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U.S. DEPARTMENT OF AGRICULTURE

Southern Region/Ozark-St. Francis National Forests PALS Project Number 58732 July 2025

Blanchard Springs Caverns Facilities Renovation Project

Environmental Assessment including Decision Notice and Finding of No Significant Impact

Blanchard Springs Caverns Visitor Information Center

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Introduction

The Ozark-St. Francis National Forests (the Forests) is proposing to renovate the Blanchard Springs Caverns Visitor Information Center (BSC VIC) and the man-made infrastructure of the caverns' Dripstone and Discovery tour trails. The BSC VIC is a centralized facility that provides multiple visitor and administrative functions within a single architectural compound. Since 1973, it has served the public by interpreting the caverns and has been a major point of visitor arrival, orientation, and service.

The Great American Outdoors Act (GAOA, P.L. 116-152), established the National Parks and Public Land Legacy Restoration Fund to support deferred maintenance projects on federal lands. Fifty percent of all federal revenues from the development of oil, gas, coal or alternative or renewable energy on federal lands and waters will be deposited into the fund for the five-year period that includes fiscal years (FY) 2021 through FY2025. The funds must be used for priority deferred maintenance projects in specified systems administered by the US Forest Service (Forest Service), National Park Service, US Fish and Wildlife Service (USFWS), Bureau of Land Management and the Bureau of Indian Education. GAOA funding for this project is available once requirements of the National Historic Preservation Act (NHPA) and Endangered Species Act (ESA) consultation processes and of the National Environmental Policy Act (NEPA) are fulfilled.

This environmental assessment (EA) was prepared to determine whether effects of proposed activities may warrant preparation of an environmental impact statement (EIS) and to fulfill agency policy and direction to comply with the NEPA and other relevant Federal and State laws and regulations.

The Responsible Official for this action is the Ozark-St. Francis National Forests' Forest Supervisor. The decision to be made for this action is whether to take no action at this time, implement the Proposed Action as described, implement the Proposed Action with modifications, or initiate the preparation of an EIS.

Location of the Proposed Project Area

The BSC VIC and caverns are located on the Sylamore Ranger District of the Ozark-St. Francis National Forests. The Sylamore Ranger District is in north-central Arkansas approximately 12-miles northwest of Mountain View, Arkansas and near the underserved rural community of Fifty-Six, Arkansas as shown in Figure 1. Public access to the BSC VIC parking lot is via Forest Service Road 1110A.

The project area falls within the Blanchard Springs Developed Recreation Area Complex (the complex) which is assigned to Management 2.C: Developed Recreation Areas (MA2.C) by the 2005 Revised Ozark-St. Francis National Forests Land and Resource Management Plan (Forest Plan, USDA FS 2005a). The BSC VIC and associated structures are designated as an Ozark-St. Francis National Forests administrative site.

The project area is comprised of National Forest System (NFS) lands, above and below the surface. Above the surface, the 69-acre project area includes all components of the BSC VIC buildings, associated structures, grounds and utilities. Two elevators within the BSC VIC transport visitors and staff approximately 215 feet below to the subterranean environment of the caverns. Beneath the surface, the project area is limited to developed areas of Blanchard Springs Caverns where all man-made components associated with the Dripstone and Discovery tour routes are located. All aerial and buried utilities providing service to the facilities are included in the project area as is a new utility corridor to be established between a recreation area complex potable water tank and the BSC VIC.

The project area does not include undeveloped portions of the Blanchard Springs Caverns system or the Wild Cave Tour route; neither does it include any acres congressionally designated as Wilderness, Recommended Wilderness, Inventoried Roadless Area, or Wild and Scenic River Corridor. The project area does not fall within a US Department of Transportation or US Forest Service designated Scenic Byway Corridor. None of the project area contain wetlands, floodplains, or prime farmland. There is no critical habitat as defined in the Endangered Species Act on the district.

Blanchard Springs Caverns have been identified as a sacred site by Federally Recognized Tribal Nations. A 5,700-acre Traditional Cultural Property (TCP) that is a historic property of religious and cultural significance eligible for listing in the National Register of Historic Places (NRHP) overlaps the project area. Cultural affiliations with the TCP have been established for two Federally Recognized Tribal Nations and for the local settler community.

None of the project area occurs within one-half mile buffer of the Trail of Tears National Historic Trail and there are no Tribal land holdings on the Sylamore District.

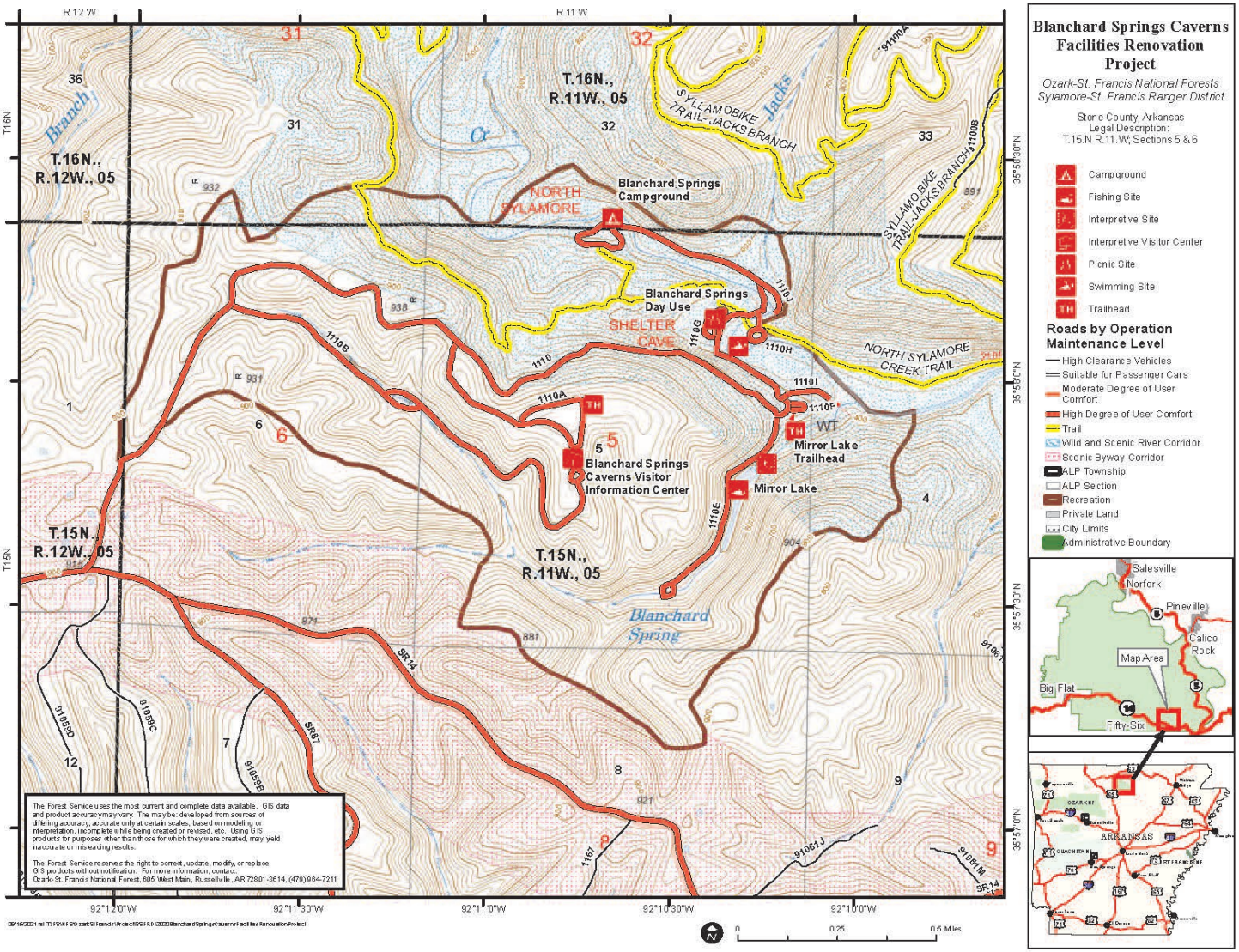

Figure 1. Vicinity Map

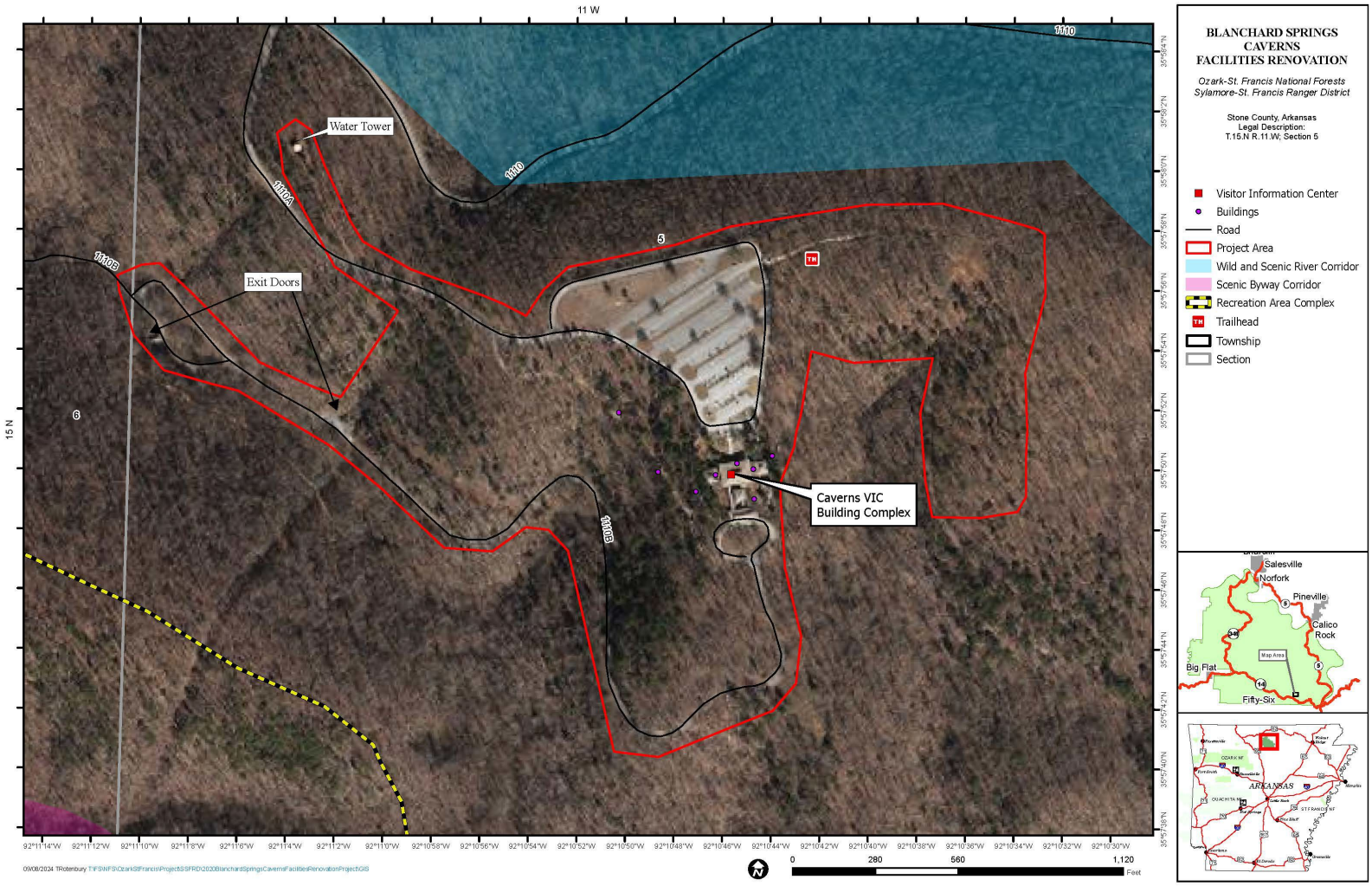

Figure 2. Surface Project Area Map

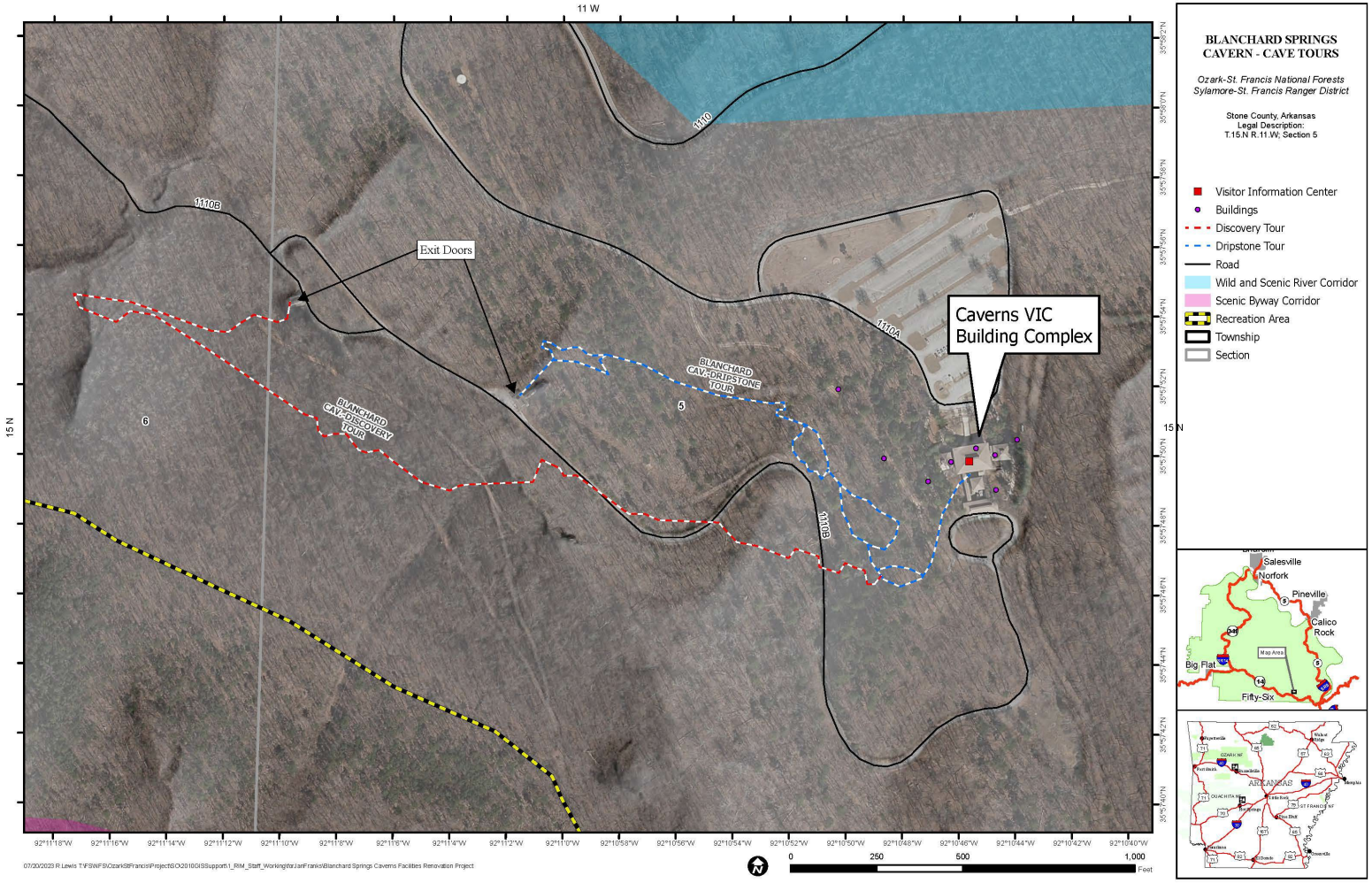

Figure 3. Project Area Below the Surface (i.e., Dripstone and Discovery Trail Route Locations)

Why are facilities renovations needed?

The BSC VIC and the underground structures are in their original locations and the overall layout, uses, plan, form, and style of the facilities are intact. However, after 50 years of constant use within the humid cavern environment, the man-made components of the caverns' Dripstone and Discovery trails have degraded; some components pose risks to human safety and threaten the caverns' microclimate. Budgets for Forest Service recreation programs have declined over the last several years, and allocated funding has not been enough to cover all needed structural repairs or facility upgrades for either the BSC VIC or the developed caverns tour route infrastructure.

The BSC VIC décor and interpretive displays have remained largely unchanged since the facilities were constructed. The existing facilities do not make effective use of available space, support technology-based features and exhibits, or provide amenities available at newer Visitor Information Centers.

The purpose of this project is to renovate the BSC VIC and caverns Dripstone and Discovery trails' infrastructure. This action is needed to 1) renew the lifecycle of the facility structures, reduce deferred maintenance costs and improve energy efficiency; 2) ensure the facilities remain safe for the visiting public and staff; 3) bring the facilities into compliance with current Architectural Barriers Act Accessibility Standards (ABAAS) and Forest Service Trails Accessibility Guidelines (FSTAG); 4) facilitate more efficient operation of the BSC VIC and cavern tours;5) support and sustain relevant, accessible high-quality recreational and educational experiences for current and future generations, and 6) protect the cavern microclimate.

This action was designed to comply with all relevant laws, policies, and regulations and is consistent with the Forest Plan's vision to promote and manage Blanchard Springs Caverns as a destination site for tourists as well as Forest Plan direction regarding recreation and facilities.

Desired conditions outlined in the Forest Plan for recreation and facilities require the forest to provide facilities and recreation infrastructure that are high quality, well-maintained, safe, accessible and consistent with visitors' expectations.

- Forest Plan Objectives (OBJ) 45-47, respectively, provide direction to upgrade all identified publicly accessible facilities to meet Architectural Barriers Act standards as appropriate; to complete energy efficiency upgrades on all administrative buildings and to inspect all buildings to determine compliance with health and safety standards and address all identified health and safety issues.

- Forest Plan priorities for recreation sites include direction to maintain and protect existing recreation sites consistent with public demand through operation, maintenance, and rehabilitation activities. For facilities, all buildings are to be maintained to health and safety standards.

For facilities, desired conditions also include that Built Environment Image Guide principles (USDA 2001) be supported, facility maintenance meet national standards and structures should be well integrated into the landscape with advanced environmentally sensitive technology.

The agency's Built Environment refers to the physical infrastructure of fire, administrative, research, and recreation buildings, landscape structures, site furnishings, structures on roads and trails, and signs installed or operated by the Forest Service, its cooperators, and permittees. The elements of the Built Environment constructed on National Forest lands and Grasslands, or those used for administrative purposes in rural areas, towns, and cities incorporate in a practical manner the principles of sustainability, reflect their place within the natural and cultural landscape, and provide optimal service to our customers and cooperators. Infrastructure shall 1) be located, planned, and designed with respect for the natural systems in which they reside; 2) aesthetically integrate their natural, cultural, and experiential context; 3) contain design features that reinforce a national agency identity; 4) emphasize efficiency of energy and materials consumption in construction and operation; 5) serve as premier examples to interpret conservation of natural resources and sustainable development; 6) create environments for people to enjoy and gain increased appreciation for the natural environment, and in which employees work productively, experiencing the connection to the resources they manage and, 7) Use wood and wood products where appropriate in the construction, alteration, repair, and operation of our infrastructure.

The US Forest Service Regional Office's (Region 8) recreation and engineering units completed site maintenance assessments of Blanchard Springs Caverns and VIC facilities as part of a regional review of major visitor centers (USDA FS 2013e and 2013f). Because deficiencies regarding condition of infrastructure components of the facilities, above and below the surface, and accessibility were identified during those reviews, independent engineering firms were contracted to provide conceptual designs to address them.

In 2015, an inspection completed by the Mine Safety & Health Administration (MSHA) identified potential hazards associated with horizontal tension fractures in the natural rock above the Dripstone trail entrance air lock and tunnel where loose rock had been falling (USDOL MSHA 2015). Temporary mitigation measures (i.e., timber supports) were installed as MSHA recommended. The timber support structure has been inspected regularly by an

agency geologist since its installation. The structure continues to function as designed but is showing signs of deterioration. A design for air lock replacement and renovation of constructed tunnels has been substantially completed.

Original metal hand- and guardrails (i.e., safety railing), rock bolts (i.e., threaded steel bars utilized to stabilize jointed or fractured rock layers in mines or tunnels), incandescent lighting fixtures, wiring and air locks are still in place, but have corroded, compromising their functionality and safety. Degraded components of the original air locks at the cavern trail entrance and exit points have created gaps that allow outside air to enter the cavern environment. Utility service lines supporting communication systems within the caverns have also degraded in the humid cavern environment and affect the staff's ability to reliably communicate to the surface in the event of an emergency.

Safety railing protects visitors from falling into deep, jagged crevasses along trail routes and prevents visitors from touching or otherwise damaging sensitive cavern formations. Some sections of railing have failed, and the integrity of other sections has diminished from corrosion and constant use. In some areas, existing railing does not meet current requirements for height and spacing and in others, additional rails are needed to comply with current requirements for Forest Service trails (USDA FS 2013d, FSM 2350).

The existing lighting fixtures showcase various cave formations and illuminate the trails for visitor safety but are not programmable and several are no longer functional. The incandescent light the exiting bulbs emit causes lampenflora (*i.e.*, algae) growth on cavern formations which must be manually removed.

In 2023, an engineering firm contracted to assess the condition of existing railing, lighting and electrical components of the Dripstone and Discovery trails and to identify needs for additional railing to meet current requirements concluded the electrical systems do not meet current electrical code requirements and have reached the end of their service life (JLA 2023). Some electrical components pose safety hazards which include delivery of mild electrical shocks to staff changing bulbs and electrical breaker boxes have caught fire. A design to address these deficiencies has been completed. For the BSC VIC, needs to bring facilities into compliance with Architectural Barriers Acting Accessibility Standards (ABAAS standards) and to bring supporting infrastructure components into compliance with requirements of the International Code Council (ICC) family of codes, National Fire Protection Association Code (NFP101) and Life Safety Code were identified.

Alternatives

Comments on the NEPA scoping notice and the draft EA were reviewed and considered by the Responsible Official. No issues driving development of an additional action alternative were identified. The Agency's consideration of those comments is documented in the project planning record. A summary of external NEPA process engagement efforts up to the release of this document is provided in Appendix 1.

No Action

The No Action alternative represents a continuation of current management and uses. No changes to the BSC VIC or man-made infrastructure of the caverns Dripstone and Discovery Trail routes would be made as part of the Blanchard Springs Caverns Facilities Renovation Project. Cavern tours and other existing uses of the facilities would continue. The No Action alternative does not preclude proposal of other projects to address facility repairs in the future; neither does it preclude future nomination of Blanchard Springs Caverns or other historic properties within the project area for listing on the NRHP. Any future projects relevant to facility repair would be analyzed on a case-by-case basis.

