

Date of Report: 11/17/2020

BURNED-AREA REPORT

PART I - TYPE OF REQUEST**A. Type of Report**

- ☐ 1. Funding request for estimated emergency stabilization funds
- ☒ 2. No Treatment Recommendation

B. Type of Action

- ☐ 1. Initial Request (Best estimate of funds needed to complete eligible stabilization measures)
- ☐ 2. Interim Request # _____
- ☐ Updating the initial funding request based on more accurate site data or design analysis

PART II - BURNED-AREA DESCRIPTION**A. Fire Name:** Cow Canyon**B. Fire Number:** AZ-ASF-000819**C. State:** AZ. and NM.**D. County:** Greenlee and Catron**E. Region:** R3**F. Forest:** Apache-Sitgreaves and Gila NF's**G. District:** Alpine and Glenwood**H. Fire Incident Job Code:** P3NM3P0301**I. Date Fire Started:** August 18, 2020**J. Date Fire Contained:** TBD**K. Suppression Cost:** \$2,800,000**L. Fire Suppression Damages Repaired with Suppression Funds (estimates):** Click here to enter text.

1. **Fireline repaired (miles):** Click here to enter text.
2. **Other (identify):** Click here to enter text.

M. Watershed Numbers:

Table 1: Acres Burned by Watershed

HUC #	Watershed Name	Total Acres	Acres Burned	% of Watershed Burned
150400040506	Steeple Creek	37,760	6,471	17
150400040509	Raspberry Creek	34,201	2,484	7.3
150400040601	Upper Pueblo Creek	21,554	196	0.9
150400040602	Lower Pueblo Creek	29,508	3,129	10.6
150400040603	Keller Creek	24,804	152	0.6
150400040606	Wendy Flat-San Francisco	22,813	9	0.04
150400040703	Dutch Blue Creek	12,399	166	0.4
150400040704	Little Blue Creek	25,067	4,810	19
150400040705	Oak Creek-Blue River	22,291	4	0.2

