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Fossil Creek Wild and Scenic River

Draft Record of Decision for the Comprehensive River Management Plan

Forest Service

Coconino and Tonto National Forests

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Fossil Creek Wild and Scenic River

Draft Record of Decision for the Comprehensive River Management Plan

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Introduction

This is the record of decision (ROD) for the comprehensive river management plan (CRMP) for the Fossil Creek Wild and Scenic River (WSR). An environmental impact statement was developed to analyze the potential effects of this project. The final environmental impact statement (FEIS) has been prepared pursuant to the requirements of the National Environmental Policy Act (NEPA), the Wild and Scenic Rivers Act (WSRA), the National Forest Management Act and its implementing regulations, the revised Coconino National Forest Plan (USDA 2018), and the Tonto National Forest Plan, as amended (USDA 1985). The decision presented in this document addresses activities proposed on federal lands administered by the United States Department of Agriculture Forest Service. The Arizona Game and Fish Department is a designated cooperating agency for this project.

The FEIS documents the analysis of environmental effects anticipated to result from implementing programmatic management direction and site-specific actions included in the Fossil Creek CRMP. The CRMP is anticipated to be in effect for at least the next 20 years. The CRMP document is separate from the FEIS.

This ROD documents our decision, which is made in consideration of the analysis of six alternatives, including "no action;" public comment; relevant law, regulation, and policy; and the best available scientific information. This document includes the rationale for our decision.

Background

Fossil Creek is a perennial creek in central Arizona that is located on National Forest System lands managed by the Coconino and Tonto national forests (figure 1).

Figure 1. Location of Fossil Creek in central Arizona

Congress designated approximately 16.8 miles of Fossil Creek as a wild and scenic river in 2009,[1] pursuant to the WSRA. WSRA requires the Forest Service, Fossil Creek's administering agency, to develop a CRMP. The purpose of the CRMP is to ensure protection and enhancement of Fossil Creek's river values, which are defined as

[1] Public Law 111-11, March 30, 2009; 123 Stat.1147, §5001.

its free-flowing condition, water quality, and outstandingly remarkable values (ORVs). The CRMP defines the ORVs as biology (wildlife and fish populations and habitats), geology (particularly the travertine system), Western Apache and Yavapai traditional and contemporary cultural values, and recreation. The CRMP must address resource protection and the development of lands and facilities, establish user capacities, and develop other management direction and practices necessary to achieve the purposes of the WSRA (§3(d)(1)).

Because of its year-round flow in a region where water is scarce, Fossil Creek possesses a rich ecosystem and a long history of human use. Fossil Creek is the only intact perennial river system with continuous flow without any water diversions in Arizona, and is the only uninterrupted system between the Verde River and the Mogollon Rim. As such, it connects a number of biotic communities. The creek's rich riparian area, combined with the surrounding uplands, support 200 known bird, mammal, reptile, and amphibian species, with potential for 300 additional species. A large portion of the creek supports an entirely native fishery that includes endangered and Forest Service Sensitive species. Hundreds of plant species have been documented along the creek. High in calcium carbonate, the waters continually create large deposits of travertine. This rock-like substance encases whatever falls into the streambed, creating the creek's namesake fossil-like formations. The travertine also forms natural dams that create complex and valuable habitat and spectacular clear pools that range from aquamarine to deep blue.

Human use of Fossil Creek has been ongoing since prehistoric times. There is evidence of use of the broader area from as long as 10,000 to 12,000 years ago, and various groups of indigenous peoples have lived in Fossil Creek over the centuries. Fossil Creek is a traditional territory for the Western Apache and Yavapai, and was essential to maintaining cultural continuity for these groups through the period of forced relocation in the late 19th and early 20th centuries. The first water rights claim in Fossil Creek was filed in 1900, leading to the diversion of Fossil Creek's waters into the Childs-Irving hydroelectric power project from 1909 to 2005. This system facilitated development of mines in the Prescott, Jerome, and Humboldt areas and electricity delivery to Phoenix.

Fossil Creek is said to represent one of the largest river recovery efforts in the Southwest. The Federal Energy Regulatory Energy Commission (FERC) authorized decommissioning of the Childs-Irving project, which was operated by Arizona Public Service (APS), in 2004 after an effort by conservation organizations and federal and state agencies to restore flows to the creek. Deconstruction and restoration actions began in 2004 and continued until 2010, in the process restoring full flows to the creek and removing most of the Childs-Irving infrastructure.

Recreational use increased dramatically after restoration of full flows as people sought out Fossil Creek's enhanced opportunities for swimming, picnicking, boating, hiking, backpacking, and wildlife and bird watching. Social media, television, and magazine articles encouraged visitation, and rapid population growth in Arizona likely contributed to escalated use. Demand for access during the summer season increased from an estimated 20,000 visitors in 2006 (Rotert 2013) to 130,000 in 2015 (DeSutter 2015). In 2015, approximately 43,000 people were turned away because of insufficient parking in the river corridor. As visitation first began to increase, recreational use was generally unmanaged in that access to the river corridor was unrestricted and few amenities such as toilets or designated parking areas were present. Demand on holidays and weekends overwhelmed the entrances, far exceeded available parking, and created gridlock on the narrow Forest Road (FR) 708. Additionally, effects to natural, cultural, and social values resulted from uncontrolled dispersed camping, creation of unplanned trails, excessive littering, and human and pet waste near the creek.

These effects necessitated implementation of measures to manage visitor use and protect river values prior to the CRMP's completion. These measures were authorized on an interim basis until the final CRMP was approved. Measures included managing visitor capacity, delineating parking areas, installing permanent toilets, improving signage, improving creek access, stabilizing and rehabilitating disturbed areas, and restricting certain uses such as camping and campfires.

Fossil Creek's unique features—in particular its abundant, consistent flows, rich wildlife and fish populations and habitats, travertine geology, recreation opportunities, and cultural importance—fit together to form a river system that is outstandingly remarkable. The condition of each river value is dependent on the others. Wildlife and fish populations are dependent on the quality and diversity of habitat, which in turn are direct functions of constant

water availability and travertine-based stream channel complexity. The dynamic travertine system is shaped by consistent baseflow as well as periodic flood flows. These environmental features contribute directly to the quality and diversity of recreation opportunities available, and their condition influences the quality of visitors' experience. The landscape as a whole is inseparable from Western Apache and Yavapai cultures, and its continued health is essential to its living cultural value. The CRMP is informed by Fossil Creek's unique environment, interconnectedness, cultural heritage, history, and lessons learned through managing changing use. Further, the perspectives and expertise of the many people who care deeply about the creek are an integral part of the planning process and will continue to be essential to the creek's successful management into the future.

Purpose and Need

The purpose of this project is to prepare a Comprehensive River Management Plan for the Fossil Creek Wild and Scenic River to meet the requirements of Section 3(d)(1) of the Wild and Scenic Rivers Act. To meet these requirements, there is a need to develop management direction to provide for the protection and enhancement of Fossil Creek's river values for the benefit and enjoyment of present and future generations. In accordance with WSRA Section 3(d), "the plan shall address resource protection, development of lands and facilities, user capacities, and other management practices necessary or desirable to achieve the purposes of this Act." There is a need to amend the land and resource management plans for the Coconino (USDA 2018) and Tonto (USDA 1985) national forests to incorporate the management direction provided by the CRMP and modify the boundaries of the Fossil Springs Botanical Area. Currently, neither plan has sufficient guidance that would protect river values, and the Botanical Area is described inconsistently between the two forest plans.

Following removal of a dam and restoration of full water flows to Fossil Creek in 2005, public use of the river corridor increased substantially. Recreational use in Fossil Creek after restoration of full flows was essentially unconstrained, and although capacity management and some facilities have been expanded in recent years, the amenities present in Fossil Creek remain limited in their ability to accommodate recreational demands and protect river values. Effects to water quality, vegetation, wildlife, and heritage resources have been observed in recent years as a result of this unconstrained recreation. An interim management permit reservation system was implemented in 2016, which limited the number of vehicles accessing the corridor per day during the seasons of highest use. There is a need for a long-term management plan and site-specific actions that protect river values and other biological, physical and social resources while managing recreational access, use, and amenities at levels that strive to meet demand but are consistent with the protection of river values.

Decision and Rationale

This section describes the comprehensive river management plan for the Fossil Creek Wild and Scenic River we approve through this decision. This decision applies to the Fossil Creek WSR corridor and associated roads, trails, and recreation sites (figures 2 and 3). This ROD documents two decisions: one related to the Fossil Creek CRMP, and one related to amendments to the Coconino and Tonto forest plans. Because the CRMP decision is complex, we first provide a summary of what these decisions mean for visitors to and managers of Fossil Creek. This summary is followed by a detailed description of the components of the CRMP, how these components will be implemented, and why they are included in our decision. Details of the forest plan amendments are provided in the "Forest Plan Amendment" section. Next, we provide the rationale for why we selected the alternative we did instead of other alternatives that were analyzed during the planning process. The CRMP, which is a separate document, should be referenced along with this decision.

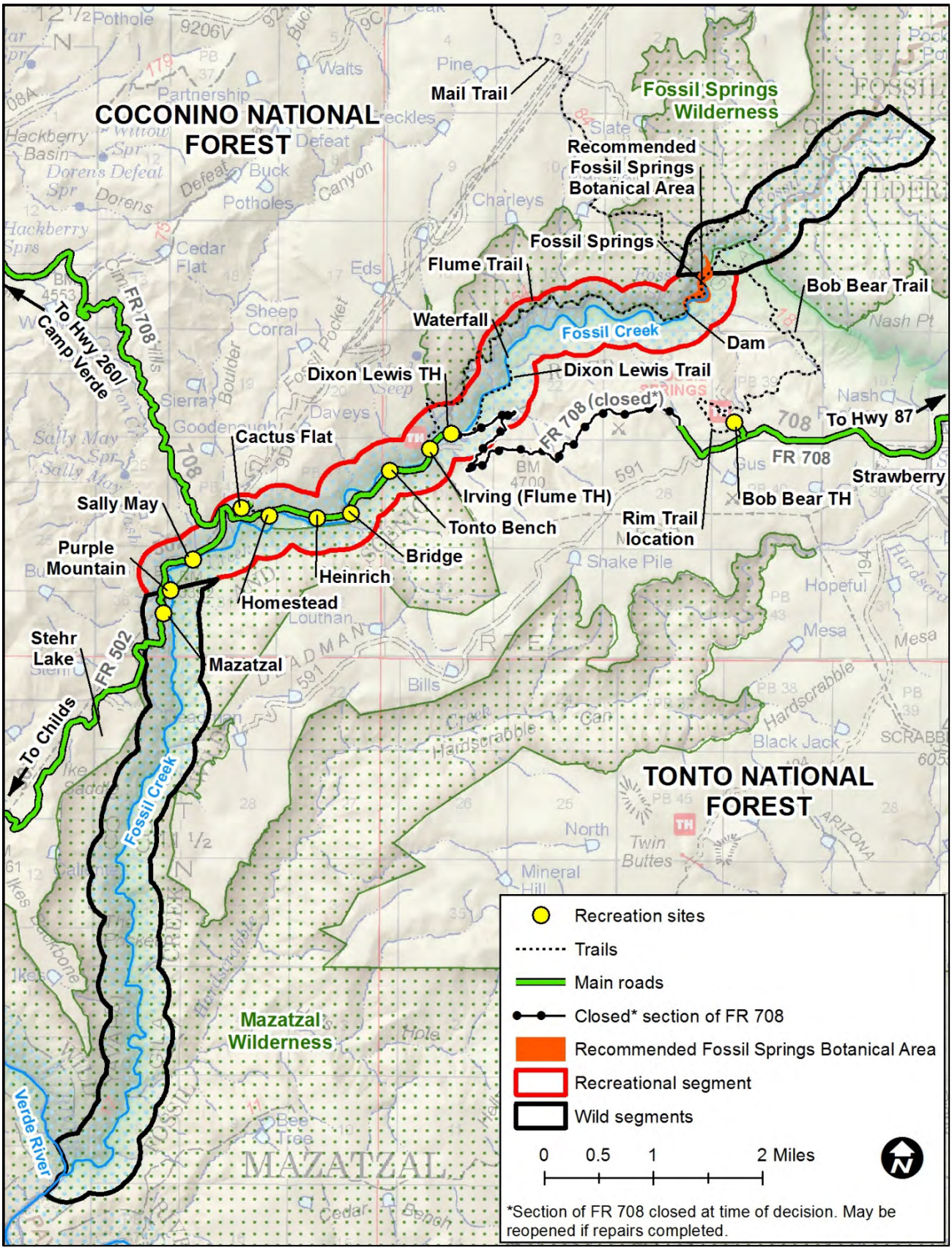

Figure 2. Fossil Creek Wild and Scenic River Corridor overview map

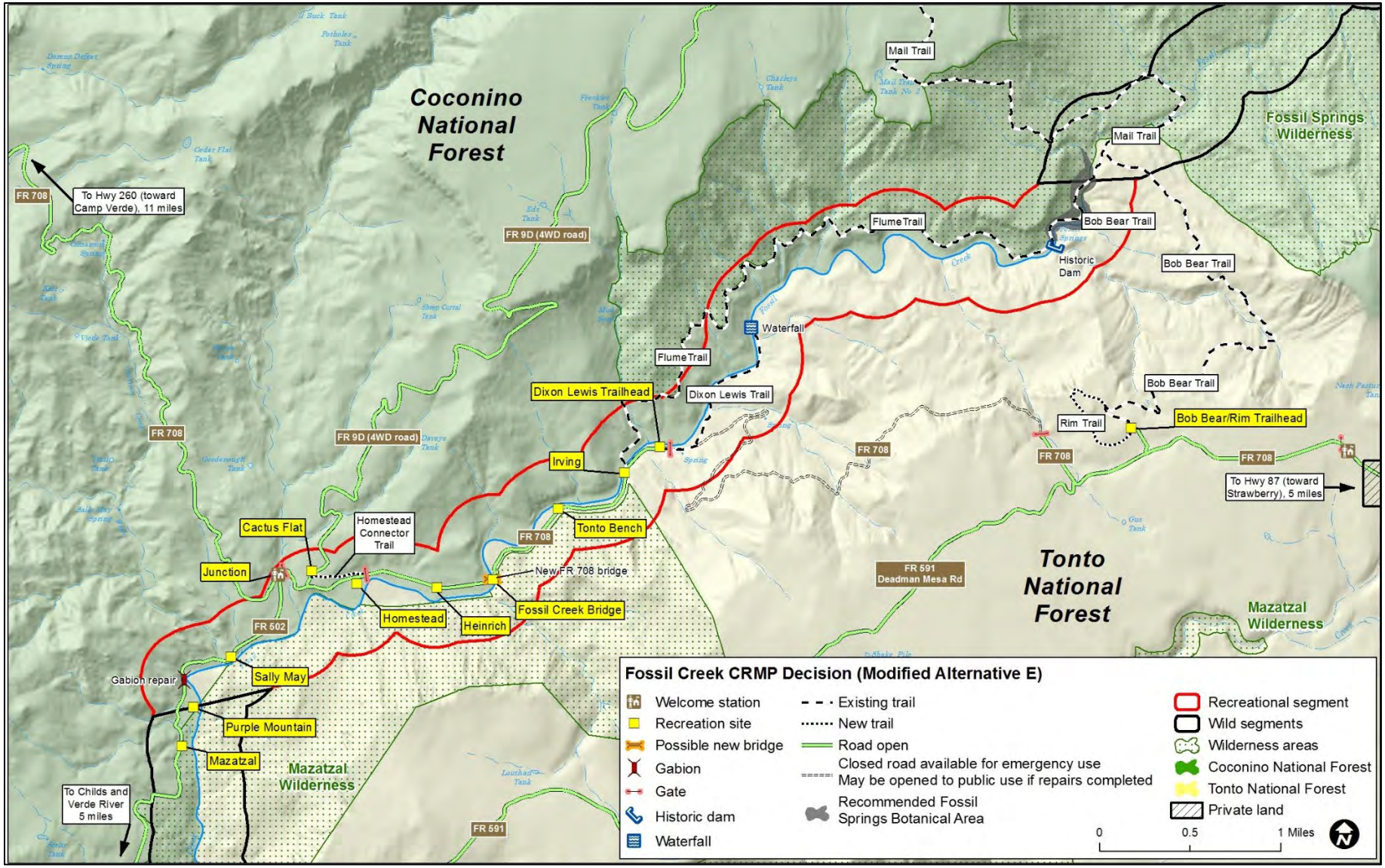

Figure 3. Recreation sites, roads, trails, and other features authorized by this decision

Decision Summary

Our decisions are to select Alternative E, with modifications, and to amend the Coconino and Tonto forest plans to integrate management direction in the CRMP. These decisions best meet the project's purpose and need because they approve a CRMP that will protect and enhance Fossil Creek's free flow, water quality, and outstandingly remarkable values for the benefit and enjoyment of present and future generations; provide a flexible, adaptive management framework; and ensure the Coconino and Tonto forest plans allow for effective implementation of the CRMP. These decisions approve both programmatic direction and site-specific actions. When the CRMP is initially implemented, visitor numbers will remain the same as those existing under the current permit system. Visitor numbers may then be increased up to the capacity described in this decision if the following criteria are met:

1) A determination is made based on collaborative monitoring data assessment, professional judgment, and management observations that river values would continue to be protected with additional visitor use and the infrastructure necessary to support that use;
2) An ongoing capacity to conduct monitoring, assess monitoring data, and implement adaptive management actions is maintained; and
3) Facilities and infrastructure that are able to support higher amounts of use are established.

How will implementation of these decisions look for visitors and managers?

For visitors: With the CRMP in place, visitors to Fossil Creek will continue to be able to enjoy a variety of activities, including swimming, boating, hiking, picnicking, camping, watching birds and wildlife, and traditional cultural practices. The existing parking lots will continue to be available, and adjacent areas may be enhanced with amenities such as picnic tables, group shelters, bike racks, and informational displays. Parking will continue to be by permit when needed during times of high demand. Visitors seeking a more primitive, backcountry experience will continue to be able to access the less visited portions of the river corridor. Over time, additional parking and amenities may be developed at the Bridge, Cactus Flat, and Heinrich to accommodate more visitors, but only if doing so is consistent with protecting Fossil Creek's river values. Although the CRMP provides for an increase in visitor numbers, the possible increase is less than originally proposed in Alternative E. If monitoring indicates visitor use at existing levels is negatively affecting the river values, such as by increasing denuded areas along the creek or degrading the recreation experience because of crowding, visitor numbers would not be increased and may in fact be reduced. Additional hiking trails may be developed, and motorized access into Fossil Creek on FR 708 from Strawberry may be restored once hazards are mitigated.

For managers: The USDA Forest Service has administrative authority for Fossil Creek. In addition, the Forest Service partners with a variety of other agencies, organizations, and members of the public to manage the area. These managers must adhere to the management framework provided by the CRMP and amended forest plans. The CRMP has the overarching goal of protecting and enhancing Fossil Creek's river values for the benefit and enjoyment of present and future generations. To help accomplish this goal, the CRMP includes the potential to implement a variety of site-specific actions; these are described in this document in the "Decision Details" section and in Chapter 5 of the CRMP. In addition, managers must:

- Apply resource protection measures listed in Appendix A of the CRMP.
- Use the management direction provided in Chapter 3 of the CRMP and the forest plans to guide management activities, both while implementing actions approved by this decision and when evaluating proposals that arise in the future.
- Monitor the condition of the river values as described in Chapter 6 of the CRMP and evaluate what effect management is having on the river values. The results of this monitoring will help inform whether implementation of actions possible under this decision, such as incremental increases in visitor numbers, are appropriate, and will inform the need for adaptive management.

- Ensure that Fossil Creek's user capacity is not exceeded. This involves establishing and maintaining infrastructure and amenities to support visitor use, managing the flow of visitors into the river corridor so numbers are consistent with the capacity provided by existing infrastructure and amenities, monitoring the effects of use and management on river values, and adapting management if needed to eliminate adverse effects. Chapter 4 of the CRMP provides more detail on user capacity management, and Chapter 6 describes the monitoring and adaptive management process.
- Continually evaluate the need to update components of the CRMP, including the approach to monitoring. The CRMP is intended to be flexible enough to be effective for at least 20 years, but changing conditions, management approaches, and scientific understanding may necessitate updates to the plan itself.

Decision Details

This section provides details about the components of our decisions, how these components will be implemented, and our reasons for including them. The CRMP document should be referenced for additional information; relevant sections of the CRMP are referenced when appropriate. Our decision is to select Alternative E, with modifications.

General Management of Fossil Creek

Comprehensive River Management Plan

Our decision adopts a CRMP for the Fossil Creek WSR corridor. The CRMP describes Fossil Creek's baseline and existing resource conditions, including its free flow, water quality, and ORVs (chapters 1 and 2); provides management direction (desired conditions, standards, guidelines, objectives, and management approaches; Chapter 3); addresses user capacities (Chapter 4); addresses development of lands and facilities (chapters 1 and 5); addresses water quality and in-stream flow requirements (Chapter 2); identifies regulatory authorities of other governmental agencies that assist in protecting river values (Chapter 1); and includes a monitoring and adaptive management strategy (Chapter 6). The CRMP was developed collaboratively with partners, stakeholders, and the public.

The CRMP establishes a final boundary for the Fossil Creek WSR corridor. The interim boundary described in Fossil Creek's designation (P.L. 111-11) is retained, except a short portion of the southeast side of the boundary in the recreational segment (SW 1/4 S22, T12N, R7E) is adjusted outward approximately 0.1 miles (encompassing approximately 16.5 acres). The boundary on the side of the corridor directly opposite this adjustment (E 1/2 S21, T12N, R7E) is reduced by approximately 16.5 acres (figure 4). Additionally, in order to accurately reflect this boundary adjustment, a minor change to the Fossil Creek WSR boundary described in the Coconino Forest Plan is needed. This minor change is described in the "Forest Plan Amendments" section below. The purpose of the river corridor boundary increase is to incorporate a spring into the corridor that contributes to the river values. The purpose of the corresponding river corridor boundary decrease is to comply with corridor size requirements specified in Section 3(b) of the Wild and Scenic Rivers Act.

Resource protection measures listed in Appendix A of the CRMP must be followed.

Implementation

The CRMP will go into effect upon completion of administrative review, as prescribed at 36 CFR 218.12 and 36 CFR 219.58. If future changes to CRMP management direction are needed, the proposed changes will be evaluated for consistency with the Coconino and Tonto forest plans and other components of the CRMP. Proposed changes that are consistent with the forest plans and other components of the CRMP will be made administratively and documented in the project file. If proposed changes are found to be inconsistent with the forest plans or other components of the CRMP, the changes will either need to be modified to ensure consistency or the forest plans amended using the current forest plan amendment process.

Rationale

The CRMP is adopted to satisfy requirements of Section 3(d)(1) of the Wild and Scenic Rivers Act. Further, management of the high use Fossil Creek receives and protection of the sensitive values it contains benefit from the existence of a comprehensive plan. The structure of the CRMP reflects guidance provided by the Interagency Wild and Scenic Rivers Coordinating Council, requirements of the Wild and Scenic Rivers Act, and other relevant law, regulation, and policy.

The WSR corridor is adjusted to better protect a spring that contributes to Fossil Creek's valuable riparian habitat, which is an important part of the biology ORV.

Resource protection measures listed in Appendix A of the CRMP must be followed to help prevent adverse effects to Fossil Creek's river values and comply with law, regulation, and policy.

