2014 ÁSAAYÍ LAKE

BURNED AREA
EMERGENCY RESPONSE PLAN

NAVAJO NATION

BUREAU OF INDIAN AFFAIRS

Bowl Canyon Looking Southwest

WINDOW ROCK, ARIZONA
JUNE 2014
INTERAGENCY BAER TEAM

BURNED AREA EMERGENCY RESPONSE PLAN

2014 ÁSAAYÍ LAKE FIRE

AGENCY/UNIT: **Bureau of Indian Affairs**
Navajo Nation

LOCATION: **Window Rock, Arizona**

DATE: **July 02, 2014**

PREPARED BY: **Burned Area Emergency**
Response Team (C.Holbeck)

Bowl Canyon. Viewing South from West Rim

Submitted By: _____

Chris Holbeck, BAER Team Leader, NPS – Omaha,NE

BURNED AREA EMERGENCY RESPONSE PLAN

2014 ÁSAAYÍ LAKE

REVIEW AND APPROVAL -- BUREAU OF INDIAN AFFAIRS

I. EMERGENCY STABLIZATION PLAN CONCURRANCE

☐ **Concur**

☐ **Concur with Revision**

☐ **Disapproved**

Explanation for Revision or Disapproval:

Sharon Pinto, Regional Director, Navajo Region, BIA **Date**

II. EMERGENCY STABILIZATION PLAN CONCURRANCE

☐ **Concur**

☐ **Concur with Revision**

☐ **Disapproved**

Explanation for Revision or Disapproval:

Lyle Carlile, Director, Branch of Wildland Fire Management, BIA **Date**

BURNED AREA EMERGENCY STABILIZATION PLAN
EXECUTIVE SUMMARY

Asaayi Lake BAER
June 2014

Introduction

This Emergency Stabilization Plan addresses effects resulting from the Asaayi Lake Fire that burned on lands managed by the Navajo Nation and the Bureau of Indian Affairs. This plan has been prepared in accordance with the *U.S. Department of the Interior, Departmental Manual, Part 620, Chapter 3 (Wildland Fire Management),* and *Interagency Burned Area Emergency Response (BAER) Guidebook (February, 2006).*

The BAER Team assessed Values At Risk (VAR) identified through scoping with Tribal and Agency resource managers including:

- Human Life and Safety: to prescribe post-fire mitigation measures necessary to protect human life and property.
- Critical Heritage Resources: To stabilize and prevent damage to known critical heritage resources.
- Invasive Plants: To deter the establishment and spread of noxious and invasive species.
- Forest Resources: to assess the potential for salvage in high mortality areas.

A wide array of treatment options were considered to attain the above objectives and 5 treatment specifications were considered feasible. These assessments and prescribed treatments apply to lands under the jurisdiction of the Bureau of Indian Affairs (Navajo Region) and the Navajo Nation.

Background

The Asaayi Lake Fire started on June 13, 2014 and consumed a total of 14,712 acres of Tribal land in the Chuska Mountains. The BAER Team assembled in Window Rock AZ to begin assessing the incident on June 20, 2014. An in-briefing was held with staff from the Navajo Nation and Bureau of Indian Affairs. BAER team members met with Tribal and BIA staff throughout the incident to scope and discuss issues of concern. In the days following June 20 BAER staff conducted field visits to assess the effects of the fire on human life and safety, infrastructure and critical natural and cultural resources.

Emergency Stabilization Issues

The BAER Team scoped issues and identified Values At Risk (VAR) involving potential threats to human life and safety, infrastructure and critical natural and cultural resources. The Team worked with Tribal and Regional personnel who provided valuable information concerning post-fire conditions and issues to be addressed. Broadly defined, these issues include the potential for unacceptable impacts to:

- Archeological Resources,
- Historic resources
- Flooding
- A youth camp near Asaayi Lake
- A Recreation area at Asaayi Lake
- Wattershed protection projects at Asaayi Lake
- Habitation structures
- Sheep camps
- The community of Navajo

- Administrative roads
- Culverts and other water infrastructure
- Hiking trails
- A spring box above the youth camp
- Red Hill Spring
- The community of Green Meadow
- An irrigation system at Asaayi Lake
- A Well system near Naschitii
- A twin culvert crossing above Asaayi Lake on rd#321
- Feral horses
- Naschitti wash crossing at Hwy#491
- Safety associated with hazard trees and flooding
- Threatened and endangered species
- Roads that plumb water away from the playa lakes
- Invasive exotic plants
- Forest resource salvage
- Forest pathogens and insects

A close-out briefing with the Navajo Regional Director was conducted on July 3rd, 2014. Findings and recommendations identified and developed by the Team were presented.

The BAER Team consisted of individuals representing the following disciplines: Hydrology, Geology, Soil Science, Cultural Resources, Documentation and Geographic Information Systems. The Asaayi Lake BAER Team mapped soil burn severity, modeled peak stream flow and sediment delivery, and modeled the risk of debris flows within the watersheds impacted by the fire. Hydrologic model results addressed potential threats to the above VARs, threatened by the after effects of the fire. Assessments of the VARs were conducted and documented in each resource assessment, in some cases a specification for treatment was drafted to treat certain values at risk if the assessment suggested treatment is necessary.

Management Direction
The Asaayi Lake Fire burned on the Navajo Nation in the Chuska Mountains.

Management direction and policy relevant to Emergency Stabilization treatments proposed in this plan can be found in:

- *Navajo Nation 10 Year Forest Management Plan* and associated Environmental *Assessment.*
- *Wildland Fire Management Plan for the Navajo Nation and National Park Service Units within Navajo Nation.*
- *Indian Affairs National Environmental Policy Act (NEPA) Guidebook, August 2012*
- *U.S. Department of the Interior Department Manual, Part 620: Wildland Fire Management, Chapter 3: Burned Area Emergency Stabilization and Rehabilitation, September 2003.*
- U.S. Department of the Interior's *Interagency Burned Area Emergency Response Guidebook 2006.*

BURNED AREA EMERGENCY RESPONSE PLAN

2014 ASAAYI LAKE

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BURNED AREA EMERGENCY RESPONSE PLAN

2014 ÁSAAYÍ LAKE

PART A FIRE LOCATION AND BACKGROUND INFORMATION

Fire Name	**ÁSAAYÍ LAKE**	**Date Controlled**	UNKNOWN
Fire Number	AZ-NAA-000049	**Jurisdiction**	**Acres**
Agency Unit	Fort Defiance	**BIA - TRUST**	**14,712**
Region	Navajo		
State	NM		
County	Mckinley, San Juan		
Ignition Date/Manner	06/13/2014 / Human		
Zone	Northern Arizona		
Date Contained	July 04, 2014	**TOTAL ACRES (ON RESERVATION)**	**14,712**

PART B NATURE OF PLAN

I. Type of Plan (check one box below)

√	**Short-term Emergency Stabilization Plan**
	Long-term Rehabilitation
	Both Long and Short-term Rehabilitation

II. Type of Action (Check One box below)

√	**Initial Submission**
	Updating Or Revising The Initial Submission
	Supplying Information For Accomplishment To Date On Work Underway
	Different Phase Of Project Plan
	Final Report (To Comply With The Closure Of The EFR Account)

EMERGENCY STABILIZATION OBJECTIVES

- **Determine need for and to prescribe and implement emergency treatments**
- **Minimize Threats to Human Life, Safety, and Property**
- **Identify Threats to Critical Cultural & Natural Resources**
- **Promptly Stabilize and Prevent Unacceptable Degradation to Resources**

PART C - TEAM ORGANIZATION

BAER TEAM MEMBERS

POSITION	TEAM MEMBER / AFFILIATION
Team Leader	Chris Holbeck, NPS
Team Liaison, NIFC	Darryl Martinez, BIA
Forestry/Vegetation	Fred vonBonin, BIA
Soil Scientist	Jennifer Hickman-Hill, USFS
Hydrologist	Shauna Jensen, BLM-USFS Rebecca Biglow, CO-PBC
Cultural Resources	Dan Hall, BIA
GISS	Luther Arizana, BIA Anthony Thompson, Jr., BIA
Automated Geospatial Watershed Assessment	Scott Sheppard, AZ-PHC
Documentation	Wayne Waquiu, BIA
Environmental Compliance	Harrilene Yazzie, BIA

Resource Advisors: (Note: Resource Advisors are individuals who assisted the BAER Team with the preparation of this plan. See the consultations Section of this plan for a full list of agencies and individuals who were consulted or otherwise contributed to the development of this plan.

Name	Affiliation	Specialty
Cathy Covington	BIA	Regional Forester
Lyneve Begaye	NDOT	Project Manager/Archeologist
Jovonna John	NDOT	Environmental Specialist
Anjanette Hawk	NDOT	GIS/Remote Sensing
Terry McClung	BIA	Archeologist
Ron Maldonado	Navajo Nation	THPO
Steve Austin	Navajo EPA	Hydrologist
Clarence Tsosie	BIA	Transportation
Glenn Selby	NNDFW	Fisheries Biologist
Chad Smith	NNDFW	Wildlife Biologist

CONSULTATIONS

***** SEE RESOURCE ASSESSMENTS APPENDIX I , SECTION V, CONSULTATIONS**

PART D TREATMENT COSTS BY REGION AND FIRE

Navajo Region

2014 ÁSAAYÍ LAKE

AGENCY	TREATMENT			TOTAL
BIA	**EMERGENCY STABILIZATION**			
1	Culvert Replacement			$28,139
2	Culvert Cleaning			$8,072
3	Stream Crossing Protection; Low Water Ford Crossing			$30,848
4	Hazard / Safety Signs			$5,059
5	Invasive Plant Monitoring			$6,905
6	Project Administration			$22,765
BIA TOTAL				**$101,788**

2014 ÁSAAYÍ LAKE FIRE

INTERAGENCY BURNED AREA EMERGENCY STABILIZATION PLAN

PART E – SUMMARY OF ACTIVITIES – COST SUMMARY TABLE – BUREAU OF INDIAN AFFAIRS

TREATMENT SPECIFICATION	NFPORS CAT.	UNIT	UNIT COST	# OF UNITS	Fiscal Year			SPECIFICATION TOTAL
					2014	2015	2016	
NAVAJO REGION								
1. Culvert Replacement	Roads	Rain Events	$4,020	7	$28,139			$28,139
2. Culvert Cleaning	Roads	Culvert Cleaning			$1,272	$5,568	$1,232	$8,072
3. Stream Crossing Protection; Low Water Ford Crossing	Roads	Crossing		1	$30,848			$30,848
4. Hazard / Safety Signs	Protection & Warning	Signs	$632		$5,059			$5,059
5. Invasive Plant Monitoring	Assessment	Miles	$115	60		$6,905		$6,905
6. Project Administration	Administration	Implementation		1	$13,476	$4,777	$4,512	$22,765
TOTAL					$78,794	$17,250	$5,744	**$101,788**

BURNED AREA EMERGENCY RESPONSE PLAN

2014 ASAAYI LAKE

PART F EMERGENCY STABILIZATION SPECIFICATIONS

Structure along the 8093 road

PART F - INDIVIDUAL TREATMENT SPECIFICATION

TREATMENT/ACTIVITY NAME	Culvert Replacement	**PART E Spec-#**	1
NFPORS TREATMENT CATEGORY*	Roads	**FISCAL YEAR(S) (list each year):**	2014
NFPORS TREATMENT TYPE *	Culverts	**WUI? Y / N**	No
IMPACTED COMMUNITIES AT RISK	None	**IMPACTED T&E SPECIES**	None

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done):

A. General Description: Seven culverts were identified along two roads (8000 and 8093) within and below the burn that are no longer functional. This treatment calls for the replacement of these old and/or damaged culverts.

B. Location/(Suitable) Sites:

Culvert #	Size	Location (in decimal degrees)	Description
8093-5	24”	36.067554 -108.801472	
8093-6	24”	36.037268 -108.799203	
8093-7	24”	36.015029 -108.79135	
8000-1	36”	36.061845 -108.84959	
8000-3	24”	36.033838 -108.844733	
8000-4	24”	36.022255 -108.827699	
8000-5	24”	36.020814 -108.822349	

C. Design/Construction Specifications:

1. Remove existing culverts
2. Install new culverts
3. Apply rip-rap utilizing locally sourced rock of an appropriate size class along channel sides and base for a minimum length of 3’ at both culvert inflow and outflow.
4. At locations where existing culverts are below natural outflow, adjust replacement culvert elevation or trench to improve outflow.
5. Rehabilitate road surface to former grade/smoothness.

D. Purpose of Treatment Specifications (relate to damage/change caused by fire):

The purpose of this treatment is to ensure that increased flows expected from post-fire precipitation events are directed through culverts thereby greatly reducing the probability for over-topping of the overlying road surface.

E. Treatment consistent with Agency Land Management Plan (identify which plan): Navajo Nation 10 year Forest Management Plan and Associated Environmental Assessment.

F. Treatment Effectiveness Monitoring Proposed: Culvert locations will be monitored post high precipitation events for two years beyond the fire.

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	**COST / ITEM**
Labor and equipment. 24” Diam. Culverts @ $257./meter X 10.97 meters = $2820./unit X 6 units X 1FY =	$16,920.
Labor and equipment. 36” Diam. Culvert @ $328./meter X 10.97 meters = $3599./unit X 1 unit X 1 FY =	$3,599.
TOTAL PERSONNEL SERVICE COST	**$20,519.**
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	
MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	
Materials for 36’ length & 24” diam. Culverts @ $885/unit X 6 units X 1 FY =	$5,307.
Materials for 36’ length & 36” diam. Culvert @ $1,499/unit X 1 unit X 1 FY =	$1,500.
Freight to Navajo, New Mexico	$450.
5% Sales Tax	$363.
TOTAL MATERIALS AND SUPPLY COST	**$7,620.**

TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	
TOTAL TRAVEL COST	
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	
TOTAL CONTRACT COST	

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISH MENTS	PLANNED COST
2014	07/14/2014	07/28/2014	F	7	$4,020	7	$28,139.
						TOTAL	**$28,139.**

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	P,E,M
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, **E** = Equipment **M** = Materials/Supplies, **T** = Travel, **C** = Contract, **F** = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

See Treatments Map, Appendix IV and Watershed Assessment, Appendix I

PART F - INDIVIDUAL TREATMENT SPECIFICATION

TREATMENT/ACTIVITY NAME	Culvert Cleaning	**PART E Spec-#**	2
NFPORS TREATMENT CATEGORY*	Roads	**FISCAL YEAR(S) (list each year):**	2014, 2015
NFPORS TREATMENT TYPE *	Hazard Removal	**WUI? Y / N**	N
IMPACTED COMMUNITIES AT RISK	none	**IMPACTED T&E SPECIES**	N/A

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done):

A. General Description: During major flood events floatable material and sediment will gather on the upstream side of the culverts where drainages cross the 8000 Road, the 8091 Road and the 8093 Road.

B. Location/(Suitable) Sites:

Culvert #	Size	Location (in decimal degrees)	
8000-1	36”	36.061845	-108.84959
8000-2	24”	36.044757	-108.846635
8000-3	24”	36.033838	-108.844733
8000-4	24”	36.022255	-108.827699
8000-5	24”	36.020814	-108.822349
CU-6	24”	36.013613	-108.834465
8000-7	24”	36.073	-108.858
8091-1	24”	36.043104	-108.822735
8091-2	24”	36.037273	-108.821119
8093-1	24”	36.073701	-108.805094
8093-2	24”	36.071662	-108.802934
8093-3	24”	36.070701	-108.802063
8093-4	24”	36.0697	-108.801575
8093-5	24”	36.067554	-108.801472
8093-6	24”	36.037268	-108.799203
8093-7	24”	36.015029	-108.79135

C. Design/Construction Specifications:

1. Shovel and remove debris/ sediment in and against the ends of the culverts.
2. Use 1 ½ or 2” hose line (not a hard line) to flush debris/sediment.
3. Dispose of material in prearranged location outside of the channel.
4. Assumes three cleanouts, one after each of three storm events, and three days for each event, or a total of nine (9) days in 2014; and one cleanout after first large storm event in 2015, and two days for the single event.

D. Purpose of Treatment Specifications (relate to damage/change caused by fire): To protect 8000, 8091, and 8091 Roads from being washed out from flood flows off the Asaayi Lake Fire burn area.

E. Treatment consistent with Agency Land Management Plan (identify which plan):): Navajo Nation 10 year Forest Management Plan and Associated Environmental Assessment.

