



# CITY COUNCIL WORKSHOP MEETING MEETING

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## WORKSHOP MEETING AGENDA

**TUESDAY, JANUARY 3, 2023, 1:00 PM**

201 S Cortez Street

Prescott, AZ 86303

Council Chambers

Phil Goode, Mayor

Brandon Montoya, Mayor Pro Tem

Connie Cantelme, Councilwoman

Eric Moore, Councilman

Cathey Rusing, Councilwoman

Steve Sischka, Councilman

Clark Tenney, Councilman

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The following Agenda will be considered by the Prescott **City Council Workshop Meeting** at its **Workshop Meeting** pursuant to the Prescott City Charter, Article II, Section 13. Notice of the meeting is given pursuant to Arizona Revised Statutes, Section 38-431.02. One or more members of the Council may be attending the meeting through the use of a technological device.

### Viewing & Participation

This meeting may be viewed on Channel 64, Facebook Live or on the City Website: [Live City Council Meeting Videos](#)

Comments for Council may be submitted through the City website: [Public Comment Form](#)

### 1. CALL TO ORDER

### 2. ROLL CALL

### 3. DISCUSSION

- A. Discussion and Presentation Regarding Proposed Federal Designation of a Section of the Upper Verde River Between Paulden and Clarkdale as a *Wild and Scenic River*, and Whether the City Should Submit a Public Comment Letter Regarding the Draft Environmental Assessment by January 10, 2023.

***Recommended Action: Staff recommends Council receive the presentation and provide guidance regarding whether the city should submit a letter signed by Mayor Goode stating the city's position on this matter by January 10, 2023, and, if so, what the contents of the letter should be***

- B. Approval of Appointment of Tyler Goodman as Interim City Manager.

***Recommended Action: MOVE to approve appointment of Tyler Goodman as Interim City***

## ***Manager***

- C. Receive a Presentation from Staff Regarding a Letter Received From the Town of Prescott Valley for a Proposed Investment Plan for Prescott AMA Safe-Yield Goal with Verde River Flow Protection; and Possible Adjournment to Executive Session to Discuss and Consult with the City's Attorneys for Legal Advice, to Consider the City's Position and Instruct its Attorneys and Necessary City Employees, and Discussions Regarding Possible Settlement Discussions Pursuant to A.R.S. § 38-431.03(A) (3) and A(4).

***Recommended Action: Staff recommends receiving presentation and determining whether to adjourn into executive session for discussion and possible action related to the proposed investment plan for Prescott AMA Safe-Yield Goal with Verde River Flow Protection***

## **4. ADJOURNMENT**

### EXECUTIVE SESSION

Upon a public majority vote of a quorum of the City Council, the Council may hold an executive session, which will not be open to the public, regarding any item listed on the agenda but only for the following purposes:

- (1) Discussion or consideration of personnel matters (A.R.S. §38-431.03(A)(1));
- (2) Discussion or consideration of records exempt by law (A.R.S. §38-431.03(A)(2));
- (3) Discussion or consultation for legal advice with the city's attorneys (A.R.S. §38-431.03(A)(3));
- (4) Discussion or consultation with the city's attorneys regarding the city's position regarding contracts that are the subject of negotiations, in pending or contemplated litigation, or in settlement discussions conducted in order to avoid litigation (A.R.S. § 38-431.03(A)(4));
- (5) Discussion or consultation with designated representatives of the city to consider its position and instruct its representatives regarding negotiations with employee organizations (A.R.S. §38-431.03(A)(5));
- (6) Discussion, consultation or consideration for negotiations by the city or its designated representatives with members of a tribal council, or its designated representatives, of an Indian reservation located within or adjacent to the city (A.R.S. §38-431.03(A)(6));
- (7) Discussion or consultation with designated representatives of the city to consider its position and instruct its representatives regarding negotiations for the purchase, sale or lease of real property (A.R.S. §38-431.03(A)(7)).

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### Confidentiality

Arizona statute precludes any person receiving executive session information from disclosing that information except as allowed by law. A.R.S. §38-431.03(F). Each violation of this statute is subject to a civil penalty not to exceed \$500, plus court costs and attorneys' fees. This penalty is assessed against the person who violates this statute or who knowingly aids, agrees to aid or attempts to aid another person in violating this article. The city is precluded from expending any public monies to employ or retain legal counsel to provide legal services or representation to the public body or any of its officers in any legal action commenced for violation of the statute unless City Council takes a legal action at a properly

noticed open meeting to approve of such expenditures prior to incurring any such obligation or indebtedness. A.R.S. §38-431.07(A)(B).

CERTIFICATION OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Prescott City Hall on \_\_\_\_\_ at \_\_\_\_\_ m. in accordance with the statement filed by the Prescott City Council with the City Clerk



Sarah M. Siep, City Clerk

**COUNCIL AGENDA MEMO****MEETING TYPE/DATE:          WORKSHOP MEETING          01- 3-23****DEPARTMENT:          Public Works**

**AGENDA ITEM:** Discussion and Presentation Regarding Proposed Federal Designation of a Section of the Upper Verde River Between Paulden and Clarkdale as a *Wild and Scenic River*, and Whether the City Should Submit a Public Comment Letter Regarding the Draft Environmental Assessment by January 10, 2023.

**ITEM SUMMARY**

The Bradshaw and Chino Valley Ranger Districts of the Prescott National Forest are seeking comments on the Upper Verde Wild and Scenic River Suitability Draft Environmental Assessment. The comment deadline is January 10, 2023.

**BACKGROUND**

The Prescott National Forest is seeking public comment regarding a draft Environmental Assessment for a federal proposal to designate a section of the Upper Verde River as a federally protected Wild and Scenic River. Attachment No. 1 is the letter in which the Prescott National Forest is requesting public comment on this matter by January 10, 2023. Attachment No. 2 shows the section of the Upper Verde River between Paulden and Clarkdale that is proposed for this designation. The draft Environmental Assessment, with highlights added for particularly salient portions of the document, is shown in Attachment No. 3.

Staff does not object to this proposed designation, provided that the city's upstream consumptive water rights are preserved, including the Little Chino/Prescott Active Management Area and Big Chino basins. Staff therefore recommends that this be explicitly stated in the city's public comment letter.

**FINANCIAL IMPACT**

There is no financial impact at this time.

**Recommended Action:** *Staff recommends Council receive the presentation and provide*

*guidance regarding whether the city should submit a letter signed by Mayor Goode stating the city's position on this matter by January 10, 2023, and, if so, what the contents of the letter should be*

## **ATTACHMENTS**

1. [12142022\\_UpperVerdeWildandScenic\\_Comment\\_Period.pdf](#)
2. [Map from 20220303\\_UpperVerdeFreeFlow\\_Final-formatted\\_508.pdf](#)
3. [20221211\\_UpperVerdeWSRSuitabilityDraftEA.pdf](#)



## Forest Service News Release

Public Affairs Officer: Debbie Maneely  
(928) 499-4736  
[debbie.maneely@usda.gov](mailto:debbie.maneely@usda.gov)

### Forest Service Initiating 30 Day Comment Period for Upper Verde River Wild and Scenic Suitability Draft Environmental Assessment

**PRESCOTT, AZ – Dec. 13, 2022** – The Bradshaw and Chino Valley Ranger Districts of the Prescott National Forest are seeking comments on the Upper Verde Wild and Scenic River Suitability Study Draft Environmental Assessment (DEA). The purpose of this draft environmental assessment is to determine whether the eligible portions of the Upper Verde River continue to be suitable for and should be recommended to Congress for inclusion in the National Wild and Scenic River System (NWSRS).

Comments received will inform Responsible Officials from the Prescott and Coconino National Forests of the best alternatives available for preserving the river's free-flowing condition and Outstanding Remarkable Values (ORVs), in relation to a proposal by the Bureau of Reclamation to construct two fish barriers in NWSRS-eligible sections of the Upper Verde River.

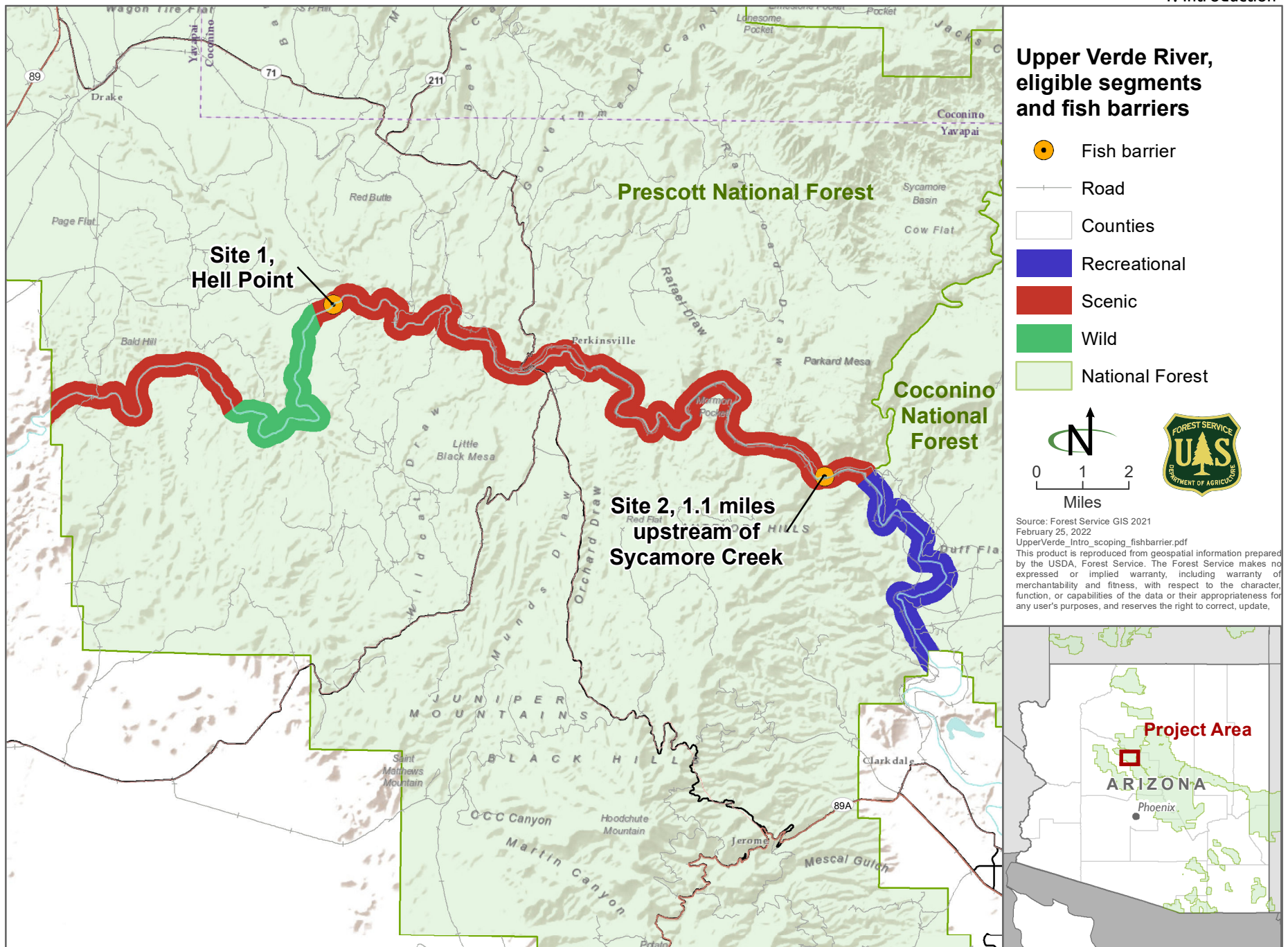
To comment on this draft environmental assessment, written and electronic formats will be accepted. Comments must be submitted by **January 10, 2023**, for the commenter to have standing to object. Only those who submit timely and specific comments during this comment period will be eligible to object. This project implements the Prescott Forest Plan and is not authorized under the Healthy Forests Restoration Act. The proposal is subject to the objection procedures at 36 CFR 218 Subparts A and B.

Specific written comments must be submitted via mail, fax, or in person (Monday through Friday, 8:00 a.m. to 4:30 p.m., excluding Wednesdays & holidays) to: John Kava, Acting Deputy District Ranger, Bradshaw and Chino Valley Ranger Districts, Prescott National Forest, 344 S Cortez St., Prescott, AZ 86303, 928-443-8000, or may be hand-delivered to the above address during the listed dates and times. Please reference the "Upper Verde WSR Suitability Study DEA" in the subject line. Electronic comments including attachments may be submitted by email in word (.doc), rich text format (.rtf), text (.txt), and hypertext markup language (.html). Comments may be submitted via CARA by accessing the project website: <http://www.fs.usda.gov/project/?project=61191>.

Input received in response to this solicitation, including the names and addresses of those who comment, will be considered part of the public record on this proposed action and will be available for public inspection.

###

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# Upper Verde River - Wild and Scenic River Suitability Study

## Draft Environmental Assessment and Finding of No Significant Impact



For More Information, Contact:  
John Kava  
Deputy District Ranger, Chino Valley Ranger District  
Prescott National Forest  
735 N Highway 89  
Chino Valley, AZ 86323  
John.Kava@usda.gov

We make every effort to create documents that are accessible to individuals of all abilities; however, limitations with our word processing programs may prevent some parts of this document from being readable by computer-assisted reading devices. If you need assistance with any part of this document, please contact the Prescott National Forest at 928-777-2220.

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## PROJECT INFORMATION

**Project Name:** Upper Verde River - Wild and Scenic River Suitability Study Draft Environmental Assessment

**Project Initiation Date:** 03/11/2022

**Proponent Name:** Prescott and Coconino National Forests

**Responsible Official:** John Kava, Deputy District Ranger

**Unit:** Chino Valley and Red Rock Ranger Districts

**County:** Yavapai

**Anticipated Implementation:** 02/2023

**Signing Authority:** John Kava, Bradshaw and Chino Valley Ranger Districts Deputy District Ranger and Alexander Schlueter, Red Rock Ranger District Deputy District Ranger

**PALS Tracking #:** 61191

**Project File:** Box/External Verde River Wild and Scenic Suitability Study

**GIS Info:**

T:\FS\FS\NFS\Prescott\Program\2300Recreation\GIS\Workspace\jwilliams\Projects\Upper\_Verde\_WSR\_Suitability\_2021

**Project Webpage:** <http://www.fs.usda.gov/project/?project=61191>

**General Location:** 37 miles generally west and north of Clarkdale, Arizona, and east of Chino Valley, Arizona

**Applicable Management Areas:** Upper Verde Management Area

**Watersheds:** Verde River

## Purpose and Need:

The purpose for this draft environmental assessment (DEA) is to determine whether the eligible portions of the Upper Verde River continue to be suitable for and should be recommended to Congress for inclusion in the National Wild and Scenic River System (NWSRS). The need to conduct this DEA is to inform responsible officials from the Prescott National Forest (PNF) and Coconino National Forest (CNF) of alternatives for preserving the outstandingly remarkable values (ORVs) in relation to a proposal by the Bureau of Reclamation (Reclamation) to construct two fish barriers in NWSRS-eligible sections of the Upper Verde River.

Reclamation proposed the barriers as a conservation measure to protect federally listed threatened and endangered fish species from the spread of nonnative aquatic species. This proposal was required by the U.S. Fish and Wildlife Service's (USFWS's) biological opinion that evaluated the delivery of water through the Central Arizona Project and its potential to introduce and spread nonnative aquatic species to the Gila River Basin (USFWS 2008). In response to the fish barrier proposal, the Forest Service conducted a free-flow analysis of the potential effects of the proposed barriers on the free-flowing condition of the eligible segments of the Upper Verde River (USDA Forest Service 2022a).

The free-flow analysis determined that the proposed fish barriers would have the potential to impact the river segments' free-flowing character and ORVs. Forest Service policy requires a wild and scenic river (WSR) suitability study to be conducted if a proposed project has the potential to impact the river's free-flowing condition or ORVs that make it eligible for inclusion in the NWSRS. See appendix C for more information on the free-flow analysis.



# Upper Verde River Suitability Study DEA



## Proposed Action:

The proposed action, alternative 2 (see appendix A, figure 2), would find all eligible segments of the Upper Verde River suitable and recommended as additions to the NWSRS. The goal of the proposed action is to maximize the protection and enhancement of the free flow, water quality, and ORVs and to maintain the system integrity into the future.

The proposed action would maintain the classifications identified during eligibility (USDA Forest Service 2010). Protection would be through existing authorities, including interim management directed by Forest Service Handbook (FSH) 1909.12, chapter 80, sections 84.2 and 84.3. If Congress subsequently added the river segments to the NWSRS, future protection would be in accordance with the Wild and Scenic Rivers Act of 1968 (WSR Act).

**Table 1. Proposed Action, Alternative 2 Suitability by Segment**

| Eligible River Segment | Miles | Classification | Suitability | Management Direction (Forest Plan and Other Existing Authorities) | Interim Management (FSH 1909.12, Chapter 80) |
|------------------------|-------|----------------|-------------|-------------------------------------------------------------------|----------------------------------------------|
| 1                      | 6.0   | Scenic         | Yes         | Existing                                                          | Applies                                      |
| 2                      | 5.7   | Wild           | Yes         | Existing                                                          | Applies                                      |
| 3                      | 19.8  | Scenic         | Yes         | Existing                                                          | Applies                                      |
| 4                      | 6.7   | Recreational   | Yes         | Existing                                                          | Applies                                      |

## Forest Plan Amendment

No PNF forest plan amendment would be required under alternative 2. An erratum to the forest plan would be issued for Desired Condition (DC)-Wild and Scenic-1 found in chapter 2, Forestwide Desired Conditions, and Standard (Std)-W&S (wild and scenic)-2 found in chapter 4, Standard and Guidelines of the Forest Plan. These would be changed to reference the suitable Upper Verde River segments instead of the eligible Upper Verde River segments. No management would change. No alternative would result in an amendment to the CNF forest plan.

## Alternatives to the Proposed Action:

### Action Alternatives

There are four alternatives analyzed in detail in this DEA.

- **Alternative 1—No Action:** This alternative can be found on page 38 after the affected environment discussion. It represents the current condition, including the continuation of current management of the river segments and corridors as eligible, as directed by FSH 1909.12, chapter 80, sections 84.2 and 84.3 and other existing authorities. This alternative serves as a baseline for comparison among the alternatives.
- **Alternative 2—The Proposed Action: All Suitable and Recommended:** As described above, the proposed action would find all segments suitable as established by the 2010 eligibility report. The goal of the proposed action is to maximize the protection and enhancement of the free flow, water quality, and ORVs and to maintain the system integrity into the future.



# Upper Verde River Suitability Study DEA



- **Alternative 3—Partially Suitable and Recommended (Segment 3 Unsuitable):** This alternative's goal is to balance protection of the Upper Verde River's ORVs through a mix of management strategies that include WSR designation for some segments combined with collaborative efforts with other agencies and local stakeholders to enhance threatened and endangered species' habitat on the remaining segment.
- **Alternative 4—Modified Suitable and Recommended:** This alternative's goal is to protect and enhance the free flow, water quality, and ORVs, while removing two portions of segment 3 from WSR consideration to allow for management actions that would not otherwise be reasonably attainable under WSR designations.

The alternatives described below provide a range of suitability determinations and segment classifications for the four eligible river segments.

Appendix A contains maps of the eligible segments and all the alternatives.

## Alternative 3—Partially Suitable and Recommended (Segment 3 Unsuitable)

The goal of alternative 3 is to balance protection of the Upper Verde River's ORVs through a mix of management strategies that include WSR designation for some segments combined with collaborative efforts with other agencies and local stakeholders to enhance threatened and endangered species' habitat on the remaining segment.

Alternative 3 would find segments 1, 2, and 4 of the Upper Verde River suitable and recommended as additions to the NWSRS (see appendix A, figure 3). Management of segments 1, 2, and 4 would prioritize and maximize the enhancement of the free flow, water quality, and ORVs in accordance with the WSR Act. Segment 3 would be found not suitable and would not be recommended for addition to the NWSRS. Protection and management for segment 3 would be through existing authorities. Interim management for segments 1, 2, and 4 would be directed by FSH 1909.12, chapter 80. If Congress subsequently added the recommended segments to the NWSRS, future protection would be in accordance with the WSR Act.

**Table 2. Alternative 3 Suitability by Segment**

| Eligible River Segment | Miles | Classification | Suitability | Management Direction (Forest Plan and Other Existing Authorities) | Interim Management (FSH 1909.12, Chapter 80) |
|------------------------|-------|----------------|-------------|-------------------------------------------------------------------|----------------------------------------------|
| 1                      | 6.0   | Scenic         | Yes         | Existing                                                          | Applies                                      |
| 2                      | 5.7   | Wild           | Yes         | Existing                                                          | Applies                                      |
| 3                      | 19.8  | N/A            | No          | Revised                                                           | Does not apply                               |
| 4                      | 6.7   | Recreational   | Yes         | Existing                                                          | Applies                                      |

## Forest Plan Amendment

Under alternative 3, DC-Wild and Scenic-1 found in chapter 2, Forestwide Desired Conditions, and Std-W&S-2 found in chapter 4, Standard and Guidelines of the PNF forest plan would be amended to reference the suitable Upper Verde River segments and to remove the eligibility and classification of segment 3 from management. No alternative would result in an amendment to the CNF forest plan.



# Upper Verde River Suitability Study DEA



| Forest Plan Standards | Current Forest Plan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Amended Forest Plan                                                                                                                                                                                                                                                                 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DC-Wild and Scenic-1  | Identifies segments as “eligible.”<br>Recommended classifications remain intact until further study is conducted or designation by Congress.                                                                                                                                                                                                                                                                                                                                                                          | Identifies segments 1, 2, and 4 as “suitable” and segment 3 as “not suitable.”                                                                                                                                                                                                      |
| Std-W&S-2             | Within river segments that are eligible for WSR designation, identified ORVs shall be afforded adequate protection, subject to valid existing rights, until the eligibility determination is superseded (i.e., the segment is determined not suitable for designation or Congress makes a decision regarding designation).<br><br>Authorized uses shall not be allowed to adversely affect either eligibility or the tentative classification (i.e., actions that would change a classification from wild to scenic). | River segments determined to be eligible or suitable for inclusion in the NWSRS would be managed to protect the ORVs, free-flowing character, and classification in accordance with interim management guidelines for eligible or suitable rivers found in FSH 1909.12, chapter 80. |

## Alternative 4—All Segments as Modified Are Suitable and Recommended (Lengthen and Shorten Segments, Combine Segments, and Change Classifications)

This alternative’s goal is to protect and enhance the free flow, water quality, and ORVs, while removing two portions of segment 3 from WSR consideration to allow for management actions that would not otherwise be reasonably attainable under WSR designations.

Alternative 4 would combine eligible segments 1 and 2 as suitable with a wild classification (see appendix A, figure 4). Segment 1 now meets the criteria for a wild classification because of a land exchange that removed road access and structures within the study area.

Segment 3 would be shortened by approximately 2.25 miles (approximately 1 mile on the upstream end and approximately 1.25 miles on the downstream end); these 2.25 miles, noted as 3a and 3b in table 3, would not be recommended as suitable and would not be classified under WSRs. The remaining 17.1 miles would be recommended as suitable with a scenic classification.

Segment 4 would be extended upstream by 0.5 miles (for a total of 7.2 miles) and recommended as suitable with a recreational classification.

Segments 1, 2, 3 (as modified), and 4 of the Upper Verde River would be recommended as additions to the NWSRS. Protection would be through existing authorities, including interim management directed by FSH 1909.12, chapter 80. Segments 3a and 3b would not be recommended and would be managed under existing authorities. If Congress subsequently added the river to the NWSRS, future protection would be in accordance with the WSR Act.



# Upper Verde River Suitability Study DEA



**Table 3. Alternative 4 Suitability by Segment**

| Eligible River Segment | Miles | Classification | Suitability | Management Direction (Forest Plan and Other Existing Authorities) | Interim Management (FSH 1909.12, Chapter 80) |
|------------------------|-------|----------------|-------------|-------------------------------------------------------------------|----------------------------------------------|
| 1                      | 6.0   | Wild           | Yes         | Existing                                                          | Applies                                      |
| 2                      | 5.7   | Wild           | Yes         | Existing                                                          | Applies                                      |
| 3a                     | 1.0   | N/A            | No          | Revised                                                           | Does not apply                               |
| 3                      | 17.1  | Scenic         | Yes         | Existing                                                          | Applies                                      |
| 3b                     | 1.25  | N/A            | No          | Revised                                                           | Does not apply                               |
| 4                      | 7.2   | Recreational   | Yes         | Existing                                                          | Applies                                      |

## **Forest Plan Amendment**

Under alternative 4, DC-Wild and Scenic-1, found in chapter 2, Forestwide Desired Conditions, and Std-W&S-2, found in chapter 4, Standard and Guidelines of the PNF forest plan, would be amended to reference the suitable Upper Verde River segments and to remove the eligibility and classification of unsuitable segments 3a and 3b from management. No alternative would result in an amendment to the CNF forest plan.

The following summarizes the changes:

| Forest Plan Standards | Current Forest Plan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Amended Forest Plan                                                                                                                                                                                                                                                                 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DC-Wild and Scenic-1  | Identifies segments as "eligible."<br>Recommended classifications remain intact until further study is conducted or designation by Congress.                                                                                                                                                                                                                                                                                                                                                                          | Identifies segments 1, 2, 3, and 4 as "suitable" and segments 3a and 3b as "not suitable."                                                                                                                                                                                          |
| Std-W&S-2             | Within river segments that are eligible for WSR designation, identified ORVs shall be afforded adequate protection, subject to valid existing rights, until the eligibility determination is superseded (i.e., the segment is determined not suitable for designation or Congress makes a decision regarding designation).<br><br>Authorized uses shall not be allowed to adversely affect either eligibility or the tentative classification (i.e., actions that would change a classification from wild to scenic). | River segments determined to be eligible or suitable for inclusion in the NWSRS would be managed to protect the ORVs, free-flowing character, and classification in accordance with interim management guidelines for eligible or suitable rivers found in FSH 1909.12, chapter 80. |



## Alternatives Considered but Not Analyzed in Detail

- 1) An alternative where no segments are suitable and recommended

**Rationale for elimination from detailed study:** This alternative would not meet the goal to protect or enhance the free flow, water quality, and ORVs.

- 2) An alternative with all segments suitable and recommended—modify segments as follows:

- Segment 3: Classify as recreational from the end of segment 2 to the railroad trestle below Perkinsville private property
- Segment 4: Classify as scenic from the railroad trestle to 1 mile above the confluence with Sycamore Creek
- New Segment 5: Classify as recreational from 1 mile above the confluence with Sycamore Creek to the eastern forest boundary

**Rationale for elimination from detailed study:** Since the eligibility determination, there have not been changes in the existing conditions of the segments that would justify these changes.

- 3) An alternative with segment 3 as wild with a rim-to-rim study area from its western end to the Bear Siding River access point

**Rationale for elimination from detailed study:** The Forest Service partially considered this alternative. The alternative posed several complexities for where boundaries and additional segments would be added. Segment 3 below Bear Siding has bridges and railroads within this segment, which do not meet the definition of a “wild” river classification.

- 4) An alternative where there is an analysis of fish barriers in a wild segment

**Rationale for elimination from detailed study:** Fish barrier design, engineering, and construction are outside the scope of this analysis.

- 5) An alternative that would change the classification of segment 3 from scenic to recreational

**Rationale for elimination from detailed study:** Changing the classification would not meet the need to protect the ORVs or fisheries management. A recreational classification must still maintain a free-flowing condition under WSR management guidelines.



# Upper Verde River Suitability Study DEA



## Project Screening

### Legal and Regulatory Considerations

☒ NFMA/Land Management Plan

#### Special Management Areas:

☒ Endangered Species Act (ESA)

☐ Wilderness

☒ Sensitive Species (Forest Service Manual [FSM] 2670)

☒ Roadless

☒ National Historic Preservation Act (NHPA)

☒ Wild & Scenic River Corridor

☐ Recommended Wilderness

☒ Tribal Consultation

☐ Research Natural Areas

☐ Clean Air Act (CAA)

☐ National Scenic & Historic Trails

☒ Clean Water Act (CWA)

☐ National Recreation Areas

☒ Pertinent Executive Orders

### Agencies and Persons Consulted

The need for a suitability study, free-flow analysis, and DEA was presented to an interdisciplinary team of resource specialists in October 2021. The interdisciplinary team studied the existing specialist reports for the eligible segments and contributed updated resource background information. This data helped shape the initial drafts of the suitability study, free-flow analysis, and this DEA.

Prior to the initiation of this EA, the Prescott and Coconino National Forests staffs provided an opportunity for partners and stakeholders to ask questions on and contribute to the suitability study process and methodology. On November 30, 2021, the Forest Service sent an email notification with a summary of the WSR suitability process, a map of the segments, the outline of the preliminary suitability report, and a frequently-asked-questions document to over 600 individuals and agency, tribal, and advocacy groups. The Forest Service received six responses. These questions and feedback assisted the PNF staff in developing the scope and methods used in the suitability study, free-flow analysis, and DEA.

In accordance with the National Environmental Policy Act (NEPA; 40 Code of Federal Regulations [CFR] 1500–1508) and FSH 1909.15, chapter 10, public scoping was held from March 11, 2022, through April 11, 2022. The Forest Service held a virtual scoping meeting on March 28, 2022. During this scoping period, 20 unique letters from the public were received and reviewed by resource specialists on the interdisciplinary team. These letters from the public were used to evaluate the proposed action in response to the needs of the community, and to gauge the level of support for the proposed action. In summary, of those 20 unique letters received, there were 21 unique comments on the EA, 9 comments on the suitability study, 10 comments on the free-flow analysis, and 12 non-substantive or out-of-scope comments. For further information, please see “Issues Considered for Analysis” under the “Environmental Impacts” section of this DEA.

Given the nature of the project, the responsible official consulted the following agencies, organizations, tribes, and persons during development and analysis of the project:



# Upper Verde River Suitability Study EA



## Agencies

### Federal Government

Department of Agriculture, Forest Service  
Department of Agriculture, Natural Resources  
Conservation Service  
Department of the Interior, Bureau of Land  
Management  
Department of the Interior, Reclamation  
Department of the Interior, Bureau of Indian  
Affairs  
Department of the Interior, USFWS  
Department of the Interior, National Park Service  
Department of Defense, Army Corps of  
Engineers  
Environmental Protection Agency

### State Government

Arizona Department of Game and Fish (AZGFD)  
Arizona Department of Water Resources  
Arizona Department of Environmental Quality  
Arizona Department of Transportation  
Arizona State Land Department  
Arizona State Parks  
Arizona State Historic Preservation Office

### Local Government

Yavapai County  
Gila County  
Navajo County  
City of Cottonwood  
City of Prescott  
City of Cottonwood  
City of Mesa  
City of Tempe  
City of Avondale  
City of Sedona  
City of Show Low  
City of Chandler  
City of Scottsdale  
City of Phoenix  
Town of Camp Verde  
Town of Gilbert  
Town of Jerome  
Town of Chino Valley  
Buckeye Water Conservation and Drainage  
District  
Central Arizona Water Conservation District



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## Organizations/Businesses

|                                           |                                              |
|-------------------------------------------|----------------------------------------------|
| Arizona Conservation Experience           | National Resources Defense Council, Inc.     |
| Agribusiness and Water Council of Arizona | Natural Channel Design                       |
| American Fisheries Society                | Northern Arizona University                  |
| American Rivers                           | Prescott College                             |
| Arizona Land Trust                        | Property owner at the confluence of Sycamore |
| Arizona Public Service                    | Creek and the Verde River                    |
| Arizona Riparian Council                  | Rim Country Chamber of Commerce              |
| Arizona State University                  | Rim Country Off-Highway Vehicle Riders       |
| Arizona Water Company                     | Roosevelt Water Conservation District        |
| Arizona Water Science Center              | Salt River Project                           |
| Arizona Wildlife Federation               | Sierra Club                                  |
| American Water Resources Association      | Sky Island Alliance                          |
| American Whitewater                       | Sonoran Audubon Society                      |
| Center for Biological Diversity           | Southwest Decision Resources                 |
| Defenders of Wildlife                     | Sustainable Rim Country                      |
| Desert Botanical Garden                   | The Nature Conservancy                       |
| Desert Rivers Audubon Society             | The Wilderness Society                       |
| Ducks Unlimited, Inc.                     | The Wildlife Society                         |
| Enviroplan                                | Trout Unlimited                              |
| Friends of the Forest                     | Trust for Public Land                        |
| Friends of the Verde River                | Tucson Audubon Society                       |
| Friends of Verde River Greenway           | University of Arizona                        |
| Grand Canyon Trust                        | Verde Canyon Railway                         |
| Maricopa Audubon Society                  | Western River Conservancy                    |
| Mogollon Sporting Association             | Yavapai College                              |
| Northern Arizona Flycasters               |                                              |

## Native American Tribes

Fort McDowell Yavapai Nation  
Hopi Tribe  
Hualapai Tribe  
Tonto Apache Tribe  
Yavapai-Apache Nation  
Yavapai-Prescott Indian Tribe



## Environmental Impacts:

The following sections describe how the project complies with the relevant laws, regulations, policies, and the land management plan, which provide the basis for thresholds for significance. Consistency with relevant laws, regulations, policies, and land management plan standards ensures that the proposed action does not exceed thresholds for significance, and the supporting analysis and rationale for consistency are provided to reach a finding of no significant impact (FONSI). The “NEPA: Finding of No Significant Impact (FONSI)” section includes a further analysis prepared to discuss additional effects and to address potential issues raised by the public and resource specialists.