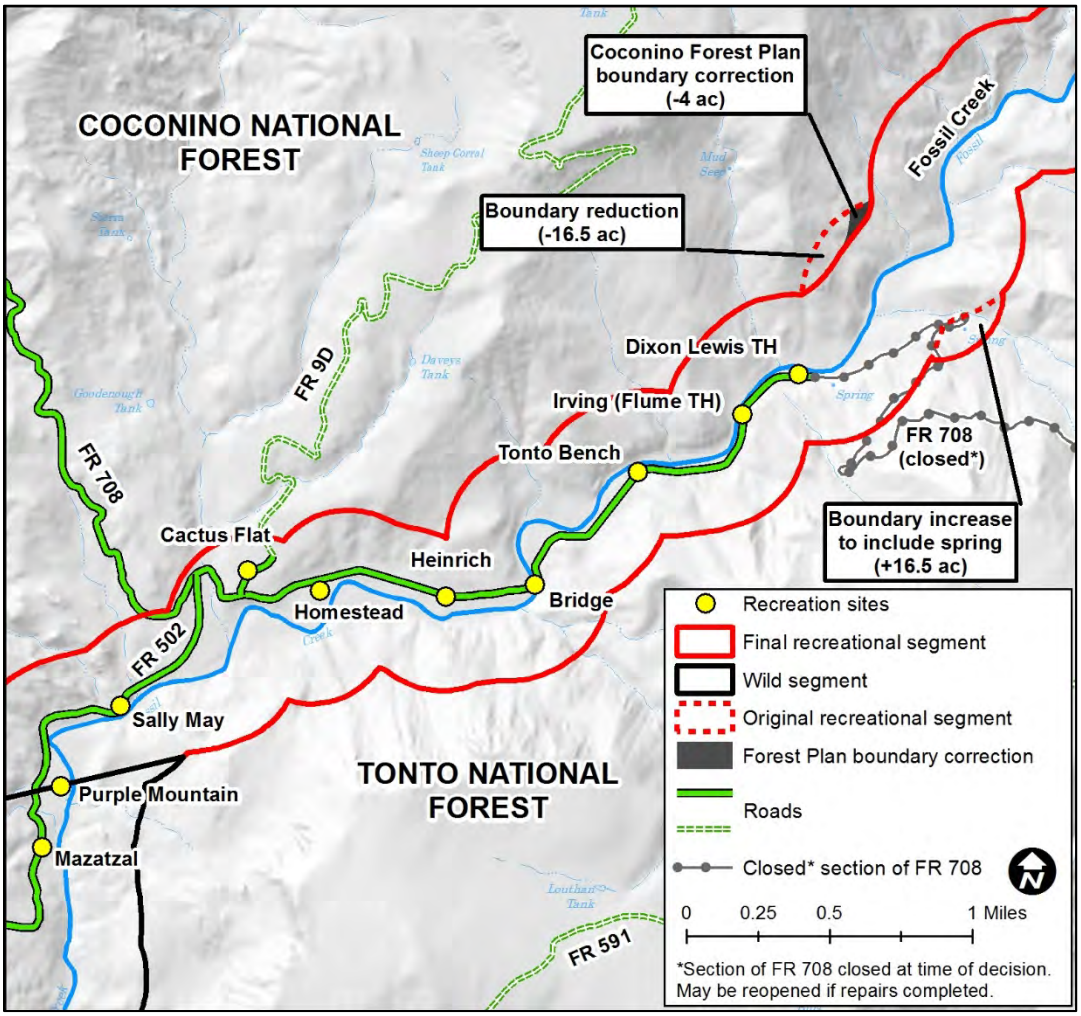

Figure 4. Wild and scenic river corridor boundary changes authorized by this decision

Monitoring and Adaptive Management

The CRMP will include a monitoring and adaptive management plan (Chapter 6). The purpose of this plan is to assess the condition of Fossil Creek's river values as influenced by management activities and visitor use and establish an adaptive management program to provide tools for eliminating adverse effects to river values detected through monitoring. The plan specifies indicators and associated metrics, measurement and assessment frequencies, thresholds for initiating adaptive management action, potential adaptive management actions, and expected outcomes.

Implementation

Monitoring and adaptive management actions will be implemented as described in Chapter 6 of the CRMP. In the future, the monitoring plan may be modified through an administrative change if needed to improve assessment and protection of river values or incorporate new methodologies or the best available science.

Rationale

A monitoring program is essential to understanding the effects management activities and visitor use have on Fossil Creek's river values and revealing the need for changes in management to ensure their protection. Additionally, the results of monitoring must be used to inform implementation of some components of the CRMP, such as increases in visitor numbers (see the "User Capacity" section below). The scope of the monitoring plan is limited to key indicators of the condition of the river values in order to promote the plan's effectiveness and financial sustainability. These indicators were developed collaboratively, with input from a variety of resource experts within and outside of the Forest Service.

An adaptive management approach is appropriate in Fossil Creek because uncertainty exists about the effects management actions will have on the condition of the river values. Adaptive management is a useful tool where such uncertainty exists, and including adaptive management in this decision will allow for more efficient implementation of corrective action when needed to mitigate potential adverse effects to the river values.

Education, Interpretation, and Research

Chapter 3 of the CRMP provides guidance and focus for education, interpretation, and research activities in the Fossil Creek WSR corridor. Education and interpretation will be focused on supporting management activities, increasing public understanding of wild and scenic rivers and the unique Fossil Creek environment, and enhancing cultural connections and visitor stewardship. The Forest Service will continue to support research activities that contribute to enhancing wild and scenic rivers and the river values. Infrastructure to support education and interpretation, such as kiosks, displays at welcome centers, and possibly future administrative/ group facilities will be provided at varying levels within recreation sites.

Implementation

An interpretive plan will be developed after the CRMP is finalized. Upon completion of the CRMP, existing signage and other media that provide education and interpretation will be utilized, with materials updated as needed to support CRMP implementation. Over time, additional infrastructure such as kiosks, displays, welcome centers, and group facilities may be developed to enhance education, interpretation, and research opportunities.

Rationale

Education and interpretation will play an important role in river value protection by promoting visitors' understanding of wild and scenic rivers, the unique values of Fossil Creek, and responsible recreation practices. Additionally, education and interpretation will be a tool for communicating the reasons for management activities and any changes in management. Supporting research will enhance scientific understanding of the river values, thereby promoting more effective management.

Mineral and Water Rights

Management direction in Chapter 3 of the CRMP provides objectives for pursuing withdrawal of the recreational segment of the Fossil Creek corridor from locatable mineral entry and for obtaining federal reserved water rights for streamflows necessary to protect Fossil Creek's river values.

Rationale

An objective to withdraw the recreational segment from locatable mineral entry is included in the CRMP because of potential adverse effects to the river values from mineral extraction. The wild segments are automatically withdrawn from mineral entry by designation under the Wild and Scenic Rivers Act.

An objective to obtain a federal reserved water right for streamflows necessary to protect Fossil Creek's river values is included in the CRMP because continued streamflow is an essential component of the Fossil Creek system.

Refugia

Upland and riparian areas outside of recreation sites, construction footprints, and designated roads and trails will be managed to serve as relatively undisturbed habitat (refugia) for wildlife, fish, and plants. In refugia areas, the effects from visitor use are intended to be so minor as to be negligible, and there will be no use of heavy machinery or development of infrastructure except as needed to maintain recreation sites and designated roads and trails. Management activities to protect refugia may include, but are not limited to:

- Defining the boundaries of recreation sites, trails, and roads, such as through signage, barriers, or fencing
- Improving recreation site design and amenities to encourage use within recreation sites
- Managing the timing, amounts, and locations of visitor use
- Educational messaging, such as through signage, permits, visitor contacts, and other methods
- Properly maintaining trails, roads, and other existing infrastructure
- Managing invasive species
- Monitoring

Rationale

The concept of refugia is included in the CRMP as a tool for balancing visitor use in suitable areas with maintaining relatively undisturbed portions of the Fossil Creek corridor. As described in Chapter 3 of the EIS, visitor use has the potential to affect various components of the Fossil Creek system. Maintaining refugia will limit the effects of visitor use to established recreation sites, which are designed to be more resistant to negative effects. Based on recreation sites authorized by this decision, approximately 11 percent of the perennial length of Fossil Creek will overlap with recreation sites, leaving approximately 89 percent of the perennial length of the creek as refugia.

Sustainability

Environmental, economic, and social sustainability will be incorporated to the extent possible into implementation of the CRMP. Protecting and enhancing the river values will contribute to environmental sustainability, as will restoration activities. Interpretive and educational programs will provide information to visitors about management practices, Fossil Creek and its river values, with the goal of supporting protection and enhancement of the river values. Where possible, sustainable materials will be used in constructed facilities and sustainable energy sources will be used for electricity needs. Continued access to the WSR corridor will support economic sustainability and potentially provide economic opportunities to nearby communities supporting visitors to Fossil Creek. Visitors gaining an understanding of the area and becoming stewards, partners, and advocates will help assure continued interest in and support of public lands.

Partnerships with other agencies, local communities, and other organizations will be pursued to support management of Fossil Creek, including development and maintenance of facilities and infrastructure, day-to-day management operations, and monitoring. Opportunities for on-site revenue generation may be pursued through a separate process (see the "Managed Entry, Fees, and Site Administration section, below).

Forest Plan Amendments

Our decision authorizes amendments to the Coconino and Tonto forest plans. These amendments will facilitate implementation of the CRMP and apply to all future projects and activities within the Fossil Creek special area (see figure 3-1 in the CRMP). These plan amendments comply with the 2012 Planning Rule's sustainability (36 CFR § 219.8), diversity (§ 219.9), multiple use (§ 219.10), and timber (§ 219.11) requirements; details of this

determination can be found in Appendix E of the EIS. The best available scientific information has been used in the development of the plan amendments as documented throughout the CRMP, EIS, and project record.

The 2018 Land and Resource Management Plan for the Coconino National Forest will be amended to:

- Decrease the area of the Fossil Creek Designated Wild and Scenic River Special Area by four acres at E 1/2 S21, T21N, R7E (figure 4, above).
- Incorporate the management direction provided in Chapter 3 of the CRMP. This management direction applies to the 2,892 acres within the Fossil Creek Designated Wild and Scenic River Special Area on the Coconino National Forest.
- Recommend[2] an 11.6-acre addition to the Designated Fossil Springs Botanical Area.

The 1985 Land and Resource Management Plan for the Tonto National Forest will be amended to:

- Establish Management Area 4G, Payson Ranger District Fossil Creek Wild and Scenic River Management Area. This area would encompass approximately 2,233 acres and consist of the Wild and Scenic River Corridor established by Congress and modified by the CRMP to include a spring in the vicinity of Forest Road 708. Establishing this new Management Area would reduce the area of Management Area 4E (Proposed Fossil Springs Natural Area on page 137) by approximately 132 acres Management Area 4F (Payson Ranger District General Management Area on replacement page 138) by approximately 592 acres. Where overlap between Management Area 4G (Payson Ranger District Fossil Creek Wild and Scenic River) and Management Area 4A (Mazatzal Wilderness) occurs, the more restrictive plan direction prevails.
- Incorporate the management direction provided in Chapter 3 of the CRMP. This management direction applies to the Fossil Creek Wild and Scenic River Management Area mentioned above.
- Recommend[2] designation of 9.4 acres of the Fossil Springs Botanical Area adjacent to and part of the Fossil Springs Botanical Area on the Coconino National Forest within the Fossil Creek Wild and Scenic River corridor.

Implementation (Effective Date)

The plan amendments will go into effect upon completion of administrative review, as prescribed at 36 CFR 218.12 and 36 CFR 219.58.

Rationale

We approve the amendments to the Coconino Forest Plan to comply with corridor size requirements specified in Section 3(b) of the Wild and Scenic Rivers Act by adjusting the area of the Fossil Creek Special Area, ensure consistent and effective application of the CRMP's management direction by incorporating this direction in the Forest Plan, and better incorporate the diverse vegetation community in the vicinity of Fossil Springs into the Fossil Springs Botanical Area by recommending an addition to this area. The four-acre reduction of the WSR corridor is needed because the corridor boundary described in the Coconino Forest Plan erroneously includes this area. We approve the amendments to the Tonto Forest Plan to reflect Fossil Creek's status as a designated wild and scenic river by establishing Management Area 4G, ensure consistent application of the CRMP's management direction by incorporating this direction in the Forest Plan, and promote consistent management of the vegetation community around Fossil Springs across forest boundaries by recommending an addition to this area.

User Capacity

This decision establishes a total long-term corridor-wide user capacity of 212 vehicles and approximately 1,120 PAOT. This capacity is comprised of 202 public vehicles (approximately 1,040 PAOT) based on the amount of potential parking, 10 administrative vehicles (approximately 50 PAOT) based on the number of administrative

[2] A separate decision by the Southwestern Regional Forester is required to formally designate recommended additions to the Fossil Springs Botanical Area.

personnel anticipated to be needed to adequately manage recreational use and protect river values, and 30 PAOT for incidental walk-ins. This represents a potential future increase of 54 vehicles (approximately 270 PAOT) compared to the time of decision. The approach to increasing visitor numbers is described in the "Implementation" section below. This is a reduction of 108 vehicles (approximately 420 PAOT) compared to the version of Alternative E described in the EIS. User capacity is discussed in detail in Chapter 4 of the CRMP.

Actual visitor use differs on a seasonal basis, and this pattern is anticipated to continue. Currently, use is highest from April through September. Visitor access will be managed through a permit system during the high use season to ensure use levels are within the river corridor's capacity. From October through March, visitor use is much lower than capacity and access will not be subject to a permit system unless use increases to the point that it approaches exceeding capacity or patterns of use risk degrading river values. Observing changing patterns of use, such as increases in visitation in shoulder season months (such as March and October) that risks exceeding corridor capacity, will influence changes to the duration of the permit season.

The portion of the capacity calculation based on parking available at recreation sites assumes one vehicle per parking space and five people per vehicle. The vehicle occupancy assumption is based on observations of actual vehicle occupancy in Fossil Creek and the number of seats present in most vehicles. The number of parking spaces available at each recreation site can be found in the "Recreation Site Names, Availability, and Amenities" section below.

The established capacity includes both day use and overnight camping. The amount of parking associated with overnight use will not exceed overall corridor capacity. Camping is described under the "Types of Use" section below.

Locations of particular management concern in the river corridor are the waterfall and Fossil Springs area. Historically, visitor use in Fossil Creek has been concentrated more heavily at the waterfall and on the Waterfall Trail than at other recreation sites in the river corridor. Availability of actual use data is currently limited; however, manual counts in July 2017 estimated about 65% of visitors in Middle Fossil used the Waterfall Trail. This aligns with observations of visitor use in the past. It is anticipated that a disproportionate number of visitors will continue to desire to visit the waterfall compared to other recreation sites in the river corridor; however, physical characteristics of the waterfall area limit the location's suitability for establishing new recreation infrastructure, including toilet facilities. In the Fossil Springs area, sensitive resources around and the remoteness of the area present access and management challenges. In order to protect river values at the waterfall and Fossil Springs, messaging (signage, visitor contacts, and other media) promoting recreation at other sites in the river corridor, Leave No Trace and low-impact recreation practices, and proper waste disposal will be provided. Further, infrastructure at other recreation sites that provide river access points will be improved to increase their user capacity and attractiveness. Chapter 6 of the CRMP outlines adaptive management actions specific to the waterfall and Fossil Springs area if adverse effects are detected at these areas.

Implementation

At time of decision, visitor numbers will remain the same as those existing under the current permit system (148 public vehicles/approximately 810 PAOT, including administrative use). Future visitor number increases would occur incrementally up to the level allowed by this decision and be held to the following criteria:

1) A determination is made based on collaborative monitoring data assessment, professional judgment of resource professionals, and on-the-ground observations of managers that river values would continue to be protected with additional visitor use and the infrastructure necessary to support that use;
2) An ongoing capacity to conduct monitoring, assess monitoring data, and implement adaptive management actions is maintained; and
3) Facilities and infrastructure that are able to support higher amounts of use are established.

Each incremental increase in visitor numbers will require additional monitoring of the river values using the CRMP's monitoring plan to determine if use at that level is continuing to protect river values. Visitor numbers

may be decreased at any time as an adaptive management action. The process of increasing or decreasing visitor numbers is described in more detail in Chapter 6 of the CRMP.

Rationale

This decision provides the potential for visitor numbers to be increased a moderate amount in the future because Fossil Creek presents an outstanding opportunity to connect a broad diversity of visitors with a wild and scenic river on public lands. This is the essence of the recreation ORV. People from around the state, country, and world visit Fossil Creek. Visitor use data collected in the years leading up to establishing the permit system indicate there is a substantial unmet demand for access to Fossil Creek under the current permit system. At the same time, as described throughout the EIS and CRMP, the relatively unconstrained visitor use that occurred in the past contributed to adverse effects to Fossil Creek's river values. The objective of this decision is not to meet demand for access to Fossil Creek. However, it is anticipated that Fossil Creek could support a substantial amount of visitor use—perhaps more than occurs today—without degrading river values by applying the principles of recreation ecology. To do so, the CRMP is designed to support effective management of the locations and amounts of visitor use in a way that is informed by on-the-ground resource considerations; provide for facilities and infrastructure adequate to accommodate a planned level of visitor use; support education and interpretation to promote visitor learning and stewardship; implement restoration of adversely affected sensitive areas; and establish a robust monitoring and adaptive management program to determine if management activities are supporting protection and enhancement of river values and, if not, adjust management. The principle of applying recreation ecology to managing Fossil Creek is described in greater detail in Chapter 4 of the CRMP.

Fossil Creek's biophysical, social, and managerial environments have undergone substantial change in the last two decades. As a result, uncertainty exists as to how these environments will respond to changing management under the CRMP – historical precedent cannot necessarily be used to predict future effects. To support protection and enhancement of the river values in the face of this uncertainty, the decision requires an incremental, monitoring-based approach to any future increases in visitor numbers, and establishes an adaptive management strategy for responding to adverse effects that may unexpectedly occur in the future. This decision also authorizes a lower level of use than originally considered in Alternative E.

This decision reduces the user capacity originally proposed under Alternative E by eliminating a separate parking area with six parking spaces (approximately 30 PAOT) for the Bob Bear (formerly Fossil Springs) trailhead, eliminating a new parking area with 42 parking spaces (approximately 210 PAOT) at Irving across Fossil Creek from the existing parking area, reducing the amount of future public parking at Heinrich by 20 spaces (approximately 100 PAOT), and eliminating a separate provision for off-highway vehicle (OHV) motorized trail permits for scenic driving, which reduces the total possible vehicles in the canyon by 40 (approximately 80 PAOT).[3] These modifications represent a total reduction of 108 vehicles (approximately 420 PAOT) compared to the version of Alternative E described in the EIS.

A separate Bob Bear trailhead parking area is not included in the decision because further evaluation indicated separate Bob Bear and Rim trailheads would add management complexity and expense and is unnecessary for supporting protection and enhancement of the river values.

Development of a new parking area at Irving is not included in the decision for two reasons. First, numerous commenters expressed concern that the level of development proposed at Irving, including a new vehicle bridge across Fossil Creek, would detract from the unique landscape features and recreation experiences that Irving provides. These concerns reveal a potential adverse impact to the recreation ORV. Second, because of the

[3] Calculations for persons at one time (PAOT) assume five people per vehicle for parking permits and two people per vehicle for motorized trail vehicles. Five people per vehicle are assumed for parking permits to reflect the observed person-to-car ratio (which had increased to 4.7 in 2017) and the fact that most vehicles have five seats. This person-to-car ratio is higher than that often used for recreation planning; however, it represents conditions that have been observed in Fossil Creek and therefore allows for realistic planning for a recreation environment that can sustain anticipated use while protecting the river values. Two people per vehicle are assumed for motorized trail vehicles to reflect the generally lower seating capacity of these vehicles.

uncertainty about how the river values in Fossil Creek would respond to management under the CRMP and increases in visitor use in other parts of the river corridor, it is unlikely that the buildout of parking at Irving would be implemented within the time horizon analyzed in the Environmental Impact Statement.

Alternative E originally proposed 25-car parking area plus an administrative/host site at Heinrich. However, additional evaluation of this site revealed that topographical and resource constraints limit the physical space available for both a parking area of this size and an administrative/host site. An administrative/host site to support management of the wild and scenic river and protect river values is the top priority need at Heinrich. Reducing the amount of public parking possible at this site is necessary to ensure adequate space for the administrative/host site.

This decision modifies Alternative E to remove a separate provision for OHV motorized trail permits for scenic driving because scenic driving is not considered a river-related recreation activity and is thus not part of the recreation ORV.[4] Additionally, managing scenic driving by permit would add a new level of complexity to a visitor capacity system. It would likely be challenging to manage scenic driving once vehicles enter the permit area. Managing where these vehicles stop and for how long would be difficult and likely involve a disproportionate commitment of staff time. Even without the scenic driving provision, OHVs will still be able to enter Fossil Creek on open roads with a day use permit during the high-use season and without a permit during the low-use season.

Managed Entry, Fees, and Site Administration

The permit system[5] implemented as an interim measure in 2016 will be formally adopted. This system could be modified or removed if determined to be unnecessary or if more effective management tools become available. Options for local or on-site permit acquisition may be pursued if current limitations are overcome (see footnote). Permits for day use will be required to park at recreation sites in the Fossil Creek area during the high-use season, which at time of decision is April 1 – October 1. The dates when permits are required may be changed to accommodate changing use patterns, administrative considerations, or river value protection. The number of permits available will correspond with the number of parking spaces available. Separate permits for camping may be required once designated campsites are established. This decision does not implement a permit requirement for access to Stehr Lake, Childs, Deadman Mesa Road, or other roads designated for public motor vehicle access outside of the wild and scenic river corridor.

Permit fees are outside the scope of this analysis and would be determined through the separate process required by the Federal Lands Recreation Enhancement Act (16 U.S.C. §§ 6801-6814). On-site revenue generation is desirable to support management activities.

In the near term the Forest Service will continue to oversee operations and maintenance of Fossil Creek. Opportunities for partnerships, concessionaires, or other options to share operations and maintenance activities may be pursued in the future.

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[4] An ORV must be river-related or river-dependent. To be considered river-related or river-dependent, a value must be located in the river or on its immediate shorelands (generally within 0.25 mile on either side of the river); contribute substantially to the functioning of the river ecosystem; and/or owe its location or existence to the presence of the river (IWSRCC 1999, 13).

[5] The term “permit system” is used to describe a system of managed entry in which visitors are required to obtain a permit to access Fossil Creek. Generally speaking, permits for access to an area may be reserved ahead of time and/or may be available on-site or at another physical location, depending on management capacity, technological means, and local considerations. Currently, permits for Fossil Creek are available by reservation only. This is because technological limitations (specifically network connectivity), limited management capacity, and the remoteness of Fossil Creek preclude providing permits on-site or at another physical location. However, this decision encourages enhancement of the Fossil Creek permit system by implementing options for obtaining permits that do not require an advance reservation if existing limitations are overcome.

Implementation

The permit system will continue to be in place during the high-use season. The permit system will be adjusted to reflect incremental changes in parking spaces if and when those changes are implemented.

Rationale

A system for managing visitor capacity is necessary because demand for access to Fossil Creek is anticipated to continue to exceed parking availability. This system will help ensure the river corridor's capacity is not exceeded. The permit system established in 2016 has proven to be an effective capacity management tool. Additionally, this system has received almost universal public support, as evidenced by public contacts made in the field, stakeholder feedback, and comments received on the draft EIS (described in Appendix G of the EIS). This system will continue to provide visitors with assurance that space is available for them in Fossil Creek or to help plan another day to visit. It will also help promote a high-quality recreation experience, as evidenced by public feedback in support of the system.

Recognizing that the permit system may present a barrier to some who desire to visit Fossil Creek, this decision provides for tools such as targeted outreach in multiple languages, permit-free days (both during the high-use season and for the extent of the low-use season, which is currently six months), and the potential for local permit acquisition. Further, this decision provides flexibility to change the approach to visitor capacity management if needs change or better tools become available.

This decision does not establish a permit fee because doing so requires a separate process of developing a fee proposal, soliciting public feedback, and seeking resource advisory committee approval, pursuant to the Federal Lands Recreation Enhancement Act.

This decision includes the potential for the Forest Service to share operations and maintenance duties with partners, concessionaires, or other entities because doing so may increase the efficiency and effectiveness of Fossil Creek's management. The Forest Service has limited resources, so partnerships have the potential to expand the agency's capacity to ensure management of Fossil Creek is consistent with the Wild and Scenic Rivers Act. Any entity involved in the management of Fossil Creek will be held to the requirements outlined in this decision, the CRMP, and other relevant law, regulation, and policy.

Motor Vehicle Access and Roads

Public motor vehicle access will continue to be available on Forest Road (FR) 708 from State Route (SR) 260 near Camp Verde. Additionally, if determined to benefit management of Fossil Creek and funding is available for repairs and maintenance, public motor vehicle access into the Fossil Creek canyon on FR 708 from SR 87 in Strawberry may be restored to all vehicles once repair of the 4.1-mile closed section is completed (figure 5). Until these conditions are satisfied, the 4.1-mile closed section will remain closed to public motor vehicle use; however, this section of road will continue to remain available for emergency response and utility maintenance.