F. Treatment Effectiveness Monitoring Proposed: Visually inspect culverts after every flood event and remove debris and sediment, which blocks or reduces the capacity of the culvert

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	**COST / ITEM**
BIA Engine and three person crew @ $614./day X 9 days (2014) =	$5,526.
BIA Engine and three person crew @ $614./day X 2 days (2015) =	$1,228.
TOTAL PERSONNEL SERVICE COST	**$6754.**
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	**$**
MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	
TOTAL MATERIALS AND SUPPLY COST	

TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	
TOTAL TRAVEL COST	
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	
Water tender (3,000 gallon capacity) and two person crew @ $1,272./day X one day =	$1,272.
TOTAL CONTRACT COST	**$1,272.**

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISH MENTS	PLANNED COST
2014	06/30/2014	06/30/2014	S	Culvert Cleaning	$318.	4	$1,272.
2014	7/14/2014	9/31/2014	F	Culvert Cleaning	$116.	48	$5,568.
2015	10/1/2014	09/1/2015	F	Culvert Cleaning	$77.	16	$1,232.
						TOTAL	**$8,072.**

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	C
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	P,T
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, **E** = Equipment **M** = Materials/Supplies, **T** = Travel, **C** = Contract, **F** = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

See Treatments - Treatment Map, Appendix IV and Watershed Assessment, Appendix I

PART F - INDIVIDUAL TREATMENT SPECIFICATION

TREATMENT/ACTIVITY NAME	Stream Crossing Protection: Replacement of culverts with low water ford crossings	**PART E Spec-#**	3
NFPORS TREATMENT CATEGORY*	Erosion Sedimentation / Roads	**FISCAL YEAR(S) (list each year):**	2014, 2015, 2016
NFPORS TREATMENT TYPE *	Stream Stabilization / Culverts	**WUI? Y / N**	N
IMPACTED COMMUNITIES AT RISK	Asaayi Lake and Recreation Area	**IMPACTED T&E SPECIES**	N/A

- See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done):

A. General Description:
BIA Road 321 stream crossing of Bowl Canyon Creek, existing as two 60" corrugated metal pipe culverts, will be removed and replaced with a low water ford crossing using cable concrete.

B. Location/(Suitable) Sites:
35°59' 8.141" N, 108°55'20.393" W

C. Design/Construction Specifications:
All work must be coordinated with the Navajo Nation. 404 permits and 401 permits should be obtained from the EPA and from the Army Corps of Engineers before stream crossing work is performed.

The low water stream crossing of Bowl Canyon Creek will be constructed as a temporary low-water crossing by excavating road fill and removing the 87" culverts then re-grading and hardening the crossing with 8" cable concrete. The crossing should be passable by passenger vehicles and accommodate 2-way traffic. Excess fill after re-grading the crossing will be hauled to a location outside of the flood plain. Cobble should be used on the wings of the crossing to prevent scour and erosion.

Maintenance of all crossings after the fire is expected to be necessary after storm events that deposit significant sediment and debris in the crossings.

Post-fire recommendation is to inspect crossings after each storm event during the summer monsoon season and after high flows from spring runoff season have dropped off.

D. Purpose of Treatment Specifications (relate to damage/change caused by fire):
Corrugated metal pipe stream crossings of Bowl Canyon Creek, existing before the fire, have a high potential to plug and fail during and after storm events after the fire, as a result of increased runoff caused by the fire. These culvert stream crossings in Bowl Canyon Creek will likely become impassable by vehicles and will increase the potential for significant debris damming in the stream channel and exacerbate flood events caused by stream flow breaching debris dams.

Replacing culverts with low-water ford crossings will encourage free drainage of the stream crossings and reduce the likelihood of flooding of BIA Road 321 from being washed out.

.

E. Treatment consistent with Agency Land Management Plan (identify which plan):
Navajo Region Fire Management Plan, 2000

F. Treatment Effectiveness Monitoring Proposed: Regular inspection of crossings after rain storm events and high flows during spring runoff. Should monitoring result in debris removal or repair, then an amendment to the plan will be needed and submitted for review and approval by the BIA National BAER Coordinator.

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	**COST / ITEM**
WG-10 or equivalent equipment operator: 4 @ $35/hr X 120 hrs	$16,800
GS-11 BIA roads engineer: 1 @ $28/hr X 80 hrs	$2,240
TOTAL PERSONNEL SERVICE COST	**$19,040**
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	
MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	
tons of 6-8" sub-angular cobble	$2,000
CC70 (4x16) Cable Concrete Mats: 768 ft^2 @ 6.15/ft^2	$4,723
60 Stainless Steel Clamps @ $2.50/clamp	$150
Lifting Bar Return Freight (Must be returned)	$700
Earth anchors @ $13.50/each X 10	$135
2 Dump Trucks, 6 yd. cobble @ $800/week for 1 week	$1,600
Transport @ $4.50/loaded mile	$1,000
TOTAL MATERIALS AND SUPPLY COST	**$10,308**
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	
Fuel and other maintenance,	$1,500
TOTAL TRAVEL COST	**$1,500**
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	
TOTAL CONTRACT COST	**$30,848**

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISH MENTS	PLANNED COST
2014	07/21/2014	8/14/2014	F	Crossing		1	**$30,848**
2015							
2016							
						TOTAL	**$30,848**

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	M
2. Documented cost figures from similar project work obtained from local agency sources.	M, T
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	P
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, **E** = Equipment **M** = Materials/Supplies, **T** = Travel, **C** = Contract, **F** = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

See Appendix IV for the Treatments Map.

PART F - INDIVIDUAL TREATMENT SPECIFICATION

TREATMENT/ACTIVITY NAME	Hazard / Safety Signs	**PART E Spec-#**	4
NFPORS TREATMENT CATEGORY*	Protection & Warning	**FISCAL YEAR(S) (list each year):**	2014
NFPORS TREATMENT TYPE *	Warning Signs	**WUI? Y / N**	N
IMPACTED COMMUNITIES AT RISK	Asaayi Lake Area	**IMPACTED T&E SPECIES**	N/A

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done):

A. General Description:
This treatment is for the installation of burned area warning and flood hazard warning signs. These signs will warn the public of dangers on the road that have changed as a result of the fire. Burned area signs consist of a warning to the public and identifying the possible dangers associated with a burned area. Flood hazard signs warn the public that they are entering a drainage prone to flooding during rain events. The signs shall contain language specifying issues to be aware of when entering a burn area such as falling trees and limbs, rolling rocks, and flash floods.

B. Location/(Suitable) Sites**:**
"Burned Area Ahead" signs should be installed at the top and bottom of Rd 8000, Rd 8091 and Rd 8093 as they enter the fire.
Flood Warning Signs should be installed on Rd 321 above and below the water crossing.

C. Design/Construction Specifications:
Entering Burned Area and Water Crossing signs along the roads shall measure, at a minimum, 4 feet by 4 feet and consist of 0.08" aluminum, sheeted in high intensity orange with black letters. The signs shall read "**ENTERING BURNED AREA INCREASED RISK OF FLOODS, FALLING ROCKS, AND FALLING TREES**" and **"WATER CROSSING HIGH FLOOD HAZARD**"
The lettering shall be a minimum of 5 inches in height and all remaining lettering shall be a minimum of 3.5 inches in height.

D. Purpose of Treatment Specifications (relate to damage/change caused by fire):
Provide workers and recreation and traditional users with the necessary information to be prepared for being in a post-fire environment.

E. Treatment consistent with Agency Land Management Plan (identify which plan):
This treatment is compatible with the *Wildland Fire Management Plan for the Navajo Nation and National Park Service Units within Navajo Nation.*

F. Treatment Effectiveness Monitoring Proposed:
Implementation Leader will verify installation and locations. Law enforcement will monitor effectiveness of closure signs to determine if additional measures are needed.

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	**COST / ITEM**
GS-5 (equivalent): 2 ea. X $250/day X 5 day	$2,500
TOTAL PERSONNEL SERVICE COST	**$2,500**
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	
Post driver, wrenches, misc. tools	$100

TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	**$100**
MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	
6 "**Entering Burn Area…**" signs @ $200.00 each	$1,200
12 Steel U-channel sign posts @ $30.00 each	$360
24 - 3/8" machine bolts, nuts, washers—hex head @ $3.00 each	$72
2 "**Water Crossing…**" signs @ $200.00 each	$400
4 Steel U-channel sign posts @ $30.00 each	$120
8 - 3/8" machine bolts, nuts, washers—hex head @ $4.00 each	$32
TOTAL MATERIALS AND SUPPLY COST	**$2,184**
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	
4 X 4 pickup: 500 miles X $0.55/ mile	$275
TOTAL TRAVEL COST	**$275**
CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	
TOTAL CONTRACT COST	**$**

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (MM/DD/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISHMENTS	PLANNED COST
2014	07/7/2014	08/7/2014	S	Signs	$632	8	$5,059
						TOTAL	$5,059

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	T, E, P, M
3. Estimate supported by cost guides from independent sources or other federal agencies	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, **E** = Equipment **M** = Materials/Supplies, **T** = Travel, **C** = Contract, **F** = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

See Appendix 1, Watershed Assessment, APPENDIX IV Treatments Map.

PART F - INDIVIDUAL TREATMENT SPECIFICATION

TREATMENT/ACTIVITY NAME	Invasive Plant Monitoring	**PART E BIA Spec-#**	5_Noxious Invasive Plant Monitoring
NFPORS TREATMENT CATEGORY*	Assessment	**FISCAL YEAR(S) (list each year):**	2014
NFPORS TREATMENT TYPE *	Risk Assessment	**WUI? Y / N**	N
IMPACTED COMMUNITIES AT RISK	N/A	**IMPACTED T&E SPECIES**	N/A

WORK TO BE DONE (describe or attach exact specifications of work to be done):

A. General Description: This specification proposes noxious-invasive species monitoring for the Ásaayí Lake fire. The purpose is to identify the establishment and monitor the spread of noxious weeds. The noxious weed strategy is early detection and rapid response. Monitoring should begin in spring 2015 as soon as green up has occurred. Priority should be given to any and all areas impacted by motor vehicle and heavy equipment. Known weed locations would also be an area of focus. BIA-Natural Resources staff will conduct the monitoring. An inventory of noxious weeds, including species, location and stocking will be completed and treatments will be prescribed to control the invasion and spread.

B. Location (Suitable) Sites: Assess known locations of noxious-invasive weeds. Monitor other areas based on motor vehicle use and heavy equipment impacts, which were the result of fire suppression activities. Areas prone to weed establishment would be:

- BIA Roads 8000, 8091 and 8093 (Approximately 20 miles)
- Tributary roads (un-named) that were used for fire access and/or suppression tactics,
- Dozer lines (approximately 29 miles),
- Hand Lines (approximately 11 miles)
- Safety Zones, Helispots, Spike Camp and Parking Areas

C. Design/Construction Specifications:

1. Survey for presence / absence of noxious-invasive weed species during the green up period and at future, selected intervals of time. The survey will be conducted either on foot, vehicle and/or ATV.
2. Inventory, photo document and map noxious weeds (both existing seed bank species and introduced) using GPS technology.
3. Sampling should determine species composition, density and quantify the area affected (ie: square feet, acres).
4. Observations must be documented in both written and photographic form.
5. Initiate agency/tribally approved control measures where detection demonstrates the establishment or expansion of noxious weed populations. Integrated weed management strategies will be used to control / mitigate establishment and spread of noxious weeds. Treatments will require submission for supplemental funding through the BAR process.

D. Purpose of Treatment Specifications (relate to damage/change caused by fire: Monitoring is required on all ES plans. The level of monitoring will be commensurate with the complexity of the project, level of concern, and the objectives of the plan.

E. Treatment consistent with Agency Land Management Plan: Protection of beneficiaries and Indian Trust resources is consistent with the BIA's mission.

F. Treatment Effectiveness Monitoring Proposed: Control and detection of noxious weeds / non-native invasive weed species in burned areas will be monitored according to the strategy outlined in the specification. Control will be considered successful upon determination that all noxious weeds have been controlled and non-native, invasive weeds have not spread beyond their pre-fire locations. Monitoring is required to determine whether vegetative recovery of habitat has, as anticipated, occurred. Additional treatments may be proposed if monitoring determines that the criteria for re-vegetation success are not achieved.

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	**COST / ITEM**
Two-Forest Technicians: GS-09 @ $26.36/hr. X40% EBC X 80 hrs./Pay period X 2 people	$5,905
TOTAL PERSONNEL SERVICE COST	**$5,905**

EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	
	$0
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	$0

MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	
Miscellaneous field supplies	$200
Digital Camera	$200
TOTAL MATERIALS AND SUPPLY COST	**$400**

TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	
One Vehicle (fuel mileage): @ $600 /Pay Period X 1 Pay Period	$600
TOTAL TRAVEL COST	**$600**

CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	
	$0
TOTAL CONTRACT COST	**$0**

SPECIFICATION COST SUMMARY

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLISH MENTS	PLANNED COST
FY 15	08/15/2015	08/30/2015	F	Miles	$115.08	60 Miles	$6,905
						TOTAL	**$6,905**

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	M
3. Estimate supported by cost guides from independent sources or other federal agencies	E
4. Estimates based upon government wage rates and material cost.	P
5. No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, **E** = Equipment **M** = Materials/Supplies, **T** = Travel, **C** = Contract, **F** = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

See Appendix I Assessments; Appendix IV Maps, Treatments Map.

PART F - INDIVIDUAL TREATMENT SPECIFICATION

TREATMENT/ACTIVITY NAME	Project Administration	**PART E BIA Spec #**	6
NFPORS TREATMENT CATEGORY*	Administration	**FISCAL YEAR(S) (list each year):**	2014, 2015, and 2016
NFPORS TREATMENT TYPE *	Contract Administration	**WUI? Y / N**	N
IMPACTED COMMUNITIES AT RISK		**IMPACTED T&E SPECIES**	

* See NFPORS Restoration & Rehabilitation module - Edit Treatment screen for applicable entries.

WORK TO BE DONE (describe or attach exact specifications of work to be done):

A. General Description: The Project Administrator will provide oversight of the Emergency Stabilization plan and implementation.

B. Location/(Suitable) Sites: Bureau of Indian Affairs, Navajo Nation lands impacted by the Asaayi Lake Fire

C. Design/Construction Specifications:

1. Appoint, hire or contract a qualified Project Administrator. Qualifications include adequate training and/or experience in engineering, forestry, or other natural resource related fields pertinent to the emergency stabilization work to be performed.
2. In accordance with ethical guidelines set forth in federal regulations, the Project Administrator shall have no vested interest or relationship, perceived or actual, in any hiring, contracting or procurement associated with emergency stabilization work to be performed.
3. The Project Administrator will coordinate and direct the completion of all activities specified in the Emergency Stabilization plan, including implementation of treatment specifications and activities, preparation of commercial and self determination contract packages, documentation of treatments installed, tracking of allocated funds and expenditures, preparation of annual and final accomplishment reports, development of supplemental requests for funding, ensuring the completion of all approved treatments, and coordination with the Navajo Region, Navajo Nation, and other involved parties.
4. Monitor treatment effectiveness and determine need for and coordinate preparation of modifications to the ES Plan to request and secure funding for additional treatments as determined necessary.
5. Maintain records of all implementation activities, associated costs and treatment effectiveness monitoring data including photos.

D. Purpose of Treatment Specifications (relate to damage/change caused by fire): The Project Administrator is necessary to ensure the work specified in the Emergency Stabilization plan is completed in a timely and professional manner, and adequate accountability of treatment effectiveness and funding expenditures is maintained and documented.

E. Treatment consistent with Agency Land Management Plan (identify which plan): Navajo Region Fire Management Plan.

F. Treatment Effectiveness Monitoring Proposed: The Navajo Regional Fire Management Officer will monitor Project Administrator performance to ensure specified projects are successfully completed on time and within budget, including any projects incorporated by approved plan amendments.