## Issues Considered for Analysis

Comments received during scoping were examined for key issues, defined as unresolved effects directly or indirectly caused by implementing the proposed action. Comments were also reviewed to determine whether they might be addressed in a suitability factor. The Council for Environmental Quality NEPA regulations require the following delineation in section 1501.7: “...identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3)...” Nonsignificant issues were identified as those: (1) outside the scope of the proposed action; (2) already decided by law, regulation, forest plan, or other higher level decision; (3) irrelevant to the decision to be made; or (4) conjectural and not supported by scientific or factual evidence. The list of issues from scoping comments and reasons regarding their categorization can be found in the project record.

The issues identified through public scoping and consultations with subject matter experts include:

**Issue: WSR Classifications**—The current classifications (wild, scenic, and recreational) of the eligible segments may not reflect changed conditions and anticipated development since the eligibility study. The classifications should be reviewed and modified so that the suitability of the segments and protections can be assessed on the basis of the relevant classification.

**Response:** *Potential changes to the classifications have been incorporated in the range of alternatives considered, or they were dismissed when they were not consistent with the classification requirements.*

**Issue: ORVs**—The ORVs cited in the eligibility study may not reflect their current condition, or they have not been considered adequately. Justifications for recognizing the ORVs should be revisited to ensure the need for, and adequacy of, proposed protection measures (USDA Forest Service).

**Response:** *The ORVs identified during the eligibility process have been reviewed and updated, where applicable, by subject matter experts.*

**Issue: Fish Habitat**—What are the impacts of wild, scenic, and recreational classifications on the Forest Service’s ability to actively manage and monitor instream habitat and conserve threatened and endangered species to maintain the fisheries ORV?

**Response:** *This issue is considered and addressed in the impacts analysis.*

**Issue: Future Activities**—What are the impacts of suitability determinations and management on the ability to construct developments in the corridor (such as fish barriers), perform vegetation treatments, or restore channels?

**Response:** *This issue is considered and addressed in the impacts analysis.*

**Issue: Future Activities**—Developments that may affect the free flow of the river or impact ORVs are contemplated at specific locations that have not been thoroughly studied for construction feasibility or environmental impacts. How can informed decisions on suitability, exclusion of the location segments, or appropriate protections be made in the absence of more certainty about these locations?



# Upper Verde River Suitability Study DEA



**Response:** *Future actions are considered as part of the cumulative effects analysis; however, the potential impacts of the construction and operation of the proposed fish barrier structures are beyond the scope of this DEA.*

**Issue: Jurisdiction**—How would WSR recommendations/designations be addressed in the context of the State's assertions of jurisdiction over fish and wildlife, waters, streambeds, and access to rivers?

**Response:** *Questions of jurisdiction are beyond the scope of this study; however, the Forest Service anticipates that there would be no change in management affecting the State's access or monitoring of the river.*

## Potentially Affected Environment

The potentially affected environment for the NEPA analysis includes a broad description of the area and the findings of the eligibility study. The description of the area is an overall description of the river corridor and the surrounding area, including the status of landownership, land uses, and management activities. The "Wild and Scenic Rivers Status" section describes the wild and scenic rivers study process. The "Findings of the Eligibility Study" section summarizes the affected environment and eligibility determination of each segment, describes the applicable ORVs, and includes the classification.

## General Description of the Area

### Regional Setting

The Verde River watershed is 6,622 square miles, representing 5.8 percent of Arizona. Most of the watershed lies north and east of the river corridor because mountain ranges sharply delineate its southwestern boundary. Within the Upper Verde River WSR study corridor, the river generally flows east then southeast through canyons characterized by layers of sandstone, limestone, and volcanic rock that are 200–700 feet high. These form a narrow, deep, and constrained river channel. Occasionally, the river canyon opens into gently sloping walls and wide meadows surrounding a shallow, meandering, and unconstrained river.

The 38.2-mile-long stretch of the Upper Verde River WSR study corridor includes a 0.25-mile corridor buffer on either side of the river, from the PNF boundary to the west, downstream to the town of Clarkdale. The Upper Verde River is primarily within the PNF; it also runs through some private property and partially overlaps the CNF.

In 1978, Public Law 95-625 amended section 5(a) of the WSR Act to add the Verde River as a congressionally identified study river. This directed the Forest Service to study the Verde River from the PNF boundary near Paulden to the vicinity of Table Mountain, approximately 14 miles above Horseshoe Reservoir, for its suitability for inclusion in the NWSRS. Through the study, the Forest Service determined that the Verde River downstream of Camp Verde starting near Beasley Flat was suitable for inclusion in the NWSRS; however, the Upper Verde River was not.

The Verde River from Beasley Flat to the confluence with Red Creek in the Tonto National Forest was designated as a WSR on August 28, 1984 (Public Law 98-406). The Upper Verde River was not designated at the time, primarily due to the amount of private land and several proposals for flood control, water storage, and hydroelectric dams (USDA Forest Service 1982). However, since that time, the Forest Service acquired the historic Packard Ranch, Alvarez Place (Sycamore Siding), and Rio Verde Ranch.

### Landownership

Once the Forest Service acquired the Packard and Rio Verde Ranches, the remaining private land in the study corridor is downstream of Perkinsville Bridge. There are multiple, contiguous parcels of private property in this area; near the confluence with Sycamore Creek, there are two small, private homesteads. Farther downstream at the eastern terminus in segment 4, there is another cluster of private parcels owned by a variety of interests. In total, these private parcels along the entirety of the Upper Verde River comprise 1.4 river miles and 400 acres within the corridor (figure 1).



# Upper Verde River Suitability Study DEA



The Upper Verde River Wildlife Area, managed by the AZGFD, occurs just upstream of the eligible section of the WSR along the Upper Verde River. A portion of the wildlife area extends east into the segment 1 study corridor, but it is not directly adjacent to the river. This parcel comprises less than 30 acres of the total study corridor (figure 1).

## Land Uses

National Forest System lands within the WSR study corridor are managed for multiple uses. While minimally developed overall, the corridor includes portions of one county road and several National Forest System roads and trails. The Verde Canyon Railroad, a heritage passenger excursion line, runs between Clarkdale and Perkinsville; it operates on tracks of the Clarkdale Arizona Central Railroad, a freight line, which passes through the corridor. The El Paso and Transwestern gas pipeline right-of-way (ROW) crosses under the river in segment 1 adjacent to Forest Road 638. Other infrastructure includes portions of 500-kilovolt (kV) and 230 kV transmission lines, and 33 kV distribution lines. In addition, the U.S. Geological Survey and the Salt River Project operate flow gauges on the river upstream of the former Rio Verde Ranch parcel in study segment 1 and approximately 2 miles below the confluence with Sycamore Creek in study segment 4.

Several easements are recognized in the corridor; these easements allow access to nearby properties. Several active grazing allotments include areas that are within one-fourth mile of the river. There are cattle crossings at Perkinsville and at the former Rio Verde Ranch parcel. There is also an operating diversion ditch associated with the private lands at Perkinsville. Some limited commercial and recreational mining has occurred, as well as small-scale harvesting of forest products (mainly for fiber, firewood, and Christmas trees).

## Wild and Scenic Rivers Status

The WSR study process consists of three steps: eligibility, classification, and suitability. Eligibility and classification represent an inventory of existing conditions. Eligibility is an evaluation of whether a river is free flowing and possesses one or more ORVs. If found eligible, a river is assigned a preliminary classification of wild, scenic, or recreational. River segments are classified for study as wild, scenic, or recreational based on the condition of the river and the adjacent lands as they exist at the time of the study. The criteria for determining classification of a river segment are based on existing water resources projects, shoreline development, accessibility, and water quality (FSH 1909.12, section 82.3).

**Wild rivers** are those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail. The watersheds or shorelines are essentially primitive, and the waters are unpolluted. These rivers represent vestiges of primitive America.

**Scenic rivers** are those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive. The shorelines are largely undeveloped, but they are accessible in places by roads.

**Recreational rivers** are those rivers or sections of rivers that are readily accessible by road or railroad. They may have some development along their shorelines, and they may have undergone some impoundment or diversion in the past.

The final procedural step, suitability, provides the basis for determining whether to recommend a river as part of the NWSRS. The Forest Service's analysis and conclusions determine whether an eligible river is a worthy addition to the NWSRS. Suitability asks whether designation under the WSR Act is the best method for managing the river. To determine this, the Forest Service evaluates the potential physical, biological, economic, and social impacts of adding the river to the NWSRS, its landownership status, and public support.

An Arizona statewide inventory of potentially eligible rivers for inclusion in the NWSRS was completed, and the preliminary analysis was published in January 1993 (USDA Forest Service 1993). The Forest Service found segments of the Upper Verde River in the PNF and CNF eligible for inclusion in the NWSRS; this eligibility affords the river segments protections from development that might affect its free flow or ORVs. Forest Service policy at FSH 1909.12, chapter 80 states that management and



# Upper Verde River Suitability Study DEA



development of an eligible river and its corridors cannot be modified to the degree that eligibility or classification would be affected. The PNF staff conducted a thorough review of the segments and revised the eligibility and classification for 37.7 miles of the Upper Verde River in 2010 with concurrence from the CNF staff for the lower 6.7 miles shared with the CNF (USDA Forest Service 2010).

**Table 4**, below, provides a summary of these eligible river segments. A map is found in appendix A, figure 1.

**Table 4. Eligible River Segments Studied for Suitability**

| Segment | Length (Miles) | Related Features (Start/End of Segment)                                                                                                                                                                 | ORVs                                                         | Eligibility Classification |
|---------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|----------------------------|
| 1       | 6.0            | From the PNF's western boundary near Paulden, Arizona, to the confluence of King Tributary and the Verde River                                                                                          | Cultural, Scenic, Fisheries, Wildlife, Recreation, Botanical | Scenic                     |
| 2       | 5.7            | From the confluence of King Tributary and the Verde River to the Arizona Public Service power line and West-wide Energy Corridor location                                                               | Cultural, Scenic, Fisheries, Wildlife, Recreation, Botanical | Wild                       |
| 3       | 19.8           | From the Arizona Public Service power line and West-wide Energy Corridor to below the confluence of Sycamore Canyon and the Verde River                                                                 | Cultural, Scenic, Fisheries, Wildlife, Recreation, Botanical | Scenic                     |
| 4       | 6.7            | From the confluence of Sycamore Canyon and the Verde River to the PNF boundary near Clarkdale, Arizona. At the confluence of Sycamore Canyon, the eastern side of the river (river left) is in the CNF. | Cultural, Scenic, Fisheries, Wildlife, Recreation, Botanical | Recreational               |

Source: USDA Forest Service 2022b

Note: Mileages differ from those presented in the 2010 eligibility study due to changes in data mapping technology.

In 2022, the Forest Service conducted a free-flow analysis consistent with the management guidelines outlined for an eligible or suitable river in FSH 1909.12, section 82.5 using the process developed for evaluation of a designated WSR (FSM 2354.76). The Forest Service conducted the WSR suitability study in response to a proposal from Reclamation to construct two fish barriers within segments of the river already established as eligible for inclusion in the NWSRS.

This DEA considers the environmental and economic consequences of recommending that Congress designate these eligible river segments as potential additions to the NWSRS. It also considers management issues that would be associated with the potential designation of these segments (USDA Forest Service 2022b). It is important to note that changed conditions have occurred since the eligibility study was conducted in 2010. Descriptions of the changes can be found in the 2022 suitability study (USDA Forest Service 2022b).

## Environmental Impacts

### Introduction

This analysis describes the effects of implementing each alternative on the environment, and the uses and activities that may be precluded, limited, or enhanced if a river segment is included in the NWSRS. The management of the Upper Verde River segments is currently guided by Forest Service policy in FSH 1909.12, chapter 80, sections 84.2 and 84.3. To the extent of the Forest Service's authority, the responsible official may authorize site-specific projects and activities on National Forest System lands within eligible or suitable river corridors only where such projects protect the river's free-flowing condition, water quality, ORVs, and classification.



# Upper Verde River Suitability Study DEA



The analysis of environmental effects focuses on the river values (free-flowing condition, water quality, and ORVs), land uses, and management activities in the river segments and corridor. The analysis of environmental effects addresses the potential changes in management that could occur if the eligible river segments are found to be suitable or not suitable for designation into the NWSRS.

Any proposed changes in the river segments' preliminary classification of wild, scenic, or recreational are analyzed on the basis of whether there have been changes in the baseline conditions or reasonably foreseeable actions that would justify the change. Note that each of the four segments includes cultural, scenic, fisheries, wildlife, recreation, and botanical ORVs and that the classifications reflect the baseline level of development and uses within the segment.

The analysis area for direct and indirect effects is the river study corridor (one-quarter mile on each side of the river's banks). The cumulative effects analysis area includes the corridor and the Upper Verde River watershed.

This analysis is programmatic on the issue of suitability rather than a site-specific analysis. No specific on-the-ground actions are proposed or examined. Therefore, there would be no direct impacts associated with the alternatives.

Indirect effects are those caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Changes in the eligibility or suitability of the segments are examined for the potential for indirect effects.

Cumulative effects are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions. The cumulative effects analysis considers the projects listed on the PNF's schedule of proposed actions at the time of this analysis, as well as ongoing uses and activities in the analysis area.

**Table 5. Present and Reasonably Forseeable Actions**

| Project or Activity Name                        | Project or Activity Type                                                                                                                | Status                        | Location                                                                         |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------|
| Arcadian Infracom 1, LLC Fiber-optic Facilities | Fiber-optic line construction                                                                                                           | Foreseeable, in progress 2022 | Within the Upper Verde River watershed; collocation within established road ROWs |
| Chino Landscape Restoration Plan                | Vegetation treatments and fuels management                                                                                              | Ongoing                       | Within the eligible segments and the Upper Verde River watershed                 |
| Noxious Weed Treatments                         | Vegetation treatments and fuels management                                                                                              | Ongoing                       | Within the eligible segments and the Upper Verde River watershed                 |
| Developed Recreation Sites and Use              | Campgrounds, day-use areas, trailheads, and river access                                                                                | Future                        | Within the eligible segments and the Upper Verde River watershed                 |
| USFWS 2008 Reinitiated Biological Opinion       | Channel-spanning barriers prevent upstream movement of nonnative fish species                                                           | Future/proposed               | Two locations in study segment 3                                                 |
| General Recreation                              | Dispersed day and overnight uses, including hiking, viewing heritage resources, wildlife viewing, bird-watching, canoeing, and kayaking | Ongoing                       | Within the eligible segments and the Verde River watershed                       |



# Upper Verde River Suitability Study DEA



| Project or Activity Name            | Project or Activity Type                                                                                                                         | Status  | Location                                                                      |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------|
| Road Maintenance and Improvements   | Regular maintenance, blading, hazard tree removal, culverts, etc.                                                                                | Ongoing | Within the eligible segments and the Verde River watershed                    |
| Travel Management Planning          | Designation of routes (roads and trails) as open to motor vehicle travel, what types of vehicles they are open to, and what season they are open | Ongoing | Within the river corridor and throughout the forest                           |
| The Upper Verde River Wildlife Area | Wildlife area managed by the AZGFD                                                                                                               | Ongoing | Just upstream of eligible segment 1 of the WSR along the Upper Verde River    |
| Utilities Infrastructure            | Utilities ROW maintenance and improvements                                                                                                       | Ongoing | Crossing and within the eligible segments and the Upper Verde River watershed |
| Verde Canyon Railroad               | Heritage passenger excursion rail line                                                                                                           | Ongoing | Within the eligible segments and the Upper Verde River watershed              |

The management directives and authorities that apply to the study corridors at the time of this analysis are summarized in appendix B.

The following assumptions are incorporated into this effects analysis:

- The management of the Upper Verde River segments would continue to be guided by Forest Service policy in FSH 1909.12, chapter 80, sections 84.2 and 84.3.
- Congress may or may not act to designate any segments found suitable and recommended by this analysis.
- Uses and activities occurring on private lands within the study corridor would continue under current requirements protecting the ORVs, water quality, and free flow of the river segments.
- For alternatives requiring a plan amendment (Alternatives 3 and 4), the effects on each resource of amending the PNF plan are the same as the effects analyzed and disclosed for these alternatives for each resource.

## ***Effects Common to All Suitable Determinations***

River segments determined suitable would be recommended for inclusion in the NWSRS. The Forest Service would manage recommended segments to protect their free-flowing condition, water quality, ORVs, and classification consistent with its policy for interim management (FSH 1909.12, chapter 80, sections 84.2 and 84.3).

If designated, the agency administering the river is responsible for protecting and enhancing these same values. Designation affords certain legal protection from adverse development (for example, it prohibits construction of dams and other federally assisted water resource development projects judged to have an adverse effect on river values). The WSR Act also withdraws Federal lands within wild-classified segments from locatable and leasable mineral entry. However, most current uses and activities on Federal lands within the corridors could continue so long as they protect river values. Uses and activities on Federal lands that have the potential to affect river values would be addressed through site-specific environmental analyses on a case-by-case basis.



## Upper Verde River Suitability Study DEA



There is very little private land within the segments. Designation neither gives nor implies government control of private lands within the river corridor. The Forest Service has no authority to regulate or zone private lands under the WSR Act; land use controls on private lands are a matter of State and local zoning. Although the WSR Act includes provisions encouraging the protection of river values through State and local governmental land use planning, there are no binding provisions on local governments. If permitting subsequent activities within the bed and banks of the river threatens or is incompatible with the values that contributed to the river's designation, then, to the extent necessary, mitigation would be accomplished in cooperation with landowners and Federal, State, and local agencies (Interagency Council 2018).

The Forest Service would consider acquiring the land only when it is voluntarily offered and normally undeveloped. While the public law allows for condemnation of private land under certain circumstances, the law also states that condemnation cannot be used if 50 percent or more of the land within the boundaries is already in public (including State and local) ownership. As the Federal lands in these river segments exceed well over 50 percent, Federal condemnation of private property would not be allowed.

The WSR Act also allows for the acquisition of a scenic easement (that is, a defined development right; section 16(c)). The individual landowner would still own the land and have full use of the land within the terms of the scenic easement. However, the Forest Service has not purchased any scenic easements in Arizona; also, it is not anticipated that the Forest Service would pursue any scenic easements for the Upper Verde River.

Maintenance of private roads within the designated corridor generally would not be affected. In consultation with landowners and other local and State permitting agencies, every effort would be made to eliminate or reduce adverse impacts from proposed road improvement, realignment, or new construction. Should mitigation or consultation, or both, fail to reduce adverse impacts to an acceptable level, the Forest Service could negotiate with the landowner to acquire the specific development rights necessary to remove the threat to the river.

Federally assisted water resources projects (that is, activities within the river's bed or its banks, such as roadway bank revetment, new diversion structures, or dredging) are subject to review by the agency administering the river under section 7(a) of the WSR Act. Such projects may be federally assisted or permitted, if they are judged not to adversely affect the river's free-flowing condition, water quality, or ORVs. agencies (Interagency Council 2018).

Ownership of the river's bed and bank is unaffected by designation. If the riverbanks are in private ownership, the landowners continue to control their use after designation. Designation does not grant new privileges to the public on private lands.

Section 13(c) of the WSR Act expressly reserves the quantity of water necessary to protect river values. This federally reserved water right is generally adjudicated in a state forum (such as state court or basin-wide adjudication). The designation does not supersede existing, valid water rights; it establishes a priority date coincident with the river's date of designation in the NWSRS.

The WSR Act requires development of a comprehensive river management plan within 3 full fiscal years after congressional action on designation. This plan would address resource protection, development of lands and facilities, user capacities, and other management practices necessary to protect values. Citizen involvement, particularly on rivers with mixed ownership, is the key to an enduring plan. The current collaborative planning efforts among agencies, State and local governments, and citizen groups provide an excellent basis for its development.

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### ***Effects Common to All Unsuitable Determinations***

River segments determined unsuitable for inclusion in the NWSRS would be managed under existing authorities, largely from the forest plan (USDA Forest Service 2015) and compliance with applicable laws, guidance, and regulations (see appendix B, Management Directives). The interim management found in FSH 1909.12, chapter 80, sections 84.2 and 84.3 would not be applied to the unsuitable segments. Long-term protection and enhancement of the river's free-flowing condition, water quality, and ORVs would not be ensured by the WSR Act. New water resources projects and mineral entry could be allowed, to the



# Upper Verde River Suitability Study DEA



extent of existing management authorities. Changes to the management of Federal lands would likely occur as land management plans are revised over time and reflect changing values, societal needs, and natural resource management approaches.

Current collaborative efforts among agencies, State and local governments, and citizen groups intended to conserve and manage natural resources would be unaffected. In particular, efforts to improve native fisheries, including the proposal to construct fish barriers, could proceed, if approved after an appropriate environmental analysis separate from this DEA. The goals and objectives of these partnerships focus on the protection and enhancement of resources; they could serve as alternative approaches to protecting river-related values. Uses and activities on private lands within the river corridor would continue as desired by the landowners, subject to local regulation.

## Resource Effects by Alternative

### Free-Flowing Condition

The WSR Act defines free flowing as “existing or flowing in a natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway. The existence, however, of low dams, diversion works, or other minor structures at the time any river is proposed for inclusion in the national wild and scenic rivers system shall not automatically bar its consideration for such inclusion: *Provided*, that this shall not be construed to authorize, intend, or encourage future construction of such structures within components of the national wild and scenic rivers system” (section 16(b)).

### Affected Environment

The study corridor and the four eligible river segments are currently free of major impoundments that would potentially affect the river’s free-flowing condition. There have been no changes in the river’s free-flowing condition subsequent to the 2010 eligibility determination for these segments.

### Free-flowing Condition—Direct, Indirect, and Cumulative Effects

**Common to All Alternatives:** The study corridor would continue to be free of major impoundments that would potentially affect the river’s free-flowing condition. No specific on-the-ground actions are proposed or examined in this analysis. Therefore, there would be no direct impacts associated with the alternatives. Indirect or cumulative effects on the free-flowing conditions could result from future actions. Any water resources projects proposed on Federal lands within the Upper Verde River segments would continue to be analyzed for their effect on the river’s free-flowing condition, water quality, and ORVs. Adverse effects would be prevented, to the extent of the Forest Service’s existing authorities.



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**Proposed Action—All Segments Suitable and Recommended:** As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to protect the free-flowing conditions until designation.

If designated by Congress, the free-flowing conditions would be protected from the effects of water resources projects under section 7(a) of the WSR Act. This provision prohibits the Federal Energy Regulatory Commission from licensing the construction of hydroelectric facilities on rivers that have been designated as components of the NWSRS. Further, the act prohibits other Federal agencies from assisting in the construction of any water resources projects that would have a direct and adverse effect on a designated river. A determination under section 7(a) would be needed to ensure that any project would not invade the area or diminish the scenic, recreational, and fish and wildlife values that are present (Interagency Council 2004).

Proposed water resources projects below, above, or on a stream tributary to a designated river are evaluated for their potential to impact the designated river area or unreasonably diminish the designated river's scenic, recreational, fish, or wildlife values. In the long term, the WSR Act would continue to protect the free-flowing conditions of these designated segments.

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**Alternative 3—Partially Suitable and Recommended (Segment 3 Unsuitable):** As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to protect the free-flowing condition until designation. The finding of not suitable for segment 3 would allow future water resources project management activities; however, it would no longer protect the segment's ORVs and free-flowing condition. Water resources projects affecting the free-flowing condition could be constructed in segment 3 without the protections of a WSR classification. As a cumulative effect, the current continuous free-flow of the 37.7-mile Upper Verde River segment could be fragmented by removing the eligibility and water resource developments that may impede free-flowing conditions. There would be no effect on segments 1, 2, and 4.

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**Alternative 4—All Segments as Modified Are Suitable and Recommended (Lengthen and Shorten Segments, Combine Segments, and Change Classification):** As with all suitable and recommended segments, the current forest plan and WSRs interim management would continue to protect the free-flowing condition until designation. Segments 1 and 2 would be classified as wild, which would better characterize segment 1's current level of development and the segments' ORVs and free-flowing conditions. Management restrictions associated with the wild classification regarding water resources development, primitive shoreline development, the lack of vehicle accessibility, and water quality would help maintain the free-flowing conditions and preclude impoundments.

Segment 3 would be shortened and recommended as suitable, and it would retain its scenic classification. Management restrictions associated with the scenic classification regarding water resources development, primitive shoreline development, minor vehicle accessibility, and water quality would help maintain the free-flowing conditions and preclude impoundments. Segments 3a and 3b on the current upstream and downstream boundaries of segment 3 would not be recommended as suitable, which would allow for future management activity proposals. Removing segments 3a and 3b from suitability consideration would no longer assure protection of the free-flowing condition at these locations. The Forest Service could continue existing management or revise the management of these segments. Water resources projects could be constructed without the constraints of a WSR classification. As a cumulative effect, the current continuous free-flowing condition of the 37.7-mile Upper Verde River segment could be altered by water resource developments that impede the free-flowing conditions at those locations.

Segment 4 would be slightly extended upstream and retain a recreational classification. Management restrictions on water development allow for some preexisting impoundments or diversions that would impact the free-flowing conditions, but none are present or reasonably foreseeable in segment 4.

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## Water Management

### Affected Environment

The study corridor and the four eligible river segments are currently free of major impoundments that would potentially affect the river's free-flowing condition. There are minor water diversions for stock waters in limited locations and additional water rights held by the AZGFD and the PNF. There have been no new water development projects subsequent to the eligibility determination for these segments.

### Water Management—Direct, Indirect, and Cumulative Effects

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**Common to All Alternatives:** The study corridor is currently free of major impoundments. No specific on-the-ground actions are proposed or examined in this analysis. Therefore, there would be no direct impacts associated with the alternatives. Indirect or cumulative effects on the free-flowing conditions could result from future actions. Any water resources projects proposed on Federal lands within the Upper Verde River segments would continue to be analyzed for their effect on the river's free-flowing condition, water quality, and ORVs.

Existing, valid water rights, including priority consumptive rights that predate instream rights held by the PNF, the CNF, the AZGFD, and the Nature Conservancy, would not be superseded by the determination. Maintenance of water developments and ditch lines would occur under all alternatives. These activities would be allowed under all alternatives as long as the water quality is protected to meet State-defined beneficial uses. The Forest Service would continue to protect and enhance the water quality using existing authorities, including management area direction from the forest plan and interim management guidelines.

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**Proposed Action—All Segments Suitable and Recommended:** The current forest plan and WSRs interim management would continue to protect the free-flowing condition, water quality, and ORVs until designation. If designated, designation would protect the segments from the adverse effects of water resources projects under section 7(a) of the WSR Act. This provision prohibits the Federal Energy Regulatory Commission from licensing the construction of hydroelectric facilities on rivers that have been designated as components of the NWSRS. Further, the act prohibits other Federal agencies from assisting in the construction of any water resources project that would have a direct and adverse effect on a designated river. Proposed water resources projects below, above, or on a stream tributary to a designated river are evaluated for their potential to impact the designated river area or unreasonably diminish the designated river's scenic, recreational, fish, or wildlife values. In the long term, the WSR Act would protect the free-flowing condition of these designated segments.

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**Alternative 3—Partially Suitable and Recommended (Segment 3 Unsuitable):** The current forest plan and WSRs interim management would continue to protect the free-flowing condition, water quality, and ORVs. Removal of segment 3 from suitability consideration would no longer protect the segment's ORVs and free-flowing condition; however, it would provide the Forest Service with more management flexibility and allow for construction of instream structures. Water resources projects could be constructed with fewer constraints than under a WSR classification.

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**Alternative 4—All Segments as Modified Are Suitable and Recommended (Lengthen and Shorten Segments, Combine Segments, and Change Classifications):** As with all suitable and recommended segments, the current forest plan and WSRs interim management would continue to protect the free-flowing condition until designation. Segments 1 and 2 would be classified as wild, which would better characterize segment 1's current level of development and continue to protect the segments' ORVs and free-flowing conditions. Management restrictions associated with the wild classification regarding water resources development, primitive shoreline development, the lack of vehicle accessibility, and water quality would help maintain the free-flowing conditions.

Segment 3 would be shortened and recommended as suitable, and it would retain its scenic classification. Management restrictions associated with the scenic classification regarding water resources development, primitive shoreline development, minor vehicle accessibility, and water quality would help maintain the free-flowing conditions and preclude future water control impoundments. Segments 3a and 3b would not be recommended as suitable and may permit future management activities. The unsuitable determination of segments 3a and 3b would no longer protect the small segments' ORVs (if any) and free-flowing conditions from further management. The Forest Service could revert to existing management or revise the management of these segments. Water resources projects could be constructed; they would still need to be consistent with section 7(a) of the WSR Act constraints on not invading or unreasonably diminishing the scenic, recreational, and fish and wildlife values present in the area as of the date of designation.

Segment 4 would be extended and retain a recreational classification. Management restrictions on water development allow for some preexisting impoundments or diversions, but none are present or reasonably foreseeable in the extended segment 4.

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## Fisheries ORV

### Affected Environment

The Verde River is one of the few remaining perennial, free-flowing rivers in Arizona for most of its length. The entire 37.7 miles of the Upper Verde River contain habitat for native fish and aquatic wildlife species. Recurrent flooding and a natural flow regime are particularly important in maintaining the habitat for these native species and their prey. There is a diversity of aquatic habitats (for example, low-gradient riffles, high-gradient riffles, glides/runs, and pools) throughout the reach.

The upper 22 miles of the Verde River from the confluence of Granite Creek downstream to just above Perkinsville have a declining base flow since the mid-1990s, as recorded at the Paulden gauging station (<https://waterdata.usgs.gov>). This flow is primarily from the Big Chino Valley aquifers with groundwater discharge via springs near the confluence of Granite Creek that supply at least 80 percent of the Upper Verde River base flow (Wirt and Hjalmarsen 2000). The increase in groundwater withdrawals from the Big Chino Valley aquifers and the extended drought are main factors in the reduced base flows in this section of the Verde River. There are similar trends for base flows recorded at the Clarkdale gauging station for the next 20-mile reach from Perkinsville downstream to below the confluence of Sycamore Creek. Base flow contributions from the Coconino Plateau and the Verde Valley subbasins make up the majority of the flow for this section of the Verde River (Blasch et al. 2005).

The Upper Verde River retains a native fish population of five species based on long-term surveys conducted by the AZGFD and the Forest Service. The native fish known to currently occur in the Upper Verde River include roundtail chub, Sonora sucker, desert sucker, longfin dace, and speckled dace. There have been limited surveys for aquatic wildlife species, including northern Mexican garter snake, narrow-headed garter snake, Arizona toad, and lowland leopard frog (known mainly from tributaries). The Verde River was historically home to one of the most diverse populations of native fish species in Arizona (AZGFD 2022).



## Upper Verde River Suitability Study DEA



All four segments of the Upper Verde River contain USFWS-designated critical habitat for two federally listed endangered fish species: loach minnow (*Tiaroga cobitis*) and spinedace (*Meda fulgida*) (USDA Forest Service GIS 2022). The critical habitat found along the Upper Verde River deemed essential for the recovery of loach minnow and spinedace was designated by the USFWS on April 25, 2000. Spinedace has become rare in the Upper Verde River in recent years; it was last observed in 1999. Therefore, this species is presumed to be no longer present in the Upper Verde River (USDA Forest Service 2010).

Segments 3 and 4 contain USFWS-designated critical habitat for the razorback sucker, which was listed as an endangered species in 1991. Because of conservation efforts and reestablishment of populations that are surviving, spawning, and showing rare signs of reproductive success, the species was proposed for reclassification in 2021 (USFWS 2022).

Important activities and management supporting native fisheries (and also reptiles and amphibians) are conducted by the Forest Service, AZGFD, and USFWS. The AZGFD conducts fish surveys every 3 years along the Upper Verde River. Nonnative fish species present include redeye bass, flathead catfish, channel catfish, yellow bullhead, green sunfish, common carp, red shiner, mosquitofish, and fathead minnow. Other nonnative aquatic species include crayfish, American bullfrog, and Asian clam.

Currently, nonnative fish populations are a threat to native fish, frogs, snakes, and other aquatic or semiaquatic species in the Upper Verde River. The long-term viability of native fish is at risk without actions taken to enhance and protect native fish populations. For example, the federally endangered spinedace, a once common species in the Upper Verde River, appears to be eradicated (Robinson and Crowder 2015), and the community is now dominated by nonnative fish species (USFWS 2009). The Upper Verde River retains a strong potential to reestablish several native fish populations, provided nonnative fish can be removed and the river can be secured against their reinvasion.

**ORV Criteria:** Aquatic species' values may be judged on the relative merits of either fish and aquatic species populations or habitat, or a combination of these river-related conditions.

The Upper Verde River provides exceptional high-quality habitat for fish species indigenous to the region. Of particular significance is habitat for wild stocks; State-listed species; or candidate, threatened, endangered, or sensitive species. The diversity of habitats is an important consideration and could, in itself, lead to a determination of an ORV.

Segments 1–4: Designated critical habitat for the spinedace and loach minnow includes 43 miles of the Upper Verde River main stem and adjacent floodplain within 300 lateral feet on either side of the bank-full stage, from the forest boundary near Clarkdale upstream to Sullivan Dam (USFWS 2012). A total of 37.7 miles of critical habitat exists in the study corridor.

Segments 3–4: Designated critical habitat for the razorback sucker includes the Verde River and its 100-year floodplain from the PNF boundary at Perkinsville to Horseshoe Dam, including Horseshoe Lake to the full pool elevation (USFWS 1994). A total of 16 miles of designated razorback sucker critical habitat exists in the study corridor.