On designated roads, ground-disturbing activities and use of equipment may occur. Maintenance (including grading, improving drainage features, and maintaining vegetation and utilities) and hazard mitigation activities (including rock scaling) may be necessary within or adjacent to the road prism and would be conducted as needed. A particular focus of maintenance on FR 708 will be to improve segments of the road that are problematic in wet weather in order to reduce the effects of vehicle travel, improve public safety, and reduce the need for closure during wet conditions. Additionally, FR 708 will continue to receive maintenance necessary to support continued operation of the fiber optic cable that follows the alignment of the road. If possible, road maintenance agreements with utilities or county governments will be pursued.

Actions needed to stabilize and mitigate hazards along an approximately 1.3-mile section of FR 708 between the Bridge and Dixon Lewis (Waterfall) Trailhead are authorized. Based on initial assessment in the 2014 report *FN708 Conceptual Remediation Strategies* (Romero 2014), actions may include:

- Low yield blasting to remove large unstable rocks

- Scaling to remove small unstable rocks
- Targeted spot bolt placement to stabilize large blocks
- Local shotcrete application to stabilize high risk sections of rock face
- Installation of rockfall netting to capture/convey residual unstable material
- Installation of rockfall barriers or debris fences along toe of slope to keep material conveyed by rockfall netting from entering the road prism
- Road bed/fill slope stabilization

Re-opening the currently closed section of FR 708 will require a number of hazard mitigations and road prism improvements. Potential mitigations and improvements are described in Romero 2014; however, this report notes an expanded field exploration and better hazard mapping would be required prior to implementation of the remediation strategies. In the interim, road bed stabilization and drainage improvements may be implemented at a level required to mitigate runoff and sedimentation and support long-term sustainability and continued maintenance of utility corridors on the currently closed section of FR 708.

Approximately 0.3 miles of National Forest System roads will be decommissioned (figure 5). These roads are FR 9139L, which was designated for administrative use only, and FR 9139G, which was designated for use by all vehicles on the Coconino NF motor vehicle use map.

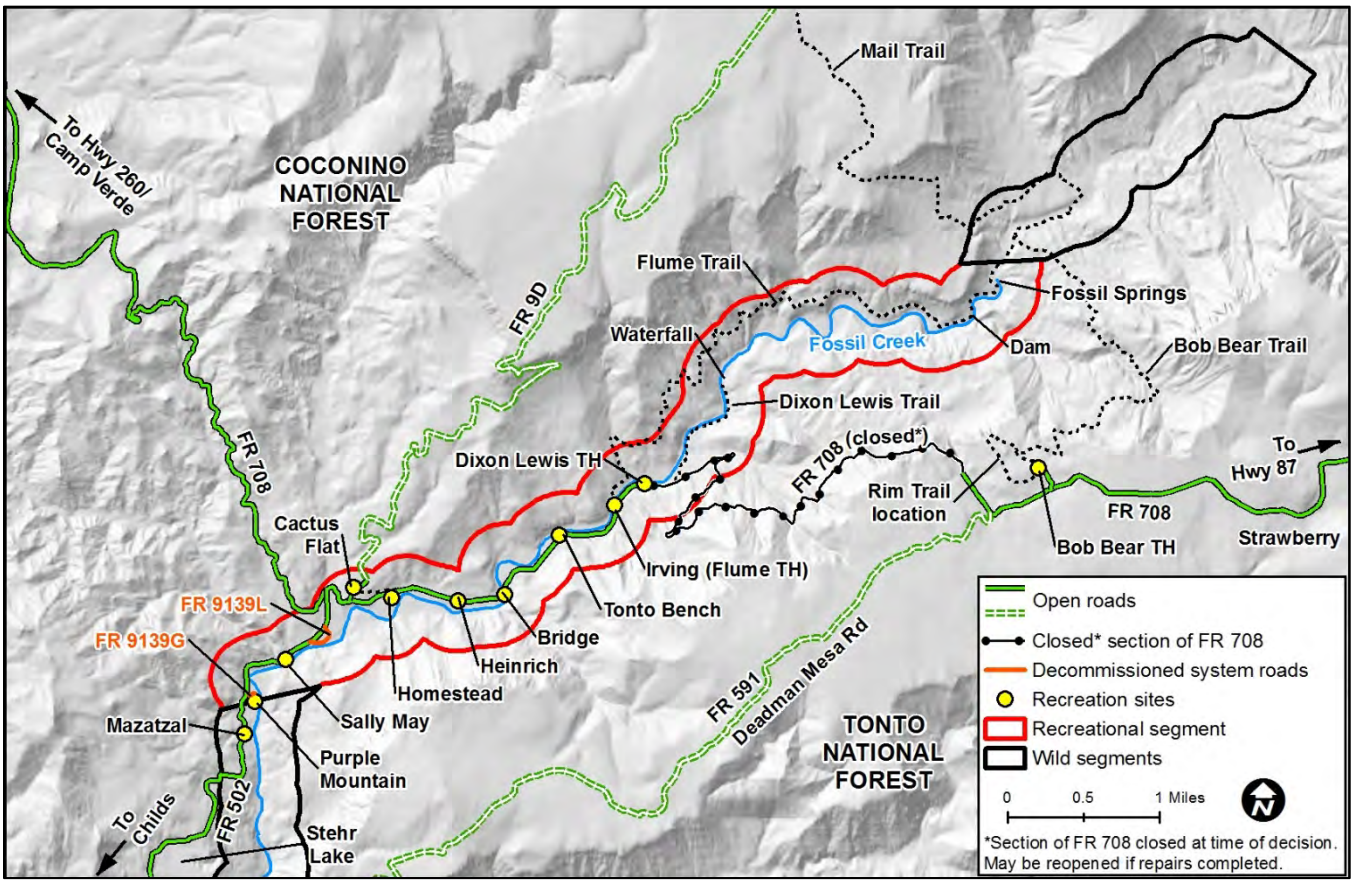

Figure 5. Map of roads in the Fossil Creek area

Implementation

At time of decision, motor vehicle access to Fossil Creek via FR 708 from SR 260 will continue. Emergency responders and utility personnel will continue to be allowed to use the closed section of FR 708 and minimal maintenance to provide emergency responder and utility personnel access and reduce erosion on this section of

road may occur. The decision approves work needed to repair and reopen the closed section of road; however, doing so will require that adequate funding is available for repair and maintenance.

Decommissioned system roads will be removed from the motor vehicle use map (MVUM) in the revision of the MVUM following issuance of this decision.

Rationale

Providing continued access into Fossil Creek via FR 708 from SR 260 near Camp Verde is prioritized over restoring vehicle access on the closed section of FR 708 because FR 708 from SR 260 currently provides vehicle access into Fossil Creek and receives regular maintenance. However, this decision also allows for repairs necessary to re-open the currently closed section of FR 708 and the subsequent re-opening of this section of road to all vehicles. This is authorized because restoring motorized access on this section of road has potential to benefit protection and enhancement of Fossil Creek's river values by improving administrative access into the river canyon (the shortest distance from major roads into the canyon is via the currently closed section of road) and may enhance the recreation ORV by improving access to Fossil Creek for residents of Strawberry, Pine, Payson, and other communities in Arizona closer to this river corridor access point. Additionally, restoring public motorized access on this section of road may positively benefit the economies of Rim Country communities such as Strawberry, Pine, and Payson.

This decision modifies Alternative E to allow for access to all public vehicles (rather than motorized trail vehicles, such as ATVs and UTVs, only) on the currently closed section of FR 708 if repairs are completed because doing so will provide more equitable access for the public into Fossil Creek via the eastern entrance; visitors would not be limited to those who have access to motorized trail vehicles. Motorized trail vehicles would, however, still be able to access Fossil Creek on open roads. If the currently closed section of FR 708 is reopened, visitor access into Fossil Creek via this route will be limited during the high-use season with the permit system or other similar tool, similar to the currently open section of FR 708, in order to ensure user capacity is not exceeded.

Actions such as those described above along the 1.3-mile section of FR 708 between the Bridge and Dixon Lewis (Waterfall) Trailhead are authorized to protect water quality and wildlife habitat from erosion and to mitigate rockfall and road bed hazards.

Forest Roads 9139L and 9139G (a total of 0.3 miles) will be decommissioned to protect natural and cultural resources and facilitate Forest Service management of recreational use in the Fossil Creek corridor. These roads are unnecessary in the context of the recreation sites authorized by this decision.

Recreation Site Names, Availability, and Amenities

This decision authorizes the Fossil Creek recreation sites in table 1. Figures 2 and 3 at the beginning of the "Decision and Rationale" section show the locations of these recreation sites in the Fossil Creek corridor, and Appendix A includes more detailed maps of each recreation site. A total of approximately 34 acres of developed recreation areas and 24 acres of recreation dispersal areas is encompassed by these recreation sites.[6] The precise type, location, and arrangement of amenities described in table 1 within recreation sites will be determined after approval of the CRMP through a separate site design process, and these recreation site components may be adapted over time to address changing needs. Recreation site design should be a collaborative process. The number of parking spaces at each recreation site may be adjusted slightly to address management considerations (such as parking lot design); however, the amounts of parking available at each site listed in table 1 will serve as a

[6] The term "recreation site" refers to the combined developed and dispersed recreation areas. Developed recreation areas are those areas within recreation sites with the most concentrated development, such as parking and toilets. Developed recreation areas may be disturbed by machinery, building of infrastructure, presence of vehicles, and use by visitors. Recreation dispersal areas are typically adjacent to developed recreation areas or trails where visitors recreate along the creek. In recreation dispersal areas, effects of visitors (ground disturbance, noise disturbance, trash, etc.) are anticipated but no major machinery or infrastructure will be used or built. Minor infrastructure or actions such as signage, hardened trails and armored creek access, and restoration may occur.

guide for the size of parking areas this decision authorizes. Additionally, the total number of parking spaces available across all recreation sites if all recreation sites are developed will not exceed the total number described in this decision (202). Parking areas and creek access trails within recreation sites may be armored using existing natural bedrock, permeable pavement, or other materials to reduce erosion potential and increase site sustainability. Runoff retention basins and other drainage features may also be constructed. Barriers such as fencing or rocks may be strategically placed at recreation site boundaries where needed to minimize resource effects outside of the recreation sites. The names of the Waterfall and Fossil Springs trailheads will be changed to Dixon Lewis and Bob Bear trailheads, respectively.

Table 1. Fossil Creek recreation sites approved by this decision

Site	Features
Mazatzal	Approximately 4 parking spaces; amenities such as trash receptacles, sign kiosks, toilet, bike racks; access to Mazatzal Wilderness; possible site of designated camping*.
Purple Mountain	Approximately 6 parking spaces; amenities such as trash receptacles, sign kiosks, toilet, bike racks; possible site of designated camping*.
Sally May	Approximately 10 parking spaces; amenities such as trash receptacles, sign kiosks, toilet bike racks; possible site of designated camping*.
FR 708/502 Junction	Temporary parking; amenities such as vault toilet, sign kiosks, visitor contact station.
Cactus Flat	Possible future new recreation site with approximately 50 parking spaces, some of which may accommodate stock trailers; amenities such as interpretive displays, toilet, trash receptacles, picnic tables, and bike racks; possible site of administrative campsites. Creek access is not available immediately adjacent to this recreation site, so developing a means of providing visitors who park at Cactus Flat with safe access to other recreation sites will need to occur concurrently. Such means may include improved trail connectivity or enhanced transportation options such as a local shuttle. Establishing these means may require additional NEPA analysis.
Homestead	Upper/lower loops: approximately 25 parking spaces; amenities such as toilet, sign kiosks, trash receptacles, picnic tables, shelters, bike racks; possible site of designated camping*. West loop: prioritized for tribal use as needed; toilet available for all use. Potential for portion of area available for group use (e.g. camping for school groups).
Heinrich	Host/administrative site with overnight accommodations, toilet, and storage facilities. Possible future new recreation site with approximately 5 parking spaces; amenities such as sign kiosks, short interpretive trail and/or canopy walk, toilet, and trash receptacles. No public river access.
Fossil Creek Bridge	At time of decision, site will contain approximately 10 parking spaces. Site may be expanded to approximately 15 parking spaces in the future. Amenities such as toilet, sign kiosks, trash receptacles, bike racks.
Tonto Bench	At time of decision, site will contain 21 parking spaces. Parking will be reduced to approximately 15 parking spaces. Amenities such as toilet, sign kiosks, trash receptacles, bike racks; possible site of designated camping*.
Irving	Approximately 18 parking spaces. Amenities such as toilets, sign kiosks, trash receptacles, picnic tables (including group sites), shade ramadas, and bike racks possible on both sides of creek. Possible site of designated camping*. Flume trailhead.
Dixon Lewis (Waterfall) Trailhead and Trail	Approximately 21 parking spaces; amenities such as toilet, sign kiosks, trash receptacles, picnic tables, bike racks; creek access points to creek along the trail.
Bob Bear (Fossil Springs)/ Rim Trailhead	Combined parking for existing Bear Trailhead and new Rim Trailhead. Approximately 30 parking spaces, plus 3 stock trailer spaces with corrals. Amenities such as toilet, sign kiosks, trash receptacles, picnic tables, bike racks. Possible site of designated camping.
Fossil Springs area	Accessible via foot trails. Alternative toilet may be constructed in the future if needed. Designated camping may be established at one or more of the locations shown in Appendix A, figure A-2.
East welcome station	Visitor contact station, with possibility of improved entry area and signage.
Other recreation site infrastructure	Short interpretive trail and/or canopy walk possible at Heinrich. Shade structures with interpretive information possible along FR 708.

*Designated public campsites may be spread among some or all of the specified recreation sites in Middle Fossil, or may be limited to one recreation site. See additional discussion in the “Types of Use” section below.

Implementation

Priority infrastructure development to accommodate the levels of use occurring at time of decision will be a host/administrative site at Heinrich; any additional toilets that are needed; creek access routes; improvement of the design, drainage, and surfacing of existing parking lots; and kiosks and signage.

Development of new facilities and infrastructure will be necessary in order for visitor numbers to be increased (see "User Capacity" section above). Development of new facilities and infrastructure associated with increasing visitor numbers (specifically at Cactus Flat, Heinrich, and Fossil Creek Bridge) will occur incrementally and be held to the following criteria:

1) A determination is made based on collaborative monitoring data assessment, professional judgment, and management observations that river values would continue to be protected with additional infrastructure; and
2) An ongoing capacity to conduct monitoring, assess monitoring data, and implement adaptive management actions is maintained.

Rationale

This decision approves an arrangement of recreation sites that will help distribute recreational use across suitable locations in the recreational segment of the Fossil Creek corridor, while providing for additional use at several locations. The pattern of use this decision provides for is similar to that occurring under the permit system that has been in effect since 2016 – visitor use will continue to occur at multiple locations throughout the river corridor. A distributed pattern of use is anticipated to reduce crowding (compared to alternatives such C and F that limit parking to a small number of sites from which people must disperse), thereby decreasing the likelihood of negative effects to refugia areas resulting from visitors attempting to move away from crowded locations. Additionally, the existence of a diversity of recreation sites will offer a variety of recreation experiences, ranging from a more remote, wilderness experience (such as at Mazatzal and in the Fossil Springs area) to a more accessible, social setting (such as at Irving and Homestead and along the Dixon Lewis Trail). Existing recreation sites (Mazatzal, Purple Mountain, Sally May, the FR 502/708 junction, Homestead, Fossil Creek Bridge, Tonto Bench, Irving, Dixon Lewis Trailhead, Bob Bear Trailhead, Fossil Springs area, and east welcome station) will be retained because these areas have been used historically and have been improved in recent years to promote their sustainability and ability to support visitor use. New amenities at these sites, such as toilets, signage, picnic facilities, group sites, and creek access, may be established, and existing amenities will continue to be improved to reduce any effects to the river values resulting from their use and enhance the visitor experience.

New recreation sites and expansion of some existing recreation sites is authorized. This will support accommodating additional visitor use if appropriate (see "User Capacity" section above for details on future increases in visitor use). New recreation sites are possible at Cactus Flat and Heinrich. Cactus Flat is selected because it offers a large area with relatively few resource concerns, and is therefore suitable for a larger parking lot. Heinrich is selected because it offers educational opportunities (such as an interpretive trail or canopy walk to provide visitors information about riparian areas and cultural resources). Additionally, Heinrich offers a good location for a host/ administrative site because of existing infrastructure. Providing on-site accommodations for a host or other management personnel will improve management of Fossil Creek by increasing administrative presence and reducing transportation costs.

Parking at Fossil Creek Bridge may be expanded because the creekside recreation area at this location is relatively durable and is anticipated to be able to sustain more use. Parking at Tonto Bench will be reduced to decrease the potential for visitor use impacts in an area with sensitive soils across the creek.

Alternative E is modified to remove a separate Bob Bear trailhead parking area, remove a new 42-vehicle parking area on the west side of Fossil Creek at Irving, and reduce the amount of public parking possible at Heinrich by 20 spaces. The rationale for these changes is provided in the "User Capacity" section above. Additionally, Alternative E is modified to include shade structures with interpretive information along FR 708 to provide

visitors walking along FR 708 shelter from the sun and enhance opportunities for education related to wild and scenic river values.

The Waterfall Trail and trailhead are renamed as the Dixon Lewis Trail and trailhead, and the Fossil Springs Trail and trailhead are renamed as the Bob Bear Trail and trailhead to acknowledge key cultural figures and support the management objective of better dispersing use among Fossil Creek's recreation sites by de-emphasizing the waterfall and Fossil Springs destinations.

Other Infrastructure Construction

This decision authorizes other infrastructure construction that consists of building a new vehicle bridge across Fossil Creek on FR 708 and augmenting an existing gabion along FR 502. Locations of these features can be seen in figure 3.

Fossil Creek bridge: This decision approves replacing an existing vehicle bridge across Fossil Creek on FR 708 by building a new bridge adjacent to the existing bridge, and deconstructing and removing the existing, original bridge. The original bridge, which is listed on the National Register of Historic Places, will be removed contingent on compliance with the National Historic Preservation Act, which will likely require data recovery and documentation of the existing historic site. The new bridge has the following specifications:

- Abutments will be outside of the ordinary high water mark of Fossil Creek.
- The bridge footprint, abutment to abutment, will be approximately 7,200 square feet.
- The construction footprint, including new roadway alignments at the approaches, will be approximately 19,800 square feet.
- The bridge will be designed to pass the 100-year flood event with a minimum of two feet of clearance above the water level.

Fossil Creek bridge implementation: Construction of the new bridge is anticipated to occur soon after this decision is approved, depending on funding availability. The new bridge will likely be constructed adjacent to the existing bridge. The existing bridge will be deconstructed and removed at a later time contingent upon NHPA compliance. Use of equipment within the ordinary high watermark of Fossil Creek is not anticipated. Construction activities to build the new bridge are anticipated to occur over 150-270 days.

FR 502 gabion: This decision approves actions to protect FR 502 from erosion by high flows in Fossil Creek at the location of the existing gabion between the Sally May and Purple Mountain recreation sites. Actions may consist of placing large boulders in the stream channel immediately adjacent to the downstream side of the existing gabion and/or extending the downstream side of the gabion with rock-filled wire baskets similar to those used in the current gabion's construction. If the existing gabion is repaired and extended, approximately 180 linear feet of stream channel (amounting to approximately 1,300 square feet of disturbance area) would be affected.

FR 502 gabion implementation: Actions related to the FR 502 gabion are anticipated to occur soon after this decision is approved. Placing boulders to augment the existing gabion may occur first; if this does not address the erosion issue, extending the gabion may occur. If possible, boulders will be sourced locally and placed in the stream channel with equipment operating from the road; however, use of equipment in the stream channel may be required. Construction activities are anticipated to occur over 30-45 days, and will occur at baseflow conditions (so streamflow is not directly affecting the construction site).

Rationale

This decision authorizes replacement of the vehicle bridge across Fossil Creek on FR 708 because the existing bridge, which was constructed in 1924-25, is load restricted for certain vehicle passage across Fossil Creek, particularly for heavier vehicles needed to maintain the road and infrastructure at recreation sites beyond the bridge. These maintenance activities are an important part of protecting river values. The existing bridge is a

closed spandrel concrete arch and structurally deficient. The structure is narrow, and the approaches involve steep grades and tight horizontal curves. The new bridge is needed to provide safer and sustainable access across Fossil Creek. The existing bridge will be deconstructed and removed at a later time contingent on compliance with the National Historic Preservation Act. Removal of the existing bridge, once the new bridge is constructed and NHPA compliance is obtained, is authorized to reduce alteration of the riparian area, improve scenic integrity, and reduce long-term maintenance costs.

Augmentation of the FR 502 gabion is authorized to protect the road infrastructure and water quality from sedimentation resulting from continued erosion of the road, and to maintain public access to the Purple Mountain and Mazatzal recreation sites.

This decision modifies Alternative E by not authorizing a proposed new vehicle bridge across Fossil Creek at the Irving recreation site. This bridge is no longer necessary because this decision does not authorize development of additional parking on the west side of Fossil Creek at Irving.

Types of Use

Management of Fossil Creek under this decision will provide for a full range of **river-related recreational opportunities**, such as swimming, hiking, boating, exploring wilderness and cultural features, and viewing scenery, wildlife, fish, and plants/wildflowers, year-round. Hunting and fishing will continue to be available in accordance with Arizona Game and Fish Department regulations. Equestrian and bicycle use will continue to be available on certain trails. Bicycle use will continue to be available on National Forest System roads in vicinity of corridor.

This decision authorizes future establishment of up to ten designated **campsites** at Mazatzal, Purple Mountain, Sally May, Homestead, Tonto Bench, and/or Irving; up to three administrative campsites at Cactus Flat; up to four designated campsites at Bob Bear/Rim Trailhead; and up to three designated campsites in the Fossil Springs area. Dispersed backcountry camping will continue to be allowed in wild segments beginning 1/4 mile upstream of the Bob Bear Trail in the Fossil Springs wild segment and 1/4 mile downstream of the Mazatzal recreation site in the Mazatzal wild segment. The location of designated campsites will be determined through the recreation site planning process. All ten designated campsites in Middle Fossil may be established at one recreation site, or they may be dispersed among multiple recreation sites, depending on what arrangement is determined to best meet management and river value protection needs. Designated campsites in the Fossil Springs area may be established at one or more of the locations shown in Appendix A, figure A-2.

This decision does not provide for separate **scenic driving** permits during the high-use season. During the high-use season, visitors who desire to drive into the Fossil Creek corridor will be required to have a day use permit. Because access is not restricted during the low-use season, no restriction on scenic driving will exist during this time.

A needs assessment and prospectus for **outfitter/guide use** in the Fossil Creek corridor will be completed separately as necessary. This process will evaluate the appropriate types, locations, and amounts of permitted uses. Outfitter/guide use will not increase visitor numbers beyond maximum corridor capacity.

This decision provides for **research, educational, and volunteer opportunities** throughout the Fossil Creek corridor. Minor amounts of ground disturbance may be associated with research activities. Use associated with these activities will not increase visitor numbers beyond maximum corridor capacity.

Implementation

Day use, research, educational, and volunteer opportunities will continue to be available immediately upon issuance of this decision. Specific requests for research, educational, and volunteer activities will be evaluated as they are proposed, and permitted, if appropriate, based on this evaluation. A needs assessment and prospectus for outfitter/guide use will be completed in the future as necessary.

Until designated campsites are established, dispersed camping will continue to be allowed during the low-use season downstream of the Fossil Creek Bridge and upstream of the historic dam. Once designated camping is established, it may be available year-round.

Rationale

Protection of the recreation ORV is partially a factor of continued availability of a diversity of river-related recreational opportunities, so this decision provides for a full range of these opportunities. As described in Chapter 4 of the CRMP and throughout the EIS, it is anticipated that a full range of river-related recreational opportunities can be maintained while protecting and enhancing the river values by applying the management activities, management direction, and monitoring outlined in the CRMP.

