

# **Four Forest Restoration Initiative, Rim Country EIS**

## **Tribal Relations Specialist Report**

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**for:**

4FRI Rim Country EIS

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## Introduction/Project Information

The United States Forest Service created the Four Forest Restoration Initiative (4FRI) to accelerate an ambitious restoration program to improve and sustain watershed health, improve wildlife habitat, conserve biodiversity, protect old-growth forests, reduce the risk of uncharacteristic wildland fire, promote the reintroduction of natural fire, and restore natural forest structure and function so that forests are more resilient to climate change. The Four national forests - the Kaibab, Coconino, Apache-Sitgreaves and Tonto - are actively engaged in the collaborative, landscape-scale initiative designed to restore fire-adapted ponderosa pine ecosystems in the Southwestern Region. Through ongoing collaboration with a diverse group of stakeholders, the four forests are working to plan and carry out landscape-scale restoration of the ponderosa pine forests on millions of acres. Among key partners in the initiative are Federally-recognized American Indian Tribes that have current and ancestral interests in the region of the Four Forests. The Forest Service is completing the Rim Country EIS as the instrument that will bring the efforts of the 4FRI to the Tonto National Forest.

The 4FRI is will apply across a landscape that is ancestral to at least 17 American Indian Tribes. For this project the Forest Service and Tribes share a common interest in maintaining the health of the forests which can be explored through government-to-government consultation and partnership development. American Indian people have inhabited the forests of Arizona for millennia and possess unique and deep knowledge of the forest ecosystem. It is crucial that the Forest Service collaborate with its Tribal partners so that Tribal Traditional Ecological Knowledge (TEK) is incorporated into the 4FRI to assist in the restoration and maintenance of a healthy forest ecosystem. For a list of the tribes that have been engaged during this initiative, see Tribal Consultation p.5.

## Relevant Law, Regulation, and Policy

Government-to-government consultation is essential to effectively manage the forests subject to 4FRI. Under legal authorities such as the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA), the Forest Service must engage with federally recognized tribes meaningfully and consider the input from, and project impacts upon, resources and areas of tribal interest. For example, the federal government must seek to limit the adverse impacts of its actions upon those areas and resources tribal interests under the Archaeological Resources Protection Act (ARPA) and the Native American Grave Protection and Repatriation Act (NAGPRA). Those acts provide guidance for addressing historic and prehistoric sites that may have direct association with tribes in the project area and for incidents where the remains of ancestors and funerary objects may be encountered. Tribal religious and ceremonial activities must also be considered under the American Indian Religious Freedom Act (AIRFA) and the Religious Freedom Restoration Act (RFRA). The Forest Service also operates under laws directly related to the Agency's mandate such as the National Forest Management Act (NFMA) and the Food, Conservation, and Energy Act of 2008 (Public Law 110-234).

The Forest Service's policy manuals (FSM) 1500 and FSM 2000 provide directives and guidance for tribal consultation and resource management. Specific consultation policies are found at Section 1509.13 Policy, 11.1-5 Consultation with Indian Tribes and Alaska Native Corporations and at Section 1563.03 – Policy 1. Maintain a government-to-government relationship with federally recognized Tribes. Other areas of FSM 1500 that concern tribal consultation are chapter 5, Coordinate Forest Service land and resources management plans and actions with tribal land and resource management plans and actions to promote the health of ecosystems, and especially Chapter 10, Consult with Tribes on matters that may affect tribal rights and interests. FSM 2000 further lays out specific resource management policy for numerous resources, and guides forest service personnel in developing goals and objectives within the framework defined by laws, Indian treaties, regulations, collaboratively developed public and Indian

tribal values and desires, historical conditions, current and likely future ecological capabilities, a range of climate change predictions, the best available science, information, and technical and economic feasibility.

In accordance with Forest Service Manual (FSM) 1230.6, the line of delegation passes from the Chief to the Deputy Chiefs and through Line Officers to the field. Tribal consultation may not be delegated from Line Officers to Forest Service staff. Line Officers should engage personally with tribal leaders (FSH 1509.13 §11.1). Therefore, government-to-government consultation may only occur between Forest Service Line Officers and tribal leaders who have authority to consult on behalf of their Tribe.

Tribal consultation specific to landscape restoration activities is guided by policy identified in several areas in FSM 1500 and FSM 2000. Specifically:

- 1563.03 – Policy
  - Maintain a government-to-government relationship with federally recognized Tribes.
  - Coordinate Forest Service land and resources management plans and actions with tribal land and resource management plans and actions to promote the health of ecosystems.
  - Consult with Tribes on matters that may affect tribal rights and interests ...
- 2020.3 – Policy
  - Develop goals and objectives within the framework defined by laws, Indian treaties, regulations, collaboratively developed public and Indian tribal values and desires, historical conditions, current and likely future ecological capabilities, a range of climate change predictions, the best available science, information, and technical and economic feasibility

## Land Management Plan Direction

The Coconino, Tonto, and Apache-Sitgreaves National Land Management Plans provide management direction for resources of tribal interest as follows:

### **Apache-Sitgreaves Land Management Plan Direction (page 94)**

Management Approaches for American Indian Rights and Interests. The Apache-Sitgreaves NFs develop and maintain effective working relationships and recognize American Indian tribal viewpoints. Management actions support the forests' Federal trust responsibilities. Tribes are consulted at the early stages of planning and project design, so that tribal perspectives as well as traditional knowledge can be incorporated into project designs and decisions. Forest managers work with tribes to achieve mutually beneficial desired conditions and objectives. Agreements are in place for repatriation of human remains and artifacts. The management approach is to ensure the confidentiality of tribal information received by tribes through consultation if requested. The gathering of forest products or temporary closures of forest lands may occur for traditional and cultural purposes if requested by a tribe. These activities are authorized by USC Title 25 Indians, Chapter 32A Cultural and Heritage Cooperation Authority, Sections 3051-3057.

Forest employees receive training, so they understand the unique legal relationship between the Federal government and American Indian tribes, set forth in the U.S. Constitution, treaties, statutes, executive orders, and court decisions. Managers may use wildland fire to restore and enhance traditional cultural use areas used for collecting plants. Managers work to resolve conflicts with activities such as mining and drilling, OHV areas, energy corridors, and electronic sites that are generally inconsistent with the desired conditions for TCPs.

### **Coconino Forest Management Plan Direction (Pages 96-97)**

#### **Desired Conditions for Tribal Relations and Uses**

1. The Coconino NF recognizes American Indian needs and viewpoints and fosters a robust relationship with federally recognized American Indian tribes and related groups with which it consults. In addition to the official tribal government with which Federal agencies are required to consult, forest personnel also consult and talk with tribal historic preservation officials, traditional religious practitioners, tribal members, and other tribal organizations. The Coconino NF tribal consultation process notifies tribes about proposed activities on the forest that may be of interest, encourages face-to-face dialogue about proposed activities that are of interest, and provides information about how tribal input received during consultations is used in decision-making processes. The Coconino NF consultation processes and tribal interactions are compatible and consistent with its neighboring national forests.
2. Tribal practitioners have access to areas that provide them an opportunity to practice traditional activities, such as plant gathering and ceremonial activities that are essential in maintaining their cultural identity and the continuity of their culture, with reasonable limitations, consistent with public safety and multiple uses by other forest users. There are opportunities for solitude and privacy for ceremonial activities.
3. Forest products used by tribal members, organizations, and communities with ancestral or historic ties to the Coconino NF are available for traditional practices and are sustained overtime. Collection of culturally important plants by American Indians does not negatively affect the presence and distribution of those species on the forest.
4. The forest provides a setting for the education of tribal youth in culture, history, and land stewardship and for the exchange of information between tribal elders and youth.

