



United States
Department of
Agriculture

Forest
Service

Tonto
National
Forest

2324 E. McDowell Road
P.O. Box 5348
Phoenix, AZ 85010

Reply To: ✓ 2520/6520

Date: February 8, 1991

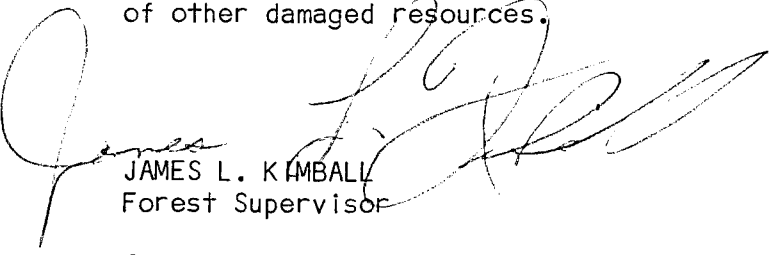
Subject: Dude Fire Accomplishment Report

To: Regional Forester, R-3

Emergency rehabilitation for the Dude Fire is essentially complete. Emergency rehabilitation measures included seeding, fencing and cattle guards to exclude livestock from the burned area, removal of debris from stream channels, construction of trash racks to protect culverts and bridges, and road closures to restrict vehicle access into the burned area.

Approximately 18,150 acres of burned area was aerially seeded with a variety of grass species intended to control erosion. Three and one-quarter miles of fence was constructed around the perimeter of the burned area. Materials to construct an additional 4.75 miles of fence to complete perimeter fencing have also been purchased. Completion of this fence with Arizona Boys Ranch, Hotshot or Arizona Conservation Corps crews is expected this summer. One cattle guard was installed and materials for installation of two additional guards have also been purchased. Installation will be coordinated with fence construction. Seven and a half miles of stream channels were cleared of fire-generated debris to reduce the hazard of flooding to downstream private lands. Materials to construct base level control structures in downcutting channels have also been purchased. Installation of these structures is anticipated this summer. Approximately 45 trash racks were installed in channels above road crossings to prevent buildup of culvert or bridge threatening debris. Thirty four roads providing access to the burned area were closed. Sixty miles of these roads were placed into level 1 maintenance. Five to six miles were completely obliterated.

The emergency nature of the Dude Fire is over. Resource damage from the after effects of the fire continues to occur. A long term restoration team has been formed on the Tonto to address these problems as well as to plan the recovery of other damaged resources.


JAMES L. KIMBALL
Forest Supervisor

Enclosure

WATERSHED & AIR
MANAGEMENT, R-3

FEB 11 1991

RECEIVED



Caring for the Land and Serving People

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 FFF 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): ~~DUDE~~
2. Forest Supervisor's Fire No. (from Form FS-5100-29): P38645
3. State: ARIZONA
4. County: GILA & COCONINO
5. Region: R-3
6. Forest: TONTO, COCONINO, A-S
7. Ranger District: PAYSON, BLUE RIDGE, CHEVLON
8. Date Fire Started: June 25, 1990
9. Date Fire Controlled: July 10, 1990
10. Estimated Suppression Costs: \$6,489,667
11. Fire Suppression Damages Repaired with FFF 102 Funds:

 54 miles (firelines waterbarred)
 64 acres (firelines seeded)
 _____ Other (identify)

12. Fire Intensity: 20 % (low) 20 % (medium) 60 % (high)

PART III - NATIONAL FOREST SYSTEM PROBLEM INVENTORY

1. Watershed No.: 15060203193, 15060105173
2. NFS Acres Burned: 28480
3. Water Repellant Soil: _____ 25_ % of NFS acres burned
4. Vegetation Types: Pipo/Jude2/Quar/Arpu5-Abco/Psmeg/Pipos/Qugu-Psmeg/Pipos
5. Geologic Types: Coconino Sandstone, Supai Sandstone
6. Soil Erosion Hazard Rating:
25 % (low) _____ 20_ % (medium) _____ 55_ % (high)
7. Erosion Potential: _____ 10,000 _____ cu. yds/sq. miles
8. Miles of Stream Channels by Regional Order or Classes: 62.7-1, 19.6-2, 3.5-3
9. Miles of Forest Service Trails:
10. Miles of Forest Service Roads by Maintenance Levels:
54.8 miles (Level I) _____ 4.7 miles (Level II)
14.3 miles (Levels III, IV, V)

11
54.8
4.7
14.3
73.8

PART IV - CALCULATED RISK AND CLIMATIC EVALUATION

1. Estimated Vegetative Recovery Period: 5_ years.
2. Chance of Success Desired by Management: _80 percent.
3. Equivalent Design Recurrence Period: 25 years.
4. Related Design Storm Duration: _24 hours.
5. Related Design Storm Magnitude: 5.0 inches.
6. Related Design Flow _248_ cfs.
7. Estimated Reduction in Infiltration: _30 percent.
8. Adjusted Related Design Flow: _1000 cfs.