Dispersed camping in Fossil Creek has historically been the source of adverse effects to the river values. However, camping at Fossil Creek is a notable recreation opportunity, and commenters have expressed desire for continued availability of camping. As a result, this decision seeks to maintain camping opportunities but manage camping in a way that reduces the potential for adverse effects, primarily by designating campsites. Designating campsites will limit camping to suitable areas and reduce the overall effect of camping throughout the river corridor. Camping will be provided at both backcountry and front country locations to reflect the diversity of camping opportunities available in the Fossil Creek area. Dispersed backcountry camping will continue to be available in remote portions of the corridor year-round because it contributes to the diversity of available recreation opportunities, and this type of use is anticipated to remain very low, thereby causing little effect and requiring little management.

A separate provision for scenic driving is not included in the decision because scenic driving is not considered a river-related recreation activity and is thus not part of the recreation ORV. Managing scenic driving by permit would add a new level of complexity to a visitor capacity system. It would likely be challenging to manage scenic driving once vehicles enter the permit area. Managing where these vehicles stop and for how long would be difficult and likely involve a disproportionate commitment of staff time. Vehicles will still be able to enter Fossil Creek on open roads with a day use permit during the high-use season and without a permit during the low-use season.

Outfitters and guides can offer services for visitors that the Forest Service typically does not provide. Outfitters and guides may also help to reduce effects to resources by providing additional oversight of and amenities for visitors. However, this decision does not authorize specific outfitter/guide-led activities because doing so requires a separate needs assessment and prospectus.

Research, educational, and volunteer activities will enhance public and scientific awareness and understanding of Fossil Creek’s river values and, in the case of volunteer activities, expand management capacity, thereby promoting protection and enhancement of the river values and broader appreciation for wild and scenic rivers.

Non-Motorized Trails

This decision authorizes an expanded trail system in and around the Fossil Creek corridor. Reference figures 2 and 3 for maps of these trails. The heavily used 0.9-mile Waterfall Trail will be designated as an official National Forest System trail and be re-named the Dixon Lewis Trail. The existing 4-mile Fossil Springs Trail will remain open and be re-named the Bob Bear Trail. The existing 4.5-mile Flume Trail will remain open. Two new trails will be constructed—a 0.3-mile connector trail between Cactus Flat and Homestead if parking is implemented at Cactus Flat; and the Rim Trail, which will be a one-mile loop trail on the canyon rim near the Bob Bear Trailhead. Additionally, this decision authorizes delineation and improvement (activities such as rock work, drainage, and signage) of a total of approximately one mile of trails from parking areas to creekside locations.

Implementation

The Dixon Lewis, Bob Bear, and Flume trails will continue to be available for use immediately upon issuance of this decision. Construction of the Cactus Flat-Homestead connector and Rim trails will occur in the future as

funding is available. Construction of the Cactus Flat-Homestead connector will occur if a parking area is constructed at Cactus Flat. Delineation of creek access trails will be completed as needed or in association with other recreation site improvements.

Rationale

This decision approves an expanded trail system to enhance hiking opportunities in and around the Fossil Creek corridor and improve connectivity between recreation sites. The decision to increase the amount of system trails in the Fossil Creek corridor is actually expected to reduce the amount of existing trails by formalizing a limited number of existing high-use trails and facilitating the closure and rehabilitation of non-system user-made trails that have historically proliferated in the area. Public comments highlighted the value visitors place on hiking, and an expanded trail system will enhance the diversity of recreation opportunities and therefore enhance the recreation ORV.

The Dixon Lewis and Bob Bear trails will remain open because these trails access destinations that are highly sought after (the waterfall and Fossil Springs area, respectively). Continued availability of access to these destinations will contribute to protection of the recreation ORV, as indicated by public comments that highlighted the importance of these areas to the Fossil Creek recreation experience. Further, the Bob Bear Trail provides a remote, backcountry experience that many commenters appreciate. However, recognizing that continued use of these two trails and the destinations they reach may pose management challenges because of their remoteness and high amounts of use, the CRMP provides tools for managing these areas in a way that protects and enhances the river values, including specific adaptive management actions if monitoring detects issues in these areas. Alternative E is modified to remove a re-route of the top 0.5 miles of the Bob Bear Trail to connect the trail to a new trailhead because further evaluation indicated separate trailheads for the Bob Bear and Rim trails would add management complexity and expense and is unnecessary for supporting protection and enhancement of the river values. The Waterfall Trail is renamed as the Dixon Lewis Trail and the Fossil Springs Trail is renamed as the Bob Bear Trail to acknowledge key cultural figures and support the management objective of better dispersing use among Fossil Creek’s recreation sites by de-emphasizing the waterfall and Fossil Springs destinations.

The full extent of the Flume Trail will remain open because this trail provides connectivity between Middle Fossil and the Fossil Springs area, and provides less arduous access to the Fossil Springs area compared to the Bob Bear Trail.

Construction of the new Creek View Trail and trailhead (which was to be located at Cactus Flat) are not included in the decision because further evaluation indicated that use of this trail would likely be extremely low because of its distance from the creek, length, and indirect routing between recreation sites. Additionally, the proposed location of this trail in the uplands and its southern exposure would make the trail extremely hot with no drinking water sources and therefore potentially dangerous in the summer. However, to improve connectivity between Cactus Flat and Homestead, this decision modifies Alternative E to include a connector trail between these recreation sites.

Construction of the new Rim Trail is authorized to provide a hiking opportunity near the towns of Strawberry and Pine that does not require descent into the Fossil Creek canyon. This trail will provide views of the riparian area and surrounding landscape and interpretive opportunities with potential for wheelchair accessibility. This decision modifies Alternative E to remove a connector trail between the Rim Trail and currently closed section of FR 708 because this connector is not necessary for enhancing river values, and encouraging pedestrian use on FR 708 may result in user conflicts and accidents if motorized use is restored on this section of road.

Construction of creek access trails is authorized to provide more sustainable access from parking areas to Fossil Creek. This will help protect water quality and habitat by reducing unplanned access routes to the creek that are more likely than delineated routes to cause erosion and damage vegetation.

Restoration

Unauthorized trails, bare areas outside of recreation sites, decommissioned system roads, and unauthorized roads will be restored with a variety of methods such as using vegetation or other materials to discourage use and encourage natural revegetation; surface scarification, seeding, and temporary barriers; or other techniques likely to be effective. Approximately 35 acres of bare areas[7], 4 miles of unauthorized trails, 0.8 miles of unauthorized roads, and 0.3 miles of decommissioned system road are planned for restoration (figure 6). Additional restoration of new disturbance within and around the Fossil Creek corridor is possible as an adaptive management action, as described in Chapter 6 of the CRMP.

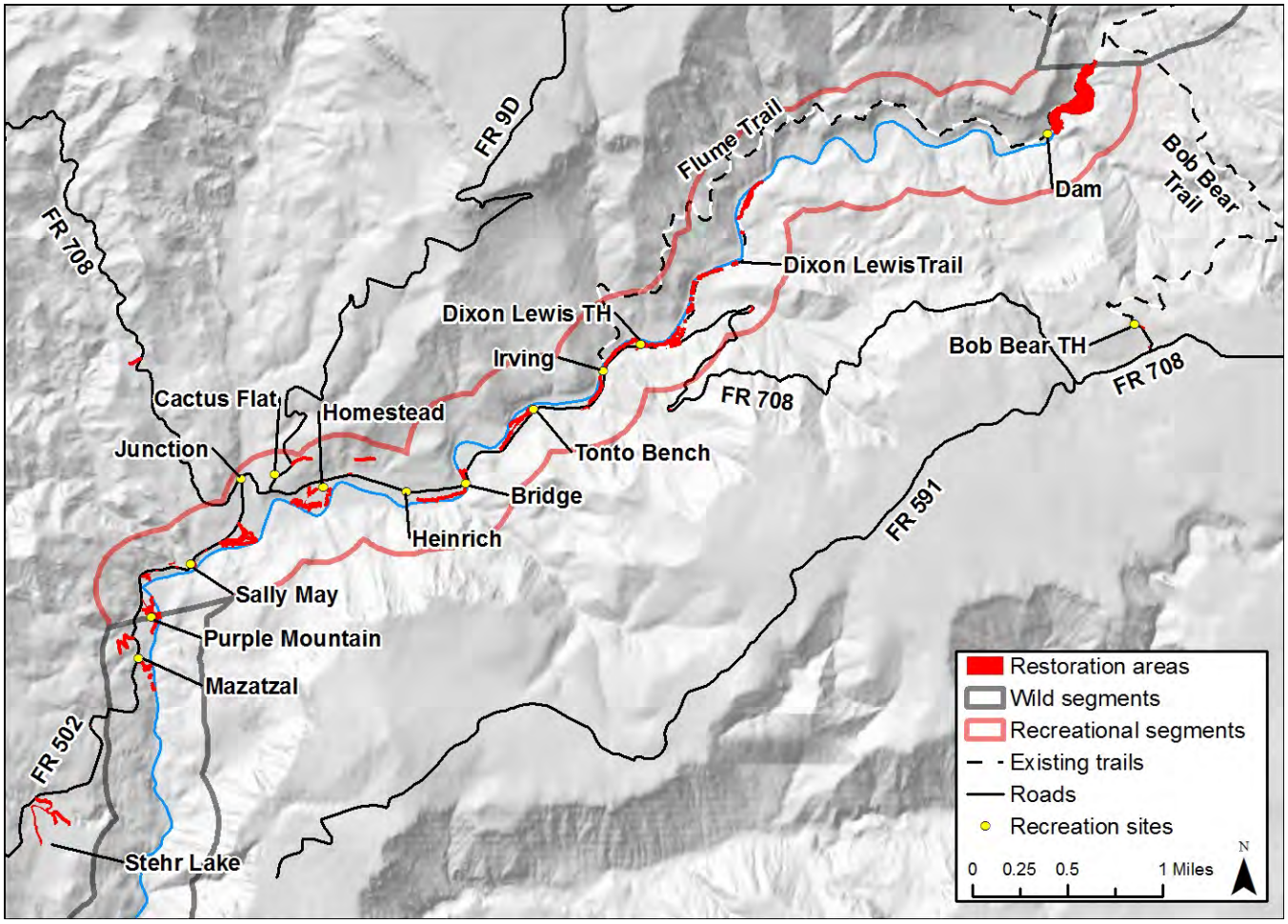

Figure 6. Restoration areas in and around the Fossil Creek corridor (see footnote)

Implementation

Restoration activities will be prioritized in areas where there is hydrological connectivity with Fossil Creek, where sensitive cultural or natural resources occur, or where disturbance is adversely affecting achievement of management objectives, such as user-created trails in refugia areas.

[7] In some cases, only a portion of the area within the 35 acres identified for restoration will have restoration actions implemented. For example, the large area shown in figure 6 near Fossil Springs encompasses numerous unplanned trails and campsites. In this area, trails and campsites that are not needed for camping or trail access as authorized by this decision will be restored, but the amount of restoration encompasses less area than indicated in figure 6. These areas of disturbance were included within the larger area for purposes of analysis.

Rationale

A substantial amount of human-caused disturbance in the form of unauthorized roads, trails, and denuded areas has been documented in Fossil Creek in the past. Though some of this disturbance has been restored through interim management actions, unplanned disturbance is still present in the Fossil Creek corridor. This disturbance negatively effects water quality, terrestrial and aquatic habitat, and cultural resources, and may encourage recreational use in areas that use is not desired. As documented in the EIS, restoration is anticipated to positively affect Fossil Creek's river values and improve management of the area by discouraging use in refugia areas.

Fossil Springs Botanical Area

This decision recommends expanding the Fossil Springs Botanical Area described in the Coconino Forest Plan to a total of 33 acres, with 23.6 acres on the Coconino National Forest and 9.4 acres on the Tonto National Forest. The expansion of the botanical area onto the Tonto National Forest will replace the Recommended Natural Area described in the Tonto Forest Plan. Visitor access to the Fossil Springs Botanical Area will be maintained.

Implementation

The Coconino and Tonto forest plans will be amended with the revised recommended Fossil Springs Botanical Area boundary upon finalization of the CRMP. Existing management direction for the Fossil Springs Botanical Area will be applied to the 33 acres described above. Actual designation of the revised Fossil Springs Botanical Area will require a separate decision by the Southwestern Regional Forester.

Rationale

On the Coconino National Forest, a 12-acre Botanical Area is currently designated in the vicinity of Fossil Springs. On the Tonto National Forest, a 20-acre Recommended Natural Area is described in the Forest Plan in the vicinity of Fossil Springs. The intent of these areas is to encompass the large and complex series of springs that is the headwaters for Fossil Creek's unusual travertine system. In order to promote consistent management of the Fossil Springs area and better encompass the area's diverse vegetation community, this decision recommends the modifications to the Fossil Springs Botanical Area described above.

Summary of Modifications to Alternative E

The following is a summary of how this decision modifies Alternative E. The rationale for these modifications is provided in the "Decision Details" section above. Effects of these modifications are within the scope of those analyzed in the EIS.

- The long-term maximum corridor capacity is reduced by 108 vehicles (approximately 420 PAOT). This reduction is the result of removing 68 new parking spaces possible in the future and 40 separately permitted motorized trail vehicles.
- The potential for repairing and reopening the currently closed portion of FR 708 to all public vehicles (instead of only motorized trail vehicles) is included.
- The potential for separate scenic driving permits is removed. Instead, all public vehicles entering Fossil Creek during the high-use season will be required to obtain a parking permit. The number of public vehicles present in the canyon at any given time during the high use season will be limited by the number of parking permits available.
- A separate Bob Bear Trailhead parking area is removed. Instead, the future Rim and existing Bob Bear trails will share a trailhead parking area.
- A new 42-vehicle parking area at Irving on the west side of Fossil Creek and associated vehicle bridge across Fossil Creek are removed.
- The amount of future parking possible at Heinrich is reduced from 25 vehicles to 5 vehicles.
- Shade structures are authorized along FR 708.

- The 3-mile Creek View Trail, Creek View Trailhead (to be located at Cactus Flat) and two connector trails between the Creek View Trail and FR 708 and Irving are removed.
- A new 0.3-mile connector trail between the potential Cactus Flat parking area and Homestead is added if a parking area is established at Cactus Flat.
- A connector trail between the Rim Trail and the currently closed section of FR 708 is removed.
- Re-routing the top 0.5 miles of the Bob Bear Trail is removed.
- The Waterfall Trail name is changed to Dixon Lewis Trail (rather than just Lewis Trail) to better honor an important cultural figure.

Reasons for Selecting Modified Alternative E

This section describes why we select Modified Alternative E (MAE) over the other alternatives analyzed in the EIS. The rationale for selecting specific components of MAE, including a description of modifications to Alternative E, is provided above.

Reasons for selecting Modified Alternative E instead of Alternative A

Alternative A is the “no action” alternative and serves as the basis of comparison for analyzing the environmental effects of implementing the action alternatives (alternatives B, C, D, E, and F). Alternative A is not selected because the Wild and Scenic Rivers Act requires development of a CRMP for Fossil Creek, which Alternative A does not do. Selecting Alternative A would thus not comply with federal law. Some commenters have expressed support for taking “no action” in Fossil Creek. Analysis of the substance of these comments indicates they generally reflect a desire for continuation of the management in place in the several years leading up to this decision, particularly the permit system and associated visitor numbers. MAE will continue the permit system as needed (see the “Managed Entry, Fees, and Site Administration” section above), and upon issuance of this decision, potential visitor numbers will be the same as those possible under the interim permit system. Only if certain conditions are met (see the “User Capacity” section above) will visitor numbers be changed in the future.

Reasons for selecting Modified Alternative E instead of Alternative B

Alternative B would provide a more primitive visitor experience through minimal development of new facilities and infrastructure and a lower user capacity compared to that provided by the interim permit system. Alternative B is not selected because its limited infrastructure limits the suite of management tools available to enhance the recreation ORV while still protecting the other river values. Additionally, Alternative B is not selected because it would substantially reduce the number of people able to visit Fossil Creek, which may adversely affect the recreation ORV by restricting recreation opportunity. Data on visitation, particularly before establishment of the permit system, indicate very high public demand for visiting Fossil Creek. Although our decision does not strive to meet demand for access to Fossil Creek, Alternative B would be the worst with respect to providing public access to a highly sought-after location. This may displace visitors to other nearby areas, leading to new impacts and administrative challenges. MAE provides a more diverse suite of management tools and better potential for enhancing the recreation ORV while still requiring protection of all river values equally. At the same time, MAE offers opportunities for a primitive visitor experience in large portions of the Fossil Creek corridor and allows for reducing visitor numbers if needed to protect river values. However, this decision modifies Alternative E to reduce corridor-wide user capacity compared to that included in the original version of Alternative E to better account for on-the-ground management considerations and uncertainties related to the effects of increased visitor use.

Reasons for selecting Modified Alternative E instead of Alternative C

Alternative C would emphasize non-motorized recreation in Middle Fossil by limiting motor vehicle use in portions of the river corridor during the high-use season and developing additional trails for hiking, bicycling, and equestrian use. Alternative C is not selected because limiting vehicle use in portions of the corridor would reduce access to river-related recreation opportunities and force visitors to walk greater distances to access the creek,

thereby increasing the risk of negative effects to refugia areas that are easily accessed from parking areas and of heat-related injury. MAE expands opportunities for hiking, bicycling, and equestrian use while facilitating creek access at a variety of suitable sites. MAE also allows for limiting motor vehicle use in portions of the corridor or at certain times through adaptive management if needed to protect river values.

Reasons for selecting Modified Alternative E instead of Alternative D

Alternative D would expand motorized access to Middle Fossil by repairing and reopening the closed section of FR 708 and providing for scenic driving. Alternative D would also expand refugia areas by closing some recreation sites and the trails that access the waterfall and Fossil Springs area. Alternative D is not selected because scenic driving is not a river-related or river-dependent activity; therefore, it is not a component of the recreation ORV. The purpose of this project is to protect and enhance the river values. Additionally, Alternative D is not selected because its restrictions on access to popular parts of the WSR corridor are not necessary for protecting refugia areas in the corridor, and eliminating access to these areas, particularly the waterfall and Fossil Springs, would likely adversely affect the recreation ORV and create serious management challenges. MAE provides for continued motorized access to the corridor for river-related and river-dependent activities. Additionally, MAE provides for a substantial amount of refugia in the WSR corridor (the vast majority of the corridor, in fact), while still maintaining access to the most popular areas and protecting and enhancing the river values.

Alternative E is modified to include the component of Alternative D that provides the potential to repair the closed section of FR 708 to a standard that would improve the safety and sustainability of administrative access (including that for emergency response and utility maintenance) and provide for the potential that the road could be reopened for all public motor vehicle use in the future. This action is included in MAE because it would support protection and enhancement of Fossil Creek’s river values by improving administrative access into the river canyon (the shortest distance from major roads into the canyon is via the currently closed section of road). This action may also enhance the recreation ORV by improving access to river-related and river dependent recreation opportunities in Fossil Creek for residents of Strawberry, Pine, Payson, and other communities in Arizona closer to this river corridor access point. Additionally, restoring public motorized access on this section of road may positively benefit the economies of Rim Country communities such as Strawberry, Pine, and Payson.

Reasons for selecting Modified Alternative E instead of Alternative F

Alternative F would meet anticipated demand for recreational use in Fossil Creek through 2030 in order to prevent the need for a permit reservation system. Alternative F is not selected because of the potential that this alternative would adversely affect the river values, including recreation, particularly because of the physical distance of the Cactus Flat parking lot location from the recreation sites. Because of this distance, impacts to refugia areas are more likely to occur as large numbers of visitors seek creek access closest to Cactus Flat; no sustainable creek access exists in this area. Additionally, crowding at other recreation sites would likely contribute to visitors spreading into adjacent refugia areas. Potential adverse impacts are described in the EIS in Chapter 3 and table 2-5. To address the issues that Alternative F was designed to avoid, MAE includes the potential to increase visitor numbers, and incorporates mitigations for socioeconomic effects that may result from capacity management systems such as a permit reservation system. Additionally, MAE does not rely on a permit reservation system as the sole tool for capacity management; it includes flexibility to modify the capacity management approach if needed.

Responsiveness of Modified Alternative E to the Issues and Public Input

Issues serve to identify effects or unintended consequences that may occur from the proposed action and alternatives. Issues raised during scoping were critical to developing alternatives to the proposed action and informing the effects analysis in the EIS. Issues are framed as cause-effect relationships brought about by implementing elements of the project. Issues raised in comment letters received in response to the 2016 Notice of Intent to prepare an EIS formed the basis for finalizing the alternatives, framed the effects analysis in Chapter 3 of

this EIS, and informed our selection of Modified Alternative E. Table 2 describes how the selected alternative addresses these issues.

Table 2. Responsiveness of Modified Alternative E to the issues identified in scoping

Issue Statement	How Addressed by Modified Alternative E
Recreation Use and User Capacities	
Recreational use in Fossil Creek may disturb wildlife and fish, damage streamside vegetation, negatively affect travertine deposition and existing travertine structures, increase soil erosion, reduce water quality, damage archeological sites, and compromise contemporary tribal values.	Any amount of recreational use has the potential to result in adverse effects such as these; the nature of these effects with respect to Fossil Creek's river values is disclosed in Chapter 3 of the EIS. Modified Alternative E (MAE) is anticipated to minimize these effects by: • Establishing management direction (desired conditions, standards, guidelines, and objectives) to guide management actions in Fossil Creek. This is found in Chapter 3 of the CRMP. • Establishing a monitoring plan that will regularly evaluate the condition of the river values and authorizing adaptive management actions that would be implemented if adverse effects are found to be occurring. This is found in Chapter 6 of the CRMP. • Requiring implementation of resource protection measures. These are described in Appendix A of the CRMP. • Requiring that future increases in visitor numbers are implemented incrementally and are informed by the condition of the river values. • Incorporating the principles of recreation ecology in managing visitor use, including ensuring that user capacity is not exceeded by continuing a permit system as needed.
Noise and crowding from high levels of recreational use in Fossil Creek may negatively affect recreation experience.	Visitor satisfaction monitoring is included in Chapter 6 of the CRMP. If this monitoring finds that a type of recreation experience is adversely affected by noise and crowding, adaptive management actions would be implemented with the goal of eliminating these effects. Modifications to Alternative E include reducing the maximum number of people possible compared to the original version of this alternative, thereby reducing the potential for these effects. Additionally, MAE is designed in acknowledgement of the fact that visitors desire different types of recreation experiences—ranging from self-sufficiency and solitude in primitive wilderness to ready access to developed recreation sites and a more social setting. MAE provides for this spectrum of recreation experiences, and adaptive management actions will be implemented when necessary to ensure this spectrum of experiences continues to be available in Fossil Creek.
Recreation Management	
Restricting swimming, particularly at the Waterfall, may negatively affect the diversity of recreation opportunities Fossil Creek provides and the recreation experience of its visitors by limiting the primary reason many visitors go to Fossil Creek.	MAE does not restrict swimming. However, if swimming is found to be adversely impacting the river values, it may be managed differently or the Forest Service could restrict the amount or type of use in the future through adaptive management (see CRMP Chapter 6).
Restricting boating (kayaking, packrafting) may negatively affect the diversity of recreation opportunities Fossil Creek provides and would limit access to a boating opportunity that is unique in the U.S. due to its travertine and, in Arizona, due to its year-round navigability.	MAE does not restrict boating. However, if boating is found to be adversely impacting the river values, it may be managed differently or the Forest Service could restrict the amount or type of use in the future through adaptive management (see CRMP Chapter 6).
Restricting access to the Fossil Springs area eliminates a popular backcountry recreation opportunity in the wild and scenic river corridor.	MAE does not restrict access to the Fossil Springs area. However, if visitor use in this area is found to be adversely impacting the river values, it may be managed differently or