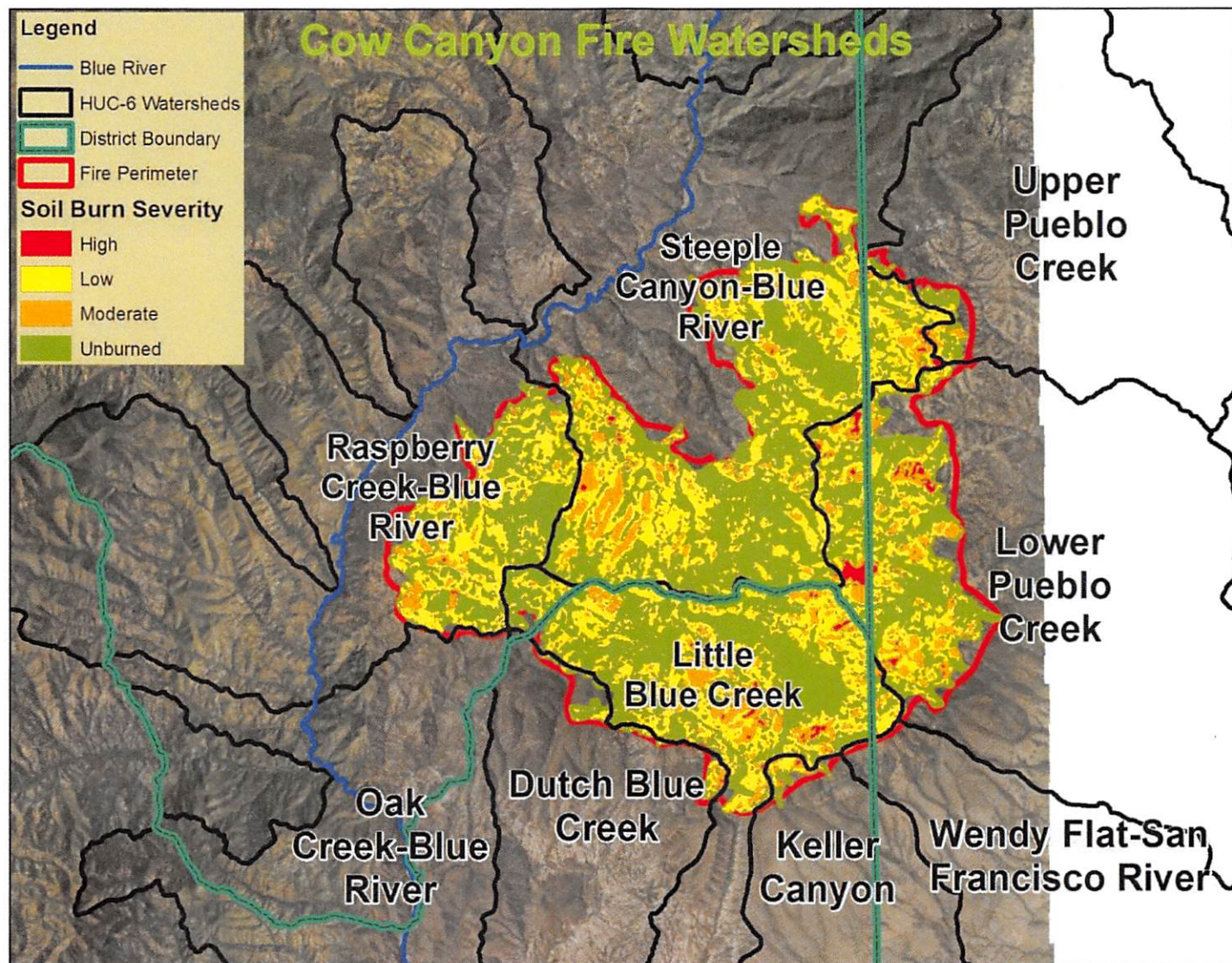


Figure 1. Map of HUC-6 watersheds within the fire perimeter

N. Total Acres Burned:

Table 2: Total Acres Burned by Ownership

OWNERSHIP	ACRES
NFS	34,385
OTHER FEDERAL (LIST AGENCY AND ACRES)	0
STATE	0
PRIVATE	0
TOTAL	34,385

O. Vegetation Types:

- Dry Mixed Conifer Forest = 8,076 acres (23.5%)
- Ponderosa Pine Forest = 11,866 acres (35%)
- Ponderosa Pine / PJ / Evergreen Oak Transition Woodland = 8,418 acres (24%)
- Madrean Pinyon-Oak Woodland = 1,717 acres (5%)
- Interior Chaparral = 4,116 acres (12%)
- Narrowleaf Cottonwood – Willow Riparian Forest = 202 acres (0.5%)

P. Dominant Soils:

The majority of soils across the burned area are loamy or clayey, shallow to moderately deep to bedrock (<100 cm), have between 15 to 60 percent rock cover at the soil surface and 35 to 60 percent rock throughout the soil profile, occur on steep to very steep slopes, and are generally susceptible to moderately high to high run-off and erosion. The table below displays the dominant soil subgroup classifications, select soil properties, acres, and percent extent within the burned area on NFS lands.

Soil Subgroup Classification	Select Soil Properties	Acres on NFS Lands*	% Extent of Map Unit within Burned Area on NFS Lands
Lithic Argiustolls	Loamy or Clayey, Shallow, Rocky, Erosive	7,519	22
Lithic Haplustalfs	Loamy or Clayey, Shallow, Rocky, Erosive	3,433	10
Lithic Ustorthents	Loamy, Rocky, Shallow, Erosive	3,606	10
Typic Glossudalfs	Loamy or Clayey, Rocky, Moderately Deep, Moderately Erosive	5,017	15
Udic Haplustalfs	Clayey, Rocky, Moderately Deep, Moderately Erosive	9,265	27
Totals		28,840	84

*Acres are estimates based on the size of the fire at the time of analysis. Acreage estimates may vary slightly due to rounding error and method of geospatial analysis.

Q. Geologic Types:

Volcanic formations dominate the burned area. The most well-represented types are basalt, rhyolite, and cinders. Sedimentary formations are the next most extensive and consist of conglomerate, sandstone, and limestone types. Mixed alluvium is minor in extent and is present within the dominant channel bottoms across the burned area.

R. Miles of Stream Channels by Order or Class:

Table 3: Miles of Stream Channels by Order or Class

STREAM TYPE	MILES OF STREAM
PERRENIAL	23
INTERMITTENT	67
EPHEMERAL	117
OTHER	N/A
(DEFINE)	

S. Transportation System:

Trails: National Forest (miles): 64.8

Other (miles): 0

Roads: National Forest (miles): <1

Other (miles): 0

PART III - WATERSHED CONDITION**A. Burn Severity (acres):***Table 4: Burn Severity Acres by Ownership*

Soil Burn Severity	NFS	Other Federal (List Agency)	State	Private	Total	% within the Fire Perimeter
Unburned	16,964	0	0	0	16,964	100
Low	13,977	0	0	0	13,977	100
Moderate	3,114	0	0	0	3,114	100
High	329	0	0	0	329	100
Total	34,385	0	0	0	34,385	100

B. Water-Repellent Soil (acres): ~1,886 acres (5%)**C. Soil Erosion Hazard Rating:**

Slight: 7,713 acres (22%); Moderate: 4,174 (12%); Severe: 22,508 acres (66%)