Proposed Action

The following activities are being proposed to meet the project's objectives. Design features to protect threatened and endangered bat species during construction activities and design features to avoid, minimize or mitigate adverse effects to historic properties have been incorporated into the Proposed Action since the NEPA scoping process was initiated (2020).

Mitigations of adverse effects to historic properties and cultural resources through the National Historic Preservation Act (NHPA) are documented in a Memorandum of Agreement (MOA). Those mitigations are hereby incorporated by reference. A copy of the executed MOA is provided in Appendix 5. All stipulations of the MOA must be followed as part of the implementation of this project.

BSC VIC Renovations

- Existing spaces throughout the BSC VIC would be remodeled and upgraded to extend the lifecycle of the facilities, address human safety issues, comply with regulatory requirements, improve visitor experiences, and support cavern operations. All spaces would be evaluated and designed for the most effective use (i.e., administrative or public). To comply with International Existing Building Code requirements regarding alterations, all supporting infrastructure components (i.e.,

electrical, communications, lighting, plumbing, etc.) would be replaced. Final designs for the BSC VIC have not been completed, but in general, proposed renovations are expected to include the following:

- Creation of separate entry and exit points for the BSC VIC would be included in the final design to respond to accessibility requirements, prevent air exchange, improve energy efficiency and improve visitor flow. This would be accomplished with construction of a new entrance vestibule at the front BSC VIC main building and a separate exit door and White Nose Syndrome decontamination station in the west pod through which visitors returning from tours would be routed. If included in the final design, these alterations would be designed to complement the BSC VIC's exterior appearance.
- Construction of a new elevator tower to meet accessibility requirements and provide access to the spaces on the second floor and basement of the BSC VIC would be included in the final design. The new elevator would not extend into the cavern environment. The existing set of stairs on one side of the lobby would be removed to facilitate that installation if necessary. A new set of exterior stairs would be installed to meet current fire code requirements. These installations would occur within the footprint of the area previously excavated in the 1960's during construction of the BSC VIC facilities.
- Installation of a sprinkler system to bring the facilities to compliance with current National Fire Protection Association codes would be included in the designs. There is currently no fire suppression sprinkler system in place. To support the sprinkler system, new service lines for domestic water and fire suppression would be installed.
- New functional spaces (public and administrative) would be constructed within the BSC VIC.
- Existing ramps and porches of the BSC VIC may be demolished and the breezeways may be enclosed to facilitate effective incorporation and use of the BSC VIC pods with the main building.
- Existing bathrooms would be remodeled to comply with ICC and ABAAS requirements.
- The roof, gutters and BSC VIC utility (*i.e.*, electric, water, sewer, phone) infrastructure components would be replaced.

  - Minor landscaping changes may be implemented to facilitate the proposed work; these would likely include sidewalk relocations and may include removal of non-native plant species. Any resulting ground disturbance would be restored.

Blanchard Springs Caverns Dripstone and Discovery Trail Infrastructure

- The lower elevator lobby would be remodeled. Existing ceiling panels would be removed and replaced. Work to scale loose rock and remove unstable overhead rock, install rock bolts and synthetic mesh on the rock ceiling above the new panels may be required. All existing electrical and lighting system components would be replaced to bring these installations to current code.

- Existing air locks, and tunnel supporting structures would be removed. Loose and unstable overhead rock would be removed or scaled (*i.e.*, removed; material would be relocated in or used for masonry repairs in the cavern, but none shall be removed from the cavern) from the tunnel ribs and roof. New support structures for tunnels would be constructed, and new sets of air lock doors with supporting structures would be installed. Reconstruction of bulkheads, construction of new masonry walls, installation of synthetic mesh on the rock ceiling and installation of rock bolts are required as part of air lock and tunnel reconstruction. (Golder 2020)

- Lighting systems, communication systems and respective supporting infrastructure components within the cavern would be removed and replaced to bring these installations to code, and to remedy hazardous conditions.

- Existing railing would be removed and replaced or installed where needed along the Dripstone and Discovery trail routes to remedy safety concerns or comply with agency requirements for trails.

The following design features are requirements for implementation.

Design Features Applicable to All Activities

- All final designs shall be subject to Forest Service approval and shall be performed by licensed architects, engineers and landscape architects registered in at least one US state. Civil engineers must be registered in the State of Arkansas.

- All work shall be subject to Forest Service monitoring, inspection, and approval and must be performed by qualified contractors. All electrical, heating, ventilation and air conditioning (HVAC), and plumbing work shall be performed by persons licensed to perform that trade in the State of Arkansas.

- On-site monitoring of operations by designated Forest Service personnel or the contractor shall be conducted to ensure required measures to prevent or minimize impacts to geological, biological, as well as historic properties and cultural resources are followed.
    - If damage to any of these resources occurs, work in the affected area shall be halted until an investigation and report of findings are completed.
        - Depending on the resource damaged, initial investigations shall be conducted by the appropriate resource specialist. Initial investigation findings may result in referral to law enforcement.
        - Daily logs and investigation reports would be kept and provided to the United States Fish and Wildlife Service's (USFWS) as outlined in the Amended Biological Opinion for this action (USDOI FWS 2024) and as stipulated in the 2025 project-level Heritage Memorandum of Agreement (MOA).
- Should any action inadvertently uncover a previously unrecorded archaeological site or object(s), work would be halted, and the authorities would be notified as outlined in the MOA.
    - Activities at that location would not resume until the resource is adequately protected and agreed-upon mitigations outlined in the MOA are implemented.
- Prior to arriving on-site for any purpose, all non-US Forest Service individuals and contractors must contact the designated Forest Service Site Coordinator assigned to administer the respective contract(s).
    - The designated Forest Service Site Coordinator shall coordinate with the Ranger or other designated Forest Service staff and the contractor to ensure assigned Forest Service personnel are available to perform on-site monitoring.
- While below ground construction activities were occurring on a specific tour route (*e.g.* Dripstone or Discovery), no tours would be offered on that route until that contract work is complete and accepted. Tours shall not be offered if prohibited by applicable laws or safety regulations.

Additional Design Features Applicable to Activities within the Caverns

- All contractors and their employees and all monitors shall be required to complete a virtual training on sensitive caverns resources prior to initiation of work within the cavern.
- Underground cavern rock stabilization work would be performed by licensed contractors with a minimum of five (5) years' experience in similar installation of support in tunnels.
- Entry and exit into the cavern shall be controlled by US Forest Service personnel. For all non-Forest Service individuals, each entry into and exit from the cavern must be documented.
- Work shall be limited to occur only within previously developed portions of the cavern; neither exploration of nor work within non-developed portions of the caverns will be permitted.
- All clothing, footwear, equipment, and other items brought into the cave would be decontaminated according to the USFWS's White-nose Syndrome Decontamination Protocols posted at https://www.whitenosesyndrome.org/mmedia-education/national-wns-decontamination-protocol-u-s. (USDOI FWS 2020)
- Shoe-clean troughs to prevent transport of dust, oil or any foreign material into and out of the cave shall be utilized.
- Cavern pools and streams shall not be entered, and cavern formations shall not be touched by ungloved hands.
- Cavern rock must be used for all masonry repairs within the cavern. Two areas from which cavern rock may be collected to implement masonry repair within the subterranean environment have been designated.
    - Native material originating from within the cavern, such as breakdown, shall not be removed from the cavern.
- To reduce the potential for the introduction of fumes to the cavern environment to the extent possible, if replacement fixtures require welding or soldering, they must be pre-assembled outside of the cave and brought into the cave for installation.
- An area outside an air lock, such as the lower elevator lobby, shall be designated to modify or assemble replacement fixtures not requiring welding or soldering.

- Mats would be put in place where work is being done to capture any material or item that may be dislodged or dropped during removal or installation activities and keep it from falling into the cavern. Mats must be picked up and cleaned daily.
- No food, drink (except water), gum, or tobacco products shall be permitted in the caverns.
- There shall be no expectorating, defecating, or urinating in the caverns.

Design Features for Threatened, Endangered Federally Listed Species and Species Proposed for Federal Listing (TEP)

The following design features for TEP protection were developed with the USFWS through the formal consultation process outlined in Section 7 of the Endangered Species Act. These design features, along with applicable Forest-Wide Standards for TEP species must be incorporated as requirements into any contracts awarded to complete renovation activities to protect endangered bat species during renovation activities.

- All bats encountered during implementation would be treated as listed species until otherwise determined by a trained and permitted bat biologist.
    - Contractors must not move or touch any injured or dead bat either on the surface or in the caverns.

<u>Design Features for Gray Bat Protection</u>

- Schedules for implementing work must be approved by the Forest Service wildlife biologist.
    - To the extent possible, construction, renovation, and other maintenance activities (such as those involving structural upgrades to mitigate impacts due to air flow, water infiltration or air lock maintenance and construction) in areas with sensitive wildlife would be timed to avoid sensitive wildlife periods, such as bat spring and fall swarming seasons and winter hibernation periods.
- Prior approval from the Forest Service wildlife biologist must be obtained if work in more than one location at a time needs to be conducted.
    - Only one air lock shall be removed and replaced or modified at any one time.
- If bats are discovered by a contractor in a work area (on the surface and in the caverns), the contractor must immediately notify the Forest Service and halt work in

that area until an agency wildlife biologist determines whether the species of bat is listed.

  - If the Forest Service wildlife biologist determines listed bats are roosting in an area that may be disturbed or the work may risk injury to a listed bat, the work shall be temporarily delayed to limit disturbance and the USFWS will be notified. Work shall not resume until clearance to proceed is given by the Forest Service wildlife biologist.

- Lighting system, handrail, and cavern air lock replacement activities for the Discovery tour route are restricted September through April to protect hibernating Gray bats within the caverns.
- From August 1 through Labor Day, where renovation activities are being conducted along the Dripstone and Discovery trails, lights would be turned on in the evening before starting construction to discourage bats from roosting in those areas.
- A temporary noise and containment barrier wall system would be installed for construction and renovation of the air locks and bypass tunnel.
  - Bulkhead curtains or other measures would be utilized for abatement of noise and dust reaching hibernating bats and to ensure temperatures within the caverns remain constant.
  - Sound level on the natural cavern side of the barrier shall be a maximum of 65 decibels (dB)
  - If sound levels exceed 65 dB, work must stop, and bulkhead curtains must be adjusted to contain sound on the either the air lock-side of the barrier or inside the tunnel respectively, or noise must be reduced to meet specifications before work would be permitted to resume.
- Temperatures inside the cave would be monitored near the containment barriers to determine if any changes in temperatures occur. Baseline temperature data has been collected daily since September of 2022.
  - If temperatures range outside of baseline conditions by 1 degree Celsius inside the Dripstone air locks or the stairway leading to the Discovery Trails or by 1.5 degrees Celsius inside the summer bat passage area or the Discovery air lock, work must stop, and barriers shall be adjusted or repaired until

baseline temperatures are achieved before work would be permitted to resume.

- Prior approval and Forest Service wildlife biologist clearance are required March 1 through November 30 for BSC VIC landscaping involving incidental tree removal and BSC VIC roof and gutter replacement activities.
- No new areas shall be created or cleared for equipment staging.
- Staging areas for equipment shall be limited to the existing paved parking area of the BSC VIC, paved cavern exits (external side), paved roads, existing gravel service roads and the concrete tunnel cap above the Dripstone Trail bypass tunnel.
- The natural entrance shall not be used for equipment access.
- Any equipment that emits fossil fuel exhaust (*e.g.*, generators or compressors, etc.) would not be used inside the caverns and must be staged outside the cavern environment in one of the designated areas.
    - Wires and hoses would be run from the surface through the existing access shaft located in the bypass tunnel, elevator lobby, or trail exits.
    - Triple-stacked filter socks, silt fences, barriers, temporary sedimentation basins and other sedimentation control measures would be required around the access areas of the cave where equipment is staged.
- To minimize the possibility that gasoline, propane, or electric powered construction equipment that could leak fluids, introduce noise pollution, or emit pollutants, equipment would be checked by designated contractors prior to being operated for the day to identify and repair any leaks. Mufflers would be checked for proper operation, and only equipment within proper operating specifications would be used.
- Water produced by construction activities would be collected by wet vacuums or other methods into temporary holding basins which would be removed or pumped out of the cavern to avoid contamination of cavern pools or streams.
- A spill prevention and response plan for water produced by construction activities and other substances foreign to or not naturally occurring in the cavern environment would be provided by the contractor and approved by the designated COR prior to work commencing in the caverns.

Design Features for Northern long-eared Bat (NLEB)Protection

- Removal of live or dead trees that are potential roosting habitat for bats is prohibited in the hibernacula buffers during the spring staging (March 1 to April 30) and fall swarming (Aug 15 to Nov 30) periods unless an emergence survey is conducted on the tree the evening before removal to determine that no bats are present. The emergence survey would be conducted by a Forest Service Wildlife Biologist or wildlife technician.

Design Features for Historic Properties and Cultural Resources

This undertaking (repairs to existing infrastructure) may have an adverse effect on the Blanchard Springs Caverns Historic District which is comprised of the individually eligible Blanchard Springs Caverns and the Blanchard Springs Caverns Visitor Information Center. To avoid, minimize or mitigate adverse effects to these historic properties and to cultural resources of religious and cultural significance, additional design features identified through the National Historic Preservation Act (NHPA) Section 106 consultation process were developed and documented in a Memorandum of Agreement (MOA) between the Ozark-St. Francis National Forests, the Arkansas Heritage Preservation Program State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation (ACHP), The Osage Nation and the Quapaw Nation. The Stone County Historical Society, which represents the local settler community, was invited to be a concurring signatory for the MOA. Measures to mitigate or minimize adverse effects to historic properties are outlined in the MOA and are hereafter incorporated as design features in the Proposed Action Alternative. The executed MOA is included in this document as Appendix 5. Federally recognized Tribal Nations affiliated with Stone County were invited to engage in the development of the Proposed Action and the MOA. The MOA represents the results of that engagement.

- The agreed-upon design features for renovation of the facilities outlined in the MOA must be incorporated into contracts as requirements for implementation.

- Designs for work within the caverns are complete. Final designs for the proposed BSC VIC renovation work would be informed, in part, by historic preservation practices outlined in the Secretary of the Interior's Standards for the Treatment of Historic Properties (https://www.nps.gov/tps/standards.htm).

All agreed upon design features to avoid, minimize or mitigate adverse effects to historic properties (*i.e.*, a property that is eligible for listing on the NRHP) and cultural importance (unless sensitive and confidential) are disclosed in the MOA (see Appendix 5).

Design Feature for Trenching Operations

- Where trenching on the surface is required to facilitate activities, it would be scheduled so that the trench could be filled in prior to the next reasonable, foreseeable rain event. This would ensure stormwater run-off would not flow from the surface into the trench and potentially directly to the cavern microclimate. This design feature shall be incorporated into contracts involving trenching activities.

The Proposed Action was designed to be consistent with the Forest Plan, as well as with all applicable federal, state, and local laws and regulations that are in place to protect the human and natural environments.

The proposed BSC VIC and cavern infrastructure renovations would 1) address safety issues; 2) bring facilities into compliance with ABAAS requirements and Forest Service Trail Accessibility Guidelines and ICC requirements; 3) renew appearances and extend the lifecycle of the facilities for future generations; 4) support cavern operations; 5) provide for the comfort and convenience of visitors; 6) provide additional opportunities and space for new interpretive exhibits and 7) improve energy efficiency. Existing spaces would be refurbished or repurposed and project area utilities would be removed and upgraded to comply with applicable ICC requirements, improve operating conditions and provide increased technological capacities that are not currently available.

The scoped activities for the BSC VIC were informed by conceptual designs from a contracted engineering firm (Smith-Dahlia 2017). It is expected that all the functional areas and upgrades described in the project scoping notice would be included in the final design package.

To meet the purpose of this project and to ensure the final BSC VIC design provides the most efficient use of space that supports operation of the facilities and improves the visitor experience, input from US Forest Service staff, including BSC guides, and the gift shop vendor would also be taken into consideration.

Final designs must be completed and approved by the Forest Service before any work on-site may commence. Depending on the amount of GAOA funding secured, activities would be prioritized for implementation. Activities necessary to protect human safety and the cavern microclimate, to bring the facilities into compliance with accessibility requirements and to restore the structural integrity of the facilities would be implemented before activities to upgrade aesthetics or provide amenities. Other funding sources would be sought to complete the implementation of any remaining renovation activities that are not fully covered with GAOA funds. It is anticipated proposed activities could begin in calendar year 2025 and all priority work could be completed within 12 to 24 months. The timeframe for

completion of priority repairs and upgrades could be extended based on available funding and restrictions in place to protect sensitive resources for some activities.

Environmental Effects

This section summarizes the potential reasonable and foreseeable environmental effects or impacts relevant to implementing the Proposed Action or taking no action. Interdisciplinary team members and other Forest Service resource specialists contributed to the preparation of this EA which has been scaled based on the relevance and intensity of the potential effects. Only that information necessary to understand the environmental impacts is summarized in this document. The project's planning record includes additional information to be considered by the Responsible Official.

Effects or impacts are changes to the human environment resulting from the Proposed Action or other developed action alternatives that are reasonably foreseeable. (40 CFR Chapter 10, Subchapter A, Part 1508 Section 1508.1) Direct effects are caused by an action and occur at the same time and place. Indirect effects are caused by the action but occur later in time or are farther removed in distance but are still reasonably foreseeable. Cumulative effects are effects that overlap geographically and temporally with the effects of an action; individually these effects may be minor, but when considered together with the incremental, meaningful effects of other past, present and reasonably foreseeable actions—regardless of land ownership on which other actions occur and regardless of whether the Forest Service, another agency or an individual undertakes the action—they may be cumulatively significant. Past actions that no longer contribute meaningful resource effects are considered part of the current condition. Future actions are those that are planned and are likely to be implemented during the timeframe that meaningful effects of the action are likely to occur.

Previously Approved and Reasonably Foreseeable Activities Overlapping or Near the Project Area

Activities that have recently been implemented or could be implemented within the project area during the timeframe for the BSC VIC Facilities Renovation Project are summarized below.

The 67,151-acre Indiana Bat Habitat Restoration Project (IBAT) overlaps the Blanchard Springs Developed Recreation Complex (the recreation complex). The Decision Notice approving vegetation management and connected activities for the IBAT project was signed on July 22, 2013; it requires avoidance of ground disturbing activities within Karst Management Zones (i.e., buffers surrounding karst openings such as cave entrances,

springs, seeps and etc.) and sets annual implementation thresholds for the treatments it authorizes. The IBAT project does not involve any activities within the BSC VIC or the caverns environment but does authorize removal of trees and other vegetation within and surrounding the complex. Vegetation management activities previously implemented under the IBAT project and occurring in forested stands near the BSC VIC grounds have opened the mid-story and canopy, allowing increased sunlight to reach the forest floor to stimulate the growth of understory species and increase plant diversity. The more open conditions have also increased visual depth into the forested stands; thus, the likelihood of seeing wildlife, birds and flowering species from the BSC VIC parking lot and grounds was increased over pre-treatment conditions. The IBAT project would continue to be implemented during the anticipated timeframe for the renovation project whether the Proposed Action is selected or no action is taken at this time. No ground disturbing activities have been implemented under the IBAT decision within or around the complex in the last three years; new growth has reclaimed those areas which now represent the current condition. No ground disturbing activities under the IBAT project decision are currently planned in or immediately adjacent to the complex through at least fiscal year 2026.

On June 2, 2022, the former Ozark-St. Francis National Forests Forest Supervisor accepted an analysis completed by USDA Rural Utility Services (RUS) to replace existing telephone lines with fiber optic cable within 6.2 total miles of existing utility corridor across National Forest System lands of Sylamore District. The work was funded and implemented through RUS to provide high speed internet service within underserved rural communities. Approximately 0.23 mile of existing overhead telephone line was replaced with fiber optic cable and 0.54 miles of the underground replacement installations were made within the project area providing service to the caverns and BSC VIC. The existing communications infrastructure of the facilities, however, does not support the upgrades. The fiber optic project was fully implemented, and new growth has since reclaimed all areas where ground disturbance occurred; effects from those activities are no longer meaningful.

Typically, repair and maintenance of administrative sites, authorized trails and recreation sites are categorically excluded from documentation in an Environmental Assessment or Environmental Impact Statement [36 CFR 220.6(d)(3), 36 CFR 220.6(d)(4) and 36 CFR 220.6(d)(5), respectively]. Provided no extraordinary circumstances precluding use of the applicable categorical exclusions are identified, these types of actions do not require preparation of a NEPA project planning record or documentation of a decision in a US Forest Service NEPA Decision Memo. Routine recreation site and trail maintenance activities within the recreation complex (i.e., mowing, hazard tree removal, manual treatments to remove encroaching vegetation from trail tread, etc.) would continue to be

implemented for the duration of the BSC Facilities Renovation Project regardless of whether the Proposed Action is selected or no action is taken at this time. Mowing and hazard tree removal are the most likely administrative site maintenance activities to be implemented on the grounds surrounding the BSC VIC during the duration of the renovation activities. These activities do not involve ground disturbance. A portion of the district's North Sylamore Creek Trail, the Bluff Trail, the Spring Trail, Mirror Lake Trail, Mirror Lake Boardwalk, and the Oak-Pine Woodland Trail all occur within the recreation complex but are outside the project area.

The NEPA process for the proposed Walk and Roll Trail Management Project has been placed on hold. It is anticipated the NEPA process will resume and at least some of the activities for Walk and Roll Trail Management Project may be implemented sometime in calendar year 2026. If approved, that project would provide for the use of glyphosate or triclopyr herbicide to selectively treat vegetation encroaching on the tread of authorized hiking and bicycle trails across the district, including all trails occurring in whole or in part within the recreation complex. No activities of the Walk and Roll Trail Management Project are proposed to occur within the BSC VIC, on the BSC VIC grounds, or in the caverns. No new trail construction would occur in the project area under the Walk and Roll Trail Management Project if it is approved. However, adjacent to the project area, 0.6 mile of new trail measuring 18 to 24 inches in width would be constructed within a previously disturbed utility corridor and would connect the Blanchard Springs Developed Recreation Area Campground to the BSC VIC parking lot. Beside limited select herbicide use to maintain trail tread, the Walk and Roll Trail Management Project currently includes constructing a total of 2.4 additional miles of new trail in four locations, gating trail termini to prevent vehicle access, replacing existing trail bridges, and changing the designation of a condemned vehicle bridge to a pedestrian trail bridge.

There is no private land within or immediately adjacent to the project area. The agency knows of no major infrastructure, vegetation management or stream-altering activities planned by landowners, other government agencies or local governments in the vicinity of the project area that may contribute toward cumulative effects.