Issue Statement	How Addressed by Modified Alternative E
	the Forest Service could restrict the amount or type of use in the future through adaptive management (see CRMP Chapter 6).
Allowing camping in the Fossil Creek corridor, including in the Fossil Springs area, increases the diversity of available recreation opportunities.	MAE provides for continued camping opportunities in the Fossil Creek corridor, including in the Fossil Springs area.
Allowing camping may increase negative effects to natural and heritage resources and result in additional trash in the Fossil Creek corridor.	MAE provides for camping in areas that are selected based on their anticipated suitability for camping. Camping will occur in designated areas at some locations to reduce the impacts of dispersed camping. If monitoring suggests that camping is adversely impacting the river values, adaptive management actions will be implemented with the goal of eliminating these effects.
Managing entry into the Fossil Creek corridor with a reservation system or similar tool may exclude potential visitors due to technical challenges posed by using the reservation system or financial burden of paying a fee.	MAE authorizes continuation of the permit system as an important capacity management tool. Because the capability of issuing permits on-site does not currently exist, permits will be available by reservation. However, because of the potential for adverse effects such as those highlighted by this issue statement, the following management approach was added to Chapter 3 of the CRMP: • Promote equal opportunities for all segments of the population, including youth and underrepresented groups, to recreate at and experience Fossil Creek. Tools may include, but are not limited to, making available “walk-up” or reduced cost/free permits when permits are used and outreach to underrepresented communities. The timing and locations subject to managed entry (such as permits) may be adjusted as necessary to respond to changing needs, and a different managed entry system may be established if doing so is expected to more effectively manage user capacity and reduce undesirable effects. Six months of the year will not be subject to managed entry unless expanding the duration of the period subject to managed entry is needed to ensure river corridor capacity is not exceeded.
Infrastructure Development	
Additional infrastructure development may reduce the wild character and scenic integrity of Fossil Creek.	Some amount of additional infrastructure development is needed to support existing amounts of visitor use in Fossil Creek while protecting the river values. An example of this is improving parking areas to reduce potential water quality impacts from sediment delivered by runoff. Additional infrastructure development authorized by MAE will be completed only if needed to support achieving management goals. Chapter 3 of the CRMP includes management direction to ensure infrastructure development is implemented in a way that is compatible with the character of Fossil Creek, and new development will be subject to a design process to promote scenic integrity. Extensive portions of the river corridor will receive little or no infrastructure development. Visitor satisfaction monitoring will be completed, and adaptive management actions will be taken if adverse effects to visitors’ satisfaction are detected.
Additional infrastructure, such as toilets, trash facilities, improved parking, informational signage, and designated creek access, may reduce the effects of recreational use on corridor resources and improve visitor behavior.	MAE authorizes additional infrastructure such as that described in this issue statement.
Motorized Access	
Increasing motorized access to the Fossil Creek corridor from the Strawberry side would provide an opportunity for motorized recreation in the Fossil Creek area, particularly for those from the Strawberry area who may be unable to hike into Fossil Creek, and may decrease emergency	MAE authorizes repairs to the currently closed section of FR 708 to provide for safe vehicle travel, including by the public. Regardless of the condition of the road, the Forest Service does not prohibit use for purposes of emergency response. Repairs authorized by this decision will increase the

Issue Statement	How Addressed by Modified Alternative E
response times for the Gila County Sheriff's Office and Pine-Strawberry Fire District.	likelihood that the road will remain passible for emergency responders.
Motorized use in the vicinity of Fossil Creek may increase noise, crowding, trash, invasive species, pollutants, erosion, and siltation into the creek.	Any amount of motorized use has the potential to result in adverse effects such as these; the nature of these effects with respect to Fossil Creek's river values is disclosed in Chapter 3 of the EIS. MAE will limit the amount of motorized use during times of high demand, and road and parking area maintenance will reduce the potential for pollutants, including sediment, reaching the creek.
Economic and Commercial Opportunities	
Limiting public use of and/or access to Fossil Creek may negatively affect local economies by reducing visitors who may patronize local businesses.	As described in Chapter 3 of the EIS, unlimited public access to Fossil Creek would likely adversely affect the river values, so limitations on visitor use are necessary to protect the river values. However, MAE includes the potential to increase visitor numbers above today's levels.
Commercial activities (e.g. outfitters/guides or concessionaires) in the Fossil Creek corridor may increase local economic opportunity, increase recreation opportunities, and limit effects of recreation on corridor resources by improving visitor behavior.	MAE provides for the potential for future commercial activities in Fossil Creek; however, authorizing specific commercial activities would be subject to a separate needs assessment and prospectus.
Authorizing commercial activities (e.g. outfitters/guides or concessionaires) in the Fossil Creek corridor may detract from the wild and scenic character of the area and privilege access for those who are able to pay for services.	MAE does not authorize specific commercial activities. Specific commercial activities would be subject to a separate needs assessment and prospectus. Any commercial activities authorized in Fossil Creek would be required to adhere to the river value protection requirements of the CRMP. Access to Fossil Creek that does not require use of an outfitter or guide will continue to be available even if outfitter or guide services are available.

Collaboration and Public Involvement

Collaboration with interested publics, agencies, tribes, and other organizations has been an essential component of the planning process, the alternatives analyzed in the EIS, and this decision. Collaboration and public involvement have occurred consistently throughout the development of the Fossil Creek CRMP through informal and formal opportunities. Informal opportunities have consisted of Fossil Creek stakeholder and Working Group[8] meetings, field trips, contacts with visitors in Fossil Creek, and feedback provided to the Forest Service. Formal opportunities have consisted of public meetings, workshops, assessments, and comment periods. The following is an overview of these formal opportunities.

2010: "Rapid assessments" were conducted to engage people recreating in Fossil Creek. A series of public workshops were held in Phoenix, Payson, and Flagstaff to discuss river values, desired conditions, the level of development desired, how to protect natural and cultural resources, education and information needs, and partnership opportunities.

2011: Scoping news releases were sent to media outlets in northern and central Arizona and the initial proposed action was made available on the Coconino and Tonto National Forest websites for a 30-day review and comment period. Open houses were held in Payson, Flagstaff, Camp Verde, and Phoenix. In response, the Forest Service received 340 comment letters, of which 62 were unique and one was a form letter generating 278 responses. Later in the year, design workshops were held in Payson, Phoenix, and Flagstaff.

[8] The Fossil Creek Working Group is a group composed of a variety of stakeholders with an interest in the management of Fossil Creek. The Working Group is a component of the Verde Front.

2013: Seven management concepts were developed in collaboration with the Forest Service Southwestern Regional Office and scoped for public feedback. Open houses were held in Camp Verde and the Pine-Strawberry-Payson area.

2014: Based on public and internal feedback, and incorporating elements of previous alternatives and concepts, the Forest Service developed three new alternatives. These alternatives were scoped via targeted stakeholder engagement.

2015-2017: Based on public and internal feedback, and building on the alternatives developed in 2014, the Forest Service continued to update and expand the range of alternatives. The Forest Service re-scoped its proposed action and other alternative concepts on Nov. 29, 2016 with a Notice of Intent (NOI) in the *Federal Register* to elevate environmental analysis from an environmental assessment to an EIS. In response to the 59-day comment period, the Forest Service received 305 comment letters, of which approximately 265 were unique and the others included a form letter generating 40 responses. Public open houses in Payson and Camp Verde and other opportunities for engagement, including a telephone "town hall" and stakeholder meeting in Phoenix, accompanied the comment period.

2018-2019: An additional alternative was developed based on further consideration of issues identified from public comments and agency input to expand the range of alternatives considered in the analysis. This alternative, plus the alternatives finalized based on feedback received during the 2016-2017 scoping period, were analyzed in a draft EIS (DEIS). Notice of availability of the draft CRMP and DEIS published in the *Federal Register*, *Arizona Daily Sun*, and *Arizona Capitol Times* on November 30, 2018. This initiated a comment period that began on December 1, 2018 and closed on April 4, 2019, resulting in a total comment period length of 125 days. The comment period was originally 90 days but was extended by 35 days, a period of time commensurate with the lapse in federal appropriations that occurred during the comment period. Notification of the comment period and extension was directly provided to approximately 15,000 contacts. The Forest Service received approximately 225 unique comment letters and 2,000 form letters. Full analysis of these comments can be found in Appendix G of the FEIS. Public meetings were held in Pine, Camp Verde, Flagstaff, and Phoenix.

CRMP and EIS Changes from Draft to Final

Updates have been made to the CRMP and EIS between draft and final versions of the documents. These changes improve the clarity and readability of the documents and update content in response to comments. The following is a summary of changes made to the CRMP and EIS between draft and final versions.

CRMP

- Edits for clarity were made throughout.
- Clarification was added to chapters 1, 3, and 6 that the CRMP is intended to be adaptable in the face of changing conditions, needs, and scientific knowledge.
- Additional discussion of risks posed by groundwater pumping was added to Chapter 2, and additional management direction related to groundwater protection was included in Chapter 3.
- The discussion of the connection between the recreation ORV and the condition of the other river values in Chapter 2 was strengthened.
- Management direction to reduce potential effects of a permit system on underserved communities was added to Chapter 3.
- Management direction to support continued access for maintenance and repair of existing utilities was added to Chapter 3.
- Information better describing the purpose and management intent of the Fossil Springs Botanical Area was added to Chapter 3.

- A list of potential management actions suggested by commenters was added to Chapter 5.
- Clarification that separate research related to the river values is encouraged was added to Chapter 6.
- Clarification that adaptive management actions listed for hard thresholds may be used if a soft threshold is reached if doing so is determined to be the best option for addressing the adverse effects was added to Chapter 6.
- Resource protection measures for wildlife and vegetation in Appendix A of the CRMP were updated to more clearly describe Fossil springsnail protections, and resource protection measures for heritage resources were added.

EIS

- Edits for clarity were made throughout.
- An error in the acreage of Tonto National Forest lands affected by the forest plan amendment was corrected.
- Information underlying the cost estimates in Chapter 2, including those related to repair of FR 708, was expanded.
- An alternative considered but eliminated from detailed study that would include no additional development of infrastructure was added to Chapter 2.
- The discussion of geologic hazards along FR 708 in Chapter 3 was expanded.
- The analysis of the potential effects of scenic driving in Chapter 3 was expanded.
- The analysis of the potential effects of noise on recreation experience and wildlife in Chapter 3 was expanded.
- The heritage resource analysis in Chapter 3 was updated with additional site descriptions and mitigations.
- The recreation analysis in Chapter 3 was updated to more clearly describe potential effects.
- The socioeconomic analysis in Chapter 3 was expanded to more clearly address public safety.
- The discussion of the connection between the recreation ORV and the condition of the other river values in Chapter 3 was expanded.

Tribal Consultation

Tribal concerns regarding areas of traditional cultural importance around Fossil Creek and potential effects to those places were gathered directly from interested tribes through consultation. Tribal consultation is best carried out through direct face-to-face meetings between federally recognized tribes and the Federal government. Other components of tribal consultation may include sharing of information through mail, email, and follow-up telephone calls, which supplement the face-to-face meetings.

American Indian Law requires consultation between the U.S. Forest Service and federally recognized American Indian tribes; however, acknowledging that we share a common interest in maintaining the health of Fossil Creek, consultation has been extended beyond the legal requirements. Numerous informal discussions have occurred with tribal representatives regarding the planning process and interim management of the corridor. With the knowledge that American Indian people have inhabited the Fossil Creek area since time immemorial, traditional knowledge has been considered in the ongoing effort to restore and maintain a healthy riparian ecosystem.

The following tribes were informed of the project: Ak-chin, Ft. McDowell Yavapai, Gila River, Havasupai, Hopi, Hualapai, Kaibab Band of Paiute, Navajo Nation, Salt River Maricopa, San Carlos Apache, Tonto Apache, White Mountain Apache, Yavapai–Apache, Yavapai–Prescott, and Pueblo of Zuni.

Chapter 4 of the EIS lists information sharing discussions and consultations with federally recognized tribes regarding Fossil Creek since initiation of the project late 2009. Because of ongoing use of the Fossil Creek area by the Yavapai-Apache Nation and other tribes, tribal consultation will continue to inform management of the corridor after this Record of Decision is issued.

Coordination with Federal, State, County, and Other Organizations

The Forest Service coordinated with relevant federal, state, county, local, and non-governmental organizations throughout development of the CRMP. These organizations include the U.S. Fish and Wildlife Service, Bureau of Reclamation, Army Corps of Engineers, Arizona Game and Fish Department, Arizona State Historic Preservation Office, Arizona Department of Environmental Quality, Arizona Department of Water Resources, Gila County, Yavapai County, gateway communities including the towns of Camp Verde and Pine/Strawberry, Northern Arizona University, and the Verde Front's Fossil Creek Working Group, which consists of a variety of agencies and non-governmental organizations. Continued coordination will be an important component of implementing the CRMP. Chapters 1 of the CRMP and 4 of the EIS provide additional information about the roles these and other organizations play with respect to Fossil Creek.

Alternatives Analyzed in Detail

The environmental impact statement analyzes five action alternatives and a "no action" alternative. These alternatives present a range of management options for Fossil Creek and are the outcome of public and partner engagement since 2009 and lessons learned through interim management of the river corridor. The alternatives are summarized here; full descriptions of the alternatives, including comparison tables, can be found in Chapter 2 of the EIS.

The alternatives consist of Alternative A (No Action), Alternative B (Enhanced Protections), Alternative C (Non-motorized Experience), Alternative D (Motorized Use and Refugia), Alternative E (Enhanced Recreation Opportunities with Phased Implementation), and Alternative F (Demand-based Access). A modified version of Alternative E is the preferred alternative. The action alternatives, representing possible management scenarios that would be reflected in the CRMP, vary in the amount of visitor use, the level of recreation facility development, and the types of access that would be accommodated. The alternatives also hold a number of components in common.

Components Common to Alternatives B, C, D, E, and F

Common components of the alternatives are:

- Establishing a comprehensive river management plan for the Fossil Creek wild and scenic river.
- Describing a final river corridor boundary.
- Amending the Coconino and Tonto forest plans.
- Establishing a monitoring and adaptive management plan.
- Addressing the river corridor's user capacity.
- Establishing programmatic management direction for the river corridor.
- Authorizing replacement of the FR 708 bridge across Fossil Creek.
- Authorizing actions to augment the existing gabion along FR 502 between the Sally May and Purple Mountain recreation sites.
- Authorizing restoration actions in areas affected by unplanned disturbance.
- Recommending additions to the Fossil Springs Botanical Area.

Alternative A – No Action

Alternative A, as the “no action” alternative, serves as the basis of comparison for analyzing the environmental effects of implementing the action alternatives. Alternative A represents a continuation of management of Fossil Creek and the surrounding area without a CRMP. Interim measures, such as capacity control and restoration activities, would continue as needed.

- Visitor use would continue to be managed with a seasonal permit reservation system when vehicle capacity control is needed (approximately April 1 to Oct. 1).
- The number of public vehicles possible in the river corridor would remain at 148 (approximately 740 PAOT).
- No camping would be available during the high-use season, but camping would be available during the winter season within specified areas.

Alternative B – Enhanced Protections

Alternative B would provide a more primitive visitor experience in Fossil Creek with minimal development of new facilities and infrastructure and a lower user capacity. Existing recreation sites, roads, and trails would be retained but not expanded, and a minimal amount of facility and infrastructure improvements would support the sustainability of the recreation sites and transportation infrastructure.

- Visitor use would continue to be managed with a seasonal permit system when vehicle capacity control is needed (approximately April 1 to Oct. 1).
- The number of public vehicles possible in the river corridor would be reduced to 112 (approximately 560 PAOT).
- No camping would be available within the permit area during the high-use season, but a limited amount of camping would be allowed during the winter season within specified areas.

Alternative C – Non-Motorized Experience

Alternative C would emphasize a non-motorized experience where visitors explore Fossil Creek primarily by foot, bicycle, or horse. Additional trails for hiking, bicycling, and equestrian use would be established. A lower user capacity would support a quieter recreation experience. Additional parking and visitor facilities would be developed at Cactus Flat and Homestead to serve as the primary entry points into the river corridor. During the high-use season, public vehicle access into the corridor beyond Homestead would be restricted. During the low-use season, public vehicle access into the corridor beyond Homestead would be available. Trail access to the historic dam and Fossil Springs would be eliminated to minimize the effects of human presence in this area.

- Visitor use would continue to be managed with a seasonal permit system when vehicle capacity control is needed (approximately April 1 to Oct. 1).
- Some existing recreation sites would be closed.
- Additions to the non-motorized trail system would occur in Middle Fossil and on the Strawberry side.
- The number of public vehicles possible in the river corridor would be 132 (approximately 660 PAOT).
- Limited year-round camping would be available at Cactus Flat within the river corridor and at the proposed Rim Trailhead on the east side.

Alternative D – Motorized Use and Refugia

Alternative D would expand motorized access to Middle Fossil by increasing road connectivity and providing for scenic driving. The currently closed portion of FR 708 would be re-opened to all motor vehicles after road repairs are completed. New facility and infrastructure development would be focused on facilitating motorized access and

supporting increased use at and sustainability of a reduced number of recreation sites. Trail access to Fossil Springs and the Waterfall would be eliminated in order to increase relatively undisturbed habitat (refugia) areas.

- Visitor use would continue to be managed with a seasonal permit system when vehicle capacity control is needed (approximately April 1 to Oct. 1).
- This alternative allows maximum motor vehicle access to the corridor, allowing people to drive through one entrance and out the other without vehicle width restrictions.
- Some recreation sites would be closed to include refugia areas.
- Scenic drive-through permits would be available.
- The number of public vehicles possible in the river corridor could be incrementally increased from current levels to a maximum of 169 (approximately 845 PAOT), including scenic drive-through vehicles.
- No camping would be available at any time.

Alternative E – Enhanced Recreation Opportunities with Phased Implementation (Proposed Action)

Alternative E is the proposed action because it provides the most management flexibility. This alternative would expand recreation opportunities while providing for protection of the river values. New parking could be established at Cactus Flat, Heinrich, and Bridge, and amenities could be enhanced at all recreation sites. Additional trails for hiking, bicycling, and equestrian use would be constructed. The currently closed portion of FR 708 would be re-opened to motor vehicles less than 62 inches wide after road repairs are completed.

- Visitor use would continue to be managed with a seasonal permit system when vehicle capacity control is needed (approximately April 1 to Oct. 1).
- Additional trail and infrastructure development would occur at existing recreation sites.
- Motorized trail permits would be available for those with vehicles less than 62 inches wide.
- The number of public vehicles possible in the river corridor could be incrementally increased from current levels to a maximum of 270 (approximately 1,350 PAOT).
- A limited amount of year-round camping would be available at designated sites.

A modified version of Alternative E is the preferred alternative.

Alternative F – Demand-based Access

Alternative F would meet anticipated demand for recreational use in Fossil Creek through 2030 in order to prevent the need for a permit reservation system. Cactus Flat and Homestead would serve as the primary entry points into the river corridor during the high-use season. A large parking area at Cactus Flat, with parking at several other recreation sites, would exist. Like in Alternative C, emphasis would be on non-motorized use where visitors explore much of Middle Fossil by foot, bicycle, or horse during the high-use season to prevent traffic congestion. New trails for hiking, bicycling, and equestrian use would be constructed. During the low-use season, visitors would be able to drive past Homestead to park in existing parking lots.

- The seasonal permit reservation system would be eliminated when enough parking is established to meet demand.
- Additional trail and infrastructure development would occur to support all existing recreation sites; however, the Fossil Springs Trail would be removed.
- The number of public vehicles possible in the river corridor could be increased from current levels to a maximum of 500 (approximately 2,500 PAOT).
- Limited year-round camping would be available at designated campsites at Homestead.

Alternatives Considered But Eliminated from Detailed Study

Federal agencies are required by NEPA to rigorously explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives not developed in detail (40 CFR 1502.14). The "range" of alternatives includes both those considered in detail and those eliminated from detailed study. Alternatives not considered in detail may include, but are not limited to, those that are outside the scope of the project, fail to meet the purpose and need, are technologically infeasible or illegal, or would result in unreasonable environmental harm.

An unusual number of alternatives has been considered over the course of the CRMP development process. Many elements of these alternatives have been carried forward into the alternatives considered in detail in the EIS, so these previous alternatives are generally not considered to be eliminated from detailed study. However, certain components of alternatives are not given detailed consideration for the reasons described below.

Shuttle System Alternative

An alternative that would have required use of a shuttle service to access the Fossil Creek area from nearby communities was considered. The shuttle service would have originated in Camp Verde or Strawberry. After further analysis and discussion, it was determined that the distance and road conditions from these locations would preclude a viable shuttle system. The distance traveled by the shuttle on the primitive FR 708 would likely result in at least a 40-60 minute one-way trip, which would limit the revenue of a shuttle system and create undesirable conditions for Forest visitors who would have to wait up to an hour each way in extremely hot and possibly dangerous conditions. For these reasons, a shuttle system of this nature was eliminated from detailed study.

No-Fee Alternative

Some commenters expressed concern that charging fees for use of amenities in the Fossil Creek WSR corridor would prohibit some groups from enjoying the area because of cost, suggesting that fees should not be considered in the alternatives. Although determination of a fee is outside the scope of this analysis, all alternatives retain the possibility of charging a fee for use of Fossil Creek. Management of Fossil Creek and protection of river values would not be sustainable in the long term without the ability to provide facilities and maintain visitor numbers within the capacity of the wild and scenic river corridor. Fees will likely be essential for helping to cover the cost of maintenance and operation of recreation facilities, restoration activities, parking and road maintenance, monitoring, and development of interpretive programming in the wild and scenic river corridor.

Rapid Implementation of Alternative F

A rapid implementation of Alternative F was initially considered, whereby development of additional parking and other facilities and infrastructure in the corridor and corresponding increases in visitor capacity would occur in two main phases. The first phase would be completed shortly after finalization of the CRMP and establish approximately 80% of the planned parking capacity in order to meet the estimated current demand for access. The higher levels of visitor use would be maintained as long as monitoring indicated river values continued to be protected. The second phase would then develop the remaining parking capacity in the future if demand for access were to increase as anticipated and monitoring indicated river values continued to be protected.

Initial assessment of this implementation strategy indicated likely adverse effects to certain river values resulting from immediate increases in visitor use of this magnitude, or a high level of uncertainty related to these effects. These initial findings brought into question the ability of Alternative F, implemented in this way, to protect river values. For these reasons, this implementation strategy for Alternative F was eliminated from detailed study.

No Additional Infrastructure Alternative

Some commenters suggested the Forest Service should develop an alternative with no additional infrastructure development. An alternative with no additional infrastructure development would not meet the purpose and need of this project because some amount of infrastructure improvement is needed to accommodate continued visitor use at existing or even lower levels while protecting the river values. For example, actions such as parking area improvements and possible enhancement of toilet facilities are necessary for water quality protection, and replacing a vehicle bridge on FR 708 across Fossil Creek is necessary to provide safe and sustainable public and administrative access to existing recreation sites on the Tonto National Forest side of the creek.

Environmentally Preferable Alternative

The NEPA implementing regulations (Section 1505.2) require that the alternative(s) that best promotes national environmental policy as expressed in NEPA, Section 101, be identified in the decision as the “environmentally preferable alternative” or alternatives. This is ordinarily “the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources” (FSH 1909.15, 05).

Based on our review of the effects analysis in the FEIS and the components of the CRMP, we anticipate that all action alternatives would support protection and enhancement of Fossil Creek’s river values and protect and preserve historical, cultural, and natural resources. This determination is based in particular on the important role monitoring and adaptive management would play in implementing any of the alternatives. However, we acknowledge the findings in the EIS that, for many resources, the presence of larger numbers of people possible in some alternatives would result in a greater potential for environmental effects. As a result of these findings, it is likely that Alternative B, with the lowest number of people of the alternatives, would be the environmentally preferable alternative.

Findings Required by Law and Other Authorities

After considering the environmental effects analysis documented in Chapter 3 of the EIS and the process followed in developing the CRMP, we have determined that the selected alternative is consistent with applicable federal laws, executive orders, and regulations. The following is not an all-inclusive listing, but summarizes conformance with laws and other authorities most relevant to this decision.

Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act requires the agency responsible for administration of designated wild and scenic rivers to develop comprehensive river management plans that provide for the protection and enhancement of the river’s water quality, free-flowing condition, and “outstandingly remarkable values,” collectively referred to as “river values,” for the benefit and enjoyment of present and future generations. The Forest Service has developed the Fossil Creek CRMP to meet these and other requirements specified in the Wild and Scenic Rivers Act.

National Environmental Policy Act

The National Environmental Policy Act (NEPA) requires public involvement and consideration of potential effects to the quality of the human environment of implementing federal actions. The environmental analysis and public involvement process outlined in the EIS for the Fossil Creek CRMP comply with the requirements set forth by the Council on Environmental Quality for implementing NEPA (40 CFR 1500-1508). These include: 1) considering a range of reasonable alternatives; 2) disclosing direct, indirect, and cumulative effects; 3) using best available scientific information; 4) considering long-term and short-term effects; and 5) disclosing unavoidable adverse effects.

