USDA-FOREST SERVICE FS-2500-8 (6/06)

**BURNED-AREA REPORT**
(Reference FSH 2509.13)

## PART I - TYPE OF REQUEST

A. Type of Report

[ ] 1. Funding request for estimated emergency stabilization funds
[ ] 2. Accomplishment Report
[X] 3. No Treatment Recommendation

B. Type of Action

[ ] 1. Initial Request (Best estimate of funds needed to complete eligible stabilization measures)

[ ] 2. Interim Report #____
[ ] Updating the initial funding request based on more accurate site data or design analysis
[ ] Status of accomplishments to date

[x] 3. Final Report (Following completion of work)

## PART II - BURNED-AREA DESCRIPTION

A. Fire Name: Nuevo

B. Fire Number: AZ-CNF-000050

C. State: Arizona

D. County: Santa Cruz

E. Region: Southwestern (3)

F. Forest: Coronado

G. District: Nogales

H. Fire Incident Job Code: P3D8RF

I. Date Fire Started: 6-23-2008

J. Date Fire Contained: 6-30-2008

K. Suppression Cost: $ 150,000

L. Fire Suppression Damages Repaired with Suppression Funds
1. Fireline waterbarred (miles): none
2. Fireline seeded (miles): none
3. Other (identify):

M. Watershed Number: Fifth Code Number 1505030105 (Josephine Canyon-Upper Santa Cruz River)

N. Total Acres Burned:
NFS Acres(1533) Other Federal ( ) State ( ) Private ( )

O. Vegetation Types: Grassland, Mesquite Brush, Woodland

P. Dominant Soils: General Ecosystem Survey 475 and 490. Lithic Ustochrept and Aridic Ustochrepts

Q. Geologic Types: Volcanic: Rhyolite

R. Miles of Stream Channels by Order or Class: 2.96 miles first order
2.3 miles second order

S. Transportation System

Trails: 0.0 miles Roads: 1.7 miles

## PART III - WATERSHED CONDITION

A. Burn Severity (acres): 1533 (low) 0 (moderate) 0 (high)

B. Water-Repellent Soil (acres): 0

C. Soil Erosion Hazard Rating (acres):
1533 (low) 0 (moderate) 0 (high)

D. Erosion Potential: 5 tons/acre

E. Sediment Potential: ____ cubic yards / square mile

## PART IV - HYDROLOGIC DESIGN FACTORS

A. Estimated Vegetative Recovery Period, (years): 3 to 5

B. Design Chance of Success, (percent): NA

C. Equivalent Design Recurrence Interval, (years): 25

D. Design Storm Duration, (hours): 1

E. Design Storm Magnitude, (inches): 2.2

F. Design Flow, (cubic feet / second/ square mile): ____

G. Estimated Reduction in Infiltration, (percent): ____

H. Adjusted Design Flow, (cfs per square mile): ____

## PART V - SUMMARY OF ANALYSIS

A. Describe Critical Values/Resources and Threats:

The Nuevo Fire burned within the southern portion of the Tumacacori Mountains in the south central area of Arizona. The fire was human caused. Only one major watershed was affected by the fire and that is Peck Canyon. This watershed is generally steep and rugged within the National Forest boundary and becomes gentler through the foothills. Ground cover varies from non-existent at rock outcrops to vegetated at higher elevations of the major drainages. Peck Canyon is typically intermittent or perennial interrupted flow within the National Forest boundary. The elevations of the fire ranged from 4000 to 5100 feet above mean sea level. The Nuevo fire burned primarily within the Corral Nuevo pasture of the Bear Valley Allotment. The east perimeter of the fire was along an allotment boundary with the Ramanote Allotment.

Burn severity was completed by a helicopter flight, visually looking at the fire from roads and trails, and field investigations (ground truthing). All the acres within the fire boundary did not burn or had low burn severity. Grasses in the understory had the canopy burned but the base of the grass plant remained. The grasses should survive and grow again as the summer monsoons start. The soils were not hydrophobic (non-wettable).

The most significant values at risk on the forest are range improvements. Due to the low burn severity and rocky nature of these watersheds, the increase in flood or erosion potential to any of the values at risk due to the fire is very low. Off forest values at risk are minimal. The forest boundary is approximately 6 miles downstream from the fire perimeter and the adjacent land use is rural ranchettes and cattle grazing. However, due to the loss of vegetative ground cover there will be an increased risk of flash flooding from the fire for the next few years. Increased damage due to the fire is expected to be low.

At this time prescriptions to minimize erosion or flooding following the Nuevo Fire are not proposed.