#### **Coconino National Forest (Pg. 97)**

#### **Guidelines for Tribal Relations and Uses**

1. Through discussions with American Indian tribes that collect plants for traditional cultural and ceremonial purposes, forest projects and activities should be designed to promote the persistence of culturally important plants.
2. The forest should work with tribes to identify traditional cultural properties so those areas and cultural values can be preserved, restored, or protected from impacts by forest activities and public visitors.

#### **Management Approaches for Tribal Relations and Uses**

The Coconino NF and area tribes have a mutual interest in maintaining healthy, sustainable populations of plants and other resources important for traditional and cultural purposes. Work with area tribes to identify, collaboratively manage, and monitor these resources, as well as build and maintain more detailed information about culturally important plants. Continue to manage the land in a spirit of shared stewardship with the tribes. Recognize the importance of a strong relationship with American Indian tribes and groups and ensure Coconino NF personnel continuously cultivate those relationships. Meet regularly with consulting tribes to better understand their needs and viewpoints and consult with them in

the management and interpretation of cultural sites. Enhance tribal relationships and communications through volunteer opportunities with tribal members. In addition, consider formally designating one person as a tribal relations coordinator to facilitate the tribal consultation process and maintain a record of tribal consultations. Develop memorandums of understanding between the forest and those consulting American Indian tribes with which a memorandum of understanding does not currently exist to guide consultation processes and reflect the tribes' particular perspectives and interests. Work with neighboring forests and local tribes to develop a consistent forest products collection policy and tribal firewood program for use on the respective national forests. Provide training to forest employees about the trust responsibilities Federal agencies have for tribes and the specific ways in which the Coconino NF honors and implements those responsibilities. Provide training to forest employees about interactions with tribal members engaging in traditional land uses, in a manner that fosters mutual trust and respect.

### **Tonto Current Management Plan Direction (1985)**

The current (1985) plan does not prescribe management actions that are designed to address American Indian tribal use of the TNF or areas of tribal concern. The plan does include direction for the management of heritage resources, see the Heritage Specialist Report for a list of those plan directives. Therefore, TCPs are managed like a heritage resource. However, consideration and guidance for the identification of TCPs was not added to the National Historic Preservation Act until it was amended in 1992, well after the TNF plan was completed, and it was well after that date that the TNF amended its management plan to address TCPs.

### **Tonto Management Plan Direction (USDA FS DRAFT) (pg. 47-49)**

The Tonto NF recognizes that there are tribes with cultural ties to and knowledge about lands now managed by the Forest Service. The Tonto NF provides those tribes with the opportunity for timely and meaningful government-to-government consultation on project activities which may affect them.

The Tonto NF consults regularly with the Ak Chin Indian Community, Fort McDowell Yavapai Nation, Gila River Indian Community, Hopi Tribe, Mescalero Apache Tribe, Pueblo of Zuni, Salt River Pima-Maricopa Indian Community, San Carlos Apache Tribe, Tohono O'odham Nation, Tonto Apache Tribe, White Mountain Apache Tribe, Yavapai-Apache Nation, and Yavapai-Prescott Tribe.

Numerous sites on the Tonto NF are considered culturally significant or sacred by federally recognized Indian Tribes. For cultural resources, a variety of laws, regulations, and policies provide direction for tribal consultation and for managing those resources. The most important is Section 106 of the National Historic Preservation Act of 1966, as amended in 1992, which lays out the legal framework for considering the effects to historic properties and for consulting on those properties with appropriate tribes when there is a federal undertaking.

Desired Conditions (TRB-DC) Desired conditions for Traditional and Cultural Uses continues to be a goal for promoting the continued traditional and ceremonial use of the forest and its resources, and focusing on ensuring resources for future generations

1. Locations identified as important by American Indian tribes are acknowledged and there is an emphasis on the resilience and protection of natural and cultural resources and to preserve the character and use of these places.
2. Tribal members have open access to Forest land for traditional activities, including access to traditional resource gathering areas and to places having religious, cultural, and/or historical significance (e.g., traditional cultural properties, sacred sites, shrines, and clan origin places).
3. Restoration is performed in consideration of tribal values and traditional resources are recognized and acknowledged by the Forest. Tribal and Forest landscape restoration activities complement one another to meet common goals.

4. Forest products (e.g., pinon nuts, Emory oak, and acorns) important for traditional needs, subsistence practices, and economic support of tribal communities are available and sustainable. Traditional products are preserved sustainably in place wherever feasible and plant populations of tribally important species are available for traditional uses.

5. Social, cultural, and economic resources on the Forest provide a setting for educating tribal youth in culture, history, and land stewardship, and for exchanging information between tribal elders and youth.

#### Standards (TRB-S)

1. The Forest Service shall maintain the confidentiality of culturally sensitive information provided by tribes, unless permission to share information is given in compliance with the Cultural and Heritage Cooperation Authority (25 USC 32A). 25 USC 32A Section 3056 limits disclosure under the Freedom of Information Act of resources, cultural items, uses, or activities that have a traditional and cultural purpose; and are provided by an Indian or Indian tribe under an express expectation of confidentiality. For other limitations on disclosure, see also Section 9 of the Archaeological Resources Protection Act of 1979 (ARPA), 16 U.S.C. § 470hh and its implementing regulations at 43 C.F.R. § 7.18, as well as 36 C.F.R. § 800.11 (c)(1), pursuant to Section 304 of the National Historic Preservation Act of 1966, as amended (NHPA), 54 U.S.C. § 307103

Tonto National Forest (Draft) Land Management Plan p.48

2. Tribal interests and concerns are considered in management activities.

3. The Forest will ensure traditional cultural properties identified by a tribe and determined eligible under Section 106 of the National Historic Preservation Act, receive due consideration in project planning.

4. The responsible official shall work with American Indian tribes to comply with the Cultural and Heritage Cooperation Authority (25 USC 32A) under which the tribes may request temporary closures of specific areas for traditional cultural purposes.

#### Guidelines (TRB-G)

1. Sacred sites and areas of tribal importance should be considered during the project planning process and during the implementation of management activities and permitted uses.

2. Tribal access to and availability of traditional medicinal plants and other botanical resources should be considered when authorizing commercial harvesting and special uses.

3. Ethnographies, oral history studies, and traditional resource surveys should be used to preserve information and inform project management.

