

Detailed instructions for use of this form are in the Burned-Area Emergency Rehabilitation Handbook (FSH 2509.13), Section 41.

1. Fire name <i>Ranger Fire</i>	2. <input type="checkbox"/> Request <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Interim <input type="checkbox"/> Final <input type="checkbox"/> Accomplishment report <input type="checkbox"/> FFF <input type="checkbox"/> Other	3. Date of report <i>6/29/81</i>
4. State <i>AZ.</i>	5. County <i>Cocowino</i>	6. Congressional District <i>3</i>
7. Region <i>3</i>	8. Forest <i>Kaibab</i>	9. Ranger District <i>North Kaibab</i>
10. Supervisor <i>fire no. 043</i>	11. Date fire started <i>6/25/81</i>	12. Date controlled <i>6/26/81</i>
13. Estimated suppression cost \$ <i>60,000.00</i>		
14. Fire suppression damages repaired with FFF 102 funds <i>6 mi. firelines waterbarred 16 acres firelines seeded</i>		
15. Fire intensity <i>10 % low 60 % medium 30 % high</i>		

## NATIONAL FOREST SYSTEM PROBLEM INVENTORY

16. Watershed no. <i>094</i>	17. NFS acres burned <i>358</i>	18. Water repellent soil <i>10 % of NFS area burned</i>
19. Vegetation types <i>Pinyon Pine - Utah Juniper - Big Sagebrush : Utah Juniper - Big Sagebrush</i>		
20. Geologic types <i>Kaibab Limestone</i>		
21. Soil erosion hazard rating <i>% low 40 % med. 60 % high</i>	22. Erosion potential <i>13,776 cu. yds./sq. mi.</i>	23. Flood peak potential <i>650 cu. ft./sec./sq. mi.</i>
24. Miles of stream channels by Regional order or classes <i>5 miles order I</i>		
25. Miles of Forest Service roads and trails by maintenance levels <i>0 mi. level I rds. 0 mi. level II rds. 0 mi. levels III, IV, V rds. 0 mi. trails</i>		

## CLIMATIC DATA

26. Annual precipitation <i>12-14</i> inches	27. Design storm rainfall during <i>6</i> hour period <i>1.4</i> inches 2 yr. frequency <i>2.0</i> inches 10 yr. frequency
28. Annual runoff <i>1.00</i> inches	29. Maximum 30 minute intensity storm <i>.63</i> inches 2 yr. frequency <i>1.00</i> inches 10 yr. frequency

## SUMMARY OF SURVEY AND ANALYSIS

30. Skills represented on burned area survey team (check) <input type="checkbox"/> Hydrology <input checked="" type="checkbox"/> Soils <input type="checkbox"/> Geology <input checked="" type="checkbox"/> Range <input type="checkbox"/> Timber <input checked="" type="checkbox"/> Wildlife <input checked="" type="checkbox"/> Fire Management <input type="checkbox"/> Engineering <input type="checkbox"/> Contracting <input type="checkbox"/> Local Management <input type="checkbox"/> Research <input type="checkbox"/> Other	
31. Describe emergency The majority of this fire occurred on steep and sensitive soils, on site soil loss and sedimentation will be extremely high, quick establishment of protective vegetation is needed	
32. Emergency rehabilitation objective: Prevent unacceptable soil loss and sedimentation	
33. Personnel needs for rehabilitation project on NFS lands <i>N/A</i> man-years reassigned for S man-years new hires for S	
34. Probability of completing treatment prior to first major damage-producing storm Land <i>70 %</i> Channel <i>%</i> Roads <i>%</i> Other <i>%</i>	
35. Net environmental quality benefit index <input checked="" type="checkbox"/> Significant <input type="checkbox"/> Not Significant	36. Net social wellbeing benefit index <input type="checkbox"/> Significant <input checked="" type="checkbox"/> Not Significant
37. Benefit/cost ratio <i>2.15/1</i>	38. Cost effectiveness index (check one) <i>14873.00</i> <input type="checkbox"/> I <input checked="" type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV
39. Forest Supervisor approval & date <i>W. H. Hinds 6/29/81</i>	Date funding approved in NO



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ON-SITE AND OFF-SITE DEVELOPMENTS SUBJECT TO 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 as reported on Form 5100-29.)