Reasonably Foreseeable Effects of Taking No Action

Existing operations and uses of the caverns and BSC VIC are part of the current condition; they would continue if the Responsible Official decided to take no action at this time. Under the No Action alternative, there would be no direct or cumulative effects from this project. Indirect effects, however, would occur over time.

The opportunity to secure sufficient Great American Outdoors Act funding to complete all or most of the needed priority work at once would be missed. Indirect effects would result as existing components of the structures already near, or at the end of their lifecycle continued to degrade until they no longer functioned or posed imminent threats to human safety.

The Forests' recreation program budget would continue to be strained by the costs of the deferred maintenance for the facilities. Repairing cavern and BSC VIC infrastructure components would continue to be limited by funding with priority given to the most urgent need *(i.e*., hazardous conditions, structural repairs, regulatory compliance, etc.). The repairs would be proposed, analyzed under NEPA and subject to consultation requirements of the NHPA and ESA on a case-by-case basis. Multiple disruptions in services due to closures to implement individual repair projects would be expected. Activities to provide amenities available at newer facilities in the Ozark Highlands Region or to make more efficient use of space would not be prioritized and would likely not be implemented. It is reasonable to conclude, therefore, that visitor expectations would not align with actual experiences and revenue from ticket sales would decline over time, further impacting the Forest's recreation program budget. Though not an activity that requires authorization in a NEPA decision, funding for new interpretive exhibits is less likely to be available in the future if allocated recreation program funds must be directed toward deferred maintenance.

Components contributing to the site's eligibility for listing in the NRHP that are not prioritized for repair in the short term would continue to deteriorate over time, potentially affecting the historic properties' ability to convey historic significance and eventually resulting in an adverse effect.

Ensuring air flows of significant caves remain consistent and mineral deposition processes, cultural and historic values are protected, to the extent practical, are required by Section 2c of the Federal Caves Resources Protection Act of 1988. Since the air locks designed to prevent major changes in airflow and climate patterns in the cave are at imminent risk of failure and they would not be replaced under the No Action alternative, the likelihood that detrimental effects to the cavern environment would occur would increase as these structures deteriorate further. This has potential to significantly affect the caverns' suitability for federally listed (endangered) Gray bats and other cave obligates. Changes to the cavern microclimate could cause bats to abandon its use as a hibernaculum and could have serious population-level consequences for the Gray bat in Arkansas. (USDA FS 2022b, USDA FS 2024a)

Changes to the cavern microclimate would also affect the mineral deposition processes that formed the cavern speleothems (i.e. cave formations). The rate at which these processes occur is not currently known. Increases in the size of existing speleothems,

however, are not visually apparent from year to year. In a drier atmosphere, mineral deposition rates would decrease or be halted, and the glistening appearance of speleothems would quickly become flat and dull.

Effects Not Relevant to Implementing the Proposed Action

None of the activities proposed would result in meaningful direct or indirect impacts to the resources listed below. Impacts of previously approved and implemented actions in the vicinity of the project area are no longer meaningful, and there are no planned or reasonably foreseeable activities that would overlap the project area in time or space. Therefore, no cumulative impacts on the following resources would be expected if the Proposed Action was implemented. For these reasons, the following resources were eliminated from further detailed analysis.

Vegetation

No impact on the district's vegetation resources would be anticipated if the project is implemented as described. The lands on the surface of the project area all occur within Forest Plan Management Area 2.C: *Developed Recreation Areas* and are not dedicated to growing vegetation or designated as suitable for timber management by the Forest Plan. The BSC VIC grounds are maintained through regular, routine mowing and pruning activities and hazard trees are felled as needed. A few incidental trees in the project area would be removed if necessary to facilitate surface renovation activities under the Proposed Action but would not occur at a level that would result in changes to district vegetation populations. The Proposed Action does not involve activities that would alter the structure, composition, or density of surrounding forested stands and no vegetation management activities are planned under other projects in the vicinity of the project area in the near term.

Non-native vegetation species (NNIS) growing on the grounds of the BSC VIC site would be removed during minor landscaping activities. Because numerous NNIS populations occur across the district, their removal from the project area alone is not likely to result in reduced population levels for any NNIS.

Management Indicator Species/Focal Species (MIS/Focal Species)

To comply with the 2012 planning rule the Forest Plan was amended to incorporate the list of MIS as its required list of Focal Species. For the sake of this analysis the terms are used interchangeably. An analysis documenting the potential for impact to each MIS/Focal Species selected for the Sylamore District in the Forest Plan was completed and is part of

the project planning record (USDA FS 2021). The Proposed Action focuses on existing infrastructure renovation and repairs to the BSC VIC complex and within the cavern environment. There will be no disturbance to surrounding forestland. Minor landscaping improvements would be limited to occur within existing, regularly maintained areas of the BSC VIC footprint. Thus, the Proposed Action is not expected to result in detectable changes in Forest-wide populations of MIS/Focal Species or to result in a loss of occupied habitat for these species.

Regional Forester's (Region 8) Sensitive Listed Species

An analysis documenting the potential for impact to Regional Forester's (Region 8) sensitive listed species (RFSS) is part of the project planning record (USDA FS 2022c). Three RFSS sensitive listed species are known to occur or have potential to occur in the vicinity of the project: Eastern small-footed bat, Bald eagle, and Monarch butterfly. The Proposed Action will have no direct, indirect, or cumulative impacts on Eastern-small-footed bat or Bald eagle and limited beneficial impacts for Monarch butterfly. None of these species occur indoors or in the caverns and therefore, would not be impacted by the proposed renovations.

The proposed renovations occurring on the BSC VIC grounds are localized and limited in scale. The project does not involve land use conversion or hydrologic alterations, so suitable habitat would be neither created nor destroyed for Eastern small-footed bat or Bald eagle. Monarch butterflies are known to occur within the above ground portion of the project area, but most of the project area does not contain ideal habitat and individuals are in low densities. Minor landscaping activities present opportunities to incorporate native pollinator habitat and increase host plant availability, therefore, beneficial impacts to individual Monarch butterflies could occur, but these impacts would not be likely to measurably impact populations of this species. The remaining RFSS were eliminated from further consideration; a determination of no impact was made for the eliminated species.

Aquatic Communities

Blanchard Springs Caverns contain a high diversity of species that range from cave-obligate species to those that are only incidentally found in caves. Numerous species are found in the streams or in the many rimstone pools in the cave. While a dust abatement design feature has been incorporated into this project, dust or other debris could incidentally contact either the stream or the rimstone pools. Overall, design features of the Proposed Action ensure the risk of impacts to the aquatic ecosystem of the caverns would remain low. Forest Service staff monitoring the construction would be on-site and a Forest Service wildlife biologist would be available to advise on how to address any unexpected

events that may impact aquatic features. The project would not threaten any of the aquatic species that live in the cave or be expected to substantially alter their habitat.

Lampenflora such as algae are not naturally occurring organisms in the deep interior of the cave or on its formations, so it is manually removed every other month as part of routine maintenance activities with a dilute solution of bleach (*i.e.*, sodium hypochlorite) except on the Discovery trail route during the hibernating season for endangered bats. Light Emitting Diode (LED) lamps, which give off less heat-energy than incandescent lamps and are available in select color ranges, would replace the existing incandescent lighting under the Proposed Action. With other control methods including programmable lighting, LED lamps are expected to reduce the rate of lampenflora production (Havlena et. al. 2021, Piano et. al 2021). Subsequently, the frequency of maintenance activities and quantity of bleach (i.e., sodium hypochlorite) solution used to remove algae from formations would be reduced.

Migratory Bird Treaty Act

The Proposed Action does not involve activities that would affect migratory birds or their habitats. Proposed renovations and landscaping are limited in size and scale and are not likely to result in take of migratory birds. During the active season, nests of migratory birds, if present, would be identified during required visual inspections for roosting bats prior to any tree felling within the project area. Unless the tree to be felled posed a threat the human health and safety, felling could be delayed until after bird nesting is complete.

Air Quality

No impacts to air quality are expected. National Air Ambient Air Quality standards (NAAQs) are currently being met for the airsheds over the Sylamore Ranger District. The Proposed Action does not involve any activities that would release particulate matter or affect the existing levels of NAAQs at the local or regional scales. Within the caverns, design features are in place to ensure fumes from construction equipment are not released into the caverns' atmosphere. Since the release of the November 2024 version of this document, it has been determined that replacement or new railing assembly will not require welding or soldering.

Geology

Consideration of impacts to geologic resources is documented in the project record (USDA FS 2022d). The Proposed Action does not involve changing the function or the existing locations of infrastructure components, developing any other areas of the caverns where no man-made components currently exist or altering any subterranean formation, pool, stream, or fissure.

Adequate measures to protect geological resources during project implementation were incorporated into the project design. Design features preventing the potential for inadvertent contamination mirror those currently observed and include 1) no rock or other natural material from the surface would be utilized to complete the proposed activities; 2) no food, drink (other than water), gum or tobacco products would be brought into the caverns, and 3) no expectorating, defecating or urinating would be permitted in the caverns.

Forest Service monitors would ensure formations and cavern walls would not be touched by bare skin, formations would not be broken during any removal or installation activity, underground streams and pools would not be entered, new and replacement handrails would only be installed on existing man-made structures; replacement lighting fixtures would be in the same locations as those removed to the extent practicable and would not be affixed to cavern formations (*i.e.*, speleothems), undeveloped areas of the caverns would not be entered, and no construction debris would be left on site.

Assembly of replacement fixtures and handrails not requiring welding or soldering would occur in an area outside an air lock. This would reduce the potential for small components such as screws or bolts from being lost in the cavern. If any replacement fixtures require welding or soldering, they would be assembled outside the cave and brought into the cave for installation to prevent fumes from accumulating in the cavern. Staging equipment would be restricted to the parking lot or existing roads, and a design feature is in place to ensure trenching activities on the surface do not lead to sediment deposition into the cavern environment.

Once installed, the replacement air locks and doors would be expected to protect the cavern microclimate for up to five decades. Indirectly, though personnel currently only access the cavern floor in designated locations to change light bulbs or remove algae from formations as needed, the frequency with which those activities, and subsequently, the risk of accidental damage to formations, would be less if the Proposed Action was implemented than it would if no action is taken.

Water Quality and Hydrology

No impacts to water quality or hydrology would be expected if the Proposed Action is implemented or no action is taken. The project does not involve any modifications to floodplains or wetlands or any actions that would affect floodplain or wetland function. The project does not involve altering any surface or subterranean stream or any activities that would affect the flow rate of Blanchard Springs or Blanchard Springs Creek which feeds Mirror Lake.

Design features to minimize impacts to geologic resources would also serve to minimize impacts to water quality within and originating from the caverns (*i.e.*, Blanchard Spring, Blanchard Spring Creek, and Mirror Lake). The project does not involve excavating cavern soil, so no increases in sediment into the spring would result. Water produced during renovation activities in the caverns would be collected and removed from the subterranean environment, further ensuring waters within the cavern are not contaminated. Forest Plan standards for Karst Management Zones ensured previously approved surface activities which overlapped the project area did not result in non-point source pollution entering the caverns.

Transportation System

No impact to the district's transportation system would occur under the Proposed Action or the No Action alternative. Forest Service Road 1110A provides public access to the BSC VIC parking area but does not access the recreation complex's campgrounds or day use areas. The Proposed Action does not involve changes to the length, location, Maintenance Level or Motor Vehicle Use designations of any Forest Service Road; neither does it involve changes to roads under any other jurisdiction or involve installation of new barriers on any road. The BSC VIC and Blanchard Springs Caverns would be temporarily closed as necessary to protect public safety during renovation activities; the existing gate on Forest Service Road 1110A would also be closed during those periods. Periodic closure of this road already occurs when the BSC VIC facilities are closed to the public (i.e., inclement weather, power or water system outages, outside regular business hours, elevator repair, government shutdowns, etc.), therefore, there would be no change from the current condition.

Civil Rights

The Proposed Action would provide for continued equitable access for current and future generations to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship and engage in cultural practices.

The project would not lead to increased disparity in health, exposure to environmental pollution or vulnerability to natural hazards for populations at risk in Stone County, AR. Neither would it result in conditions that would contribute to chronic illnesses, increase community isolation or cause barriers to cultural or religious protections.

The Proposed Action does not involve changing the existing uses of Blanchard Springs Caverns or of the BSC VIC. Neither does it 1) introduce new or increase existing fees; 2) prevent use of the facilities by any group; 3) involve activities that would be expected to have disproportionate effects to minority or low-income groups; 4) involve construction of

new infrastructure in previously undisturbed or previously unexcavated areas or permanent removal of existing facilities, or 5) result in a significant social or civil rights impact on employees or customers.

Local Economies

The BSC VIC and the cavern tours are one of many attractions that draw visitors and those seeking outdoor recreation opportunities to the Sylamore District. The communities of Mountain View and Fifty-Six, Arkansas are closest in proximity to the Sylamore District boundary. The planned repair and renovation work would not be expected to have a meaningful direct economic impact on these local communities, because it would not result in changes to unemployment rates or median incomes of local populations. Regardless of whether no action is taken or the Proposed Action is selected for implementation, no changes to local or regional land uses or the function or purpose of the BSC VIC and caverns infrastructure would occur. It would, therefore, be expected that at a minimum, any indirect, current economic benefit to the local community due to those operations would continue to be provided. The Forest Service is not aware of any existing or planned developments in or around Stone County dependent upon completion of this project. Therefore, neither allowing the current condition to continue nor implementing the proposed action would be expected to result in induced economic growth of local communities.

Summary of Reasonable and Foreseeable Effects Relevant to Implementation of the Proposed Action

Effects of repairing or replacing man-made components of the BSC VIC and the Dripstone and Discovery cavern trail routes are relevant to historic properties and cultural resources, the recreation experience, and federally listed species and species proposed for federal listing.

Historic Properties and Cultural Resources

A historic property (or historic resource) is defined in the National Historic Preservation Act (NHPA) [54 U.S.C. § 3008308] as any “prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on, the National Register of Historic Places, including artifacts, records, and material remains related to such a property or resource”. Section 106 of the NHPA [36 Code of Federal Regulations (CFR) 800—*Protection of Historic Properties*] lays out the process federal agencies must follow to take into consideration the effects of their activities on historic properties.

Blanchard Springs Caverns had been previously identified individually as an historic property eligible for listing in the National Register of Historic Places (USDA FS 2015). A

historic architectural survey completed in 2020 (USDA FS 2020) identified the BSC VIC complex, the Dripstone Cave and tunnel with terminal, and the Discovery Trail Cave and tunnel with terminal as contributing to a historic district eligible for listing in the National Register of Historic Places (NRHP).

For the purposes of the NHPA Section 106 consultation process and this analysis, the Forest Service has defined the Area of Potential Effect (APE) to be approximately 69 acres in size. The APE encompasses those activities which may alter the integrity or character of the BSC VIC and BSC which are historic properties eligible for listing in the National Register of Historic Places. The APE includes the above ground components of the BSC VIC and the below ground components of the BSC. The Forest has defined a Traditional Cultural Property (TCP) (5,700 acres) associated with the BSC landscape that overlaps with this project's defined APE of 69 acres but is not used to define the APE because the project will not alter the integrity or character of the TCP as an eligible historic property of religious and cultural significance. The APE has been surveyed for historic properties that could be affected by the project, in accordance with the requirements of Section 106 of the National Historic Preservation Act (NHPA; Public Law 89-665; 54 U.S.C. 300101 et seq.).

Regulations for listing a property on the National Register of Historic Places (NRHP) were developed by the U.S. Department of the Interior and are found in 36 CFR 60. To be considered eligible for listing, the age, integrity and significance are examined to determine if it is old enough (*i.e*., age—generally at least 50 years old), if it still looks much the way it did in the past (*i.e*., integrity), and if it is associated with events, activities or developments that were important in the past (*i.e*., significance). Additionally, a property must meet the NRHPs criteria for evaluation:

- Criterion A: association with an event(s) that made a significant contribution to the broad pattern of history
- Criterion B: association with a historically significant person
- Criterion C: embodiment of the distinctive characteristics of a period, construction technique, or type; representing the work of a master; possessing high artistic value; or representing a significant and distinguishable entity whose components may lack individual distinction, and
- Criterion D: having yielded or having the potential to yield information significant to prehistory or history.

The criterion leading to Blanchard Springs Caverns and VIC Complex's eligibility for listing on the NRHP are Criterion A and Criterion C. Eligibility under Criterion A relates to significance in the areas of cave exploration, planning and development, conservation, and

entertainment/recreation, and eligibility under Criterion C relates to significance in the areas of architecture, landscape architecture, and planning and development.

National Forests are carved out of ancestral lands of Native American Indian people. The area around Blanchard Springs Caverns has been occupied for thousands of years by Native Americans. The earliest historic records of Europeans in Arkansas are of the Spanish under Fernando Desoto in the 1540s. The French documented Tribal occupation of this area in the late 1700s. By the time of the Indian Removal Action of 1830, both European settlers and people of many Tribal Nations called the area home. The historical and spiritual connections to the land for Tribal Nations have not been extinguished despite changes in title. Blanchard Springs Caverns have been identified as a sacred site by Federally Recognized Tribal Nations.

The Forest Service began planning the development of Blanchard Springs Caverns in the early 1960s. As part of that development, and to protect the water quality of the Caverns from potential non-point source pollution, the Agency attempted to purchase private lands in the watershed above the Caverns. However, not all affected landowners accepted the offers that were made. Ultimately, the Agency seized their properties and forced them to leave their homesteads and family cemeteries. Many of those displaced by the seizure remained in surrounding communities where their families have continued to live to the present day. The settler community maintains its spiritual, cultural and community identity with the area and continues to use and visit it.

NHPA Section 106 Consultation History to Date

In 2015, the Ozark-St. Francis National Forests (the Forest) began planning for the modernization and updates of the existing infrastructure of the BSC VIC and Caverns when an archaeological survey of the Caverns was completed (USDA FS 2015). A determination that the undertaking may have an adverse effect to historic properties was made, and the National Historic Preservation Act Section 106 consultation process was initiated for this undertaking when that survey was shared with Federally Recognized Tribal Nations, the State Historic Preservation Officer (SHPO) with the Arkansas Heritage Preservation Program (AHPP), and the State Archeologist with the Arkansas Archeological Survey.

Between 2015 and 2023, the Forest contracted engineering firms to develop designs. On August 31, 2020, Tribal Nations, the aforementioned state agencies and others were provided information summarizing the activities proposed and initiating the National Environmental Policy Act (NEPA) scoping process. Tribal Nations were invited for site visits and to participate in developing new interpretive material for the BSC VIC in the NEPA process scoping letter. The NEPA process scoping letter also disclosed that the proposed

action would be refined based on findings outlined in an historic structural survey and evaluation that was underway.

The historic architect's survey and evaluation was completed in December of 2020. A determination that the undertaking would have an adverse effect on historic properties per CFR 800.5 (USDA FS 2020) was made because the proposed activities would directly or indirectly alter characteristics of a historic property that qualify it for inclusion on the NRHP. The alterations involve removal and replacement of original materials that have degraded, do not meet current ICC code requirements, ABAAS requirements, National Fire Protection Association Code requirements or Forest Service Trail Accessibility Guidelines, or do not support current technologies or communication needs. The location of some functional areas within the BSC VIC would be changed to improve operational efficiency and visitor use. An adverse effect on a historic property does not necessarily equate to a significant impact under NEPA. A significant impact can be mitigated to less than significant under NEPA through fulfilling the requirements of the NHPA Section 106 process that includes documenting agreed-upon stipulations to avoid, minimize or mitigate adverse effects to historic properties in a Memorandum of Agreement (MOA).

The Forests followed on December 20, 2020, with invitations to continue the NHPA Section 106 consultation initiated in 2015 to Tribal Nations, the SHPO, the State Archeologist, the Advisory Council on Historic Preservation (ACHP), and the Stone County Historical Society. At this time, a cultural resources survey was provided for review, and the Forests determined that the BSC VIC was eligible for the National Register of Historic Places (NRHP) as a Historic District and that the proposed renovation project may cause adverse effects. On February 16, 2021, the SHPO concurred with the Forests' determination that the BSC VIC is eligible for the NRHP and with the finding of adverse effect. Development of a MOA outlining stipulations to minimize or mitigate adverse effects to historic properties began.

In September of 2021, the Forests invited the Tribal Nations, the ACHP, the SHPO, the State Archaeologist and the Stone County Historical Society to continue consultation on the development of a NHPA Section 106 MOA and review a Draft MOA and a table of contributing historic elements. Between October 2020 and February 2022, multiple meetings, including five meetings with one Tribal Nation and three meetings with the ACHP and SHPO were convened to discuss the project's effects on historic properties and cultural values as well as potential measures to minimize or mitigate adverse impacts.

A second draft version of the MOA was provided to consulting partners for review and comment on September 2, 2022. The ACHP provided extensive edits and comments on that document in October of 2022. The SHPO also reviewed the MOA in December of 2022

and concurred with the comments ACHP had provided. ACHP's edits and comments were reviewed, incorporated or addressed and a meeting with ACHP was held in January of 2023. Multiple meetings were also held between May of 2022 and May of 2023 with ten Tribal partners related to the BSC Facilities Renovation project.

In 2023, a 5,700-acre area overlapping the project area was identified as a Traditional Cultural Property (TCP) which has importance in the oral histories, cultural traditions and cultural identities of two Tribal Nations who lived in or used the area, and of the settler community. The area defined for the TCP overlaps the APE for the renovation project. Traditional Cultural Properties can be eligible for listing in the NRHP because of their association with cultural practices or beliefs of a living community (Tribal Nations or other communities) that, (a) are rooted in that community's history, and (b) are important in maintaining and continuing cultural identity of the community. Traditional cultural properties that are listed in or eligible for listing in the NRHP are afforded the same protection as other types of historic properties. The Forest Service conducted an evaluation to determine the eligibility of the area for listing on the National Register of Historic Places as a historic property of religious and cultural significance and concluded that the area met criteria for eligibility for listing as a TCP for the two Tribal Nations and as a TCP for the settler community. The SHPO provided concurrence on that determination on May 13, 2025 (AHPP #113683).

In October of 2024 a revised draft of the MOA was sent to consulting partners for comment. Consulting partners at that time consisted of Federally Recognized Tribal Nations previously invited to consult on this undertaking and a Tribal Nation that had recently notified the Forest Heritage Program Manager of interest in projects in Stone County, as well as ACHP and SHPO, and the Stone County Historical Society. Included in the consultation package with the revised draft MOA was a draft of the TCP report.