**Eligibility Determination for Fisheries ORV:** Fisheries are an ORV for the entire stretch of the Upper Verde River (Sillas 2009). The Verde River is one of Arizona's major perennial rivers. The Upper Verde River is one of a few rivers in the Gila River Basin that retains a native fish assemblage in spite of the existence of a variety of nonnative species. Some native fish species are unlikely to persist or recover without active management to protect them from nonnative fish.

There is high interest in the Upper Verde River and its native fish population from the PNF staff, State and Federal agencies, and private conservation organizations. The aquatic habitat is of considerable value to the conservation of the native species rangewide in the Gila River Basin. The physical attributes of the habitat (that is, a consistent base flow, natural flooding regime, and variety of mesohabitat types) are relatively intact; however, the biotic components of the habitat, particularly the presence of nonnative fish, likely prevent the existence of any spinedace or the conservation of loach minnow.



## Upper Verde River Suitability Study DEA



| <b>FISHERIES SUMMARY</b> | Presence of ORV<br>(Yes/No) | Scale of Importance<br>(Local, Regional, or National) |
|--------------------------|-----------------------------|-------------------------------------------------------|
| Segment                  |                             |                                                       |
| 1–4                      | Yes                         | Local, regional, and national                         |

### Fisheries ORV—Direct, Indirect, and Cumulative Effects

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**Common to All Alternatives:** The Upper Verde River provides aquatic habitat for 10 native fish and aquatic wildlife species. The AZGFD would continue to manage fish populations under a fish management plan for the river and its tributaries. The plan was developed cooperatively with the Forest Service, USFWS, and other entities. Management actions include monitoring, electrofishing, and nonnative fish removal.

The Forest Service would continue to manage the river and corridors. The Forest Service also would continue to encourage State and local agency cooperation in the management and maintenance of the river corridor, where appropriate, to meet the overall goals of river protection. Any water resources projects proposed on Federal lands within the Upper Verde River segments would continue to be analyzed for their effect on the river's free-flowing condition, water quality, and ORVs. The current forest plan and WSRs interim management would continue to protect the fisheries ORV and the free-flowing condition. In addition, the protections afforded to critical habitat for listed species, particularly consideration of the effects on the primary constituent elements, would continue to be analyzed for any proposed project on Federal lands.

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**Proposed Action—All Segments Suitable and Recommended:** This alternative would recommend that all four segments would be suitable for WSR designation. As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the fisheries ORV.

Designation of these segments would prevent water resources projects, such as the development of dams, hydropower projects, or other in-channel modifying structures. This would have an indirect beneficial effect on the fisheries ORV. The AZGFD would continue to manage fish populations under the fish management plan in cooperation with the Forest Service and the USFWS. The current forest plan, WSRs interim management, and critical habitat would continue to protect the fisheries ORV and the free-flowing condition.

Finding these segments suitable for designation as wild, scenic, or recreational would have beneficial (no allowance for water resource projects that affect the free flow) and negative effects on the fisheries ORV of the Upper Verde River by precluding the potential for future actions; this includes the construction of fish barriers, which may be necessary to restore listed species of native fish (see appendix C). Therefore, the determination is that this alternative would have both potential beneficial and adverse effects on the fisheries ORV.

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**Alternative 3—Partially Suitable and Recommended (Segment 3 Unsuitable):** Segments 1, 2, and 4 would be recommended as suitable for WSR designation. As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the fisheries ORV.

Designation of segments 1, 2, and 4 would provide protection from federally assisted water development projects that would adversely affect the river's free-flowing condition, water quality, or fisheries ORV. Designation of these segments could prevent water resources projects, such as the development of dams, hydropower projects, or other in-channel modifying structures. This would have an indirect beneficial effect on the fisheries ORV.

The removal of suitability consideration from segment 3 would no longer protect the segment's ORVs and free-flowing condition. However, it would provide the Forest Service and its management partners more flexibility to facilitate additional fisheries management activities, such as building new vehicle access, building fencing, and maintaining small structures. It would also allow consideration of future fish barriers to effectively control the upstream movement of nonnative fish in order to achieve management goals, such as potentially restoring spikedace and loach minnow. This could provide a benefit for native, threatened, and endangered fish species that could extend throughout the four segments. Water resources projects could be constructed without the constraints of a WSR classification. However, other laws and policies, such as the ESA and Forest Service sensitive species designations, would continue to limit negative effects and protect fish and wildlife.

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**Alternative 4—All Segments as Modified Are Suitable and Recommended (Lengthen and Shorten Segments, Combine Segments, and Change Classifications):** As with all suitable and recommended segments, the current forest plan and WSRs interim management would continue to prioritize protection of the free-flowing condition and the fisheries ORV. Segments 1 and 2 would be classified as wild, which would better characterize segment 1's current level of development and continue to protect the segments' ORVs and free-flowing conditions. Management restrictions associated with the wild classification regarding water resources development, primitive shoreline development, the lack of vehicle accessibility, and water quality would help maintain the local fisheries and preclude impoundments.

Segment 3 would be shortened and recommended as suitable, and it would retain its scenic classification. Management restrictions associated with the scenic classification regarding water resources development, primitive shoreline development, minor vehicle accessibility, and water quality would help maintain the fisheries ORV and preclude impoundments.

Segments 3a and 3b would be removed from suitability consideration to allow future management activities to enhance threatened and endangered fish habitat. This removal of suitability consideration would change the legal standard for protection from "no direct and adverse impacts to water quality, free flow, and ORVs" to protection from actions that would "not invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values present (Interagency Council 2004)." This would allow for other management actions, which could further protect upstream fisheries.

Segment 4 would be slightly extended and would retain a recreational classification. Management restrictions associated with the recreational classification regarding water resources development—although slightly less than other classifications—still prevent negative effects on the free-flowing condition or ORVs. The Forest Service would anticipate a positive effect on upstream segments through this protection.

These changes in classification and suitability for segments 3a and 3b would provide the Forest Service and its management partners with more flexibility to facilitate fisheries management activities that would be prohibitive under WSR designation, thus having a positive effect on the fisheries ORV for all segments above segment 3b.

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# Upper Verde River Suitability Study DEA



## Wildlife ORV

### Affected Environment

Wildlife is abundant along the Upper Verde River, as the riparian vegetation along the river corridor provides valuable habitat for a variety of species.

**Amphibians and Reptiles:** Reptiles and amphibians documented include the gopher snake, narrow-headed garter snake, northern Mexican garter snake, Arizona black rattlesnake, short-horned lizard, red spotted toad, lowland leopard frog, Arizona toad, Great plains toad, Woodhouse toad, and Mexican spadefoot.

**Birds:** The riparian corridor provides an important migration corridor for numerous migratory bird species. The Upper Verde River Wildlife Area has been designated as an important bird area through the National Audubon's Important Bird Area program. Documented species include the bald eagle, belted kingfisher, southwestern willow flycatcher, red-tailed hawk, American peregrine falcon, yellow-billed cuckoo, common black hawk, and golden eagle. There are 221 bird species documented on the Verde River (Haney et al. 2008).

**Mammals:** Big game species include mule deer and javelina. Elk and black bear use is infrequent but has recently been observed in the area. Pronghorn, in low numbers, use the pinyon-juniper uplands that adjoin the Upper Verde River; this includes a critical north-south migration corridor between the Prescott and Kaibab National Forests. Mountain lions occupy the riparian corridor and rugged side drainage. Common predators and furbearers that inhabit the area include the striped skunk, badger, beaver, coyote, gray fox, and bobcat. Additionally, pale Townsend's big-eared bat, pocket free-tailed bat, river otter, and beaver occupy the river corridor (AZGFD 2022).

The Upper Verde River corridor contains nine wildlife species of special concern, including endangered, threatened, and candidate species; Southwestern Region sensitive species; and State wildlife species of concern. The Upper Verde River corridor contains important populations of federally listed threatened and endangered wildlife species, including the narrow-headed garter snake (*Thamnophis rufipunctatus*), northern Mexican garter snake (*Thamnophis eques megalops*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), and the southwestern willow flycatcher (*Empidonax traillii extimus*).

All four segments of the Upper Verde River contain USFWS-designated critical habitat for various federally listed threatened or endangered wildlife species. The USFWS has designated critical habitat under the Endangered Species Act (ESA) of 1973, as amended, for each of the species listed in **table 6**, below. The individual recovery plans for these species outline management actions that guide land management agencies in efforts to remove recognized threats and to recover these species' populations. Critical habitat designation is based on recovery needs and guidelines as identified in the recovery plan. See **table 6**, below, for USFWS-designated critical habitat by segment.

**Table 6. USFWS-Designated Critical Habitat by Segment**

| Upper Verde River Segment | USFWS-Designated Critical Habitat |                               |                      |                                |
|---------------------------|-----------------------------------|-------------------------------|----------------------|--------------------------------|
|                           | Narrow-headed Garter Snake        | Northern Mexican Garter Snake | Yellow-billed Cuckoo | Southwestern Willow Flycatcher |
| 1                         | Designated                        | —                             | Designated           | —                              |
| 2                         | Designated                        | —                             | Designated           | —                              |
| 3                         | Designated                        | —                             | Designated           | —                              |



# Upper Verde River Suitability Study DEA



| Upper Verde River Segment | USFWS-Designated Critical Habitat |                               |                      |                                |
|---------------------------|-----------------------------------|-------------------------------|----------------------|--------------------------------|
|                           | Narrow-headed Garter Snake        | Northern Mexican Garter Snake | Yellow-billed Cuckoo | Southwestern Willow Flycatcher |
| 4                         | —                                 | Designated                    | Designated           | Designated                     |

Source: USDA Forest Service GIS 2022

**ORV Criteria:** Wildlife values may be judged on the relative merits of either terrestrial or aquatic wildlife populations or habitat, or a combination of these conditions.

**Determination for Wildlife ORV:** Wildlife is an ORV for the entire stretch of the Upper Verde River. The Upper Verde River corridor under consideration for WSR eligibility has undergone changes in regional importance. Additional parcels outside the PNF have been added to public ownership. The riparian community and the good water quality provide for a remarkable diversity and abundance of wildlife species. The Upper Verde River contains species of special concern, including one endangered, one threatened, and one candidate species; nine Southwestern Region sensitive species; and three State wildlife species of concern. Numerous other species rely on the river corridor for migration and use. Wildlife abundance and the presence of federally listed species make wildlife an ORV of national significance (Hartwig 2009).

| WILDLIFE SUMMARY | Presence of ORV (Yes/No) | Scale of Importance<br>(Local, Regional, or National) |
|------------------|--------------------------|-------------------------------------------------------|
| Segment          |                          |                                                       |
| 1–4              | Yes                      | Local, regional, and national                         |

## Wildlife ORV—Direct, Indirect, and Cumulative Effects

**Common to All Alternatives:** The Upper Verde River corridor contains nine wildlife species of special concern, including endangered, threatened, and candidate species; Southwestern Region sensitive species; and State wildlife species of concern. The AZGFD would continue to manage wildlife populations. The Forest Service would continue to manage the river and corridors and encourage State and local agency cooperation in the management and maintenance of the river corridor to meet the overall goals of river protection. Any water resources projects proposed on Federal lands within the Upper Verde River segments would continue to be analyzed for their effect on the river's free-flowing condition, water quality, and ORVs. The current forest plan and WSRs interim management would continue to protect the wildlife ORV and the free-flowing condition.

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**Proposed Action—All Segments Suitable and Recommended:** This alternative would recommend that all four segments would be suitable for WSR designation. As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the wildlife ORV.

Designation of these segments would prevent water resources projects, such as the development of dams, hydropower projects, or other in-channel modifying structures. Other types of development associated with recreation, utility ROWs, roads, and other multiple-use projects would be analyzed with prioritization for the protection of the wildlife ORV. This would have an indirect beneficial effect on the wildlife ORV.

The AZGFD would continue to manage wildlife populations in cooperation with the Forest Service and the USFWS.

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**Alternative 3—Partially Suitable and Recommended (Segment 3 Unsuitable):** Segments 1, 2, and 4 would be recommended as suitable for WSR designation. As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the wildlife ORV.

The removal of suitability consideration for segment 3 would no longer prioritize the protection of the segment's wildlife ORV under the interim management policy. It would provide the Forest Service and the AZGFD with more flexibility to facilitate management activities in the river corridor requiring vehicle access, fencing, maintenance of small structures, and fish management and monitoring. However, the removal of suitability consideration could lead to a change in management that could result in substantial human activity that could indirectly affect wildlife habitat and disturb wildlife. Water resources projects could be constructed without the constraints of a WSR classification. However, other laws and policies, such as the ESA and Forest Service sensitive species designations, would continue to limit negative effects and protect fish and wildlife. This alternative is expected to have both positive and negative effects on the wildlife ORV, though the alternative would cause fewer negative effects than positive effects.

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**Alternative 4—All Segments as Modified Are Suitable and Recommended (Lengthen and Shorten Segments, Combine Segments, and Change Classifications):** As with all suitable and recommended segments, the current forest plan and WSRs interim management would continue to prioritize the protection of the wildlife ORV until designation. Segments 1 and 2 would be classified as wild, which would better characterize segment 1's current level of development and the segments' wildlife ORVs. Management restrictions associated with the wild classification regarding water resources development, primitive shoreline development, the lack of vehicle accessibility, and water quality would help maintain the wildlife ORV.

Segment 3 would be slightly shortened and recommended as suitable, and it would retain its scenic classification. Management restrictions associated with the scenic classification regarding water resources development, primitive shoreline development, minor vehicle accessibility, and water quality would help maintain the local wildlife.

To promote future management activities, segments 3a and 3b would be determined unsuitable. This removal of suitability consideration would change the legal standard for protection from "no direct and adverse impacts to water quality, free flow, and ORVs" to protection from actions that would "not invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values present (Interagency Council 2004)." However, other laws (the ESA) and policies (Forest Service sensitive species) would be applied to manage and protect wildlife; this would limit the negative effects.

Segment 4 would be slightly extended and would retain a recreational classification. Although management restrictions associated with the recreational classification are slightly less restrictive

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regarding water resources development, the recreational classification still prevents negative effects on the free-flowing condition or ORVs. The Forest Service would continue to prioritize protection of the wildlife ORV in this segment.

These changes in classification and suitability consideration would provide the Forest Service and the AZGFD with more flexibility to facilitate management activities requiring vehicle access, fencing, and maintenance of small structures. Management of these segments could result in increased human activity that may impact local wildlife and habitat. Water resources projects could be constructed without the constraints of a WSR classification in segments 3a and 3b.

## Botanical ORV

### Affected Environment

Riparian vegetation along the Verde River is characterized as mixed broadleaf deciduous, dominated by Arizona ash, boxelder, Arizona walnut, and netleaf hackberry. Nonnative species, primarily tamarisk, are occasionally interspersed with native tree species. Goodding's willow, red willow, and Fremont cottonwood are also found along the river. Low floodplain terraces are dominated by large stands of desert willow, while the highest terraces are vegetated by velvet mesquite (AZGFD 2022).

This diversity of vegetation along the river corridor attracts a wide variety of avian species, which are discussed in more detail in the "Wildlife ORV" section.

**ORV Criteria:** Vegetation and ecological values may be judged on the relative merits of either populations or communities, or a combination of these conditions.

**Determination for Botanical ORV:** Botany is an ORV for the entire stretch of the Upper Verde River. Natural riparian processes and diverse native riparian plant communities are present throughout the entire Upper Verde River. Riparian areas account for only 0.4 percent of Arizona's total area. The role of riparian areas is disproportionate to their size, particularly in semiarid regions. This is mainly due to riparian areas' many functions and values. Riparian areas support more productive and diverse vegetation assemblages and serve more ecological functions than their terrestrial upland counterparts. These areas provide important links between terrestrial upland and aquatic ecosystems. Two Region 3 sensitive plant species are documented in the study corridor. The exact location in relation to the river is not known (Carsey 2009).

| BOTANY SUMMARY | Presence of ORV<br>(Yes/No) | Scale of Importance<br>(Local, Regional, or National) |
|----------------|-----------------------------|-------------------------------------------------------|
|                |                             |                                                       |
| Segment        |                             |                                                       |
| 1–4            | Yes                         | Local and regional                                    |

### Botanical ORV—Direct, Indirect, and Cumulative Effects

**Common to All Alternatives:** The Forest Service would continue to manage the river and corridors to maintain and restore riparian vegetation. Vegetation management or other projects proposed on Federal lands within the Upper Verde River segments would continue to be analyzed for their effect on the river's free-flowing condition, water quality, and ORVs. The current forest plan and WSRs interim management would continue to protect the botanical ORV and the free-flowing condition.



# Upper Verde River Suitability Study DEA



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**Proposed Action—All Segments Suitable and Recommended:** This alternative would recommend that all four segments would be suitable for WSR designation. As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the botanical ORV.

Designation of these segments would prioritize the protection and enhancement of the botanical ORV when considering development associated with recreation, utility ROWs, roads, and other multiple-use projects. This would have an indirect beneficial effect on the botanical ORV.

Management would entail protecting the natural riparian processes and diverse native riparian plant communities that are already present.

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**Alternative 3—Partially Suitable and Recommended (Segment 3 Unsuitable):** Segments 1, 2, and 4 would be recommended as suitable for WSR designation. As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the botanical ORV.

The unsuitable determination for segment 3 would no longer prioritize the protection of the segment's botanical ORV. It could allow for various levels of development in the river corridor that would negatively affect the vegetation within the riparian corridor; this could impact vegetation communities in the area through direct removal and introduction of nonnative invasive species. Vegetation treatments focused on removal of nonnative species would continue to occur in all segments, but they could have additional management flexibility in the unsuitable segment 3.

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**Alternative 4—All Segments as Modified Are Suitable and Recommended (Lengthen and Shorten Segments, Combine Segments, and Change Classifications):** As with all suitable and recommended segments, the current forest plan and WSRs interim management would continue to prioritize the protection of the botanical ORV until designation. Segments 1 and 2 would be classified as wild, which would better characterize segment 1's current level of development and the segments' botanical ORVs. Management restrictions associated with the wild classification would help maintain the local vegetation communities and continue to allow vegetation management.

Segment 3 would be shortened and recommended as suitable, and it would retain its scenic classification. Management restrictions associated with the scenic classification regarding water resources development, primitive shoreline development, minor vehicle accessibility, and water quality would help maintain the local vegetation communities. To allow future management activities, segments 3a and 3b would be determined unsuitable. This removal of suitability consideration would change the legal standard for protection from "no direct and adverse impacts to water quality, free flow, and ORVs" to protection from actions that would "not invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values present (Interagency Council 2004)." This could have minimal impacts on local vegetation with more human activity and potential development in the area.

Segment 4 would be slightly extended and would retain a recreational classification. Management restrictions associated with the recreational classification regarding water resources development would allow for some impoundments or diversions that could have minor impacts on local vegetation communities with more human activity and development.

Prescribed fires and wildfires managed to meet resource objectives could be used in all segments to restore or maintain habitat for threatened, endangered, or sensitive species or to restore the natural range of variability.

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The changes in the suitability within segments 3a and 3b would no longer protect the botanical ORV; however, the Forest Service would continue to protect the botanical ORV in the remaining segments. The changes would have little or no effect on the vegetation management and maintaining the botanical ORV for the remaining segments.

## Recreation ORV

### Affected Environment

A wide range of dispersed recreation opportunities are supported in the corridor. River-related recreation along the Verde River includes fishing, swimming, kayaking, and canoeing. Associated activities also include hunting, bird-watching, off-highway vehicle use, picnicking, camping, hiking, backpacking, and horseback riding (AZGFD 2022).

Recreation opportunities are, or have the potential to be, popular enough to attract visitors throughout or beyond the region of comparison or are unique or rare within the region of comparison. The river may also provide a recreational setting for national or regional usage.

Recreational use of the Upper Verde River is a highly valued activity among many residents and visitors to the region. The opportunity to swim, wade, canoe, kayak, fish, hunt, explore, view wildlife and birds, or simply enjoy the serenity and beauty found in and around this aquatic environment draws many visitors to the Verde River each year (Baxter 2009).

Recreational use in the study corridor is primarily focused where road access occurs at Perkinsville Bridge and Bear Siding, primarily in the form of day-use swimming, fishing, and sightseeing. Overnight dispersed camping occurs in the hotter months, but there are no officially designated campgrounds or sites. There are numerous trail access points above Perkinsville Bridge; these are lightly used for hiking, backpacking, hunting, and fishing, and provide a unique primitive experience to visitors. River running (canoeing and kayaking) occurs in very small numbers from the PNF's western boundary downstream, typically related to available seasonal flows. This use increases after the river's confluence with Sycamore Creek and could be considered light to moderate. The river's more accessible 6.7 miles in the CNF are more heavily visited for day-use swimming during the summer months and dispersed car camping on the mesas above the river.

The recreation opportunity spectrum (ROS) refers to a system that defines, classifies, inventories, and monitors existing and desired recreation settings. Generally, it classifies recreation opportunities as they exist, ranging from remote and undeveloped (primitive) settings to populated and developed settings (urban). These are based on a number of factors, including access, remoteness, social encounters, amount of visitor management, type of recreation development, and extent of visitor impacts. ROS classes within the segments include:

- Roaded natural
- Roaded modified
- Semiprimitive motorized
- Semiprimitive nonmotorized

**Table 7**, below, displays the acres of each ROS class for each segment of the Upper Verde River.



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**Table 7. ROS Class Acres by Segment**

| Upper Verde River Segment | ROS Class Acres |                 |                         |                            |
|---------------------------|-----------------|-----------------|-------------------------|----------------------------|
|                           | Roaded Natural  | Roaded Modified | Semiprimitive Motorized | Semiprimitive Nonmotorized |
| 1                         | —               | 100             | —                       | 1,800                      |
| 2                         | 200             | 100             | —                       | 1,400                      |
| 3                         | 100             | 600             | 3,300                   | 2,000                      |
| 4                         | —               | 500             | 500                     | —                          |

Source: USDA Forest Service GIS 2022

**ORV Criteria:** Recreation opportunities are, or have the potential to be, popular enough to attract visitors from throughout or beyond the region of comparison or are unique or rare within the region. River-related opportunities include, but are not limited to, sightseeing, interpretation, wildlife observation, camping, photography, hiking, fishing, hunting, and boating. The river may provide settings for national or regional usage or competitive events.

**Determination for Recreation ORV:** Recreation is an ORV for the entire stretch of the Upper Verde River. Recreational use of the Upper Verde River is a highly valued activity among many people. A variety of recreation opportunities exist along the length of the river and within the river corridor. People travel from all over the region, and to a lesser extent the country, to visit this rare, perennial Arizona river. Additionally, there is a popular excursion sightseeing train in segments 3 and 4. This, plus the myriad recreation opportunities, elevates the recreation ORV to national importance.

| RECREATION SUMMARY | Presence of ORV<br>(Yes/No) | Scale of Importance<br>(Local, Regional, or National) |
|--------------------|-----------------------------|-------------------------------------------------------|
| Segment            |                             |                                                       |
| 1–2                | Yes                         | Local and regional                                    |
| 3–4                | Yes                         | Local, regional, and national                         |

## Recreation ORV—Direct, Indirect, and Cumulative Effects

**Common to All Alternatives:** Recreation is an ORV for the entire stretch of the Upper Verde River. Recreational use of the Upper Verde River is highly valued by many people. The Forest Service would continue to manage the river and corridors to maintain a wide variety of recreation opportunities that are compatible with suitability. Projects proposed on Federal lands within the Upper Verde River segments would continue to be analyzed for their effect on the river's free-flowing condition, water quality, and ORVs.



## Upper Verde River Suitability Study DEA



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**Proposed Action—All Segments Suitable and Recommended:** This alternative would recommend that all four segments would be suitable for WSR designation. As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the recreation ORV.

Designation of these segments would prioritize the protection and enhancement of the recreation ORV when considering development associated with recreation, utility ROWs, roads, and other multiple-use projects. This would have an indirect beneficial effect on the recreation ORV.

Recreation opportunities along the river in all segments would be maintained and would likely be enhanced by the protections offered by designation.

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**Alternative 3—Partially Suitable and Recommended (Segment 3 Unsuitable):** Segments 1, 2, and 4 would be recommended as suitable for WSR designation. As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the recreation ORV.

The unsuitable determination for segment 3 would no longer prioritize the protection of the segment's recreation ORV. It could allow for various levels of development in the river corridor that would negatively affect the river-related recreation opportunities. Water resources projects could be constructed; they would still need to be consistent with section 7(a) of the WSR Act constraints on not invading or unreasonably diminishing the scenic, recreational, and fish and wildlife values present in the area as of the date of designation.

The possibility of future water resources projects could adversely affect the primitive nature of the recreation ORV along segment 3. There would be no effects on segments 1 and 2. Potential developments in segment 3 could affect the free-flowing condition and affect recreational fishing and boating opportunities downstream. This would reduce water-based recreation opportunities in segments 3 and 4.

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**Alternative 4—All Segments as Modified Are Suitable and Recommended (Lengthen and Shorten Segments, Combine Segments, and Change Classifications):** As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the recreation ORV. Segments 1 and 2 would be classified as wild, which would better characterize segment 1’s current level of development; it also would continue to protect the more primitive, nonmotorized recreation opportunities by restricting motorized vehicle use and minimizing visitor facilities. Opportunities for primitive recreation and solitude would be maintained.

Segment 3 would be shortened and recommended as suitable, and it would retain its scenic classification. Management restrictions associated with the scenic classification would reduce the potential for motorized vehicle use and minimize visitor facilities. Opportunities for primitive recreation and solitude would be maintained.

Segments 3a and 3b would be removed from suitability consideration, which would allow for future management activities. This removal of suitability consideration would change the legal standard for protection from “no direct and adverse impacts to water quality, free flow, and ORVs” to protection from actions that would “not invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values present (Interagency Council 2004).” This could result in recreation opportunities with a higher degree of development and allow for motorized uses, even though there currently is a very low potential for development and motorized uses. It could also affect recreational fishing and boating; this is because projects affecting the free flow in segments 3a and 3b could affect the water flow and therefore fishing and boating opportunities downstream.

Segment 4 would be slightly extended and would retain a recreational classification. This would continue to protect the segment’s recreation ORV.

## Scenic ORV

### Affected Environment

The Upper Verde River landscape includes a diversity of biophysical textures, colors, and forms that create striking views along the river corridor. The Upper Verde River has a high level of public concern for scenery based on its scenic class ratings.

**Table 8**, below, displays the acres of each of the visual quality objectives for each segment of the Upper Verde River.

**Table 8. Upper Verde River Visual Quality Objectives by Segment**

| Upper Verde River Segment | Visual Quality Objective Acres |        |       |           |
|---------------------------|--------------------------------|--------|-------|-----------|
|                           | Low                            | Medium | High  | Very High |
| 1                         | —                              | 400    | 1,500 | —         |
| 2                         | —                              | —      | —     | 1,600     |
| 3                         | —                              | 300    | 5,500 | 100       |
| 4                         | —                              | 200    | 800   | —         |

Source: USDA Forest Service GIS 2022

**ORV Criteria:** The landscape elements of landform, vegetation, water, color, and related factors result in notable or exemplary visual features or attractions, or both. When analyzing scenic values, additional factors such as seasonal variations in vegetation, the scale of cultural modifications, and the length of



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time negative intrusions are viewed may be considered. Scenery and visual attractions may be highly diverse over most of the river or river segment.

**Determination for Scenic ORV:** Scenery is an ORV for the entire stretch of the Upper Verde River. The Verde River is one of Arizona's major perennial rivers. The combination of water and riparian vegetation enclosed by rolling hills or steep, rocky slopes makes the Upper Verde River a unique and treasured asset of regional importance. The landscape changes as one travels down the river, but there is always an interesting variety of colors, textures, and topography (May 2009).

| SCENIC SUMMARY | Presence of ORV<br>(Yes/No) | Scale of Importance<br>(Local, Regional, or National) |
|----------------|-----------------------------|-------------------------------------------------------|
| Segment        |                             |                                                       |
| 1–4            | Yes                         | Local and regional                                    |

### Scenic ORV—Direct, Indirect, and Cumulative Effects

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**Common to All Alternatives:** Scenery is an ORV for the entire stretch of the Upper Verde River. The combination of water and riparian vegetation enclosed by rolling hills or steep, rocky slopes makes the Upper Verde River a unique and treasured asset. Projects proposed on Federal lands within the Upper Verde River segments would continue to be analyzed for their effect on the river's free-flowing condition, water quality, and ORVs.

**Proposed Action—All Segments Suitable and Recommended:** This alternative would recommend that all four segments would be suitable for WSR designation. As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the scenic ORV.

Designation of these segments would prioritize the protection and enhancement of the scenic ORV when considering development associated with recreation, utility ROWs, roads, and other multiple-use projects. This would have an indirect beneficial effect on the scenic ORV.

**Alternative 3—Partially Suitable and Recommended (Segment 3 Unsuitable):** Segments 1, 2, and 4 would be recommended as suitable for WSR designation. As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the scenic ORV.

The unsuitable determination for segment 3 would no longer prioritize the protection of the segment's scenic ORV. The scenic classification was determined based on the largely primitive and undeveloped nature of the segment. The unsuitable determination would allow for a higher degree of recreational development and human activity in the area. Water resources projects could be constructed. There would be no effect on segments 1, 2, or 4.

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# Upper Verde River Suitability Study DEA



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**Common to All Alternatives:** Scenery is an ORV for the entire stretch of the Upper Verde River. The combination of water and riparian vegetation enclosed by rolling hills or steep, rocky slopes makes the Upper Verde River a unique and treasured asset. Projects proposed on Federal lands within the Upper Verde River segments would continue to be analyzed for their effect on the river's free-flowing condition, water quality, and ORVs.

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**Alternative 4—All Segments as Modified Are Suitable and Recommended (Lengthen and Shorten Segments, Combine Segments, and Change Classifications):** As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the scenic ORV. Segments 1 and 2 would be classified as wild, which would better characterize segment 1's current level of development; it would also continue to protect the scenic ORV in these segments by restricting water resources development, maintaining primitive shorelines, maintaining the lack of roads and vehicle accessibility, and maintaining the area's primitive character.

Segment 3 would be shortened and recommended as suitable, and it would retain its scenic classification. This change would allow the protection of the scenic ORV to continue. Segments 3a and 3b would be removed from suitability consideration, which would allow for future management activities. This removal of suitability consideration would change the legal standard for protection from "no direct and adverse impacts to water quality, free flow, and ORVs" to protection from actions that would "not invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values present." There could be impacts on the scenic ORV because recreational activity and developments could increase within these small segments.

Segment 4 would be slightly extended and would retain a recreational classification; this would have no effect on the management of the scenic ORV in this segment.

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## Cultural ORV

### Affected Environment

All river segments contain regionally, and perhaps nationally, important prehistoric and historic resources and locations that are important to contemporary Native American tribes. Most of the recorded 54 sites along the Upper Verde River are considered eligible for listing (but not formally listed) on the National Register of Historic Places (NRHP); however, many have been vandalized or impacted by off-highway vehicle use. The current level of impact does not necessarily change their eligibility for the NRHP, but continued impacts could influence future listing. Despite the PNF staff recording information about 54 sites, the Forest Service's knowledge about the full extent of the types and quantity of archaeological and historic properties along the Upper Verde River is incomplete.

**ORV Criteria:** The river, or an area within the river corridor, contains important evidence of occupation or use by humans. Sites may have national or regional importance for interpreting history or prehistory. Of particular significance are national historic landmarks or sites or features listed on, or eligible for inclusion on, the NRHP.

**Determination for Cultural ORV:** Cultural values are an ORV for the entire stretch of the Upper Verde River. Prehistoric and historic sites along the Upper Verde River remain an excellent resource for studying various themes, including human adaptation of riverine environments, cultural boundaries, population dynamics, trade and exchange, and several others over the last several thousand years.



## Upper Verde River Suitability Study DEA



| CULTURAL SUMMARY | Presence of ORV (Yes/No) | Scale of Importance<br>(Local/Regional/National) |
|------------------|--------------------------|--------------------------------------------------|
| Segment          |                          |                                                  |
| 1–4              | Yes                      | Local, regional, and national                    |

### Cultural Resources ORV—Direct, Indirect, and Cumulative Effects

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**Common to All Alternatives:** Cultural or heritage resources are an ORV for the entire stretch of the Upper Verde River. In addition to the current forest plan and WSRs interim management, primary protection for cultural resources is through the separate National Historic Preservation Act, section 106 process. Federal agencies are required to identify, evaluate, and determine the effects on cultural resources that are eligible for listing on the NRHP. Most of the 54 recorded archaeological sites in the river corridor are eligible for listing on the NRHP.

Projects proposed on Federal lands within the Upper Verde River segments would continue to be analyzed for their effect on the river's free-flowing condition, water quality, cultural resources, and other ORVs. The current forest plan and WSRs interim management would continue to prioritize protection of the cultural resources ORV.

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**Proposed Action—All Segments Suitable and Recommended:** This alternative would recommend that all four segments would be suitable for WSR designation. As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the cultural ORV.

The current forest plan, WSRs interim management, and section 106 process would continue to protect the cultural resources, cultural resources ORV, and other ORVs.

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**Alternative 3—Partially Suitable and Recommended (Segment 3 Unsuitable):** Segments 1, 2, and 4 would be recommended as suitable for WSR designation. As with all suitable and recommended segments, the current forest plan and WSRs interim management policy would continue to prioritize the protection of the cultural ORV.

The unsuitable determination for segment 3 would no longer prioritize the protection of the segment's cultural ORV under the WSRs interim management policy or designation in the future. Cultural resources and ORVs would continue to be protected under the National Historic Preservation Act and other existing policies and requirements. Cultural resources would be protected from management actions through these processes.