D. Erosion Potential:

Terrestrial ecological units (TEUs) on NFS lands across the Cow Canyon Fire with the following were identified: A) inherent susceptibility to high soil erosion given their properties (run-off potential, erosion hazard, etc.), B) large predicted increases in soil loss from pre-fire conditions, and C) occupy a considerable extent of the burned area (>5% extent of the Apache-Sitgreaves (A-S) NF and >1% on the Gila NF). The TEU that has the greatest concern for high erosion potential post-fire on the A-S NF is unit 732 which makes up approximately 9 percent of the burned area, has a high run-off potential, a severe erosion hazard rating, and exhibited an increase in soil loss per modeling from 1.8 tons per acre pre-fire to 123.8 tons per acre post-fire for the 1st year. On the Gila NF, the TEU with the greatest concern for high soil erosion potential post-fire is unit 698 which makes up about 2 percent of the burned area, has a high run-off potential, a severe erosion hazard rating, and showed an increase in soil loss per modeling from 21.7 tons per acre pre-fire to 92.1 tons per acre post-fire for the 1st year. For some context, 150 tons per acre soil loss is roughly equivalent to losing a one-inch layer of soil over an acre. Overall, high soil erosion potential map units, as defined above, that experienced low, moderate, and high burn severity make up approximately 20 percent of the burned area on NFS lands. More information and the general location of these units can be referenced in the table and figure below:

TEU Symbol	National Forest	Slope Range	TEU Vegetation Type	Run-off Potential	Erosion Hazard	Pre-fire Soil Loss (t/ac)	Post-fire Soil Loss (1 st year - t/ac)	Low SBS Acres*	Moderate SBS Acres*	High SBS Acres*
117	Gila	15-80%	Ponderosa Pine Forest	Moderately High	Severe	0.1	64.3	142	6	0.5
131	A-S	15-120%	Ponderosa Pine / PJ / Evergreen Oak Woodland	High	Severe	0.1	76.0	1,247	193	17
189	A-S	40-120%	Dry Mixed Conifer Forest	Moderately High	Severe	0.0	68.9	1,537	219	14
591	Gila	15-80%	Interior Chaparral	High	Severe	18.7	89.7	173	63	1
629	Gila	40-80%	Madrean Pine-Oak Woodland	High	Severe	0.1	69.7	103	49	1
657	Gila	40-80%	Dry Mixed Conifer Forest	High	Severe	0.1	36.3	169	26	N/A
687	Gila	15-40%	Ponderosa Pine / PJ / Evergreen Oak Woodland	High	Severe	0.1	51.3	416	132	24

TEU Symbol	National Forest	Slope Range	TEU Vegetation Type	Run-off Potential	Erosion Hazard	Pre-fire Soil Loss (t/ac)	Post-fire Soil Loss (1 st year - t/ac)	Low SBS Acres*	Moderate SBS Acres*	High SBS Acres*
698	Gila	40-80%	Interior Chaparral	High	Severe	21.7	92.1	215	167	14
732	A-S	40-80%	Interior Chaparral	High	Severe	1.8	123.8	1,263	454	9
Totals								5,265 (15%)	1,309 (4%)	81 (<0.5%)

*Acres are estimates based on the size of the fire at the time of analysis. Acreage estimates may vary slightly due to rounding error and method of geospatial analysis.