B. Emergency Treatment Objectives:
NOT APPLICABLE

C. Probability of Completing Treatment Prior to Damaging Storm or Event:

Land **n/a** % Channel **n/a** % Roads/Trails **n/a** % Protection/Safety **n/a** %

D. Probability of Treatment Success

| | Years after Treatment | | |
|---|---|---|---|
| | 1 | 3 | 5 |
| Land | n/a | n/a | n/a |
| | | | |
| Channel | n/a | n/a | n/a |
| | | | |
| Roads/Trails | n/a | n/a | n/a |
| | | | |
| Protection/Safety | n/a | n/a | n/a |
| | | | |

E. Cost of No-Action (Including Loss):

F. Cost of Selected Alternative (Including Loss):

G. Skills Represented on Burned-Area Survey Team:

| | | | |
|---|---|---|---|
| [x] Hydrology | [**x**] Soils | [x] Geology | [x] Range |
| [x] Forestry | [**x**] Wildlife | [ ] Fire Mgmt. | [x] Engineering |
| [ ] Contracting | [ ] Ecology | [ ] Botany | [x] Archaeology |
| [ ] Fisheries | [ ] Research | [ ] Landscape Arch | [x ] GIS |

Team Leader: Salek Shafiqullah

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Team Members:
Salek Shafiqullah, Hydrology/Soils/Geology/Engineering

Robert Lefevre, Forestry
Erin Boyle, Hydrology
Melinda Castillo, Wildlife
Kendall Brown, Range
Sean Lockwood, Range
Jim Coleman, Fire Prevention
Bill Gillespie, Archeology/Heritage
Scott Smith, Fire Management
Terry Austin, GIS
Chris Stetson, Fire/Fuels Planner

H. **Treatment Narrative:**

(Describe the emergency treatments, where and how they will be applied, and what they are intended to do. This information helps to determine qualifying treatments for the appropriate funding authorities. For seeding treatments, include species, application rates and species selection rationale.)

Land Treatments:
No land treatments are proposed. Most of the grasses that burned within the fire had the canopy removed but the base of the plants remained. The fire probably did not burn hot enough to kill the plants. The grasses should start to regrow as soon as the area receives moisture from the summer monsoons. The vegetative ground cover from the grasses should recover within 1-3 years. The mesquites within the fire should start to have sprouts and regrow within 1 year and they should start to provide a litter layer from leaf cast within 3 to 6 years. Seeding is not recommended.

Channel Treatments:
No channel treatments are proposed due to the steep rocky nature of the channel network, and the flashy hydrologic response of the watersheds.

Roads and Trail Treatments:
No road and trail treatments are proposed. Very few roads are within the fire perimeter and damage from fire effects are expected to not be any more than prefire conditions.

Structures:
No structures are proposed.

Protection/Safety Treatments:
No warning signs are proposed.

I. **Monitoring Narrative:**

(Describe the monitoring needs, what treatments will be monitored, how they will be monitored, and when monitoring will occur. A detailed monitoring plan must be submitted as a separate document to the Regional BAER coordinator.)

No formal BAER monitoring is proposed. However, monitoring in this area will continue to be done by the District as part of the Forest Plan and/or Range Allotment monitoring.

**Part VI – Emergency Stabilization Treatments and Source of Funds** **Interim #**

| | | | NFS Lands | | | | Other Lands | | | All |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Unit | # of | WFSU | Other | # of | Fed | # of | Non Fed | Total |
| Line Items | Units | Cost | Units | SULT $ | $ | units | $ | Units | $ | $ |
| | | | | | | | | | | |
| **A. Land Treatments** | | | | | | | | | | |
| | | | | $0 | | | $0 | | $0 | $0 |
| | | | | $0 | | | $0 | | | |
| | | | | $0 | | | $0 | | $0 | $0 |
| | | | | $0 | | | $0 | | $0 | $0 |
| *Subtotal Land Treatments* | | | | $0 | | | $0 | | $0 | $0 |
| **B. Channel Treatments** | | | | | | | | | | |
| | | | | $0 | | | $0 | | $0 | $0 |
| | | | | $0 | | | $0 | | $0 | $0 |
| | | | | $0 | | | $0 | | $0 | $0 |
| | | | | $0 | | | $0 | | $0 | $0 |
| *Subtotal Channel Treat.* | | | | $0 | | | $0 | | $0 | $0 |
| **C. Road and Trails** | | | | | | | | | | |
| | | | | $0 | | | $0 | | $0 | $0 |
| | | | | $0 | | | $0 | | $0 | $0 |
| | | | | $0 | | | $0 | | $0 | $0 |
| | | | | $0 | | | $0 | | $0 | $0 |
| *Subtotal Road & Trails* | | | | $0 | | | $0 | | $0 | $0 |
| **D. Structures** | | | | | | | | | | |
| | | | | $0 | | | $0 | | $0 | $0 |
| | | | | $0 | | | $0 | | $0 | $0 |
| | | | | $0 | | | $0 | | $0 | $0 |
| | | | | $0 | | | $0 | | $0 | $0 |
| *Subtotal Structures* | | | | $0 | | | $0 | | $0 | $0 |
| **E. BAER Evaluation** | | | | | | | | | | |
| **Team** | | | | $0 | $3,000 | | $0 | | $0 | $3,000 |
| | | | | $0 | | | $0 | | $0 | $0 |
| | | | | $0 | | | | | | $0 |
| | | | | $0 | | | | | | $0 |
| | | | | $0 | | | | | | $0 |
| **F. Monitoring** | | | | $0 | | | $0 | | $0 | $0 |
| | | | | | | | | | | |
| **G. Totals** | | | | **$0** | $3,000 | | **$0** | | **$0** | **$3,000** |
| | | | | | | | | | | |

## PART VII - APPROVALS

1. _____ _____
Forest Supervisor (signature) Date

2. _____ _____
Regional Forester (signature) Date