4. The physical and scenic quality of high places (e.g., mountain tops and view sheds) that the tribes regard as sacred sites, traditional cultural properties, or as part of important cultural landscapes should be considered when making project decisions or issuing new special use authorizations.

5. Requests for reburial on the Forest of American Indian human remains and/or cultural items should be considered in consultation with the affiliated tribes.

#### Management Approaches for Tribal Relations and Areas of Tribal Importance

1. Work cooperatively with tribes to develop management protocols to address the restoration and sustainability of traditionally important plants and ensure that healthy sustainable plant populations are available for traditional uses. Work with tribes to identify and locate species of interest (e.g., citizen science iNaturalist project).



2. Consider developing and maintaining memoranda of understanding or other agreements to formalize work with American Indian tribes and to identify community needs and build respectful, collaborative relationships to achieve mutually desired conditions.
3. Provide training opportunities for Forest Service employees to gain a broader understanding of the unique legal relationship between the Federal Government and federally recognized tribes and tribal customs, traditions, and values.
4. Work with American Indian tribes to build respectful, collaborative relationships; to develop ways of accomplishing desired conditions and goals; and to collaborate in ecosystem restoration efforts.
5. Actively seek opportunities to employ tribal work crews to assist with land restoration and other projects.
6. Coordinate with American Indian tribes to develop collaborative proposals and implement projects of mutual benefit, across shared boundaries, and using available federally authorized or advocated programs.
7. Develop, coordinate, and/or support programs focused on getting tribal members, including youth, involved in education activities on the Forest. 08Cooperatively develop interpretive and educational exhibits that focus on the history of the lands managed by the Tonto National Forest in collaboration with American Indian tribes to provide the public with a greater understanding and appreciation of history, culture, and traditions.

## Affected Environment

### *Ancestral Use*

All of the lands in the 4 FRI project area are ancestral homelands to American Indian tribes. The archaeological resources within the 4FRI area demonstrate a high level of traditional use which continue today (see Cultural Resource section for more details concerning Archaeological Resources). The archaeological records demonstrate that the American Indian ancestral sites within the project area range in age from very early prehistory to historic times and can include rock art, cliff dwellings, pit houses, multiple room pueblos and artifact scatters. Additionally, places that retain sacred values that are still relevant to contemporary tribes. Some of the more prominent sacred sites are evaluated as historic properties, pursuant the National Historic Preservation Act 1992 amendment. Under that act, certain qualifying sites can be determined eligible, and listed on the National Register as Traditional Cultural Places (TCP). Generally, TCPs consist of specific locations, or can be landscape in scale such as an individual mountain or a viewshed.

### *Contemporary Uses*

The entire 4FRI project area is managed by the U.S. Forest Service and is aboriginal land to the consulting tribes. However, with aboriginal ties to the land many tribal members also use the forest for traditional resources and ceremonies and to gather medicinal plants for other traditional and cultural purposes. Traditional gatherings and ceremonies are conducted throughout the forest and may or may not occur at the knowledge of the land manager. Additionally, these activities may occur over the span of an hour, to several hours or several days. The Forests recognize the importance of maintaining these traditions to area tribes and will accommodate traditional use of Forest Service lands by American Indians provided it complies with existing laws and regulations. However, in an attempt to reduce the likelihood of conflicts between traditional tribal activities and operations related to 4FRI, consultation and coordination is a critical component between the tribes and the forests regarding the timing and locations of specific planned activities and operations.

Years of government-to-government consultation with federally recognized tribes have identified numerous traditional uses in or near the 4FRI project area. Examples of these uses include collection of forest products such as medicinal plants, tree boughs, ceremonial fuelwood, and piñon nuts, and ongoing use of ceremonial sites, shrines, and traditional gathering areas. Plant collecting is almost always conducted in more than one area in order to not deplete any particular plant species

In some cases, specific traditional use areas have been identified on the Forest through project-level consultation. However, it is assumed most traditional use areas have not yet been identified. While some traditional uses consistently occur in one location, others may occur in a variety of locations based on the availability of resources. Therefore, prior to initiating project-specific Task Orders, the Forests will consult with federally recognized tribes to identify traditional use areas and, if necessary, develop project-specific mitigation measures to accommodate traditional use of the Forest by tribal members.

When areas of the 4FRI project are selected for treatment, detailed maps of the area will be presented to tribes through on-going tribal consultation. This will be used to learn of any other sensitive areas of tribal importance that could be potentially impacted by 4FRI. Additionally, adjusting timing of treatment will coincide with seasonal plant gathering and ceremonial use

### Tribal Consultation Summary

The 4FRI project is situated across a landscape that is ancestral to at least 17 American Indian Tribes. Federal law, regulation, and policy require consultation between the U.S. Forest Service and federally recognized American Indian tribes. For this project in particular it is relevant to acknowledge the Forests and Tribes share a common interest in maintaining the health of the forests, which can be explored through consultation and partnership development. Because all of the lands in the 4 FRI project area are ancestral to American Indian tribes, it is in the best interest of the Forest Service to utilize tribal knowledge and resources in order to restore and maintain a healthy forest ecosystem. From April 2016 to May 2019, USFS Supervisors attended 20+ consultation meetings with tribes to discuss the Rim Country Initiative.

During consultation the tribes have expressed concerns regarding: springs, medicinal and culturally utilized plants (Emory oak, sumac berry, tobacco), mechanical equipment, archaeological sites, traditional cultural properties, shared borders, access to forest products, fire sensitive archaeological sites (hogans, cradleboards, scarred trees, etc), smoke impacts (smoke is not good for the elderly & fire from lightning struck trees is harmful to Navajo people), and herbicide usage (signs should be used so tribal members don't collect plants in these areas). Comments were consolidated in the Tribal Relations Specialist Report within the DEIS and throughout the DEIS where relevant.

**Table 1 Tribal consultation conducted for the Rim Country EIS.**

Date of Meeting	Tribes Attending	Meeting Location	Comments/Concerns
4/20/2016	Hopi Tribe	Flagstaff, Arizona	<ul style="list-style-type: none"> <li>Known golden eagle nesting sites should be monitored</li> </ul>
08/16/2016	Pueblo of Zuni, Yavapai-Apache Nation, San Carlos Apache Tribe, Tonto Apache Tribe, White Mountain Apache Tribe	Payson, Arizona	<ul style="list-style-type: none"> <li>Tribes desire "pre-reservation conditions" for the forests.</li> <li>Tribes are concerned with long term access to forest resources particularly forest products which are traditionally utilized.</li> <li>Mechanical treatment should be culturally/tribally monitored to prevent destruction of traditional cultural properties and archaeological sites</li> </ul>