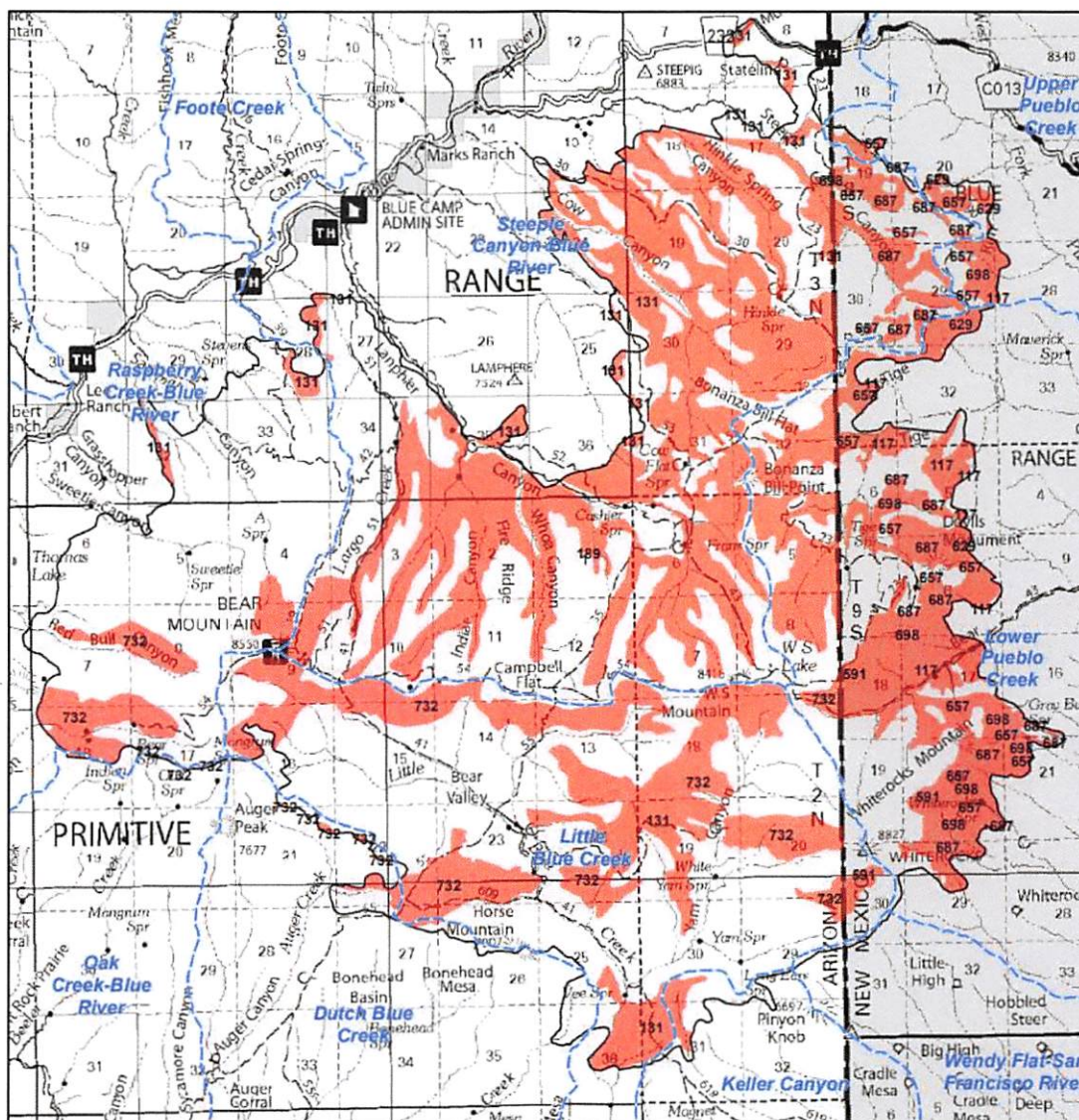


Figure 2. Map of high soil erosion potential TEUs highlighted in red with 6th code watersheds.

The above figure 1. Is a general proximity map of high soil erosion potential TEUs highlighted in red with 6th code watersheds across the Cow Canyon Fire. Total extent of these units, regardless of whether they were burned or unburned, is approximately 41 percent within the fire perimeter.

E. Sediment Delivery Potential:

The Erosion Risk Mitigation Tool (ERMIT) was used to model soil loss (sediment delivery) for pre- and post-fire conditions by TEU across the Cow Canyon Fire. Modeling was completed for both the A-S and Gila NFs.

The ERMiT model “predicts the probability of a given depth of runoff and sediment yield from a single rainfall or snowmelt event on unburned, burned, and recovering forest, range, and chaparral hillslopes” (Robichaud et al., 2005). The sediment delivery rates reported below are for the 1st year post-fire and have a 10% probability that sediment yield will be exceeded.

The predicted unburned, pre-fire sediment delivery rate averaged across the fire on NFS lands is approximately 1.5 tons per acre, with a 10% probability of exceedance.

The predicted post-fire sediment delivery rate averaged across the fire on NFS lands is approximately 24.7 tons per acre for the 1st year, with a 10% probability of exceedance.

Robichaud, P. R., Elliot, W. J., Hall, D. E., Pierson Jr., F. B., & Moffet, C. A. 2005. *Erosion risk management tool (ERMiT)*. Retrieved from <http://forest.moscowfs.wsu.edu/cgi-bin/fswpepp/ermit/ermit.p>

F. Estimated Vegetative Recovery Period (years): 2-5 years

G. Estimated Hydrologic Response (brief description): Hydrologic response was estimated for 5 tributary drainages that feed into the Blue River near the populated area of Blue, Arizona. These were Steeple Canyon, Cow Canyon, Lanphier Canyon, Largo Canyon, and Bear Canyon. Changes in runoff between pre-fire and post-fire conditions was estimated using the Wildcat5 model. An typical 2-year (1.0 in/hr) and a 5-year (1.3 in/hr) precipitation event for this area were both modeled. Precipitation frequency data was taken from the NOAA Atlas 14 dataset and retrieved on November 18, 2020. Curve Numbers used to calculate runoff partitions was taken from the 2017 USDA Engineering Handbook, and Wildcat5 model suggestions. Time to concentration of peak runoff was estimated with Kirpich’s equation. Results are shown in the following table.