The Forest Service considered a range of alternatives in the Final EIS and has compiled a comprehensive record of the effects relevant to the alternatives, considering best available scientific information. The CRMP adopts all practical means to avoid or minimize environmental harm. These means include provisions for protecting and enhancing Fossil Creek's river values and standards, guidelines, and resource protection measures to mitigate adverse environmental effects that may result from implementing various management practices. Additionally, the CRMP includes monitoring requirements and an adaptive management approach, assuring necessary adjustments are made in the future in the event that adverse effects are detected.

National Forest Management Act

The National Forest Management Act (NFMA) requires the development, maintenance, amendment, and revision of land and resource management plans for each unit of the National Forest System. Under NFMA, the Forest Service is to ensure coordination of the multiple uses and sustained yield of products and services under the National Forest System.

This project was reviewed for consistency with the land and resource management plans for the Coconino and Tonto national forests (USDA 2018 and USDA 1985, respectively). There is a need to amend both forest plans to fully implement the CRMP. These amendments are described in the "Decision Details" section above. The environmental effects of these amendments are analyzed in Chapter 3 and Appendix E of the EIS. The public was notified of these amendments as required at 36 CFR 219.13.

Clean Air Act

The Clean Air Act of 1970 and its amendments provide for protecting and enhancing the nation's air resources. Federal and State ambient air quality standards are not expected to be exceeded as a result of implementing this decision. This decision is consistent with the Clean Air Act.

Clean Water Act

The Federal Clean Water Act provides the structure for regulating pollutant discharges into waters of the United States. In Arizona, the designated agency for enforcement of the Clean Water Act is the Arizona Department of Environmental Quality (ADEQ). The CRMP contains direction to provide for protection and enhancement of water quality in Fossil Creek. Further, any permits necessary for compliance with the Clean Water Act (such as 404 permits) or ADEQ requirements (such as Pollutant Discharge Elimination System permits) will be obtained when implementing actions authorized by this decision. This decision is consistent with the Clean Water Act.

Endangered Species Act

The Endangered Species Act (ESA) provides for the conservation of endangered and threatened species and the ecosystems upon which they depend. As described in the CRMP and EIS, Fossil Creek contains critical habitat for and populations of several species listed under the ESA. This decision is compliant with the legal requirements set forth under Section 7 of the ESA. The Forest Service prepared a biological assessment for the CRMP, and formal consultation with the U.S. Fish and Wildlife Service under Section 7 of the ESA was conducted for project effects on listed species and critical habitat in Fossil Creek.

Bald and Golden Eagle Protection Act

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act. As described in Chapter 3 of the EIS, implementing the CRMP will not result in take as defined by the Bald and Golden Eagle Protection Act. Neither species of eagle nests or roosts within the WSR corridor. If eagles are discovered to be nesting or roosting in the WSR corridor, resource protection measures outlined in the CRMP would be implemented. This decision is compliant with the Bald and Golden Eagle Protection Act.

Migratory Bird Treaty Act and Executive Order 13186

Under the Migratory Bird Treaty Act, agencies shall identify potential effects of actions on migratory birds and their habitats, avoid or minimize adverse effects, and restore and enhance habitats. Management direction and resource protection measures included in the CRMP will support protection of migratory birds. As described in Chapter 3 of the EIS, the selected alternative is likely to result in some unintentional take of migratory birds, but this is not likely to occur to such an extent as to have a measurable negative effect on migratory bird populations.

Forest Service Sensitive Species

Potential effects to Forest Service Sensitive Species are analyzed in Chapter 3 of the EIS. Effects to Forest Service sensitive species may occur, but management direction and resource protection measures will support protection of Forest Service sensitive species and it is not anticipated these effects will cause a trend toward listing or loss of viability of these species.

National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to consider the potential effects of a preferred alternative on historic, architectural, or archaeological resources that are eligible for inclusion on the National Register of Historic Places (NRHP) and to afford the President's Advisory Council on Historic Preservation an opportunity to comment. Section 110 of the Act requires Federal agencies to identify, evaluate, inventory, and protect NRHP resources on properties they control. Potential effects on archaeological and historic resources have been evaluated in compliance with Section 106 of the NHPA. The CRMP includes management direction and resource protection measures that will support protection of heritage resources in Fossil Creek. As described in Chapter 3 of the EIS, with application of mitigation measures, no adverse effects are anticipated to result from implementation of the CRMP. The Arizona State Historic Preservation Office has been consulted on the CRMP.

Executive Order 12898 – Environmental Justice

Executive Order 12898 directs federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law. The order is also intended to promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities access to public information and public participation.

Chapter 3 of the EIS analyzes potential environmental justice effects that may result from implementing the CRMP. The CRMP includes direction and management strategies that will support reducing effects to minority and low-income populations. All sectors of the public were provided equal opportunity to participate throughout the CRMP development process.

Necessary Permits, Licenses, and Authorizations

The following permits will be necessary to implement certain actions authorized by this decision. The need for other permits not listed here must be verified prior to implementation of specific actions.

Section 404 of the Clean Water Act establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States. Actions occurring in the Fossil Creek WSR corridor requiring a 404 permit may include bridge construction and repair of the existing gabion structure.

Any construction activities that disturb one or more acres of land must be permitted under the Arizona Pollutant Discharge Elimination System (AZPDES) Construction Activity General Permit for Stormwater. AZPDES permits are issued by the Arizona Department of Environmental Quality and will entail development and implementation of a stormwater pollution prevention plan consistent with ADEQ requirements. Construction of new parking areas that are more than one acre in size may need to be permitted under the AZPDES program.

Administrative Review Opportunities

This project is subject to two separate but concurrent pre-decision objection periods and processes. The CRMP is subject to the objection process pursuant to 36 CFR 218 Subparts A and B, and the forest plan amendments are subject to the objection process pursuant to 36 CFR 219 Subparts A and B.

How to file an Objection and Timeframe

Objections will only be accepted from those who have previously submitted timely comments regarding these planning efforts during any designated opportunity for public comment, unless based on information not available during an earlier designated opportunity for public comment (i.e., new information).

Objections on the site-specific actions in the CRMP must be submitted within 45 calendar days following the publication of the notice in the *Arizona Daily Sun* and *Arizona Capitol Times*. Objections on the Forest Plan amendment will be accepted for an additional 15 days, so must be submitted within 60 calendar days following this notice in the *Arizona Daily Sun* and *Arizona Capitol Times*. Those wishing to object should not rely upon dates or timeframe information provided by any other source. A timely submission will be determined by USPS postmark, the agency's electronically generated posted date and time for email and facsimiles; shipping date for delivery by private carrier, official agency date stamp showing receipt of hand delivery. It is the responsibility of the sender to ensure timely receipt of any objections submitted.

Objections, including attachments, must be addressed to the Reviewing Official, Southwestern Regional Forester, filed via mail, express delivery, or messenger service to 333 Broadway Blvd. SE, Albuquerque, NM 87102; by facsimile to (505) 842-3173; or by email to objections-southwestern-regional-office@usda.gov. An automated response will confirm the electronic objection has been received. If an automated response is not received, it is the sender's responsibility to ensure timely filing by other means. Electronic objections must be submitted in MS Word, Word Perfect, portable document format (PDF), or rich text format (RTF). The subject line for electronic submissions should contain *Fossil Creek Comprehensive River Management Plan*.

Eligible objections must be filed, in writing, with the reviewing officer of the plan, and will be open to public inspection during the objection process. At a minimum, an objection must include the following: (1) The objector's name and address, along with a telephone number or email address if available; (2) Signature or other verification of authorship upon request (a scanned signature for electronic mail may be filed with the objection); (3) Identification of the lead objector, when multiple names are listed on an objection, and verification of the identity of the lead objector, if requested. Individual members of an entity must have submitted their own individual comments in order to have eligibility to object as an individual. Additional requirements are included below. Including documents by reference is limited. Please contact Mike Dechter, (928) 527-3416, or mike.dechter@usda.gov for further information.

The Reviewing Officer must set aside and not review an objection when one or more of the following applies: (1) they are not filed in a timely manner; (2) the proposed project or plan amendment is not subject to the objection procedures; (3) the individual or entity did not submit timely and specific written comments or substantive formal comments during opportunities for public comment; (4) except for issues that arose after the opportunities for comment, none of the issues included in the objection are based on previously submitted written comments and the objector has not provided a statement demonstrating a connection between the comments and the objection issue; (5) the objection does not provide sufficient information as required; (6) the objector withdraws the objection; (7) an objector's identity is not provided or cannot be determined from the signature, and a reasonable

means of contact is not provided; or (8), the objection is illegible for any reason, including submissions in an electronic format different from that specified in the legal notice, and a legible copy cannot easily be obtained.

How to Object to the site-specific actions in the Fossil Creek CRMP

In addition to the identifying information outlined above, written objection comments on the proposed project must include (1) the name of the proposed project, the name and title of the responsible official, and the name(s) of the forest or district on which the proposed project will be implemented; (2) a description of those aspects of the proposed project addressed by the objection, including specific issues related to the proposed project; if applicable, how the objector believes the environmental analysis or draft decision specifically violates law, regulation, or policy; suggested remedies that would resolve the objection; supporting reasons the reviewing officer should consider; and (3) a statement that demonstrates the connection between prior specific written comments on the particular proposed project or activity and the content of the objection, unless the objection concerns an issue that arose after the designated opportunity(ies) for comment. Specific written comments are written comments within the scope of the proposed action, with a direct relationship to the proposed action, and included supporting reasons for the responsible official to consider.

How to Object to the Fossil Creek CRMP Plan Amendment

In addition to the identifying information outlined above, written objection comments must include (1) the identification of the plan amendment being objected to, and the name and title of the responsible official; (2) a statement of the issues and/or the parts of the plan amendment to which the objection applies; (3) a concise statement explaining the objection and suggesting how the proposed plan amendment decision may be improved. If applicable, the objector should identify how the objector believes that the plan amendment is inconsistent with law, regulation or policy; and, (4) a statement that demonstrates the link between prior substantive formal comments attributed to the objector and the content of the objection, unless the objection concerns an issue that arose after the opportunities for formal comment. Substantive formal comments are those that are within the scope of the proposal, are specific to the proposal, have a direct relationship to the proposal, and include supporting reasons for the responsible official to consider.

Effective Date

Per 36 CFR 218.12 and 36 CFR 219.58, if objections are received, the ROD may be signed once the reviewing officer has responded in writing to all objections and all concerns and instructions identified by the reviewing officer in the objection response have been addressed. If no objections are received, the ROD may be signed on the fifth business day following the end of the objection filing period. Implementation may begin immediately following the date of the signed decision.

Contacts

For additional information concerning the Record of Decision, the Fossil Creek CRMP, and the Environmental Impact Statement, please contact,

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928-527-3416

Responsible Official Signatures

_____ _____

Laura Jo West
Forest Supervisor
Coconino National Forest

Date

_____ _____

Neil Bosworth
Forest Supervisor
Tonto National Forest

Date

References

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Appendix A. Recreation Site Maps

This appendix provides maps of the recreation sites this decision authorizes. The term “recreation site” refers to the combined developed and dispersed recreation areas. Developed recreation areas are those areas within recreation sites with the most concentrated development, such as parking and toilets. Developed recreation areas may be disturbed by machinery, building of infrastructure, presence of vehicles, and use by visitors. Recreation dispersal areas are typically adjacent to developed recreation areas or trails where visitors recreate along the creek. In recreation dispersal areas, effects of visitors (ground disturbance, noise disturbance, trash, etc.) are anticipated but no major machinery or infrastructure will be used or built. Minor infrastructure or actions such as signage, hardened trails and armored creek access, and restoration may occur.

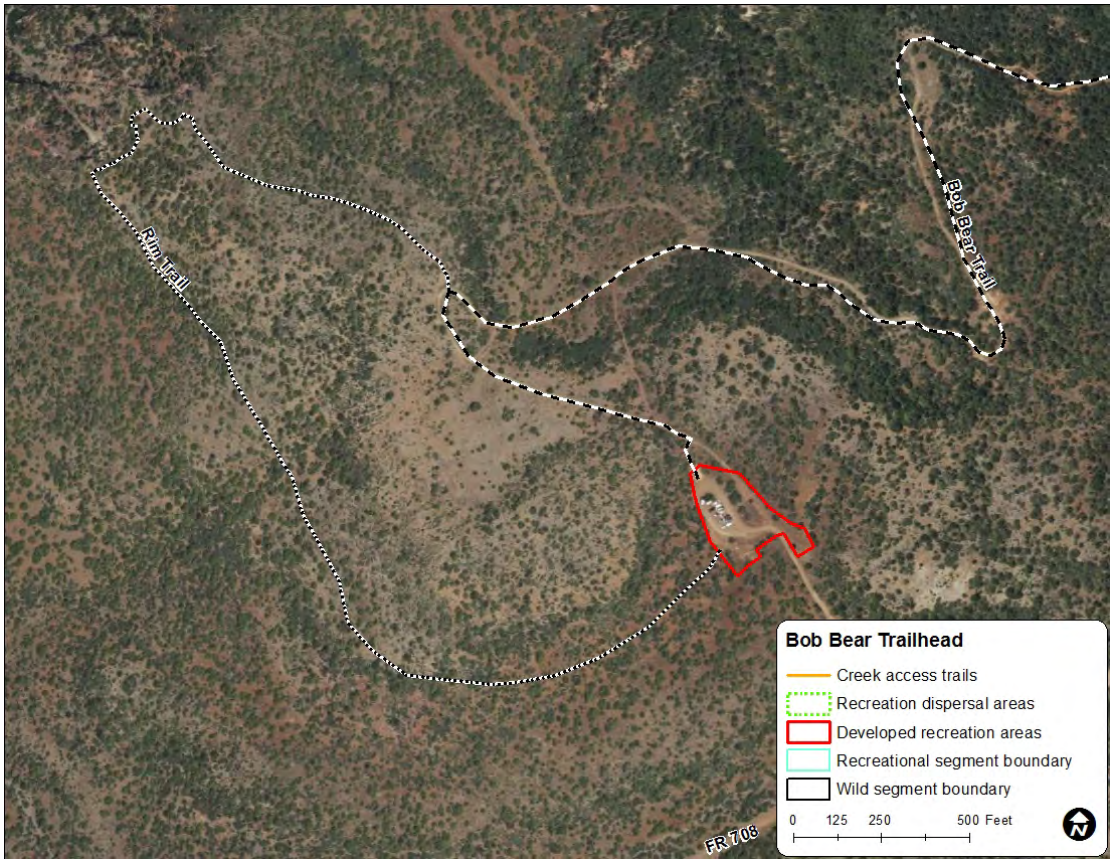

Figure A-1. Bob Bear Trailhead recreation site

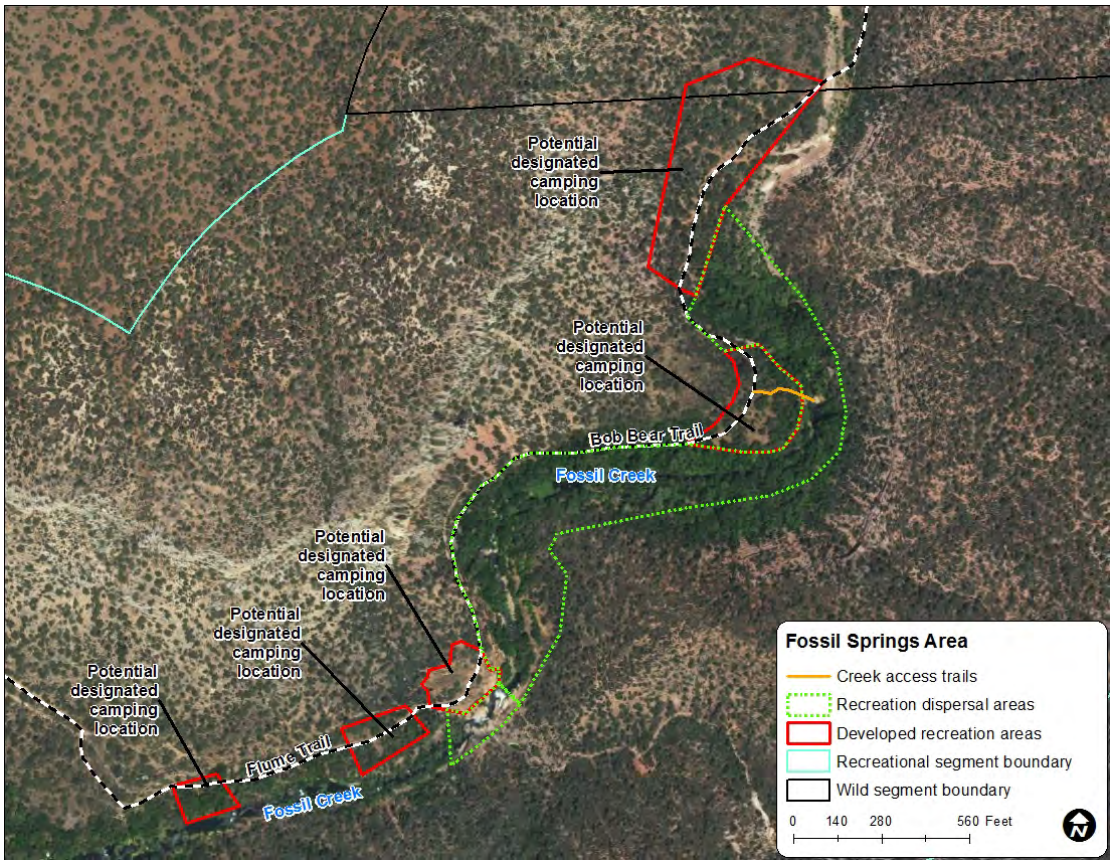

Figure A-2. Fossil Springs area. Designated camping may be established at one or more identified sites