LABOR, MATERIALS AND OTHER COST:

PERSONNEL SERVICES: (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item): Do not include contract personnel costs here (see contractor services below).	**COST / ITEM**
FY14 GS-12 Base Salary $37.74/hr. X 1.4 EBC X 80 hrs./PP X 3 PP	$ 12,681
FY15 GS-12 Base Salary $37.74/hr. X 1.4 EBC X 80 hrs./PP X 1 PP	$ 4,227
FY16 GS-12 Base Salary $37.74/hr. X 1.4 EBC X 80 hrs./PP X 1 PP	$ 4,227
TOTAL PERSONNEL SERVICE COST	**$21,135**
EQUIPMENT PURCHASE, LEASE AND/OR RENT (Item @ Cost/Hour X # of Hours X #Fiscal Years = Cost/Item): Note: Purchases require written justification that demonstrates cost benefits over leasing or renting.	
TOTAL EQUIPMENT PURCHASE, LEASE OR RENTAL COST	
MATERIALS AND SUPPLIES (Item @ Cost/Each X Quantity X #Fiscal Years = Cost/Item):	
TOTAL MATERIALS AND SUPPLY COST	

TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X #Fiscal Years = Cost/Item):	
FY14 Mileage $0.53/mi. x 100 mi./day x 15 days	$ 795
FY15 Mileage $0.55/mi. x 100 mi./day x 10 days	$ 550
FY16 Mileage $0.57/mi. x 100 mi./day x 5 days	$285
TOTAL TRAVEL COST	**$1,630**

CONTRACT COST (Labor or Equipment @ Cost/Hour X #Hours X #Fiscal Years = Cost/Item):	
Contractor will provide all labor material, supplies, equipment, transportation, and supervision to perform project implementation in accordance with the Project Administrator scope of work.	
TOTAL CONTRACT COST	

FISCAL YEAR	PLANNED INITIATION DATE (M/D/YYYY)	PLANNED COMPLETION DATE (M/D/YYYY)	WORK AGENT	UNITS	UNIT COST	PLANNED ACCOMPLI SH MENTS	PLANNED COST
FY14	7/01/14	9/30/14	F	Implementation		1	$ 13,476
FY15	10/1/14	9/30/15	F	Implementation		1	$ 4,777
FY16	10/1/15	9/30/16	F	Implementation		1	$ 4,512
						TOTAL	**$22,765**

Work Agent: C=Coop Agreement, F=Force Account, G=Grantee, P=Permittees, S=Service Contract, T=Timber Sales Purchaser, V=Volunteer

SOURCE OF COST ESTIMATE

1.	Estimate obtained from 2-3 independent contractual sources.	
2.	Documented cost figures from similar project work obtained from local agency sources.	T
3.	Estimate supported by cost guides from independent sources or other federal agencies	
4.	Estimates based upon government wage rates and material cost.	P
5.	No cost estimate required - cost charged to Fire Suppression Account	

P = Personnel Services, **E** = Equipment **M** = Materials/Supplies, **T** = Travel, **C** = Contract, **F** = Suppression

RELEVANT DETAILS, MAPS AND DOCUMENTATION INCLUDED IN THIS REPORT:

See Asaayi Lake ES Plan specifications

BURNED AREA EMERGENCY RESPONSE PLAN

2014 ASAAYI LAKE BAER

APPENDIX I RESOURCE ASSESSMENTS

- **WATERSHED RESOURCE ASSESSMENT**
- **VEGETATION RESOURCE ASSESSMENT**
- **CULTURAL RESOURCE ASSESSMENT**

BURNED AREA REHABILITATION

- **FOREST RESOURCE ASSESSMENT**

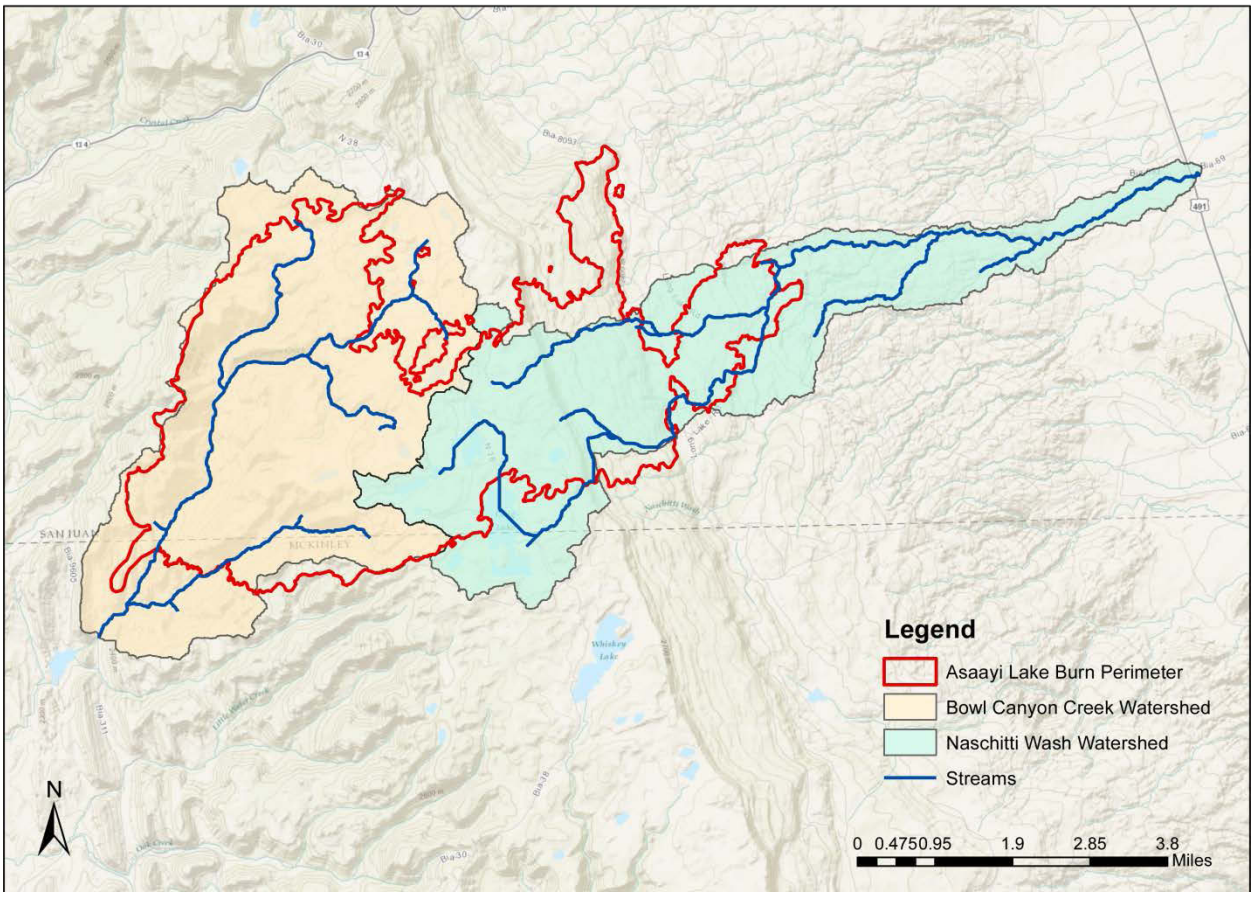
ÁSAAYÍ LAKE

BURNED AREA EMERGENCY STABILIZATION PLAN
Asaayi Lake Fire
WATERSHED RESOURCE ASSESSMENT

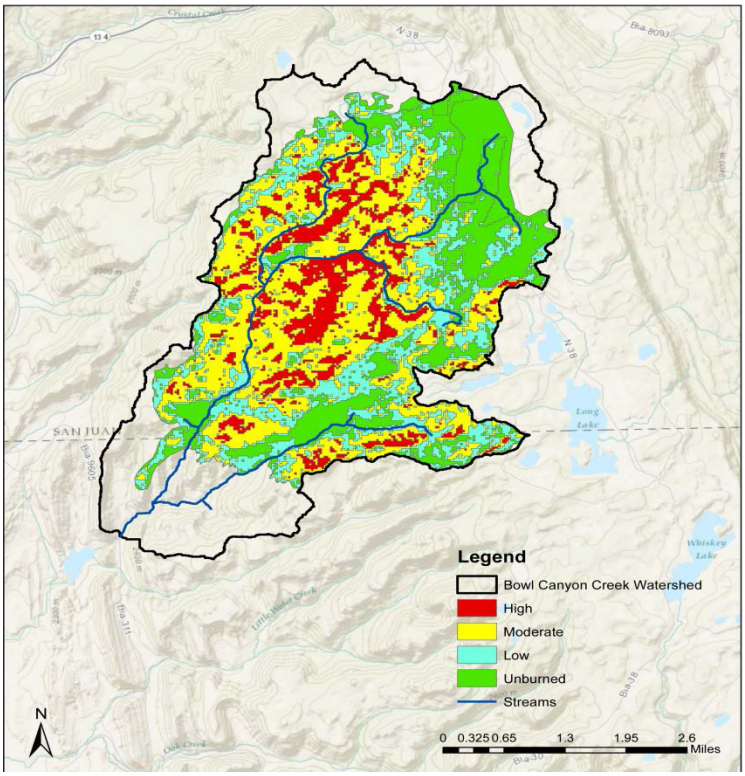
The purpose of the burned area watershed assessment is to determine if the fire caused emergency watershed conditions and to identify potential values at risk from these conditions. Values at risk are human life and property located within or downstream of the fire that may be subject to damage from flooding and debris flows that are *the result of post-fire conditions*. Identification of values at risk occurs through consultation with individuals, state, tribal, and federal agencies as well as through field investigations. Not all values initially identified are determined to be at risk. If emergency watershed conditions are found and values at risk are identified and confirmed, then the magnitude and scope of the emergency is mapped and described, values at risk to be protected are analyzed, and treatment prescriptions are developed to protect these values.

The most significant factor leading to emergency watershed conditions is loss of ground cover, which leads to erosion and changes in hydrologic function in the form of decreased infiltration and increased runoff. These changes can be inferred through an assessment of soil burn severity. Soil burn severity is an evaluation of post-fire ground surface characteristics such as char depth, organic matter loss, altered soil color and structure, and soil hydrophobicity (water repellency). Soil burn severity classifications are high, moderate, low, and unburned. Preliminary classifications can be obtained through a satellite image-derived map called a Burned Area Reflectance Classification (BARC). Preliminary BARC maps are field verified and adjusted as necessary resulting in a final soil burn severity map. The areas of moderate and high soil burn severity are then used as variables in calculating peak flows for the values at risk that have been identified.

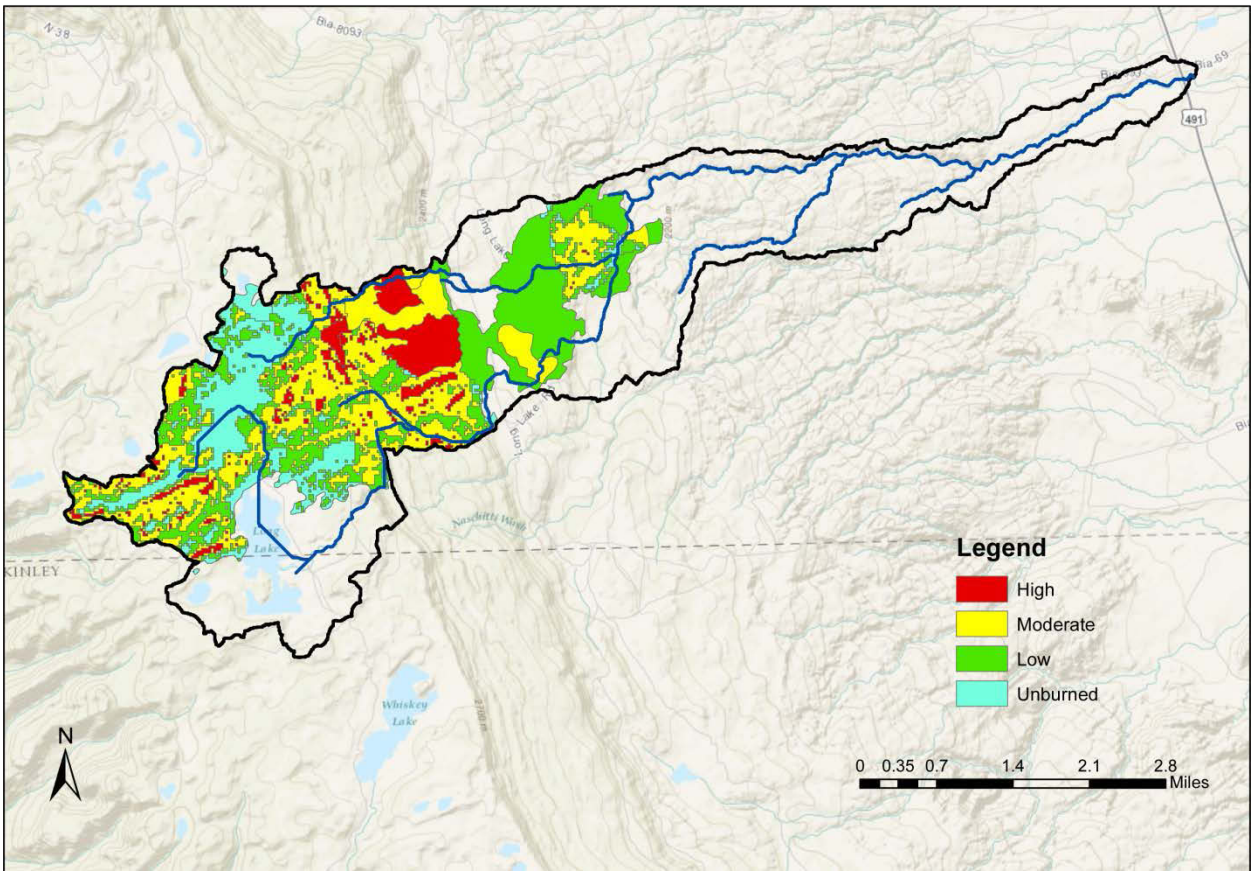
Modeled Watersheds



Bowl Canyon Creek Soil Burn Severity



Naschitti Wash Soil Burn Severity



Based on field reconnaissance and the resultant final BARC map, the values at risk for which flooding and debris flows were a concern in regards to life and property included the road infrastructure at the intersection of BIA Road 321 and Bowl Canyon Creek and the bridge at the intersection of Highway 491 and Naschitti Wash. To validate or eliminate these two areas of concern, pre- and post-fire peak flows for the 10-year, 1-hour storm were calculated for the watersheds above the value at risk using a variety of methods including USGS Regression Equations, Rule of Thumb by Kuyumjian, and the Automated Geospatial Watershed Assessment (AGWA). The USGS Regression Equations and the AGWA model do not include a bulking factor for debris entrained in flood flows; Kuyumjian's Rule of Thumb model does include a bulking factor.

Peak Flow Method	Watershed	Pre-fire runoff (cfs)	Post-fire runoff (cfs)	Percent increase	Factor Increase
USGS Regression Equations	Bowl Canyon Creek above BIA Road 321	1,505	1,726	114	1.14
	Naschitti Wash at Highway 491	1,410	1,410	0	0
Kuyumjian Rule of Thumb	Bowl Canyon Creek above BIA Road 321	1,505	2,950	196	1.96
	Naschitti Wash at Highway 491	1,410	1,427	101	1.01
AGWA	Bowl Canyon Creek above BIA Road 321	66	967	1465	14.65
	Naschitti Wash at Highway 491	3,425	3,425	0	0

The absolute values for peak flow vary by model, as does the predicted percent increase. Given this variability, the best interpretation of the model outputs is that post-fire flows at the road crossing below Bowl Canyon Creek are likely to increase somewhere between 114 to 1,465 percent if subjected to a 10-year, 1-hour storm event and that they will be laden with debris and sediment. Given the condition of the culverts at this crossing, any substantial increase in debris/sediment laden flow has the potential to plug and subsequently erode the existing culverts to such a degree that they are likely to wash out, resulting in damage to the road and risking the life of someone crossing the culvert during such a storm event.

In regards to minor infrastructure, several drainage crossings are at risk of plugging with sediment. An inventory of drainages crossing the three major roads (BIA Roads 8000, 8091, and 8093) within the Asaayi Lake Fire and one two-track road in the vicinity of Long Lake revealed the presence of sixteen (16) culverts. These culverts average 36' in length and are of variable diameters, ranging from 18" to 36". On June 29 and 30th, fire crews dug out and flushed three of the seven culverts located along the 8000 Road and adjacent two-track. The remaining four culverts on the 8000 road are recommended for removal and replacement. One of these, a historic wooden culvert, is subject to review under Section 106 of the National Historic Preservation Act (NHPA), prior to removal. Of the two culverts identified along the 8091 Road, one was dug out and flushed by a fire crew on June 29th, while the remaining culvert required no action. Seven culverts were located along the 8093 Road. Three of these were dug out and flushed by a BIA fire crew on June 30. Three culverts are recommended for replacement. One of these culverts appears to be a wooden feature, and may require review under the NHPA. The remaining culvert on Road 8093 is an 18" diameter pipe of unknown length. The outflow section of the culvert has over time been buried through sedimentation resulting in a somewhat stable and vegetated soil surface next to the road. Below this small meadow, the landscape is deeply dissected, illustrating the highly erosive nature of the native soil. Replacement of the culvert is likely to destabilize this fragile area. Therefore, it is recommended that no action be taken at this location.