	No. of units	Estimated value (dollars)
40. Community and urban development	people	
41. Municipal and domestic water supply	people served	
42. Transportation systems	miles	
43. Water distribution systems (irrigation)	miles	
44. Agricultural development (crops, facilities)	acres	
45. Industrial development (dams, power, manufacturing)	number	
46. Power and communication lines	miles	
47. Recreation development	PAOT	
48. Fish habitat	miles	
49. Other (specify)	Stock Ponds 2	\$10,000.00
TOTAL HAZARD POTENTIAL (Indicates values threatened by design storm. Does not enter into the R/C.)		\$10,000.00

NARRATIVE (Optional. May be left out or expanded on additional sheets as needed.)

Fire Name

Ranger Fire

Date of Report

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## SUMMARY OF EMERGENCY REHABILITATION NEEDS BY LAND OWNERSHIP

Land ownership	50. Acres burned	51. Emergency rehabilitation needs				52. Source of emergency rehabilitation funds for needed work (dollars)					
		Land (acres)	Channel (miles)	Road and Trail (miles)	Other	52. FFP	53. 216	54. FR&T	55. Other Federal (name)	56. Non- Federal (name)	57. Total
FEDERAL NFS	358	250				4225.00					4225.00
Other (name)											
Subtotal Federal						4225.00					4225.00
NON-FEDERAL State & county											
Indian reservation											
Private											
Subtotal Non-Federal											
TOTAL						4225.00					4225.00

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ELIGIBLE EMERGENCY REHABILITATION MEASURES OR TREATMENTS AND SOURCE OF FUNDS  
 (Emergency rehabilitation is work done promptly following a wildfire and  
 is not to solve watershed problems that existed prior to the wildfire.)

	Units	Unit cost	NFS Lands			Other Lands			Total dollars all lands
			No. of units NFS	FFF 094 dollars	Other dollars (Name)	No. of units other	Federal dollars (Name)	Non-Fed. dollars (Name)	
58. <u>LAND</u>									
Seeding	Acres	16.90	250	4225.00					4225.00
59. <u>CHANNELS</u>									
Opening water courses	Miles								
Stabilizing streambanks	Miles								
60. <u>ROADS &amp; TRAILS</u>									
61. <u>MAJOR STRUCTURES</u>									
Preplanned -- from Forest Plans	Each								
TOTAL				4225.00					4225.00

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## EXAMINING IMPACTS OF MANAGEMENT ALTERNATIVES FOR AN EMERGENCY PROGRAM

62.

## EXPECTED DAMAGE REDUCTION BENEFIT SUMMARY

at current Water Resources Council interest rate of 7.125 percent

Economic benefit indices	Units of measure	Damage expected				Expected \$ damage reduction
		Without treatment		With treatment		
		No. of units	Present value \$	No. of units	Present value \$	
WATERSHED IMPACTS						
SEDIMENTS						
Downstream water storage						
Sediment removal						
Fish habitat						
Water quality						
Loss of on-site productivity	yd <sup>3</sup>	17,400 yd <sup>3</sup>	44,235.00	13,800	35,541.00	\$8694.00
Improvements						
Subtotal watershed						\$8694.00
RESOURCE RELATED IMPACTS	pounds of					
Range	Forage prod. loss	925,000	\$183.00	425,000	\$379.00	404.00
Wildlife and recreation						
Timber						
Subtotal resource related						\$404.00
OTHER IMPACTS						
Subtotal other						
Total dollars						\$9098.00

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## EXAMINING IMPACTS OF MANAGEMENT ALTERNATIVES FOR AN EMERGENCY PROGRAM

63. (Table 4)

ENVIRONMENTAL QUALITY BENEFIT INDEX

ENVIRONMENTAL CRITERIA	Weight Factor	Without treatment		With treatment		Difference	
		Actual	Weighted	Actual	Weighted	Actual	Weighted
Erosion and sediment	10	2	20	1	10	1	10
Aesthetic land quality	2	0	0	0	0	0	0
Water quality							
Site productivity	10	2	20	1	10	1	10
Wildlife habitat	5	1	5	0	0	1	5
Fish habitat							
Other							
TOTAL	27		45		20		25
Average weighted index			1.67		.74		.92
Net environmental quality benefit index							5

64. (Table 5)

SOCIAL WELL-BEING BENEFIT INDEX

SOCIAL CRITERIA	Weight Factor	Without treatment		With treatment		Difference	
		Actual	Weighted	Actual	Weighted	Actual	Weighted
Life, health, safety							
Employment							
Recreational opportunity							
Economic stability							
Income distribution							
Preserve special sites							
Other							
TOTAL							
Average weighted index							
Net social well-being benefit index							NS