The cultural resource ORV in segment 3 could be impacted indirectly without the added level of protection that WSR classification provides to limit development. This could increase human activity in the area, off-highway vehicle use, and other recreational uses.

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**Alternative 4—All Segments as Modified Are Suitable and Recommended (Lengthen and Shorten Segments, Combine Segments, and Change Classifications):** As with all suitable and recommended segments, the current forest plan and WSRs interim management would continue to protect the cultural ORV until designation. Segments 1 and 2 would be classified as wild, which would better characterize segment 1's current level of development; it also would continue to protect the cultural resources ORV in these segments by restricting water resources development, maintaining primitive shorelines, maintaining the lack of roads and vehicle accessibility, and maintaining the area's primitive character.

Segment 3 would be shortened and recommended as suitable, and it would retain its scenic classification. This change would allow the protection of the cultural ORV to continue. Segments 3a and 3b would be reclassified from scenic to recreational, which would allow for future management activities; this change would no longer protect the segments' cultural ORVs under the WSR interim management policies. However, all other cultural resource laws and policies would continue protection from management actions. This alternative would not be expected to have negative impacts on cultural resources; if there were negative impacts, they would be indirect and associated with increased human presence due to future water resources or other developments that could occur in these short segments.

Segment 4 would be slightly extended and would retain a recreational classification. There would be no change from current management, and the cultural ORV would continue to be prioritized for protection.

## Consideration of No Action:

### Alternative 1—No-Action Alternative

The no-action alternative (see appendix A, figure 1) defers the reassessment of suitability determinations and would maintain the current WSR eligibility and management strategies. It would require protecting the river's eligibility and classification consistent with forest plan direction and Forest Service policy (FSH 1909.12, section 82.5). This alternative's goal is to use current management and collaborative efforts to protect and enhance the free-flowing condition and ORVs in the eligible river segments. This would subsequently result in no alteration to the river's morphology and free-flowing characteristics.

Under the no-action alternative, current management would continue as directed by the forest plan and the other existing authorities. The river segments would continue to be managed as eligible for inclusion in the NWSRS. The interim management policies outlined in FSH 1909.12, chapters 82 and 83 would apply to protect the free flow, water quality, and ORVs while maintaining the river classifications as recommended in the 2010 eligibility study (see **table 9**).

**Table 9. Alternative 1—No-Action Alternative Suitability by Segment**

| Eligible River Segment | Miles | Classification | Suitability | Management Direction (Forest Plan and Other Existing Authorities) | Interim Management (FSH 1901.12, Chapter 82) |
|------------------------|-------|----------------|-------------|-------------------------------------------------------------------|----------------------------------------------|
| 1                      | 6.0   | Scenic         | Deferred    | Existing                                                          | Applies                                      |
| 2                      | 5.7   | Wild           | Deferred    | Existing                                                          | Applies                                      |
| 3                      | 19.8  | Scenic         | Deferred    | Existing                                                          | Applies                                      |
| 4                      | 6.7   | Recreational   | Deferred    | Existing                                                          | Applies                                      |



# Upper Verde River Suitability Study DEA



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## **Forest Plan Amendment**

No forest plan amendment would be required under the no-action alternative.

## **Free-flowing Condition**

The current forest plan and WSRs interim management would continue to protect the free-flowing condition. Although no future hydroelectric facilities are contemplated, the segments would continue to be protected from these or other federally assisted water resources under section 7a of the WSR Act

## **Water Management**

The current forest plan and WSRs interim management would continue to require an analysis of water resources projects and avoidance of adverse effects on the free-flowing condition, to the extent of the Forest Service's existing authorities. Although no future hydroelectric facilities are contemplated, the segments would be protected from these or other federally assisted water resources projects under section 7a of the WSR Act.

## **Fisheries ORV**

The Forest Service would continue to manage all four eligible river segments as eligible for their potential inclusion in the NWSRS, and the Forest Service would continue to use its existing authorities to protect the free flow, water quality, recommended classification, and fisheries ORV. Work that would not impact the river's free-flowing characteristics could occur, such as mechanical nonnative fish removal (for example, nets and electrofishing) and restoration to improve habitat for native fish. The four segments would be protected from proposed future water resource projects, such as dams, hydroelectric facilities, or other in-channel modifying structures, under section 7(a) of the WSR Act. To the extent the Forest Service's authority allows (such as special-use authorities) the effects from such projects would be analyzed to prevent adverse effects.

Except for the proposed fish barriers, there are no foreseeable plans for water resource projects within the Upper Verde River corridor. Management of the fisheries resources within the Upper Verde River corridor would not change from its current condition. The current level of protection for the fisheries ORV, as provided by the ESA, the PNF forest plan, Arizona's State Wildlife Action Plan, interim wild and scenic management guidelines for eligible rivers, and other authorities, would continue.

However, the fisheries ORV is at great risk from nonnative fish populations that are a threat to native fish, frogs, snakes, and other aquatic or semiaquatic species in the Upper Verde River. The long-term viability of native fish is at risk without actions taken to enhance and protect native fish populations. For example, the federally endangered spikedace, a once common species in the Upper Verde River, appears to be eradicated (Robinson and Crowder 2015), and the community is now dominated by nonnative fish species (USFWS 2009). The Upper Verde River retains a strong potential to reestablish several native fish populations, provided nonnative fish can be removed and the river can be secured against their reinvasion.

This alternative would not recommend designation of any segment of the Upper Verde River as suitable for wild, scenic, or recreational designation; however, current protections would remain in place, including interim management for eligible corridors.

## **Wildlife ORV**

The AZGFD would continue to manage wildlife populations in cooperation with the Forest Service and the USFWS. The current forest plan and WSRs interim management would continue to protect the wildlife ORV and the free-flowing condition.

## **Botanical ORV**

The current forest plan and WSRs interim management would continue to protect the botanical ORV and the free-flowing condition. This would entail protecting the natural riparian processes and diverse native riparian plant communities that are already present.



# Upper Verde River Suitability Study DEA



## Recreation ORV

The current forest plan and WSRs interim management would continue to protect the recreation ORV and the free-flowing condition.

## Scenic ORV

The current forest plan and WSRs interim management would continue to protect the scenic ORV and the free-flowing condition.

## Cultural ORV

The current forest plan, WSRs interim management, and section 106 process would continue to protect the cultural resources, cultural resources ORV, and other ORVs.

## National Forest Management Act (NFMA) – Land Management Plan Consistency

The pertinent specialist has reviewed the proposed action, including design features, and provided a supporting analysis and rationale for determinations in the project record. The following are specialist determinations regarding project consistency with applicable land management plan direction, standards, and guidelines:

The suitability study addresses the following forest plan WSRs objectives and standards, as outlined in the 2015 Land and Resource Management Plan for the Prescott National Forest (USDA Forest Service 2015a).

DC-Wild and Scenic-1. The designated wild and scenic portion of the Verde River and its adjacent areas shall retain their free-flowing character, ORVs, and classifications. For the portion of the Verde River that is eligible for WSRs designation: ORVs (archaeological, scenic, fishery, wildlife, recreational, and botanical) and recommended classifications remain intact until further study is conducted or designation by Congress.

STD-W&S-1. Management standards found in chapter 3 of the “Verde Wild and Scenic River Comprehensive River Management Plan for Coconino, Prescott and Tonto National Forests” (Forest Service 2004) shall be incorporated into management activities.

STD-W&S-2. Within river segments that are eligible for WSR designation, identified ORVs shall be afforded adequate protection, subject to valid existing rights, until the eligibility determination is superseded (that is, the segment is determined not suitable for designation or Congress makes a decision regarding designation). Authorized uses shall not be allowed to adversely affect either eligibility or the tentative classification (that is, actions that would change a classification from wild to scenic).



# Upper Verde River Suitability Study DEA



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## Need for a Plan Amendment

- No forest plan amendment would be required under the proposed action. An erratum to the forest plan would be issued for DC-Wild and Scenic-1 found in chapter 2, Forestwide Desired Conditions, and Std-W&S-2 found in chapter 4, Standard and Guidelines of the Forest Plan. These would be changed to reference the suitable Upper Verde River segments instead of the eligible Upper Verde River segments. No management would change.
- No plan amendment would be needed for the no-action alternative because no changes to eligibility would be contemplated.
- Under alternative 3, DC-Wild and Scenic-1 and Std-W&S-2 would be amended to reference the suitable Upper Verde River segments. They also would incorporate the change of segment 3 to not suitable. Based on the initial assessment of effects, the implementation of alternative 3 would include amendments to the plan that would not result in an adverse effect on any resource at a level that would undermine the plan's ability to provide for the requirements under the 2012 Planning Rule.
- Under alternative 4, DC-Wild and Scenic-1 and Std-W&S-2 would be amended to reference the suitable Upper Verde River segments. They also would incorporate the revised classification of segment 1 from scenic to wild, the modifications of portions of segments 3 and 4, and the determination of segments 3a and 3b as not suitable. Based on the initial assessment of effects, the implementation of alternative 4 would include amendments to the plan that would not result in an adverse effect on any resource at a level that would undermine the plan's ability to provide for the requirements under the 2012 Planning Rule.

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## Other Law, Regulation, and Policy Consistency

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### Endangered Species Act

No further review is needed. The proposed suitability determinations and changes in classification would result in a minor change of management under the forest plan and WSRs interim management of threatened, endangered, proposed, and candidate species and critical habitat on the Upper Verde River. An informational notification of the proposed action may be provided to the USFWS.

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### National Historic Preservation Act – Section 106 Review

No further review is needed. There would be no actions proposed or change in current management under the forest plan and WSRs interim management. There would be no potential to cause effects under 36 CFR 800.3(a)(1). The proposal is a type of activity that does not have the potential to cause effects on any kind of prehistoric or historic resource, even if such resources were in the suitability study area.

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### Consultation with Federally Recognized Tribes

Consultation with federally recognized tribes was conducted as follows:

The special and unique legal and political relationships between tribal governments and the Federal Government are reflected in the U.S. Constitution, treaties, statutes, court decisions, executive orders, and memoranda. These relationships impart a duty on Federal agencies to consult, coordinate, and communicate with American Indian tribes on a government-to-government basis for all Federal actions. Because Forest Service policies and actions managing the lands and resources under its jurisdiction can affect American Indian tribes, the Forest Service has a duty to consult with American Indian tribes on matters affecting their interests.



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The PNF staff contacted the Hopi Tribe, Hualapai Tribe, Tonto Apache Tribe, Fort McDowell Yavapai Nation, Yavapai-Apache Nation, and Yavapai-Prescott Indian Tribe in November 2021 to introduce the project and solicit feedback during the pre-planning phase. In March 2022, the PNF staff sent scoping materials to the above tribal nations, along with information related to requesting official consultation, how to submit comments, and other project proposal details. As the project progresses, the PNF staff will continue to communicate, coordinate, or officially consult on this project with its consultative tribal nations.

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### Special Management Areas

The pertinent specialist has reviewed the proposed action and made the following determinations based on special management area presence, proximity, or lack of: The proposed action is in the Upper Verde Management Area and is consistent with Desired Condition DC-UVMA 1 for eligible segments of the Upper Verde River.

**DC-UVMA 1.** The Upper Verde River retains its ORVs, while recreation facilities are found in several locations along the river. These facilities provide for day use or overnight camping, make use of existing roads as access, and minimize resource impacts, including heritage resources.

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### Planning Rule

Specific substantive rule requirements contained in rule sections 219.8 through 219.11 (219.8–Sustainability, 219.9–Diversity of plant and animal communities, 219.10–Multiple Use, and 219.11–Timber Requirements based on the NFMA) would directly apply to alternative 3 and alternative 4. This is because they would require an amendment to the 2015 Prescott National Forest Land and Resource Management Plan. Based on the initial assessment of effects, the implementation of alternatives 3 and 4 would include amendments to the plan that would not result in an adverse effect on any resource at a level that would undermine the plan’s ability to provide for these requirements under the 2012 Planning Rule at 36 CFR 219.8, 36 CFR 219.9, 36 CFR 219.10, and 36 CFR 219.11.



# Upper Verde River Suitability Study DEA



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# Upper Verde River Suitability Study DEA



## NEPA: Finding of No Significant Impact (FONSI)

The FONSI documents the reasons why an action, not otherwise categorically excluded, would not have a significant effect on the human environment and for which an environmental impact statement therefore would not be prepared. The FONSI discussion considers all information included in the DEA, including the potentially affected environment, as well as documentation in the project record. Pertinent specialists have reviewed the proposal; 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 FONSI. The significance of this project's effects on the quality of the human and natural environment was considered in terms of both context and intensity.

**Context:** This is a programmatic decision that by itself does not make international, national, regional, or statewide decisions. The effects of the decision are limited to the subject river corridor, immediately upstream and downstream of the corridors, and the and surrounding National Forest System lands and land uses. The decision to determine which segments of the Upper Verde River are suitable or not suitable for inclusion into the NWSRS is within the context of local importance in the area associated with the Prescott and Coconino National Forests.

**Intensity:** The discussion considers the significance criteria described in the NEPA regulations at 40 CFR 1508.27, which are used to determine intensity.

### Degree of Effect

The following effects (or impacts) discussions focus on changes to the human environment from the proposed action (or alternatives) that are reasonably foreseeable and have a reasonably close causal relationship to the proposed action or alternatives. This includes those effects that occur at the same time and place as the proposed action (direct effects), and it may include effects that are later in time or farther removed in distance from the proposed action or alternatives (indirect effects). Cumulative effects are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions.

#### 1. Both short- and long-term effects

There are no direct effects associated with the proposed action or the other alternatives, including the no-action alternative. The evaluation of river segments for suitability is a programmatic decision with no direct on-the-ground effects. All short- and long-term effects are indirect or cumulative.

In the short and long term, all segments that retain their classification and eligibility or are determined suitable with the same classification would continue to be managed in accordance with existing authorities, including interim management directed by FSH 1909.12, chapter 80, sections 84.2 and 84.3. These would continue to protect the free-flowing condition and existing ORVs.

With designation as suitable and congressional action, a comprehensive river management plan would be prepared within 3 years, providing additional specific protection measures for the free-flowing condition and ORVs.

For segments and portions of the eligible segments that are not recommended as suitable, the specific protections and management under the WSR Act would not apply to those segments; however, other management direction from the forest plan and other authorities would apply. Long-term protection and enhancement of the river's free-flowing condition, water quality, and ORVs would not be ensured by the WSR Act except as provided by section 7(a) for water projects that could invade or unreasonably diminish the scenic, recreational, and fish and wildlife values of the WSR. New water resources projects and mineral entry could be allowed to the extent of existing management authorities.



# Upper Verde River Suitability Study DEA



## 2. Both beneficial and adverse effects

The preservation of the free-flowing condition and protection of existing ORVs in all segments that retain their classification and eligibility or are determined suitable with the same classification would benefit from continued protection under the WSR Act.

The removal of suitability consideration for river segments and portions of segments would no longer protect the segments' ORVs and free-flowing condition. However, it would provide the Forest Service with more flexibility to facilitate fisheries management activities, such as building vehicle access, building fencing, maintaining small structures, monitoring, electrofishing, and fish removal. Water resources projects could be constructed without the constraints of a WSR classification. This could provide a benefit for native and threatened and endangered fish species throughout the four segments by preventing nonnative fish predation using fish barriers. However, as a cumulative effect, the current continuous free-flowing condition through the four Upper Verde River segments could be fragmented by water resource developments that impede free-flowing conditions. There would be potential beneficial and adverse effects on the fisheries ORV.

## 3. Effects on public health and safety

This is a programmatic decision with no on-the-ground effects; therefore, there are no anticipated effects on public health and safety.

## 4. Effects that would violate Federal, State, or local law protecting the environment

There are no effects associated with the alternatives analyzed in this DEA that would violate any Federal, State, or local laws protecting the environment.

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## Mitigation

Please see appendix B, Management Directives for interim resource protection measures.



# Upper Verde River Suitability Study DEA



## Administrative Review

The United States Department of Agriculture, Forest Service Project-Level Predecisional Administrative Review Process Rule (36 CFR 218, subparts A, B, and C) establishes a process for members of the public to seek administrative review of specified proposed projects and activities implementing land management plans before the responsible official makes a final decision regarding project approval. This process is referred to as the project-level objection process.

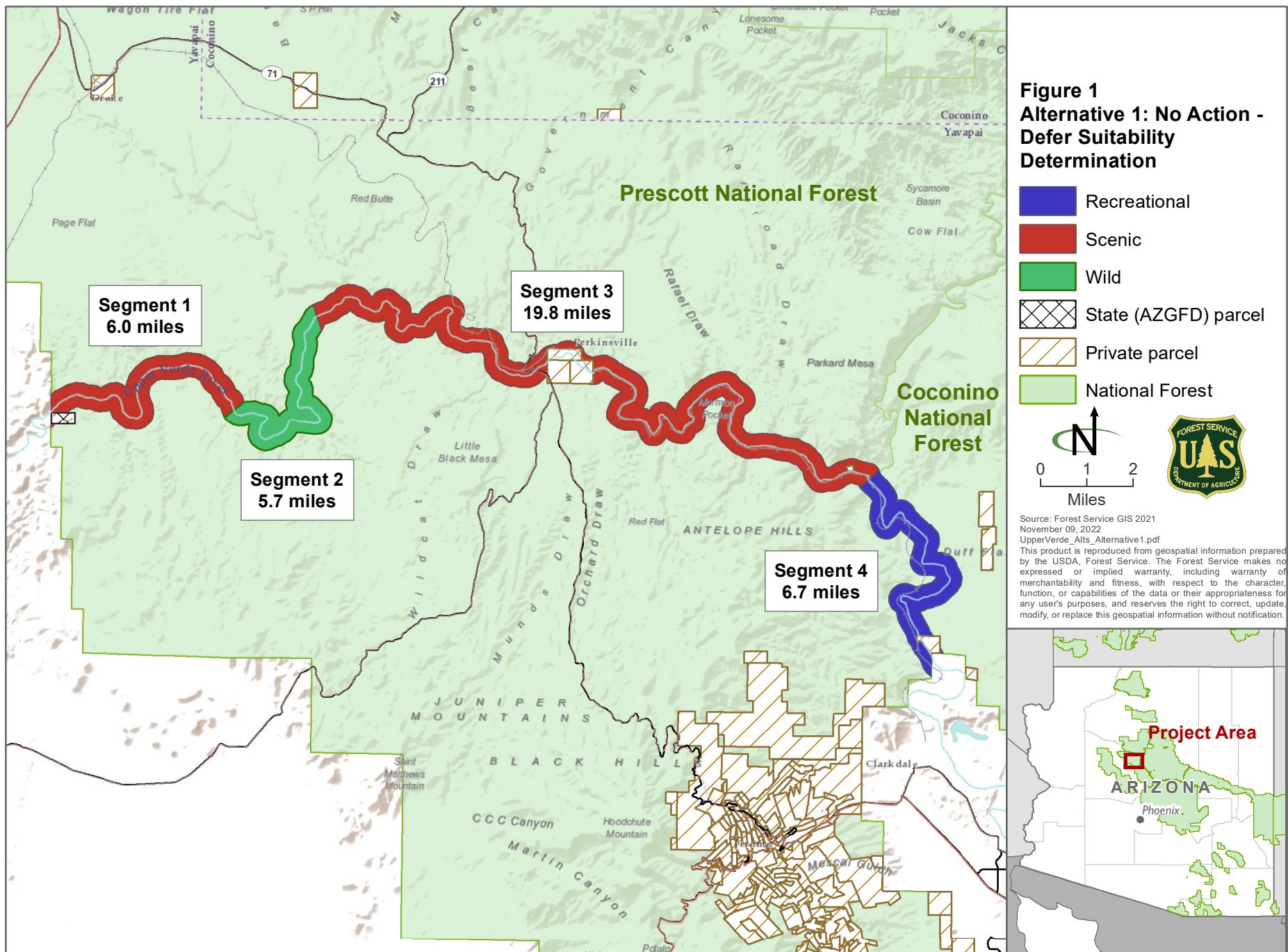
Only individuals or entities (as defined by 36 CFR 218.2) who submit timely and specific written comments (as defined by 36 CFR 218.2) about this proposed project or activity during this or another public comment period established by the responsible official will be eligible to file an objection. Other requirements to be eligible to submit an objection are defined by 36 CFR 218.25 (a)(3) and include name, postal address, title of the project, and signature or other verification of identity upon request, and the identity of the individual or entity who authored the comments. Individual members of an entity must submit their own individual comments to have eligibility to object as an individual. A timely submission will be determined as outlined in 36 CFR 218.25 (a)(4). It is the responsibility of the sender to ensure timely receipt of any comments submitted. Names and contact information submitted with comments will become part of the public record and may be released under the Freedom of Information Act.

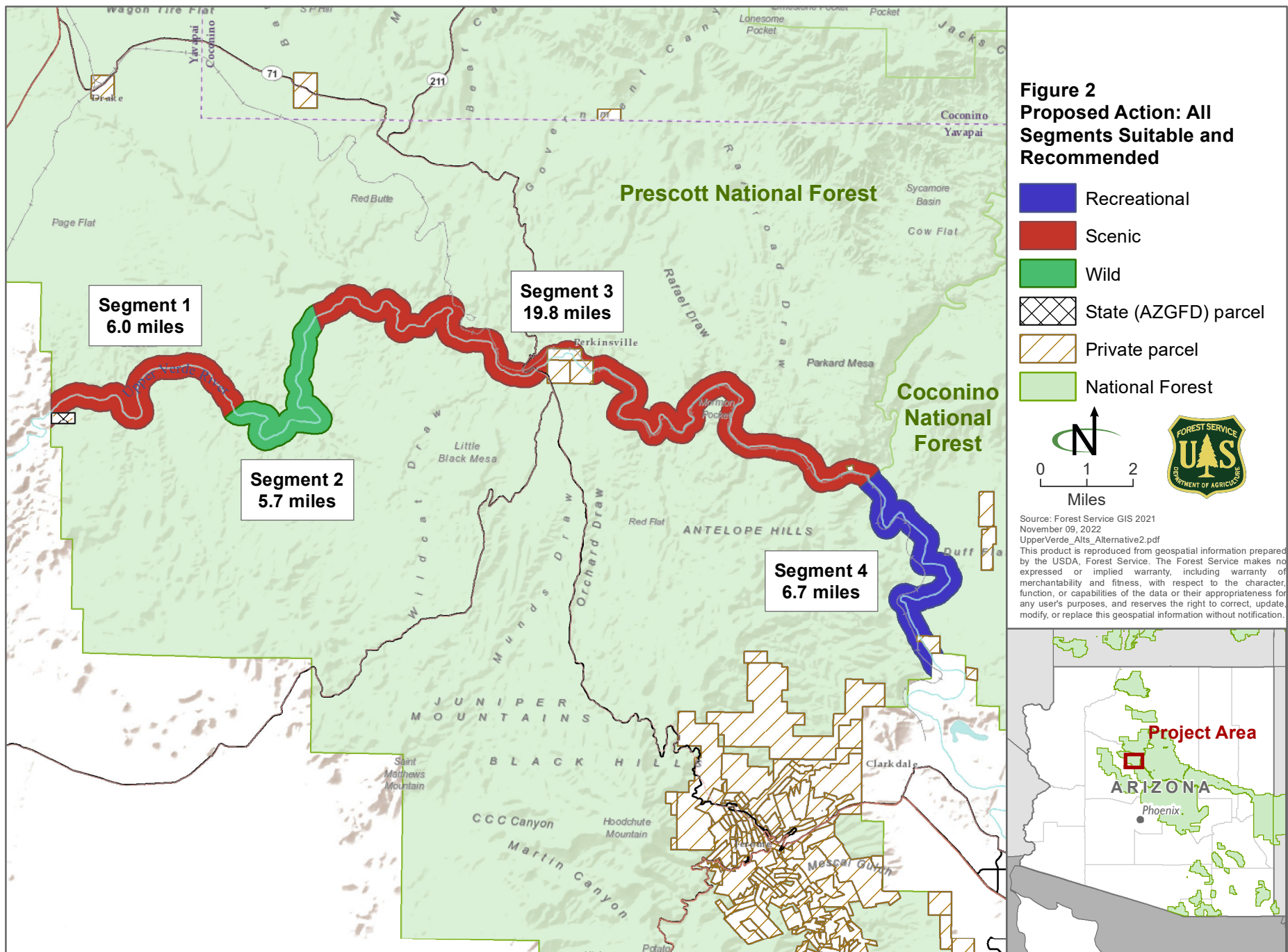
Comments should be within the scope of the proposed action and have a direct relationship to the proposed action. Also, they must include supporting reasons for the responsible official to consider (36 CFR 218.2).

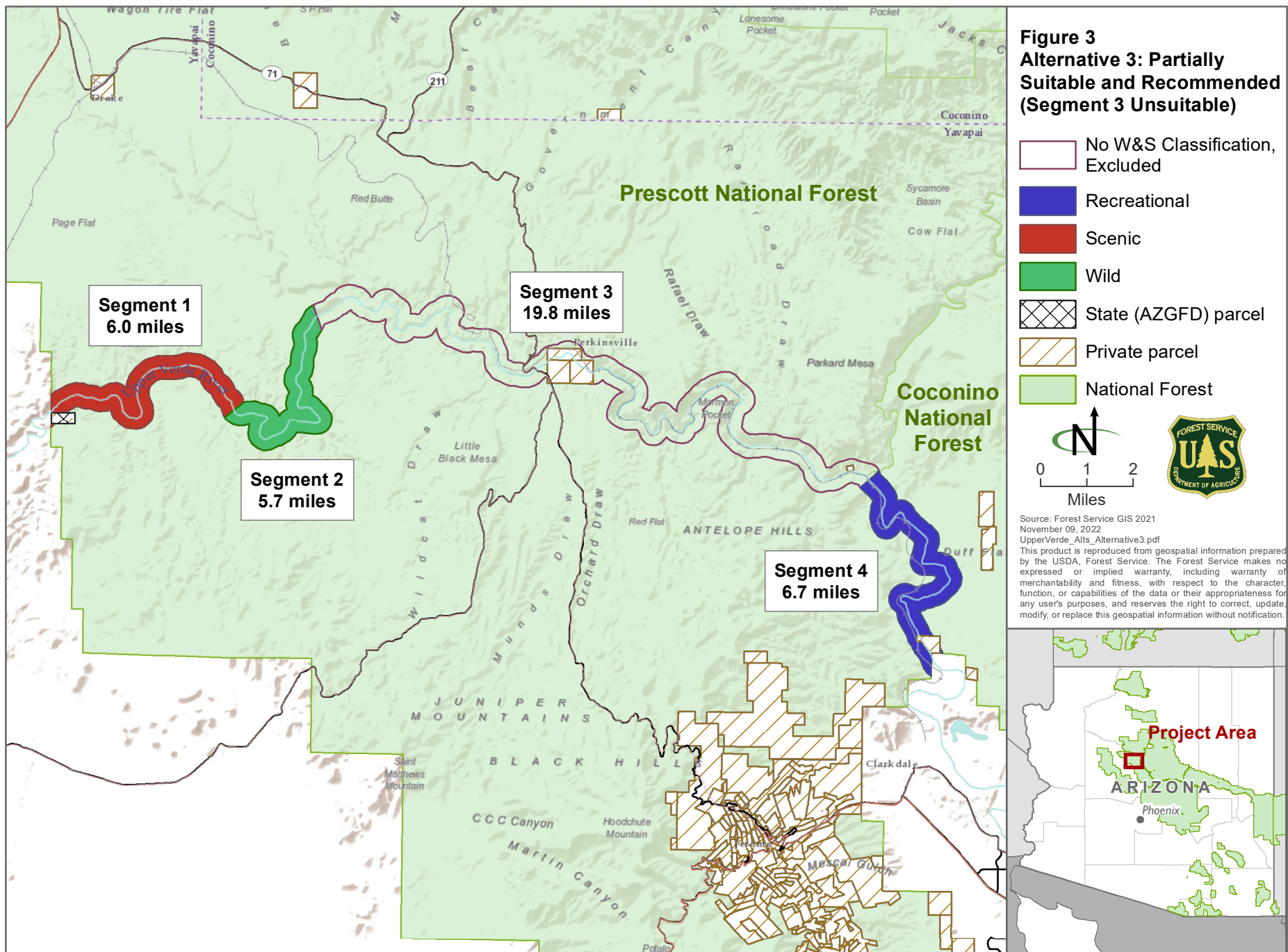
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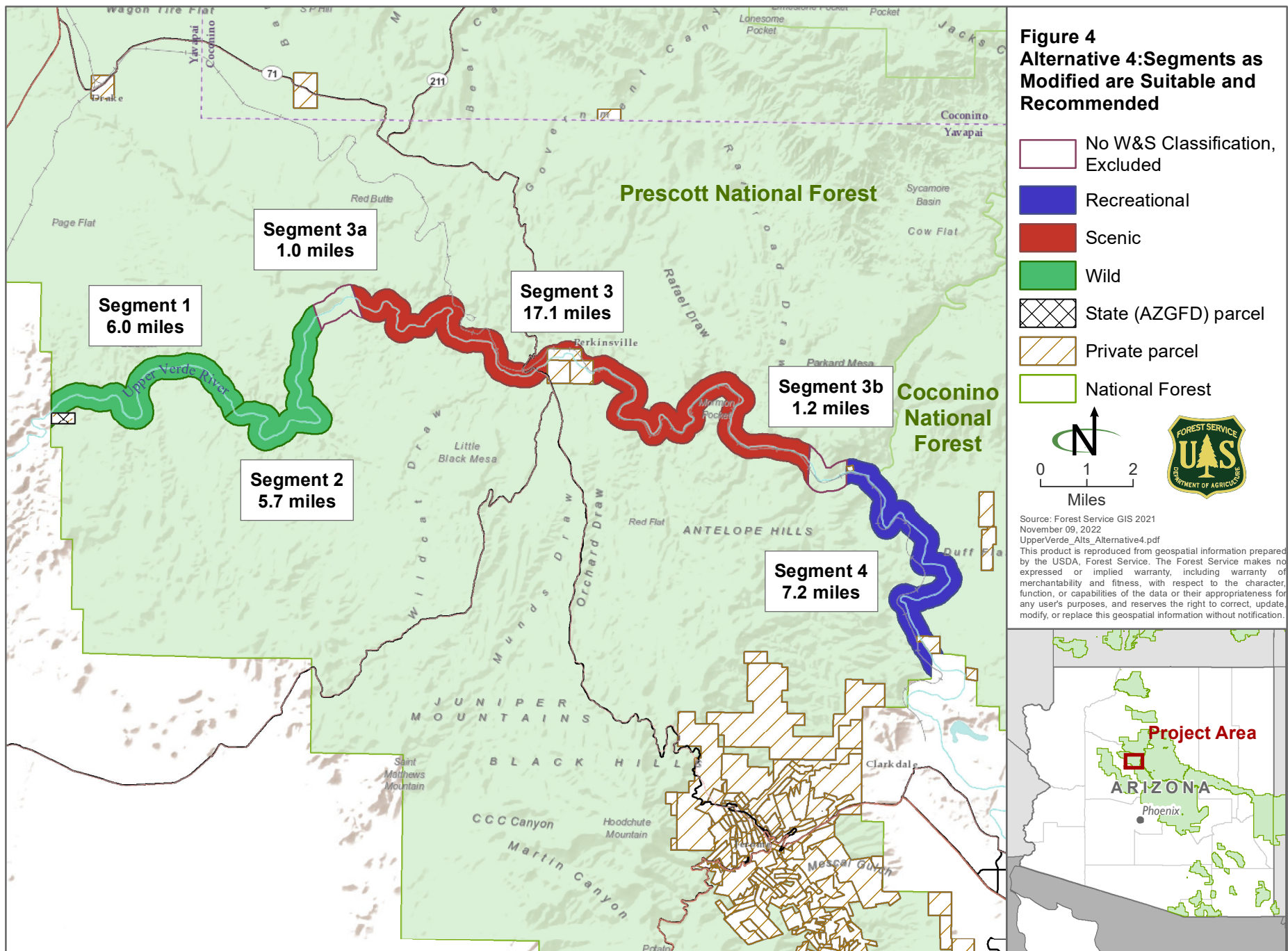
# Appendix A

## Figures









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# Appendix B

## Management Directives



## Appendix B—Management Directives

### Guidance from FSH 1909.12 – Forest Service Land Management Planning Handbook, Chapter 80 – Wild and Scenic Rivers

#### 82.5 – Evaluating Eligibility of Study of Rivers

The eligibility of a study river for inclusion in the National System is determined by applying the criteria in sections 1(b) and 2(b) of the Wild and Scenic Rivers Act (see sec. 82.7). These criteria are further described in the U.S. Department of Agriculture (USDA) and U.S. Department of the Interior (USDI) “Guidelines for Eligibility, Classification and Management of River Areas” dated September 7, 1982 (USDA-USDI Guidelines). The USDA-USDI Guidelines are included in FSH 1909.12, Zero code.

#### 84 Interim Management of Eligible or Suitable Rivers

Rivers legislatively mandated for study (sec. 5(a) of the Act), and other rivers the Forest Service determines to be eligible or suitable for inclusion in the National System (sec 5(d)(1) of the Act), must have certain interim protection measures. These protection measures apply until a decision is made on the future use of the river and adjacent lands through an Act of Congress or a determination that the river is not suitable. Along with the interim protection measures provided in section 84.3 of this Handbook, additional statutory, regulatory, or policy requirements may apply if the study river is located within a wilderness area or other designated area (FSM 2354.42e).