Value at Risk	Potential Threat	Treatment	Specification Number
Road/culverts at BIA Road 321 below Bowl Canyon Creek	Flooding/debris flow	Culvert removal/installation of a low-water crossing	(low water crossing spec, flood hazard sign spec)
Culverts along BIA Roads 8000, 8091, and 8093	Flooding/debris flow	Culvert replacement	(culvert replacement spec, flood hazard sign spec)

EMERGENCY STABILIZATION & REHABILITATION PLAN

ASAAYI LAKE FIRE

CULTURAL RESOURCE ASSESSMENT

I. OBJECTIVES

A. Assess potential damage to cultural resources for the purpose of recommending treatments to stabilize archeological sites, traditional cultural properties, and historic structures from adverse effects of post fire erosion, other fire related effects, and emergency stabilization and rehabilitation actions.

B. Consult with the Navajo Nation to meet Federal legal requirements, agency policies, and agreements.

C. Prescribe treatments to avoid or mitigate adverse impacts to cultural resources that may occur from post fire effects and emergency stabilization treatments.

II. ISSUES

- Post-fire effects from flooding/erosion on high value cultural resources of all types
- Traditional Cultural Properties (TCPs) affected by the fire
- Sacred Sites affected by the fire
- Burials affected by the fire

III. OBSERVATIONS

A. Background

This report addresses potential and actual effects to cultural resources within the Asaayi Lake Fire. The Asaayi Lake Fire originated on June, 13, 2014. In total the fire consumed 14,712 acres within the Chuska Mountains on the Navajo Indian Reservation. At the time of this writing (July 02, 2014), the fire was 98% contained.

There is a relatively high diversity of cultural resources that are known or expected to exist across the landscape affected by the Asaayi Lake Fire or that have the potential to be affected by post-fire effects. These categories and types include: archaeological sites; varying from lithic scatters to permanent habitations, historic structures, sacred sites, and other traditional cultural properties (TCPs).

B. Reconnaissance Methodology and Identification Results

A BAER Archeologist was dispatched to the incident on Friday June 20th, 2014. On Monday June 23rd, the BAER archeologist met with Navajo Tribal THPO, Ron Maldonado and DOT Archaeology and GIS/Remote Sensing staff members Lyneve Begaye, Jovonna John, and Anjanette Hawk. The next several days were spent compiling cultural resources records and matching locations with areas within the fire perimeter and downslope where factors of soil burn severity and slope may result in post-fire risks to significant cultural resources from flooding and erosion.

The BAER cultural assessment was conducted on Friday, June 27th. Owing to discrepancies in plotted cultural resource locations, efforts to relocate previously identified resources within the burn were temporarily abandoned. Utilizing a different identification methodology, the DOT Archaeologists on Thursday July 1 were able to re-locate several TCPs. This work will be ongoing to determine which cultural resources were affected by the fire, as opposed to those which were left unscathed. Also of

interest were cultural resources located downstream from the fire that may be subject to flooding and erosion. One such resource was re-identified, but subsequently shown through geo-spatial analysis to be outside the influence of the fire. One additional cultural resource location was considered for evaluation, but later discounted due to its poor condition resultant from road construction and erosion. Incidentally, during an inventory of culvert locations on BIA Roads 8000, 8091, and 8093, six previously unreported cultural resources were identified. These resources include one primary lithic reduction site; two lithic/ceramic scatters, one of which also include groundstone and a possible field house structure; two isolates that include a single chert flake and the base of an Archaic obsidian projectile point (it is likely that these isolates are actually sites, but identification efforts were necessarily limited by the culvert identification effort); and finally, a historic wooden culvert was identified on the 8000 Road. While not confirmed, it was also reported that a small pueblo site is located to the west, and within a five minute walk of one of the identified culverts.

C. Findings

The cultural resources assessment resulted in the determination that no post-fire effects are expected to adversely impact significant cultural resources. Known TCPs and Sacred Sites, some of which were affected by the fire, were demonstrated to be located on generally flat ground at the head of the watershed, and therefore not subject to post-fire effects. Other TCPS (specifically corn fields), while located below the rim on the east side of the burn and potentially subject to post fire effects, may actually benefit from the deposition of sediments. According to one of the DOT archaeologists, burial locations known to exist within the burn are encased in rock, and therefore are protected from post-fire runoff events. As noted above, one of the two sites located downstream from the burn is outside the fire's influence, while the other's integrity has been previously compromised. None of the six cultural resources identified during the culvert inventory are located in areas that are likely to be subject to post-fire effects. They are located outside the burn, either above the head of the watersheds that drain the Chuskas, or are above minor ephemeral channels that are either outside the fire's influence or not expected to produce significant post-fire flows. One site, a historic wooden culvert will be affected by the culvert replacement treatment recommended in this BAER plan and will require further review under Section 106 of the National Historic Preservation Act (NHPA). The BIA as lead federal agency, will be responsible for consulting with the Tribe's THPO as required under Section 106 of the NHPA to ensure that significant cultural resources will not be adversely affected by this or other treatments.

IV. RECOMMENDATIONS

A. Emergency Stabilization: None

Management Recommendations – Non-Specification Related

1. Re-visit and update site records on sites within the burned area
2. Re-locate and record sites incidentally located during the culvert inventory
3. Local Law Enforcement and/or tribal archaeologists should regularly patrol sites to discourage looting and to monitor condition.

V. CONSULTATIONS

Navajo Nation Tribal Historic Preservation Office. Ron Maldonado, THPO

Dan Hall, Bureau of Indian Affairs – Pacific Region (916) 978-6041

BURNED AREA EMERGENCY STABILIZATION PLAN

Asaayi Lake Fire

VEGETATION & FORESTRY RESOURCES ASSESSMENT

I. OBJECTIVES

- Evaluate the potential for non-native invasive plant species encroachment into native plant communities and sensitive plant species habitat within the fire area and determine stabilization and monitoring needs to mitigate encroachment

II. ISSUES

- Impacts to vegetation recovery
- Re-establishment of forest cover within timber, woodland, riparian and grasslands
- Noxious weed and non-native invasive species encroachment onto impacted lands

III. OBSERVATIONS

This report addresses known and potential effects of the fire, suppression activities and proposed stabilization treatments to vegetation communities and forest resources on lands held in trust by the U.S. Government, Bureau of Indian Affairs, for the Navajo Nation as a result of the Asaayi Lake Fire. It specifically addresses issues presented by Tribal and Agency resource staff and provides recommendations for emergency treatment. This plan may be cited as a justification document to seek outside funding from other sources for recommended treatments not covered by Emergency Stabilization (ES) funds.

Findings and recommendations contained in this assessment are based upon information obtained from literature reviews, field reconnaissance of the fire area, Geographic Information System (GIS) analyses, personal interviews and meetings with various Tribal and BIA natural resource managers and other BAER Team members.

The GIS boundary of the fire surveyed by the fire suppression team shows an acreage of 14,712 however, for this forestry and vegetation assessment, a boundary that excluded approximately 1,211 acres of unburned meadows was used leaving an acreage of 13,501.

A. Background

The Asaayi Lake fire began on June 13, 2014 from human causes adjacent to a youth camp. On June 14, high winds caused continued spotting outside containment lines and eventually on a ridge top where the high winds caused the fire to blow up and make its largest run up Bowl Canyon, then over the rim of the Chuska mountains and downslope in the direction of the community of Naschitti.

Non-Forested: high elevation grasslands occurring as openings within mixed conifer and spruce-fir forests. Upper-elevation montane meadows may be extensive and uninterrupted, whereas lower elevation wet meadow sites are often surround by dense coniferous forests. Some of the common grasses located in the Santa Clara Pueblo area include Parry's oatgrass, (*Danthonia parryi*), Idaho fescue (*Festuca idahoensis*), Thurber's fescue (*F. thurberi*), junegrass, mountain muhly, and muttongrass. Common forbs in this type include *Achillea millefolium, Campanula rotundifolia, Carex microptera, Erigeron flagellaris, Erysimum capitatum, Frasera speciosa, Heterotheca villosa, Hymenoxys richardsonii, H. hoopesii, Ipomopsis aggregata, Iris*

missouriensis, Lupinus argenteus, Orthocarpus luteus, Potentilla gracilis, and *Thermopsis rhombifolia*. Generally, this vegetation type has experienced a high level of disturbance by grazing. Loss of natural fire disturbance due to grazing effects has promoted forest encroachment in many locations.

Table 1. Acres of Vegetation Type by Compartment

Veg Type	Comp 53	Comp 54	Comp 55
Non-Forested	74	892	0

2. Noxious Weeds/Non-native Invasive Species

Weeds are opportunistic species that respond well to disturbance. Fires present opportunities for weed dispersal and establishment. Disturbances caused by fire suppression activities can also cause weed seeds to germinate, spreading weeds to newly disturbed areas and increase the area of existing infestations.

Noxious weeds and non-native invasive species are a concern for biodiversity. Weed invasion is a potentially threatening process leading to competition and habitat modification. Plant communities and native species likely to be at greatest risk from weed invasion are those which occupy weed-prone habitats, such as riparian zones, rangelands with naturally low vegetation cover, and disturbed areas adjacent to and near existing weed infestations.

The New Mexico Department of Agriculture (NMDA) is mandated to develop a noxious weed list for the state, identify methods of control for designated species, and educate the public about noxious weeds. The NMDA coordinates weed management among local, state, and federal land managers as well as private land owners (NMDA website, accessed July 2011).

According to Fort Defiance Agency Natural Resources staff, noxious weeds that have been documented in or near the burn area include the following; Russian knapweed – *Acroptilon repens*, musk thistle - *Carduus nutans*, cheatgrass - *Bromus tectorum*, Russian olive - *Elaeagnus angustifolia*, Siberean elm - *Ulmus pumila*, and saltcedar - *Tamarix spp.*

All the above species are on the NMDA list and are of local concern for the BIA and Navajo Nation. A complete list of noxious weeds on the reservation can be found in Appendix A.

3. Threatened and Endangered/Rare Plants

As stated in the Wildlife Assessment the Fish and Wildlife Service (FWS) Albuquerque Field Office has jurisdiction over the listed species within the area of the fires. Identification of known listed species occurrences and critical habitat is crucial to accurately assess fire effects. A list was downloaded from the FWS for occurrences of plant species in the burn area. No listed plants are known to exist within the fire perimeter.

Plants that are on the New Mexico rare plant list include *Astragalus humillimus, Eriogonum rhizimatus, helianthus paradoxus, Puccunellia parishii,* and *Sclerocactus mesae-verdae.* Source of the list is the New Mexico Rare Plant Technical Council (2011). Rare plants can be either impacted or benefited from wildfire. Most of the impacts would come from fire suppression activities, flooding, or consumption of the overstory canopy, and invasion by noxious weeds. Very few surveys for rare plants have been conducted on tribal lands. No known rare plant species occur in the burn area.

4. Livestock Grazing

The Navajo Nation has a long history of grazing sheep and cattle. Within the fire area, seasonal and year-round livestock grazing is prevalent and especially on the plateau with all of the meadows close-cropped. There is a permit system, however there is an unknown amount of illegal grazing, an unknown number of abandoned animals and many permits are overstocked. . The Tribe is attempting to round up many of the feral horses which is meeting some resistance from the public.

B. RECONNAISSANCE METHODOLOGY & RESULTS

1. Vegetation

Field reconnaissance consisted of on-site inspection of fire impacted plant communities and forested roadways/corridors. Field reconnaissance was conducted on June 24, June 28 and June 29, 2014. In 2006, the Fort Defiance Natural Resources department conducted a vegetation survey in the Chuska Mountains and on the Fort Defiance Plateau. A literature review was conducted to obtain baselines data on soils, hydrologic processes, plant communities, noxious weeds/non-native invasive species, and the importance of vegetative species. Many well-written documents exist that detail historic and present day vegetation descriptions. Excerpts from these documents have been included to provide the reader with a better understanding of vegetative community structure and provide insight into the fragility and fire ecology of these watersheds. Information used in this assessment was also generated from GIS databases and discussion with species experts and natural resource managers from the local Tribe and the BIA.

2. Vegetation Mortality

The degree of fire-related mortality/top kill was determined by utilizing color infrared digital imagery Burned Area Reflectance Classification (BARC) of the June 23, 2014 LANDSAT 8 image. The flowing steps were done to develop the draft top kill/mortality map:

(1) Clip the BARC dataset to the fire perimeter to remove pixels classified as 0.
(2) Colors were adjusted up or down to best represent mortality.
(3) Assign color values for values 1-255. The initial breakdown was 1-80 (green), 81-99 (blue), 100-149 (yellow) and 150-255 (red).
(4) This color ramp was examined comparing it to photography taken on the 6/23/14 helicopter reconnaissance flights, to the LANDSAT 8 before image and through ground truthing from visiting the fire area.

All areas within the fire perimeter were classified into four categories of severity. These were: Low, where there was between 0 to 25% top kill or mortality; Moderate Low between 26 to 50% top kill or mortality; Moderate High where there was between 51% to 75% top kill or mortality; and High where there was greater than 76% top kill or mortality.

Tribal foresters and BAER vegetation specialists then ground-truthed the data and provided corrections.

C. FINDINGS

1. Vegetation

For the purposes of this assessment, the classifications of vegetation top kill or mortality do not imply long-term vegetation mortality or recovery potential. Resprouting and releafing from epicormic plant parts or root crowns will occur based on specific plant physiological characteristics, degree of injury, climatic conditions, and the presence of other damaging agents. Vegetation top kill classification parameters include degree of consumption of herbaceous, shrub, and forest/woodland vegetation communities, and effects of the fire on the regeneration potential of the affected vegetation species.

On soils that did not experience long residency time from the fire, seeds below the surface should grow providing climatic conditions are favorable with the onset of the monsoon moisture. During field assessments it was noted that perennial grass and forb root crowns were still intact even where vegetation top-kill was rated as moderate-high. Vegetation recovery should occur naturally on most of the shrubs, forbs and graminoids throughout Navajo Nation lands within the Asaayi Lake Fire, provided that livestock are controlled and lands rested from grazing pressures for several years to allow recovery.

Most of the shrub species recover from epicormic roots or adventitious buds—sprouting from underground roots or buds, although reproduction from seed also occurs. Shrub species growing at the lower elevations of the burn area (arid regions) are usually not adapted to moderate to high fire intensities or short fire return intervals. However, the vegetation at the lower elevations of ponderosa pine and lower had low to moderate-low vegetation top kill ratings. Table 4 indicates total acreage of vegetation mortality/top kill, by compartment.

Table 2. Top Kill/Mortality Class Acreage within the Asaayi Lake fire

Compartment	Low (0-25%)	Moderate Low (26-50%)	Moderate High (51-75%	High (>75%)
53	776	483	999	1,651
54	1,806	1,126	1,842	1,424
55	579	672	1,341	802
Total	3,161	2,281	4,182	3,576

2. Noxious Weeds/Non-native Invasive Species

A number of noxious weeds are known to exist within or adjacent to the burn area though there has been little formal documentation. Plots were assessed in 2006 and noxious weeds were found on two plots within the fire area. Cheat grass was observed all through the fire area, even at over 9,000 feet in elevation.

Firefighting equipment and fire fighters may have transported weed seeds from off site into the fire area.

Currently there is not an EA or management plan to treat noxious weeds on the reservation. The BIA and Tribe is in the process of developing an EIS and Integrated Pest Management Plan, however, the estimated timeline for completion is over a year from the current date. The BIA

Regional NEPA Specialist estimates that it would cost approximately $60,000 to do an EA specifically for the fire area to control noxious weeds.

3. Livestock Impacts

There are livestock currently in the burn area. The meadows in the fire area are highly over-grazed and as a result, there was insufficient fuel in the meadows to carry a fire. The over-grazing has reduced diversity of forage and other plant species and if continued would severely limit the expected natural regeneration. The lack of forage has displaced large game. Though some deer were seen, no elk were seen in the fire area.