Date of Meeting	Tribes Attending	Meeting Location	Comments/Concerns
			<ul style="list-style-type: none"> <li>Tribes (WMAT &amp; SCAT) should be notified prior to rX burns. Smoke effects the elderly in tribal communities.</li> <li>San Carlos would like logging materials for their mills</li> <li>There should be a TCP inventory conducted</li> <li>There should be a harvesting/subsistence site inventory</li> <li>Hot fires destroy the sumac berry which is important to the Apaches</li> <li>Mechanical thinning can destroy tobacco which is important to the Apaches</li> </ul>
8/18/2016	Salt River Pima-Maricopa Indian Community and Gila River Indian Community	Sacaton, AZ	<ul style="list-style-type: none"> <li>Concerned about wooden and other fire sensitive archaeological sites. For example, hogans with wood implements, cradle board scarred trees</li> </ul>
11/21/16	Navajo Nation	Window Rock	<ul style="list-style-type: none"> <li>There have been smoke impacts to Bitter Springs and Cedar Point. Smoke is not good for the elderly.</li> <li>Fire from lightning struck trees is harmful to Navajo people. There may be a need for medicine men to be involved with these fires that are encouraged and maintained by FS.</li> </ul>
11/22/16	Pueblo of Zuni	Zuni, NM	<ul style="list-style-type: none"> <li>Zuni YCC crews are looking for work and would like to be involved.</li> <li>Springs are Zuni TCPs</li> <li>Zuni would like to participate in cultural plant inventory and spring inventories (specific to Kaibab)</li> </ul>
11/29/16	Fort McDowell Yavapai Nation & Yavapai-Prescott Indian Tribe	TNF Headquarters	<ul style="list-style-type: none"> <li>Request for continued information sharing.</li> </ul>
12/9/16	Mescalero Apache Tribe San Carlos Apache Tribe Tonto Apache Tribe	Payson, AZ	<ul style="list-style-type: none"> <li>Herbicide usage should be signed so tribal members don't collect plants in these areas.</li> <li>agave parryi, acorn oaks, piñon, and cattails are important</li> </ul>
12/13/16	Pueblo of Zuni	Zuni, NM	<ul style="list-style-type: none"> <li>Zuni has crews that could assist in implementation. They also have cultural resources survey crews.</li> </ul>
12/30/16	Salt River Pima Maricopa Indian Community Gila River Indian Community	TNF Headquarters	<ul style="list-style-type: none"> <li>Gila River has thinning crews that could potentially assist in implementation</li> <li>Salt River could provide cultural sensitivity training for contractors</li> </ul>
2/21/ 17	Hopi Tribe	Kykotsmovi, AZ	<ul style="list-style-type: none"> <li>Discussed gathering/harvesting of forest products, including forest access</li> </ul>
3/14/17	White Mountain Apache	Email	<ul style="list-style-type: none"> <li>Archeological firms conducting surveys should be familiar with the identification of Apache sites, as they do not always consist of physical objects, remains, and/or features</li> </ul>

Date of Meeting	Tribes Attending	Meeting Location	Comments/Concerns
4/4/17	Navajo Nation	Email	<ul style="list-style-type: none"> <li>Shared updates on the Rim Country project</li> </ul>
4/5/17	White Mountain Apache	Email	<ul style="list-style-type: none"> <li>Gathering and harvesting of forest products should not be impeded, especially acorn. Emory Oaks should not be destroyed</li> </ul>
5/12/17	Yavapai-Apache Nation	Phone call and Email	<ul style="list-style-type: none"> <li>The Western Apache Tribes are very concerned about the regeneration of Emory Oak stands on FS managed lands. Saplings are trampled on, eaten and affected by fire, to the point where they are not reaching maturity. They would like us to identify stands of immature saplings and protect them with exclosures</li> </ul>
01/17/18	Hopi Tribes	Flagstaff, AZ	<ul style="list-style-type: none"> <li>Hopi would like the EIS to identify areas where springs, rock cairns, and plants such as wild tobacco, cattails, and osha are found in the areas stated for treatment. They want to be updated on the sampling strategies being developed.</li> </ul>
01/11/18	Kaibab Band of Paiute Indians	Pipe Springs, AZ	<ul style="list-style-type: none"> <li>Tribes are interested in developing a SPA to provide thinning crews.</li> </ul>
03/08/18	Pueblo of Zuni	Zuni, NM	<ul style="list-style-type: none"> <li>Pueblo of Zuni President signed the Tribal Crews Master Participating Agreement (MPA)</li> </ul>
04/03/18	Havasupai Tribe, Hualapai Tribe, Hopi Tribe, Pueblo of Zuni	Kaibab NF Field Visit	<ul style="list-style-type: none"> <li>Discussed project development under the MPA.</li> <li>Tribes need timbers and other forest products for traditional uses.</li> </ul>
04/27/18	Gila River & Salt River Pima-Maricopa Indian Communities	TNF Headquarters	<ul style="list-style-type: none"> <li>Gila River would like to participate in forest restoration activities</li> <li>Salt River would be interested in providing input to the Citizen-Science Naturalist Program</li> </ul>
05/01/18	Tonto Apache Tribe, San Carlos Apache Tribe, Yavapai Apache Nation, White Mountain Apache Tribe	Twin Arrows, Flagstaff	<ul style="list-style-type: none"> <li>Apache Tribes are very interested in the restoration, protection, and sustainability of Emory oak trees. They are willing to assist in designed management actions.</li> <li>Discussed Citizen Science project implementation</li> <li>Discussed SPA development under the Tribal Crews Master Participating Agreement</li> </ul>
05/03/18	Hopi and Zuni	Twin Arrows, Flagstaff	<ul style="list-style-type: none"> <li>Tribes are interested in assisting in forest restoration activities. Tribes use the forest to access timber and forest products not available on their reservations.</li> <li>Discussed Citizen Science Naturalist project implementation</li> <li>Discussed SPA development under the MPA</li> </ul>
05/07/18	Havasupai Tribe	Supai, AZ	<ul style="list-style-type: none"> <li>Discussed MPA and possibility of Havasupai Water Resources assisting with water restoration projects</li> </ul>