The October 2024 draft MOA was made available to the public by posting on the Forests' external website. Comments received from consulting partners were considered by the Responsible Official after which edits to the MOA were made. The edited document was provided to consulting partners on May 2, 2025. The final executed MOA has been incorporated into this EA and DN/FONSI as Appendix 5. The TCP report contains information that is protected by statute and therefore will not be made available for public review and comment.

<u>Summary of Effects</u>

Modifications to historic properties can compromise the property's historic integrity (i.e., ability to convey its significance) to such a degree that it does not retain a sufficient level to be eligible for listing in the NRHP. Within an historic district, most of the properties

pertaining to the district's period of significance must have integrity, including integrity of the layout arrangement of properties within the district.

Proposed repairs and upgrades to the BSC VIC and infrastructure of the Dripstone and Discovery tour routes will constitute an adverse effect as repairs will permanently alter the historical context on which its significance is partially derived. It is anticipated that applying the US DOI standards and guidelines for preservation and rehabilitation and other stipulations outlined in the MOA may mitigate adverse effects of this undertaking.

To date, formal consultation with Tribal Nations and other consulting partners has resulted in the development of measures to minimize or mitigate adverse effects which are outlined in detail in the MOA (Appendix 5); these measures have been incorporated into the Proposed Action as design features (*i.e.*, requirements for implementation). Adverse effects to the religious and cultural significance of the sacred site were identified through the NHPA Section 106 consultation as disturbance of cave stone, noise that disturbs the peace and tranquility of the property and impacts to natural cave features from lighting.

Many culturally significant or religious areas for Tribal Nations are important due to their serene and tranquil qualities. Increased noise and activity can disrupt this feeling of peace found in them. Design features to reduce noise and dust intrusions include use of bulkhead curtains and monitoring decibel levels within the caverns. These design features were incorporated into the November 2024 draft Environmental Assessment and the October 2024 draft of the MOA. The effects of noise and dust intrusions within the caverns would be transient in nature, lasting until the work below ground was completed; therefore, these effects would not permanently affect the overall setting, feeling and association of the space.

Displacement of cavern stone would be required to remove unstable overhead rock at the entry tunnel. Some cavern stone would be used for masonry repairs that may be needed. Areas from which rock may be collected are limited to two locations where cavern staff would stack rock for contractors to use for masonry repairs. Cavern stone would not be removed from the cavern and outside organic materials from the surface would not be introduced into the cavern environment. Monitors would ensure cavern stone would not be touched by bare hands. Any replacement lighting fixtures that cannot be installed in the exact location as the fixture to be removed without damage to the surrounding cavern stone would be placed within two feet of the original fixture. The microclimate of the caverns would be protected through replacement of the existing air lock structures. This would ensure the conditions that maintain the integrity of existing formations and contribute toward the development of speleothems are stained over the long term.

The LED lighting proposed for installation would reduce the rate of growth of algae on cavern rock when compared to the current condition; the lighting would be directed to illuminate pathways for safety and the cavern formations being interpreted. The fixtures would require less frequent maintenance than the lighting fixtures currently in place and would, therefore, effectively reduce the frequency with which personnel would need to access areas off the concrete trail routes.

The project does not involve expansion or permit exploration beyond the areas that are developed. Archeological monitors will be available on site during the work and a Tribal monitor could also be present if interest exists and processes have been established to address unanticipated effects to resources and Native American Graves and Repatriation Act discoveries during implementation should they occur. All contractors and personnel who would work on this project within the BSC VIC and caverns must complete pre-work training regarding cultural resources. Development of interpretive materials and exhibits to include Tribal and local histories at the BSC VIC would also serve to mitigate or minimize adverse effects.

Implementation of the project would ensure the historic district's characteristics can continue to convey their significance and contribute to the property's eligibility for listing. The project would also ensure access can continue to be provided safely within the caverns for current and future generations. Other effects for historic properties and cultural resources relevant to implementing this project are expected with the development of new educational and interpretive materials, programs and exhibits. Visitors would be exposed to more accurate information regarding the history of the caverns and the people who have occupied the area.

There are no other authorized activities currently approved or likely to be approved that when considered with the effects of renovating the BSC VIC and replacing infrastructure of the Dripstone and Discovery tours would contribute to a cumulative impact to this resource. Neither the IBAT project, nor the Walk and Roll project, if approved, would cause impacts within the cavern or involve changes to the structures on the site that would affect the historic district's eligibility for listing in the NRHP.

Recreation Experience

Because the proposed activities would not affect the public's outdoor recreation experience or result in reduced or changed opportunities for outdoor recreation on the Sylamore District, the effects analysis area for direct, indirect and cumulative impacts to the recreation experience is limited to the BSC VIC facilities, grounds, and the Dripstone and Discovery tour routes through the caverns. For the purposes of this analysis, it was assumed sufficient funding to implement all proposed activities would be received at once;

it is more likely, however, that implementation of activities tied to updating aesthetics and providing amenities would be completed as funding allows.

Since 1973, over four-million people from across the globe have safely experienced a supervised interpretive and educational tour through this subterranean cavern environment. July 7, 2023 marked the 50th anniversary of the BSC VIC opening and the first Dripstone tour given; the Discovery tour opened in 1977. Both tour routes have since been designated as National Recreation Trails (i.e., the Dripstone in 1978 and the Discovery in 2009).

Hazardous conditions have been identified along both routes, but at present, neither poses an immediate or imminent threat to human health and safety. The most serious hazard is a potential rock fall hazard along the 35-foot Cathedral Room walkway and tunnel identified in 2015 as part of a US Department of Labor Mine Safety and Health Administration (MSHA) inspection (USDOL MSHA 2015). The MSHA recommended removal of the unstable overhead rock slabs of the tunnel. To temporarily address the issue while designs for a permanent repair were developed, overbuilt timber sets and stulls (i.e., support structures) were put in place and were deemed robust enough to support the rock slabs. Designs for a permanent repair by a professional mining contractor were completed in 2020. (Golder 2020)

An agency geologist has inspected the support structures regularly since they were installed, except during the COVID-19 pandemic (2020 and 2021). The structures are showing signs of deterioration but have continued to function as designed.

Though currently serviceable, the condition of safety railing (i.e., guardrails and handrails) in some locations have degraded due to the damp environment, calcium deposition and (likely) deposition of bat droppings. The hand- and guardrails were constructed to specifications in place at the time, but current Forest Service Trail Accessibility Guidelines (USDA FS 2013d) for railing spacing and height are not currently being met in all locations.

The cavern lighting system includes 363 lamp fixtures. This system is at the end of its lifecycle (Johnson, Laschober and Associates PA 2023); several of the original lamp fixtures have failed and no longer function. Many of the remaining lamps are obsolete; some have corroded beyond a point of repair and bulbs are no longer available for others. Geological features being interpreted are not as well-lit as they once were; this negatively affects the robustness of the program and the visitor experience. Additionally, several pathway and step lights no longer function, posing a potential hazard for tripping and creating vision adjustment difficulties for some.

Current electrical code requirements are not being met, and the existing cavern electrical system presents safety hazards (Johnson, Laschober and Associates PA 2023). Some electrical components have been repaired over the years, but most of the electrical distribution equipment and wiring within the caverns is at least 50 years old and at the end of its lifecycle. Electrical panels, junction boxes and outlets are not sealed against moisture and infiltration by rodents; wiring inside panels is in poor condition and failure is expected. At least one panel occasionally catches fire, and staff have reported receiving electrical shocks when changing lamp bulbs.

Communication systems (i.e., radio, phone) within the caverns have also been affected by the humid cavern environment and have reached the end of their lifecycle. This affects the ability of staff leading tours to reliably contact the surface if a medical emergency arises and, therefore, poses a threat to human health and safety.

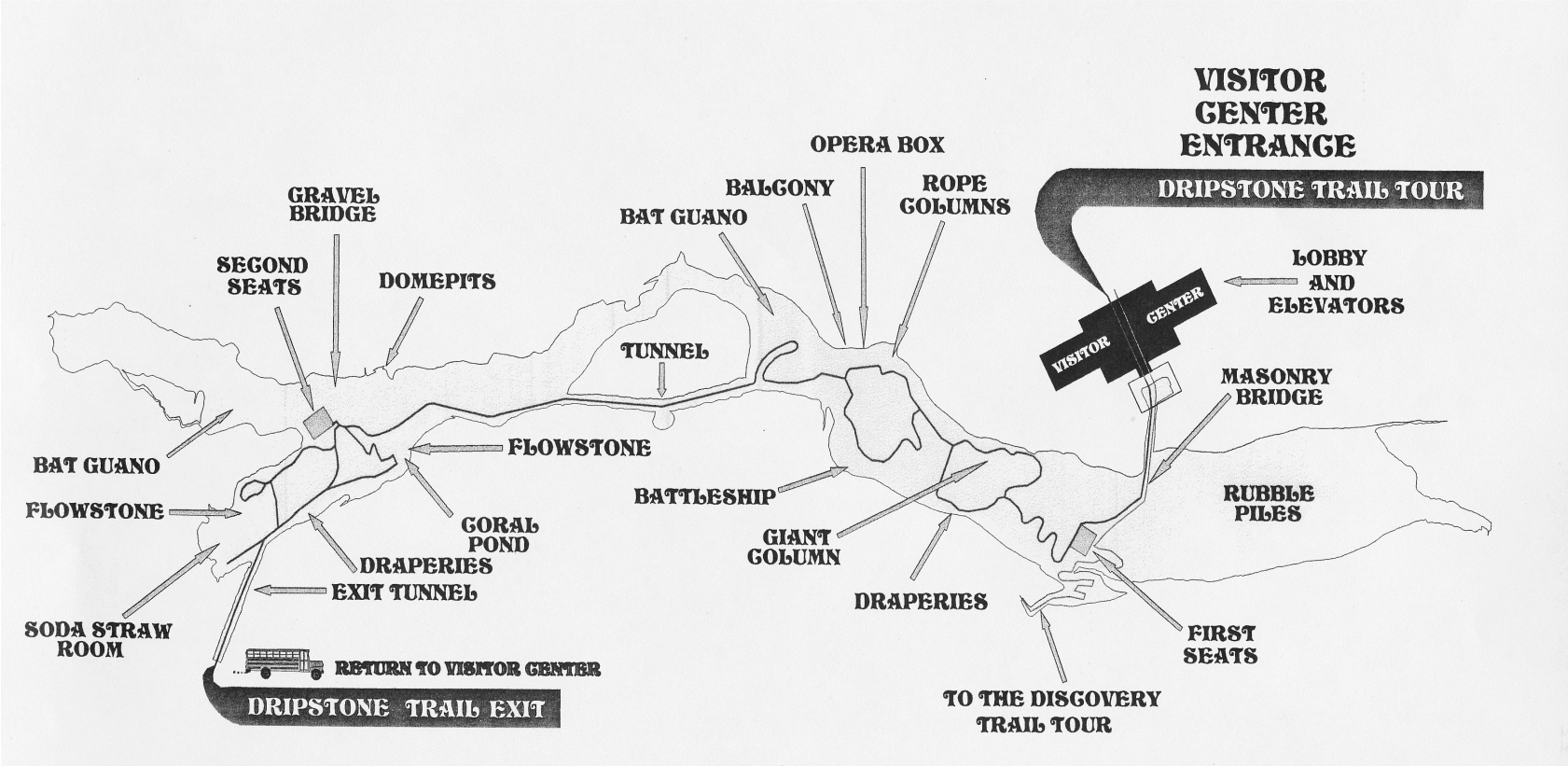

Figure 4. Drawing of the Dripstone Trail Tour Route Features (D.Goodwin)

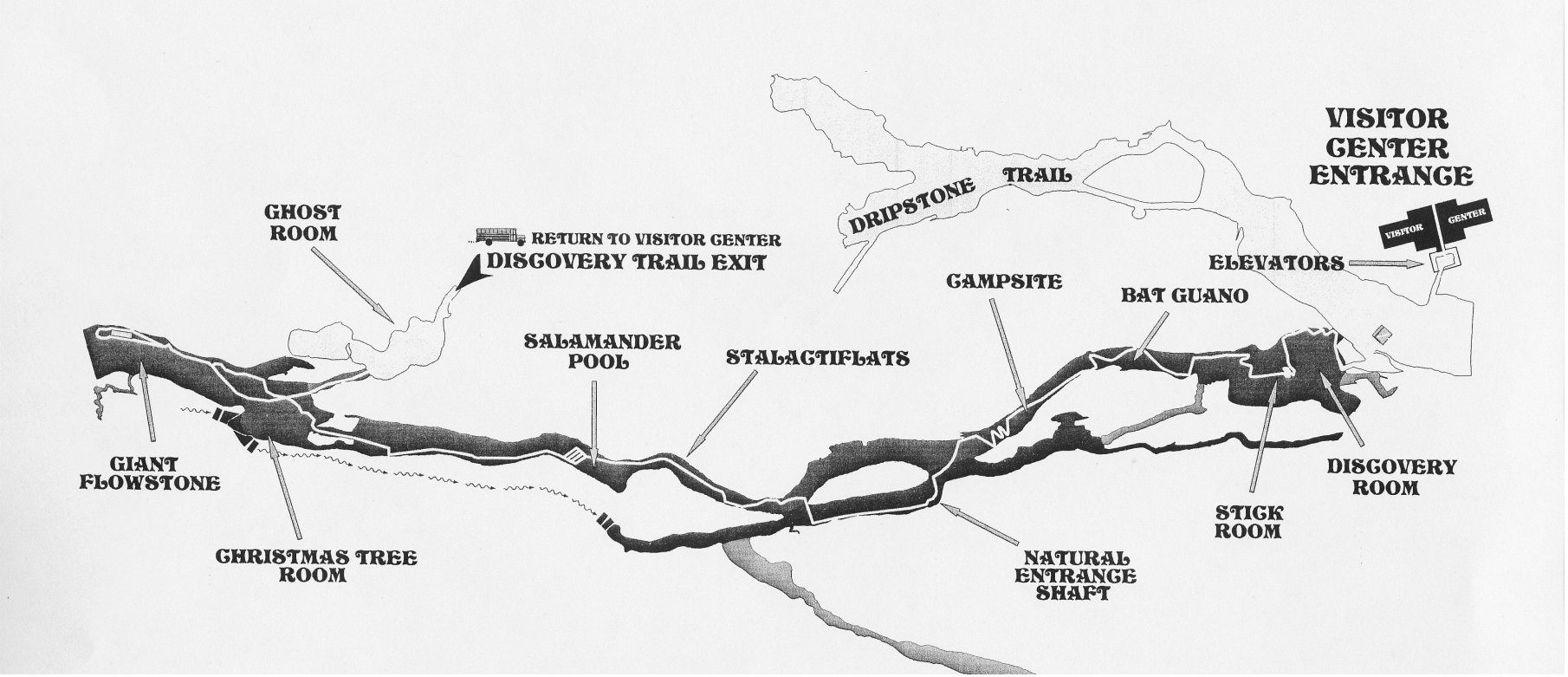

Figure 5. Drawing of the Discovery Tour Route Features (D. Goodwin)

Corrosion has compromised the integrity of the steel structure and storefront door assemblies of six sets of air lock doors and three sets of security doors installed at cavern tour entry and exit points. The efficacy of these structures in preventing fluctuations in temperature and humidity within the caverns and preventing entry into the cavern by wildlife and unauthorized individuals has been diminished and failure is expected given their current condition.

Safety concerns have also been identified for the BSC VIC. The ability to communicate is critical in the event of a medical or other emergency. Staff, visitors and local first responders contact the BSC VIC when injuries or other urgent needs requiring assistance occur on the district. Phone and radio systems and supporting electrical infrastructure components, however, are at the end of their lifecycle and no longer function reliably. Multiple phone lines have failed and cannot be repaired; calls to the facility are frequently disconnected. Besides being a safety issue, this condition also negatively affects the level of customer service the staff is currently able to provide. Existing internet capacity at the BSC VIC is limited and not always functional. While fiber optic cable was connected to the BSC VIC in 2022, the existing communications infrastructure components of the BSC VIC do not support use of the upgraded technology. Not all visitors are aware that tickets need to be purchased online in advance of arrival, and caverns' staff receive multiple requests daily to purchase them on-site. These requests cannot be accommodated when internet service is unavailable.

Requirements of current ICC requirements are not being met for all supporting mechanical, electrical, and plumbing infrastructure components. The facilities also lack a fire sprinkler system as required by current National Fire Protection Association code.

Current requirements for accessibility in the BSC VIC are not being met for restrooms (*e.g.*, public and staff) or for access to the mezzanine and administrative spaces above the lobby, for ingress and egress at the front of the main building or for seating in the auditorium space.

Existing uses of space within the facilities are not efficient and do not encourage intuitive progression of visitor traffic. Public spaces of the BSC VIC are separated by doors and open breezeways between the main building and pods. Because visitors are often unaware that the interpretive exhibits and auditorium space are in the pods, or that the pods are open to the public, these spaces are not fully utilized. The information desk sits immediately in front of the main BSC VIC doors. This set of doors serves as both the entry and exit point for the facilities. Due to the doorways' proximity to the information desk, congestion impeding ingress and egress results during periods of high visitation.

Administrative spaces do not effectively support cavern staff needs. Office equipment utilized daily today was not available when the facilities were constructed. Administrative spaces lack sufficient electrical outlets and ports to properly support the current need; staff use adapters to plug multiple devices into the limited number of existing outlets, and in some instances unplug one device to use another. The existing break area currently doubles as workspace for some cavern staff as well. Staging areas for cavern tours are not adequate, and lack of proper ventilation in one existing staging area led to a past issue with dangerous mold. Sufficient storage space is lacking for gear, supplies, maintenance equipment, interpretive exhibits, and emergency equipment. The existing first aid room in the BSC VIC also doubles as storage space.

Little has changed regarding the BSC VIC's interior appearance since the facilities opened. The flooring, counters, doors, wood paneling, many lobby furnishings and the static interpretive signs along the corridor leading to the cavern elevators are all original installations and are showing signs of wear. The auditorium is also largely unchanged.

Lighting fixtures throughout the BSC VIC are not energy efficient. Because there is no vestibule space between the exterior and the BSC VIC lobby, heated or cooled air is lost every time the doors are opened. Heat is also lost through the roof which is not insulated.

Amenities available at newer VIC facilities are not currently provided at the BSC VIC. These include but are not limited to reliable high-speed internet and cellular phone services; interactive interpretive exhibits that can be updated, changed or rotated; food vending services; a family restroom; a public meeting space and comfortable seating.

<u>Summary of Effects</u>
Direct and indirect effects of the Proposed Action on the recreation experience provided through cavern tours would include 1) reduced hazardous conditions (i.e., rock fall, electrocution and tripping and falling); 2) improved protection of the cavern environment from temperature and humidity fluctuations and unauthorized entry; 3) increased compliance with agency requirements for trails; 4) improved visibility of featured formations and pathways; 5) a renewed lifecycle of infrastructure components; 6) nominal differences in the appearance and texture of replacement railing and 7) temporary suspensions of cavern tours. There are no other approved actions that have recently been implemented or may be implemented during the expected timeframe for the renovation activities that could contribute meaningful effects to the recreation experience impacts to the cavern environment.

The Forest Service's specifications for air locks and security doors include use of materials with a desired service life expectancy of 40 to 50 years. Fiberglass doors and frames would

have a lifetime guarantee against failure due to corrosion. Proposed replacement lighting fixtures, electrical components and handrails would be designed for use in marine environments and would be expected to function for at least 25 years before replacement may be needed. All materials and components used in the cavern would be guaranteed against failure due to materials and workmanship for shorter periods than the expected service life. For example, air locks and security doors would be guaranteed against failure for 10 years. Given the anticipated levels of use they will receive, the guaranteed timeframes should be sufficient for such deficiencies to manifest and be remedied.

Within the caverns, tours would be temporarily suspended for a respective tour route (*i.e*., Dripstone or Discovery) if contracted work was being implemented on that route. The suspension of tour availability would last until the work was completed and accepted by the Forest Service. Tours may also be temporarily suspended if required for compliance with safety regulations. If funding to implement all planned activities at once was available, it is anticipated implementation could take between 12 to 24 months to complete due to timing restrictions for some activities in place to protect endangered hibernating bat species. It is more likely that based on available funding and priority, the work would be implemented through at least three severable contracts (*i.e*., contracts that are composed of several separate contracts between the agency and contractor). This may result in multiple temporary closures for a tour route over a period of up to 10 years. Some members of the public may be inconvenienced or disappointed that the tours would not be available during these periods. However, the temporary closures would be necessary to protect the safety of the public and workers.

The work at the cavern tour entrance tunnel would remove rockfall hazards; therefore, conditions would be immediately made safer through these activities. Because they would no longer have to pass beneath the timber sets and stulls, the resulting condition would also be expected to increase the confidence of the public and staff regarding the safety of the tours. Thus, it would be reasonable to conclude that the recreation experience would be improved for those who had visited during the period when the timber sets and stulls and corroded components were in place. For first time visitors, the experience would be comparable to that of when the cavern tours were first opened.

Hazards posed by corroded electrical components in the cavern would be remedied through their replacement with components that are 1) designed for a humid environment and 2) that meet current electrical code requirements. These components would be expected to provide for the safe operation of these components for at least 20 to 25 years.

The timeliness of responses to medical emergencies in the cavern would be improved when compared to the current condition because communication components would be reliable and functional.

In-kind components would be used to replace the failing or failed components. Therefore, except for the obvious removals of the timber sets and stulls and of unstable overhead rock at the entrance tunnel to the Cathedral room, the appearance of the cavern tours would not be appreciably different from the current condition or from that of the original installations.

Interpretation of the geological formations in the cavern depends on the ability to highlight and draw attention to them individually. The geological formations accentuated by programmable replacement lighting fixtures would not be changed, but these formations would be more visible than in recent years after the renovations were complete. Because lighting would be restored to all the formations originally featured, the existing interpretive program would be enhanced, and the recreation experience would be improved over the current condition. Additionally, because the replacement lighting fixtures would be rated for use in a marine environment, they would be better able to withstand the humid cavern microclimate than the existing fixtures; it is expected these effects would continue for at least 25 years before repair or replacement of the fixtures may be needed. The programmable fixtures would provide for increased operational efficiency when compared to manually turning them on and off.

Replacement lighting fixtures would utilize Light Emitting Diode (LED) bulbs, which are more readily available, more affordable, last longer and use less energy than those currently in use. Use of LED bulbs would also reduce the rate of lampenflora (algae) growth on formations (Smith and Olson 2007; Piano et.al. 2021). Given the number of light fixtures in the caverns, when compared to the no action alternative, it is anticipated that operational and deferred maintenance costs would be reduced immediately and over the long term because energy costs would be reduced, LED bulbs would be readily available and changed less often, and manual algae removal would be required less frequently.