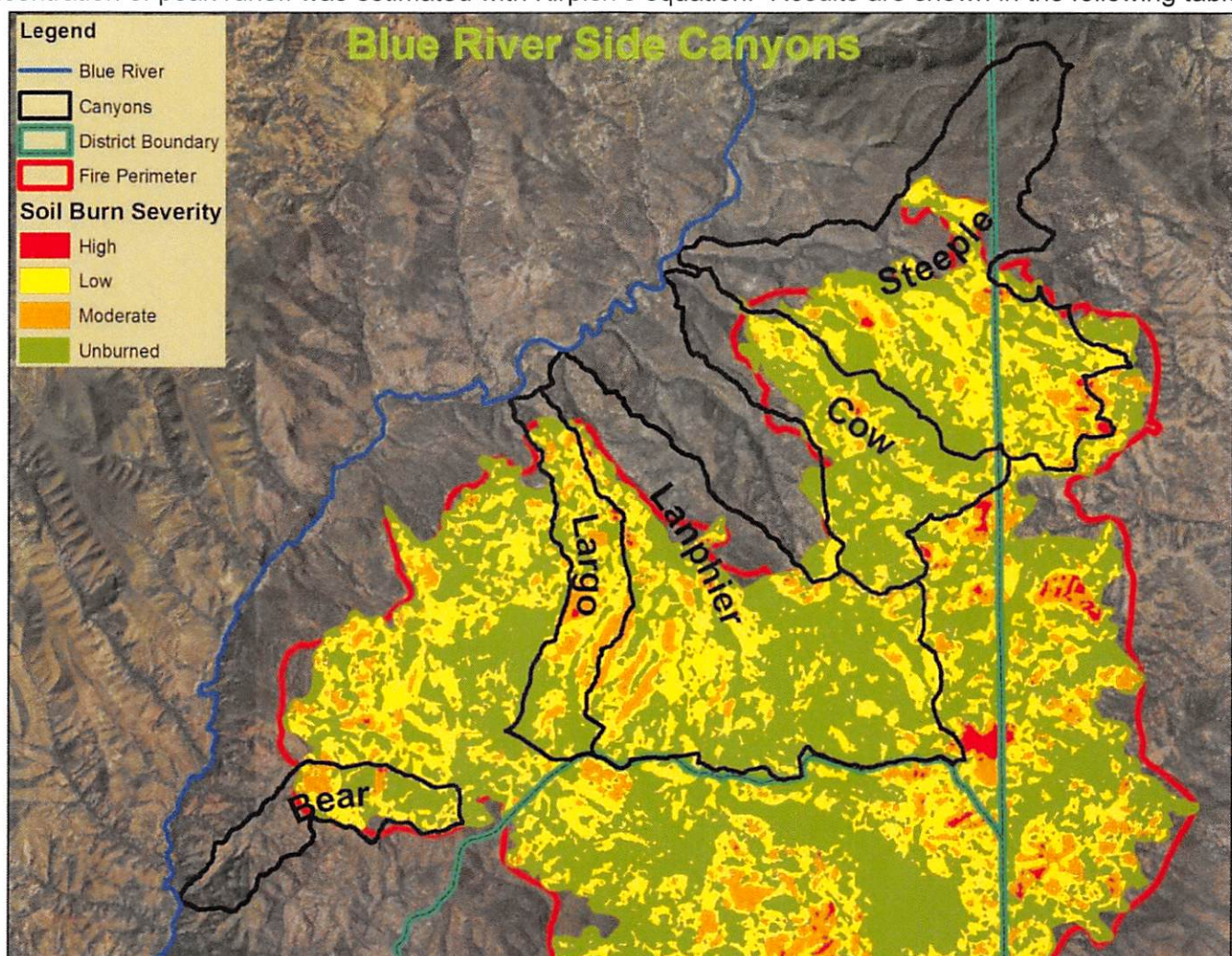


Figure 3. Map of Blue River tributaries modeled for changes in stream discharges

Tributary	Area (acres)	Area with High & Moderate SBS	2-yr Pre-fire flows (cfs)	2-yr Post-fire flows (cfs) +increase	5-yr Pre-fire flows (cfs)	5-yr Post-fire flows (cfs) +increase	Flood Potential
Steeple Canyon	6,128	289 (5%)	97	213 (+120%)	401	621 (+55%)	Low
Cow Canyon	2,994	77 (3%)	42	103 (+145%)	204	325 (+59%)	Low
Lanphier Canyon	6,744	377 (5%)	72	273 (+279%)	354	745 (+110%)	Low
Largo Canyon	1,711	303 (18%)	6	83 (+1283%)	72	238 (+231%)	Moderate
Bear Canyon	1,344	85 (6%)	50	80 (+60%)	170	223 (+31%)	Low

Estimated flood potential was **Low** for 4 out of the 5 Blue River tributaries analyzed. Largo Canyon, with 18% of its area with High and Moderate Soil Burn Severity Conditions, was the only tributary with **Moderate** flood potential, showing an order of magnitude increase under a 2-year return interval event. However, the drainage area for Largo Canyon is small, and predicted streamflows are small relative to other tributaries in the area.