Figure A-3. Dixon Lewis Trailhead recreation site

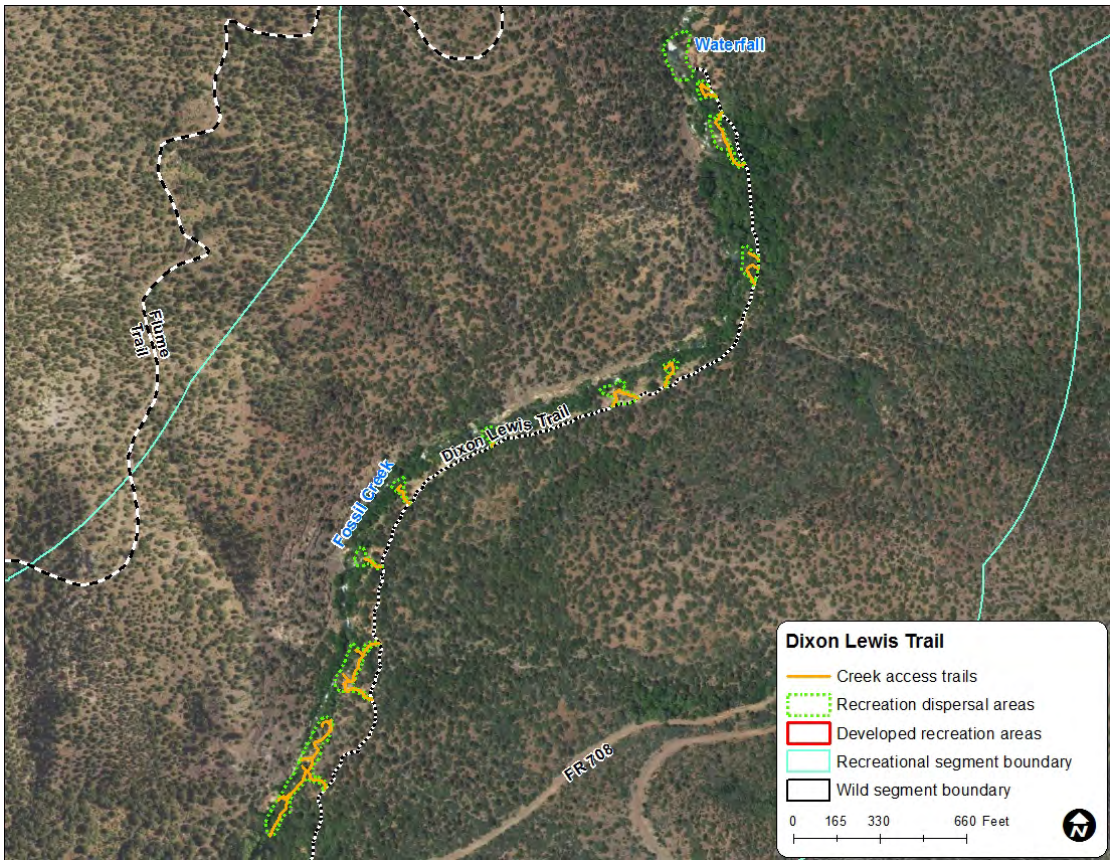

Figure A-4. Dispersed recreation areas along the Dixon Lewis Trail

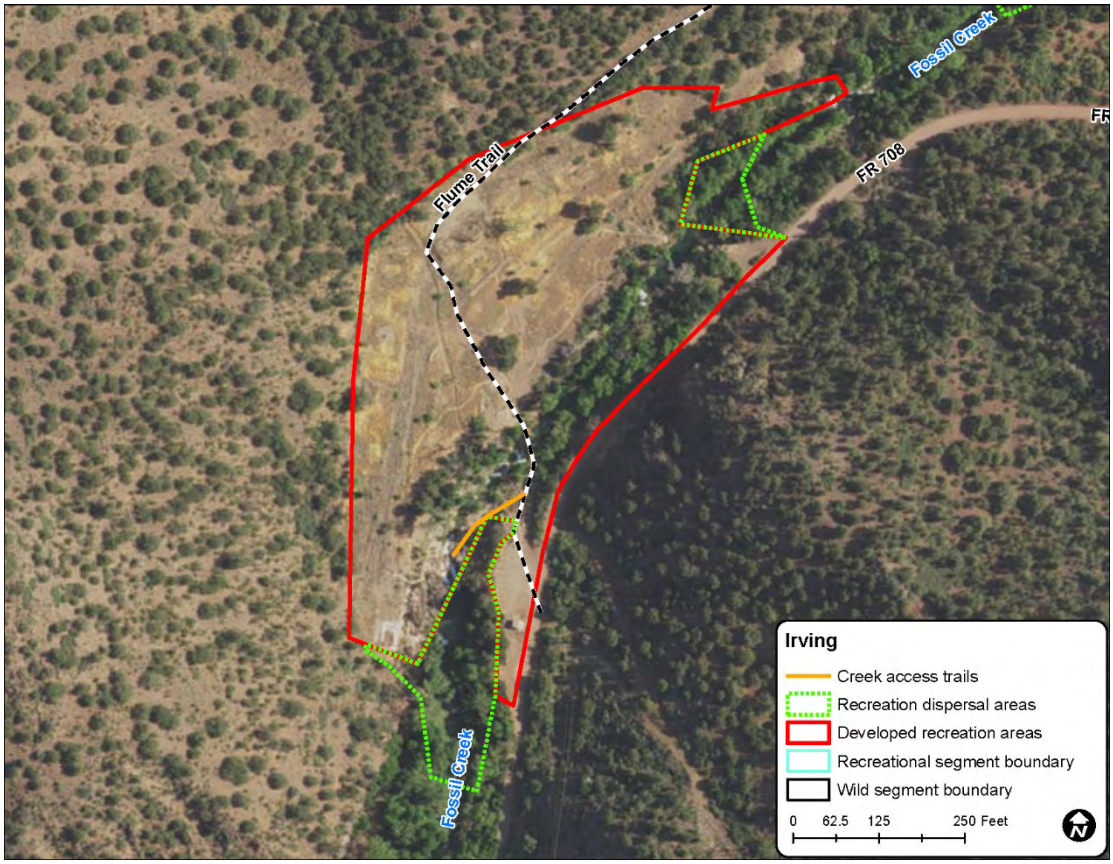

Figure A-5. Irving recreation site

Figure A-6. Tonto Bench recreation site

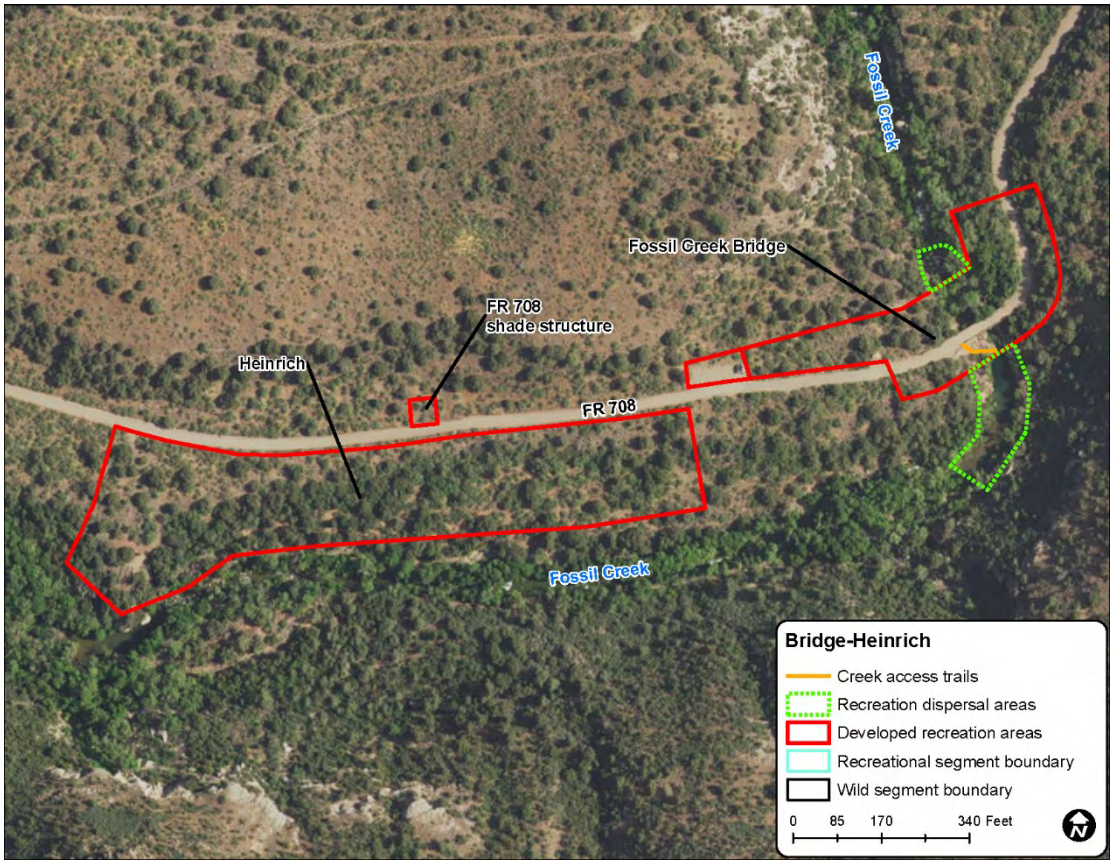

Figure A-7. Heinrich and Fossil Creek Bridge recreation sites

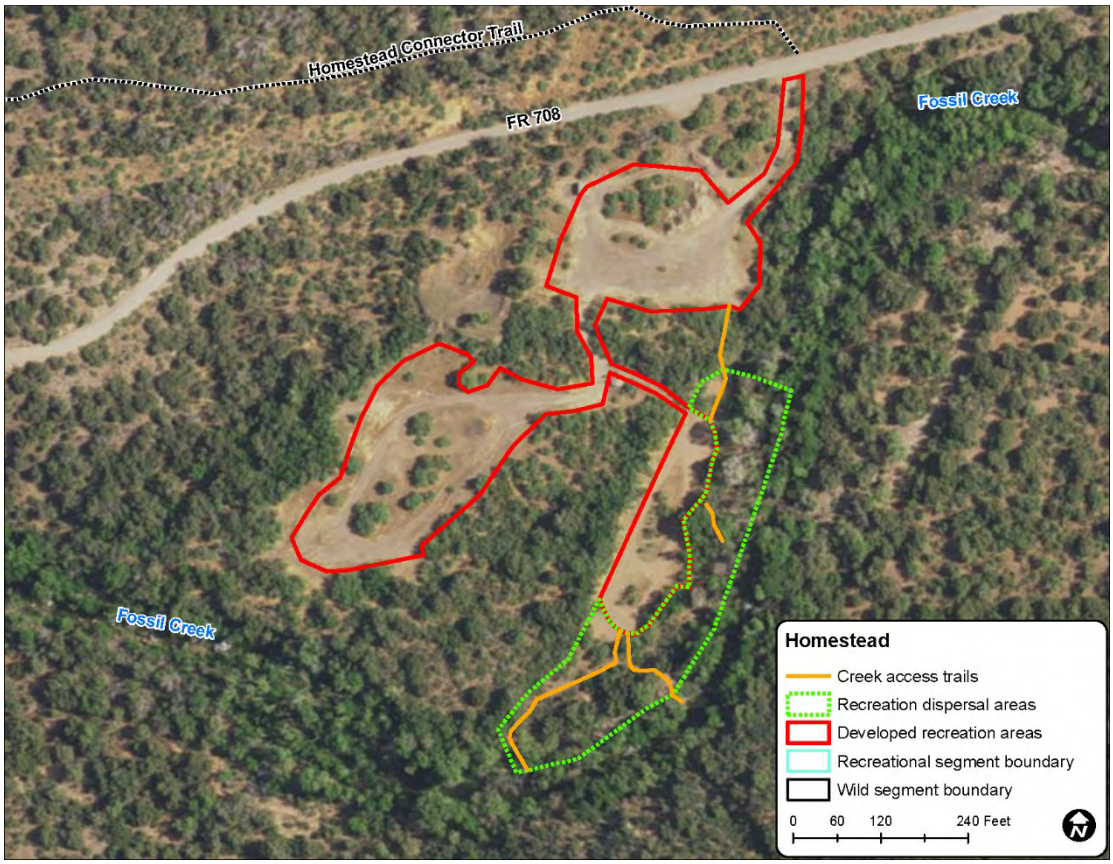

Figure A-8. Homestead recreation site

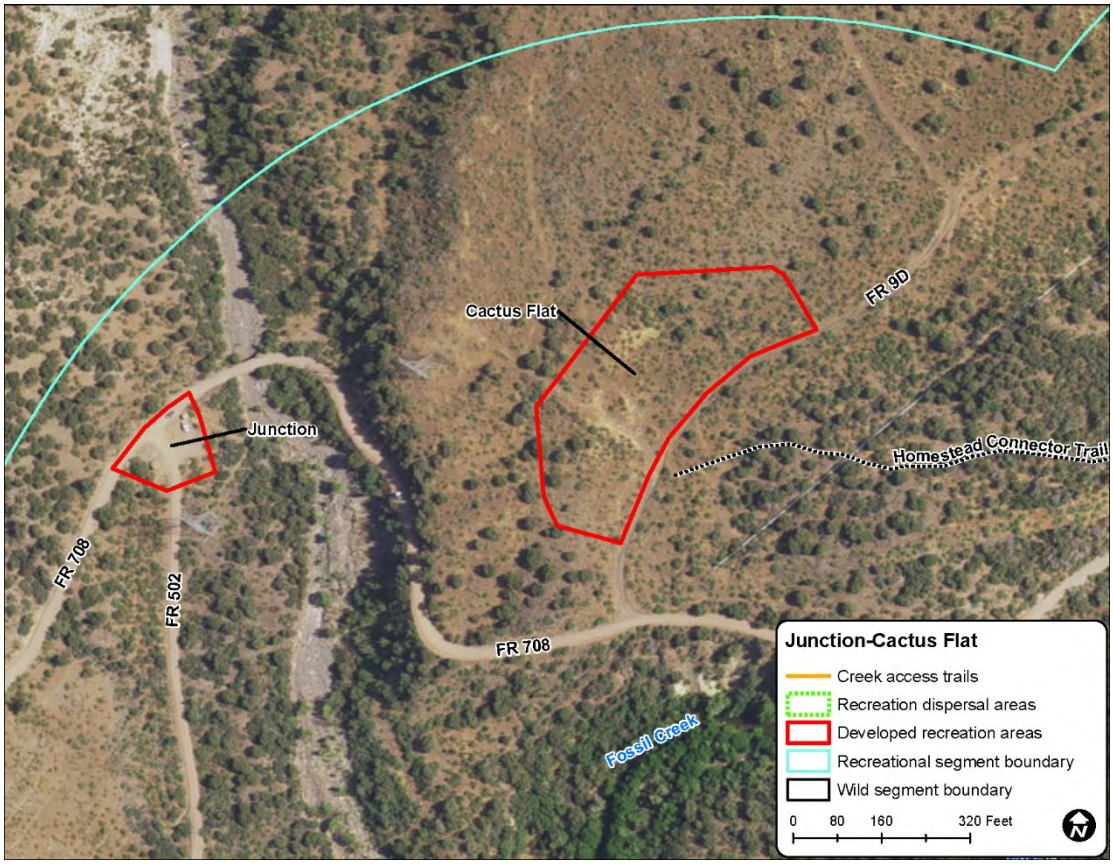

Figure A-9. Cactus Flat and Junction recreation sites

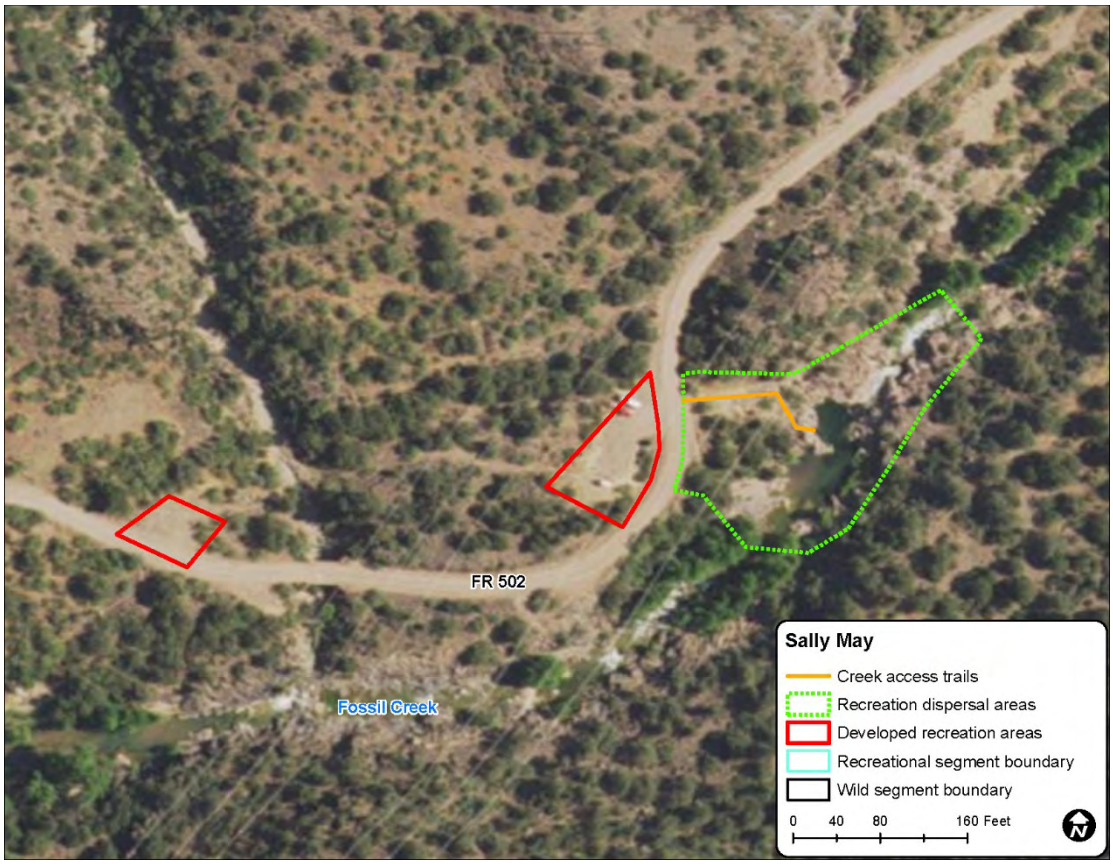

Figure A-10. Sally May recreation site

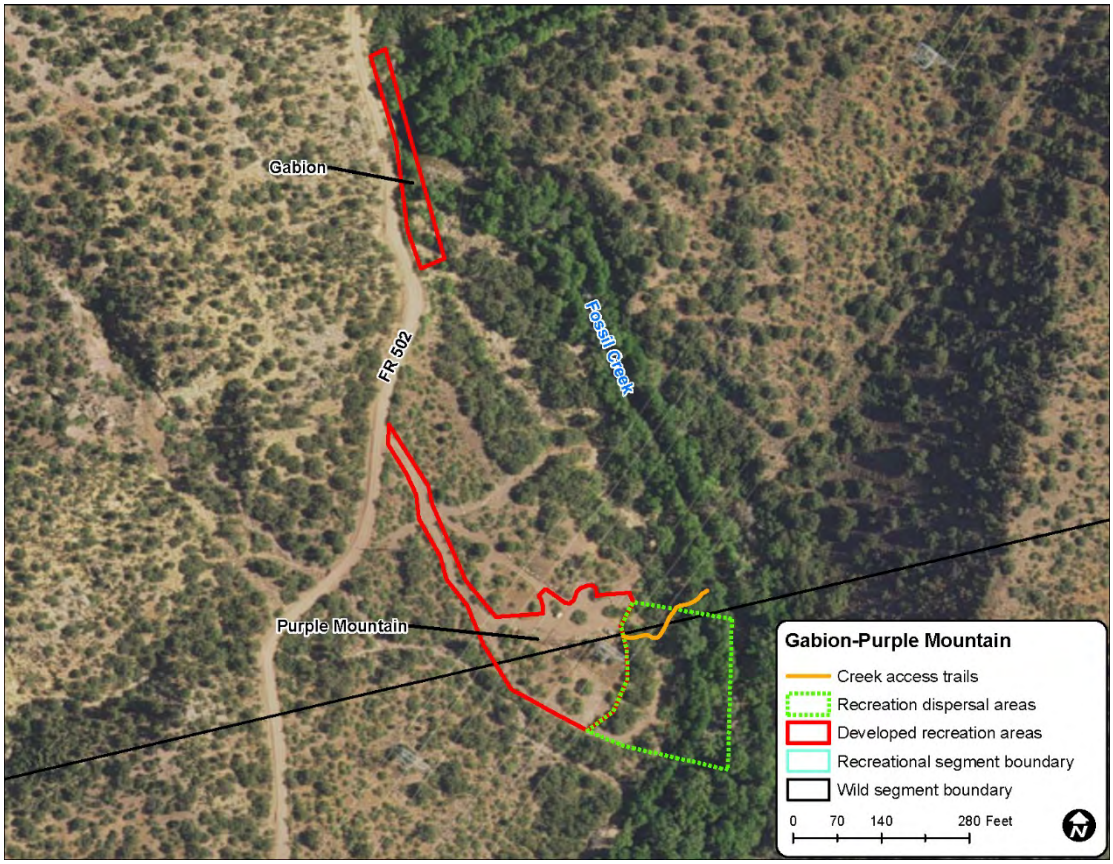

Figure A-11. Purple Mountain recreation site and gabion location

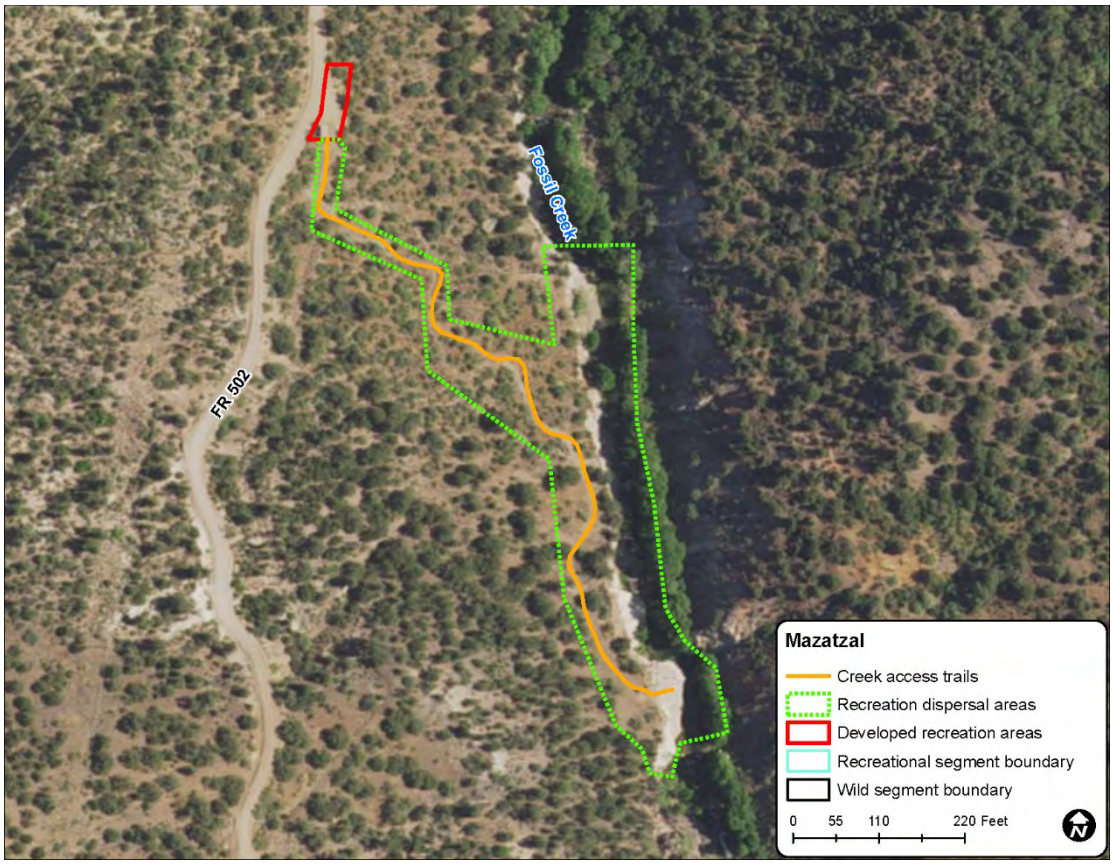

Figure A-12. Mazatzal recreation site

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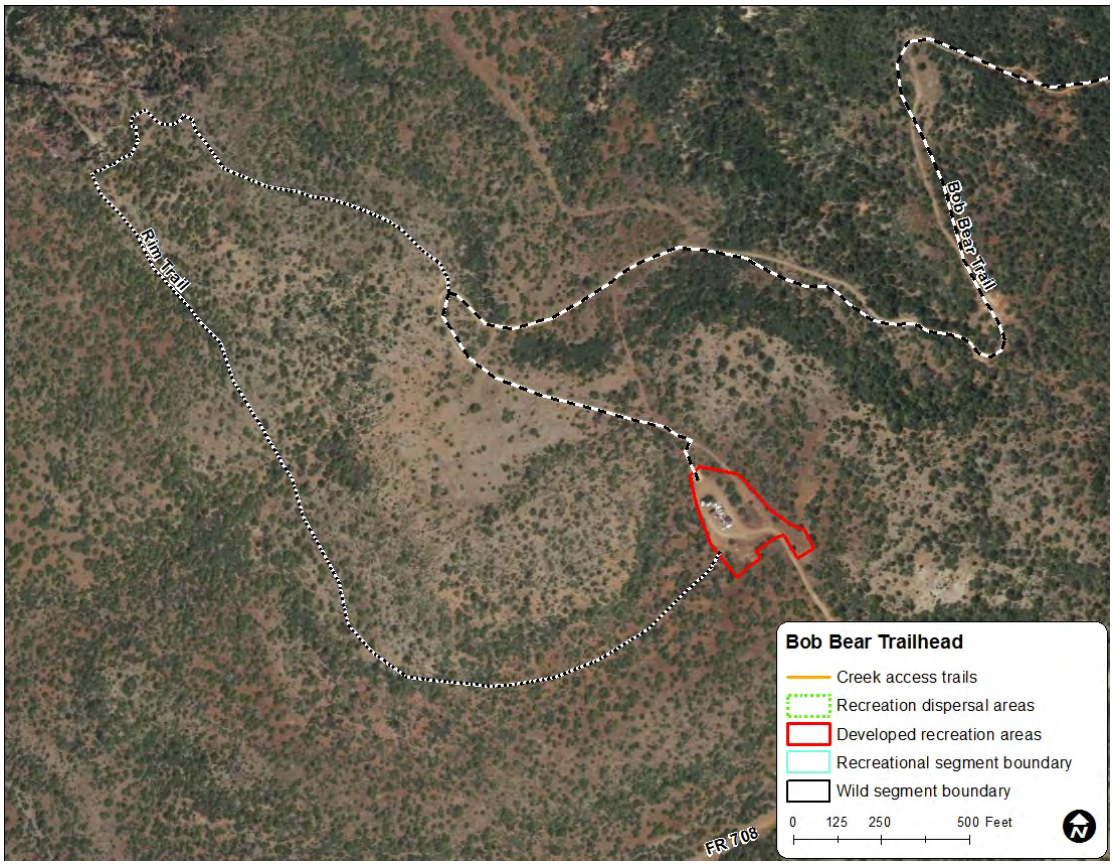

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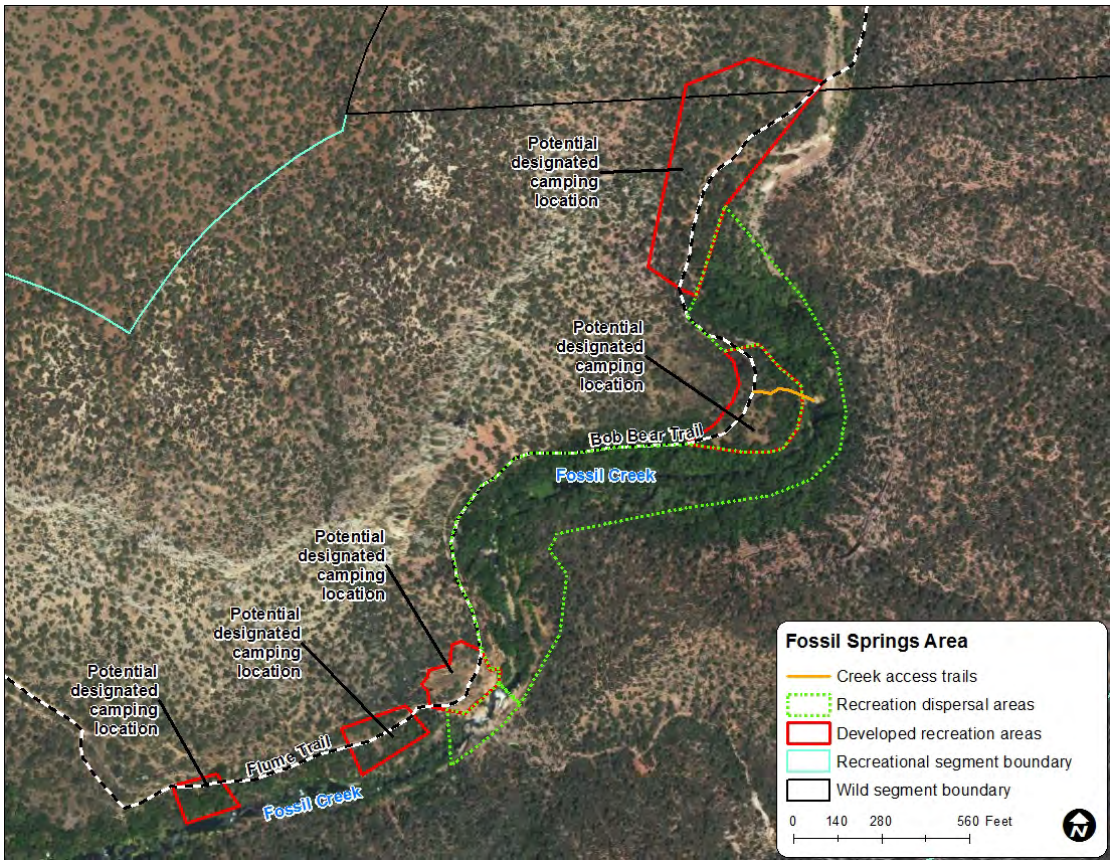