To limit the potential for impacts to speleothems and other sensitive cavern resources, the project does not include any activities within the cavern to alter the existing Dripstone or Discovery tour concrete walkways. The proposed activities would involve replacement of components associated with use of the existing concrete trails, but neither the floor nor ground surface under and around them would be altered; therefore, the project does not violate current accessibility requirements for trail surface and slope (USDA FS 2013d). Replacement and newly installed safety railing would complement and blend with the existing style as much as possible. To the extent practicable, replacement railing would be affixed in the same locations as the original railing. The replacement railings would also be

more resistant to corrosion in the humid environment of the cavern and would therefore, ensure visitors could continue to safely experience the cavern for generations.

The Proposed Action would not impact either tour route's designation as a National Recreation Trail as none of the activities involves changes in operation, long-term availability to the public or Forest Service jurisdiction over the lands the trails occupy.

Removing and replacing infrastructure components and making some structural changes to the BSC VIC would result in direct effects to the recreation experience that include 1) decreased hazardous conditions; 2) increased capacity for fire protection; 2) increased compliance with accessibility requirements; 3) reduced water use and energy consumption; 4) changed appearances of the facility interiors and exteriors; 5) changed locations of functional areas; 6) increased efficiency in space utilization and visitor flow; 7) increased capacity and functionality of communication, technological, mechanical, electrical and plumbing systems; 8) increased amenities, and 9) temporary closure of the facilities to the public.

To the extent possible the BSC VIC facilities would continue to operate and provide customer service during the renovations. When regulations require closure, alternative arrangements to provide continued customer service would be made. Activities to renovate the BSC VIC would be implemented during the same timeframe as the cavern tour route renovations, when possible, to reduce the overall duration of the work and closures.

The BSC VIC facility renovations would provide safer, more comfortable spaces to recreate and work for the public and staff, respectively and would reduce deferred maintenance and operating costs when compared to the current condition.

Removing a stairway flanking the lobby space and replacing it with an elevator tower to the second floor and basement, would be done to comply with current accessibility requirements; the user experience for those visitors and staff who currently cannot easily access or utilize these facility components would also be improved.

The auditorium seating cannot be adapted to current Architectural Barriers Act accessibility standards (ABAAS). The seating would be permanently removed, and the space would be converted to a multi-purpose meeting space that meets ABAAS requirements. In addition to use by the district, it is expected the space will be made available for reservation by individuals, school groups and others, thus providing an amenity that is not currently available in the rural area surrounding the BSC VIC and that of limited availability within the city limits of Mountain View, Arkansas.

A set of external stairs from the second floor and a sprinkler system would be installed as required to comply with National Fire Protection Association Code requirements.

The BSC VIC roofline would likely be raised a few inches to accommodate adding insulation above the decking. Replacing lighting fixtures would be done to comply with Energy code requirements. Construction of a new main entrance vestibule and insulating the facilities' roof would reduce losses of heated and cooled air, thus improving energy efficiency. Interior temperatures would be expected to fluctuate less; overall, more comfortable spaces for visitors and staff would result. Replacement lighting fixtures and restroom fixtures would be more energy efficient and would use less water, respectively, than those currently in place.

Moving the gift shop from the lobby to one of the pods, incorporating the pod spaces with the main lobby and removing the existing information desk would open the main lobby space and improve visitor flow. These activities would also create opportunities to display interpretive exhibits more prominently and to rotate or update them periodically to enhance the interpretive and educational experiences for visitors. A new information desk would be provided in the main BSC VIC lobby, but it would be constructed in a manner and in a location that would provide Forest Service frontline employees with an opportunity to escape or shield themselves in the event of a threat.

Creation of new functional spaces, such as additional storage, a family restroom and a dedicated first aid room, would require reducing the size of some existing spaces, such as the width of the hall between the main lobby and elevator lobby and/or the size of the elevator lobby, but would not result in changes to the existing function of the facilities or any reduction in services.

The BSC VIC renovations would also provide an area for purchasing pre-packaged food and drink items, an option that is currently not available but is frequently requested by visitors. A convenience market in Fifty-Six, Arkansas does offer some food and drink items, but there are no restaurants nearby. Tour guides would continue to ensure no food or drink would be allowed in the Caverns. Providing this amenity would not preclude consideration or issue of separate special use authorizations (permits) for food truck vendors to operate in the BSC VIC parking lot or within the Blanchard Springs Recreation Area should an application for a permit be received in the future.

It is anticipated the final design would route visitors through the relocated gift shop following tours, giving them an extra opportunity to select a keepsake or apparel to remind them of the experience before departing. Construction of a separate exit from the gift shop would

also reduce visitor congestion at the main entrance and create a more logical, efficient flow for the tour experience.

When compared to the current condition, the new and replacement installations would reduce operating and deferred maintenance costs for several years. As such, allocated recreation program funds would more likely be available for application toward other needs such as development of new exhibits (i.e., interactive, static interpretive and educational) with partners, hiring additional staff, purchasing emergency or other needed equipment or other deferred maintenance projects. Given the existing interior has remained in use and its appearance has remained largely unchanged for the past 50 years and given that more-durable materials that were not available when the BSC VIC was constructed would be utilized for the renovation work, it is reasonable to conclude that these facility components and the availability of this resource for the public could also last 50 years. Overall, because these changes would support an expanded, adaptable interpretive program and provide other amenities not currently available, it is expected any changes in appearance would be favorably received by the visiting public.

The potential for loss of property, injury or death from fire would be reduced from the current condition through the installations of new electrical components, a sprinkler system and a set of exterior stairs from the second floor.

Replacement communication systems would be compatible with the fiber optic service upgrades to the facilities installed by USDA Rural Utility Services in 2022. Therefore, success in contacting the BSC VIC via phone or radio would be dramatically and immediately improved following those installations when compared to the current condition. The upgrades would improve the experience of those calling the BSC VIC for information or to report an emergency. Because high-speed internet service would be available after the renovations, the experience for visitors wishing to use their wireless devices to purchase tickets or for other purposes would be improved when compared to the current condition. The availability of reliable internet service would also be beneficial to staff as most administrative tasks must be completed online.

The administrative spaces of the BSC VIC would continue to be upstairs and out of view from the public but planned renovations would change how those spaces appear and are utilized. Increased electrical outlets and ports for equipment that meet current code requirements and administrative needs would be provided to support current and anticipated levels of administrative use, improving working conditions for caverns' staff and reducing the potential for an electrical fire. The proposed renovations would also improve the quality of working spaces for staff through the creation of separate break and

workspaces, improvement of tour staging areas and improvement of office spaces for managers.

Minor landscaping activities around the BSC VIC would include removal of non-native invasive plant species providing opportunities to incorporate native plants used by pollinators. This in turn would increase opportunities to extend educational and interpretive program materials to the BSC VIC grounds resulting in a more rounded experience for visitors and their families.

The district is not aware of any other planned activities overlapping the project area that would yield meaningful effects on the recreation experience. No vegetation management activities are currently planned under the IBAT project that would be visible from the BSC VIC grounds. While it would provide an alternate access option to the facilities from the Blanchard Springs Recreation Area, the planned construction of a trail connecting the recreation complex campground and the BSC VIC parking lot under the Walk and Roll Trail Management Project would not likely be implemented before the renovations were completed.

Federally Listed Threatened and Endangered Species and Species Proposed for Federal Listing (TEPs)

With respect to the analysis area for effects to TEPs, above ground, the analysis area involves approximately 60 total NFS acres (USFWS 2022). This area encompasses all components of BSC VIC facilities and grounds with associated utility corridors, and a narrow corridor between a developed recreation area water storage tank. Within the cavern, the Ozark-St. Francis National Forests defined the project area as all man-made components of the cavern trail system and areas to be designated where cave rock may be collected for masonry repairs. However, the US Fish and Wildlife Service (USFWS) defines the underground portion of the action area as all areas within BSC. Due to the complex formation of BSC, a comprehensive map of BSC has never been produced. The underground portion of the action area is further broken out by the upper formation and lower formations of BSC. Activities are also discussed by the trail system. The upper formation of BSC contains the Dripstone Trail and a very short section of the Discovery Trail before it descends into the lower formation of BSC. The lower formation of BSC contains the remainder of the Discovery Trail.

Forest Service Manual (FSM) Section 2672.41 requires a biological evaluation (BE) and/or biological assessment (BA) for all Forest Service planned, funded, executed, or permitted programs and activities. The objectives of a BE/BA are to: 1) ensure that Forest Service actions do not contribute to loss of viability of any native or desired non-native species or

contribute to trends toward federal listing, 2) comply with the requirements of the Endangered Species Act (ESA) so that federal agencies do not jeopardize or adversely modify critical habitat (as defined in ESA) of federally listed species, and 3) provide a process and standard to ensure that threatened, endangered, proposed, and sensitive species receive full consideration in the decision-making process.

Within the analysis area, three federally listed endangered bat species (*i.e*., Gray bat, Indiana bat, Northern long-eared bat) and one bat species proposed for federal listing (*i.e*., Tricolored bat) are either known to occur or have potential to occur.

Blanchard Springs Caverns is a Gray bat hibernaculum. Currently, there is no designated critical habitat and no proposed critical habitat as defined by the Endangered Species Act (ESA) on the Sylamore District.

Summary of Effect Determinations

The renovation project, which includes the above ground and below ground portions, is estimated to take 12 to 24 months to complete, dependent on available funding. Project delays could extend the timeframe beyond the estimate. Effects analyzed for TEPs species were based on these estimated timeframes for the renovation project.

A Biological Evaluation (BE, USDA FS 2022c) was completed for the Blanchard Springs Caverns (BSC) Facilities Renovation Project; it considered TEPs due to either their known presence within the project area or potential to occur within the project area due to the species' known distribution and habitat characteristics. TEPs were examined in greater detail in the Biological Assessment (USDA FS 2022b) which was submitted to the US Fish and Wildlife Service (USFWS) for consultation on TEPs on April 5, 2022. The USFWS concurred with the OSFNF's determination that the Proposed Action *may affect but is not likely to adversely affect* Indiana bat and Northern long-eared bat, *may affect,* [is] *likely to adversely affect the Gray bat* and *no jeopardy* for Tricolored bat via letter dated May 9, 2022.

Formal consultation was initiated with the USFWS to determine adverse effects on listed species from the Proposed Action. The USFWS issued a Biological Opinion (USDOI FWS 2022) addressing the *may affect, likely to adversely affect* determination for the Gray bat dated August 5, 2022, signed by Deputy Field Supervisor Melvin Tobin.

Formal consultation was re-initiated with the USFWS to determine adverse effects on Gray bats and Tricolored bats and an updated BA was sent to the USFWS on January 12, 2024. An Amended Biological Opinion from the USFWS was sent to the OSFNF on February 29, 2024.

Table 1 summarizes the updated determination of effect to the three federally listed species and one proposed species known to occur or with potential to occur in the analysis area.

Table 1. Determinations of Effect for TEP Species Known to Occur or with Potential to Occur in the Project Area

Taxon	Scientific Name	Common Name	Status	Determination Effect
Mammal	*Myotis grisescens*	Gray Bat	Endangered	May affect, likely to adversely affect
Mammal	*Myotis sodalis*	Indiana Bat	Endangered	May affect, not likely to adversely affect
Mammal	*Myotis septentrionalis*	Northern Long-eared Bat	Endangered	May affect, not likely to adversely affect
Mammal	*Perimyotis subflavus*	Tricolored bat	Proposed Endangered	No Jeopardy*

*Should the Tricolored bat become listed as endangered prior to implementation of the proposed action, then the Forest has determined that this proposed action **may affect, and is likely to adversely affect** this species.

Gray Bat (Myotis grisescens)
Direct and indirect effects to gray bats include light, noise or vibrations from renovation activities in the caverns, causing disturbance to roosting or hibernating bats. Cavern renovations in the Proposed Action would be scheduled so that they meet compliance with timing restrictions to minimize direct and indirect effects to gray bats. Little to no effects to Gray bats are expected during the air lock renovations or VIC building renovation. Bats disturbed during the active season would be expected to relocate and recover under normal circumstances. The Proposed Action is not expected to have cumulative negative impacts or to adversely affect Gray bats at the population level or reduce future use of Blanchard Springs Cavern. The duration of the direct and indirect effects to Gray bats is expected to occur until the renovation project within the caverns is completed.

Indiana Bat (Myotis sodalis)
Indiana bats are not likely to be found in Blanchard Springs Caverns, and if present they would be in low numbers. Direct and indirect effects to Indiana bats would be construction that occurs at the exits during the active season, which may cause noise to the outside environment and could potentially disturb individuals if present within the vicinity. The noise may cause individuals to fly away from their day roost but is not likely to adversely affect Indiana bats. Direct and indirect effects to Indiana bats are the inadvertent disturbance or

loss of individuals if they are present during project activities around the VIC during the building renovations, landscaping, tree felling, gutter and roof replacement. Visual inspections for bats prior to work or tree felling would be conducted and places of the building where bats may be found would be blocked off after bats leave.

Implementing the activities proposed in the project area is not expected to result in cumulative impacts on this species. No land use conversion or hydrologic alteration is planned with the existing and proposed renovations so habitat would not be created or destroyed for the Indiana bat. The duration of the potential direct and indirect effects to Indiana bats would last until the renovation of the BSC VIC building and caverns is completed.

Northern long-eared bat (Myotis septentrionalis)
Direct and indirect effects to Northern long-eared bats (NLEBs) include disturbance to individuals during the renovation projects occurring inside the cavern; however, negative effects are unlikely due to their lack of presence in the project area and timing restrictions for cavern renovations. Construction that occurs at the exits may cause noise to the outside environment and could potentially disturb individuals if present within the vicinity, but chances are low that NLEBs would be in the vicinity. The same visual inspections and avoidance measures for listed bats as noted in the previous sections apply to this species. Therefore, the renovation activities in and around the caverns are not likely to adversely affect NLEBs.

Implementing the Proposed Action is not expected to result in negative cumulative impacts on this species. No land use conversion or hydrologic alteration is planned with the BSC Facilities Renovation Project so habitat would not be created or destroyed for the Northern long-eared bat. The duration of the potential direct and indirect effects to NLEBs is expected to occur until the renovation of the BSC VIC building and caverns is completed.

Tricolored bat (Perimyotis subflavus)
Cavern renovations in the Proposed Action would be scheduled in portions; mitigation measures taken for Gray bats would overlap with Tricolored bats and result in minimal direct effects to this species. Direct effects and indirect effects to Tricolored bats are the inadvertent disturbance or loss of individual bats if they are present during project activities which cause noise around the BSC VIC building or man-made cave exits during renovations. The duration of the direct and indirect effects to Tricolored bats is expected to occur until the renovation of the BSC VIC building and caverns is completed.

For any tree cutting activity outside of the hibernation season, mitigation-overlap for other listed bat species (i.e., roost tree exit counts for tree removal within the ¼ mile

hibernaculum buffer during the active season) would result in minimal effects to this species.

Implementing the Proposed Action is not expected to result in negative cumulative impacts on this species. No land use conversion or hydrologic alteration is planned with the BSC Facilities Renovation Project; thus, habitat would not be created or destroyed for the Tricolored bat.

Finding of No Significant Impact

The Finding of No Significant Impact documents the reasons why an action, not otherwise categorically excluded, will not have a significant effect on the human environment and for which an environmental impact statement therefore will not be prepared. The Finding of No Significant Impact discussion considers all information included in the environmental assessment, including the Potentially Affected Environment, as well as documentation in the project record. Pertinent specialists have reviewed the proposal and based on their input, the Responsible Official made the following determinations with regards to the potentially affected environment and degree of effects considered for a Finding of No Significant Impact.

The significance of environmental impacts must be considered in terms of context and intensity. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human and national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. In the case of a site-specific action, significance usually depends upon the effects in the locale rather than in the world as a whole. Intensity refers to the severity or degree of impact. (40 CFR 1508.27)

Context

The affected environment for the Blanchard Springs Caverns Facilities Renovation Project includes the Visitor Information Center and the Dripstone and Discovery tour trails. These areas and the overall area of potential effect are described in detail on pages 1-2 of the above EA under Location of the Proposed Project Area. Different resource areas sometimes include additional affected areas in the Environmental Effects section depending on how effects to that resource are bound in time and space. For Recreation Experience, effects are generally confined to the location as described. For effects to Federally Listed Threatened and Endangered Species and Species Proposed for Federal Listing (TEPs), consideration may also be given to how affected bat species utilize the area directly adjacent to the Blanchard Springs complex. Finally, for Historic Properties and Cultural Resources, the APE considered under the National Historic Preservation Act is described in detail on pages 29-30 of the EA under Historic Properties and Cultural Resources. No other resource area is included in the intensity of effects discussion below as those were not analyzed in detail due to there being no meaningful direct or indirect impacts to those resources as described on pages 23-28 of the EA under Effects Not Relevant to Implementing the Proposed Action.

Intensity

The intensity of effects was considered in terms of the following ten factors:

1. Impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that, on balance, the effect will be beneficial.

Beneficial and adverse effects to Historic Properties and Cultural Resources and Threatened, Endangered Species and Species Proposed for federal listing (TEPs) will be covered below under factors 8 and 9 respectively.

For Recreation Experience, the Responsible Official has determined based on the effects disclosed on pages 34-46 of the EA, that no significant adverse effects are expected to occur due to implementation of the Proposed Action as described with the relevant design features.

Short term adverse effects on the availability of tours and access to various spaces in the visitor center will be encountered during construction. However, no impact on long-term availability of these resources is expected.

Beneficial effects include improvements to railing, lighting, electrical components, communication systems, air lock function, visitor safety and comfort, plumbing, accessibility, compliance with fire code, staff safety and comfort, visual aesthetic, interpretive displays, landscaping, and overall longevity of the caverns as a recreational destination.

2. The degree to which the proposed action affects public health or safety.

The Proposed Action specifically meets the Purpose and Need to ensure the facilities remain safe for the visiting public and staff as described in detail on pages 6-8 of the EA under *Why are facilities renovations needed*? Under the Proposed Action, the safety concerns described in the EA will be addressed, thus allowing the caverns to continue to remain open to the public and safely provide the experience visitors are accustomed to in modern recreational complexes.

3. Unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

Historic Properties and Cultural Resources will be covered below under factor 8. Other than the unique characteristics of the cavern complex itself that are already considered in the EA, no adjacent park lands, prime farmlands, wetlands, or ecologically critical areas are present. No effects to the nearby North Sylamore Creek, a wild and scenic river, are expected due to the limited area construction will occur in.

Effects to the characteristics of the caverns complex itself will be limited to include work to the tunnel leading to the underground trails which are expected to correct concerns with the fractured and loose overhead rock described on pages 7-8, 11, 34-35 and 42 of the EA and

the replacement of air lock infrastructure which will ensure protection of the caverns ideal interior temperature and humidity ranges (EA pages 26 & 33).

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The Proposed Action does not include any activities that are likely to be highly controversial. No highly controversial issues were identified through the scoping process or during the analysis.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The Proposed Action does not include any activities that are likely to be highly uncertain or involve unique or unknown risks. No issues with highly uncertain or unique or unknown risks were identified through the scoping process or during the analysis.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The Proposed Action does not include any activities that are likely to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration. No issues with precedence for future actions with significant effects or decisions in principle about future considerations were identified through the scoping process or during the analysis.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

Cumulative effects were described and considered on pages 19-21, 34-35, 40, 46, and 48-50 of the EA including the disclosure of Previously Approved and Reasonably Foreseeable Activities Overlapping or Near the Project Area that could increase the effect of activities when implemented concurrently with the Proposed Action.

The Responsible Official has determined based on the effects disclosed in the EA, that no cumulatively significant impacts are expected to occur due to implementation of the Proposed Action.

8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed, or eligible for listing, in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

Blanchard Springs Caverns is eligible for listing in the National Register of Historic Places (NRHP) as an historic property. It is also part of a Traditional Cultural Property (TCP)

eligible for listing as a historic property of religious and cultural significance. The BSC VIC complex, Dripstone Cave, and Discovery Cave trails contribute to an historic district which is also eligible for listing. Blanchard Springs Caverns has also been identified as a sacred site with religious and cultural importance to Tribal Nations. In addition, the local settler community ascribes a spiritual and cultural identity with the area. (EA pages 2, 17, 30, 32, and Appendix 5).

Effects on these resources are considered through consultation under Section 106 of the National Historic Preservation Act. That consultation process is described in the EA on pages 30-32. During that process, a determination that the Proposed Action may have an adverse effect to these resources was made due to alteration of the sites' historic features as well as the intrusion of the construction on the caverns' spiritual context (EA pages 17, 29-34, Appendix 5).

Additional design features were identified as part of a Memorandum of Agreement (MOA) between the Ozark-St. Francis National Forests, the Arkansas Heritage Preservation Program State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation (ACHP), Tribal Nations and the Stone County Historical Society. These design features act as measures to minimize or mitigate adverse effects and are outlined in the MOA and incorporated into the Proposed Action (EA page 17, Appendix 5).

The Proposed Action is also expected to have beneficial effect by providing for the development of new educational and interpretive materials, programs and exhibits, thus exposing visitors to more accurate information regarding the history of the caverns and the people who have occupied the area (EA pages 34-35).

The Responsible Official has determined that, for the Proposed Action, the fulfillment of the NHPA Section 106 process requirements and the development of the associated (MOA) minimizing or mitigating the adverse effects is expected to reduce any significant impacts to less than significant under NEPA (EA pages 31-34).

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

The project record includes biological evaluations and assessments describing effects to Threatened, Endangered, Proposed, and Candidate Species and Critical Habitat that have the potential to be affected by the Proposed Action along with the associated biological opinions received from US Fish and Wildlife Service (USFWS).

Three federally listed endangered bat species (i.e., Gray bat, Indiana bat, Northern long-eared bat) and one bat species proposed for federal listing (i.e., Tricolored bat) are either known to occur or have potential to occur in the analysis area. There is no designated

critical habitat and no proposed critical habitat as defined by the Endangered Species Act (ESA) in the project area. Summary of effects to these four affected species is included in the EA pages 46-50 under Federally Listed Threatened and Endangered Species and Species Proposed for Federal Listing (TEPs).

The USFWS concurred with the OSFNF's determination that the Proposed Action may affect but is not likely to adversely affect Indiana bat and Northern long-eared bat, may affect, [is] likely to adversely affect the Gray bat and no jeopardy for Tri-colored bat via letter dated May 9, 2022.

The USFWS Biological Opinion addresses the may affect, likely to adversely affect determination for the Gray bat. In addition, the Proposed Action is not expected to have cumulative negative impacts or adversely affect Gray bats at the population level or reduce their future use of Blanchard Springs Cavern and there are no effects beyond those analyzed and disclosed during consultation with USFWS under Section 7 of the Endangered Species Act.