The drought has resulted in less reliable water and less forage production available for livestock. Native range plants were under environmental stress prior to the wildfire, had been browsed heavily prior to the fire and the fire has further reduced vigor and forage and capacity. Livestock will be drawn to the riparian areas because they are unburned to lightly burned and they will have the only green feed until at least next growing season. The concern is that regenerating vegetation in the montane riparian, wetlands, aspens, and ponderosa pine types will be removed by grazing livestock before they can produce sufficient root mass to withstand trampling damage or resist being pulled out by grazing animals. Overgrazing livestock severely impacts watershed management of the fire area.

IV. RECOMMENDATIONS

A. Emergency Stabilization

Invasive Species Monitoring
Monitor for presence of noxious weeds and non-native invasive species at areas impacted by fire suppression forces. Areas to monitor include dozer lines, roads utilized by suppression vehicles and equipment, burn areas impacted by suppression forces, and creeks and drainages that have a high potential to contain salt cedar, Russian olive, and Siberian elm. If noxious weeds are located, request additional funding through a Burned Area Rehabilitation (BAR) plan.

B. Management Recommendation – Rehabilitation (Non-Specification)

Natural Regeneration
Though there are areas of high mortality, overall, the fire burned in a moderate to moderately high mosaic pattern over much of the landscape. Though the effects are greater than would be acceptable with a prescribed burn, there is still a good distribution of trees expected to survive. It is expected that there are sufficient trees surviving to provide a seed source for natural regeneration. The large areas of high fire severity within Bowl Canyon are generally the steeper upper slopes that would be very difficult to artificially reforest and would also have lower survival rates.

To facilitate natural regeneration and to provide for an increased chance of success, it is recommended that all livestock (cattle, horses, sheep and goats) be excluded from the entire burn area, or at a minimum, from the forested areas for at least five years to allow for natural regeneration (1-2 years for germinants to sprout and 2-3 years for the roots sufficiently establish and seedlings to begin increased height growth). Without the exclusion of livestock, browsing and trampling will severely limit the success of natural regeneration. Suspension of the grazing permits and fencing of the fire area must be evaluated before implementation. Alternative grazing areas need to be identified to mitigate grazing impacts.

Noxious Weeds
The Navajo Nation is currently developing an EIS and management plan to address assessing and treating noxious weeds on the Reservation. The EIS is expected to take another year to complete. Without the NEPA documents and Management Plan, no chemical treatment of noxious weeds can be funded with ES or BAR funds. It is recommended that a specific EA and management plan be developed for the burn area within the Asaayi Lake fire to address monitoring and mitigation of noxious weeds. It is recommended that the Tribe seek funding to fully assess any potential seeding needs in Bowl Canyon and the pinyon/juniper types on the easternmost finger of the fire to prevent the establishment of noxious weeds.

It is recommended that all livestock be removed from the burned area for at least five years, to allow the landscape to vegetate naturally. It is also recommended that the BIA/Tribe take this opportunity to conduct an intensive survey to record the species composition and densities which could be used to as a basis for the development a deferred grazing and grazing rotation management plan.

It is recommended that the Tribe develop a program, in conjunction with an effort to reduce the amount of over-grazing on the landscape, to plant native species elsewhere on the Reservation to limit the introduction and establishment of noxious weeds.

V. CONSULTATIONS

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BURNED AREA REHABILITATION (BAR)

BURNED AREA REHABILITATION PLAN

Asaayi Lake Fire

FORESTRY RESOURCES ASSESSMENT

I. OBJECTIVES

- To determine volume of mortality to commercial timber and the potential to salvage fire killed trees

II. ISSUES

- Potential salvage and reforestation needs

III. OBSERVATIONS

This report addresses known and potential effects of the fire, suppression activities and proposed stabilization treatments to vegetation communities and forest resources on lands held in trust by the U.S. Government, Bureau of Indian Affairs, for the Navajo Nation as a result of the Asaayi Lake Fire. It specifically addresses issues presented by Tribal and Agency resource staff and provides recommendations for emergency treatment. This plan may be cited as a justification document to seek outside funding from other sources for recommended treatments not covered by Emergency Stabilization (ES) funds.

Findings and recommendations contained in this assessment are based upon information obtained from literature reviews, field reconnaissance of the fire area, Geographic Information System (GIS) analyses, personal interviews and meetings with various Tribal and BIA natural resource managers and other BAER Team members.

The GIS boundary of the fire surveyed by the fire suppression team shows an acreage of 14,712 however, for this forestry and vegetation assessment, a boundary that excluded approximately 1,211 acres of unburned meadows was used leaving an acreage of 13,501.

A. Background

The Asaayi Lake fire began on June 13, 2014 from human causes adjacent to a youth camp. On June 14, high winds caused continued spotting outside containment lines and eventually on a ridge top where the high winds caused the fire to blow up and make its largest run up Bowl Canyon, then over the rim of the Chuska mountains and downslope in the direction of the community of Naschitti.

1. Vegetation

Listed below are descriptions of the vegetation strata on Navajo Nation lands taken from the Navajo Tribe's GIS database:

Piñon-Juniper: dominated by a piñon pine (*Pinus edulis*) and one-seed juniper (*Juniperus monosperma*) overstory with a grass/herb/shrub understory. Ponderosa pine (*Pinus ponderosa)* is occasional in this type. This community forms a discontinuous transitional belt and is located at the lowest elevational band within the burn (6,000 to 8,500 feet). Piñon-juniper woodlands represent the lowest elevation forest type. Fire maintains these woodlands between shrublands and desert grasslands (FEIS, 2011). Piñon forms closed woodlands at the upper elevational range, whereas juniper occurs in savanna-like communities at the lower elevational range and interface with grasslands. Shrub cover is variable and includes Gambel oak (*Quercus gambelii*,

mountain mahogany (*Cercocarpus montanus*), snakeweed (*Gutierrezia sarothrae*), cliff rose (*Cowania stransburiana*), and currant (*Ribes cereum*). Succulents (cactus) includes cane cholla (*Cylindropuntia imbricata*), and prickly pear (*O. polyacantha*). Common forbs include paintbrush, (*Castilleja integra*), pingue rubberweed (*Hymenoxys richardsonii*) and common grasses include Indian ricegrass (*Achnatherum hymenoides*), blue grama (*Bouteloua gracilis*), junegrass (*Koeleria macrantha*), and muttongrass (*Poa fendleriana*).

Ponderosa Pine: dominated by a ponderosa pine overstory with understories consisting of ponderosa pine or Douglas-fir (*Pseudotsuga menziesii*) and shrubs including Gambel oak depending on stand density, habitat type, and recent fire history. At its upper limit, ponderosa pine and mixed conifer forests intergrade, while at its lower limit it merges into piñon-juniper woodland. However, ponderosa pine typically is the sole dominant conifer. Where trees are large and scattered the forests may be open and park-like, with a predominately grassy understory formed under pre-settlement fire conditions. Ponderosa pine and Douglas-fir are found on gentle slopes with deeper soils, while the steeper slopes and shallow stony soils are usually dominated by shrubs intermixed with sparse ponderosa pine. Early seral stages of this type are dominated by bunch grasses (squirreltail - *Elymus elymoides* var. *brevifolius*, Arizona fescue - *Festuca arizonica*, and junegrass), mountain muhly (*muhlenbergia montana*), forbs (yarrow - *Achillea millefolium*, small-leaf pussytoes - *Antennaria parvifolia*, silvery lupine - *Lupinus argenteus*, and American vetch - *Vicia americana*).

Mixed Conifer: dominated by an evergreen, coniferous species overstory including Douglas-fir and ponderosa pine intermixed with quaking aspen (*Populus tremuloides*). If aspen clones are present on the site, aspen stands will usually dominate the site for 80-100 years post disturbance. Common understory shrubs and subshrubs include common juniper, (*Juniperus communis*), little mock orange (*Philadelphus microphyllus*), and snowberry (*Symphoricarpos oreophilus*). Forbs include strawberry (*Fragaria vesca*), slender cinquefoil (*Potentilla gracilis*), prairie thermopsis (*Thermopsis rhombifolia*), and MacDougal's vervain (*Verbena macdougalii*). Graminoids include White Mountain sedge (*Carex geophila),* slender wheatgrass (*Elymus trachycaulus),* mountain muhly (*Muhlenbergia montana),* and bluejoint reedgrass (*Calamagrostis canadensis*).

Non-Forested: high elevation grasslands occurring as openings within mixed conifer and spruce-fir forests. Upper-elevation montane meadows may be extensive and uninterrupted, whereas lower elevation wet meadow sites are often surround by dense coniferous forests. Some of the common grasses located in the Santa Clara Pueblo area include Parry's oatgrass, (*Danthonia parryi*), Idaho fescue (*Festuca idahoensis*), Thurber's fescue (*F. thurberi*), junegrass, mountain muhly, and muttongrass. Common forbs in this type include *Achillea millefolium, Campanula rotundifolia, Carex microptera, Erigeron flagellaris, Erysimum capitatum, Frasera speciosa, Heterotheca villosa, Hymenoxys richardsonii, H. hoopesii, Ipomopsis aggregata, Iris missouriensis, Lupinus argenteus, Orthocarpus luteus, Potentilla gracilis*, and *Thermopsis rhombifolia*. Generally, this vegetation type has experienced a high level of disturbance by grazing. Loss of natural fire disturbance due to grazing effects has promoted forest encroachment in many locations.

Table 1. Acres of Vegetation Type by Compartment

Veg Type	Comp 53	Comp 54	Comp 55
Mixed Conifer	1,709	3,225	266
Ponderosa Pine	2,116	2,080	2,708
Pinyon Juniper Woodlands	10	0	419
Non-Forested	74	892	0

2. Tree Damage and Mortality

Post-fire mortality can continue for several years through a variety of influencing factors including the time of year of the fire occurrence, tree health and vigor, site quality, extent of cambium and crown damage, post-fire stand density/competition, post-fire climactic conditions, and incidence of insect/disease infestations. The following guidelines were derived from research by Wagener (1961), and sources found in the Fire Effects Information System (FEIS).

Season: Conifers are most susceptible to fire damage early in the growing season because retention of sufficient green foliage is necessary to carry the tree through the remainder of the growing season and provide some food reserves for the following year. Because the fire occurred just as buds were beginning to elongate, even moderate levels of crown scorch can be expected to have serious effects on tree vigor and mortality levels. Fires that occur after bud set, have much less impact on tree survival.

Tree Vigor/Site Quality: Younger, more vigorous trees on good sites have a better chance of survival than over mature trees on poor sites.

Crown Damage: The amount of live crown remaining, as distinguished from green foliage, is the most important single factor in survival of fire-scorched ponderosa pine. Green needle bases indicate that the surrounding parts of the crown are still alive; conversely, darkened needles and needles "frozen" in position in the direction of fire-run are unmistakable indicators the surrounding crown is dead. The minimum green foliage requirement for vigorous ponderosa pine survival of an early season (before July 1) burn is estimated to be 35 percent of the pre-fire crown. In species with slender twigs and small terminal buds, as in Douglas fir, foliage kill and bud and twig kill are approximately the same as that which will be present in succeeding years. The minimum post-fire survival criteria for moderately vigorous trees, those growing on a poor site, or following a mid season (July) fire, is 40-45 percent of the pre-fire crown.

Cambium Damage: Based on preliminary results, Ryan (1990) has reported that, in the absence of significant crown injury, most trees survive up to 25 percent basal girdling, whereas few survive more than 75 percent.

Post-Fire Stand Density and Competing Plants: Potter and Foxx (1979) reported decreased recovery as stand density increased above 130 trees per acre. Another contributing factor cited for poor recovery was competition from seeded grass.

3. Forest Health

The Asaayi Lake fire burned in parts of compartments 53, 54 and 55, which according the forest management plan are commercial timberlands though there has not been any commercial timber harvesting in the Chuska Mountains and Fort Defiance Plateaus over the past 20+ years. Other that fuels treatments and prescribed fires, there essentially has been no density management in the forests and woodlands, and no management of insects and disease. Though prescribed fire can modify stocking densities, it is inexact and may not, on a stand level, leave the desired stand characteristics.

B. RECONNAISSANCE METHODOLOGY & RESULTS

1. Vegetation

Field reconnaissance consisted of on-site inspection of fire impacted plant communities and forested roadways/corridors. Field reconnaissance was conducted on June 24, June 28 and June 29, 2014. In 2006, the Fort Defiance Natural Resources department conducted a vegetation survey in the Chuska Mountains and on the Fort Defiance Plateau. A literature review was conducted to obtain baselines data on soils, hydrologic processes, plant communities, noxious weeds/non-native invasive species, and the importance of vegetative species. Many

well-written documents exist that detail historic and present day vegetation descriptions. Excerpts from these documents have been included to provide the reader with a better understanding of vegetative community structure and provide insight into the fragility and fire ecology of these watersheds. Information used in this assessment was also generated from GIS databases and discussion with species experts and natural resource managers from the local Tribe and the BIA.

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(1) Clip the BARC dataset to the fire perimeter to remove pixels classified as 0.
(2) Colors were adjusted up or down to best represent mortality.
(3) Assign color values for values 1-255. The initial breakdown was 1-80 (green), 81-99 (blue), 100-149 (yellow) and 150-255 (red).
(4) This color ramp was examined comparing it to photography taken on the 6/23/14 helicopter reconnaissance flights, to the LANDSAT 8 before image and through ground truthing from visiting the fire area.

All areas within the fire perimeter were classified into four categories of severity. These were: Low, where there was between 0 to 25% top kill or mortality; Moderate Low between 26 to 50% top kill or mortality; Moderate High where there was between 51% to 75% top kill or mortality; and High where there was greater than 76% top kill or mortality.

Tribal foresters and BAER vegetation specialists then ground-truthed the data and provided corrections.

3. Potential Salvage

Commercial timber areas impacted by the fire include Compartment 55 of the Tohnitsa sale unit, Compartment 54 of the Twin Buttes Sale area, and Compartments 53 and 59 of the Crystal sale area. Almost all of Compartment 53, roughly half of Compartment 54 and a small portion of Compartment 59 are in a Special Management Area (SMA) or a Protected Activity Center (PAC) which emphasizes management for wildlife, but that does not exclude the harvesting of timber during the management plan timeframe.

Potential Salvage volumes were developed by taking the midpoint of the mortality class and multiplying it by the volume per acre of each timber type and multiplying that by the acres of that timber type. The volume per acre values were from the 2004 CFI Inventory. These were “grown” for 10 years using the growth per acre per year values provided in the inventory to bring the volumes to the current year.

C. FINDINGS

1. Vegetation

For the purposes of this assessment, the classifications of vegetation top kill or mortality do not imply long-term vegetation mortality or recovery potential. Resprouting and releafing from epicormic plant parts or root crowns will occur based on specific plant physiological characteristics, degree of injury, climatic conditions, and the presence of other damaging agents. Vegetation top kill classification parameters include degree of consumption of herbaceous, shrub, and forest/woodland vegetation communities, and effects of the fire on the regeneration potential of the affected vegetation species.

On soils that did not experience long residency time from the fire, seeds below the surface should grow providing climatic conditions are favorable with the onset of the monsoon moisture. During field assessments it was noted that perennial grass and forb root crowns were still intact even where vegetation top-kill was rated as moderate-high. Vegetation recovery should occur naturally on most of the shrubs, forbs and graminoids throughout Navajo Nation lands within the Asaayi Lake Fire, provided that livestock are controlled and lands rested from grazing pressures for several years to allow recovery.

Most of the shrub species recover from epicormic roots or adventitious buds—sprouting from underground roots or buds, although reproduction from seed also occurs. Shrub species growing at the lower elevations of the burn area (arid regions) are usually not adapted to moderate to high fire intensities or short fire return intervals. However, the vegetation at the lower elevations of ponderosa pine and lower had low to moderate-low vegetation top kill ratings. Table 4 indicates total acreage of vegetation mortality/top kill, by compartment.

Table 2. Top Kill/Mortality Class Acreage within the Asaayi Lake fire

Compartment	Low (0-25%)	Moderate Low (26-50%)	Moderate High (51-75%	High (>75%)
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54	1,806	1,126	1,842	1,424
55	579	672	1,341	802
Total	3,161	2,281	4,182	3,576

2. Forest Health

Though the Tribe has a forest management plan that calls for the annual harvest of 15.9 MMBF per year, there has been no large scale harvesting in the past 20 years. A timber sale was in the process of being developed, but much of the planned harvest was in the area that burned in moderate high to high intensity. The lack of harvesting or precommercial thinning has allowed the forest to grow essentially with little or no density management, resulting in stocking levels that are approaching or just above a level where they are at risk of insect attack and/or density related mortality. The fire reduced that stocking density of the forested landscape though the spacing is more irregular that a prescribed fire would be.

