines seeded)
	3. Other (identify)
	•
ι.	Fire Intensity: 20 % (low) 25 % (medium) 55 % (high)
	PART III - NATIONAL FOREST SYSTEM PROBLEM INVENTORY
	THE TITE WHITCHES TORDER STOTES INCOME INVESTORS
a .	Watershed No.:15020008 (Clear Creek) 15060203 (East Verde)
٠.	NFS Acres Burned: 633 Total Acres Burned: 633
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# 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.

			NFS Lands				All Land:		
Line Items	Units	Unit	No. of	NFFF-	Other \$	No. of	Federal\$	Non-Federal	Total
		Cost	Units	FW22		Units		\$	\$
	1	1	l	\$		1	İ		1
				1	ident.	1	ident.	identify	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	<u></u>
. 1) Land	1	 	<u> </u>	1	1	 	<u>                                     </u>	1	I 
a. Seeding	Acres	\$30.	240	\$7200.	1		1		<u> </u>
b. Crews	Days	\$56	9	\$ 504.	1				
c. Supplies	each	\$600	1	\$ 600		ĺ	i	1	<u> </u>
d.				1		1			
е.	İ			İ			[	ĺ	1
							İ	1	
. 2) Channels									
a. Opening water						<u></u>		1	
courses	Miles				1	L			
b. Stabilizing					1			L	
streambanks	Miles						[		
c.									
d.				}					
e.	. 1			<u> </u>		L			
							l		
. ROADS AND TRAILS									
a.									
b.									
с.					1				
. MAJOR STRUCTURES				<u> </u>					
a. Preplanned -									
from Forest	1								
Plans									
					1				
. TOTAL	!			\$8304.	\$		<b> </b> \$	\$	\$

PART VII - APPROVALS

's/	
Forest Supervisor (Signature)	Date
/s/	
Regional Forester (Signature)	Date

USDA-Forest Service

### ON-SITE AND OFF-SITE DEVELOPMENTS SUBJECT TO HAZARDS $^{1}$

#### (Reference FSH 2509.13)

Fire Name: Bray I & II			Date of Repor
Line Items	Type of	Number of	Estimated
	Units	Units	Value \$
(a)	(b)	(c)	(d)
1. Community and urban development	  People	6	   \$1,000,000
	People	1	1
2. Municipal and domestic water supply	Served	6	\$ 20,000
3. Transportation systems	Miles	0	
4. Water distribution system (irrigation)	Miles	1	   \$ 20,000
5. Agricultural development (crops, facilities)	Acres	75	   \$ 50,000
6. Industrial development (dams, power, manufacturing)	  Number	0	 
7. Power and communication lines	Miles	   0	
	ļ		
8. Recreation development	PAOT	0	
9. Fish habitat	Miles	0	
0. Other (specify)	1	1	
2	XXXXXXXXX	XXXXXXXXX	<u> </u>
1. Total Hazard Potential	xxxxxxxxx	xxxxxxxxxx	   \$1,090,000

- $ullet{12.}$  Narrative (Optional- if additional space is needed, attach another sheet).
- | 1,2,4,5 are impacts to Bray Creek Ranch ( a business partnership) from sediment/debris impacts to | | Bray Creek which is used as the water source for the ranch.

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.)

 $<sup>^{2}</sup>$  Indicates values threatened by design storm. Does not enter into the  $\ensuremath{\text{B/C}}.$ 

|USDA-FOREST SERVICE

# SUMMARY OF EMERGENCY REHABILITATION NEEDS BY LANDOWNERSHIP (Reference FSH 2509.13)

Fire Name: BRAY I & II

Date of Report: 6/23/90

Landownership	A. Acres	B. Emergency Rehabilitation Needs					
	Burned	(1) Land	(2) Channel	(3) Road &	(4) Other		
	1	(acres)	(miles)	Trail	1		
			1	(miles)	1		
Federal (NFS)	633	240	0	0	   <u> </u>		
Other (specify)	0	0	0	0	0		
Subtotal (NFS)	633	240	   0	1 0	l 1 0		
Sabtotal (N13)	033	240	<u> </u>	1	<u>                                     </u>		
Non-Pederal (State & County)	0	0	0	0	0		
Indian Reservation	   0	   0	   0	   0	   o		
300			ĺ		İ		
Private	0	0	0	0	0		
Subtotal (Non-Federal)	]   0	   0	   0	   0			
Subtotal (Non-rederal)	1	1	<u> </u>		1		
TOTAL	633	240	I o	o	I o		

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

	1. 1	PPF	2. Emergency	3. FR & T	4. Other	5. Non-	6. Total
	(a) 092	(ъ) 102	Flood	1	Federal	Federal	
Landownership	1		Prevention		(Enter	(Enter	
I			1	1	fund)	fund)	
			!	!	<u> </u>	!!	
					FFF-P	1	
				1	P38642	1	
Pederal (NPS)	\$8,304.	······································		<u> </u>	\$7,800.	<u> </u>	\$16,104
	1		!	1	!		
Other (specify)			<u> </u>	<u> </u>	1		
Subtotal (NFS)	 			[ 	 	 	
Non-Federal (State & County)			] I	 	<u> </u>		
Total Land Land Land Land Land Land Land Land			l	l	<u> </u>	l	
Indian Reservation				<u> </u>	<u> </u>		
Private			 	 	 		
			l				
Subtotal (Non-Federal)							
			[		1		
TOTAL	\$8,304.				\$7,800.		\$16,104

#### D. Remarks

FFF-P funds are salaries for 2 hotshot crews assigned to the fire who performed the tree felling for three days. 092 funds are for seeding personnel, materials and seed