<b>Date of Meeting</b>	<b>Tribes Attending</b>	<b>Meeting Location</b>	<b>Comments/Concerns</b>
05/14/18	San Carlos Apache Tribe & White Mountain Apache Tribe	Payson Ranger District	<ul style="list-style-type: none"> <li>Strategy meeting to discuss how to move forward to partner in Forest Restoration Activities</li> </ul>
11/19/18	Hopi Tribe	Flagstaff and Mogollon Rim	<ul style="list-style-type: none"> <li>Consultation is on-going. The Forest sends copies of reports to Hopi for the first EIS.</li> <li>Second EIS includes Coconino, A-S and Tonto NF</li> </ul>
5/23/19	Navajo Heritage and Historic Preservation Division	Flagstaff and Mogollon Rim	<ul style="list-style-type: none"> <li>Consultation is on-going.</li> <li>Second EIS includes Coconino</li> <li>A-S and Tonto NF-</li> <li>Discussed sites sensitive to fire and concerns with thinning levels</li> </ul>
5/29/19	Hopi Tribe	Flagstaff and Mogollon Rim	<ul style="list-style-type: none"> <li>Rim Country was the first item on the SOPA that was to be discussed, the Tribe indicated they preferred to focus on other projects, not Rim Country</li> </ul>
6/4/19	All Consulting Tribes	Email	<ul style="list-style-type: none"> <li>In addition to the meetings listed above the all the associated Tribes were provided an opportunity to review the "Drafty DEIS" that was shared with the Stakeholders and the wider public on our website. This was in June of 2019. The outreach to them was through email by the tribal liaison(s) for the project. We did not receive any input.</li> </ul>
8/14/19	Salt River Pima Maricopa Indian Community, Gila River Indian Community, San Carlos Apache Tribe, Tohono O'odham, Hualapai Tribe, Navajo Nation,	Meeting in Phx	<ul style="list-style-type: none"> <li>Cultural resource surveys should be done.</li> <li>Plating archaeological sites is an adverse effect to ancestral sites</li> </ul>
10/18/19	All Consulting Tribes	Letter	<ul style="list-style-type: none"> <li>Provided letter with Rim Country DEIS availability information and electronic links to the documents</li> </ul>
11/20/20	Havasupai Tribe	Meeting -Virtual	<ul style="list-style-type: none"> <li>An update on the 4FRI project was provided by Robbin Bundrock.</li> <li>The tribal council requested project information.</li> <li>11/30/2020: The forest sent the 4FRI website and story map links to the Tribal Council.</li> </ul>
4/6/21	San Carlos Apache Tribe	Provided electronic information on the Rim Country Project	<ul style="list-style-type: none"> <li>The San Carlos Apache Tribe requested a project update for 4FRI after the forest sent its second quarter SOPA list.</li> <li>Robbin Bundrock provided a project to the tribe on 04/21/2021, see below. We also sent the 4FRI Master Agreement with tribes for restoration activities as the tribe has an active forestry program.</li> </ul>
5/13/21	Navajo Nation	Meeting-Virtual	<ul style="list-style-type: none"> <li>A brief update on the 4FRI Project was provided by forest staff. No requests for information or follow up requests were made.</li> </ul>

## Issues/Indicators/Analysis Topics

During consultation the tribes have expressed concerns about the following:

- Springs that are important to tribal communities are drying up.
- A lack of low intensity fire is reducing regeneration of medicinal plants.
- Active forest restoration is desirable so long as, mechanical equipment is monitored to ensure for the protection of archaeological sites and traditional cultural properties.
- Tribes would like to assist in forest restoration activities, especially along shared borders.
- Tribes are concerned about long-term access to forest products for traditional use.
- Traditional cultural properties, harvest sites, springs, cultural plants should be inventoried to ensure they are taken into consideration when planning project activities.
- Hot fires destroy the sumac berry which is important to the Apaches
- Mechanical thinning can destroy tobacco which is important to the Apaches
- Fire can destroy fire sensitive archaeological sites (hogans, cradleboards, scarred trees, etc)
- There have been smoke impacts to Bitter Springs and Cedar Point. Smoke is not good for the elderly.
- Fire from lightning struck trees is harmful to Navajo people. There may be a need for medicine men to be involved with these fires that are encouraged and maintained by FS.
- Wildland fire smoke negatively impacts tribal communities, especially the health of the elderly.
- Fire and smoke from lightning struck trees is harmful to Navajo people. There may be a need for medicine men to be involved with these fires that are encouraged and maintained by FS.
- Herbicide usage should be signed so tribal members don't collect plants in these areas.

## Assumptions and Methodology

Assumptions made are as follows; the forests will work with tribes to ensure that traditional tribal activities can continue and develop measures to protect places and resources that have significant values to tribal communities during implementation of 4FRI related projects. The removal of excess fuels is a benefit to cultural resources, TCPs, traditional use forest products (such as medicinal plants and emery oak groves, for example)and adjacent tribal lands; Low heat prescription wildfires can result in the regeneration of medicinal plants and tobacco; Mechanical thinning of specific species can protect other plant species of cultural importance (such as Emory Oak groves); restoration activities will benefit natural

springs. Consultation with affected tribal communities will be going through out the life of the project as well as at critical points before project activities.

The following table show the design features, best management practices and mitigation measure that will be implemented for both ancestral tribal heritage sites and other resources important to tribal communities.

**Table 2. Design Features, Best Management Practices, and Mitigation**

DF/BMP/M&CM Number	Description	Primary Purpose	Basis
CT001	All activities will comply with the National Historic Preservation Act for all ground-disturbing undertakings as appropriate. Effects on cultural resources would be determined in consultation with the State Historic Preservation Office and other consulting parties. Potential effects would be addressed through site avoidance strategies and implementing the site protection measures listed in Appendix J of the Southwestern Region Programmatic Agreement (PA) and in the 4FRI heritage strategy and section 106 clearance report.	Regulatory requirement. Compliance with NHPA and Southwestern Region Programmatic Agreement (PA) with Arizona SHPO.	Land Management Plan compliance and specialist recommendation
CT002	Consult with Federally Recognized Native American Tribes, particularly when projects and activities are planned in sites or areas of known religious or cultural significance.	Regulatory requirement. Compliance with NHPA, the American Indian Religious Freedom Act of 1978 , Southwestern Region PA with Arizona SHPO, Executive Order 13007, EO 13175, and other applicable Executive Orders and legislation.	Land Management Plan compliance
CT003	Eligible, or potentially eligible, cultural resources would be managed to achieve a “no effect” or “no adverse effect” determination whenever possible, in consultation with the SHPO and ACHP (36 CFR 800).	Regulatory requirement. Compliance with NHPA and Southwestern Region PA with Arizona SHPO.	Land Management Plan compliance and specialist recommendation
CT004	Monitoring during and after project implementation shall occur to document site protection and condition.	Compliance with Southwestern Region PA (Appendix J) with Arizona SHPO.	Land Management Plan compliance and specialist recommendation
CT005	Proposed treatment activities and schedules would accommodate tribal traditional and ceremonial use.	Compliance with the Food, Conservation, and Energy Act of 2008 (Public Law 110-234).	Land Management Plan compliance and specialist recommendation
CT006	In accordance with regulations (43 CFR 10) governing application of the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), if human remains, funerary objects, sacred objects, or objects of cultural patrimony are	Regulatory requirement. Compliance with NAGPRA, NHPA and Southwestern	Land Management Plan compliance and specialist recommendation