PART V - SUMMARY OF SURVEY AND ANALYSIS

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

<input checked="" type="checkbox"/> Hydrology	<input checked="" type="checkbox"/> Soils	<input type="checkbox"/> Geology	<input checked="" type="checkbox"/> Range
<input checked="" type="checkbox"/> Timber	<input checked="" type="checkbox"/> Wildlife	<input type="checkbox"/> Fire Mgmt.	<input type="checkbox"/> Engineering
<input type="checkbox"/> Contracting	<input type="checkbox"/> Local Mgmt.	<input type="checkbox"/> Research	<input checked="" type="checkbox"/> Fisheries Biologist
			<input checked="" type="checkbox"/> Arizona Game & Fish
2. Describe Emergency: see narrative
3. Emergency Rehabilitation Objective: see narrative
4. Probability of Completing Treatment Prior to First Major Damage Producing Storm:

Land _66_ % Channel _75_ % Roads _35_ % Other _75_ %
5. Net Environmental Quality Benefit Index:

<input checked="" type="checkbox"/> Significant	<input type="checkbox"/> Not Significant
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6. Net Social Well Being Benefit Index:

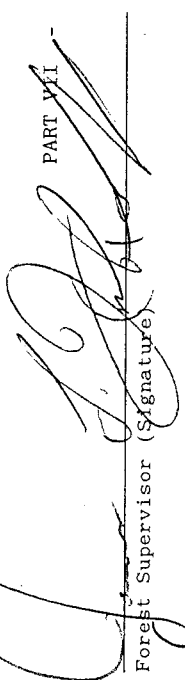
<input checked="" type="checkbox"/> Significant	<input type="checkbox"/> Not Significant
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7. Benefit/Cost Ratio: 0.76:1
8. Net Benefits: \$(108,410)
9. Cost Effectiveness Index: ☒ I. ☐ II. ☐ III. ☐ IV.

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	FFRS	Other \$	No. of	Federal	Non-Federal	Total			
		Cost	Units	\$		Units	\$	\$	\$			
				FW22								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)				
A. LAND												
a. Seeding	Acres	22.42	18150	406990								
b. Protective Fence	Miles	3225	3.25	10480								
c. Cattle Guards	Each	3670	1	3670								
d.												
e.												
B. CHANNELS												
a. Opening water												
courses	Miles	4943	7.5	37075								
b. Stabilizing												
streambanks	Miles											
c. base level contrl	Each	1100	18	20000								
d.												
e.												
C. ROADS AND TRAILS												
a. Trash racks	Each	1340	45	60290								
b. Road closure	Each	206	34	7000								
c.												
D. MAJOR STRUCTURES												
a. Preplanned -												
from Forest												
Plans												
E. Salary & Misc				59000								
E. TOTAL				604505	\$		\$	\$	\$			

PART VII - APPROVALS

Forest Supervisor (Signature)  Date 2-8-97

Regional Forester (Signature) _____ Date _____

United States
Department of
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Forest
Service

Tonto
National
Forest

2324 E. McDowell Road
P.O. Box 5348
Phoenix, AZ 85010

Reply To: 2520/6520

Date: August 02, 1990

Subject: Dude Fire Emergency Burned Area Rehabilitation

To: Regional Forester, R-3

Additional funds are necessary to complete emergency fire rehabilitation work on the Dude Fire on the Tonto National Forest in Arizona. Emergency rehabilitation measures approved for this fire include seeding of approximately 18,000 acres of burned area, closure of 28 miles of roads, debris removal from 4 miles of stream, construction of trash racks for protection of culverts and bridges, and construction of fences to prevent livestock from grazing in the burned area. \$462,000 was initially approved for rehabilitation work on this fire.

Additional funding is requested due to underestimation of helicopter and seed bucket costs, lack of adequate funds for administrative costs, and additional emergency rehabilitation work proposed. Helicopter and seed bucket costs were originally estimated at \$27,000. Costs however were estimated for helicopters that subsequently proved to be too small to safely operate the seed buckets necessary for seed application. The helicopters that were ultimately used in the seeding operation had much higher operating costs. The initial seed buckets also proved too small for efficient seed application. Larger buckets (1000 lb. capacity) were subsequently ordered. Total helicopter and seed bucket costs added up to \$123,000, \$95,000 more than the original estimate.

Administrative costs were also not adequately funded in the initial funding request. A fire rehabilitation organization, similar in structure to a fire suppression organization, was assembled to oversee and implement the rehabilitation proposals. The salary, travel and per diem costs of this team as well as the travel and support costs of the crews brought in to implement the rehabilitation measures were not adequately covered in our original funding request. All the costs associated with support of the rehabilitation organization and crews have not been totaled yet however we estimate an additional \$50,000 is necessary to fund these costs.

Additional emergency rehabilitation work proposed to reduce fire damage is the installation of base level control structures in drainages to prevent downcutting of drainages from high flows and to trap sediment and ash. Costs of these structures and the support necessary to install them is estimated at \$20,000.

Total costs above and beyond our initial funding request are estimated at \$165,000. The initial request contains a math error in PART VI of the Burned Area Report that resulted in a request of \$30,000 more than the sum of the costs reported in this section. Due to this error we are requesting an additional \$135,000 (rather than \$165,000) to fund rehabilitation work completed to date and to fund additional work necessary to prevent further damages from the fire.

The progress of the rehabilitation effort has proceeded smoothly to date. Seeding, road closures, and debris removal from channels has been completed. Construction of trash racks is mostly complete and construction of protective fencing is in progress. Acceptance of the rehabilitation effort by the public has been excellent. Positive articles have appeared in newspapers and on television. Your attention to this matter is appreciated.

/s/ Charles C. Wildes
for
JAMES L. KIMBALL
Forest Supervisor

cc:
N.Larson:RO3A

Enclosure

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D. MAJOR STRUCTURES									
a. Preplanned -									
from Forest									
Plans									
E. Salary & Misc					58800				
E. TOTAL					598400	\$		\$	\$
\$									

PART VII - APPROVALS

/s/ Charles C. Wildes
for James L. Kimball

Forest Supervisor (Signature)

August 02, 1990
Date

/s/

Regional Forester (Signature)

Date