#### 84.1 – Management Direction for Forest Service Identified Study Rivers

The planning rule at 36 CFR 219.10 provides for interim management of Forest Service-identified eligible or suitable rivers or segments, to protect their values prior to a congressional decision whether to designate them as part of the National System:

**(b) The plan must provide plan components, including standards and guidelines, to provide for:**

**(v) Protection of designated wild and scenic rivers as well as management of rivers found eligible or determined suitable for the National Wild and Scenic River system to protect the values that provide the basis for their suitability for inclusion in the system.  
(36 CFR 219.10)**

A Responsible Official may authorize site-specific projects and activities on National Forest System lands within eligible or suitable river corridors only where the project and activities are consistent with all of the following:

1. The free-flowing character of the identified river is not adversely modified by the construction or development of stream impoundments, diversions, or other water resources projects.
2. Outstandingly remarkable values of the identified river area are protected.
3. For all Forest Service-identified study rivers, classification of an eligible river must be maintained as inventoried unless a suitability study is completed that recommends management at a less restrictive classification (such as from wild to scenic or scenic to recreational).



## Upper Verde River Suitability Study DEA



### 84.3 – Interim Protection Measures for Eligible or Suitable Rivers

The following protection measures apply to interim management of legislatively mandated study rivers (sec. 5(a) of the Wild and Scenic Rivers Act), and Forest Service-identified eligible or suitable rivers (sec. 5(d)(1) of the Act). Responsible Officials shall apply these measures on National Forest System lands when planning and implementing projects and activities or where the Forest Service holds an interest on non-Federal lands, such as scenic or access easements to protect river values.

This direction applies until a decision is made on the future use of the river and adjacent lands through an Act of Congress or a change in eligibility or suitability status from a future study.

Legislatively mandated study rivers must be protected, as directed in sections 7(b), 8(b), 9(b), and 12(a) of the Act for the period specified in section 7(b). The protection period is 3 years from the date the study report is transmitted to Congress unless a different time period is specified in legislation.

Forest Service-identified eligible and suitable rivers must be protected sufficiently to maintain free flow and outstandingly remarkable values unless a determination of ineligibility or non-suitability is made. A river determined through a suitability study to be not suitable shall no longer be considered eligible and interim protection measures no longer need to be applied to those rivers.

Results of any suitability study may create a need for a plan amendment. See the review and approval process in section 85 of this Handbook.

A Responsible Official may authorize site-specific projects and activities on National Forest System lands within legislatively mandated study river corridors, or within Forest Service-identified eligible or suitable river corridors when the project and activities are consistent with the following interim protection measures (see sec. 84.4 of this Handbook). These interim protection measures apply to all identified eligible and suitable rivers except as described in items 1-3:

1. Water Resources Projects. A water resources projects is defined in 36 CFR part 297 as the construction or development of water supply dams, diversions, flood control works, and other water resources projects that affect the river's free-flowing characteristics.

Wild, Scenic, and Recreational Rivers. For legislatively mandated (sec. 5(a)) study rivers, water resources projects that would have a direct and adverse effect on river values (free-flow, water quality, and outstandingly remarkable values) are prohibited under section 7(b) of the Wild and Scenic Rivers Act.

For Forest Service-identified (sec. 5(d)(1)) eligible or suitable rivers, water resources projects proposed on these segments are not subject to section 7(b) of the Act; however, these projects shall be analyzed as to their effect on a river's free-flow, water quality, and outstandingly remarkable values, with adverse effects to be prevented to the extent of existing agency authorities (such as special-use authority).

2. Hydroelectric Power Facilities.

Wild, Scenic, and Recreational Rivers. For legislatively mandated rivers, development of hydroelectric power facilities on or directly affecting the study river is not allowed. Section 7(b) of the Act is interpreted as a prohibition of new hydroelectric facilities within the study boundary.

Forest Service-identified eligible rivers are to be protected pending a suitability determination. Forest Service-identified suitable rivers are to be protected for their free-flowing condition, water quality, and outstandingly remarkable values pending a designation by Congress.



## Upper Verde River Suitability Study DEA



### 3. Minerals.

#### a. Wild Rivers.

(1) Locatable Minerals. Subject to valid existing rights, mining claims are prohibited within one-quarter mile of a legislatively mandated study river under section 9(b) of the Act. Existing mining activity on a legislatively mandated study river and existing or new mining activity on a Forest Service-identified eligible or suitable river are subject to regulations in 36 CFR part 228 and must be conducted in a manner that minimizes surface disturbance, sedimentation, pollution, and visual impairment.

(2) Leasable Minerals. For all eligible or suitable rivers, leases, licenses, and permits under mineral leasing laws must include conditions necessary to protect the values of the river corridor that make it eligible or suitable for inclusion in the National System.

(3) Saleable Minerals. For all eligible or suitable rivers, disposal of saleable mineral material is prohibited.

#### b. Scenic and Recreational Rivers.

(1) Locatable Minerals. Subject to valid existing rights, mining claims are prohibited within one-quarter mile of a legislatively mandated study river under section 9(b) of the Wild and Scenic Rivers Act. Existing mining activity on a legislatively mandated study river and existing or new mining activity on a Forest Service-identified eligible or suitable river are subject to regulations in 36 CFR part 228 and must be conducted in a manner that minimizes surface disturbance, sedimentation, pollution, and visual impairment.

(2) Leasable Minerals. For all eligible or suitable rivers, leases, licenses, and permits under mineral leasing laws must include conditions necessary to protect the values of the river corridor that make it eligible or suitable for inclusion in the National System.

(3) Saleable Minerals. For all eligible or suitable rivers, saleable mineral material disposal is allowed if the values for which the river may be included in the National System are protected.

### 4. Transportation System.

a. Wild Rivers. Roads and railroads are generally not compatible with a wild river classification. Prevent actions related to the road system that would preclude protection of the river as wild. Do not plan roads outside of the corridor that would adversely affect the wild classification. New trail construction should generally be designed for non-motorized uses. However, limited motorized uses that are compatible with identified values and unobtrusive trail bridges may be allowed. New airfields may not be developed.

b. Scenic Rivers. New roads and railroads are permitted to parallel the river for short segments or bridge the river if such construction fully protects river values (including the river's free-flowing character). Bridge crossings and river access are allowed. New trail construction or airfields must be compatible with and fully protect identified values.

c. Recreational Rivers. New roads and railroads are permitted to parallel the river if such construction fully protects river values (including the river's free-flowing character). Bridge crossings and river access are allowed. New trail construction or airfields must be compatible with and fully protect identified values.



# Upper Verde River Suitability Study DEA



## 5. Utility Proposals.

Wild, Scenic, and Recreational Rivers. New transmission lines such as gas lines, water lines, and similar linear facilities are not compatible and are discouraged. Where no reasonable alternative exists, additional or new facilities should be restricted to existing rights-of-way. Where new rights-of-way would be necessary for a utility line, the proposed project must be evaluated as to its effect on the river's outstandingly remarkable values and classification. Any portion of a utility proposal that has the potential to affect the river's free-flowing character must be evaluated as a water resources project.

## 6. Recreation Development.

a. Wild Rivers. As stated in the USDA-USDI Guidelines, major public-use areas such as large campgrounds, interpretive centers, or administrative headquarters must be located outside the river corridor. Minimum facilities, such as toilets and refuse containers, may be provided if necessary to protect and enhance water quality and other identified river values, while also providing for public recreation uses that do not adversely impact or degrade those values. All facilities must be located and designed to harmonize with the primitive character, natural, and cultural settings of the river corridor. The facilities must protect identified river values including water quality and be screened from view from the river to the extent possible.

b. Scenic Rivers. Public-use facilities such as moderate-size campgrounds, simple sanitation and convenience facilities, public information centers, administrative sites, or river access developments, and so forth are allowed within the river corridor. All facilities must be located and designed to harmonize with their natural and cultural settings, protect identified river values including water quality, and be screened from view from the river to the extent possible.

c. Recreational Rivers. Recreation, administrative, and river access facilities may be located in close proximity to the river. However, recreational classification does not require extensive recreation development. All facilities must be located and designed to harmonize with their natural and cultural settings, protect identified river values including water quality, and be screened from view from the river to the extent possible.

## 7. Motorized Travel.

a. Wild Rivers. Motorized travel on land or water may be permitted but is generally not compatible with this classification. Where motorized travel options are deemed to be necessary, such uses should be carefully defined and impacts mitigated.

b. Scenic and Recreational Rivers. Motorized travel on land or water may be permitted, prohibited, or restricted to protect the river values.

## 8. Wildlife and Fish Projects.

a. Wild Rivers. Construction of minor structures and vegetation management to protect and enhance wildlife and fish habitat should harmonize with the area's essentially primitive character and fully protect identified river values. Any portion of a proposed wildlife or fisheries restoration or enhancement project that has the potential to affect the river's free-flowing character must be evaluated as a water resources project.

b. Scenic Rivers. Construction of structures and vegetation management designed to protect and enhance wildlife and fish habitat should harmonize with the area's largely undeveloped character and fully protect identified river values. Any portion of a wildlife or



## Upper Verde River Suitability Study DEA



fisheries restoration or enhancement project that has the potential to affect the free-flowing character must be evaluated as a water resources project.

c. Recreational Rivers. Construction of structures and vegetation management to protect and enhance wildlife and fish habitat should fully protect identified river values. Any portion of a wildlife or fisheries restoration or enhancement project that has the potential to affect the river's free-flowing character must be evaluated as a water resources project.

### 9. Vegetation Management.

a. Wild Rivers. Cutting of trees and other vegetation is not permitted except when needed in association with a primitive recreation experience, to protect users, or to protect identified outstandingly remarkable values. Examples of such exceptions include activities to maintain trails or suppress wildfires. Prescribed fire and wildfires managed to meet resource objectives may be used to restore or maintain habitat for threatened, endangered, or sensitive species or restore the natural range of variability.

b. Scenic and Recreational Rivers. A range of vegetation management and timber harvest practices are allowed, if these practices are designed to protect users, or protect, restore, or enhance the river environment, including the long-term scenic character.

### 10. Domestic Livestock Grazing.

a. Wild Rivers. Domestic livestock grazing should be managed to protect identified river values. Existing structures may be maintained. New facilities may be developed to facilitate livestock management so long as they maintain the values for which a river was found eligible or suitable, including the area's essentially primitive character.

b. Scenic Rivers. Domestic livestock grazing should be managed to protect identified river values. Existing structures may be maintained. New facilities may be developed to facilitate livestock management so long as they maintain the values for which a river was found eligible or suitable, including the area's largely undeveloped character.

c. Recreational Rivers. Domestic livestock grazing should be managed to protect identified river values. Existing structures may be maintained. New facilities may be developed to facilitate livestock management so long as they maintain the values for which a river was found eligible or suitable.

## Land and Resource Management Plan for the Prescott National Forest

The following protection measures summarize selected portions of the direction provided by the Forest Plan that apply to the segments (USDA Forest Service 2015). The forest plan is also found here:

[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd521353.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd521353.pdf)

## Upper Verde Management Area – Prescott National Forest

The focus of this management area is the headwaters and upper portion of the Verde River. The Verde is a perennial river with continuous flow, and the upper portion is eligible for designation as a wild and scenic river. There has been great public interest in such designation, as it would complement the existing wild and scenic designated section south of Camp Verde.

The management area also includes Sycamore Canyon Wilderness which is located within and is managed by three national forests—the Coconino, Kaibab, and Prescott. Management direction for this wilderness is found within the Coconino NF's land management plan.



## Upper Verde River Suitability Study DEA



On the southern end, the management area extends to just outside the community of Cherry, on the western slopes of the Black Hills. Access to the area is via State Highways 89 and 89A and the Perkinsville Road.

### Desired Conditions for the Upper Verde Management Area

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DC-UV<br>MA-1 | The upper Verde River retains its outstandingly remarkable values, while recreation facilities are found in several locations along the river. These facilities provide for day use or overnight camping, make use of existing roads as access, and minimize resource impacts, including heritage resources.                                                                                                                                                                                                                                                                                                                                                                                                                              |
| DC-UV<br>MA-2 | <p>Recreation sites are found in areas where:</p> <ul style="list-style-type: none"><li>• The landscape is generally natural with modifications moderately evident.</li><li>• Opportunities for challenge and risk are generally moderate to low.</li><li>• Opportunities for both motorized and nonmotorized activities are present.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                           |
| DC-UV<br>MA-3 | <p>Motorized use is consistent with existing regulations. Control systems, such as law enforcement activity or citizen interactions, ensure resource impacts are minimized as population and visitor use increase.</p> <p>The opportunity for a nonmotorized experience is found in the area south of the river between Forest Roads 638 and 9110H and continues along the river corridor to Bear Siding. East of Perkinsville Road, opportunities for nonmotorized experiences continue along the river and connect with Sycamore Canyon Wilderness.</p> <p>The opportunity for a variety of experiences exists, with motorized uses limited to designated roads and trails and a less developed setting found between those routes.</p> |
| DC-UV<br>MA-4 | <p>There are opportunities to experience isolation from manmade sights, sounds, and management controls in Sycamore Canyon Wilderness and Woodchute Wilderness.</p> <p>North of the upper Verde River, existing NFS roads provide access for hunting and driving for pleasure.</p> <p>Permitted firewood cutting and dispersed camping are common.</p>                                                                                                                                                                                                                                                                                                                                                                                    |



# Upper Verde River Suitability Study DEA



## Objectives for the Upper Verde Management Area

All objectives, including those related to management area desired conditions are found in chapter 3, "Objectives."

## Guidelines for the Upper Verde Management Area

|                   |                                                                                                                                                                                                                              |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Guide- UV<br>MA-1 | Recreation facilities developed in the vicinity of the upper Verde River should be placed near existing roadways to retain opportunities for isolation along the river where designated roads and motorized trails are rare. |
| Guide- UV<br>MA-2 | Management tools (e.g., increased signage, visitor contacts, or education efforts) should be used to highlight appropriate trail use near the upper Verde River.                                                             |
| Guide- UV<br>MA-3 | Interpretive programs and enforcement activity should encourage appropriate behaviors and provide recreationists with information about the Verde River ecosystem.                                                           |

## Applicable Land and Resource Management Plan - Standards and Guidance

Chapter 4 of the Forest Plan provides a detailed listing discussion of the forestwide standards and guidance relevant to the management of the river segments. Standards and guidelines provide sideboards and guidance for project and activity decisionmaking to help achieve desired conditions and objectives. Standards must be followed and can only change with a plan amendment. Guidelines must be followed, but they may be modified somewhat for a specific project if the intent of the guideline is followed, and the deviation is addressed in a decision document with supporting rationale. When deviation from a guideline does not meet the original intent, however, a plan amendment is required. Plan amendments would be required for some changes that are proposed as part of this EA, depending on the alternative.

Neither standards nor guidelines restate existing law or policy. Management direction not included in the plan is found in numerous laws, regulations, executive orders, Forest Service policies, and additional guidance documents.

The particular standards and guidance that are relevant to the management of resources identified as ORVS in the Upper Verde River corridor are described, but these often reference standards and guidelines for other resources. A complete picture of the existing plan management with the resources identified as ORVs can be determined by reviewing the standard and guidelines chapter of the forest plan.

## Land and Resource Management Plan for the Coconino National Forest

The following desired conditions and guidance for WSRs relevant to designated and eligible rivers within the forest are provided by the Coconino Forest Plan and apply to segment 4 of the Upper Verde River study area (USDA Forest Service 2018). The forest plan is found here:  
[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd606737.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd606737.pdf).



# Upper Verde River Suitability Study DEA



## **Upper Verde River, Segment 4**

Upper Verde River, Segment 4, is a 6.7-mile-long segment that starts at the confluence with Sycamore Canyon and the Verde River and runs south to the boundary of the Prescott NF near Clarkdale, Arizona. The Coconino NF shares a boundary with the Prescott NF along 6.7 miles of this segment. This segment is administered under Prescott NF Forest Plan direction. This segment has been identified as potentially eligible for inclusion in the National Wild and Scenic Rivers System under the recreation classification. This segment has outstandingly remarkable values in the form of scenery, recreation, heritage, wildlife, fish habitat, and botany.

## **Desired Conditions for Designated and Eligible Wild and Scenic Rivers SA-WSR-DC**

- 1 Designated and eligible wild and scenic river segments retain their free-flowing condition and their outstandingly remarkable values (that is, archaeological, scenic, fishery, wildlife, recreational, and botanical). Eligible classifications remain intact until further study is conducted or designation by Congress.
- 2 Activities in designated and eligible rivers and associated corridors are primarily nature-based, are consistent with the river's classification, and maintain the outstandingly remarkable values.
- 3 For designated wild and scenic rivers, roads and trails provide access consistent with the river segment classifications while protecting and enhancing the river's outstandingly remarkable values.
- 4 Educational materials and interpretation of designated and eligible wild and scenic rivers encourage widespread and common understanding of and support for values, philosophy, resources, and benefits. Consequently, residents and visitors not only appreciate and learn about wild and scenic rivers; but understand their role in protecting wild and scenic river values. This results in increased stewardship, ecological awareness, partnerships, and volunteerism.
- 5 The Verde Wild and Scenic River and associated corridor provide a variety of wildlife-based recreation opportunities. Visitors learn about native wildlife resources; understand species protection requirements and applicable laws and regulations; and are aware of the various recreation opportunities.
- 6 The Verde Wild and Scenic River offers river-related recreation opportunities that emphasize non-motorized recreation.

## **Guidelines for Designated and Eligible Wild and Scenic Rivers SA-WSR-G**

Recreation and other activities at designated and eligible rivers and associated corridors should be managed to occur at appropriate locations and intensities to protect and enhance the free-flowing condition, and the outstandingly remarkable values, consistent with the classification.

## **Management Approaches for Designated and Eligible Wild and Scenic Rivers**

Collaborate with neighboring forests and agencies on the management of designated and eligible wild and scenic rivers.

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# Appendix C

## Free-Flow Analysis



**U.S. Department of Agriculture**  
**U.S. Forest Service**  
**Prescott National Forest**

Upper Verde River

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## **FREE FLOW ANALYSIS**

**March 2022**

## ERRATA SHEET

This errata sheet lists errors and their correction for the *Upper Verde River, W&S Suitability Study and EA, Free Flow Analysis*

| <i>Location</i>        | <i>Error</i>                                                                                                                                                                                                                                              | <i>Correction</i>                                                                                                                                                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Page 4-4<br>Lines 9-12 | ...Over the past 11 years, the mean annual flow at Verde River near the Clarkdale stream gauge, located about 3 miles downstream, is 109 cubic feet per second. However, the un-gauged, perennial Sycamore Canyon joins the Verde River in the interim... | ...Over the past 11 years, the mean annual flow at Verde River near the Clarkdale stream gauge, located about 3 miles downstream, is 119 cubic feet per second. However, the un-gauged, perennial Sycamore Canyon joined the Verde River in the interim and flows at approximately 5 cfs. |
|                        |                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                           |

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## APPENDIX

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| A Detailed Segment Maps |
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## ACRONYMS AND ABBREVIATIONS

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Full Phrase

|             |                                                                    |
|-------------|--------------------------------------------------------------------|
| AZGFD       | Arizona Game and Fish Department                                   |
| APS         | Arizona Public Service                                             |
| EA          | environmental assessment                                           |
| FSH         | Forest Service Handbook                                            |
| Forest Plan | land and resource management plan for the Prescott National Forest |
| NWSRS       | National Wild and Scenic Rivers System                             |
| ORV         | outstandingly remarkable value                                     |
| Reclamation | Bureau of Reclamation                                              |
| U.S.        | United States                                                      |
| USFS        | United States Forest Service                                       |
| USFWS       | United States Fish and Wildlife Service                            |
| WSR Act     | Wild and Scenic Rivers Act                                         |

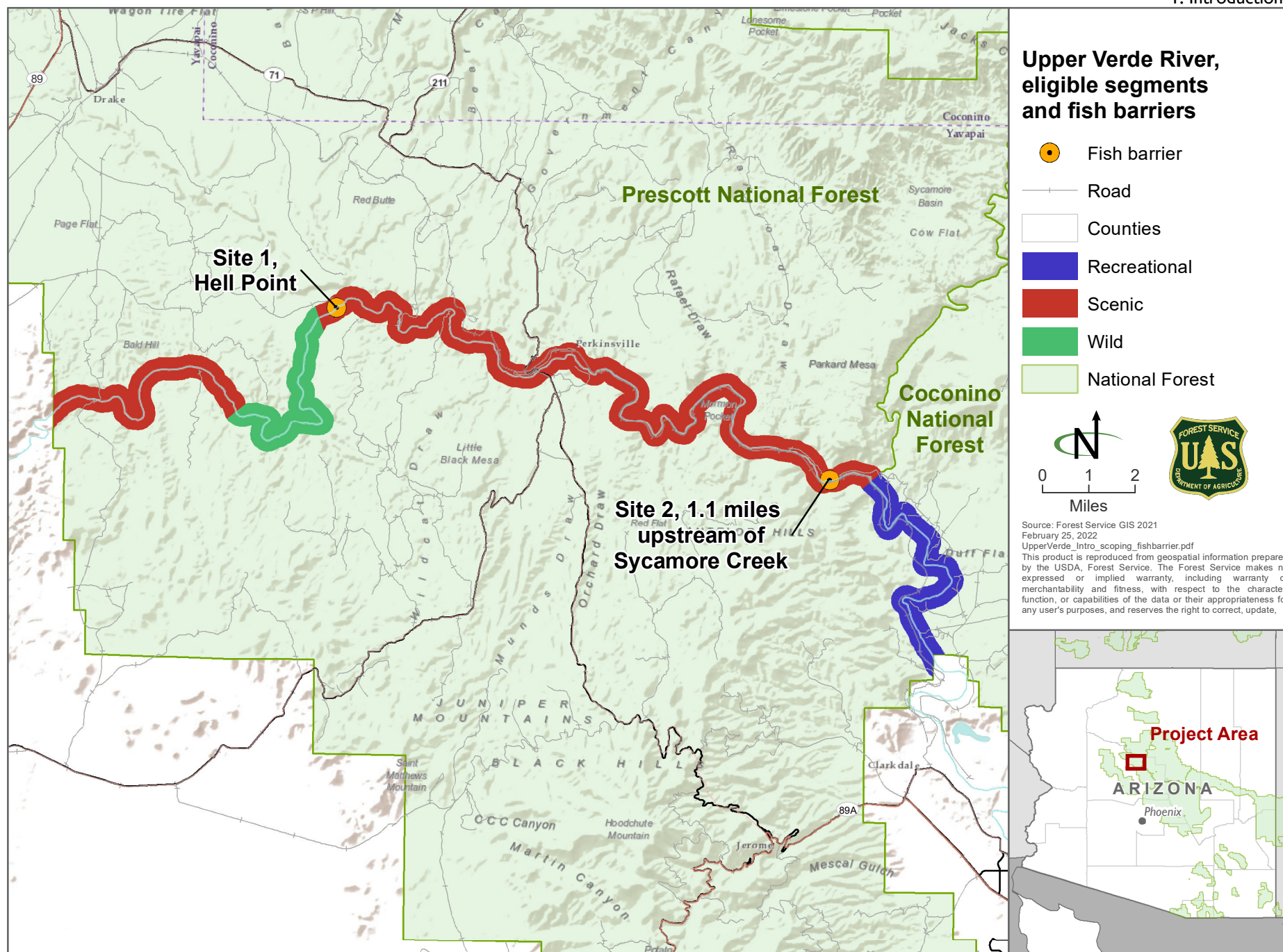
# Chapter I.

## Introduction

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The Bureau of Reclamation (Reclamation) is proposing to construct two fish barriers in the Upper Verde River (figure I). The fish barriers are needed to prevent upstream movement of nonnative fish species, whose recent establishment in the Gila River Basin is a key problem preventing conservation and recovery of the native fauna. The barriers would be built prior to the removal of nonnative fish and reestablishment of listed and sensitive native aquatic species in the Upper Verde River. The Upper Verde River has been designated as eligible for wild and scenic status under the provisions of the Wild and Scenic Rivers Act (WSR Act). This report was prepared to evaluate whether the proposed fish barriers would directly and adversely affect the free-flowing character, outstandingly remarkable values (ORVs), and inventoried classification of the river. Should the project move forward, a separate environmental compliance for the fish barriers would be completed.

The proposed locations of the barriers that are assessed in this report were determined after Reclamation conducted an appraisal-level investigation of 10 potential fish barrier locations along the Upper Verde River. Reclamation chose the proposed locations for two fish barriers based on biological, engineering, and construction considerations, including geology, hydrology, geomorphology, conceptual design, construction costs, and rights-of-way (Reclamation 2010). The description of the barriers, construction details, potential environmental effects, and mitigations that are used in this analysis are summarized from the appraisal investigation and are not formally developed or approved proposed actions.



## Chapter 2.

# Wild and Scenic River Eligibility

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The section of the Upper Verde River considered herein has been designated as eligible for inclusion in the National Wild and Scenic Rivers System (NWSRS) under provisions of the WSR Act. The eligibility classifications are defined and established within the WSR Act, and include wild, scenic, and recreational. To evaluate its eligibility, the Upper Verde River was divided into four segments; the segments and eligibility classifications are summarized in the table below. Detail maps of each segment are found in Appendix A.

The proposed fish barriers would be constructed within Segment 3, with an eligibility classification of scenic and containing the following ORVs: cultural, scenic, fisheries, wildlife, recreation, and botanical (USFS 2010).

**Table 1. Segments and Eligibility Classification of the Upper Verde River**

| <b>Segment</b> | <b>Length (Miles)</b> | <b>Related Features (Start/End of Segment)</b>                                                                                        | <b>Eligibility Classification</b> |
|----------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 1              | 5.9                   | From the Prescott National Forest's western boundary near Paulden, Arizona, to the confluence of King Tributary and Verde River       | Scenic                            |
| 2              | 5.6                   | From the confluence of King Tributary and Verde River to the Arizona Public Service power line and West-wide Energy Corridor location | Wild                              |
| 3              | 19.5                  | From the Arizona Public Service power line and West-wide Energy Corridor to below the confluence of Sycamore Canyon and Verde River   | Scenic                            |
| 4              | 6.7                   | From the confluence of Sycamore Canyon and Verde River to Prescott National Forest's boundary near Clarkdale, Arizona                 | Recreational                      |

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## Chapter 3.

# Protection of Eligible Wild and Scenic Rivers

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Only rivers in the NWSRS or identified by Congress for study under section 5(a) of the WSR Act are afforded statutory protection. In the case of the Upper Verde River, protection of the river's free-flowing character and ORVs is provided through U.S. Forest Service (USFS) policy. The USFS handbook (FSH) (FSH 1909.12, 82.5) directs protection in the following ways:

- “To the extent the Forest Service is authorized under law to control stream impoundments and diversions, the free-flowing characteristics of the identified river cannot be modified.
- Outstandingly remarkable values of the identified river area must be protected and, to the extent practicable, enhanced.
- Management and development of the identified river and its corridor cannot be modified to the degree that eligibility or classification would be affected (i.e., classification cannot be changed from wild to scenic or scenic to recreational).”

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## Chapter 4.

# Analysis Process

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The USFS conducted a free-flow analysis consistent with the management guidelines outlined for an eligible or suitable river in FSH 1909.12, 82.51, using the process developed for evaluation of a designated wild and scenic river (USFS Manual [FSM] 2354.76). The WSR Act defines “free flowing” as the following:

“Free flowing” as applied to any river or section of a river means existing or flowing in a natural condition without impoundment, diversion, straightening, riprapping, or other modification of the waterway. The existence, however, of low dams, diversion works, or other minor structures at the time any river is proposed for inclusion in the [NWSRS] shall not automatically bar its consideration for such inclusion: Provided, that this shall not be construed to authorize, intend, or encourage future construction of such structures within components of the [NWSRS] (section 16(b)).

Further, the U.S. Department of Agriculture and U.S. Department of the Interior guidelines (FSH 1909.12, 82.71) state: “[t]he fact that a river segment may flow between large impoundments will not necessarily preclude its designation. Such segments may qualify if conditions within the segment meet the eligibility criteria.”

Each of the 10 steps in the process has been addressed in the following table:

| Evaluation Criteria           | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>I. Establish the Need.</b> | <p data-bbox="516 237 1437 472">The Upper Verde River is a high-value stream for conservation of several aquatic and semiaquatic species. Based on surveys (1986–2008), the Upper Verde River retains a native population of the following fish species: roundtail chub (<i>Gila robusta</i>; USFS Southwestern Region sensitive species [SS]), Sonora sucker (<i>Catostomus insignis</i>; SS), desert sucker (<i>Catostomus clarkii</i>; SS), longfin dace (<i>Agosia chrysogaster</i>; not SS or Endangered Species Act [ESA]-listed), and speckled dace (<i>Rhinichthys osculus</i>; not SS or ESA-listed) (USFS 2010).</p> <p data-bbox="516 489 1437 793">Other aquatic species known to exist within the Upper Verde River corridor include northern Mexican garter snake (<i>Thamnophis eques megalops</i>; threatened), narrow-headed garter snake (<i>Thamnophis rufipunctatus</i>; threatened), Arizona toad (<i>Anaxyrus microscaphus</i>; under review for ESA status), and lowland leopard frog (<i>Lithobates yavapaiensis</i>; SS; known mainly from tributaries) (USFS 2010). The U.S. Fish and Wildlife Service (USFWS) has designated critical habitat in the Verde River for the spikédace (<i>Meda fulgida</i>), loach minnow (<i>Tiaroga cobitis</i>), razorback sucker (<i>Xyrauchen texanus</i>), narrow-headed garter snake, and northern Mexican garter snake.</p> <p data-bbox="516 810 1437 1115">Spikédace, a federally endangered species, has become rare in the Upper Verde River in recent years; it was last observed in 1999. Therefore, this species is presumed to be no longer present in the Upper Verde River (USFS 2010). Present populations of loach minnow, also a federally endangered species, are geographically isolated and inhabit the upstream ends of their historical range outside the Verde River. One other federally endangered species, the razorback sucker, historically occupied the Verde River; however, it is no longer present in the project area (Reclamation 2019a, 2019b).</p> <p data-bbox="516 1131 1437 1436">Native aquatic species restoration in the Upper Verde River has been identified in various agency planning documents. Reclamation and the USFWS identified the Upper Verde River as a potential reach for a barrier in the 2008 biological opinion on impacts of Central Arizona Project (CAP) water transfers to the Gila River Basin and its potential to spread nonnative aquatic species (USFWS 2008). The highest-value streams under Reclamation’s fish barrier construction program are those that can be secured to prevent extinction and to stabilize rare stocks of native fish, or that can be protected and renovated to replicate rare stocks of native fish.</p> <p data-bbox="516 1453 1437 1688">The land and resource management plan for the Prescott National Forest (Forest Plan) identified the need to provide desired habitat for native fish species. This includes partnering with the State of Arizona to address control of nonnative species. The Arizona Game and Fish Department (AZGFD) has identified the Upper Verde River for native fish management with an emphasis on native sport fishing in its Verde River Watershed Fisheries Management Plan (AZGFD 2014).</p> <p data-bbox="516 1705 1437 1835">Protection of an eligible river’s free-flowing character and ORVs is provided through USFS policy, specifically FSH 1909.12, 82.5. The proposed project is needed to protect and enhance the fisheries’ ORV identified for the Upper Verde River (USFS 2010).</p> |