10. Whether the action threatens to violate Federal, State, or local law or requirements imposed for the protection of the environment.

The action will not violate Federal, State, and local laws or requirements for the protection of the environment. Applicable laws and regulations were considered in the EA. The action is consistent with the Ozark-St. Francis National Forests Revised Land and Resource Management Plan (EA page 6, 8-12,18,29,43-44,47 and Appendix 3).

Determination

After considering the effects of the actions analyzed, in terms of context and intensity, as described above, the Responsible Official has determined that the Proposed Action will not have a significant effect on the quality of the human environment. Therefore, an environmental impact statement will not be prepared.

Decision Notice

Decision and Rationale

This Decision Notice incorporates all previous information in the Environmental Assessment and Finding of No Significant Impact (FONSI), as well as information included in the appendices and project record.

Based upon my review of the Environmental Assessment (EA) and Finding of No Significant Impact (FONSI), I have decided to authorize the activities described in the Proposed Action including:

- Renovation of the Blanchard Springs Caverns Visitor Information Center (BSC VIC)
    - New Entrance and Exits
    - New Elevator Tower and Outside Staircase
    - Installation of Sprinkler System
    - Remodeled Office Spaces
    - Remodeled Pod Spaces
    - Remodeled Bathrooms
    - Remodeled Roof, Gutters, Utilities and Other Infrastructure
    - Refreshed Landscaping
- Upgrade and Repair of Blanchard Springs Caverns Dripstone and Discovery Trail Infrastructure
    - Remodeled Lower Elevator Lobby
    - New Air locks and Reconstructed Access Tunnels
    - Upgraded Lighting, Electrical and Communication Systems
    - New and Replacement Railing

A detailed narrative description of the Proposed Action, along with required design features, is provided on pages 9-19 of the EA and Appendix 5.

The Proposed Action addresses the needed structural repairs and facility upgrades described in the purpose and need for the project including the safety concerns identified in the proposal.

The EA considered impacts that may be both beneficial and adverse through the analysis of direct, indirect, and cumulative impacts of the proposed action. The interdisciplinary team found overall beneficial effects of the project with a few minor localized negative effects and did not identify any significant adverse effects. I have

evaluated the effects of the proposed action and determined that the impacts are not significant and would be within the standards set forth by the forests' Land and Resource Management Plan and consistent with applicable environmental laws. Therefore, an environmental impact statement will not be prepared.

Public Involvement

Public involvement is described in detail in Appendix 1, Blanchard Springs Caverns Facilities Renovation Project Summary of Public Involvement up to release of the Environmental Assessment including Decision Notice and Finding of No Significant Impact.

Scoping was initiated on August 31, 2020. Twelve (12) responses were received. No issues or potential alternatives were identified in those responses. Opportunity to review and comment on the Draft Environmental Assessment was initiated by legal notice published in the newspaper of record, the Stone County Leader in Mountain View, Arkansas on November 13, 2024. Five (5) written comments were received during the designated opportunity to comment. One comment from a Tribal Nation prompted clarification of activities relevant to the construction of an elevator to access the second floor and the basement of the BSC VIC as well as other comments relevant to the NHPA consultation and were addressed through that process. None of the other comments received identified additional issues not previously considered or a need to develop additional design features.

Throughout the process, the Forest Service maintained a publicly accessible project website where relevant documents were made available, and the project has been posted to the Schedule of Proposed Actions for the Ozark-St. Francis National Forests since October 1, 2020.

A list of agencies, organizations and persons consulted regarding this proposal is also provided in the Agencies and Persons Consulted section starting on page 60 of the Environmental Assessment.

Findings Required by Other Laws and Regulations

As stated in the Finding of no Significant Impact, the Proposed Action is consistent with the Ozark-St. Francis National Forests Revised Land and Resource Management Plan. Applicable laws and regulations were considered in the EA and are listed in Appendix 3.

Administrative Review and Objection Opportunities

This decision was subject to the objection process pursuant to 36 CFR 218 Subparts A and B. A 45-day objection filing period was initiated on May 21, 2025, since timely and specific written comments were received. A letter was sent to those individuals or organizations that commented on either scoping or the draft environmental assessment. A legal notice was also posted in the newspaper of record.

Only those who submitted timely and specific written comments pursuant to §218.2 regarding the proposed project or activity during the public comment period or scoping were eligible to file an objection (§218.24(b)(6)).

Objections must have met requirements stated in 36 CFR 218.8(d) in order to be considered. Specifically, issues raised in objection must be based on previously submitted specific written comments regarding the proposed project or activity and attributed to the objector, unless the issue is based on new information that arose after the designated opportunities for comment (36 CFR 218.8(c)).

No objections were received.

Implementation Date

Timing of project decision 36 CFR 218.129(c): When no objection is filed within the objection filing period (see §§218.26 and 218.32):

(1) The reviewing officer must notify the responsible official.
(2) Approval of the proposed project or activity may occur on, but not before, the fifth business day following the end of the objection filing period.

Contact

For additional information concerning this decision, contact: Janine Book, Ozark-St. Francis Environmental Coordinator, janine.book@usda.gov, (479) 964-7282.

Signature	Date 07/31/2025

Daniel Olsen
Forest Supervisor
Ozark-St. Francis National Forests

Agencies and Persons Consulted

Federal and State Agencies

USDA Forest Service

Listed below are the names and titles of US Forest Service personnel who contributed the development and analysis of the Proposed Action.

Responsible Official

- Dan Olsen, Acting Forest Supervisor, Ozark-St. Francis National Forests

Interdisciplinary Team (current)

- Matt Anderson, Forest Fish and Wildlife Biologist, Ozark-St. Francis National Forests
- Shane Avey, Recreation Operations Specialist and Blanchard Springs Caverns Manager, Sylamore District, Ozark-St. Francis National Forests
- Amy Burt, Forest Planning Staff Officer, Ozark-St. Francis National Forests
- Jason Christy, Forest Heritage Program Manager, East Zone Archaeologist, Sylamore-St. Francis and Big Piney Districts, Ozark-St. Francis National Forests
- Robert Duggan, Forest Natural Resource Specialist, Ozark-St. Francis National Forests
- Jeremy Eubanks, Tribal Relations Specialist, Ouachita and Ozark-St. Francis National Forests
- Jan Franks, District NEPA Coordinator, Sylamore and St. Francis Districts, Ozark-St. Francis National Forests
- Idun Guenther, District Wildlife Biologist, Sylamore and St. Francis Districts, Ozark-St. Francis National Forests
- Andrew McCormick, USDA Forest Service Region 8, Sub-Regional Geologist
- Sammie McDowell, Forest Engineer, Ozark-St. Francis National Forests
- Rick Monk, Forest Hydrologist, Ozark-St. Francis National Forests

Other Forest Service Contributors (Former and Current)

- Janine Book, Forest Environmental Coordinator, Ozark-St. Francis National Forests
- Marla Collins, (former, retired) Tribal Relations Specialist, Ouachita and Ozark-St. Francis National Forests
- Paula Cote´, (former, retired) Project Manager, Region 8, Ouachita National Forest, Supervisor's Office
- David Culp, Facilities Program Manager, Forest Service Region 8 Regional Office
- Tracy Farley, (former) Forest Public Affairs Team Leader, Ozark-St. Francis National Forests
- Lexie Rue-Harris, (former, retired) Regional Tribal Relations Specialist, Forest Service Region 8, Regional Office

- Ron Hollis, (former, retired) District Ranger, Sylamore-St. Francis District, Ozark-St. Francis National Forests
- Timothy E. Jones, Ranger, Big Piney District, Ozark-St. Francis National Forests, Acting Ranger, Sylamore-St. Francis District, Ozark-St. Francis National Forests
- Kevin Goodwin, (former) District Engineering Technician, Sylamore and St. Francis Districts, Ozark-St. Francis National Forests
- Kristina Hill, (former) Forest Heritage Program Manager, Ozark St. Francis National Forests
- Tammy Hocut, (former, retired) Forest Resource Information Manager, Ozark-St. Francis National Forests
- Kathy King, (former, retired) Forest Editor, Ozark-St. Francis National Forests
- J. David Lane, Jr., PE, (former) Great American Outdoors Act Project Manager (AR, GA, KY, OK), USDA Forest Service Southern Region (R8)
- Rachel Lewis, Forest GIS Specialist, Ozark-St. Francis National Forests
- Craig McBroome, Deputy Forest Supervisor, Ozark-St. Francis National Forests
- Jim McCoy, (former) Ranger, Sylamore and St. Francis Districts, Ozark-St. Francis National Forests
- Wayna Roach, Region 8 Heritage Program Leader, USDA Forest Service Region 8 Regional Office Recreation Programs Unit
- Tina Rotenbury, Forest GIS Specialist, Supervisor's Office, Ozark-St. Francis National Forests
- Chris Shope, Regional Architect, Region 8 Regional Office
- Jim Suchland, (former, retired) District Forestry Technician (Wilderness/Trails), Sylamore District, Ozark-St. Francis National Forests
- Gregg Vickers, Forest Ecosystems Staff Officer, Ozark-St. Francis National Forests
- Ryan Washam, (former) East Zone Archeologist, Sylamore-St. Francis and Big Piney Districts, Ozark-St. Francis National Forests
- Allison Weatherly, NEPA Resource Assistant, Ozark-St. Francis National Forests
- Jonathan Wilfong, (former, retired) Great American Outdoors Act Engineering Technician (Civil), USDA Forest Service Southern Region (FS-R8-RO-Engineering Unit), Sylamore Ranger District, Ozark-St. Francis National Forests
- Lori Wood, (former) Forest Supervisor, Ozark-St. Francis National Forests
- Mary Wood, Public Affairs Staff Officer, Ozark-St. Francis and Ouachita National Forests

Other Federal and State Agencies

NEPA process notifications were sent to the following agencies. Names of the individuals for each agency to whom the notices were addressed are documented in the project planning record. Those agencies that responded in writing to at least one NEPA process notification are denoted by an asterisk (*).

Federal Agencies

- Advisory Council on Historic Preservation, Washington DC
- US Department of the Interior, US Fish and Wildlife Service (USFWS), AR Field Office, Conway, AR*
- US Department of the Interior, US Geological Survey (USGS), Little Rock, AR

State Agencies

- Arkansas Archaeological Survey, (AAS)*
- Arkansas Game and Fish Commission (AGFC)
- Arkansas Geological Survey (AGS)*
- Arkansas Department of Heritage, Arkansas Historic Preservation Program (AHPP)*
- Arkansas Department of Heritage, Arkansas Natural Heritage Commission (ANHC)
- Arkansas State Parks, Corporate Office*, Little Rock, Arkansas
- Arkansas State Parks, Ozark Folk Center, Mountain View, Arkansas

Tribal Nations

All federally recognized Tribal Nations with historic and cultural ties to Stone County were invited to participate in developing this project through the NEPA process. These Tribal Nations were also invited to consult on the Proposed Action under the consultation process outlined in Section 106 of the NHPA. The names of Tribal leaders and Tribal Historic Preservation Office personnel for each Tribal Nation are documented in the project planning record. An asterisk (*) indicates a written response to at least one NEPA process notification was received.

NHPA 106 consultation process documentation is part of the project planning record. Those communications are protected by statute and exempt from public disclosure.

- Absentee Shawnee Tribe of Indians of Oklahoma
- Caddo Nation of Oklahoma
- Cherokee Nation
- Chickasaw Nation
- Delaware Nation, Oklahoma
- Eastern Shawnee Tribe of Oklahoma
- The Osage Nation*
- Quapaw Nation
- Thlopthlocco Tribal Town
- Shawnee Tribe
- United Keetoowah Band of Cherokee Indians in Oklahoma*
- Wichita and Affiliated Tribes (Wichita, Keechi, Waco, & Tawakonie), Oklahoma

Non-government Organizations (NGOs)

NEPA process scoping notices were sent to the following NGOs. Names of the individuals for each NGO to whom the notices were addressed are documented in the project planning record. Those NGOs that provided a written response to at least one NEPA process notification are denoted by an asterisk (*).

- Eastern National*
- The Nature Conservancy of Arkansas
- Stone County Historical Society*
- Mountain View Area Chamber of Commerce
- Ozark Gateway
- Committee of 100 members (2)

Elected Officials

No written responses to either NEPA process notification were received from any elected or appointed government officials. Names of elected officials to whom NEPA process notifications were mailed are available in the project record.

- Stone County Judge
- Stone County Quorum Court members
- Arkansas State Senator, District 18
- Mayors of Mountain View and Fifty-Six, Arkansas, respectively

Individuals

A complete listing of individuals who were mailed or e-mailed NEPA process notifications for this project is part of the project planning record. The list includes individuals who have previously requested to be notified when any activities are proposed on the district or when there are activities proposed based on location or activity type. Those who were notified but did not provide a response to scoping will not be listed here. The following individuals submitted a written response.

- Michael Cartwright
- Gene Dunaway
- Kenton Higgins
- Bob Reeves
- Cynthia Snow-Kopack
- Pam and Vic Setser

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Appendices

Appendix 1: Blanchard Springs Caverns Facilities Renovation Project Summary of Public Involvement up to release of this Draft Environmental Assessment

Appendix 2: Applicable Building Design Codes and Standards for Forest Service Owned Facilities

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Appendix 1

Blanchard Springs Caverns Facilities Renovation Project Summary of Public and Tribal Engagement up to release of the Environmental Assessment including Decision Notice and Finding of No Significant Impact

The National Environmental Policy Act (NEPA) requires federal agencies to encourage and facilitate public engagement in decisions that affect the quality of the human environment. For projects such as this one, information relevant to the effects of implementing the Proposed Action is sought from the public, Tribal Nations, other state and federal agencies, local governments, and organizations to help the Responsible Official reach an informed decision.

The Schedule of Proposed Actions (SOPA) provides a list of proposals that are either being developed or are undergoing environmental analysis and for which decisions are expected to be documented in a Decision Memo, Decision Notice, or Record of Decision, pursuant to the NEPA and agency direction. The SOPA is published on the Ozark-St. Francis National Forests' website each quarter and provides contact information for those who wish to express interest in or ask questions about specific proposals. *The Blanchard Springs Caverns Facilities Renovation Project* has been on the Ozark-St. Francis National Forests' Schedule of Proposed Actions since October 1, 2020.

Scoping is an integral part of the environmental analysis process. The Council on Environmental Quality (CEQ) defines scoping as "*an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action*" (40 CFR 1501.7). Comments received through scoping, especially those submitted early in the environmental analysis process, assist the Responsible Official in making an informed decision because they can help to identify points of debate over the effect(s) of a proposed action, identify the need for mitigation or the need to develop another action alternative, and help to narrow the scope of an analysis. The scoping process continues until a decision is made.

On August 31, 2020, a scoping letter summarizing the Proposed Action for this project and a vicinity map showing the location of Blanchard Springs Caverns were posted on the Ozark-St. Francis National Forests' website. A total of 101 scoping letters with maps were also mailed or e-mailed to other federal and state agencies, Native American Tribal leaders and the respective Tribal Historic Preservation Office contacts for those Tribal Nations having interest in Stone County, state and local elected government officials, community leaders, non-government organizations, and individuals who had previously asked to be

notified when either all projects or projects involving Blanchard Springs Recreation Area were proposed. The public scoping letter has been posted to the Forests' planning webpage on https://www.fs.usda.gov/r08/ozark-stfrancis/projects/58732 since then. A listing of all who were mailed or e-mailed scoping letters, the original comments received since this project was posted to the SOPA and documentation of the Agency's consideration of those comments are part of the project's planning record.

The scoping letter requested comments on the proposal, invited collaboration to develop the proposal further, identified September 3 through October 2, 2020 as the first designated opportunity to comment and provided information on securing eligibility to file an objection under 36 CFR 218.

As of the time of the Draft Environmental Assessment's release for review and comment, a total of 12 written responses from 11 sources had been received in response to the NEPA process scoping efforts. These responses were evaluated for new information and issues relevant to the effects of the proposed activities to remove, replace, repurpose or renovate man-made components of these facilities.

Summarized, all written NEPA process scoping responses received came from four state agencies (one agency provided an initial acknowledgement of receipt and a follow-up comment), one Tribal Nation, five individuals, and one non-profit interpretive organization. Multiple comments were included in some responses. Responses included one acknowledgement of receipt with no comment or inquiry, one request to halt work and notify authorities if inadvertent discovery of artifacts or remains occurs, four supportive comments, one offer to assist with the development of interpretive material, one offer to provide information on the cavern's geology if needed, one request to consult under NHPA Section 106, one request for a copy of the BSC VIC floor plan, two requests to be kept apprised of the project's progress, one comment suggesting funding should be directed to address unmanaged recreation and maintain roads, trails and campgrounds, and one suggestion to post progress reports periodically during the renovation to keep the public informed.

No alternative-driving issues relevant to the effects of the proposed renovation activities were raised in any written comment or response received through the NEPA scoping process; neither were any issues that would warrant making a substantive iterative change to the Proposed Action identified. Those who submitted substantive written comments during the first designated opportunity to comment under the NEPA process have secured eligibility to file an objection under 36 CFR 218.

A formal 30-day designated opportunity to comment on the Draft Environmental Assessment was initiated by publication of a legal notice in the newspaper of record, the *Stone County Leader* in Mountain View, Arkansas on November 13, 2024. Within four days of its publication, the legal notice was posted to the Ozark-St. Francis National Forests planning page at https://www.fs.usda.gov/r08/ozark-stfrancis/projects/58732. Those who provided substantive written comments during this second designated opportunity to comment have secured eligibility to file an objection. Prior to finalizing a decision on this project, requirements of the NHPA Section 106 consultation process shall be fulfilled and the objection process established under 36 CFR § 218.2 shall be completed.

A total of six written responses from five sources were received during the second designated opportunity to comment (November 14 through December 13, 2024). The comments received included two supportive comments (one commenter submitted a follow-up to ensure her comment had been received), one response from a federal agency indicating there were no additional comments on the analysis, one response from a state agency indicating their intent to continue consultation on the MOA, and one comment from a Tribal Nation. Two responses acknowledging receipt without comments were also received.

The Tribal Nation comment stated that the Area of Potential Effect should be expanded, the EA was inconsistent regarding no new infrastructure in previously undisturbed areas and expressing that the project would have impacts on the environment of the TCP and thereby on their people and their cultural practices.

The Draft EA disclosed that the project would not cause barriers to cultural or religious protections (page 28). The Draft EA and October 2024 version of the MOA also outlined design features that serve to mitigate the impacts to cultural resources relevant to cavern stone, noise, and LED lighting. Discussion regarding these impacts was clarified in the finalized EA on pages 25-26, 33-34, 40 and 42.

Clarifications were added to the EA to address comments relevant to NEPA analysis. Portions of the comment relevant to the NHPA consultation process were forwarded to the Heritage Program Manager and considered as part of the development of the MOA.

The elevator tower and fire stairs proposed for this action must be installed to comply with 2021 International Existing Building Code requirements regarding alterations. These activities would remedy accessibility and fire code deficiencies. While these installations would be new infrastructure components, they would be constructed within the existing footprint of the area excavated in the 1960s for the construction of the BSC VIC. The elevator would only access the floors of the BSC VIC. It would not provide access to or extend into the cavern environment. Clarifications were made to the EA to show the area

had been previously excavated and that the new installations would not be made outside the footprint of the area that had been excavated.

Comments regarding the APE were considered and addressed through the NHPA Section 106 consultation process.

Outside the second designated opportunity to comment, the Forest received one response from a Tribal Nation's THPO indicating the project was outside that Tribal Nation's area of interest. The comment was reviewed and noted.

None of the responses received during the second designated opportunity to comment identified any new issues prompting the development of an additional action alternative or the development of additional design features or mitigations.

Appendix 2

Applicable Building Design Codes and Standards for Forest Service Owned Facilities

(Forest Service Handbook 7309.11 – Buildings and Related Facilities Handbook, Chapter – Zero Code)

International Family of Building and Related Codes. Published by the International Code Council (ICC).

International Existing Building Code (IEBC) 2021 , Chapter 9, Alterations

Americans with Disabilities Act Access Guidelines. Title 28, Code of Federal Regulations, part 36 (28 CFR part 36).

Forest Service Health and Safety Code Handbook set out in FSH 6709.11.

National Electrical Safety Code published by the Institute of Electrical and Electronics Engineers, Inc.

National Fire Codes published by the National Fire Protection Association.

Occupational Safety and Health Standards for Construction set out in Title 29, Code of Federal Regulations, Part 26 (29 CFR part 26).

Occupational Safety and Health Standards for General Industry set out in Title 29, CFR part 1910 (29 CFR part 1910).

Uniform Federal Accessibility Standards published by the General Services Administration, 1988.

Handbook on Fundamentals, Design, and Evaluation Criteria for Energy Conservation in New Buildings, Standard 90. Published by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers.

Built Environment Image Guide published by the USDA Forest Service, 2001, document number FS-710.

Appendix 3

Applicable Federal, State and Local Laws and Regulations

The activities proposed are consistent with the management goals, priorities, objectives and standards of the 2005 Revised Ozark-St. Francis National Forests Land and Resource Management Plan. The Proposed Action does not violate or threaten to violate federal, state and locals laws and regulations that include but are not limited to:

The American Indian Religious Freedom Act of 1978

The Archeological and Historic Preservation Act of 1974

The Archaeological Resources Protection Act of 1979 (ARPA)

The Architectural Barriers Act (ABA)

The Americans with Disabilities Act (ADA)

The Clean Air Act

The Clean Water Act

The Endangered Species Act (ESA)

Executive Order 13007, Indian Sacred Sites

Executive Order 14148, Initial Rescissions of Harmful Executive Orders and Actions

The Federal Caves Resources Protection Act of 1988

The Multiple Use Sustained Yield Act of 1960

The National Environmental Policy Act (NEPA)

The National Forests Management Act (NFMA)

The National Historic Preservation Act (NHPA) of 1966, as amended {16 United States Code [U.S.C.] 470}

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990

Appendix 4

Contributing Resources Toward Eligibility for Listing on the National Register of Historic Places for the Blanchard Springs Caverns Facilities (USDA FS 2020)

Blanchard Springs Caverns and the Visitor Information Center (BSC VIC) Complex were conceived as a single development; thus, for evaluation purposes, they are considered historic district or landscape. The period of significance for the BSC VIC and infrastructure of the Dripstone and Discovery tour routes is from 1960 when planning was initiated to 1977 when the Discovery Trail opened.

The overall layout, uses, plan, form and style of the structures are intact. The building was designed for maximum visitor orientation, circulations, and interpretation as well as to support administration functions. These uses have been maintained. The building was designed in the style of Modernism Architecture and still reflects those design principles. Though some alterations have been made to the setting, in part to increase ADA accessibility, the overall setting in the forest is still predominant and the caverns remain unchanged.