High intensity precipitation events driven by convective storms are typical during the summer monsoonal season. It is highly unlikely that such an event will occur between the time of this report and the advent of winter snowpack. Assuming an average snowpack, runoff will resume with snowmelt during the spring, and herbaceous vegetative regrowth is expected to occur during the growing season. Due to the predominant low soil burn severity conditions caused by the wildfire in these drainages, it is expected that forest cover will increase rapidly, given average soil moisture conditions. Thus, some of the reported flood potential will already be mitigated by the time summer monsoonal activity occurs in 2021.

Field analysis of floodplains to the Blue River and the tributaries listed above found them to be generally in excellent condition. Stream channels are well connected to their floodplains. Streambanks and floodplains are capable of withstanding high energy flows due to robust populations of woody riparian vegetation such as willows, alders, and cottonwoods. Large boulders are also common along banks and floodplains, which will also help stabilize streambanks and dissipate energy. Some private properties with structures are located adjacent to the floodplains of the Blue River and its tributaries—most notably Steeple Canyon, Cow Canyon and Lanphier Canyon. However, flood potential on those tributaries is Low. From field and aerial imagery analysis, it appears that Largo Canyon, has no structures existing adjacent to the floodplain.

PART V - SUMMARY OF ANALYSIS

Introduction/Background

The Cow Canyon Fire was ignited by lightning on August 18, 2020 on the Alpine Ranger District on the Apache-Sitgreaves National Forests. It burned mostly in steep, rugged terrain with limited access, and is located in a remote location within the Blue Range Primitive Area near the Arizona and New Mexico state border. The lightly populated rural community of the Blue is the only private area near and downstream of the fire. At the time of this reporting, the fire was not yet officially 100% contained.

A. Describe Critical Values/Resources and Threats (narrative):*Table 5: Critical Value Matrix*

Probability of Damage or Loss	Magnitude of Consequences		
	Major	Moderate	Minor
	RISK		
Very Likely	Very High	Very High	Low
Likely	Very High	High	Low
Possible	High	Intermediate	Low
Unlikely	Intermediate	Low	Very Low

1. Human Life and Safety (HLS):

a. Intermediate

2. Property (P): Low**3. Natural Resources (NR):****Aquatic Resources**

For aquatics VARs, the main two potential concerns were 1) Lanphier creek, which is a Gila trout recovery stream (no Gila trout are currently in the stream, however habitat is currently protected in preparation for stocking at a later date) and 2) potential for fine sediment and ash flows downstream into the Blue river, which can lead to fish kills if the intensity / duration are high enough. Loach minnow and Spikedace Critical Habitat exists downstream in the Blue River, as well as proposed Critical Habitat for the Narrowheaded gartersnake.

High intensity burn areas constituted only 1% of the entire fire footprint, and Moderate intensity areas were 9% of the total, and 41% was Low intensity. The remaining 49% was unburned. This area is expected to exhibit sediment transport rates roughly equivalent to pre-fire conditions.

From observations on foot 11/12/2020, Lanphier creek is well protected by its steep topography, and the closest moderate burn area was still far enough away that it is unlikely that sediment or ash will make its way into the stream in any meaningful amount. The surrounding forest type is low and brushy juniper / chaparral, which does not produce enough ground fuel loading to generate an amount of ash great enough to cause concern. Field soil hydrophobicity testing was conducted within moderately burned areas on the Bonanza Bill trail, which showed that the soil had not reached a high enough temperature to undergo this change. Partial ground cover of rock, along with remaining canopy will provide some soil protection from precipitation, and since the soil is still absorbent, which should attenuate runoff effects somewhat. Based on the 1% of high intensity burn over the entire fire footprint, the distance of those areas from the Blue river, and the local adaptation of our native aquatic species to periodic pulses of fine sediment and ash, concern that this fire will have a measurable impact on aquatic ecosystems beyond the background levels present currently is low. Threats to ESA listed species (Narrowheaded gartersnakes, Loach minnow and Spikedace) downstream in Blue river are expected to be negligible. eDNA testing for Loach minnow and Spikedace showed negative detections for both species in Lanphier creek in April of 2020.

Under current definitions set forth by the US Fish and Wildlife Service, Narrowheaded gartersnakes are currently considered present along the entire Blue River, and Critical Habitat has also been proposed for this same area. Loach minnow are also present and have Critical Habitat in the Blue river. Spikedace Critical Habitat is also present in Blue River. Since the threat to native soft-rayed fishes is expected minimal, and since these native fishes constitute the majority of the diet of Narrowheaded gartersnakes, the potential effects to these snakes is also considered to be minimal.

The wildlife biologist Sandra Taylor on the Gila National Forest reports that there are no VARs on the New Mexico side of the fire.

Water drafting out of Luna lake was proposed, as well as the possibility of using water from Blue river. Neither of these options were used, partially due to the concern of invasive Northern crayfish being moved from Luna lake (San Francisco river), and flow rates in Blue river being insufficient to support the fire operation. A well and a stock tank on private land were utilized, and helicopters siphoned from "pumpkins" instead of using the water sources directly. AIS guidelines were forwarded to the Fire crew, and were observed during operations. Springs and spring box structures can be evaluated for repairs if needed, but this will have to be performed on the ground in person.