Fire-damaged pines are more susceptible to successful bark beetle attack for two or more years post-fire (Miller and Keen, 1960). Those trees with both heavy foliage scorching and moderate to severe cambium kill are especially vulnerable (Miller,1929; Salman, 1934). Major insect "pests" associated with ponderosa pine are western pine beetle (Dendroctonus brevicomis), roundheaded pine beetle (D. adjunctus), red turpentine beetle (D. valens), mountain pine beetle (D.ponderosae), and pine engraver beetles (Ips spp.). Removing successfully- attacked bark beetle-infested ponderosa pines may result in some reduction of additional tree mortality (Graves, pers com).

3. Potential Salvage

Table 3 displays an estimate of the volume of potential salvage of trees greater than 5 inches DBH by vegetation type and compartment. This should only be considered a "ballpark" figure. In order to get a more accurate estimate a formal cruise should be conducted.

Table 3. Estimated Volume of Potential Salvage

	Total Standing BF Volume/AC	LOW - Mortality/Ac (12.5% Midpoint)	MOD LOW - Mortality/Ac (37.5% Midpoint)	MOD HIGH - Mortality/Ac (62.5% Midpoint)	HIGH - Mortality/Ac (87.5% Midpoint)	Total Mortality Board Foot Volume Estimate (Greater than 5")
Compartment 53						**12,679,536**
Mixed Conifer	6,395	799	2,398	3,997	5,596	7,632,393
Ponderosa Pine	4,408	551	1,653	2,755	3,857	5,004,682
Pinyon-Juniper	4,534	567	1,700	2,834	3,968	17,825
Non-Forested	1,724	216	647	1,078	1,465	24,636
Compartment 54						**16,496,397**
Mixed Conifer	6,395	799	2,398	3,997	5,596	11,690,669
Ponderosa Pine	4,408	551	1,653	2,755	3,857	4,447,462
Non-Forested	1,724	216	647	1,078	1,509	358,267
Compartment 55						8,595,512
Mixed Conifer	6,395	799	2,398	3,997	5,596	**1,137,924**
Ponderosa Pine	4,408	551	1,653	2,755	3,857	6,556,567
Pinyon-Juniper	4,534	567	1,700	2,834	3,968	900,954
Non-Forested	1,724	216	647	1,078	1,509	67
Grand Total						**37,771,445**

IV. RECOMMENDATIONS

A. Management Recommendation – Rehabilitation (Non-Specification)

Potential Salvage
It is recommended the potential for a salvage timber sale be assessed beginning with a feasibility study to determine whether there is a market for the salvaged trees. The TEAMS Enterprise (www.fs.fed.us/teams) would be a group that could be contacted to conduct the analysis.

Should it be determined that salvage is feasible, it is recommended that salvage take place in compartments 54 and 55 and the part of Compartment 53 not in Bowl Canyon. It is recommended that no salvage take place in Bowl Canyon in order to allow the drainage minimal impacts and time for native vegetation to re-establish as soon as possible.

Should a salvage go forward, it is also recommended that, along with the trees killed by the fire, those trees with less than 30% live crown at the time of salvage also be harvested in order to reduce the potential for bark beetle populations to increase to unacceptable levels.

Fuels Management
Should the Tribe succeed in conducting a salvage sale, there would be expected to be activity slash that would need to be treated. It is recommended that the fuels program develop fuels treatment projects to be implemented immediately after salvage operations are complete. Use all tools available including hand and mechanical methods and prescribed fire.

Should the Tribe not be able to salvage the timber prior to it losing its value to blue stain, boring insects and other pathogens, there would also be a need to treat natural fuels. It is recommended that prescriptions be developed to treat the dead trees while providing sufficient snags for wildlife needs and to simultaneously treat fire stressed trees (<30% live crown) to reduce the number of potential host trees for bark beetle populations to get a chance to increase to epidemic levels. Bucking of fire stressed trees should be in accordance with guidelines to minimize opportunities for insect infestations.

Forest Management
It is recommended that the Navajo Forest Management plan be re-examined and updated to reflect changes to forest structure, composition and density on the landscape over the past 20 years and to include new direction for the following:

- Salvage of commercial timber killed by fire, insects and disease
- Mitigation of tree hazards along roads caused by insect, disease or wildfire
- Reforestation of commercial timber stands after a fire where a certified silviculturist has determined that the stand will not recover naturally within a decade
- Integrate forest and fuels management program aspects into the development of comprehensive prescriptions that address stand and landscape level management goals and objectives
- Develop a grazing plan that allows for natural regeneration in forest stands, reseeding, resting of the fire areas over several years and future use of rotational grazing measures during seasonal use periods within the fire areas.

It is recommended that the priority for harvesting be partially based on an objective risk assessment that examines the likelihood that if a fire were to start, that it will be the most difficult to quickly contain or control.

V. CONSULTATIONS

Cathy Covington – Navajo Regional Forester
Dominick Chicharello – Navajo Region Fuels Forester
Darryl Wilson – Fort Defiance Agency Fuels Technician
Alex Becenti – Navajo Tribal Forester
A.K. Arbab – Navajo Forestry Department
Ed Sam – Navajo Forestry Department
F. D. Thompson – Navajo Forestry Department
Sadie Johnson – GIS Specialist, Navajo Forestry Department
Calvert Curley – BIA Natural Resources
Jerome Willie – BIA Natural Resources
Jim Bydone – BIA Natural Resources
Robert W. Billie – Navajo Forestry Department
Sam Diswood – Navajo Fish & Wildlife Department

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Fred von Bonin, Forester, BIA Southwest Regional Office (505) 563-3381

BURNED AREA EMERGENCY RESPONSE PLAN

ÁSAAYÍ LAKE FIRE

APPENDIX II COMPLIANCE

Culverts at Bowl Canyon Drainage_above Ásaayí Lake

APPENDIX II – ENVIRONMENTAL COMPLIANCE

FEDERAL ENVIRONMENTAL COMPLIANCE RESPONSIBILITIES

All projects prescribed, funded or proposed for implementation on tribal lands in the Burned Area Emergency Response (BAER) Plan for the 2014 Asaayi Lake Fire are subject to compliance with the *National Environmental Policy Act of 1969* (NEPA, 42 U.S.C. 4321-4347), in accordance with the guidelines provided in the *Council on Environmental Quality Regulations* (40 CFR 1500-1508) and other relevant federal environmental regulations such as the Endangered Species Act (ESA, 7 USC §136,16 USC.§1531 et seq.) and the Clean Water Act (33 USC §1251 et seq.). Specifically, Appendix II documents the record of the Department of the Interior (DOI) BAER Team in complying with the requirements of federal environmental laws, during development and implementation of the emergency stabilization and monitoring actions prescribed in the BAER Plan for the Navajo Nation, trust lands affected by the Asaayi Lake Fire.

The Plan has been developed by the DOI BAER Team, with assistance from Navajo Nation, the Bureau of Indian Affairs Navajo Region and the US Army Corps of Engineers. The Plan objectives are to analyze post-fire conditions and develop specific emergency stabilization and monitoring actions to mitigate direct and indirect resource damage to Navajo Tribal Trust lands from the Asaayi Lake Fire, including fire suppression actions. The Bureau of Indian Affairs (BIA) will complete separate NEPA analyses and compliance for fire response activities not addressed in this Plan.

The BIA has an approved Fire Management Plan entitled, *Wildland Fire Management Plan for the Navajo Nation and National Park Service Units within Navajo Nation*. The Fire Management Plan states that subsequent projects, including BAER actions, should be in compliance with the Fire Management Plan, documented by undergoing a site specific NEPA review that meets the requirements for a CE. If the project has the potential for significant adverse effect and cannot meet the requirements for a CE, a separate EA or EIS would need to be prepared for that action. As the sole affected DOI agency for the treatments included in the Asaayi Lake Fire BAER Plan, the BAER Team prepared the environmental compliance for the treatments using BIA guidance for NEPA compliance, including the BIA list of CEs.

The actions of the DOI BAER Team, in selecting emergency stabilization and monitoring actions for funding, is in itself an “action”, i.e. a discretionary decision, which must comply with NEPA and other environmental regulations. The BAER Team, an interagency DOI program, assesses the impacts of a wildfire on DOI lands, develops a suite of actions aimed at stabilizing and monitoring critical resources and protecting life and property and performs the regulatory compliance functions for the affected DOI agency. In the case of the Asaayi Lake Fire BAER Plan, the affected agency is the Bureau of Indian Affairs (BIA) Navajo Region. The BAER Team staff assisted in completing compliance requirements with the BIA using BIA NEPA regulations.

CUMULATIVE IMPACT ANALYSIS

Cumulative effects are the environmental impacts resulting from the incremental impacts of a proposed action when added to other past, present, and reasonably foreseeable future actions. For this analysis, cumulative impacts are limited to the total effect of all treatments proposed in this BAER Plan, but this analysis does not consider all other Federal or Non-Federal actions that may occur in the project areas beyond the scope of BAER. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time.

The BAER actions for the Asaayi Lake Fire proposed in this plan would not result in an intensity of impact (i.e., major ground disturbance, etc.) that would cumulatively constitute a significant impact on the quality of the environment. Treatment effects are largely beneficial in response to direct and indirect fire and fire suppression impacts. Cumulatively, these BAER actions, in conjunction with suppression repair actions by fire suppression crews, are designed beneficial actions to stabilize and protect resources impacted by wildfire. No significant cumulative adverse impacts to the biological or physical environment would result from the implementation of the Asaayi Lake Fire BAER Plan.

APPLICABLE AND RELEVANT CATEGORICAL EXCLUSIONS

The individual actions proposed in this plan meet the requirements for a categorical exclusion (CE) from further NEPA documentation as set forth in Department of Interior Departmental Manual (DM) Part 516, Chapter 10.

N321 Culvert Removal/Low Water Crossing: Bureau of Indian Affairs NRO Transportation will remove existing two 87" culverts and construct a low water ford crossing with Cable Concrete on Indian Route 321 (N321). After 2 years, an open bottom arch culvert will be installed. Corrugated metal pipe stream crossings of Bowl Canyon Creek, existing before the fire, have a high potential to plug and fail during and after storm events after the fire, as a result of increased runoff caused by the fire. These culvert stream crossings in Bowl Canyon Creek will likely become impassable by vehicles and will increase the potential for significant debris damming in the stream channel and exacerbate flood events caused by stream flow breaching debris dams. Proposed action is in accordance with Wildland Fire Management Plan for the Navajo Nation and National Park Service Units within Navajo Nation.

BIA coordinated with the Navajo Nation and the US Army Corps of Engineers to obtain 404 permits and 401 permits.

BIA will conduct regular inspection of crossings after rain storm events and high flows during spring runoff. Should monitoring result in debris removal or repair, then an amendment to the plan will be needed and submitted for review and approval by the BIA National BAER Coordinator.

The above action would be categorically excluded in accordance with 516 DM Chapter 10.5 (A) "Operation, Maintenance, and Replacement of Existing Facilities. Examples are normal renovation of buildings, road maintenance and limited rehabilitation of irrigation."

Existing Culverts Replacements & Clean-outs: An inventory of drainages crossing the three major roads (BIA Roads 8000, 8091, and 8093) within the Asaayi Lake Fire and one two-track road in the vicinity of Long Lake revealed the presence of sixteen (16) culverts. These culverts average 36' in length and are of variable diameters, ranging from 18" to 36".

- N8000: On June 29 and 30th, fire crews dug out and flushed three of the seven culverts located along the 8000 Road and adjacent two-track. The remaining four culverts on the 8000 road will be removed and replaced. One of these, a historic wooden culvert, is subject to review under Section 106 of the National Historic Preservation Act (NHPA), prior to removal.

- N8091: Of the two culverts identified along the 8091 Road, one was dug out and flushed by a fire crew on June 29th, the other culvert required no action.

- N8093: Seven culverts were located along the 8093 Road. Three of these were dug out and flushed by a BIA fire crew on June 30. Three culverts are recommended for replacement. One of these culverts appears to be a wooden feature, and may require review under the NHPA. The remaining culvert on Road 8093 is an 18" diameter pipe of unknown length. The outflow section of the culvert has over time been buried through sedimentation resulting in a somewhat stable and vegetated soil surface next to the road. Below this small meadow, the landscape is deeply dissected, illustrating the highly erosive nature of the native soil. Replacement of the culvert is likely to destabilize this fragile area. Therefore, it is recommended that no action be taken at this location.

The above action would be categorically excluded in accordance with 516 DM Chapter 10.5 (A) "Operation, Maintenance, and Replacement of Existing Facilities. Examples are normal renovation of buildings, road maintenance and limited rehabilitation of irrigation."

Noxious Weeds/Non-native Invasive Species: BIA Navajo Region will monitor for weeds in areas of disturbance during suppression activities (i.e., fire lines), as well as other known locations. It is anticipated that there will be an increased opportunities for dispersal and establishment as a result of fire and fire suppression activities. BIA does have a noxious weed list for the Navajo Nation and is tasked with identifying methods of control for designated species, and educate the public about noxious weeds. The BIA coordinates weed management among tribal communities, state, and federal land managers.

According to Fort Defiance Agency Natural Resources staff, noxious weeds that have been documented in or near the burn area include the following; Russian knapweed – Acroptilon repens, musk thistle - Carduus nutans, cheatgrass - Bromus tectorum, Russian olive - Elaeagnus angustifolia, Siberean elm - Ulmus pumila, and saltcedar - Tamarix spp.

The above action would be categorically excluded in accordance with 516 DM Chapter 10.5 (M) Other. Data gathering activities such as inventories, soil and range surveys, timber cruising, geological, geophysical, archeological, paleontological, and cadastral surveys.

Hazard Sign Placements: BIA will install flood hazard signs to warn the public that they are entering drainage prone to flooding during rain events. The signs shall contain language specifying issues to be aware of when entering a burn area such as falling trees and limbs, rolling rocks, and flash floods.

The above action would be categorically excluded in accordance with 516 DM Chapter 10.5 (L)(4) Roads and Transportation. Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur.

Applicable Bureau of Indian Affairs Categorical Exclusions (CEs)
These CEs, from DOI Departmental Manual 516, Chapter 10, Section 5, were used by the BAER Team in conducting the NEPA impact assessment on behalf of the BIA for the actions proposed in the Asaayi Lake Fire BAER Plan.

A. Operation, Maintenance and Replacement of Existing Facilities. Examples are normal renovation of buildings, road maintenance and limited rehabilitation of irrigation structures.

M. Other. Data gathering activities such as inventories, soil and range surveys, timber cruising, geological, geophysical, archeological, paleontological, and cadastral surveys.

(L)(4) Roads and Transportation. Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur.

STATEMENT OF COMPLIANCE FOR THE 2014 ASAAYI LAKE FIRE BAER PLAN
This section documents how the Asaayi Lake Fire DOI BAER Team conformed to the requirements of federal environmental laws in the development of the 2014 Asaayi Lake Fire BAER Plan. Specific consultations initiated or completed during development and implementation of this plan are also documented. The following executive orders and legislative acts have been reviewed as they apply to the Asaayi Fire BAER Plan.

National Historic Preservation Act (NHPA) - Certain emergency stabilization treatments may have the potential to affect significant tribal cultural resources and thereby require that the BAER Team comply with the implementing regulations of the National Historic Protection Act, as amended (NHPA) and as promulgated under 36 CFR Part 800. Cultural resource specialists from the DOI BAER Team conducted a record search and matched locations for recorded sites from the area at the Navajo Nation Historic Preservation Department. Once in Window Rock, BAER Team cultural resource specialists consulted with tribal members of the Navajo Nation on potential direct and indirect effects of the fire on the tribe's cultural resources. Although there were effects from fire to cultural resources sites may be effected by proposed treatments. The BAER Team recommended continued consultation with tribal members as a BAER Plan action in the case that potential post-fire risks to important cultural resources not included in the scope of the BAER Plan are identified in the future.

Executive Order 11988, Floodplain Management - No proposed treatments would occupy or modify floodplains and all proposed treatments are in compliance with this order.

Executive Order 11990, Protection of Wetlands - No proposed treatments would result in long-term impacts to or loss of wetlands and all proposed treatments are in compliance with this order.

Executive Order 12372, Intergovernmental Review - Coordination and consultation is ongoing with affected Tribes, Federal and local agencies. A copy of the BAER plan will be disseminated to all affected parties.