The BSC VIC and caverns trails retain original construction and finish materials and retain sufficient features to convey its association with the Modernism Architectural period. The BSC VIC retains workmanship of the 1970s Modernism Architecture design. The caverns have a sense of timelessness and are interpreted to associate them with exploration. Overall, the property can convey its historical significance.

Resources contributing to the historic district's eligibility for NRHP listing on the surface include the Visitor Information Center, the Exhibit Hall Pod, the Auditorium Pod, the Elevator Tower, Terminals A, B, and C, the Parking Lot, and Landscaping around the VIC. Below ground, contributing resources include Underground Man-made structures and features and natural cave features.

Character defining features refer to important elements that contribute to the significance of a property, such as its setting, style and design, materials and details, layout and distinguishing features. Character defining features for each contributing resource are as follows.

Visitor Information Center: glass window walls; steel columns; roof shape; large open interior lobby; separation of office and public spaces; linkage to exhibit hall and auditorium; wood paneling; wood trim and exposed beams and ceiling structure; interior accent orange Formica and interior wood railings; tourist corridor to elevator tower; location of doors; location of windows on south elevation; exhibits in tourist corridor; restroom configuration and finish materials; exterior wood and stone veneer finishes; flanking staircases to second

floor; second floor interior balcony overlooking lobby; original interpretive displays; central contact desk in lobby

Exhibit Hall Pod: exterior wood and stone veneer finishes; interior open space and storage space; shape of roof; two pedestrian access doors; relationship and spacing to VIC; concrete decking to VIC

Auditorium Pod: exterior wood and stone veneer finishes; interior stepped sitting area, stage, projector room; shape of roof; two pedestrian access doors

Elevator Tower: two elevator shafts; interior wood paneling; light dimming effect; stone veneer walls at lower level

Terminals A, B and C: stone columns; exposed wood beams; access walkways and ramps; hipped roof; curved driveway and curb

***Parking Lot:** size; landscaped islands and medians; relationship to VIC; curved drive in front of VIC

Landscape around VIC: pedestrian bridge; stone veneer planter boxes; front landscaped space; vehicular access to mechanical shop and gear storage spaces below the auditorium and exhibit pods; stone veneer walls; sidewalks and stairs

Underground Man-made Structures and Features: low masonry curbs; aluminum railing; *4- to 5-foot-wide paths; wider interpretation locations; seating areas; masonry curbs and paths; lighting system (location, color, effects, man-made features or rock placement to hide wiring, boxes and lights, tour guide controlled light switches); tunnels with air lock doors; man-made tunnels in the caves; explorer graffiti

***Natural Cave Features:** bat guano piles; Discovery Room; Stick Room; the Barrens; Stalactiflats; Salamander Pool; Christmas Tree Room; Cave coral or popcorn; Flowstone; Ghost Room; Natural Cave Entrance; Cathedral Room; Music Rock, Giant Column; Aragonite Crystals; Battleship Formation; Coral Room; Soda-straw Room; Coral Pond

**Please Note*: No activities affecting the parking lot or natural cave features, and no activities to alter the existing concrete path locations through the cavern are proposed for this project.

Appendix 5

Memorandum of Agreement Among the United States Forest Service, Ozark-St. Francis National Forests; Advisory Council on Historic Preservation; Arkansas State Historic Preservation Office, The Osage Nation and the Quapaw Nation Regarding the Renovation of the Blanchard Springs Caverns Visitor Information Center and Blanchard Springs Caverns on the Sylamore Ranger District of the Ozark-St. Francis National Forests, Stone County, Arkansas

MEMORANDUM OF AGREEMENT AMONG THE UNITED STATES FOREST SERVICE, OZARK-ST. FRANCIS NATIONAL FORESTS; ADVISORY COUNCIL ON HISTORIC PRESERVATION; ARKANSAS STATE HISTORIC PRESERVATION OFFICE; THE OSAGE NATION; AND THE QUAPAW NATION

REGARDING THE RENOVATION OF THE BLANCHARD SPRINGS CAVERNS VISITOR INFORMATION CENTER AND BLANCHARD SPRINGS CAVERNS ON THE SYLAMORE RANGER DISTRICT OF THE OZARK-ST. FRANCIS NATIONAL FORESTS, STONE COUNTY, ARKANSAS

WHEREAS, the Ozark-St. Francis National Forests (Forest) plans to implement the Blanchard Springs Caverns Facilities Renovation Project (undertaking) pursuant to the Great American Outdoors Act, Public Law 116-152; and

WHEREAS, the undertaking occurs in the Blanchard Springs Visitor Information Center (BSC VIC) and Blanchard Springs Caverns (hereafter referred to as BSC or Caverns) and consists of removal and replacement of life safety components (i.e., lighting, railing, and electrical), replacement of air-lock components for ecosystem health, stabilization of underground rock ceilings and supports to address hazardous conditions within the subterranean environment, and interior remodeling with upgrades to meet current code requirements including accessibility, health and safety and to provide visitor amenities and improved customer service, repurposing existing spaces to provide for more efficient use, and to support operations on the surface; and

WHEREAS, the Forest defined the undertaking's area of potential effects (APE) in accordance with 36 CFR 800.16(d) to be approximately 69 acres in size (Appendix A) and includes the potential effects on the BSC VIC and the BSC; and

WHEREAS, the Forest has conducted identification within the APE, and thoroughly recorded and documented the BSC and BSC VIC historical timeline and archived documentation digitally and at the Sylamore Ranger District Office and at the Forest Supervisor's Office; documentation includes all previous archeological studies, the *Historic Context and Evaluation for the Blanchard Springs Visitor Information Center and Underground Recreation Structures (2021)*, and the terrestrial LiDAR scans completed in partnership with the University of Arkansas Center for Advanced Spatial Technologies (CAST); and

WHEREAS, the Forest, in consultation with interested Tribes and parties, proposed to designate the BSC and Landscape as a Traditional Cultural Property (TCP) associated with several communities, including federally recognized Tribes and the Stone County settler community; and in consultation, documented the TCP in the *Blanchard Springs Caverns and Landscape Traditional Cultural Property Evaluation (2025)*; and

WHEREAS, the Forest has determined that the TCP is eligible for listing in the National Register of Historic Places (NRHP), and received concurrence on May 13, 2025; and

WHEREAS, the Forest determined part of the BSC Landscape TCP (5,700 acres) overlaps with the undertaking's APE (69 acres) and effects to the BSC Landscape TCP have been considered in the APE; and

WHEREAS, the Forest has determined the BSC (below ground caverns) is individually eligible for listing in the NRHP as a historic property of religious and cultural significance to Tribes, and the BSC VIC is also individually eligible for listing in the NRHP based on its distinctive characteristics of a time period, and the Forest has determined that both the BSC VIC and BSC are contributing properties to an eligible historic district and contributing features of the BSC Landscape TCP; and

WHEREAS, the Forest recognizes that the BSC and the landscape encompassed in the BSC Landscape TCP are sacred to Tribal Nations including The Osage Nation and the Quapaw Nation; and

WHEREAS, the Forest recognizes that the BSC is a historic property significant to the Stone County settler community, and part of the TCP that also has significance to the community; and

WHEREAS, the Forest has finalized all components of the engineering design for the BSC underground renovations at the time of this MOA's execution and the MOA's terms provide a process to phase finalization of the engineering design and assessment of affect for the VIC portion of the undertaking; and

WHEREAS, the Forest has determined that the undertaking will have an adverse effect on only the BSC and BSC VIC, and has consulted with the Arkansas State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, the regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108); and

WHEREAS, adverse effects include: (1) Physical destruction of or damage to all or part of the property; (2) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68); (3) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance; and (4) Introduction of visual, atmospheric or audible elements that diminish the integrity and religious and cultural significance of the property's features. Specifically, the activities that may alter the integrity and character of the above ground features contributing to the eligibility of the BSC VIC include interior remodeling and changes that will affect the exterior features of the structure. The activities that may alter the integrity and character of the below ground features contributing to the eligibility of the BSC include removal and replacement of existing lighting, railing, and electrical components, replacement of air-lock components, stabilization of underground rock ceilings and supports, the collection of cavern rock for masonry repairs, and noise that disturbs the peace and tranquility of the property; and

WHEREAS, the Forest consulted with the Arkansas SHPO pursuant to 36 Code of Federal Regulations (CFR) § 800, the regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108). The Forest has consulted with the Arkansas State Archeologist, associated with the Arkansas Archeological Survey (ARAS), in development of this MOA; and

WHEREAS, the Forest consulted with the Absentee-Shawnee Tribe of Indians of Oklahoma, Caddo Nation of Oklahoma, Cherokee Nation, Chickasaw Nation, Delaware Nation of Oklahoma, The Osage Nation, Quapaw Nation, Shawnee Tribe, Eastern Shawnee Tribe of Oklahoma, Thlopthlocco Tribal Town, United Keetoowah Band of Cherokee Indians in Oklahoma, and Wichita and Affiliated Tribes of Oklahoma for whom the BSC and BSC Landscape TCP have religious and cultural significance, and invited their participation as invited signatories in the development of this MOA; and

WHEREAS, The Osage Nation and the Quapaw Nation accepted the request to be invited signatories to this MOA; and

WHEREAS, the Absentee-Shawnee Tribe of Indians of Oklahoma, Caddo Nation of Oklahoma, Cherokee Nation, Chickasaw Nation, Delaware Nation of Oklahoma, Shawnee Tribe, Eastern Shawnee Tribe of Oklahoma, Thlopthlocco Tribal Town, United Keetoowah Band of Cherokee Indians in Oklahoma, and Wichita and Affiliated Tribes of Oklahoma have declined to be invited signatories; and

WHEREAS, the Forest invited the Stone County Historical Society, whose members have historical and ancestral ties to the BSC, BSC VIC, and BSC Landscape TCP, to consult regarding the effects of the undertaking on historic properties and invited them to participate as a concurring party to this MOA; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), the Forest notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified documentation, and the ACHP has chosen to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii); and

WHEREAS, the Forest met the requirements for public participation under 36 CFR 800.6 by making the information on adverse effects to eligible historic properties, including the draft MOA, available to the public with the environmental analysis conducted under NEPA, and offered an opportunity to comment; and

NOW, THEREFORE, the Forest, ACHP, Arkansas SHPO, The Osage Nation, and the Quapaw Nation agree that the undertaking shall be implemented in accordance with the following stipulations to take into account the effect of the undertaking on historic properties.

STIPULATIONS

The Forest shall ensure that the following measures are carried out prior to implementation of the undertaking**:**

I. DESIGN REQUIREMENTS AND REVIEW

A. Design Requirements

i. Caverns Underground Lighting System and Wiring Removal and Replacement

a. To the maximum extent practicable, the Forest will ensure that existing lighting systems and wiring will be replaced within the same footprint of existing lighting fixtures and components, including wiring. If the replacement cannot fit in the exact footprint, the Forest will ensure the replacement is placed within two feet of the

original, previously disturbed area that was used for original construction and is currently used for maintenance activities. The updated lighting will light the same Caverns features as the original design.

1. As was the intention of the original lighting system and wiring design, all new wiring will be concealed in the design with colored conduit that resembles the Caverns floor.

2. To guide participants and prevent trips and falls, the existing ground-based lighting system will be replaced with updated lighting, to include directional lighting at the trail level and handrails. Lighting will be replaced with programmable and adjustable light-emitting diode (LED) fixtures in the same location as well to accentuate the natural features and reduce more intrusive light at higher levels. The lighting will allow Caverns features to be viewed in a more natural state and will not illuminate the entire Caverns.

ii. Caverns Railing Replacement on Dripstone and Discovery Trails

a. The Forest will ensure that existing safety railings (handrails and/or guard rails) will be replaced in existing locations to the maximum extent practicable, while being updated to code and safety compliance requirements as needed.

b. The Forest will ensure that if any railings need to be added and/or changed to meet health and safety code requirements, they will stay within the footprint of existing manmade components.

iii. BSC VIC

a. The Forest will ensure the engineering design for the above ground BSC VIC renovations preserves to the maximum extent practicable the features that contribute to the National Register eligibility of the BSC VIC as defined in the *Historic Context and Evaluation for the Blanchard Springs Visitor Information Center and Underground Recreational Structures Report*, February 2021.

b. The Forest will:

1. Restore previously existing skylight in the BSC VIC Main Gallery; and

2. Add new and thicker insultation on interior roof surfaces to avoid external roof changes; and

3. Preserve the historical character of the second level/mezzanine area in the BSC VIC, including flanking grand stairs and aesthetic view from main lobby area.

B. Design Review

i. The Forest will provide consulting parties, excluding the ACHP, with proposed engineering design documents associated with the BSC VIC renovations. This will include the following deliverables and review timelines that begin upon receipt of documentation:

a. **30% Schematic design** – Fourteen (14) calendar day review by consulting parties. This deliverable contains a preliminary design and is less detailed than

subsequent design deliverables. In the same submittal, the Forest will provide an assessment of whether further identification is needed based on the adequacy of previous survey and nature of proposed design. The Forest will consider consulting party input received.

b. **60% Design** – Thirty (30) calendar day review by consulting parties. This deliverable will contain majority of the components of the engineering design set up for construction. In the same submittal, the Forest will provide the results of identification efforts and assessment of effect of the proposed design on historic properties and invite consulting parties to provide input. This stage is the most critical for substantive changes to the engineering design. If the Forest anticipates that the engineering design cannot be altered enough to avoid potential adverse effects, the Forest's package for 60% design review will invite consulting parties, including the ACHP, to determine if the measures within this MOA are sufficient to resolve the adverse effect or if an amendment may be required in accordance with Stipulation X.

c. **90% Draft Construction Documents in support of the construction contract** – Fourteen (14) calendar day review by consulting parties. This stage is a limited review to evaluate and verify that edits made to the 60% of the design have been incorporated into the final design. In the submittal, the Forest will summarize the effects associated with the above ground portion of the project and comments received from the 60% design review phase, including whether an amendment was determined necessary.

ii. The Forest shall make final determinations on engineering design documents with consideration of consulting parties' comments received within each review period. See Appendix B for design and construction requirement references.

C. Project Design Modification

i. The Forest intends to implement the project engineering designs as approved. However, unforeseen circumstances may prompt the need to modify approved project engineering designs.

ii. If, during implementation, the Forest determines an immediate need to implement a change in response to an immediate danger or hazard after the final engineering design has been approved, the Forest will implement the immediate change. The Forest will then notify the consulting parties with a description of the implemented project change. A seven (7) working day review period will be provided for these changes. Consulting parties may also request further modification. If the Forest proposes to further modify the project engineering design, the Forest will consult parties prior to approving further modifications following Stipulation I.C.iii.

iii. If the Forest determines a need to change the final approved engineering designs that is not an immediate need to address a danger or hazard, and has time to consult, the Forest will provide consulting parties an opportunity to review the project design changes prior to approving the changes.

a. The Forest Heritage Professional will determine the appropriate review period based on the complexity of the change. If the Heritage Professional determines the change is not complex, they will advise up to fifteen (15) calendar days of review. If the change is more complex, they will advise between sixteen (16) and thirty

(30) calendar days review. Once the Forest Heritage Professional determines the level of complexity, the Forest will notify consulting parties of the change in the project engineering design and length of the review period.

b. The Forest will consult with the consulting parties to determine if the modifications to the project engineering design can proceed without altering the resolution of adverse effect in this MOA or if there is a need to amend this MOA in accordance with Stipulation X.

c. If an amendment is warranted, project alteration(s) may proceed after following the amendment process in Stipulation X.

II. REQUIRED PRE-WORK TRAINING

A. At the expense of the Forest and in collaboration with interested Tribal Nations and other subject matter experts, the Forest will develop a virtual training module course before a construction contract is awarded for the undertaking.

i. Tribal Nations are invited to contribute to the development of pre-work training content that is specific to cultural and biological resources. The Forest will set up a schedule of work that includes timeframes for consultation regarding the development and completion of the training module. The Forest shall approve the final content of the training module.

ii. Training will not commence until the Forest completes the consultation requirements established in the schedule of work in Stipulation II.A.i.

iii. The Forest will administer this training and ensure all Forest staff, contractors, and construction personnel supporting this undertaking complete the training prior to entering the underground portions of the Caverns.

III. MINIMIZATION AND MITIGATION OF ADVERSE EFFECTS

A. Monitoring Plan

Forest archaeological monitor(s) will be present and available on site during all proposed work within the Caverns (below-ground) and may be available for above-ground portions of the undertaking, upon determination of the Forest Heritage Professional.

i. General Requirements

a. Forest archaeological monitor(s) are Forest Heritage staff who must meet the Office of Personnel Management's qualifications for GS-0170 (History), GS-0190 (General Anthropology), or GS-0193 (Archeology) job series. They may also meet the Secretary of Interior qualification standards in a related discipline (archaeology, architectural history, history, landscape architecture) currently described at Appendix A to 36 CFR §61. Forest archaeological monitors must have clear authority to halt the construction, if necessary. Persons who are not Forest archaeological monitors may assist but will not be left to oversee the monitoring on their own.

b. The Forest may secure archeological monitor services from a contractor who meets the Secretary of Interior qualification standards per Appendix A of 36 CFR §61 throughout the course of construction, who will report to the Forest archeological monitor(s).

c. The Forest will provide interested Tribal Nations with opportunities to participate as a Tribal monitors during below-ground construction activities, specifically rock displacement activities and off-trail activities within the BSC, at the Forests' expense. All Tribal monitors will be required to adhere to safety requirements, trainings and protocols at all times during work underground within the Caverns.

   1. To facilitate Tribal monitor participation, the Forest will send interested Tribal Nations the construction schedule that specifies what sections of the Caverns will be worked on and the types of activities. The Forest will send the construction schedule at least ninety (90) days in advance of the proposed work and invite expressions of interest from Tribes within thirty (30) days of receipt.

d. The monitor(s) will arrive prior to work beginning and will take part in daily safety briefings.

e. Monitor(s) will visibly observe work in areas of ground disturbance or off existing trail, if such observations are safe and possible.

f. Forest archaeological monitors will take notes of monitored areas and provide a weekly monitoring report to the Contracting Officer's Representative (COR). Copies of the archeological monitoring reports will be emailed to interested consulting parties.

g. If intact cultural material is encountered, then the Forest will follow the processes outlined in Sections V and VI.

ii. Below Ground Monitoring Plan

a. All Caverns work will be managed by the COR.

b. In addition to the Forest archeological monitor, work will be monitored by the Forest's onsite contract manager and may be monitored by a contracted archeological monitor who meets the Secretary of Interior qualification standards per Appendix A of 36 CFR §61 chosen by the Forest, and/or Tribal Nation monitors. Work areas will be delineated for the replacement of the Caverns' wiring and lighting fixtures that must occur off existing pathways (but still within previously approved work areas).

c. Forest personnel must always be present on site with non-Forest personnel and contractors while they are working within the underground portions of the Caverns.

d. The Forest archaeological monitor will be available during all rock displacement activities in the Caverns to ensure archaeological concerns are addressed and workers stay within the approved work area.

e. Personnel safety and space limitations for some of the underground work, specifically scaling of the rock layers and lighting and wiring installation, may limit the ability of the archeological monitor to directly monitor such activities. In this event, monitoring is not possible.

B. Construction Conditions

i. To minimize the effects to the Caverns' environment during removal and installation of the air lock structures, the Forest shall ensure permanent air lock structures are not removed or modified at more than one exit or entrance at the same time. Work areas

will be delineated for the replacement of the Caverns' wiring and lighting fixtures that must occur off existing pathways (but still within previously disturbed areas).

ii. The Forest shall ensure that a temporary noise and containment barrier wall system will be installed for construction and renovation of the air locks and bypass tunnel. The Forest will use bulkhead curtains or other measures for abatement of noise and dust, and limit unnatural airflow, sound, and construction materials throughout the Caverns.

iii. The Forest shall ensure that sound levels on the natural cavern side of the barrier shall be a maximum of 65 decibels (dB). The contractor shall demonstrate the noise reduction and make modifications to the barrier system until the noise reduction can be maintained at or below 65 dB as outlined in the Project Manual from Golder Associates, Inc (2020). This will be monitored by the contractor and reviewed by the Forest.

iv. The Forest shall ensure that no equipment that emits fossil fuel exhaust will be used inside the Caverns (e.g., generators or compressors, etc.) and that equipment that emits fossil fuel exhaust will be staged outside the Caverns' environment in a designated area in the approved project design.

v. Wires and hoses will run from the surface through the existing access shaft located in the bypass tunnel, elevator lobby, or trail exits.

vi. Triple-stacked filter socks, silt fences, barriers, temporary sedimentation basins and other sedimentation control measures will be required around the access areas of the cave where equipment is staged.

vii. To minimize the possibility that gasoline, propane, or electric powered construction equipment could leak fluids, introduce noise pollution, or emit pollutants, equipment will be checked by designated contractors prior to being operated for the day to identify and repair any leaks. Designated contractors will check mufflers for proper operation and will use only equipment within proper operating specifications.

viii. Water produced by construction activities will be collected by wet vacuums or other methods into temporary holding basins which will be removed or pumped out of the Caverns to avoid contamination of Caverns' pools or streams.

ix. A spill prevention and response plan for water produced by construction activities and other substances foreign to or not naturally occurring in the Caverns will be provided by the contractor and approved by designated Forest personnel prior to work commencing in the Caverns.

x. No new areas will be created or cleared for staging. Staging areas for equipment will be limited to the existing paved parking area of the BSC VIC, paved Caverns' exits (external side), paved roads, existing gravel service roads, and the concrete tunnel cap above the Dripstone Trail bypass tunnel.

xi. The Forest shall ensure the Caverns' natural entrance will not be used for equipment access.

xii. The Forest shall ensure all displaced rock will remain in the Caverns.

xiii. The Forest shall ensure that no organic above ground surface material (e.g., rock,

timber, etc.) is introduced to the Caverns' environment.