DF/BMP/M&CM Number	Description	Primary Purpose	Basis
	inadvertently encountered, operations in the area must immediately cease and the Forest Archaeologist must be notified. The Forest will work to initiate consultation with the affected tribe (s) to implement any requirements listed in NAGPRA and the PA and to develop a plan to mitigate for the effects on the find.	Region PA with Arizona SHPO.	
CT007	Should any previously unidentified cultural materials be discovered during project implementation, work must cease immediately, and the forest archaeologist must be contacted to initiate the consultation process as outlined in the Advisory Council on Historic Preservation Regulations (36 CFR Part 800.13).	Regulatory requirement. Compliance with NHPA and Southwestern Region PA with Arizona SHPO.	Land Management Plan compliance and specialist recommendation
CT008	Contracts, permits, or leases that have the potential to affect cultural resources shall include appropriate clauses specifying site protection responsibilities and liabilities for damage.	To ensure that mitigations measures identified during the analysis phase to protect cultural sites from being adversely affected are addressed during the implementation portion of the project.	Land Management Plan compliance and specialist recommendation
CT009	Fines, etc., for the costs of restoration and repair resulting from breaches of contracts, permits, or leases that cause inadvertent or intentional damages to cultural or tribal resources shall be strictly enforced.	Archaeological Resource Protection Act of 1979 (ARPA), Site protection	Land Management Plan compliance and specialist recommendation
CT010	Locate, record, and evaluate the General Crook and other significant historic trails within the project area well before implementation. Maintain historic and scenic integrity of National Register-eligible historic roads, including the preservation of associated historic features, tread width, curve radii, and other features that contribute to the National Register eligibility of the historic roads.	Regulatory requirement. Compliance with NHPA and Southwestern Region PA with Arizona SHPO. Site protection, ARPA (prevention of looting).	Land Management Plan compliance and specialist recommendation
CT011	Plate over National Register-eligible and unevaluated sites located within roads that will be maintained or reconstructed	NHPA compliance, 4FRI Rim Country Site Plating protocol.	Land Management Plan compliance and specialist recommendation
CT012	Coordinate with forest cultural resource specialists to design and implement projects (or don't implement projects) located in areas of very high site density.	Site protection, ARPA (prevention of looting).	Land Management Plan compliance and specialist recommendation
CT013	Culturally modified trees such as blazed trees, lookout trees, phone line trees, arborglyphs, peeled trees, etc. will be avoided. Protection measures may include removing ladder fuels around the trees by hand, establishing buffer zones to keep equipment from damaging trees or affecting root systems, etc.	Regulatory requirement. Compliance with NHPA and Southwestern Region PA with Arizona SHPO.	Land Management Plan compliance and specialist recommendation



<b>DF/BMP/M&amp;CM Number</b>	<b>Description</b>	<b>Primary Purpose</b>	<b>Basis</b>
CT014	Roads to National Register-eligible and unevaluated sites identified to be closed post implementation will be closed after identified treatments are completed.	Regulatory requirement. Compliance with NHPA and Southwestern Region PA with Arizona SHPO.	Land Management Plan compliance and specialist recommendation
CT015	All rock pit locations will be surveyed for cultural resources. As a general rule, all identified cultural resources that are considered eligible for the purposes of Section 106 of the National Register of Historic Places within or adjacent to the rock pit boundary shall be flagged prior to implementation. In addition to flagging, rock pit extraction areas shall include fencing along the pit boundary to minimize the potential for indirect effects on cultural resources outside of the pit boundary where applicable. The forest may recommend other types of site mitigation measures as they see fit.	Reduces disturbance footprint, protects cultural and historic sites, and retains seed sources for eventual reestablishment of residual plant cover, potentially enhancing fruit, seed, and plant production.	Land Management Plan compliance and specialist recommendation
CT016	During layout and implementation, identify traditionally used plants, including Emory oak, that are at risk or have been identified as culturally, medicinally, or economically important to tribal communities. Design and apply management prescriptions and activities to protect and enhance specified plant populations. Provide opportunities for tribal members to harvest plants before implementation in areas where important species are known to exist.	To protect and enhance populations of plants used traditionally by tribes and to improve tribal access to harvest those plants prior to implementation of restoration treatments.	Specialist recommendation
CT017	Restoration activities and uses should be administered in a manner that is sensitive to traditional American Indian beliefs and cultural practices	Compliance with the Food, Conservation, and Energy Act of 2008 (Public Law 110-234), 36 CFR 261.53(g) Closure Authority, EO 13007, EO 13175, and other applicable Executive Orders and legislation.	Land Management Plan Compliance
CT018	The Forest will coordinate with Tribal practitioners to ensure they have access to areas that provide them an opportunity to practice traditional activities, such as plant gathering and ceremonial activities that are essential in maintaining their cultural identity and the continuity of their culture, with reasonable limitations, consistent with public safety and multiple uses by other forest users. There are opportunities for solitude and privacy for ceremonial activities.	Compliance with the Food, Conservation, and Energy Act of 2008 (Public Law 110-234), 36 CFR 261.53(g) Closure Authority, EO 13007, EO 13175, and other applicable Executive Orders and legislation.	Specialist recommendation

DF/BMP/M&CM Number	Description	Primary Purpose	Basis
CT019	Where appropriate, reduce fuels on archaeological sites in accordance with Section II of Appendix J of the Region 3 Programmatic Agreement. This process can include hand treatments within site boundaries, mechanical removal of trees along the edge of sites, and light burning through sites that are not fire sensitive.	To protect cultural sites from being adversely affected during the implementation portion of the project.	Specialist Recommendation

## Environmental Consequences

### Alternative 1 – No Action

Traditional cultural use areas are at risk to catastrophic fire because it can destroy the setting of the Traditional cultural use areas. Springs and plant collection areas are at risk to catastrophic fire because of excessive runoff from monsoon rain washing in ash and debris in a fire devastated landscape. Overstocked stands are reducing the sunlight available for cultural and medicinal plants and catastrophic fire can destroy seed and habitat for native plants. A lack of low intensity fire is reducing regeneration of plants collected by native people.

Soil erosion due to uncharacteristic wildfires could have both a direct and indirect effect on traditional collecting areas. Rain and snow melt could cause channels to form, or mud slides from nearby slopes could deposit soil and debris over traditional areas leading to the loss of biological communities for both plant and animal species used by the tribes.

A “No Action” may result in the possible reduction over time of pre-settlement adapted native plants, some of which have been collected since historical times by American Indians for food and medicine. Additionally, springs and seeps are important locations to American Indians and other members of the public and increasingly overstocked forests may have some effect on those historic water sources.

Lastly, also, with continued drying trends across the southwest the Forest may need to issue forest closures and fire restrictions more frequently. Thus, effecting access to traditional collecting and ceremonial use area.

### Effects Common to All Action Alternatives

Mechanical thinning treatments, cable operations, temporary road construction and closures, and other ground disturbing activities associated with Rim Country have the potential to affect traditional collecting and gathering, and ceremonial areas and TCPs. Prescribed burning also has the potential to affect fire sensitive areas.

However, restoration activities in general could positively impact the sustainability and availability of traditionally important plant species and natural springs. Initial reduction of heavy fuels may lead to an increase in understory plant growth and which could benefit to the habitat supporting culturally important plants. Low heat fires can also enhance certain plant species such as wild tobacco. The reduction in tree density will allow more water to flow through seeps and springs. Reducing unnatural fuel loads around National Register listed or eligible Heritage resources which are known to be of interest to the local tribes representing the “footprints of their ancestors,” would help to protect the sites from damage caused by high heat intensity wild fires.

Project implementation schedules may impact some American Indian uses as tribal members commonly access forest lands for ceremonial activities and to gather forest products and, in some cases, the timing of these activities are related to ceremonies or the seasonality of some plant species. Access concerns can be addressed through on-going consultations between the forests and American Indian groups.

Increases in prescribed fire in all action alternatives, except no action, create the potential for increased smoke impacts. Most of the smoke from prescribed fire from within the Rim Country EIS Area would carry from the southwest to the northeast, potentially affecting reservation communities located north and east of burn areas such as the Navajo Nations and White Mountain Apache Reservation.