Seeding the moderate and intense burn areas was discussed, but since the area is considered capable of reseeding itself, the option was dismissed. Pre fire soil and vegetation conditions are expected to return within 1-5 years.

The overall likelihood of impact from the Cow Canyon fire on aquatic resources in the area is **Unlikely**, and the magnitude of effect is expected to be **Minor**. The BAER team does not recommend treatment in this instance, as soil stability is expected to return fairly quickly.

Soil Productivity

It was determined that there is a likely probability of some damage or loss to soil productivity in moderate and high soil burn severity locations, but the magnitude of consequence is deemed minor due to the small, isolated extents of combined moderate and high soil burn severity across the fire as a whole (approximately 10 percent). Ultimately, the risk rating is **Low**. Therefore, no treatments are being recommended to specifically address soil productivity as a critical value.

Typically, treatments such as mulching for BAER emergency hillslope stabilization are done primarily to provide point protection against unacceptable risk to human life, safety, and property where post-fire hazard warning signage or area closure are not deemed enough mitigation action against the risk. It was determined by the BAER team that no emergency hillslope mulching stabilization treatments would be necessary and any unacceptable risk to human life, safety, and property could be adequately addressed through treatments like post-fire hazard warning signage and, possibly, area closures.

This leaves seeding as a potential treatment consideration to mitigate against soil loss that could potentially impact soil productivity and hydrologic function. Typically, seeding as an erosion control treatment completed after the primary growing season during monsoons doesn't yield the most successful results. This coupled with the fact that the majority of the soils within the burned area are on steep slopes, shallow or moderately deep to bedrock, and very rocky at and within the soil surface, it is hard to justify the cost, time, and resource investment it would take to implement a treatment with a relatively low probability of success.

Overall, detrimental impacts to soil productivity as a by-product of soil loss within a few small portions of high and moderate burn severity are expected, but these impacts will be localized and recoverable with time. Vegetative ground cover amount and distribution should recover relatively well within 2 to 5 years across a large portion of the landscape impacted by the Cow Canyon Fire.

Rangelands, Range Improvements, & Noxious Weeds

There is a total of 8 grazing allotments within the perimeter of the Cow Canyon fire. Of those 8 grazing allotments, 4 of them are on the Alpine RD (Bobcat-Johnson, Cow Flat, Fishhook/Steeple Mesa, Raspberry), 3 of them are on the Glenwood RD (Alma, Pueblo Creek, White Rocks), and 1 is on the Clifton RD (Alma Mesa). Studies conducted following the 2011 Wallow Fire showed that the ground cover, species composition, and forage production in full capacity rangeland, which burned at mostly low severity, were similar to pre-fire conditions. Ice et al. (2004) describes low soil burn severity as follows: Low soil heating or light ground char occurs; mineral soil is not changed; leaf litter may be charred or partially consumed, and the surface of the duff may be lightly charred; original forms of surface materials, such as needle litter or lichens may be visible; very little to no change in runoff response. Table 1 shows that 90 % of the Cow Canyon fire area was either

unburned (49%) or burned at a low severity (41%). Because a high percentage of the rangelands were unburned/low burn severity, the rangeland resources on the affected grazing allotments are expected to make a full recovery and no emergency treatments are proposed to protect these resources. Monitoring of the rangeland resources will be accomplished through the administration of the Forest Service's grazing and livestock use permit system and decisions as when to graze these allotments should be made on a pasture by pasture basis.

Aside from fencing, most range improvements (corrals and water developments) were in the unburned/low burn severity and likely remained minimally damaged if damaged at all. The primary concern is the allotment boundary and allotment interior fencing. Range developments and infrastructure within the fire perimeter were analyzed using field site-visits and map data analysis utilizing fire perimeter maps, range allotment maps, BARC maps, and GIS. Our experience from previous fires has shown that all fencelines within the high & moderate burn severity will need to be replaced. We also estimate that an additional 25% of the low/unburned/underburned severity will also need to be replaced depending on the type of fence, i.e. wood posts, because often they are very old fences that will not withstand stretching again without breaking constantly. Within the Cow Canyon fire many of the fences are old and fit this description. The 25% also helps to avoid piecemealing together old fencelines back together that won't effectively tie into new fences for the same reason, that they don't stretch any longer without breaking. Based on this strategy it is estimated that there is a need to reconstruct approximately 11.5 miles of fenceline that were likely damaged beyond long term effective repair. Utilizing the current 2018 Fence Construction IDIQ, reconstructing 11.5 mile of fence in this primitive and remote country would cost approximately \$460,000. This would include right of way clearing, roll up and removal of the old fence, & construction of a new fence in a primitive area utilizing primitive tools. This could be done for nearly ½ that cost estimate if materials could be flown in and placed strategically and if an MRDG was prepared allowing the use of mechanized equipment to complete the reconstruction project.