C. Focal Piece and Interpretive Information

i. The BSC VIC front desk is currently blocking ingress and egress and must be removed to resolve safety issues and to provide more efficient pedestrian flow patterns.

   a. The Forest will work with a local and/or Tribal Nation artist to create a visual focal piece(s) in this location of the BSC VIC. The Forest will provide the consulting parties, excluding the ACHP, with an opportunity to review preliminary designs on the focus piece and provide comments within thirty (30) calendar days of receiving designs. The Forest, in coordination with the artist, will consider comments and seek agreement where feasible. The Forest will provide final approval on the design for the focal piece and will install the focal piece prior to the expiration of this MOA.

ii. Interpretive displays, updating the interpretive information available in the BSC VIC at present, will be designed and made available for comment to the consulting parties, excluding the ACHP. This will include a display interpreting the existing BSC VIC and its history for future visitors. The Forest may invite other parties that are subject matter experts to review and comment on the designs and messaging.

   a. The Forest will provide the consulting parties and subject matter experts with two opportunities to review and provide comments within thirty (30) calendar days of receiving documentation.

   b. After renovation construction work is complete, installation of new interpretive displays will occur prior to the expiration of this MOA. The Forest maintains final approval of interpretive content and information in collaboration with interested Tribal Nations.

iii. The Forest, with help from the Regional Office, will work in partnership with Tribal Nations and local partners to provide additional cultural and precontact/historic content and context on the Blanchard Springs Caverns webpage and the recreation.gov webpage, the host site for tickets. The Forest Service Regional Office maintains final approval of webpage content and information, in collaboration with Tribal Nations. This will be completed within two (2) years of the execution of this MOA.

D. Sacred Site Management Plan

Within 5 years of the execution of this MOA, the Forest shall begin consultation related to the preparation of a management plan for the Blanchard Springs Caverns TCP with interested parties. The Forest will consult interested parties to determine the content of the management plan. The Forest will finalize the development of the management plan within 10 years of the execution of the MOA.

IV. DURATION

This MOA will expire if its terms are not carried out within ten (10) years from the date of its execution. Prior to such time, the Forest may consult with the other required and invited signatories to reconsider the terms of this MOA and amend it in accordance with Stipulation X below.

V. POST-REVIEW DISCOVERIES

If unanticipated effects to historic properties occur during project implementation that have not been considered in this MOA, the archeological monitor shall notify the contracting officer representative who will take the necessary steps to ensure that work stops in that portion of the undertaking (above or underground). The designated Forest personnel or archeological monitor shall inform the Forest heritage program manager (HPM) within twenty-four (24) hours. The HPM will notify consulting parties and Tribal Nations via electronic mail or phone call within forty-eight (48) hours (2 working days) to begin consultation on this effect and determine necessary additional mitigations. In addition:

A. The HPM will document the discovery to support consultation.

B. The Forest will determine if the undertaking can be altered to avoid adverse effects. If avoidance is not possible, the HPM will develop, in consultation with Tribes and SHPO, an action plan, mitigation plan, or treatment plan for the affected cultural resources.

VI. TREATMENT OF HUMAN REMAINS AND PROTECTED OBJECTS

The Forest will treat human remains, funerary objects, sacred objects, and objects of cultural patrimony (Protected Objects) identified on National Forest System land in compliance with the Native American Graves Protection and Repatriation Act (NAGPRA) and Archaeological Resources Protection Act (ARPA). If any portion of the project occurs on state or private lands, the Forest will follow with the Arkansas Act 753 of 1991 (Grave Protection Act) and the Arkansas Act 1533 of 1999 (Grave Protection Act Amendment). If human remains or other items, or any indication of human remains and other items, are encountered during implementation of any part of the undertaking pursuant to this MOA, the Forest will follow the following steps:

Upon the inadvertent discovery of human remains, all actions:

A. Within one hundred (100) meters of the discovery shall cease, human remains shall remain undisturbed but protected. The Forest Archeologist and Forest Service law enforcement shall be immediately notified.

B. In cooperation with law enforcement, heritage program staff will implement additional measures, as appropriate, to protect the discovery from disturbance.

   i. Only natural materials will be used in the process of implementing protection measures for any uncovered human remains.

   ii. Other than for crime scene investigation, no excavation, examination, or analysis of human remains will be conducted by the Forest or any contracted professional without first consulting with the Tribes.

C. No photographs of human remains shall be taken by anyone associated with any part of this undertaking. Photography is only permitted by law enforcement or coroner, and only if required by law. Should photographs be taken during the course of a law enforcement investigation, at the conclusion of the investigation, any photographs will be destroyed.

D. Any inadvertent discovery that includes human skeletal material will be treated as a potential crime scene. This means that the site will initially be evaluated by Forest Service law enforcement. If the remains are determined to be recent human remains and/or associated with a forensic crime, law enforcement will assume complete control of the effort.

E. When the archaeologist/project manager/contractor determines that the inadvertent discovery of human remains or cultural items has occurred, immediate telephone notification must be provided to The Osage Nation, Quapaw Nation and all potentially affiliated Tribes within twenty-four (24) hours. This telephone notification will be followed by written notification as required by NAGPRA.

F. Per NAGPRA (43 CFR 10.4(a)), the Forest Supervisor will designate a staff representative to contact The Osage Nation, Quapaw Nation and all potentially affiliated Tribes by email to include date, location, project identification, description of the find, and status of protective measures of the discovery within forty-eight (48) hours of discovery.

G. The Osage Nation, Quapaw Nation and all potentially affiliated Tribes will be given the opportunity to visit the location and be provided an on-site orientation of the location where the human remains were discovered prior to any further disturbance or excavation in the location.

H. It is the preference of The Osage Nation and Quapaw Nation that, wherever possible, burials are left in place (*in situ*) and any further project activities avoid the burial with an appropriate buffer area, to be determined by the Tribal Historic Preservation Officer of The Osage Nation and the Quapaw Nation on a case-by-case basis.

I. The Osage Nation, Quapaw Nation, consulting Tribes and the Forest will consult to develop NAGPRA Plans of Action. Under the NAGPRA regulations (43 CFR 10.4-10.7), a federal agency must prepare, approve, and sign a Plan of Action if the agency intends to excavate, remove, or leave in place NAGPRA human remains or cultural items.

VII. MONITORING AND REPORTING

Each year following the execution of this MOA until it expires or is terminated, the Forest shall provide all parties to this MOA a summary report, detailing the following information:

A. Work undertaken pursuant to its terms for each calendar year;

B. The forthcoming program of work for the next calendar year;

C. Any proposed scheduling changes for mitigation efforts under this MOA; and

D. Unanticipated discoveries and their resolution the previous year.

The Forest Heritage Program Manager, in coordination with the undertaking's Forest engineers, will prepare the report, which the Forest Supervisor or their designee will approve. The Heritage Program Manager or their designee will distribute the report in January each year. Parties will have thirty (30) calendar days to provide input on the content of the report, including forthcoming program of work.

VIII. CONFIDENTIALITY

To the maximum extent allowed by federal law, the Forest will maintain confidentiality of information about the location, character, or ownership of archaeological and historic resources if that information could result in significant invasion of privacy, damage to the archaeological and historical resources, or impede the use of traditional religious sites by practitioners, in accordance with applicable statutory and regulatory requirements, including Section 304 of the National Historic Preservation Act (codified at 54 USC 307103[a]) and Section 9(a) of the Archaeological Resources Protection Act (codified at 16 USC 470hh), and Forest Service regulations 25 USC 32A Section 3056 that protect confidential Tribal information shared with the Forest Service.

IX. DISPUTE RESOLUTION

A. Should any required or invited signatory to this MOA object at any time to any actions approved in this MOA or the manner in which the terms of this MOA are implemented, the required or invited signatory will notify the Forest in writing. The Forest shall consult with such party within thirty (30) calendar days to resolve the objection. If the Forest determines the objection cannot be resolved within thirty (30) calendar days (or another time period agreed to by all required and invited signatories), the Forest will:

   i. Forward all documentation relevant to the dispute, including the Forest's proposed resolution, to the ACHP. The ACHP shall provide the Forest with its advice on the resolution of the objection within thirty (30) calendar days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the Forest shall prepare a written response that addresses any timely advice or comments regarding the dispute from the ACHP, required signatories, invited signatories, and concurring parties, and provide them with a copy of this written response. The Forest will then proceed according to its final decision.

   ii. If the ACHP does not provide its advice regarding the dispute within the thirty (30) calendar day time period, the Forest may make a final decision on the dispute and proceed accordingly. Prior to reaching a final decision, the Forest shall prepare a written response that addresses any timely comments regarding the dispute from the required or invited signatories to the MOA and provide them and the ACHP with a copy of such written response.

   iii. The Forest's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute will remain unchanged.

X. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all required and invited signatories. The amendment will be effective on the date a copy signed by all of the required and invited signatories is filed with the ACHP.

XI. TERMINATION

If any required or invited signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other required and invited signatories to attempt to develop an amendment per Stipulation X. If within thirty (30) calendar days (or another time period agreed to by all required and invited signatories) an amendment cannot be reached, any required and invited signatory may terminate this MOA upon written notification to the other signatories.

Once this MOA is terminated, and prior to work continuing on the undertaking, the Forest must either (a) execute an MOA pursuant to 36 CFR §800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR §800.7. The Forest shall notify the signatories as to the course of action it will pursue.

XII. ANTI-DEFICIENCY ACT

The Forest's obligations under this MOA are subject to the availability of funds and the stipulations of this MOA are subject to the provisions of the Anti-Deficiency Act (31 USC §1341). The Forest Service will make reasonable and good faith efforts to secure the necessary funds to implement this MOA in its entirety. If compliance with the Anti-Deficiency Act alters or impairs its ability to implement the stipulations of this MOA, the Forest Service will consult

with signatories in accordance with the amendment and termination procedures in Stipulations X and XI.

XIII. EXECUTION

Execution of this MOA by the Forest, SHPO, and ACHP and implementation of its terms are evidence that the Forest has considered the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

SIGNATORIES:

U.S. Forest Service, Ozark-St. Francis National Forests

7/22/25

DANIEL OLSEN, FOREST SUPERVISOR **Date**

Arkansas State Historic Preservation Officer

Scott Kaufman 7-7-2025

SCOTT KAUFMAN, STATE HISTORIC PRESERVATION OFFICER **Date**

Advisory Council on Historic Preservation

July 30, 2025

REID J. NELSON, EXECUTIVE DIRECTOR **Date**

INVITED SIGNATORIES:

The Osage Nation

7-24-25

GEOFFREY M. STANDING BEAR, PRINCIPAL CHIEF **Date**

The Quapaw Nation

Wena Supernaw 7/19/2025

WENA SUPERNAW, CHAIR **Date**

CONCURRING PARTIES:

Stone County Historical Society

Lynda Swafford 6-26-25

LYNDA SWAFFORD, PRESIDENT **Date**

APPENDIX A: Area of Potential Effect (APE) Maps

Figure 1. Blanchard Springs Caverns Facility Renovation Area of Potential Effect (APE)

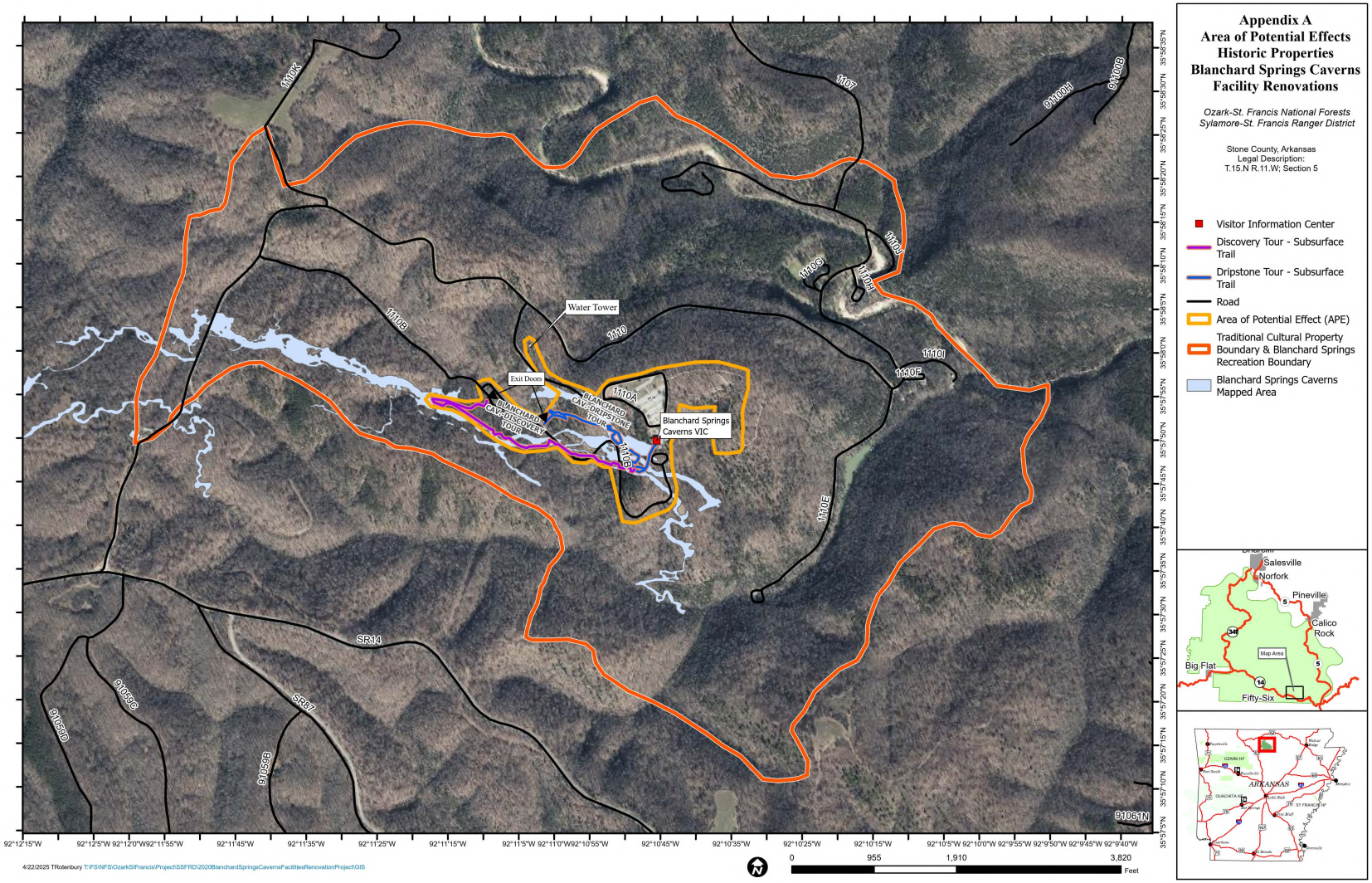
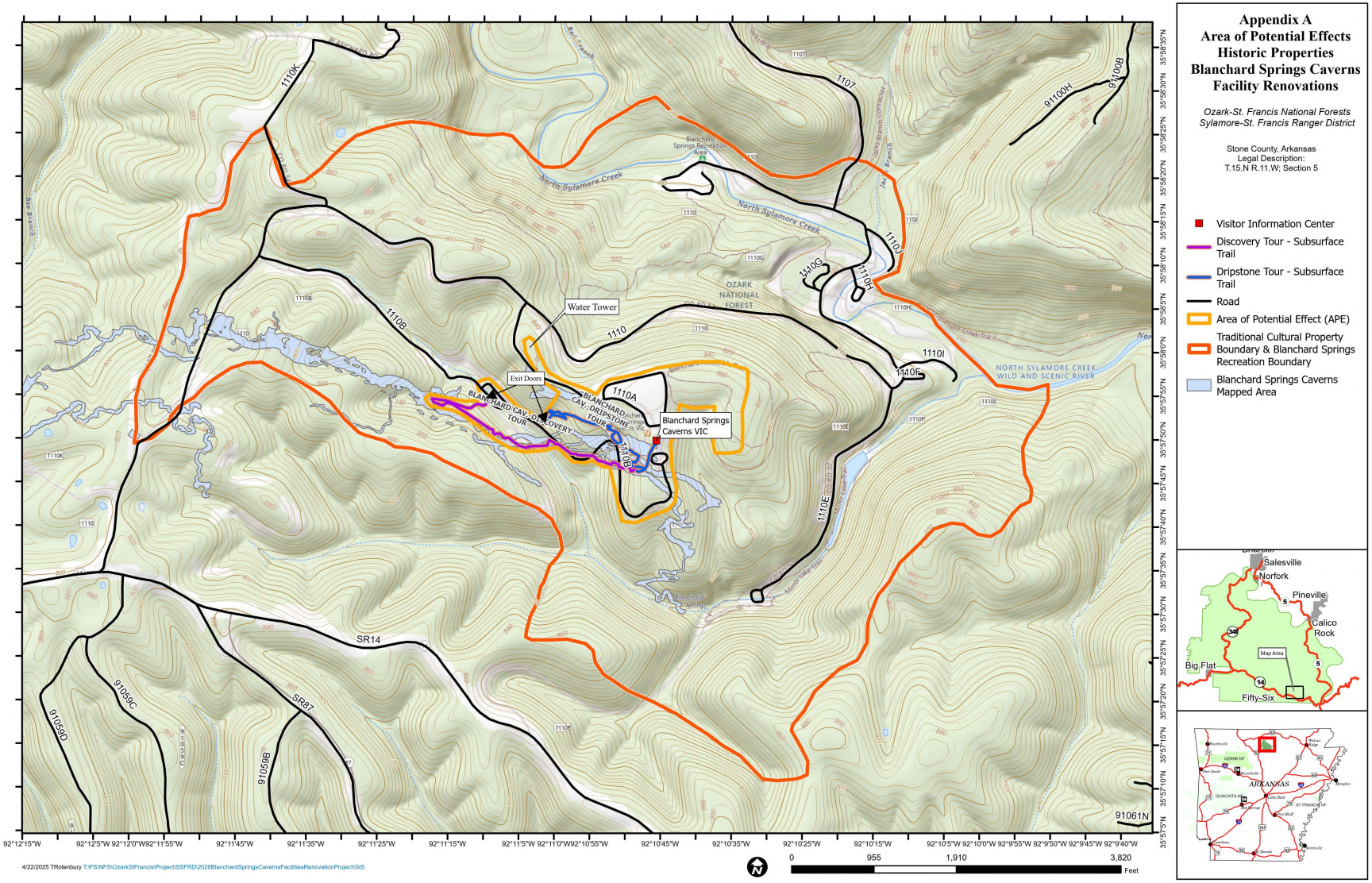


Figure 2. Blanchard Springs Caverns Facility Renovation Area of Potential Effect (APE) with Topographic Features



Appendix B: BUILDING CODES AND STANDARDS

Design and Construction Standards for USDA Forest Service Southern Region Facilities: Codes and Standards

A. Building Codes

For Forest Service Owned facilities or facilities leased where there is no applicable state or local building code, the following documents shall serve as "the code" for this project.

1. IBC - International Building Code; 2021.
2. IEBC – International Existing Building Code, 2021.
3. IFC - International Fire Code; 2021.
4. IFGC - International Fuel Gas Code; 2021.
5. IGCC - International Green Construction Code, 2021.
6. IPC - International Plumbing Code; 2021.
7. IMC - International Mechanical Code; 2021.
8. IWUIC – International Wildland-Urban Interface Code, 2021.
9. NFPA 70 - National Electrical Code; 2020.
10. NFPA 101 - Life Safety Code; 2021.

A. Reference Standards

In addition to the codes listed above or local building codes, the following documents are also incorporated into the definition of "the code" for the purposes of this project, except for administrative provisions. For the standards below, the Authority Having Jurisdiction is the US Forest Service.

1. ABAAS – Architectural Barriers Act (ABA) Standards; 2015.
2. ASHRAE 55 - Thermal Environmental Conditions for Human Occupancy; 2020.
3. ASHRAE 62.1 - Ventilation For Acceptable Indoor Air Quality; 2019.
4. ASHRAE 90.1 – ANSI/ASHRAE/IES Standard 90.1-2019 -- Energy Standard for Buildings Except Low-Rise Residential Buildings
5. ASHRAE – Achieving Zero Energy: Advanced Energy Design Guide for Small to Medium Office Buildings; 2019.
6. ASHRAE (FUND) - ASHRAE Handbook - Fundamentals; 2021.
7. ASHRAE Guideline 0 – The Commissioning Process, 2019.
8. ASHRAE Guideline 4 – Preparation of Operating and Maintenance Documentation for Building Systems, 2019..
9. BEIG - US Forest Service FS-710 - The Built Environment Image Guide for the National Forests and Grasslands; 2001. https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/TheBuiltEnvironmentImageGuide-2001-09.pdf
10. BOMA Z65.1 – Office Buildings: Standard Methods of Measurement; 2010.
11. BOMA Z65.3 – Gross Areas of a Building: Standard Methods of Measurement; 2009.
12. BOMA Z65.3 – Gross Areas of a Building: Standard Methods of Measurement; 2009.
13. CEQ – Guiding Principles for Sustainable Federal Buildings and Associated Instructions, December 2020.
14. FEMA (MAPS) - FEMA Map Service Center; U.S. Federal Emergency Management Agency; www.fema.gov/business/nfip.

15. FHWA FP-14 – Standard Specifications for the Construction of Roads and Bridges on Federal Highway Projects; 2014. https://flh.fhwa.dot.gov/resources/specs/
16. FSORAG - Forest Service Outdoor Recreation Accessibility Guidelines; 2013 https://www.fs.fed.us/recreation/programs/accessibility/
17. FSTAG - Forest Service Trails Accessibility Guidelines; 2013 https://www.fs.fed.us/recreation/programs/accessibility/
18. NPS-Historic – The Secretary of the Interior's Standards for the Treatment of Historic Properties, 2017. https://www.nps.gov/tps/standards/treatment-guidelines-2017.pdf
19. NFPA 914 - Code for Fire Protection of Historic Structures; 2019.
20. NFPA 1194 – Standard for Recreational Vehicle Parks and Campgrounds; 2021.
21. NREL Solar Ready and Microgrid resources:
    a. Microgrid-Ready Solar PV - Planning for Resiliency: https://www.nrel.gov/docs/fy18osti/70122.pdf
    b. Solar Ready Buildings Planning Guide: https://www.nrel.gov/docs/fy10osti/46078.pdf
    c. Solar Ready: An Overview of Implementation Practices: https://www.nrel.gov/docs/fy12osti/51296.pdf
    d. FEMP Tech Asst Portal link: https://www4.eere.energy.gov/femp/assistance/
22. SMACNA - IAQ Guidelines for Occupied Buildings Under Construction; 2008.

B. Key Agency Direction

1. Forest Service Manual https://cms.fs.usda.gov/directives/list
    a. FSM 6440 – Real Property Management
    b. FSM 6460 – Waste Prevention, Recycling, Acquisition and Green Purchasing
    c. FSM 7310 – Buildings and Related Facilities
2. Forest Service Handbook https://cms.fs.usda.gov/directives/list
    a. FSM 7309.11: Facilities Handbook
3. Other Agency Direction (Provided by FS Staff as needed to contractors and cooperators)
    a. EM-7310-4 – Facilities Planning; 2002. (NOTE: this document will be provided as needed to contractors. FS employees may find on the Washington Office Engineering, Technology, and Geospatial Services site https://fsweb.wo.fs.fed.us/nfs/etg/index.shtml).