Many people living in these areas are senior with health conditions and are sensitive to smoke. The effects of limited communications (they cannot get on a Web site to check out where we're burning, etc.), language barriers, or cultural differences make it difficult to get information to them and receive information in return about smoke impacts; and there is a general lack of smoke monitoring data on the reservations. Therefore, those living on these reservations may be disproportionately impacted by smoke from the various agencies (especially from multiple fires on multiple jurisdictions).

Possible road decommissioning can assist in limiting access to some sensitive tribal areas such as shrines and traditional gathering areas thus minimizing post burn visibility and visitation issues at those sites (for further discussion, refer to the Heritage section). However, this may have the unintended consequence of impeding tribal elders from accessing these areas as well because they are not physically able to walk long distances.

### Effects Unique to Each Action Alternative and Differences Among Them

The alternatives propose essentially the same activities ranging from various mechanical treatments, restoration and various types of road work. The major differences involve the proposed quantity of each activity being performed, with the exception of Alternative 1. From a tribal relation standpoint, there are no effects that are unique or different between the alternatives. Effects to resources and places that are important to tribal communities are highly dependent on the proposed activity, its location, and the likelihood of the presence or absence of a culturally important places or resources within the proposed treatment area and the effects to them. Therefore, mechanically thinning 899,340 acres vs 474,930 acres only matters in that less acres proposed for mechanical treatment means less threat to culturally important places from being impacted by this activity. However, it also means less fuel removed, thus less protection to the culturally important places and resources from the effects of high intensity wildfires. Also, an increase or a decrease in the amount of impacts from smoke on tribal communities.

### Effects from Rock Pit Use and Expansion

Approximately nine existing rock pits on the Coconino NF are being proposed for use within the Rim Country project area. Those pits are:

- Oak Grove
- Turkey Knob
- Brushy Knoll
- Snafu
- Macks
- Salmon Lake
- Cinch Hook
- Lockwood
- Buck Butte

On the Apache-Sitgreaves NF, 11 sites are proposed for use. They are:

- 34T
- 213
- Pias Farm
- 115
- 717E
- Promontory
- Carr Lake
- Brookbank
- Borrow
- Cottonwoods Wash

The pits are proposed to be used as a source of gravel for various road maintenance activities. Their access roads may undergo some level of maintenance and the pits may be expanded in various directions to a maximum of 500 feet to increase their capacity to yield material. The rock pit locations on the Coconino were evaluated for Section 106 as part of the Rock Pits EA (USDA 2016). Unlike the pits on the Coconino, pits on the Apache-Sitgreaves have not been evaluated for Section 106 compliance beyond their current operations. According to the Forest's cultural resource database, Carr Lake, Brookbank, Borrow and Cottonwoods Wash pits all have cultural resources that would need to be mitigated before expanding the pits.

Proposed rock pit operations and expansions have the potential to affect cultural resource sites adjacent to proposed rock pit and access road locations. Erosion by mass wastage, slope wash, and wind over many years, can strip cultural deposits from archaeological sites, remove or displace artifacts, and undermine historical structures. Ground disturbances adjacent to cultural resource sites may accelerate erosion by damaging vegetation, loosening stable soil surfaces, and/or compacting soils and thereby promote surface runoff. Vehicle tracks tend to channel surface runoff causing down-cutting and increased soil erosion. These effects are expected to be avoided at cultural sites near rock pits through pit expansion design and avoidance measures such as erecting temporary fences around sites during operation periods.

It is possible that increased truck traffic to and from proposed rock pits could result in indirect erosion effects on a small number of sites that occur adjacent to access roads. Keeping these roads well maintained would be expected to limit these effects.

The risk of unauthorized collection of artifacts would increase due to the presence of project personnel in areas where the locations of heritage resource sites are clearly marked. Unauthorized removal of materials from heritage resource sites could result in the loss of objects with cultural importance to Native American groups, or of artifacts needed to determine the age and nature of the occupation at prehistoric sites. This would be mitigated by requiring that sites identified near the pit operation areas are recorded in detail, then monitored after the operations are completed.

### **Effects from Use of In-woods Processing and Storage Sites**

Twelve locations have been identified as potential processing and storage areas within the Rim Country project area on the Coconino and Tonto National Forests. Table 3 shows the proposed locations and current cultural information.

**Table 3 Known Cultural Inventory and Proposed Storage Sites**

<b>Name</b>	<b>Size</b>	<b>Forest</b>	<b>Current Status of Inventory</b>
137 / 96	141.8	Coconino	Minor previous survey, low probability, Historic Trail present
139 / 9729D	15.1	Coconino	Some survey, site located in or near proposed area
145A / 9615X	14.3	Coconino	Mostly surveyed, no sites, low probability
294 / 294D	81.1	Coconino	Half surveyed, no sites, low probability
81 / 81E	9.1	Coconino	Partially surveyed, sites located nearby, high probability
9364L / FH3	40.5	Coconino	No survey, several sites nearby, moderate probability
9731G / Hwy87	6.0	Coconino	No survey, very high probability
Snafu	10.7	Coconino	100% surveyed, one site near but not in. Has sinkhole
117 / 1321	3.8	Tonto	Not surveyed
582 / Hwy87	4.6	Tonto	Mostly surveyed
74 / 64	5.9	Tonto	Not surveyed, multicomponent site 04-1533 located in area. Unevaluated
288/2781	unknown	Tonto	Unknown
3238 / 512	23.5	Tonto	100% surveyed
609 / 1938	5.3	Tonto	Not surveyed, prehistoric multi-room compound site 05-188 located in area. Unevaluated.

The potential storage and processing areas located on the Coconino NF are within the project area for the Cragin Watershed Protection Project EA. The areas where they are located were assessed as part of the Cragin heritage evaluation. Mitigation measures listed in the EA parallel those listed in the PA and the Appendix J and will be implemented prior to project implementation. If the proposed processing and storage areas are selected for use, the Mogollon Rim Ranger District Archaeologist would review the existing inventory for that location and would ensure that mitigation measures listed in the Cragin EA are implemented, if needed.

The potential locations on the Tonto NF would likely be utilized for task orders or contracts in these areas. The evaluation for all of the processing and storage locations, if evaluated as a part of a task order, would follow the processes outlined in Appendix J. Otherwise the guidance within the PA would be used.

Proposed mitigation measures would be implemented prior to the areas being used. With the implementation of standard mitigation measures, there should be no adverse effects to cultural resources due to the use of these locations as storage and processing areas.

### **Effects from Land Management Plan Amendment**

One plan amendment with three exceptions are proposed to the Tonto National Land Management Plan. They would remove language restricting mechanical equipment on slopes of over 40 percent, amend Plan language and components to align with the Mexican Spotted Owl Recovery Plan, and redefine the treatment for ponderosa pine vegetation types. Of these three exceptions amendments, removing restrictions for mechanical equipment on slopes of less than 40 percent has the most potential to affect cultural resources and the methods for conducting Section 106 analysis.