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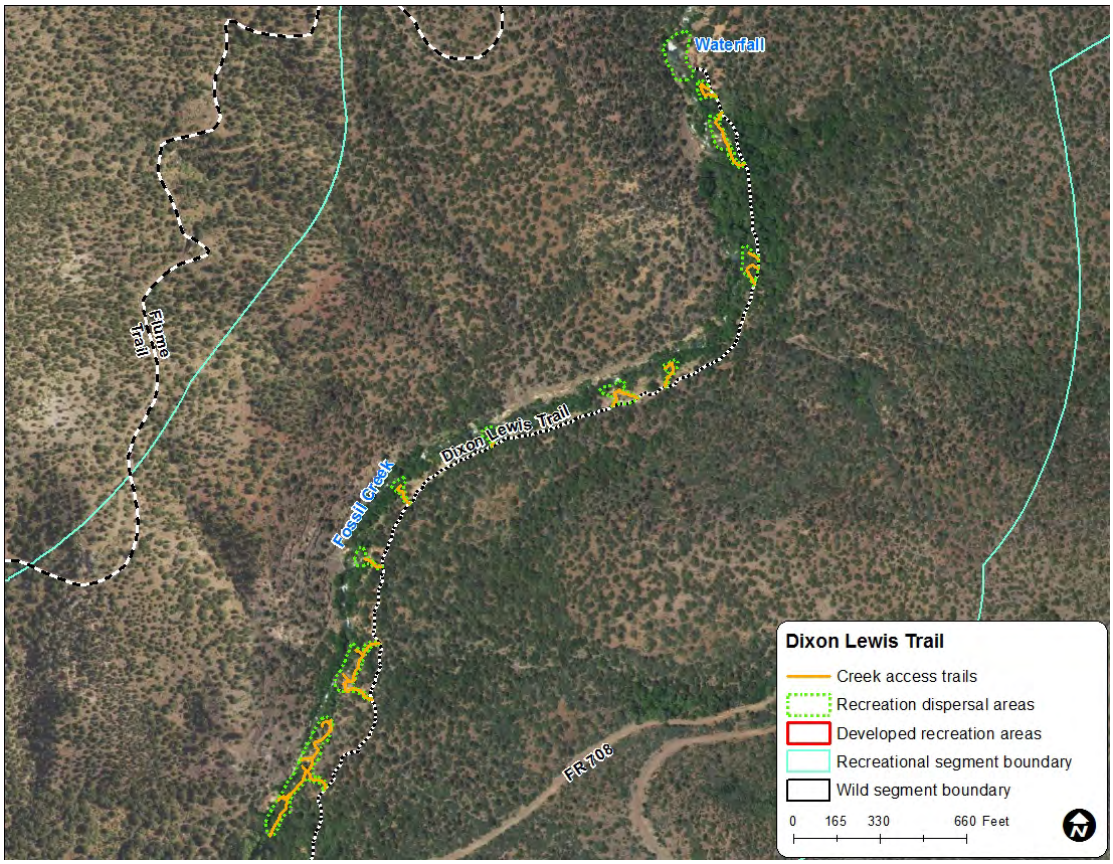

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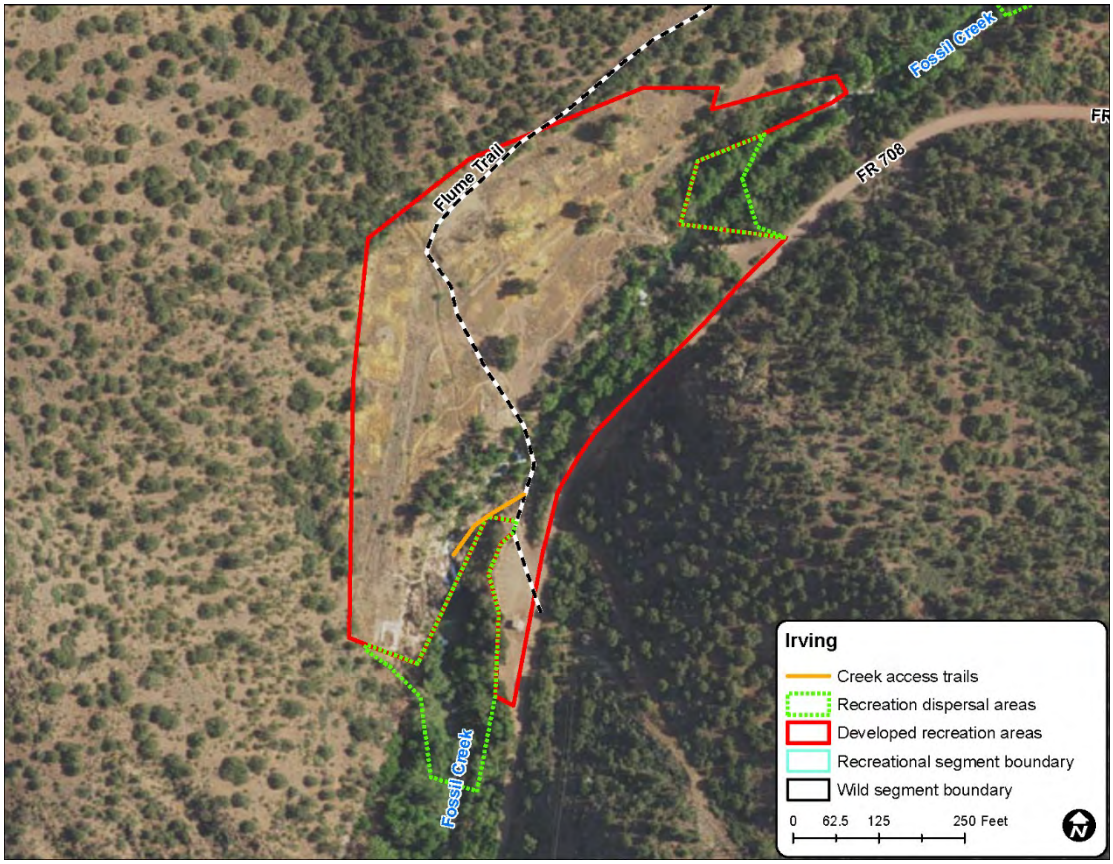

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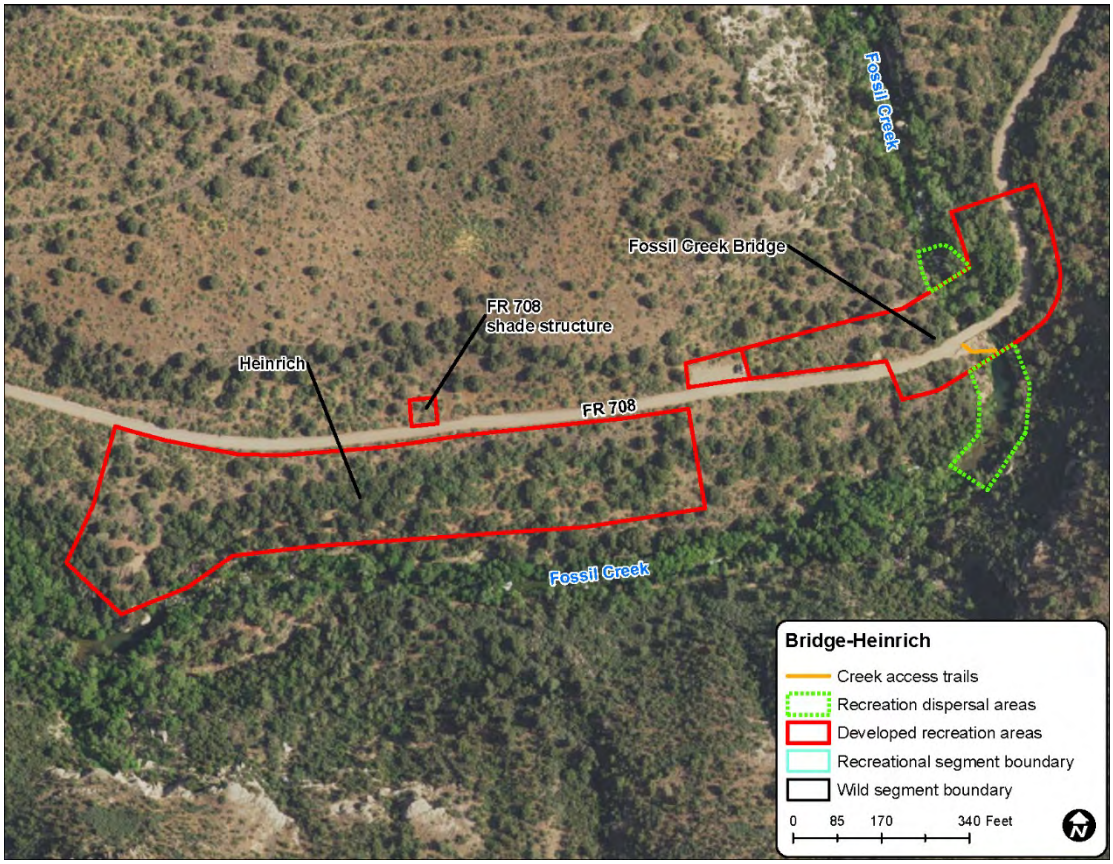

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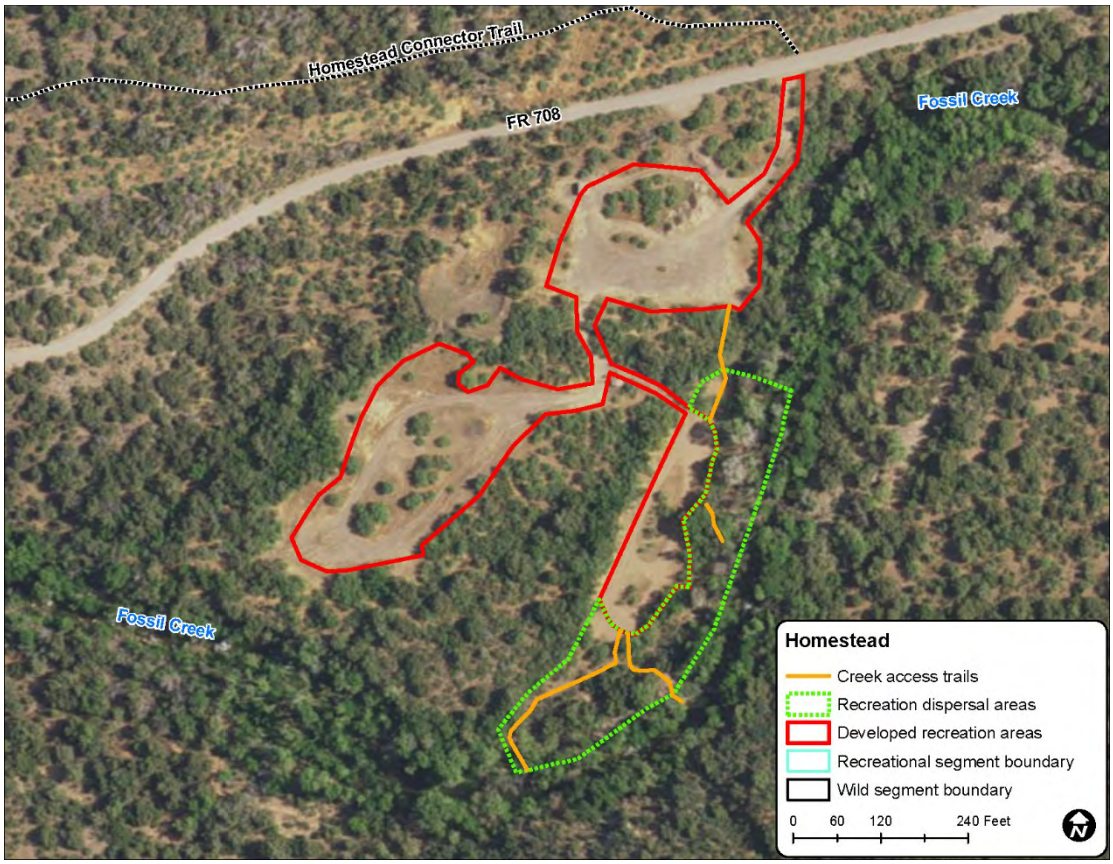

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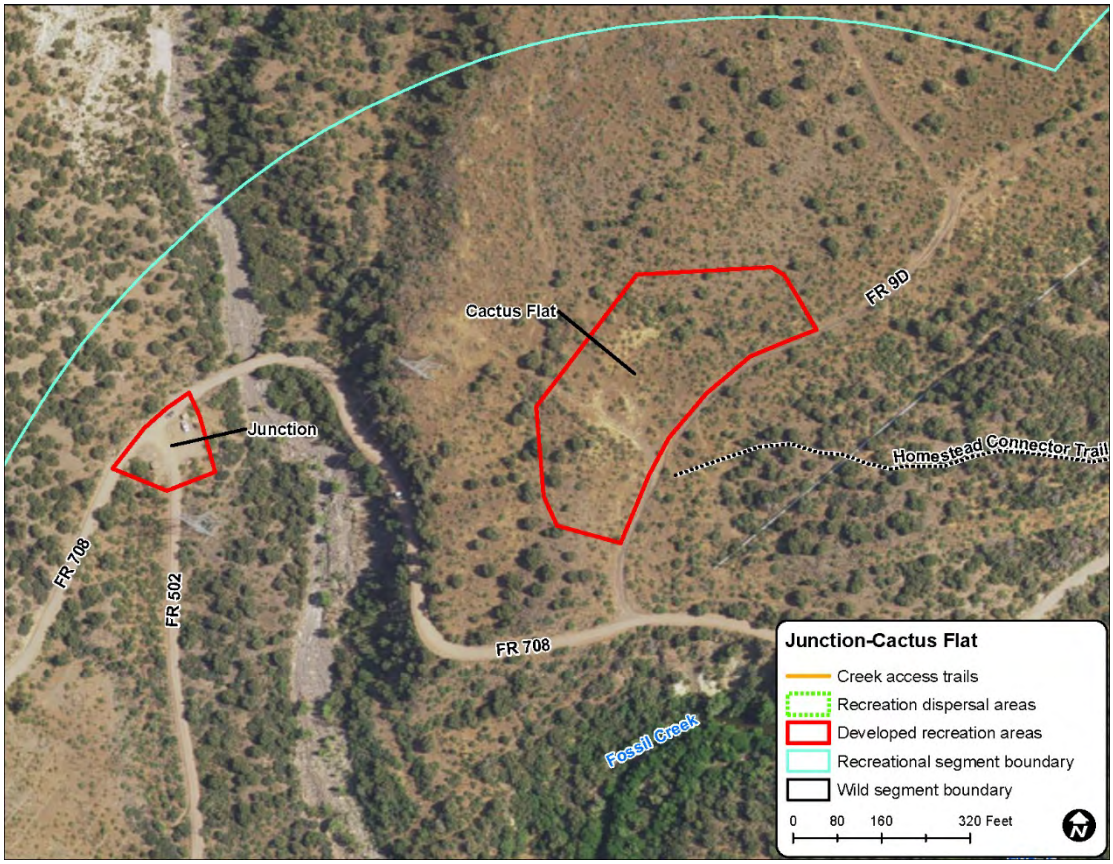

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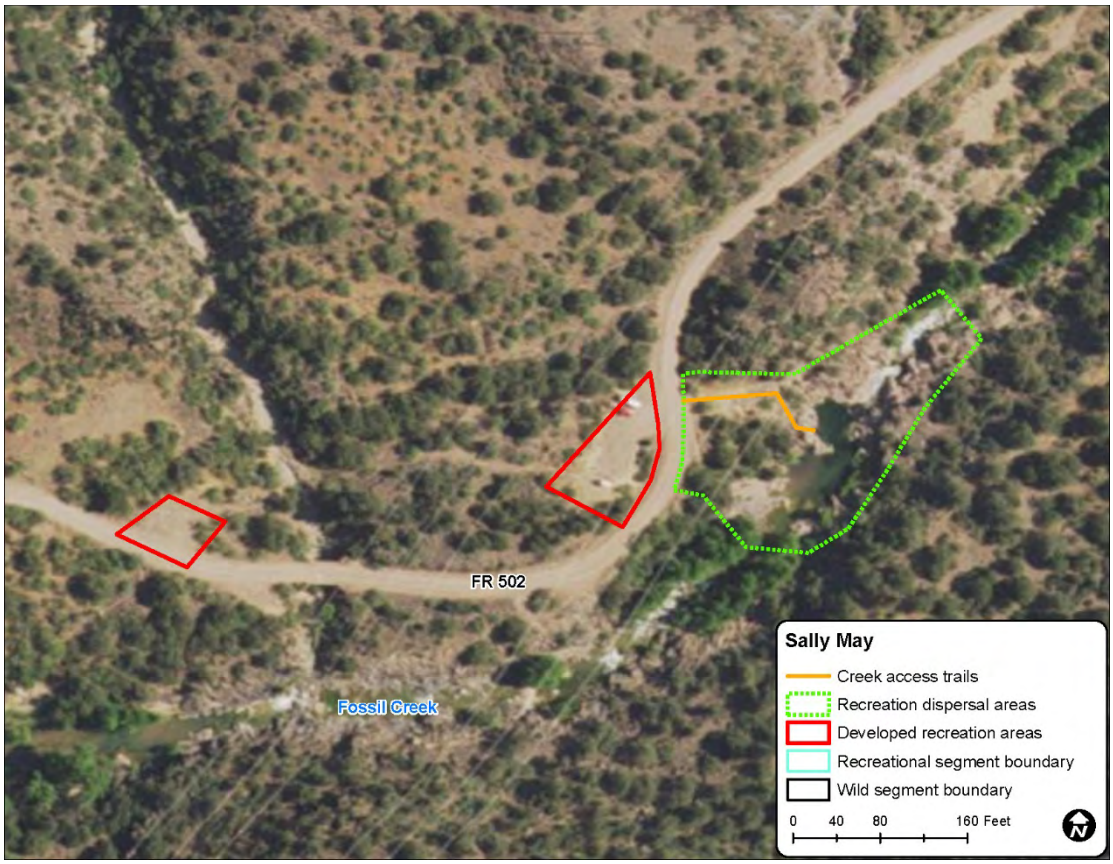

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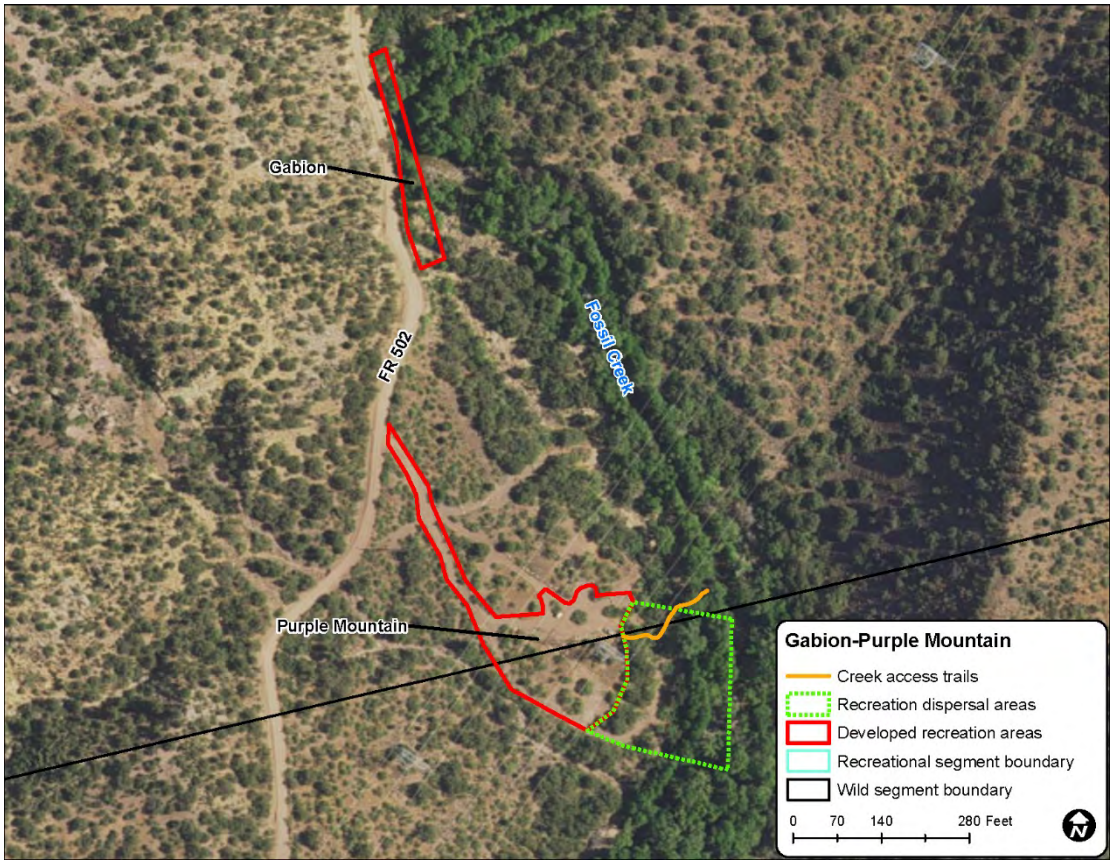

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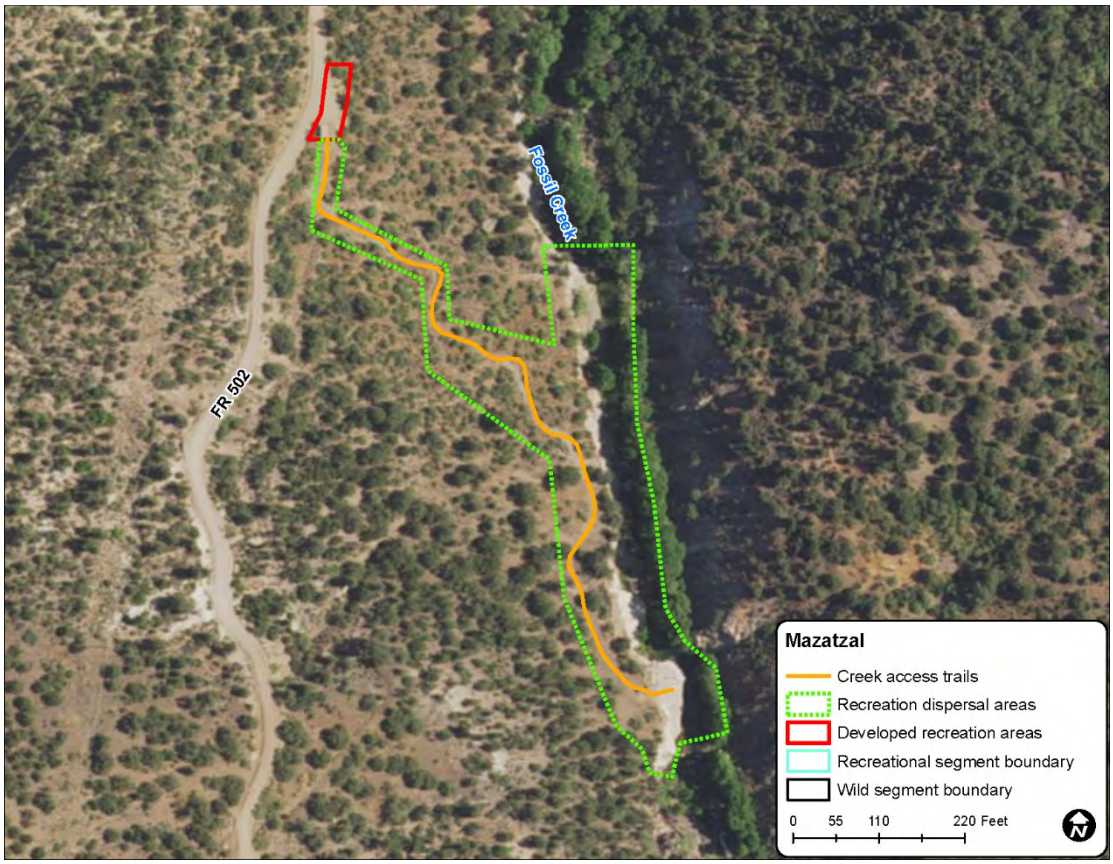

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