Executive Order 12892, Federal actions to address Environmental Justice in Minority and Low-Income Populations. All Federal actions must address and identify, as appropriate, disproportionately high and adverse human health or low-income populations, and Indian Tribes in the United States, The BAER Team has determined that the actions proposed in this plan will result in no adverse human health or environmental effects for minority or low-income populations and Indian Tribes.

Executive Order 13112 directs federal agencies "not to authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species." Proposed treatments in the Pacheco BAER Plan incorporate best management practices, such as vehicle undercarriage washing, tool cleaning, use of weed free seeds, etc, that address the concerns of this order.

Endangered Species Act (ESA). Section 7 Consultation: The Navajo Nation Department of Fish and Wildlife issued a compliance letter indicated that BAER Plan actions would not have an impact to tribally or federally listed species.

Clean Water Act (CWA). Members of the DOI BAER Team consulted with the Navajo Nation Environmental Protection Agency and the U.S. Army to obtain permits.

All proposed treatments comply with CWA with the incorporation of mitigation measures included with the USACE granting §404 approval. One application was made to the U.S. Army Corps of Engineers, Albuquerque Permitting Branch for Section 404 approval by the BIA for culvert removal and low water crossing installation dated July 3, 2014. A 401 application was also submitted to the Navajo Nation Environmental Protection Agency on July 2, 2014 with receipt of approval on July 3, 2014.

Clean Air Act. Federal Ambient Air Quality Primary and Secondary Standards are provided by the National Ambient Air Quality Standards, as established by the U.S. Environmental Protection agency (EPA) (Clean Air Act, 42 U.S.C. 7470, et seq., as amended). The BAER Team has determined that treatments prescribed for the Asaayi Lake Fire may have short-term negligible to minor impacts to air quality due to equipment emissions and/or increases in particulates during ground-based activities, but they would not differ significantly from routine land use practices for the area. As such, all proposed treatments are in compliance with this Act.

CONSULTATIONS

BAER Team members attended a BIA in-briefing in Window Rock on June 24, 2014 at the Navajo Nation Museum to obtain information on issues of concern for the Navajo Nation, as well as other consultations throughout. Attendees were employees from the Navajo Nation, Navajo Regional Office of the Bureau of Indian Affairs and members of the BAER Team. In addition, the BAER attended and presented at affected Navajo Chapters. Internal scoping continued daily by the BAER Team briefing as new issues found in the field were recorded into the record of issues and concerns raised by the tribes.

Others consulted:

- Chris Wrbas, Army Corp of Engineers, Regulatory Division, Durango, CO
- Ron Maldonado, Navajo THPO, Navajo Nation Historic Preservation Department, Window Rock, AZ
- Lee Anna Martinez-Silversmith, 401 Certification Program Coordinator, Water Quality, Navajo Nation Environmental Protection Agency
- Bernadette Tsosie, Supervisory Hydrologist, BIA NRO, Gallup, NM
- Pamela Kyselka, Wildlife Biologist, Navajo Nation Natural Heritage Program, Window Rock, AZ
- Terry McClung, Archaeologist, BIA NRO, Gallup, NM

COMPLIANCE DOCUMENTATION FOR THE ASAAYI LAKE FIRE BAER PLAN

Table 1 summarizes the environmental compliance record of the BAER Team for the treatments proposed in the Pacheco Fire BAER Plan.

Table 1 – Compliance Record for the DOI Pacheco Fire BAER Plan

Treatment Code	**Treatment**	**Discussed in Asaayi BAER Plan Assessment**	**Compliance Record for:** **NEPA** **NHPA** **CWA, §404**
1	Culverts Replacements	Watershed	NEPA compliance by the BAER Team on behalf of the BIA tiers from Fire Management Plan. Site specific CE is BIA 516 DM 10.5(A). NHPA Determination: No Historic Properties Affected. CWA § 404Permit: Not required. No fill emplacement involved.
2	Culvert Cleaning	Watershed	NEPA compliance by the BAER Team on behalf of the BIA tiers from the Fire Management Plan. Site specific is BIA 516 DM 10.5 (A). NHPA Determination: No Historic Properties Affected. CWA § 404 Permit: Not required. No fill emplacement involved.
3	Low Water Crossing Installation	Watershed	NEPA compliance by the BAER Team on behalf of the BIA tiers from Fire Management Plan. Site specific CE is BIA 516 DM 10.5(A). NHPA Determination: No Historic Properties Affected. CWA § 404 Permit: One application was made to the U.S. Army Corps of Engineers, Albuquerque Permitting Branch for Section 404 approval by the BIA for culvert removal and low water crossing installation dated July 3, 2014. CWA § 401 Permit: One application was also submitted to the Navajo Nation Environmental Protection Agency on July 2, 2014 with receipt of approval on July 3, 2014.
4	Hazard Safety Sign	Protection & Warning	NEPA compliance by the BAER Team on behalf of the BIA tiers from Fire Management Plan. Site specific CE is BIA 516 DM 10.5(L) (4). NHPA Determination: No Historic Properties Affected. CWA § 404 Permit: Not required.
5	Noxious Weed Monitoring	Assessment	NEPA compliance by the BAER Team on behalf of the BIA tiers from Fire Management Plan. Site specific CE is BIA 516 DM 10.5(M)(1). NHPA Determination: No Historic Properties Affected. CWA § 404 Permit: Not required.

DOI EXCEPTIONS TO CATEGORICAL EXCLUSIONS

CEQ Regulations (40 CFR 1508.4) require agencies to consider whether fairly routine actions involve extraordinary circumstances that require an agency to prepare further assessment and consideration. If it is determined that any of the exceptions listed in the table below apply to the proposed actions listed above, that action may not be categorically excluded, and an EA or an EIS must be prepared. The list below is from the DOI and applies to all DOI agencies (516 DM 2, Appendix 2); agencies may have additional items on their own list of Departmental exceptions.

EXCEPTION CHECKLIST FOR BIA CATEGORICAL EXCLUSIONS

Project: Asaayi Lake Fire BAER Plan **Date:** 7/2/2014
Nature of Proposed Action: Implement prescribed treatments and monitoring included in the 2014 Asaayi Lake Fire Burned Area Emergency Response Plan

Evaluation of Exception to use of BIA Categorical Exclusions

1.	This action would have significant adverse effects on public health or safety.	No ☒	Yes ☐
2.	This action would have an adverse effect on unique geographical features, such as wetland, wild or scenic rivers, refuges, floodplains, rivers placed on nationwide river inventory, or prime or unique farmlands.	No ☒	Yes ☐
3.	The action will have highly controversial environmental effects.	No ☒	Yes ☐
4.	The action will have highly uncertain environmental effects or involve unique or unknown environmental risks.	No ☒	Yes ☐
5.	This action will establish a precedent for future actions.	No ☒	Yes ☐
6.	This action is related to other actions with individually insignificant, but cumulatively significant environmental effects.	No ☒	Yes ☐
7.	This action will affect properties listed or eligible for listing in the National Register of Historic Places.	No ☒	Yes ☐
8.	This action will affect a species listed, or proposed to be listed as endangered or threatened.	No ☒	Yes ☐
9.	This action threatens to violate federal, state, local, or tribal law or requirements imposed for protection of the environment.	No ☒	Yes ☐
10.	This action will have a disproportionately high and adverse effect on low income or minority populations.	No ☒	Yes ☐
11.	This action will limit access to, and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners, or significantly adversely affect the physical integrity of such sacred sites.	No ☒	Yes ☐
12.	This action will contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area, or may promote the introduction growth, or expansion of the range of such species.	No ☒	Yes ☐

A “yes” to any of the above exceptions will require that additional documentation must be prepared.

Selection of NEPA Documentation Type:

CE ☒ **EA** ☐

Preparers' Name and Title:

Harrilene Yazzie, Regional NEPA Coordinator,
BIA Navajo Region
Division of Environmental, Cultural and Safety Management
Harrilene.Yazzie@bia.gov

CONCLUSION

I have reviewed the treatments in the 2014 Asaayi Lake Fire Emergency Response Plan in accordance with the criteria above. All proposed treatments qualify as Categorical Exclusions.

_____ Date_____
BIA Navajo Regional Archeologist Concurrence with Item 7

Concur: _____ Date: _____
Regional Director, BIA Navajo Region

BURNED AREA EMERGENCY RESPONSE PLAN

ÁSAAYÍ LAKE FIRE

APPENDIX III PHOTO DOCUMENTATION

Un-burned cabin along the 8000 road

ÁSAAYÍ LAKE FIRE

VALUES AT RISK

Mosiac burn: East Flank of fire below escarpment. West of Nachitti

Ásaayí Lake: Bowl Canyon drainage upper right

Culvert above Ásaayí Lake in Bowl Canyon Drainage

Soil Hydrophobicity (water repellency) burn severity test

BURNED AREA EMERGENCY RESPONSE PLAN

ÁSAAYÍ LAKE FIRE

APPENDIX IV MAPS

#1 SOIL BURN SEVERITY
#2 VEGETATION MORTALITY / TOP KILL
#3 VEGETATION
#4 INVASIVE NOXIOUS WEEDS
#5 TREATMENTS
#6 STRUCTURE ASSESSMENT

High Vegetation Mortality. East Rim of Bowl Canyon

Asaayi Lake Fire

Soil Burn Severity

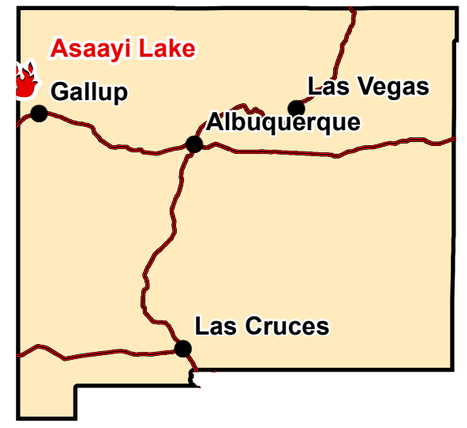
Legend

- High
- Moderate
- Low
- Unburned
- Fire Perimeter

0 0.5 1 2

Miles

Locator Map



The date represented in this map were gathered from multiple sources, which may vary in accuracy, scale, and date. This is for display purposes only.

Asaayi Lake Fire

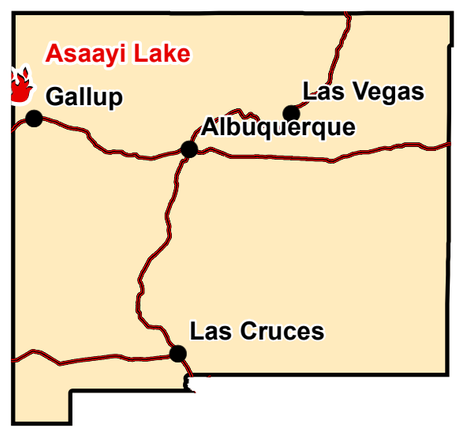
Vegetation Mortality/Top Kill

Legend

- 75-100% Mortality/Top Kill
- 50-75% Mortality/Top Kill
- 25-50% Mortality/Top Kill
- 0-25% Mortality/Top Kill
- Fire Perimeter

0 0.5 1 2 Miles

Locator Map



The date represented in this map were gathered from multiple sources, which may vary in accuracy, scale, and date. This is for display purposes only.

Asaayi Lake Fire

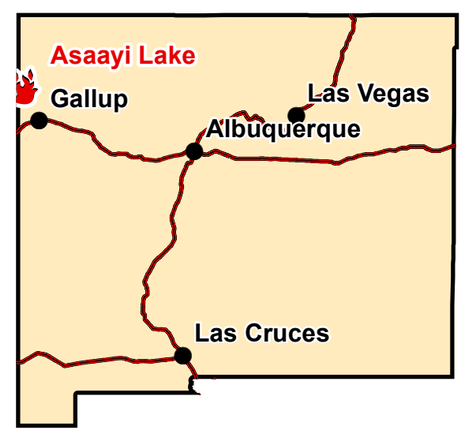
Vegetation

Legend

- Ponderosa Pine
- Mixed Conifer
- Pinyon-Juniper
- Non-Forested
- Fire Perimeter

0 0.5 1 2 Miles

Locator Map



The date represented in this map were gathered from multiple sources, which may vary in accuracy, scale, and date. This is for display purposes only.

Asaayi Lake Fire

Invasive Noxious Weeds

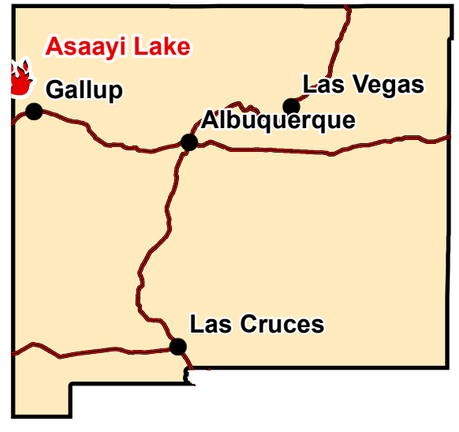
Legend

- Suppression Line
- Known Noxious Weeds
- Fire Perimeter

0 0.75 1.5 3

Miles

Locator Map



The date represented in this map were gathered from multiple sources, which may vary in accuracy, scale, and date. This is for display purposes only.

Asaayi Lake Fire

Treatments

Legend

Public Warning Sign

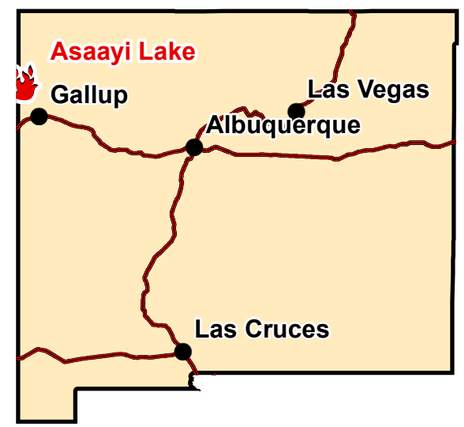
Culvert Location

To Be Replaced

Fire Perimeter

0 0.5 1 2 Miles

Locator Map



The date represented in this map were gathered from multiple sources, which may vary in accuracy, scale, and date. This is for display purposes only.

Asaayi Lake Fire

Structure Assessment

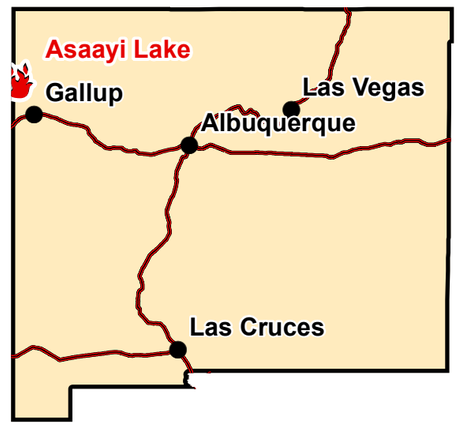
Legend

- Structures
- Storage Tanks
- Water Source
- Fire Perimeter

0 0.75 1.5 3

Miles

Locator Map



The date represented in this map were gathered from multiple sources, which may vary in accuracy, scale, and date. This is for display purposes only.

BURNED AREA EMERGENCY RESPONSE PLAN

2014 ASAAYI LAKE

APPENDIX V SUPPORTING DOCUMENTATION

1. Delegation of Authority
2. Talking Points_Ásaayí Lake
3. Issues_Concerns VAR's
4. Initial Funding Increase
5. Funding Request
6. Scoping Meeting_attendees
7. BAER Team Roster
8. Initiate BAER Funds
9. JHA
10. Navajo DOT Contact List
11. Transmittal Asaayi Lake

Initial Flush Out of Culverts by Supression Crews

In response, reply to:

United States Department of the Interior
Bureau of Indian Affairs
Navajo Region
P. O. Box 1060
Gallup, New Mexico 87305

JUN 2 3 2014

Memorandum

To: Team Leader, Burned Area Emergency Response (BAER) Team

From: Regional Director, Navajo Region

Subject: Asaayi Lake BAER Team Delegation of Authority

You are hereby delegated authority and responsibility to assess post fire effects and produce a Burned Area Emergency Response (BAER) Plan outlining measures and standards necessary to mitigate fire damage resulting from the Asaayi Lake Fire. All BAER activities will be conducted within the framework of provisions contained within Part 620: Department of Interior Manual Chapter 3; Bureau of Indian Affairs policy and sound resource management practices. A National Environmental Policy Act (NEPA) document will be prepared as part of the BAER Pan.

Your primary responsibility is to organize and direct your assigned resources to establish cost effective measures to protect the resources of the Navajo Nation from further damage and start the process of recovery. You are to work in cooperation with the Navajo Nation and the Incident Management Team (Day).