| Evaluation Criteria                                                                                                                           | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| <p><b>2. Define the Proposed Activity.</b><br/>Objectively describe the proposed activity in terms of the:</p> <p>a. Project proponent(s)</p> | <p>The project proponent is Reclamation. Collaborators are the USFS, USFWS, and AZGFD.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>b. Purpose of and need for the project</p>                                                                                                 | <p>Currently, nonnative fish populations are a threat to native fish, frogs, snakes, and other aquatic or semiaquatic species in the Upper Verde River. The long-term viability of native fish is at risk without actions taken to enhance and protect native fish populations. For example, the federally endangered spikedace, a once common species in the Upper Verde River, appears to be eradicated (Robinson and Crowder 2015), and the community is now dominated by nonnative fish species (USFWS 2009). The Upper Verde River retains a strong potential to reestablish several native fish populations, provided nonnative fish can be removed and the river can be secured against their reinvasion. This could be accomplished by constructing a fish barrier followed by the eradication of nonnative fish from the portions of the river and its perennial tributaries upstream of the proposed barriers.</p> <p>The purpose of and need for the proposed project are to alleviate threats to the existing Verde River population of native aquatic species from nonnative fish and to restore populations of native species indigenous to this portion of the river. Additional benefits would accrue from securing habitat for stocking spikedace, Gila topminnow, loach minnow, razorback suckers, and garter snakes. Implementation of the proposed action would meet one of the key conservation measures of the CAP biological opinion, which encourages the strategic placement of fish barriers to “prevent or hinder upstream movements of nonindigenous fish and other aquatic organisms into high-value native fish and amphibian habitats” and to “protect existing populations of listed fishes or facilitate the repatriation and stocking of native fishes upstream of the barriers.” Additionally, the proposed action supports AZGFD, USFS, and USFWS planning efforts.</p> |
| <p>c. Geographic location and description of the project</p>                                                                                  | <p>Reclamation is proposing two fish barriers. Both would be located in northern Yavapai County between the towns of Clarkdale and Paulden, Arizona. Based on U.S. Geological Survey data from the gauge station “Verde River near Clarkdale, Arizona” (no. 09504000, located 2.5 river miles downstream from Reclamation’s lowermost site), the Verde River Watershed upstream of Clarkdale is approximately 3,500 square miles (Reclamation 2010). Major tributaries to the Verde River near the proposed barriers include Big Chino Wash, Granite Creek, and Sycamore Creek. The Verde River contains perennial flows and alluvial-filled main channels at both fish barrier sites (Reclamation 2010).</p> <p>The first proposed barrier location, Site I (Hell Point), would be located 0.4 miles upstream of the confluence with Hell Canyon in Prescott National Forest. The barrier alignment measures approximately 240 feet abutment-to-abutment distance. The site has a bedrock outcrop that extends halfway across the channel (photos 3–5 in “Appraisal-Level Investigation Summary of</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Evaluation Criteria                            | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                | <p>Findings, Verde River Fish Barrier, Central Arizona Project”; Reclamation 2010). The river elevation is about 3,950 feet. The average annual flow over the past 12 years in Verde River near the Paulden stream gauge, located 8 river miles upstream of Site 1 with no major intervening tributaries, is 27 cubic feet per second. A barrier at this site would protect approximately 16.7 miles of perennial river for native fish (Reclamation 2010).</p> <p>The second site, Site 2, would be located in the Verde River about 3,700 feet upstream of the Verde River’s confluence with Sycamore Creek. The river elevation is 3,574 feet. Over the past 11 years, the mean annual flow at Verde River near the Clarkdale stream gauge, located about 3 miles downstream, is 109 cubic feet per second. However, the un-gauged, perennial Sycamore Canyon joins the Verde River in the interim. A barrier at this site would protect approximately 34.7 miles of perennial river for native fish (Reclamation 2010).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| d. Duration of the proposed activities         | Barrier construction would take approximately 5 months, and the structure would be permanent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| e. Magnitude/extent of the proposed activities | <p>Both barriers would be up to 30 feet wide (measured upstream to downstream), including the dam, splash apron, and downstream revetment (sloping structures placed on banks or cliffs in such a way as to absorb the energy of incoming water). Both concrete dams would have a 4-foot drop height and would be constructed of materials excavated for the barrier location.</p> <p>The barriers’ appearance would be designed to fit with the surrounding terrain, but they would not be constructed to blend into the surroundings due to the size of the structures. This would impact the river’s scenic ORV at the structure locations. The preliminary designs from Reclamation depict a concrete structure with straight lines and square edges that would detract from the scenery from various vantage points in the corridor. Examples of vehicles and equipment that would be used during construction are excavators, loaders, backhoes, dump trucks, pickup trucks, and submersible or aboveground pumps. Generators also would be required at both sites for all electrical needs.</p> <p><b>Site 1.</b> This site has a 240-foot barrier alignment abutment-to-abutment distance. It offers a bedrock outcrop (basalt) that extends halfway across the channel. The remainder of the stream channel to the vertical rock face on the left abutment is alluvium. On bedrock, the barrier would essentially consist of a 2-foot-thick, 4-foot-tall wall; this would substantially reduce the concrete quantities since an apron and scour walls would not be necessary (Reclamation 2010). The barrier footprint would be approximately 0.2 acres, spanning 240 feet from abutment to abutment. Sediment deposited behind the structure would impact approximately 3.5 acres extending up to 2,701 feet upstream of the proposed barrier. The bedrock intrusion slopes down from the right canyon wall and dives below the alluvium about halfway across the canyon.</p> <p>The temporary staging area would be on an upland site within 500–1,000 feet of the barrier, depending on the location. Existing dirt roads in</p> |

| Evaluation Criteria                                      | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                          | <p>moderate condition would provide access to the top of the 350-foot-deep canyon. Three jeep trails drop into the canyon at the confluence 0.4 miles from the fish barrier site. Two of the roads come from the north on each side of Hell Canyon. Another arrives from the south side of the Verde River. Without improvement, these jeep trails would severely limit the type of construction equipment that could be driven to the site.</p> <p>At the river bottom, a road from the confluence to the fish barrier site would need to be developed and would require fording the river two or three times. Any newly constructed access roads would be temporary and would be completely obliterated and naturalized after construction. There could be alternate methods to bring in equipment, such as constructing a cableway system from the top of the canyon to bring in materials, supplies, equipment, and personnel (Reclamation 2010, 2019a).</p> <p><b>Site 2.</b> The barrier footprint would be approximately 0.3 acres, spanning approximately 320 feet abutment to abutment. Sediment deposited upstream of the structure could impact approximately 10 acres, extending approximately 3,891 feet upstream. A temporary staging area for construction would be on an upland site within 500–1,000 feet of the barrier, depending on the location. A road runs from Sycamore Canyon along the river to the site. The road provides access to within 500 feet of the barrier site at river level. The river would need to be forded twice to reach the site. Travel around private property would be necessary and could be accomplished by moving through a gate along Gold Tooth Trail (Reclamation 2010, 2019b).</p> <p>During construction, the surface flows would be diverted around the construction area. Stream diversion would be accomplished with channels and berms consisting of native materials. Surface flows would be routed to one side of the channel while half the barrier is constructed; surface flows would then be routed to the other side while the barrier is completed.</p> <p>Dewatering of the foundation would be required during excavation to maintain stable trench slopes. A gradation analysis of the alluvial materials would determine the dewatering methods. Submersible pumps or aboveground pumps would be used for this purpose. Water pumped from the foundation would be discharged to the river downstream of the work (Reclamation 2010).</p> |
| f. Relationship to past and future management activities | <p>Reclamation is proposing this project to comply with the 2008 biological opinion on impacts of CAP water transfers to the Gila River Basin and its potential to spread nonnative, aquatic species (USFWS 2008). The CAP biological opinion calls for construction of multiple drop-type fish barriers in specified drainage systems of the Gila River Basin to avoid the potential for the CAP's operation to jeopardize the continued existence of listed fish species or adversely modify designated critical habitat.</p> <p>The proposed native fish restoration project would be consistent with the existing USFWS recovery plans for spinedace and loach minnow (USFWS 1991a, 1991b). These plans are the primary guiding documents for recovery activities for these species, and their implementation is the primary purpose</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Evaluation Criteria | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                     | <p>of the conservation measures of the 2008 biological opinion (USFWS 2008). Both recovery plans call for construction of fish barriers to protect existing populations and unoccupied potential recovery areas suitable for repatriations.</p> <p>The Prescott National Forest staff manages National Forest System land in the Verde River Watershed in accordance with the Forest Plan (USFS 2015, as amended) and other national policy and direction, including section 7(a)(1) of the ESA, which requires all Federal agencies to use their authorities to carry out programs for the conservation of threatened and endangered species.</p> <p>The proposed action was determined to be consistent with the current Forest Plan's management objectives and desired conditions, as follows:</p> <ul style="list-style-type: none"> <li>• Native fish species should be restored to two to three stream reaches during the 10 years following plan approval (Forest Plan, page 66).</li> <li>• Ecological conditions provide habitat for associated federally listed species. Habitat conditions generally contribute to survival and recovery. They also contribute to the delisting of species under the ESA of 1973 (Public Law 93-205) (Forest Plan, page 44).</li> <li>• Improved habitats for candidate and proposed species help preclude species' listings as threatened or endangered under the ESA (Forest Plan, page 44).</li> </ul> <p>Commensurate with the Forest Plan's management direction, USFS policy is to recover threatened and endangered species so that special protection measures provided under the ESA are no longer necessary and to ensure, through appropriate management practices, that non-listed native species do not become threatened or endangered because of USFS actions (FSM 2602, 2670). The policy also is to encourage or initiate translocation of listed species into suitable unoccupied habitat when such actions promote recovery of the species (FSM 2674). The National Forest Management Act of 1976 (Public Law 104-333, as amended) requires the USFS to provide for the biological diversity of national forests consistent with overall multiple-use objectives of the planning area and to maintain viable populations in the planning area.</p> <p>In accordance with these policies, the USFS has installed, or is working cooperatively with other Federal and state agencies to install, fish barriers to protect native fish habitat within seven national forests in the Southwestern Region (Apache-Sitgreaves, Carson, Coconino, Gila, Prescott, Santa Fe, and Tonto National Forests).</p> <p>It is anticipated that recreation will continue to increase along the river commensurate with local and regional population growth. This will make future USFS management of river-related recreation inevitable. Sightseeing, wildlife observation, camping, photography, hiking, fishing, hunting, and boating are all activities that currently occur along the river. The presence of fish barriers could negatively impact some of these activities and could require construction modifications or future management actions to mitigate impacts. The river is floatable currently by canoes and kayaks. It is</p> |

| Evaluation Criteria                                                                                   | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <b>3. Describe How the Proposed Activity Will Directly Alter Within-Channel Conditions.</b> Describe: | <p>anticipated that this activity will continue and increase. The barriers would impact river running the most because portage would be necessary.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| a. The position of the proposed activity relative to the streambed and streambanks                    | <p>The two barriers would be concrete structures positioned roughly perpendicular to the banks, rising vertically from the bed. Each of the two structures would be constructed across the established river channel and could extend beyond the defined channel banks, depending on the site's geology. The barrier would span approximately 240 feet from abutment to abutment at Site 1 and 320 feet from abutment to abutment at Site 2.</p> <p>The proposed fish barriers would consist of four key features: (1) a 4-foot-high (minimum of 4 feet from the top of the water) arched drop structure; (2) a sloped concrete apron, approximately 2 feet thick, extending up to 20 feet downstream to prevent plunge pool development; (3) buried upstream and downstream scour walls, extending up to 20 feet in depth measured from the channel bottom, to help anchor the barrier and prevent scour from undermining the structure; and (4) a buried energy deflection block to reduce downstream scour. Design and geologic investigations may warrant concrete piles below the scour walls.</p> <p>The optimum barrier design would be determined through prior Reclamation experience with construction of similar barriers, criteria developed by the National Marine Fisheries Service (NMFS 2008), and physical and numeric hydraulic modeling and sedimentation analysis.</p> <p>At Site 1, the bedrock intrusion would offer a stable foundation for the downstream channel-left abutment of the structure. The structure would be keyed and anchored into canyon wall rock at the ends, and anchored along the bedrock intrusion with drilled and grouted anchor bars. This would limit the need for excavation of alluvium on the right side of the channel. At Site 2, excavation of alluvium up to 25 feet in depth would be required to ensure the structure is constructed deep enough to not be undercut by river scour actions.</p> |
| b. Any likely resulting changes in:<br><br>(1) Active channel location                                | <p>At Site 1, the bedrock intrusion would prevent the left side of the downstream-facing channel from shifting laterally to a new location. Water would temporarily pool upstream of the structures. Sediment transported by the stream would be expected to eventually fill the pooled area upstream of the barrier. Sediment deposits would eventually cause the bed profile of the channel to increase by up to 5 feet at the barrier site. The thickness of the sediments deposited behind the barrier would thin with distance from the barrier. Sediment typically deposits at a gradient of less than half the natural channel gradient; consequently, sediment deposition would be expected to extend an unknown distance upstream of the pooled area. These effects would change the current channel appearance, but they would be similar to habitat and gradients elsewhere in the system.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Evaluation Criteria                                                               | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| (2) Channel geometry (cross-sectional shape, and width and depth characteristics) | <p>The channel cross section just above the barrier would eventually conform to the shape of the barrier crest. The barrier design shows the crest gently sloping from the outer edges downward to a 20-foot-wide (upstream to downstream), low-flow notch at the center. The crest would have a profile similar to typical upstream cross sections. The existing low-flow stream channel would shift from the edge to the center of the main channel. The splash apron shape would mimic the barrier crest and would have a similar effect on the downstream channel's cross-section shape. The barrier would cause a change in the width-to-depth ratios of base flows and small magnitude flood flows.</p>                                                                                                                                                                                                                                                                                                                                       |
| (3) Channel slope (rate or nature of vertical drop)                               | <p>The 4-foot-high barrier at each site would initially impound water; this would create a pool that would eventually fill with sediment transported by a few high-flow events. Sediment deposited behind the barrier (on the order of approximately 3.5 to 10 acres at both sites and extending approximately 2,701 feet upstream at Site 1 and 3,891 feet upstream at Site 2) could reduce the channel slope (likely by tenths of a percent). The water surface elevation of baseflows and small magnitude flood flows would be permanently raised at and for a short distance above the barrier.</p> <p>The stream gradient below the barrier would not change; this is because the bottom splash apron and revetment elevation would be installed at the existing streambed elevation. The splash apron and revetment consisting of buried riprap would prevent any bottom scouring that could change the downstream channel slope. The bedrock intrusion at Site 1 would eliminate the need for the apron and scour walls on that portion.</p> |
| (4) Channel form (straight, meandering, or braided)                               | <p>The channel types in the segment of the Upper Verde River in which the barriers would be located are predominantly "B" and "C" channel types, based on the Rosgen system of channel typing (Rosgen 1994). "C" channels are low gradient (2–0.1 percent); they have moderate to high width-to-depth ratios (greater than 12) and moderate to high sinuosity (greater than 1.2). "B" channel types are characterized by gradients of 10 to 2 percent. They are moderately entrenched with width-to-depth ratios of 1.4 to 2.2; they have moderate width-to-depth ratios (greater than 12) and have moderate sinuosity (greater than 1.2) (Fryxell 2009). The structures would be expected to have localized impacts on the overall channel form. Deposition of alluvial material upstream of the barriers could allow development of fluvial features (bed and banks) over time for a short distance upstream of the barrier.</p>                                                                                                                  |

| Evaluation Criteria                                                                                             | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| (5) Relevant water quality parameters (turbidity, temperature, and nutrient availability)                       | <p>Arizona sets narrative and numeric surface water standards for water quality based on people and wildlife's uses of the water. The Arizona Department of Environmental Quality reported in the 2016 Water Quality in Arizona 305(b) Assessment Report that the reach of the Verde River at Hell Canyon (Site 1) attains surface water quality standards with respect to fish consumption and crop irrigation, but it was inconclusive with respect to the full-body contact and warmwater aquatic community (ADEQ 2016). The report lists the reach of the Verde River between Sycamore Creek and Oak Creek as attaining surface water quality standards with respect to fish consumption and crop irrigation; however, it is impaired with respect to the full-body contact and warmwater aquatic community (ADEQ 2016).</p> <p>In the long term, the barrier would not be expected to impact water quality. Best management practices (for example, diverting the streamflow around the barrier site) and requirements under the permits employed during the construction of the barrier would minimize short-term turbidity increases in the stream. Once construction is completed, the fish barriers would not be expected to have effects on the river's water quality.</p> |
| <b>4. Describe How the Proposed Activity Will Directly Alter Riparian and/or Floodplain Conditions.</b>         | <p>Barrier construction activities would mostly occur within the river channel and floodplain. The barriers would be located primarily within the river channel; it would be determined during the design process whether the outer edges may extend into the floodplain. Transporting equipment to the sites and between the upland staging areas and barrier sites would cause temporary disturbance to the riparian area and floodplain.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p>Describe:</p> <p>a. The position of the proposed activity relative to the riparian area and floodplain</p>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p>b. Any likely resulting changes in:</p> <p>(1) Vegetation composition, age structure, quantity, or vigor</p> | <p>Existing vegetation along the Verde River at both potential sites consists of rocky, grass-dominated flats interspersed with small pockets of riparian forbs and small, dense stands of trees (such as oak, willow, and cottonwood). Pockets of rushes and cattails can also be found in small, low-lying areas with slow-moving water (Reclamation 2019a, 2019b). Permanent clearing of vegetation due to barrier construction would occur at both sites over the area where the wall extends past the channel (up to 0.07 acres at each site). Additional damage (such as crushing and trampling) to vegetation could occur in the surrounding area during construction; this would be due to the use of vehicles and heavy equipment, such as excavators, loaders, backhoes, and trucks.</p> <p>Deposition of sediment behind each structure would eventually elevate the floodplain relative to the barrier height and provide a suitable recruitment medium for new riparian vegetation. This would potentially lead to an increase in riparian vegetation around the sites; however, repeated scouring would limit riparian development to primarily the young age classes of these species.</p>                                                                            |

| Evaluation Criteria                                                                                                                                                                 | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                                                                                                                     | <p>A potential impact on the botanical ORV, which is based on two Region 3 sensitive plant species, natural riparian processes, and diverse native riparian plant communities, would be a temporary risk of increased nonnative species during barrier construction. To reduce this risk, equipment and vehicles would be cleaned before being transported to the sites, and follow-up monitoring for invasives would be conducted after construction. Except for the barrier footprints, vegetation would begin to recover in disturbed and deposition areas shortly after the channel and floodplain adjust to the new barrier. Any new temporary roads would be ripped and seeded, slash would be covered, and entrances would be heavily modified so unauthorized access could not be gained.</p>              |
| (2) Relevant soil properties, such as compaction or percent bare ground                                                                                                             | <p>At Site 1, the riverbank is approximately 2 feet above the water in most places and consists of soft silt and clay. The river bottom is mostly small- to medium-diameter river rock, except near the banks where the bottom is muddy (Reclamation 2019a). At Site 2, the riverbank is approximately 2 to 3 feet above the water in most places and consists of firm clay. The river bottom consists of gravel, cobbles, and boulders (Reclamation 2019b). At both sites, an increase in the water surface elevation of floods would increase the area of soils exposed to scouring and erosion. The increase may be short lived if soils are scoured to bedrock. The use of vehicles and heavy equipment, such as excavators, loaders, backhoes, and trucks, would cause soil compaction in the work areas.</p> |
| (3) Relevant floodplain properties, such as width, roughness, bank stability, or susceptibility to erosion                                                                          | <p>Deposition of sediment behind each structure would eventually elevate the floodplain relative to the barrier height. This would cause an increase in water surface elevation that decreases with distance upstream of the barrier and with the increasing magnitude of flood flows. Susceptibility to erosion may increase on the margins of the channel as flood elevations increase, particularly since the riverbanks are composed of erodible material (soft silt and clay at Site 1 and firm clay at Site 2; Reclamation 2019a, 2019b). This could decrease bank stability. Additional erosion would likely occur during construction due to the use of vehicles and heavy equipment, such as excavators, loaders, backhoes, and trucks.</p>                                                               |
| <p><b>5. Describe How the Proposed Activity Will Directly Alter Upland Conditions.</b></p> <p>Describe:</p> <p>a. The position of the proposed activity relative to the uplands</p> | <p>Most construction activities would occur in the river channel at both sites, including the proposed structure. However, construction activities would have temporary, localized impacts around the site, such as vegetation removal from trampling and staging of vehicles, equipment, and materials. Potential improvements to roads leading to each site and a potential new road at Site 1 could cause additional disturbance; however, Reclamation would consider alternate methods to the new road. All disturbed areas would be revegetated after project completion; also, any newly constructed access roads would be completely obliterated and naturalized after construction.</p>                                                                                                                    |

| Evaluation Criteria                                                                                                  | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <p>b. Any likely resulting changes in:</p> <p>(1) Vegetation composition, age structure, quantity, or vigor</p>      | <p>The barrier would be located in the river channel at both sites. Disturbance from potential road improvements, travel to and from sites, and construction crews or equipment would have temporary impacts on upland vegetation. These effects on upland vegetation would include removing or trimming, or both, small trees and bushes to allow passage of construction equipment. Large trees and areas of thick vegetation would be avoided. These impacts would be temporary; this is because disturbed areas would be revegetated after project completion, and it is expected that upland vegetation would recover to pre-disturbance levels. Weed-control measures would also be implemented prior to and following construction, and disturbed areas could be reseeded with native material.</p> <p>If a new, temporary road is built at Site I, the impacts on vegetation along the new route would be greater, including a larger area of vegetation removal and removal of dense vegetation, if present. Large trees would be avoided. Any newly constructed roads would be completely obliterated and naturalized after construction. Disturbed areas would be revegetated after project completion; however, it could take longer for vegetation to recover to pre-disturbance levels.</p> |
| <p>(2) Relevant soil properties such as compaction or percent bare ground</p>                                        | <p>Localized disturbance (that is, compaction) to soils in the uplands would occur from road improvements, travel to and from sites, and construction crews or equipment. The majority of upland travel would occur on existing roads and trails; however, a potential, temporary new road could be built at Site I. If built, the new road would cause relatively higher levels of disturbance to soils due to the vegetation removal, which could increase erosion and compaction. Any newly constructed roads would be completely obliterated and naturalized after construction. Disturbed upland soils would be regraded and ripped, and covered with slash material, as needed, to reduce compaction to promote revegetation and reduce soil erosion.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p>(3) Relevant hydrologic properties such as drainage patterns or the character of surface and subsurface flows</p> | <p>Impacts on drainage patterns or the character of surface and subsurface flows would not be expected for the majority of upland areas. If the temporary, new road at Site I is built, it could alter the local hydrology by serving as a conduit for surface water runoff, accelerating water flows and sediment transport, and decreasing groundwater infiltration. This effect would be temporary because any newly constructed roads would be completely obliterated and naturalized after construction. Also, disturbed areas would be revegetated after project completion.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Evaluation Criteria                                                                                                                                                                                                                                                     | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| c. Potential changes in upland conditions that would influence archaeological, cultural, or other identified significant resource values                                                                                                                                | <p>Overall, 14 heritage resource sites have been formally recorded to date in the segment of the Upper Verde River containing the two fish barrier sites. Sites in this segment are represented by two prehistoric residential occupations; a fort; five cave/rock shelters; four ceramic artifacts, chipped stone, and ground stone; a mine; and a mining camp. All 14 sites are likely eligible for the National Register of Historic Places as either single property or under a thematic or multiple property nomination; however, further investigation is needed to confirm this (USFS 2010).</p> <p>The USFS completed three previous block surveys and five linear road surveys in the area surrounding Site 1. There are six previously recorded archaeological sites found on the terraces above MC Canyon and the Verde River. No new archaeological survey was completed, as all planned actions would occur within the flood zone of MC Canyon and the Verde River (Reclamation 2019a, 2019b). The six previously recorded sites are outside the proposed activity locations (that is, they do not fall within the quarter-mile buffer that was defined as the limits for the suitability study). Additionally, the route into Site 1 would avoid the archaeological sites by a minimum of one-fourth mile; therefore, the barrier construction activities, including travel, would not impact these sites.</p> <p>At both sites, the only ground disturbance planned would occur within the river and creek beds, on previously constructed roads, and on a potential new temporary road. No other ground disturbance would occur outside these areas without prior USFS approval. Also, a USFS archaeologist would review the location of the fish barrier sites relative to the formally recorded heritage resource sites to ensure that no effects on archaeological or cultural resources would occur. Therefore, the proposed action activities are not anticipated to affect historic properties or the cultural ORV (Reclamation 2019a, 2019b; USFS 2010). Compliance with the National Historic Preservation Act section 106 process would be completed prior to any proposed construction, as the project design and construction disturbance and access footprints are better defined.</p> |
| <p><b>6. Evaluate and Describe How Changes in On-Site Conditions Can/Will Alter Existing Hydrologic or Biologic Processes.</b></p> <p>Evaluate and describe:</p> <p>a. The channel's ability to change course, reoccupy former segments, or inundate its floodplain</p> | <p>At both sites, the channel's ability to inundate its floodplain would be affected by an increase in water surface elevation due to sediment deposition that decreases with distance upstream of the barrier. The amount of sediment deposition that would occur upstream of the structures is unknown; however, backfilling could cause re-navigation of the channels, infill of overflow channels, and redevelopment of point bars. These potential changes could affect the channel upstream from the barriers until system energy, sediment, and vegetation are in semi-equilibrium. Increased water surface elevation would also increase the magnitude of flood flows; with an increased frequency of higher-magnitude floods under climate change, this would increase the opportunity for scouring and erosion.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Evaluation Criteria                                                                     | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| b. The streambank erosion potential, sediment routing and deposition, or debris loading | <p>At both sites, the streambank erosion potential would increase on the sides of the channels. This would be due to the increased water surface elevation of floods, particularly since the riverbanks are composed of erodible material (soft silt and clay at Site 1 and firm clay at Site 2; Reclamation 2019a, 2019b). Reclamation would expect the magnitude of this erosion on the right side of Site 1 to be insignificant due to the bedrock intrusion.</p> <p>Sediment deposition would occur upstream of the structures due to backwater effects created by the structures that reduce sediment transport capacity. Once sediment has deposited behind the barrier, the barrier would have little or no effect on sediment routing and deposition.</p>                                                                                                                                                                                                                                                                                                                                                                                                      |
| c. The amount or timing of flow in the channel                                          | <p>Flow in the channel would be reduced by the creation of a pooled area upstream of the barriers. Effects would be most noticeable during low-flow conditions. Sediment deposition upstream of the barriers would eventually fill the pooled area and reduce the channel slope an unknown distance upstream of the barrier. A flatter channel slope would also slow the velocity of streamflows. The barrier would not change the amount of flow in the channel after infill and settling.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| d. Existing flow patterns                                                               | <p>The existing flow pattern above the sites would initially change from primarily a riffle and run pattern to that of a long pool. At baseflow conditions, a number of shallow pools separated by small riffles occupy the area upstream of the barrier site. Under higher flow conditions, much of the upstream area would be characterized as a run as placement of the barriers would convert an upstream reach of each channel into a temporary pool. The lifespan of this pool would be temporary, as sediment would fill behind the barrier.</p> <p>Changes to flow patterns would also occur immediately downstream of the barrier, namely an increase in turbulence and stream below the drop, which would quickly dissipate after passing over the downstream splash apron and riprap. The specific size of the riprap would be determined during the design phase and sized appropriately.</p>                                                                                                                                                                                                                                                              |
| e. Surface and subsurface flow characteristics                                          | <p>The Upper Verde River flows continuously from the network of springs and seeps that are its source to Perkinsville, a reach that is approximately 24 miles in length. Most of the groundwater discharges that create the base flow of the Upper Verde River occur within the first few miles below its source. It is estimated that at least 80 percent of the base flow of the Upper Verde River, as measured at the U.S. Geological Survey gauge at Paulden, is supplied by this network of springs and seeps (Palowski 2012).</p> <p>There would be a small increase in water surface elevation at and above the barrier. The increase in water surface elevation would decline with increasing distance upstream and with an increasing magnitude of stream flows.</p> <p>The proposed barriers would change the existing channels from primarily a run and riffle type to a temporary pool immediately upstream of the structure. Over the long term, as the pools fill with sediment, the barriers would create an alluvium riffle and run habitat type for approximately several hundred feet upstream. With the increase in alluvium, there would be an</p> |

| Evaluation Criteria                                                                                              | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                                                                                                                  | increase in subsurface flow upstream of the structure. Additionally, the barrier footers could potentially force some subsurface flow to the surface, causing a change in surface and subsurface flows.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| f. Flood storage (detention storage)                                                                             | Initially the 4-foot-high barrier would result in storage of less than approximately 10 acre-feet of water at each site. The volume of storage would decline over time as trapped bedload and sediment fill the storage area upstream of the structure. Reclamation would not expect storage of floodwaters other than those impounded by the 4-foot-high barrier.                                                                                                                                                                                                                                                                                                                                                                                                      |
| g. Aggradation/ degradation of the channel                                                                       | The channel would aggrade by up to 4 feet at the barrier sites as bedload and sediment are trapped by the barrier. Sediment deposits upstream of barriers typically deposit at a gradient of less than half the natural channel gradient. The depth of the aggradation would decrease with the distance upstream from the barrier. The downstream splash apron and riprap would dissipate stream energy, which would reduce the potential for scour; therefore, Reclamation would not expect degradation downstream of the barrier.                                                                                                                                                                                                                                     |
| h. Biological processes, such as:<br><br>(1) Reproduction, vigor, growth, or succession of streamside vegetation | See the riparian discussion above. Riparian vegetation immediately upstream of the structure would be inundated, and new vegetation would establish as the water level increases. The areas above the barriers could provide a temporary location for tamarisk and other nonnative riparian species until the area fills in with silt. However, implementing weed-control measures prior to and following construction would reduce this risk. Therefore, the project would initially impact riparian vegetation at the sites. Over time as the area behind the barriers fills with sediment, it would improve conditions suitable for the establishment of riparian vegetation. This would result in amplified reproduction, vigor, and growth of riparian vegetation. |
| (2) Nutrient cycling                                                                                             | Nutrient cycling would be temporarily increased in the pool formed above the barriers where small organic matter, such as leaves, would be trapped. Macroinvertebrates and other small organisms feeding on this material would also increase for a short period.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| (3) Fish spawning or rearing success, or both                                                                    | Over time, gravel and sand would deposit upstream of the barrier; these substrates would increase the overall spawning habitat for native fish in the stream. Temporary pooling of water upstream of the structure could also create habitat for native suckers and the other fish that use the pool habitat for rearing. The pool habitat would be expected to come and go through time as the bed load accumulates behind the structure and then is remobilized during high flows. Increased production of some invertebrates from greater amounts of sand, gravel, and cobble substrate would also support rearing of fish species in the stream.                                                                                                                    |
|                                                                                                                  | Excluding nonnative fish species through the construction of the fish barriers would reduce predation on and competition with native species. This would help to reestablish the Verde River population of spikedace, loach minnow, and razorback suckers. It also would protect or augment populations of many other native fish and aquatic species (such as roundtail chub, Sonora sucker, desert sucker, longfin dace, speckled dace, Mexican garter snake, narrow-headed garter snake, Arizona toad, and lowland leopard frog). It would also protect and enhance designated critical habitat for the spikedace,                                                                                                                                                   |

| Evaluation Criteria                                                                                                                                                                          | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| (4) Riparian-dependent avian species' needs                                                                                                                                                  | <p>loach minnow, and razorback sucker, and the fish ORV in the Upper Verde River (USFS 2010).</p> <p>Yellow-billed cuckoo (<i>Coccyzus americanus</i>) is typically found in wooded habitat with dense cover and water nearby, including in woodlands with low, scrubby vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes. It lives mainly among the canopies of deciduous trees in woodland patches with gaps and clearings. The segments of the Upper Verde River contain patches of potential yellow-billed cuckoo habitat; also, yellow-billed cuckoos have been identified during species surveys in surrounding areas of Yavapai County. To ensure no adverse effects on the yellow-billed cuckoo, the construction activities would take place outside of May–September to avoid migrant and breeding birds while also avoiding impacts on proposed critical habitat through the removal or damage to riparian vegetation (Reclamation 2019, 2019b).</p>                                                                                                                         |
| (5) Amphibian, reptile, and mollusk's needs                                                                                                                                                  | <p>The northern Mexican garter snake (<i>Thamnophis eques megalops</i>) and narrow-headed garter snake (<i>Thamnophis rufipunctatus</i>, threatened) are likely to exist at low densities in both project areas (Reclamation 2019a, 2019b). To ensure no adverse effects on garter snakes, a qualified, permitted biological monitor would be present throughout construction activities to identify snake burrows and facilitate avoidance of any animals in the path of equipment.</p> <p>Excluding nonnative fish upstream through construction of the fish barriers would benefit amphibian species sensitive to predation. In addition, the sediment trapped and the resulting aquatic vegetation that is anticipated to become established would provide essential breeding habitat for amphibians. Aquatic vegetation in the form of emergent and floating vegetation is necessary for egg masses to adhere to; also, water depth is needed for egg masses to remain fully submerged. This aquatic vegetation also provides cover for frogs and tadpoles. Floating vegetation may also provide basking substrate for frogs.</p> |
| <p><b>7. Estimate the Magnitude and Spatial Extent of Potential Off-Site Changes.</b></p> <p>a. Consider and document:</p> <p>(1) Changes that influence other parts of the river system</p> | <p>As described above, the upstream face of the 4-foot-high barrier would capture sediment. This deposition would cause a slight change in the stream gradient and temporarily affect riparian vegetation. Other expected changes to the river system would be backwater and aggradation effects upstream of the barrier.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Evaluation Criteria                                                                                                        | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| (2) The range of circumstances under which off-site changes might occur (for example, as may be related to flow frequency) | Reclamation would not expect changes below the barrier sites. Aggradation upstream of the sites would occur during floods. As the areas upstream from the barriers fill with sediment, that sediment would not be transported downstream into the Upper Verde River. However, this temporary decrease in sediment is not expected to have any measurable impacts. There is the potential for increased sedimentation downstream during the construction period and shortly after construction. This would be due to surface disturbance, but Reclamation would expect any increased sedimentation to be inconsequential in relation to the background sediment in the watershed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| (3) The probability or likelihood that predicted changes will be realized                                                  | The predicted changes would be likely to occur.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| b. Specify processes involved, such as water and sediment, and the movement of nutrients                                   | <p>The only off-site changes anticipated would be those associated with sediment deposition behind the barrier and a small amount of short-term erosion from the increased water surface elevation of flood flows. Sediment transport is controlled by gradient, stormwater runoff, and snowmelt. The greater the flow rate, the greater the capacity of streamflows to transport sediments. Additional erosion would occur during floods events due to the increased water surface elevation of these events.</p> <p>There should be no off-site changes in the movement of nutrients. This is because any alterations to nutrient cycles would be localized. Reclamation would not expect any changes in nutrient cycling to occur downstream.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>8. Define the Time Scale Over Which Steps 3–7 are Likely to Occur.</b>                                                  | <p>It should take less than a year for sediment deposition and channel adjustment above the barrier. This estimate is based on the large amount of sediment stored in the upstream channels and relatively high frequency of weather and storm events that generate high flows capable of transporting sediment (Reclamation 2010; Fryxell 2009).</p> <p>Riparian vegetation recovery upstream of the barriers would take approximately 3 to 5 years. The barriers would trap sediment upstream, creating conditions for riparian vegetation to establish. However, riparian vegetation is dynamic with establishment and removal through scouring during high-flow events. The staging areas and access routes would create upland disturbance. Native grasses would begin to recover on these areas within about a year after the staging areas and access routes are reclaimed. Trees and shrubs would take longer to reestablish.</p> <p>Recovery of the native fish populations in the Upper Verde River would begin after nonnative fish are removed. Nonnative fish could be removed immediately after the barriers are completed; however, removal could take longer, depending on the approval process and funding. After construction of the two barriers, nonnative fish would be removed upstream of the Lower Barrier by means of mechanical or chemical removal. Native species, such as spikedace, loach minnow, and razorback suckers, would be stocked into this section of the Verde River (Reclamation 2020).</p> |

| Evaluation Criteria                                                                                                                                                                                                                                                                                                                              | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>9. Compare the Project Analyses to Management Goals.</b>                                                                                                                                                                                                                                                                                      | <p>The project would implement, in part, some of the goals, objectives, policies, and implementation actions identified in the Forest Plan, and Forest Service manual and handbook direction for protecting native fish and wildlife. It would also comply with the ESA, which requires Federal agencies to use their authorities to carry out programs for the conservation of endangered and threatened species. This includes the 2008 biological opinion on the impacts of CAP water transfers and the potential to spread nonnative aquatic species (USFWS 2008).</p> <p>The free-flowing character would be permanently modified due to the presence of the barriers, which would cause changes to the channel, floodplain, and upland conditions and the hydrological and biological processes, as described above. The WSR Act's (section 16) definition of "free flowing" indicates minor structures may not prohibit inclusion in the NWSRS: ". . . existing or flowing in natural condition without impoundment, diversion, straightening, riprapping, or other modification of the waterway. The existence, however, of low dams, diversion works, and other minor structures at the time any river is proposed for inclusion in the national wild and scenic rivers system shall not automatically bar its consideration for such inclusion: Provided, that this shall not be construed to authorize, intend, or encourage future construction of such structures within components of the national wild and scenic rivers system."</p> <p>The water quality would be maintained, except for very short-term impacts associated with barrier construction. Management actions for native fish and wildlife ORVs would be carried out to enhance and protect 16.7 miles (Site 1) and 34.7 miles (Site 2) of perennial river for native fish. Other ORVs would not be impacted.</p> |
| <p><b>10. Make Section 7 Determination.</b> Make the Section 7 determination consistent with the policy outlined in FSM 2354.73.</p> <p>Based on the analysis of steps 3–9, document:</p> <p>a. The effects of the proposed activity on conditions of free flow, including identification of any proposed measures to minimize those effects</p> | <p>Based on the definition of "free flow" in the WSR Act, the proposed fish barrier would affect the free-flow character because it would modify the waterway. Reclamation would design the barriers to maintain the free-flowing characteristics of the Upper Verde River to the extent practicable.</p> <p>Reclamation also evaluated other barrier locations but dismissed them from further analysis. This is because the proposed locations would help restore the most native fish habitat and were most likely to be successful in preventing nonnative fish from reentering the stream (Reclamation 2010). The proposed design and location of the fish barriers would provide the greatest enhancement and protection of the Upper Verde River's fish ORV.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Evaluation Criteria                                                                                                                                            | Project Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| b. Any direct and adverse effects on the outstandingly remarkable and other significant resource values for which the river was designated or is being studied | <p>The ORVs for which the Upper Verde River was designated as a study river under section 5(d) (1) include cultural, scenic, fisheries, wildlife, recreation, and botanical (USFS 2010).</p> <p>Scenery: As explained in criteria 2, the barriers would likely have an effect on the scenery ORV at the structure locations. This is because they would not be constructed to blend into the surroundings due to the size of the structures. The preliminary designs from Reclamation depict a concrete structure with straight lines and square edges that would detract from the scenery from various observation points with a one-half-mile river corridor.</p> <p>Botanical: As explained in criteria 4, riparian and ecological values may benefit from the expansion of habitat, which would occur where sediment accumulates, increasing habitat for the recruitment of new vegetation upstream of the barrier. A temporary risk of increased nonnative species would be reduced by implementing weed-control measures prior to and following construction.</p> <p>Cultural: As explained in criteria 5, Reclamation would not anticipate the proposed action activities to affect the cultural ORV.</p> <p>Fish and wildlife: As explained in criteria 6, construction of the fish barriers would have a beneficial effect on native fish species, including federally listed species, by excluding nonnative fish. This would enhance and protect the fish ORV. It would also have a positive effect on amphibians and a negligible effect on garter snakes and yellow-billed cuckoos due to mitigation and avoidance measures; therefore, construction of the fish barriers would not adversely affect the wildlife ORV.</p> <p>Recreation: The recreation opportunities on the Upper Verde River include, but are not limited to, sightseeing, wildlife observation, camping, photography, hiking, fishing, hunting, and boating (USFS 2010). The barriers would block river access, requiring river runners to portage the barriers and be informed to avoid hazardous situations at higher flows; this would possibly require signage in the river corridor. Although it is common for river runners to portage certain natural obstacles, it is a significant impact on the nature of the recreation ORV to portage a constructed concrete structure in an otherwise natural setting.</p> |
| c. Any unreasonable diminishing of scenic, recreational, fish, and wildlife values associated with project activities above or below the area                  | <p>Reclamation would not expect an unreasonable diminishing of cultural, fisheries, botanical, and wildlife values. As explained above, excluding nonnative fish through construction of the fish barriers would enhance and protect the fish ORV and would also have a positive effect on amphibians. There would be an unreasonable impact on scenic and recreational values at the barrier locations; this is because these values would be diminished due to the barrier construction and not protected and enhanced under the scenic classification.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## Chapter 5.