Currently there is over 50 species of invasive plants found on at least 30,000 acres on the Apache-Sitgreaves National Forest. However, there are no known class A or B noxious weed infestations within or close to the perimeter of the Cow Canyon fire that may require aggressive treatment for control. Additionally, due to the fact that only 1% of the area burned at high burn severity, it is unlikely that any seeding or mulching treatments will occur. Therefore, there are no recommended emergency treatments for noxious weeds.

Wildlife Resources

No BAER treatments requested for this resource due to predominately low-moderate fire intensities. Refer to wildlife resource report.

Recreation and Trails

Trails within the burn area of the Cow Canyon Fire would be exposed to erosion, flash flooding and hazard trees near areas of moderate to high severity burn. These trails are maintained with natural landscaping. No manmade infrastructure is within the burn area. Trailheads will be posted with signs to caution trail users of the protentional hazards of utilizing these trails. Trails identified needing signs are Bonanza Bill Trail #23, Lanphier/S. Canyon Trailhead #53 and #52, as well as Old Sawmill Trailhead #115. Other trailheads already having Caution signs at their location is Sawmill Trailhead #39. Signs to Caution trail users for the trailheads are available on forest. No necessary funding is needed for this corrective action.

4. **Cultural and Heritage Resources:** Risk and cosequences for damage/loss of cultural resources were determined to be Low, (see Cultural Report)

B. Emergency Treatment Objectives: Watch-out signs have been placed a trailheads to caution public. No BAER funding is requested for treatments.

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

Land N/A

Channel N/A

Roads/Trails Completed. Watch-out signs posted at trailheads.
posted at trailheads.

Protection/Safety Watch-out signs

D. Probability of Treatment Success: N/A*Table 6: Probability of Treatment Success*

	1 year after treatment	3 years after treatment	5 years after treatment
Land			
Channel			
Roads/Trails			
Protection/Safety			

E. Cost of No-Action (Including Loss): N/A**F. Cost of Selected Alternative (Including Loss):** Click here to enter text.**Skills Represented on Burned-Area Survey Team:**

- ☒ Soils ☒ Hydrology ☒ Engineering ☒ GIS ☒ Archaeology
☒ Weeds ☒ Recreation ☒ Fisheries ☒ Wildlife
☒ Other:Range

Team Leader: John Rihs**Email:** john.rihs@usda.gov**Phone(s):**(928) 551-1550**Forest BAER Coordinator:** Paul Brown**Email:** paul.a.brown@usda.gov**Phone(s):**(928) 333-6308**Team Members:***Table 7: BAER Team Members by Skill*

Skill	Team Member Name
Team Lead(s)	John Rihs
Soils	Eric Robertson
Hydrology	Dan Bone
Engineering	Chris Miller
GIS	MaryEllen Komnath
Archaeology	Mathew Taliofero
Weeds	Ron Mortensen (and Range)
Recreation	Shannon Miller
Other	Ben Cram (Aquatics)

H. Treatment Narrative: Land Treatments: Completed, watch-out signs posted at trailheads. No further treatments requested.

Channel Treatments: N/A Roads and Trail Treatments: Completed. Watch-out signs posted at trailheads. Protection/Safety Treatments: Completed. Watch-out signs posted at trailheads.

Monitoring Narrative:

N/A

PART VI – EMERGENCY STABILIZATION TREATMENTS AND SOURCE OF FUNDS

Line Items	Units	Unit Cost	# of Units	BAER \$	Other \$	# of units	Fed \$	# of Units	Non Fed \$	Total \$
A. Land Treatments										
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Land Treatments				\$0	\$0		\$0		\$0	\$0
B. Channel Treatments										
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Channel Treatments				\$0	\$0		\$0		\$0	\$0
C. Road and Trails										
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Road and Trails				\$0	\$0		\$0		\$0	\$0
D. Protection/Safety										
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Protection/Safety				\$0	\$0		\$0		\$0	\$0
E. BAER Evaluation										
Initial Assessment	Report	\$5,450		\$5,450	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				---	\$0		\$0		\$0	\$0
Subtotal Evaluation				\$5,450	\$0		\$0		\$0	\$0
F. Monitoring										
				\$0	\$0		\$0		\$0	\$0
				\$0	\$0		\$0		\$0	\$0
<i>Insert new items above this line!</i>				\$0	\$0		\$0		\$0	\$0
Subtotal Monitoring				\$0	\$0		\$0		\$0	\$0
G. Totals				\$5,450	\$0		\$0		\$0	\$0
Previously approved										
Total for this request				\$5,450						

PART VII - APPROVALS

1. Anthony Madril
Forest Supervisor

12/16/20
Date