Sensitive cultural resources such as rock art and rock shelters tend to be located on 40 percent or greater slopes of small hills, rock out-croppings and mountain slopes. However, because steep slopes are typically not treated mechanically, Appendix J includes provisions that would allow for exempting slopes 40 percent or greater from intensive archaeological inventory. The Rim Country alternatives will include treatment of slopes up to 40 percent. This increases the likelihood of impacts to the types of cultural resources found in those locations. It also means that the archaeological analysis will need to include an intensive inventory of the steep slope treatment locations. Moreover, plants culturally significant to Tribes may occur on slopes that would be open to mechanical treatment. As areas for treatment are delineated, consultation is expected to occur with Tribes to determine impacts to cultural resources. Consultation should include discussion of potential vegetation impacts to determine effects on tribally significant plant resources.

## **Cumulative Effects Analysis**

### **No Action**

If the proposed large scale, landscape level forest health project does not occur, there would still be some serious cumulative effects to heritage resources. High intensity wildfires and the construction of fire breaks using bulldozers during a wildfire could severely damage sites. Wildfires could also sterilize the soil or completely remove ground fuels making the sites vulnerable to soil erosion. Also, because sites are more visible after a fire, they are much more susceptible to vandalism. Soil erosion from dry channels that are within or adjacent to sites could continue to affect a site's cultural stratigraphy and displace much cultural material. Roads through sites would continue to degrade cultural deposits and features. Trees would continue to encroach into grass lands and displace artifacts and cultural deposits within sites.

### **Effects Common to All Action Alternatives**

Cumulative effects from mechanical treatments, temporary road construction, and other ground disturbing activities, as well as effects caused by prescribed burning, would be mitigated using site protection measures identified in the PA, Appendix J, the Rim Country Sample Survey Strategy and the Site Plating Strategy. These include archaeological monitors during mechanical activities, keeping ground disturbing activities out of site boundaries by flagging and avoiding the sites, and post prescribed burn site monitoring to assess the effects of the low intensity burns. Covering cultural deposits and features in roadbeds within cultural sites prior to maintenance activities or during decommissioning would protect buried cultural deposits and features. Also, well maintained roads will encourage the public to remain on roads and deter cross country travel which can damage sites located near roads. Because all ground disturbing and prescribed fire undertakings go through the Section 106 review process, and identified potential effects would be mitigated, the overall cumulative effects from these undertakings should be

minimal. Therefore, there should be little cumulative effects to cultural resources as a result of the activities proposed in this EIS.

Mechanical treatments are not likely to cause cumulative effects if the measures discussed above are taken to protect cultural resources, culturally important place like springs and culturally important plants. The potential cumulative effects on TCPs, traditional gathering and ceremonial use areas and springs resulting from any potential increase in erosion are minimal. Reducing fuel loads and implementing low to moderate intensity prescribed fires does not cause soil sterilization or hydrophobic soils as high intensity wildfires do. Low intensity prescribed fires leave some vegetation in place and re-vegetation occurs soon afterwards if soils are not sterilized. However, as implementation occurs, monitors would check for erosion concerns by examining culturally sensitive locations like TCPs and ceremonial sites in the project areas, including focusing on slopes, drainages, and other high probability areas with cultural resources present. The cumulative effects to cultural resources caused by an increase in erosion can be considered to be adverse if not addressed. Finally, smoke impacts on tribal communities is temporary and with the implementation of the restoration projects, effects from smoke should decrease over time due to a decrease in prescribes and wildfires

There is a possibility of cumulative effects with regards to archaeological site vandalism resulting from increased visibility once the project is implemented. However, the management practice of implementing low to moderate intensity prescribed fire typically does not sterilize soil or completely remove ground fuels as does a high intensity wildfire. Low intensity fires also tend to leave some trees in place that will eventually cover the surface with a recurring needle cast. Sites are also periodically monitored both during project implementation as well as for NHPA Section 110 purposes by agency and volunteer personnel. Proposed road closures would also reduce public access to some of these areas.

The likelihood of erosion on cultural resources is also minimal. Reducing fuel loads and implementing low to moderate intensity prescribed fires does not cause soil sterilization or hydrophobic soils like high intensity wildfires. As noted previously, low intensity prescribed fires leave some vegetation in place and re-vegetation occurs soon afterwards if soils are not sterilized. However, as implementation occurs, archaeologists would monitor for erosion concerns, examining sites in the project areas, especially focused on slopes, drainages, and other high probability areas where cultural resources maybe present.

The proposed restoration activities in grasslands, riparian, streams and seeps would also have a very limited ability to cause cumulative effects. All of these activities can easily be modified to minimize effects to cultural resources through avoidance or prescription modification. In the case of grasslands, the physical removal of encroaching trees and other fuels would have the added benefit of protecting sites from the effects of wildfire.

## **Irreversible and Irretrievable Commitments of Resources**

Cultural resources and places and resources of tribal significance are non-renewable resources. The actual identification and analysis of the cultural and tribally significant resources within the project area will be accomplished when the individual task orders are identified. The majority of cultural sites that are likely to be encountered during implementation of this EIS are not likely to be committed for the purposes of recreation, tourism or public interpretation. Therefore, there is not likely to be a loss of future options or loss of production as a result of this EIS.

## **Unavoidable Adverse Effects**

Appendix J of the PA and the sampling strategy developed for the Rim Country EIS includes guidance and standard mitigation measures. If the measures are implemented as recommended, the proposed undertaking within this EIS should result in no adverse effects to cultural resources and resources of tribal

concern. Therefore, there should be no unavoidable adverse effects to these resources as a result of this EIS.

There is a potential for the discovery of new sites and human remains during project implementation. These are typically cultural deposits that were not detected on the surface during the initial project analysis. The PA and 36 CFR 800.12 include guidance on how to address these situations. Implementation of this guidance is done in consultation with the AZ SHPO and tribes, if appropriate, and an effort is made to minimize effects to the discovery.

## **Short-term Uses and Long-term Productivity**

The activities recommended within the Rim Country EIS will have limited effect on long or short-term productivity in relationship to cultural resources. Cultural resources are non-renewable. Soil erosion on or near cultural resources due to fire or flooding is a concern. However, as noted in the Environmental Consequences section, the majority of potential long or short-term effects to cultural resources from the activities propose in the EIS can be mitigated through a variety of standard mitigation measures, design features and BMPs. Therefore, the likelihood of effects to long or short-term productivity in relationship to cultural resource is extremely low.

## **Discussion of Literature**

The discussion of tribal concerns is based on comments heard through government-to-government consultation with federally recognized Indian tribes.

## **Acronyms**

TCP: Traditional Cultural Property.

NHPA: National Historic Preservation Act

NAGPRA: Native American Graves Protection and Repatriation Act.

## **References Cited**

USDA Forest Service.2003. First Amended Programmatic Agreement between the Southwestern Region the New Mexico Historic Preservation Office, and the Arizona State Historic Preservation Office Regarding Historic Property Protection and Responsibilities. Ms. on file at the Coconino National Forest Supervisor's Office, Flagstaff, AZ.