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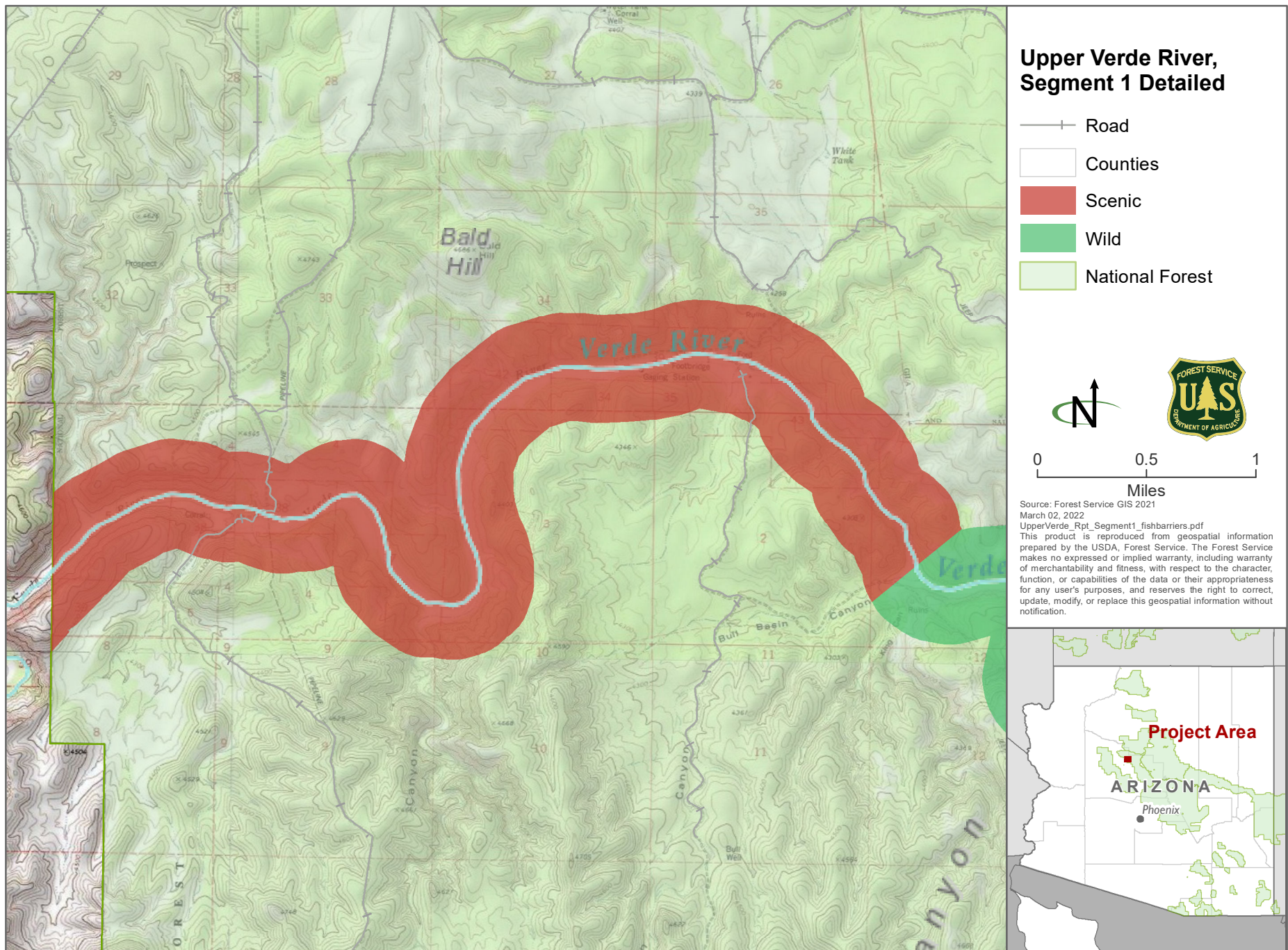
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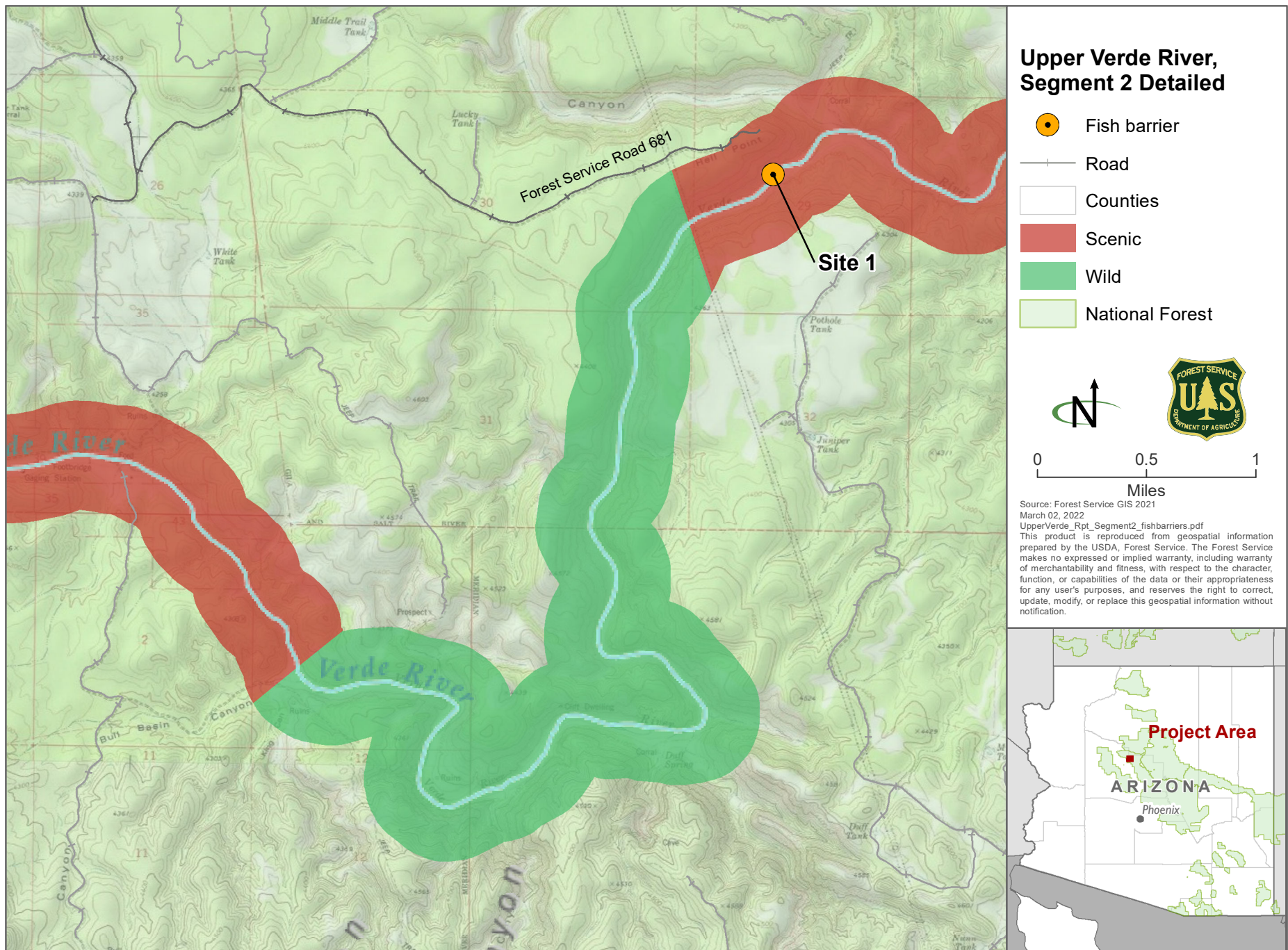
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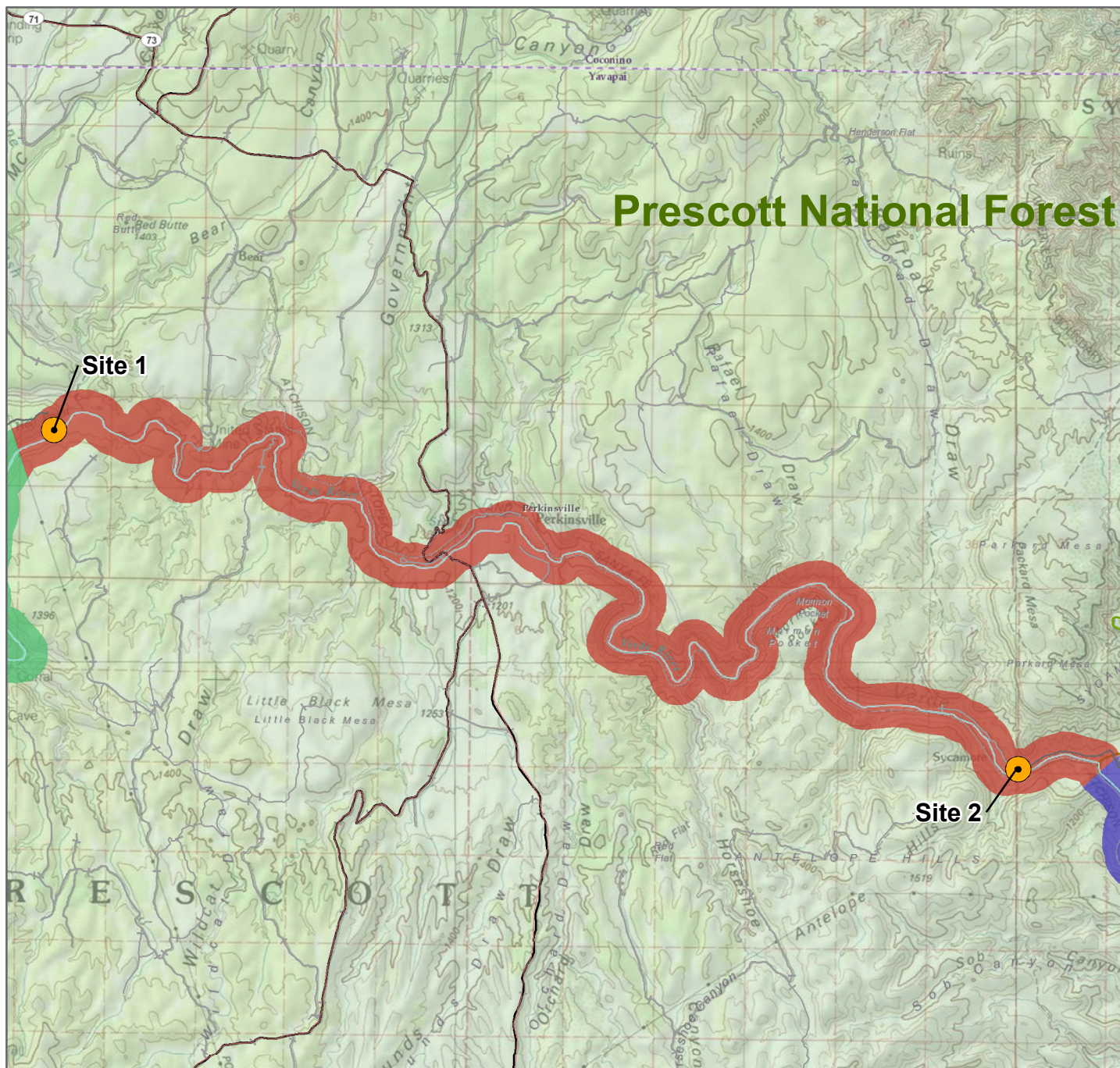
# Appendix A

## Detailed Segment Maps

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## Upper Verde River, Segment 3 Detailed

-  Fish barrier
-  Road
-  Counties
-  Recreational
-  Scenic
-  Wild
-  National Forest



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Miles

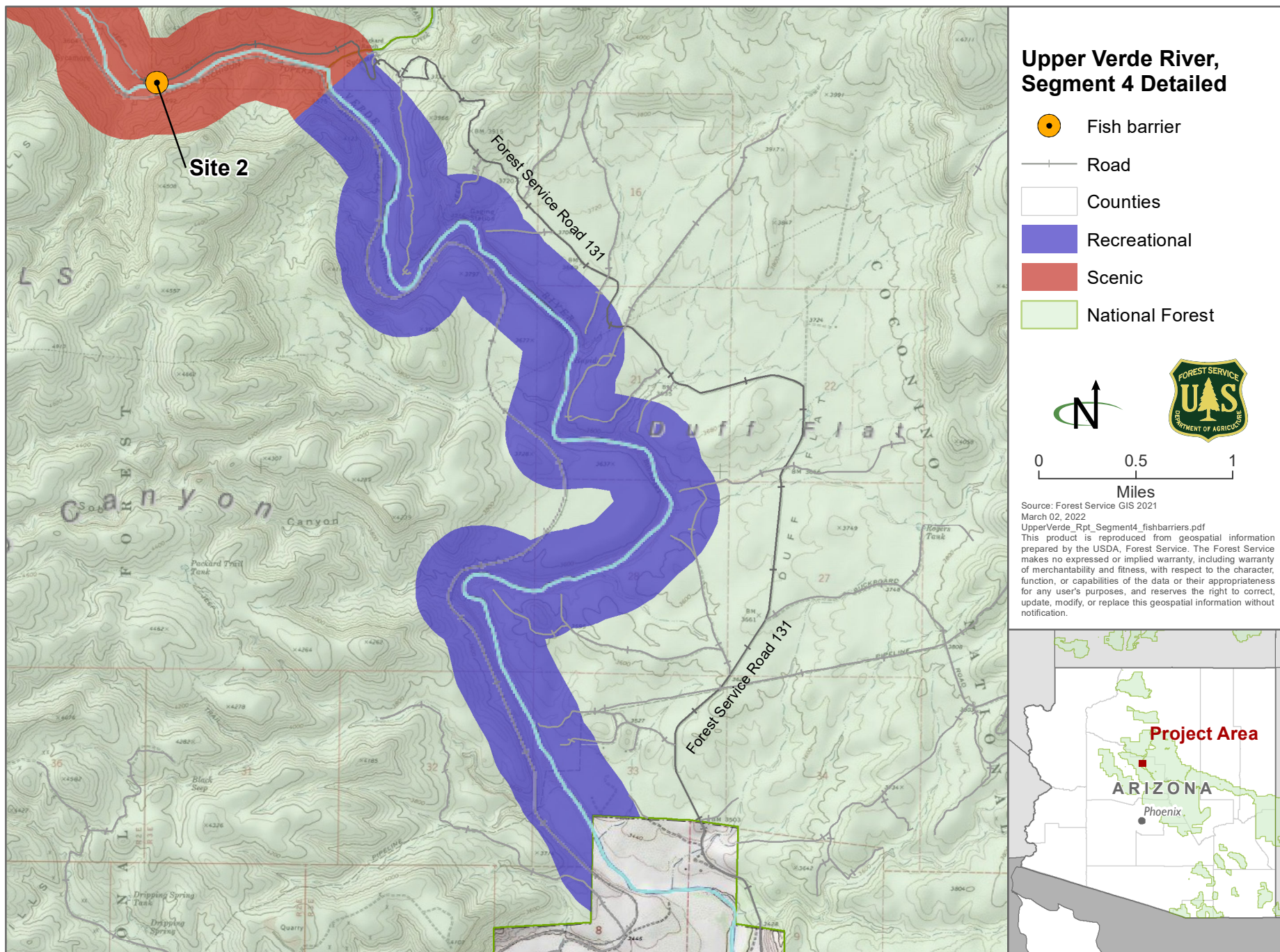
Source: Forest Service GIS 2021

March 02, 2022

UpperVerde\_Rpt\_Segment3\_fishbarriers.pdf

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# Appendix D

## Wild and Scenic Rivers Suitability Study



**U.S. Department of Agriculture**  
**U.S. Forest Service**  
**Prescott National Forest**

Upper Verde River

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**PRELIMINARY WILD AND SCENIC RIVER  
SUITABILITY STUDY**

**March 2022**

## ERRATA SHEET

This errata sheet lists errors and their correction for the *Upper Verde River Preliminary Wild and Scenic River Suitability Study*, dated March 2022.

| <i>Location</i>              | <i>Error</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <i>Correction</i>                                                                                                                                                               |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Page 2-10,<br>Bullet point 3 | Chino Valley has purchased water rights from historically irrigated acreage in the Big Chino Subbasin and plans to use that water to support growth of the town's water system. To avoid damaging the river's base flow, a progressive, aggressive water conservation ordinance is now under consideration. The goal of the new water conservation rules is to permit 100 percent recharge of highly treated effluent into the aquifer, creating a sustainable water supply for the town without damaging the river. | Chino Valley has purchased water rights from historically irrigated acreage in the Big Chino Subbasin and plans to use that water to support growth of the town's water system. |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                 |

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## ACRONYMS AND ABBREVIATIONS

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Full Phrase

|                |                                                         |
|----------------|---------------------------------------------------------|
| ADEQ           | Arizona Department of Environmental Quality             |
| AZGFD          | Arizona Game and Fish Department                        |
| APS            | Arizona Public Service                                  |
| CNF            | Coconino National Forest                                |
| Forest Service | United States Department of Agriculture, Forest Service |
| FSH            | Forest Service Handbook                                 |
| NEPA           | National Environmental Policy Act                       |
| NWSRS          | National Wild and Scenic Rivers System                  |
| ORV            | outstandingly remarkable value                          |
| PNF            | Prescott National Forest                                |
| SHPO           | State Historic Preservation Office                      |
| U.S.           | United States                                           |
| WSR            | Wild and Scenic River                                   |
| WSR Act        | Wild and Scenic Rivers Act of 1968                      |

# CHAPTER I

## INTRODUCTION

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Section 5(d)(1) of the Wild and Scenic Rivers Act of 1968 (WSR Act) (Public Law 90-542; 16 United States (U.S.) Code 1271–1287) directs Federal agencies to consider potential wild and scenic rivers (WSRs) in their land and water planning processes. The WSR Act states, “In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic, and recreational river areas.”

To fulfill this requirement, the U.S. Department of Agriculture, Forest Service’s (Forest Service) 2012 Planning Rule<sup>1</sup> requires the agency to identify rivers that may be appropriate for inclusion in the National Wild and Scenic Rivers System (NWSRS). Prescott National Forest (PNF) staff has previously conducted an eligibility study and determined preliminary classifications for the Upper Verde River in Arizona; the staff is now preparing a WSR suitability study and environmental assessment, as outlined in Forest Service Handbook (FSH) 1909.12, chapter 80, section 83.32.

This report details the WSR suitability evaluation process and makes determinations on the suitability of the Upper Verde River studied. Of the Upper Verde River’s four eligible river segments, all were preliminarily determined to be suitable for recommendation to Congress for inclusion into the NWSRS.

### I.1 WHAT IS A WILD AND SCENIC RIVER?

Congress enacted the WSR Act on October 2, 1968, to address the need for a national system for river protection. As an outgrowth of a national conservation agenda in the 1950s and 1960s, the WSR Act was enacted in response to the dams, diversions, and water resource development projects that were constructed on America’s rivers between the 1930s and 1960s. The WSR Act stipulated that selected rivers should be preserved in a free-flowing condition and

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<sup>1</sup> In 2012, the Forest Service adopted a new rule—the 2012 Planning Rule—to guide land management planning in the National Forest System. <https://www.fs.usda.gov/detail/planningrule/home/?cid=stelprdb5359471>

protected for the benefit and enjoyment of present and future generations. Since 1968, the WSR Act has been amended many times, primarily to designate additional rivers and to authorize the study of other rivers for possible inclusion into the national system.

The WSR Act seeks to protect and enhance a river's natural and cultural values and to provide for public use consistent with its free-flowing character, its water quality, and its outstandingly remarkable values (ORVs). Designation affords certain legal protections from development. For instance, new dams cannot be constructed, and federally assisted water resource development projects that might negatively affect the designated river values are not permitted. Each river in the NWSRS is administered to protect and enhance the values that led to the river being designated. Where private lands are involved, the managing Federal agency works with local governments and owners to develop protective measures. Designation does not prohibit development on private lands or give the Federal Government control over those private lands.

As of March 2019 (the last designation), the NWSRS protects 13,413 miles of 226 rivers in 41 states and Puerto Rico; this is less than one-half of 1 percent of the Nation's rivers (Interagency Wild and Scenic Rivers Coordinating Council 2021). These nationally recognized rivers make up a valuable network of natural and cultural resources, scenic beauty, and recreation opportunities.

## I.2 STEPS IN THE WSR STUDY PROCESS

A WSR study process is composed of three main phases: eligibility, classification, and suitability. The phases of the study occur in accordance with FSH 1909.12—Land Management Planning Handbook, chapter 80 – Wild and Scenic Rivers (Forest Service 2015) and with the Wild and Scenic River Study Process technical report (Interagency Wild and Scenic Rivers Coordinating Council 1999). Excerpts from FSH 1909.12, chapter 80 are presented below to explain the process.

### I.2.1 Eligibility Phase

The WSR Act states that, to be found eligible, a river must be “free flowing” and contain at least one river-related value considered to be “outstandingly remarkable.” An Arizona statewide inventory of potentially eligible rivers for inclusion in the NWSRS was completed, and the preliminary analysis was published in January 1993. The Forest Service has found portions of the Verde River within the PNF and Coconino National Forest (CNF) eligible for inclusion in the NWSRS, affording it protections from development that might affect its free flow or ORVs.

The PNF staff updated the eligibility and classification for 38.2 miles of the Upper Verde River in 2010 with concurrence from the CNF staff for the lower 6.7 miles shared with the CNF. **Table I-1**, below, provides a summary of these eligible river segments.

**Table I-1**  
**Eligible River Segments Studied for Suitability**

| <b>Segment</b> | <b>Length (Miles)</b> | <b>Related Features (Start/End of Segment)</b>                                                                                                                                                          | <b>Outstandingly Remarkable Values</b>                         | <b>Eligibility Classification</b> |
|----------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------|
| 1              | 6.0                   | From the PNF's western boundary near Paulden, Arizona, to the confluence of the King Tributary and Verde River                                                                                          | Cultural, Scenic, Fisheries, Wildlife, Recreational, Botanical | Scenic                            |
| 2              | 5.7                   | From the confluence of the King Tributary and Verde River to the Arizona Public Service (APS) power line and West-wide Energy Corridor location                                                         | Cultural, Scenic, Fisheries, Wildlife, Recreational, Botanical | Wild                              |
| 3              | 19.8                  | From the APS power line and West-wide Energy Corridor to below the confluence of Sycamore Canyon and the Verde River                                                                                    | Cultural, Scenic, Fisheries, Wildlife, Recreational, Botanical | Scenic                            |
| 4              | 6.7                   | From the confluence of Sycamore Canyon and the Verde River to the PNF boundary near Clarkdale, Arizona. At the confluence of Sycamore Canyon, the eastern side of the river (river left) is on the CNF. | Cultural, Scenic, Fisheries, Wildlife, Recreational, Botanical | Recreational                      |

Source: Forest Service GIS 2022

Note: Mileages differ from those presented in the 2010 eligibility study due to changes in data mapping technology.

### **I.2.2 Preliminary Classification Phase**

Once the Upper Verde River was identified as eligible for inclusion in the NWSRS, the Forest Service assigned a preliminary classification. The Forest Service also identified management measures needed to ensure the appropriate protection of the values supporting the eligibility and classification. Interim protection measures are described in **section 3.2**, Interim Management.

The preliminary classification of an eligible river is based on its condition and that of the adjacent lands at the time of the study. The WSR Act specifies and defines three classification categories for eligible rivers: wild, scenic, and recreational. Classes are based on the type and degree of human development and access associated with the river and adjacent lands at the time of the eligibility determination.

Classification does not reflect the types of values present along a river segment. Determining a preliminary classification establishes a guideline for management until either a suitability determination or a designation decision is reached. The classification assigned during the eligibility phase is tentative. Classification can be revisited during the suitability phase. Final classification is a congressional legislative determination that occurs with designation of a river segment as part of the NWSRS.

### I.2.3 Suitability Phase

The purpose of the suitability phase, and this report, is to determine whether eligible river segments are suitable for inclusion in the NWSRS, in accordance with the WSR Act. Suitability considerations include the environmental and economic consequences of designation and the manageability of a river if Congress were to designate it. A suitability study provides the basis for determining which eligible rivers or river segments should be recommended to Congress as potential additions to the NWSRS. The suitability study is designed to address these questions (FSH 1909.12, section 83.2):

1. Should the river's free-flowing character, water quality, and ORVs be protected, or are one or more other uses important enough to warrant doing otherwise?
2. Will the river's free-flowing character, water quality, and ORVs be protected through designation?
3. Will the benefits of designation exceed the benefits of nondesignation?
4. Is designation the best method for protecting the river corridor?
5. Is there a demonstrated commitment to protect the river by any non-Federal entities that may be partially responsible for implementing protective management?

The suitability evaluation does not result in designation; it only results in a determination of a river's suitability for inclusion in the NWSRS. Suitability recommendations are evaluated under the National Environmental Policy Act (NEPA). The Forest Service cannot administratively designate a river into the NWSRS via a planning decision or other agency decision; only Congress can act on suitability recommendations and designate a river into the NWSRS.

River protection standards and guidelines that meet the WSR Act's purposes are the responsibility of the Forest Service staff administering the river. For any rivers designated by Congress, the Forest Service would take the following actions:

- Develop a comprehensive river management plan that must define the goals and desired conditions for protecting river values
- Address the capacity of use that the river area can sustain
- Address water quality and instream flow requirements

Rivers found not suitable would be dropped from further consideration and managed according to the underlying objectives outlined in the respective forest plan(s). Suitability determinations made in a NEPA document are preliminary until the decision record for the NEPA document is signed by the appropriate line officer(s).

The Forest Service prepared a suitability study process that describes the methodology and parameters by which the eligible segments of the Upper Verde River would be evaluated for suitability; it is available here: [https://www.fs.usda.gov/nfs/11558/www/nepa/117021\\_FSPLT3\\_5699308.pdf](https://www.fs.usda.gov/nfs/11558/www/nepa/117021_FSPLT3_5699308.pdf).

This process conforms to the guidelines provided in FSH 1909.12, chapter 80 and the WSR Act. However, the suitability study process also provides additional methodology, parameters, and recommended data and information sources to ensure suitability determinations are made consistently.

The suitability study process describes a six-step approach. Within that process, there are three key analytical steps:

1. Evaluating and documenting the 13 criteria for determining suitability that are provided in FSH 1909.12, section 83.21 and listed below; these serve as the basis for each river's suitability determination.
2. Using the documentation of the 13 criteria to answer the five suitability questions in FSH 1909.12, section 83.2; these questions speak to the core considerations in a suitability determination.
3. Reviewing the answers to the five questions outlined in FSH 1909.12, section 83.2 in light of the WSR Act's purposes to make a determination on an eligible river's suitability for inclusion in the NWSRS (described at the beginning of this section).

With the above guidance in mind, the following 13 suitability criteria (identified in FSH 1909.12, section 83.21) were considered for each eligible river segment in this suitability study:

1. Characteristics that do or do not make the area (the corridor) a worthy addition to the NWSRS
2. The current status of landownership and use in the area
3. The reasonably foreseeable potential uses of the land and water that would be enhanced, foreclosed, or curtailed if the area were included in the NWSRS
4. The Federal agency that will administer the area should it be added to the NWSRS
5. The extent to which the agency proposes that the river's administration, including the costs thereof, be shared by State and local agencies

6. The need for, and the cost to, the United States to acquire lands and interests in lands and to administer the area, should it be added to the NWSRS
7. A determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river, should it be proposed for inclusion in the NWSRS
8. The adequacy of local zoning and other land-use controls in protecting the river's ORVs by preventing incompatible development
9. The State or local government's ability to manage and protect the ORVs on non-Federal lands. This factor requires an evaluation of the river protection mechanisms available through the authority of State and local governments. Such mechanisms may include, for example, statewide programs related to population growth management, vegetation management, water quantity or quality, or protection of river-related values such as open space and historic areas.
10. The consistency of designation with other agency plans, programs, or policies, and with meeting regional objectives. Designation may help or impede the goals of tribal governments or other Federal, State, or local agencies. For example, designation of a river may contribute to State or regional protection objectives for fish and wildlife resources. Similarly, adding a river that includes a limited recreation activity or setting to the NWSRS may help meet statewide recreation goals for that activity or setting. Designation might, however, limit irrigation or flood-control measures in a manner inconsistent with regional socioeconomic goals.
11. Support or opposition to designation. Assessment of this factor will define the political context. The interest in designation or nondesignation by other Federal agencies; State, local, and tribal governments; national and local publics; and the state's congressional delegation should be considered.
12. The river's contribution to the river system or basin integrity. This factor reflects the benefits of a "systems" approach. For example, expanding the designated portion of a river in the NWSRS or developing a legislative proposal for an entire river system (headwaters to the mouth) or watershed could contribute to river system integrity. Numerous benefits may result from managing an entire river or watershed, including the ability to design a holistic protection strategy in partnership with other agencies and the public.
13. The potential for water resources development. The intent of the WSR Act is to preserve selected rivers in a free-flowing condition

and to protect their immediate environments. Designation will limit development of water resources projects as diverse as irrigation and flood-control measures, hydropower facilities, dredging, diversion, and channelization. This suitability criterion requires the Forest Service to describe specific projects or the types of projects that may be foreclosed by designation of the segment as suitable and the implications for future water resource needs. The description may include a discussion of alternative water resources projects or project sites (outside a river segment being considered), or modified projects that may be considered if a river is recommended for designation.