As a team leader, you are accountable to me. On any occasion that I am not immediately available, Mr. Dale Glenmore, Regional Fire Management Officer, has full authority to represent me.

Department of the Interior
Burned Area Emergency Response Team

Asaayi Lake BAER Team Talking Points

A Burned Area Emergency Response (BAER) Team was requested to assess the potential post fire effects of the Asaayi Lake Fire on the Navajo Nation. The BAER Team purpose is to ascertain the following:

Emergency Stabilization

- Minimize Threats to Human Life, Safety, and Property
- Determine need for and to prescribe and implement emergency treatments
- Identify Threats to Critical Cultural & Natural Resources
- Promptly Stabilize and Prevent unacceptable Degradation to Resources
- Repair/replace minor facilities essential to health & safety
- Conduct assessments of critical habitat

Rehabilitation and Restoration

Non-emergency treatments to repair or improve fire-damaged lands unlikely to recover naturally

Specialist, such as, Hydrologist, Soil Scientist, Archaeologist, Forester, Environmental Protection, GIS, Geologist, will evaluate and prepared a document specific to the Asaayi Lake Fire for distribution to the Navajo Nation Tribal Administration and Regional Director office.

Chris Holbeck
BAER Team Leader

Values At Risk (VAR)

2014 - Asaayi Lake Fire

Discipline /Contact	spec #	General Issue Topic	Location	Specific Issue	ES	Non-Spec Management Recommendation	BAR	No Issue
Hydrologists		Flooding (run off)	Asaayi Lake	Structures_Youth Camp				x
				Recreation Area				x
Steve Austin				Watershed Protection Project		x		
Hydrologists			Escarpment (Hwy 491)	Structures_8093 Naschitti				x
			Community of Navajo	Below Asaayi Lake				x
			Various	Roads				x
			Various	Culverts: 8000, 8091,8093 Rd	x			
			Bowl Canyon	Walking/Hiking Trails				NA
		Well System	Spring Box	North of Youth Camp				x
			Green Meadow? East End Wells					x
			Springs	Red Hill Springs				x
Linda Laughing			Asaayi Lake	Irrigation-Alfalfa				x
Steve Austin			Asaayi Lake	Water Quality			x	
				Wells 491				x
				Road Crossing	x			

2014 - Asaayi Lake Fire

Discipline /Contact	spec #	General Issue Topic	Location	Specific Issue	ES	Non-Spec Management Recommendation	BAR	No Issue
Willis Nez / Chapter Reps				Feral Horses		x		
Ray Castillo (AG Dept)								
				Bridge @ Nachitti Wash & 491				
Cultural		Cultural Resources		Habitation Site # 491				x
Linda Laughing /Ray Pine				Sacred Sites				
				TCP's				
				Sheep Camps				
Safety		Signage (Hazard)	Various	Flood	x			
				Hazard Trees	x			
Wildlife/Env Compliance		Threatened & Endangered Species	Bowl Canyon	Spotted Owl		x		
				Butterfly		x		
Glenn Selby		Wildlife	Asaayi Lake	Speckled Dace		x		
Infrastructure /Jeff Cole		Roads		Roads without drainages to lakes		x		

2014 - Asaayi Lake Fire

Discipline /Contact	spec #	General Issue Topic	Location	Specific Issue	ES	Non-Spec Management Recommendation	BAR	No Issue
Veg /Sam Diswood		Noxious Weeds	Various	Invasive Noxious Weeds	x			
				Fence Bowl Canyon				
Forestry/Veg		Timber Salvage	Various	Logging			x	
				Reforestation				x
Robert Billie / AK Arbab		Insect / Disease		Mountain Pine Beetle Ips Infestation				x

PLAN MAPS: x

US DEPT OF INTERIOR
BUREAU OF INDIAN AFFAIRS
BRANCH OF FIRE MANAGEMENT
NATIONAL INTERAGENCY FIRE CENTER

BURNED AREA EMERGENCY RESPONSE (BAER) AND REHABILITATION

REQUEST TO INITIATE BAER FUNDING

1. Date of Request	June 20, 2014
2. Agency Name	Navajo Region
3. Region Contact and Phone number	Sharon Pinto
4. Fire Name	Asaayi Lake
5. Fire Code	H5ZQ
6. Project duration (years)	1-yr (RSB 6/30/14
7. Request for funds (Dollars) **NOTE: On the next page, list proposed treatments and estimated cost of each**	Stabilization (92320) ~~$50,000~~ $100,000 Implementation work Rehabilitation (92B20) $
8. Total estimated cost of BAER Project **NOTE: On the next page, list proposed treatments and estimated cost of each**	Stabilization (92320) $ Rehabilitation (92B20) $
9. Reviewed/Approved By: (Agency Signature)	Not Applicable
10. Reviewed/Approved By: (Regional Office Signature)	
11. Reviewed/Approved By: (NIFC Signature)	Lyle Carlile Lori Bradshaw Acting Director

APPROVAL LEVELS: Superintendent up to $250,000, Regional Director $250,000 to $500,000, BIA-NIFC over $500,000.

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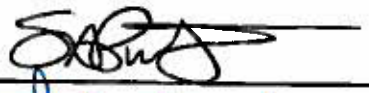
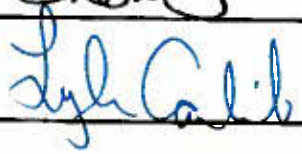
9. Reviewed/Approved By: (Agency Signature)	Not Applicable
10. Reviewed/Approved By: (Regional Office Signature)	
11. Reviewed/Approved By: (NIFC Signature)	

APPROVAL LEVELS: Superintendent up to $250,000, Regional Director $250,000 to $500,000, BIA-NIFC over $500,000.

BAER

Asaayi_Lake Date: 6/24/14

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Herb Tsosie	NDPS	(928) 871-7859
Carol Mark	CHR	(928) 729-4162
Qetuwah Anderson	CHR	(928) 729-4027
Rachael Arviso	CGS/OMB	(928) 871-6041
[illegible]	CGS/OMB	" "
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Calvert L Curley	BIA	928 729 7208
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Sylvia Etsitty-Haskie	Health Div.	928 729-4510/4415
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Everett Begay	NLD - GIS	928 797 1324
Cordell Shorty	Contracts + Grants / OMB	871-6033

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Fred von Bonin	BIA - SWRO	505-903-4966

ÁSAAYÍ LAKE BURNED AREA EMERGENCY RESPONSE TEAM (BAER) TEAM (Holbeck)

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11. Reviewed/Approved By: **(NIFC Signature)**	

APPROVAL LEVELS: Superintendent up to $250,000, Regional Director $250,000 to $500,000, BIA-NIFC over $500,000.

Interagency Burned Area Emergency Response	1. WORK PROJECT/ACTIVITY BAER Assessments	2. LOCATION 2014 Asaayi Lake Fire	3. UNIT BAER Team
JOB HAZARD ANALYSIS (JHA)	4. NAME OF ANALYST	5. JOB TITLE	6. DATE PREPARED 06/21/2014

7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE
General Field work, monitoring	General personal safety	Bring your radio with charged battery Sign out;
		If going to a remote area alone let someone know specifically where you will be; Be sure someone knows you have returned.
	Sun and hyperthermia	Cover areas of exposed skin with proper personal protective clothing.
		Use sunscreen to prevent sunburn.
		Drink enough water to keep hydrated and prevent heat exhaustion or heat stroke (at least 2 quarts in summer).
		Pace yourself when climbing steep, open slopes.
	Hypothermia and cold	Carry extra clothes; wear layers to prevent sweating and subsequent cooling.
		Bring rain gear, hat, warm gloves with you everyday.
		Use extra caution in stream bottoms to prevent falling in water and hypothermia.
	Giardia / insects	Don't drink unfiltered or untreated water from creeks.
		Check yourself daily for ticks, especially hair.
		Tuck pants into boots, shirt into pants, wear long sleeves.
	Fatigue, carelessness	Get plenty of sleep at night; Be careful and do job right the first time, safely.
	Trip and fall, eye poking	Watch for down trees and debris on forest floor. Wear goggles when walking in thick, shrubby areas.
	Crossing creeks	Watch where you walk in stream, expect rocks to be slippery, don't cross if you feel unsafe.
		Cross facing upstream so knees don't buckle, use a stick for extra balance.
Field surveys, monitoring	Steep slopes, Remote worksites	Wear vibram soled shoes, with good ankle support. Carry a radio, leave itinerary.
Mapping/Inventory Within Fire Perimeter	Working within fire perimeter.	Wear PPE (Hard Hat, leather boots, NOMEX, fire shelter, goggles, and gloves) at all times. Recognize fires are not controlled. Know your 10 standard fire orders and "watch out" situations.
	Stump/root holes	Keep your eyes on path of travel. Stop your travel and complete task if your attention is diverted.

	Snags/Hazard trees	Size up your surroundings. Avoid work in areas where hazards exist. Be aware of expected conditions. Post a lookouts if the wind picks up.
	Slippery footings	Be aware in areas of wet ash, loose rocks, and unstable slopes.
	Rattle snakes	Be aware at all times.
Communication/Coordination with Team Leaders and Suppression Personnel	Personal Health and Safety	Take care of cuts, bruises, and blisters immediately. Report accident to Team Leader and complete accident report.
	Lightning	Check weather report, stay off ridge tops and open slopes during lightning storms
		If stuck in open keep radio and metallic objects away from you, squat down with only feet on ground using insulate pad if possible, keep as much of your body off the ground as possible.
	Falling rocks	Wear hardhat if in area with loose rocks; don't work directly above another person; be wary of rocks.
	Heavy brush	Wear long sleeve shirt; goggles
	Insect bites	Wear long sleeve shirt and hat; use repellent at your discretion.
		Carry anti-histamine and asthma-inhaler for bee stings. If known allergic carry proper medication and instruct coworkers in administration.
		Report your next day's work area to Team Leader by 1800 the previous day In order to be included in next day's shift plan.
		Be sure to check in with Division Sup.Group before entering and leaving fire perimeter.
Driving	Vehicle accidents and associated injury	Always wear safety belts and make sure everyone is buckled up! Drive carefully on heavily travelled roadways. Driving defensively means anticipating the other drivers actions before it happens. Back your vehicle in when parking and use a ground guide when available.
		Drive carefully in snow and mud, chain up BEFORE you get stuck. Don't attempt accessing remote areas in poor conditions
		Roads are narrow, drive defensively, giving yourself enough time/space to react to other drivers. Maintain stopping distance of half the distance you can see. Drive with headlights on.
		Stop and take a break if you feel sleepy while driving, or let someone else drive.
		If possible, remove hazards from roadbed rather than try to drive over or around them.

10. SIGNATURE	11. TITLE	12. DATE

Scott Sheppard Fred vonBonin Jennifer H.

Rebecca Biglow Rebecca Biglow

Wayne Upson

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(**FD**) = Ft. Defiance
(**SR**) = Shiprock
(**CP**) = Crownpoint
(**CH**) = Chinle
(**TC**) = Tuba City

Department of the Interior
Bureau of Indian Affairs
Burned Area Emergency Response Team

July 03, 2014

Memorandum

To: Regional Director, Navajo Region, Bureau of Indian Affairs

From: Team Leader, Burned Area Emergency Response (BAER) Team

Subject: Asaayi Lake Burned Area Emergency Response Plan

The Asaayi Lake Fire started on June 13, 2014 and consumed a total of 14,712 acres south of Narbona Pass and NM-134. The Navajo Region (Agency) and Navajo Nation (Nation) recognized the potential for post fire effects. The BAER Team began assessment on June 20, 2014.

The Burned Area Emergency Stabilization Plan requests funding through Emergency Stabilization (ES) funds to address the short and long-term non-suppression related emergency stabilization treatments. The initial account has already been opened. The plan totals $101,788. The approval authority for that amount will come from the Region. BIA National BAER Coordinator, Myron Hotinger can assist with any questions.

The procedures for approval of the BAER Plan to proceed with the recommended treatments and actions that need to be carried out immediately are as follows:

Action Items:

1. Time is of the essence in review and plan approval. The Bureau of Indian Affairs procedures provide for the approval of the plan by the Regional Director for this plan since it is less than $500,000. Your contacts will be the Navajo Regional BAER Coordinator, Dominick Chicharello (928-729-7385), Interregional BAER Coordinator, Darryl Martinez (505-563-3369), and the National BAER Coordinator, Myron Hotinger (208-387-5246).

   To expedite review, copies of the BAER Plan have been sent directly to the NIFC office for review. DOI guidelines call for a 6 business-day review/approval time period once they receive the document. The BAER Coordinator has a copy of the plan. Once

approval of the plan is given, spending can be initiated. A signature approval page is provided at the front of the plan for the approval process.

2. A Project Administrator needs to be identified, contracted, hired or appointed as soon as possible to initiate the implementation of emergency stabilization treatments. The Administrator will allocate and coordinate funding, compile and consolidate unified supplemental requests, and prepare annual and final accomplishment reports of treatments.

3. The Asaayi Lake Fire was fully contained as of July 4, 2014. Emergency stabilization treatments must be installed within one year of fire containment. Monitoring of installed treatments for effectiveness and maintenance of treatments may continue for up to three years following the containment date.

4. Environmental consultation has been initiated for all of the emergency stabilization treatments recommended in the plan. Any additional emergency stabilization treatments that may be identified must be reviewed for compliance purposes. Tribal Historic Preservation Office (THPO) consultation has been initiated by the BAER Team and should continue throughout the timeframe of the plan.

5. The BAER Plan was compiled with assistance from staff of the Navajo Region and the Navajo Nation. It was a pleasure to see the participation of your staff during preparation of the plan, however, your staff should review the plan thoroughly and those who will be involved in its implementation should become very familiar with its contents. Plans should be distributed as soon as possible.

6. The BAER Team specialists have listed their phone numbers on the roster in the plan. Please feel free to contact any of us if you have questions about the plan, our thought process in developing our recommendations, or implementing the treatments. A copy of the plan will be sent to each of the BAER Team members for their use in referring to it when questions arise.

7. In order to fund additional treatments, a Supplemental Request must be made following the same review/approval procedures as the initial BAER Plan. Generally, all that is needed for a Supplemental Request is a letter, justifying the request for additional treatments and funding, and the Amendment Specification, documenting the costs of the activity to be funded. This should be prepared and submitted by the Implementation Leader through the proper channels. Supplemental requests can be made on an as needed basis. However, under the new BAER policy, any supplemental funding requested for emergency stabilization treatments must be received and treatments installed within one year of the fire containment date. The approval authority for supplemental requests will be through the National BIA BAER Coordinator, Myron Hotinger.

8. An Annual Accomplishment Report is due at the end of each fiscal year that is funded. The initial Accomplishment Report for FY14 will be due on September 15, 2014. Information in the Accomplishment Reports shall at minimum include:

- The original specification and subsequent submissions,
- Descriptions of the implementation of the treatments, including final treatment maps and specifications.
- Expenditures.
- Completion date of the treatment(s).
- Projected follow-up activities and treatments.
- Treatment effectiveness.

9. At the completion of the funding cycle (three years plus 90 days from fire containment date) a final Accomplishment Report will be due to the approval authority. The Final Accomplishment Report will be due on September 30, 2017. In addition to the information listed above, the Accomplishment Report will document the funding received, (initial and supplemental funding), specification accomplishment, the effectiveness of the installed treatments, the results of monitoring activities, and photo documentation.

10. The Navajo Nation can use the data and information from the Emergency Stabilization plan to develop a Burned Area Rehabilitation (BAR) plan. BAR plans specify non-emergency efforts to repair or improve fire-damaged lands which are unlikely to recover to management approved conditions; or to repair or replace minor facilities damaged by fire. These treatments/activities must be in accordance with approved management plans and applicable agency policy, standards, and all relevant federal, state, and local laws and regulations. More information regarding the BAR can be found in the BAR Guidebook:

    http://www.fws.gov/fire/ifcc/Esr/Policy/BAR_Guidebook11-06.pdf

On behalf of the BAER Team, let me say that it was our privilege to serve you, the Navajo Region, the Navajo Nation, and this wonderful resource. I want to thank you for your availability to the team and your participation. Should you have any questions about the plan or the related approval procedures please do not hesitate to call me.

/s/ Chris Holbeck

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copy: Ben Shelly, President, Navajo Nation
Myron Hotinger, National BAER Coordinator, BIA
Dominick Chicharello, Navajo Region BAER Coordinator, BIA