The suitability analysis and determination that resulted from the application of the study process are summarized and documented in this report in **section 2**, Suitability Study Determinations.

### I.3 UPPER VERDE RIVER

The Verde River Watershed is 6,622 square miles, representing 5.8 percent of Arizona. Most of the watershed lies north and east of the river corridor because mountain ranges sharply delineate its southwestern boundary. Within the Upper Verde River WSR study area (study area or study corridor), the river generally flows east then southeast through canyons characterized by majestic layers of sandstone, limestone, and volcanic rock that are 200–700 feet high. This forms a narrow, deep, and constrained river channel. Occasionally, the river canyon opens into gently sloping walls and wide meadows surrounding a shallow, meandering, and unconstrained river.

The 38.2-mile-long stretch of the Upper Verde River WSR study area includes a 0.25-mile corridor buffer on either side of the river, from the PNF boundary to the west, downstream to the town of Clarkdale (**Figure I**). The Upper Verde River is primarily within the PNF; it also runs through some private property and partially overlaps the CNF.

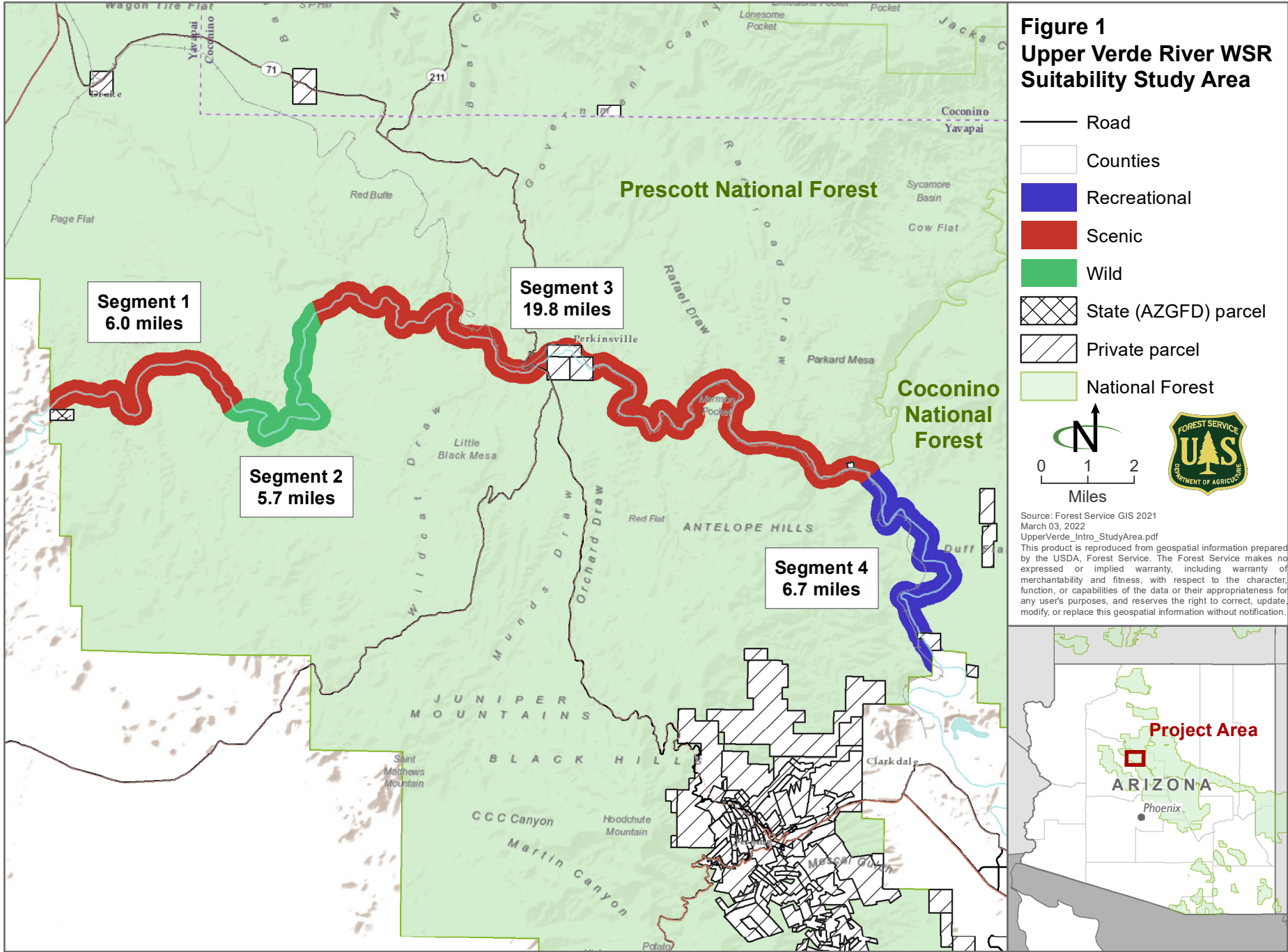
In 1978, Public Law 95-625 amended section 5(a) of the WSR Act to add the Verde River as a congressionally identified study river. This directed the Forest Service to study the Verde River from the PNF boundary near Paulden to the vicinity of Table Mountain, approximately 14 miles above Horseshoe Reservoir, for its suitability for inclusion in the NWSRS. Through the study it was determined that the Verde River downstream of Camp Verde starting near Beasley Flat was suitable for inclusion in the NWSRS; however, the Upper Verde River was not.

The Verde River from near Beasley Flat to the confluence with Red Creek on the Tonto National Forest was designated as a Wild and Scenic River on August 28, 1984 (Public Law 98-406). The Upper Verde River was not designated at the time, primarily due to the amount of private land and several proposals for flood control, water storage, and hydroelectric dams (Forest Service 1982). However,

since that time, the Forest Service acquired the historic Packard Ranch and Rio Verde Ranch through the Trust for Public Land.

The remaining private land in the study area is downstream of Perkinsville Bridge, where there are multiple contiguous parcels of private property in active use for cattle ranching, and near the confluence with Sycamore Creek, where there are two small, private homesteads (**Figure 4**). Further downstream at the eastern termini in Segment 4 there is another cluster of private parcels owned by a variety of interests (**Figure 5**). In total, these private parcels along the entirety of the Upper Verde River comprise 1.5 river miles of the 38.2-mile-long stretch and 400 acres within the 11,600-acre study corridor.

The Upper Verde River Wildlife Area, managed by the Arizona Game and Fish Department (AZGFD), occurs just upstream of the eligible section of the WSR along the Upper Verde River. A portion of the Wildlife Area extends east into the Segment 1 study corridor, but it is not directly adjacent to the river (**Figure 2**). This parcel comprises less than 30 acres of the total study corridor.



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## CHAPTER 2

# SUITABILITY STUDY DETERMINATIONS

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### 2.1 SUMMARY OF SUITABILITY STUDY DETERMINATIONS

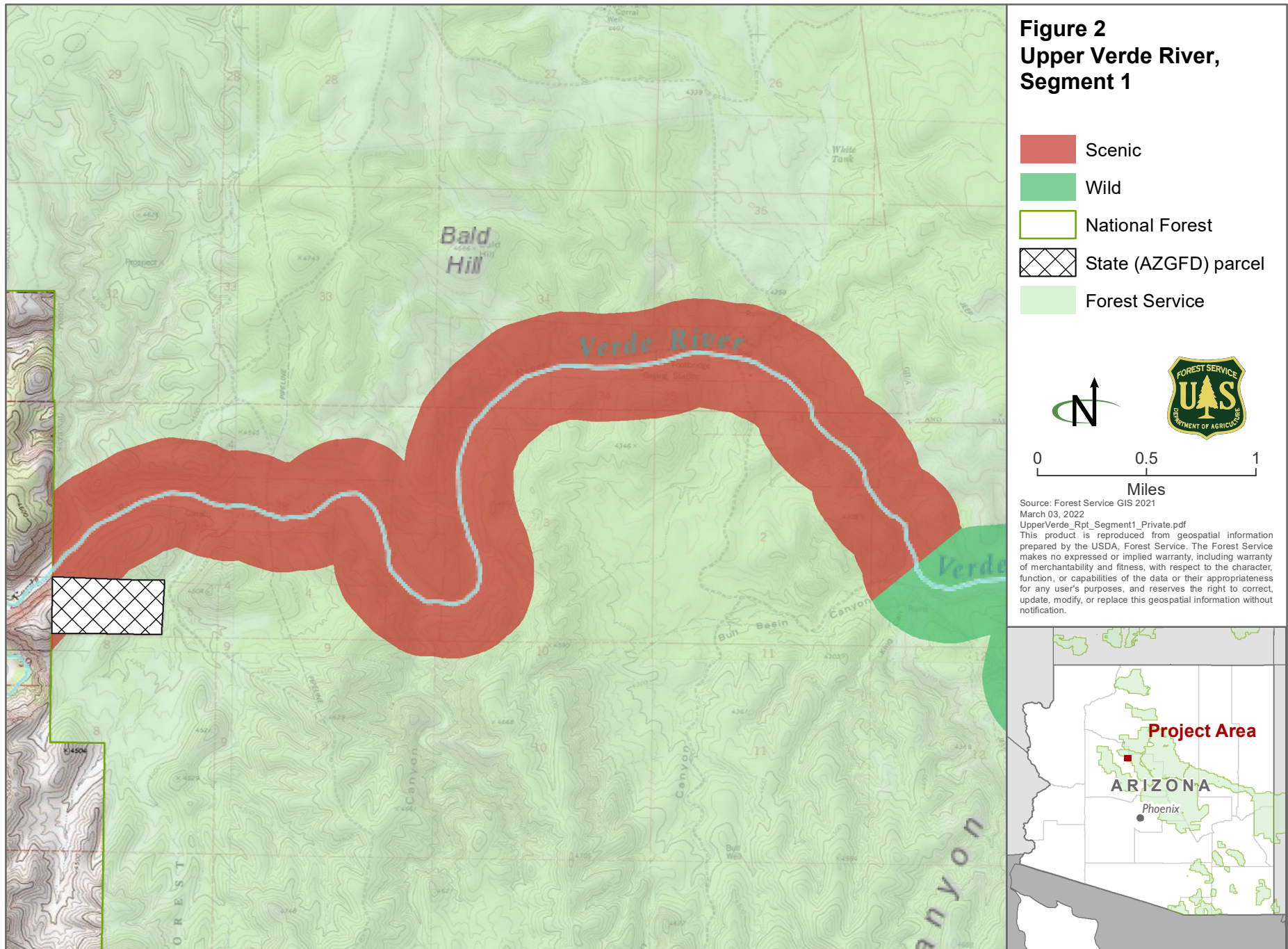
**Table 2-1**, below, provides results from the application of the suitability study process to the Upper Verde River. Of the four eligible segments studied for suitability, all were determined to be suitable for inclusion in the NWSRS. **Figure 2** through **Figure 5** depict each of the segments that were studied. **Table 2-2** provides descriptions of the suitable segments.

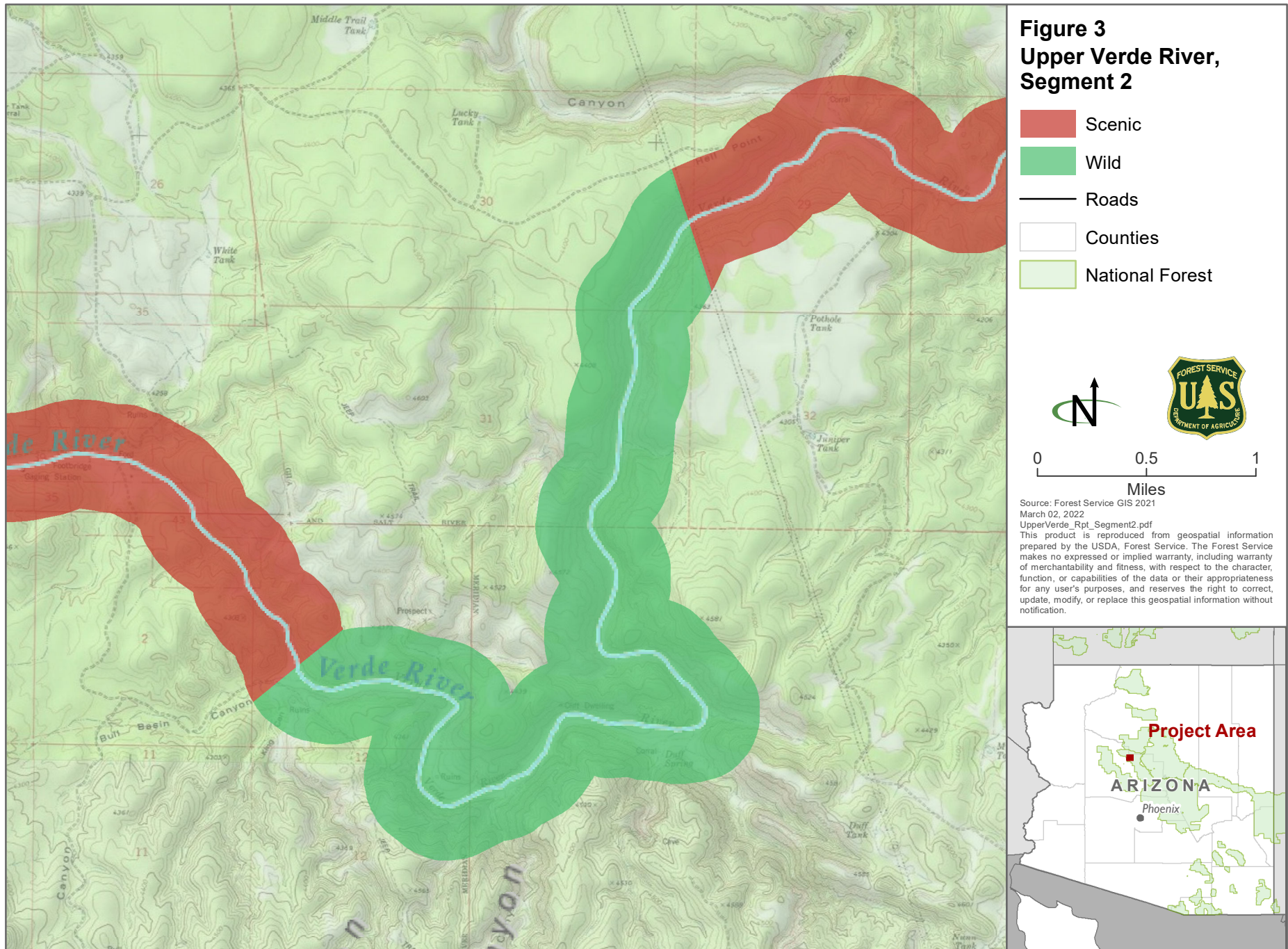
**Table 2-1**  
**Summary of Preliminary Suitability Determinations**

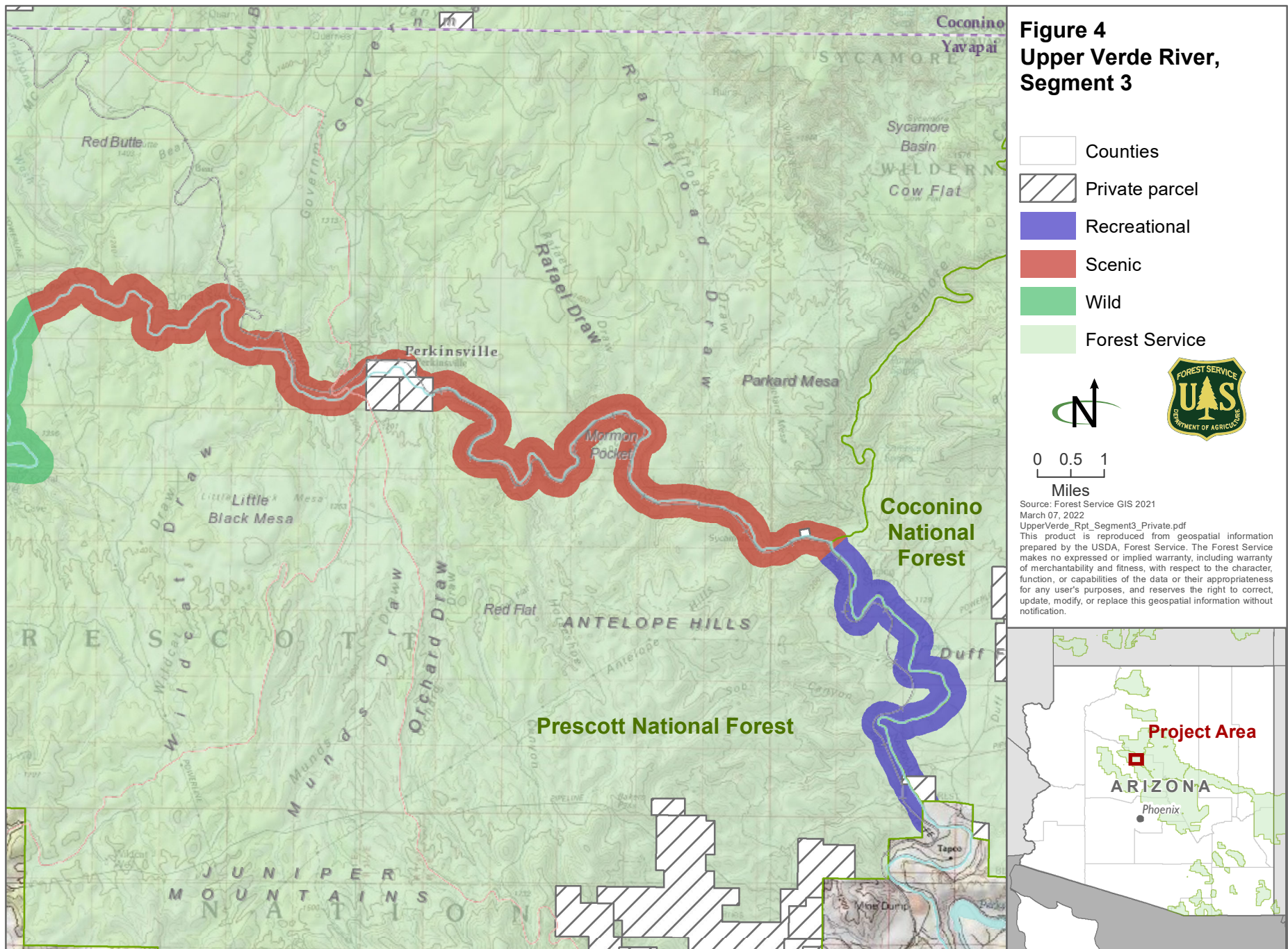
| Upper Verde River Segment | Length (Miles) | Preliminary Suitability Determination | Recommended Classification |
|---------------------------|----------------|---------------------------------------|----------------------------|
| Segment 1                 | 6.0            | Suitable                              | Scenic                     |
| Segment 2                 | 5.7            | Suitable                              | Wild                       |
| Segment 3                 | 19.8           | Suitable                              | Scenic                     |
| Segment 4                 | 6.7            | Suitable                              | Recreational               |

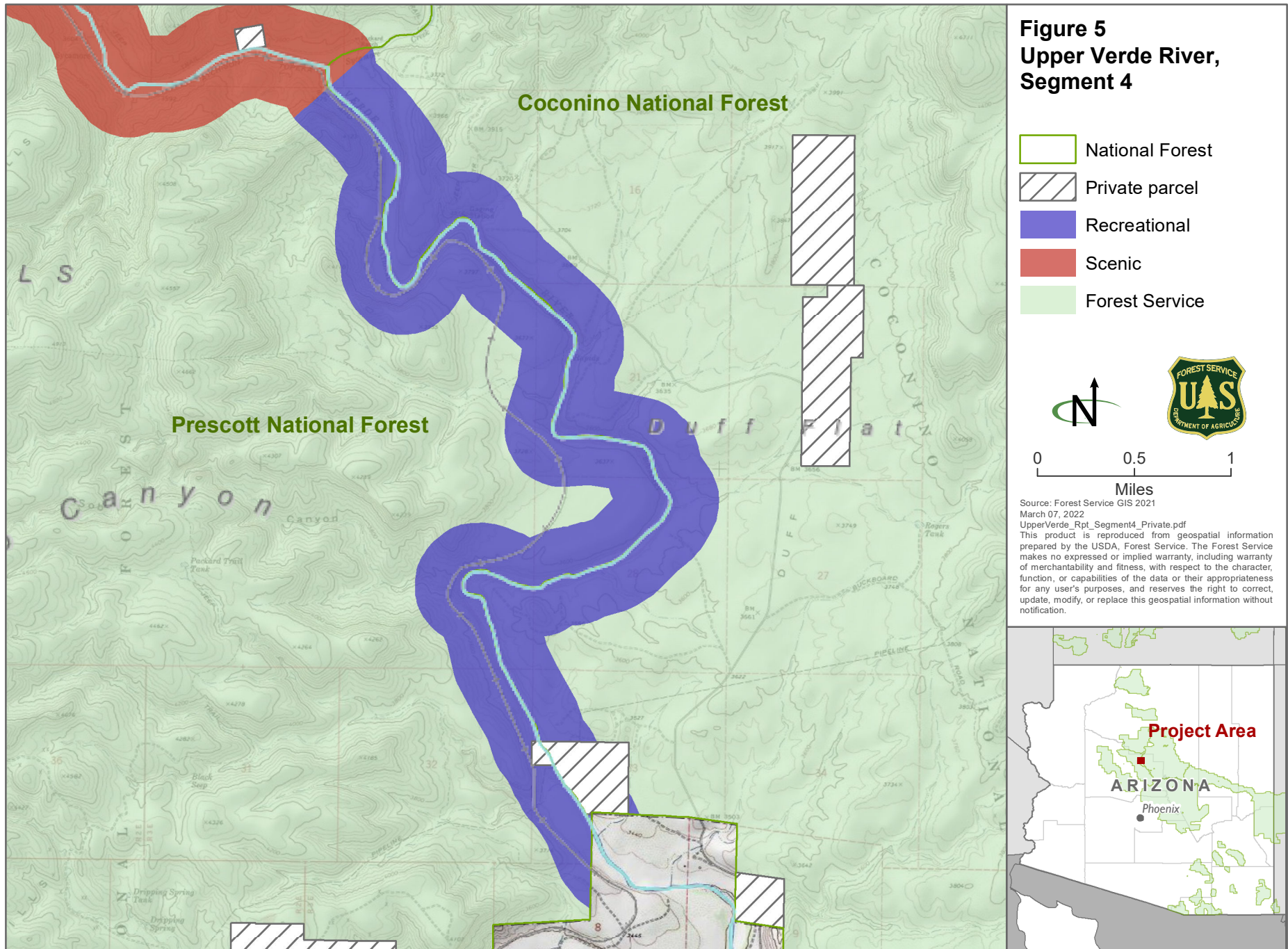
Source: Forest Service GIS 2022

Note: Mileages differ from those presented in the 2010 eligibility study due to changes in data mapping technology.









**Table 2-2**  
**Preliminary Suitability Segment Descriptions**

|                                               |                                                                                                                        |                                             |             |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------|
| <b>Segment 1 Description:</b>                 | From the PNF's western boundary near Paulden, Arizona, to the confluence of the King Tributary and Verde River         |                                             |             |
| <b>Total Segment Length:</b>                  | 6.0 miles                                                                                                              | <b>Total Segment Area:</b>                  | 1,800 acres |
| <b>Length on National Forest System Land:</b> | 6.0 miles                                                                                                              | <b>Area on National Forest System Land:</b> | 1,800 acres |
| <b>Preliminary Classification:</b>            | Scenic                                                                                                                 |                                             |             |
| <b>Segment 2 Description:</b>                 | From the confluence of the King Tributary and Verde River to the APS power line and West-wide Energy Corridor location |                                             |             |
| <b>Total Segment Length:</b>                  | 5.7 miles                                                                                                              | <b>Total Segment Area:</b>                  | 1,700 acres |
| <b>Length on National Forest System Land:</b> | 5.7 miles                                                                                                              | <b>Area on National Forest System Land:</b> | 1,700 acres |
| <b>Preliminary Classification:</b>            | Wild                                                                                                                   |                                             |             |
| <b>Segment 3 Description:</b>                 | From the APS power line and West-wide Energy Corridor to below the confluence of Sycamore Canyon and the Verde River   |                                             |             |
| <b>Total Segment Length:</b>                  | 19.8 miles                                                                                                             | <b>Total Segment Area:</b>                  | 6,000 acres |
| <b>Length on National Forest System Land:</b> | 18.4 miles                                                                                                             | <b>Area on National Forest System Land:</b> | 5,700 acres |
| <b>Preliminary Classification:</b>            | Scenic                                                                                                                 |                                             |             |
| <b>Segment 4 Description:</b>                 | From the confluence of Sycamore Canyon and the Verde River to the PNF boundary near Clarkdale, Arizona                 |                                             |             |
| <b>Total Segment Length:</b>                  | 6.7 miles                                                                                                              | <b>Total Segment Area:</b>                  | 2,100 acres |
| <b>Length on National Forest System Land:</b> | 6.6 miles                                                                                                              | <b>Area on National Forest System Land:</b> | 2,000 acres |
| <b>Preliminary Classification:</b>            | Recreational                                                                                                           |                                             |             |
| <b>ORVs (all segments):</b>                   | Cultural, Scenic, Fisheries, Wildlife, Recreational, Botanical                                                         |                                             |             |

Source: Forest Service GIS 2022

Note: Mileages differ from those presented in the 2010 eligibility study due to changes in data mapping technology.

## 2.2 SUITABILITY ASSESSMENT

### I. Characteristics that do or do not make the area (the corridor) a worthy addition to the NWSRS

The Upper Verde River WSR study area contains outstandingly remarkable cultural, scenic, fisheries, wildlife, recreation, and botanical values.

The cultural values include 12 heritage resource sites that have been formally recorded. These sites include prehistoric residential occupations, artifact scatters, and a prehistoric defensive fort location. Scenic values, such as gently rolling hills on either side of the river and highly valued, regionally recognized recreation opportunities, including swimming, wading, kayaking or rafting, fishing, hunting and wildlife viewing, and the natural environment, are also identified along the segment (Forest Service 2010).

The Verde River is one of the few remaining perennial, free-flowing rivers in Arizona. The Upper Verde River provides aquatic habitat for 10 native fish and aquatic wildlife species. These species known within the Upper Verde River include spikedace (*Meda fulgida*), roundtail chub (*Gila robusta*), Sonora sucker

(*Catostomus insignis*), desert sucker (*Catostomus clarkii*), longfin dace (*Agosia chrysogaster*), speckled dace (*Rhinichthys osculus*), northern Mexican gartersnake (*Thamnophis eques megalops*), narrow-headed gartersnake (*Thamnophis rufipunctatus*), Arizona toad (*Anaxyrus microscaphus*), and lowland leopard frog (*Rana yavapaiensis*) (known mainly from tributaries).

The U.S. Fish and Wildlife Service has designated critical habitat along the Upper Verde River for razorback sucker (*Xyrauchen texanus*), loach minnow (*Rhinichthys cobitis*), spikedace, southwestern willow flycatcher (*Empidonax traillii extimus*), narrow-headed gartersnake, and northern Mexican gartersnake. While the Upper Verde River is presumed to be occupied by spikedace, the last capture was in a 1999 survey (77 *Federal Register* 10809). The riparian community and high-quality water provide for a remarkable diversity and abundance of wildlife species (Forest Service 2010).

The Upper Verde River corridor contains nine wildlife species of special concern, including endangered, threatened, and candidate species; Southwestern Region sensitive species; and State wildlife species of concern. These species are the common black hawk (*Buteogallus anthracinus*), American peregrine falcon (*Falco peregrinus*), bald eagle (*Haliaeetus leucocephalus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), southwestern willow flycatcher, Abert's towhee (*Pipilo aberti*), pale Townsend's big-eared bat (*Corynorhinus townsendii pallescens*), pocket free-tailed bat (*Nyctinomops femorosaccus*), and least bittern (*Ixobrychus exilis*). Numerous other species rely on the river corridor for migration and use. The abundance and the presence of federally listed species make wildlife an ORV of national significance (Forest Service 2010).

Natural riparian processes and diverse native riparian plant communities are present throughout the entire Upper Verde River. Riparian areas account for only 0.4 percent of Arizona's total area. The role of riparian areas is disproportionate to their size, particularly in semiarid regions. This is mainly due to riparian areas' many functions and values. Riparian areas support more productive and diverse vegetation assemblages and serve more ecological functions than their terrestrial upland counterparts. These areas provide important links between terrestrial upland and aquatic habitats (Forest Service 2010).

## 2. The current status of landownership and use in the area

The Upper Verde River flows across private parcels in Segment 3 downstream of Perkinsville Bridge, where there are multiple contiguous parcels of private property in active use for cattle ranching, and near the confluence with Sycamore Creek, where there are two small, private homesteads (**Figure 4**). Further downstream at the eastern termini in Segment 4 there is another cluster of private parcels owned by a variety of interests (**Figure 5**). In total, these private parcels along the entirety of the Upper Verde River comprise 1.5 river miles of the 38.2-mile-long stretch and 400 acres within the 11,600-acre study corridor.

The Upper Verde River Wildlife Area, managed by the Arizona Game and Fish Department (AZGFD), occurs just upstream of the eligible section of the WSR along the Upper Verde River. A portion of the Wildlife Area extends east into the Segment 1 study corridor, but it is not directly adjacent to the river (**Figure 2**). This parcel comprises less than 30 acres of the total study corridor.

Due to a variety of resource management reasons, authorized livestock grazing within the eligible WSR corridor has not occurred since the late 1990s.

There are no active mineral production sites within the Upper Verde River corridor. Historical prospecting has not located base metals within or adjacent to the study area. One historic, inactive limestone quarry is inside the study area.

There is no historical, current, or potential logging in the study area.

Recreational use in the study corridor is primarily focused where road access occurs at Perkinsville Bridge and Bear Siding, primarily in the form of day-use swimming, fishing, and sightseeing. Overnight dispersed camping occurs in the hotter months, but there are no official designated campgrounds or sites. There are numerous trail access points above Perkinsville Bridge; these are lightly used for hiking, backpacking, hunting, and fishing, and provide a unique primitive experience to visitors. River running (canoeing and kayaking) occurs in very small numbers from the PNF's western boundary downstream, typically related to available seasonal flows. This use increases after the river's confluence with Sycamore Creek and could be considered light to moderate. The river's more accessible 6.7 miles in the CNF are more heavily visited for day-use swimming during the summer months and dispersed car camping on the mesas above the river.

There are several utility lines crossing the Upper Verde River in Segment 4. While maintenance of existing utilities would not be prohibited, activities would be reviewed to reduce impacts on ORVs.

### **3. The reasonably foreseeable potential uses of the land and water that would be enhanced, foreclosed, or curtailed if the area were included in the NWSRS**

The identified cultural, scenic, fisheries, wildlife, recreational, and botanical ORVs could be protected and enhanced through WSR designation by providing the Forest Service specific direction to develop a comprehensive river management plan that focuses on the ORVs and free flow of the river over other potential uses. Uses in the study corridor that would be curtailed would be future water storage and delivery, energy production, and mineral exploration and extraction within the 0.5-mile-wide corridor. In general, future Forest Service road building and other development activities would have to protect or enhance identified ORVs and meet the established classification and therefore would generally be curtailed.

The construction of two fish barriers as proposed for the restoration of native fish habitat could be curtailed in Segment 3 under the current classification of the river corridor as established by the 2010 Eligibility Report.

**4. The Federal agency that will administer the area should it be added to the NWSRS**

The Forest Service would be the administering agency. This is because the Forest Service already administers the entirety of the non-private land in the WSR river corridor.

**5. The extent to which the agency proposes that the river's administration, including the costs thereof, be shared by State and local agencies**

While the AZGFD manages the fish and wildlife populations, the Forest Service would manage the river and corridors. The AZGFD has a fish management plan<sup>1</sup> for the river and its tributaries, which was developed cooperatively with the Forest Service, U.S. Fish and Wildlife Service, and others. The Forest Service would encourage State and local agency cooperation in the management and maintenance of the river corridor, where appropriate, to meet the overall goals of river protection. Administration and funding would be determined in cooperation with State and local agencies after designation.

Other Federal and State agencies that have jurisdiction and may play a role in administering facets of the designated river include the U.S. Fish and Wildlife Service, the Arizona State Historic Preservation Office (SHPO), the Arizona Department of Environmental Quality (ADEQ), the Arizona Department of Water Resources, and Yavapai County.

**6. The need for, and the cost to, the United States to acquire lands and interests in lands and to administer the area, should it be added to the NWSRS**

The Forest Service administers nearly all land within the corridor, so there is no need or interest in acquiring lands for the purpose of administering the river, should it be designated. A WSR designation could bring increased levels of visitors. If that occurred, the cost of administering the area could increase from the present level to provide adequate services for visitors while protecting values for which the river is designated. The need for Forest Service presence for such activities as monitoring and law enforcement could also increase from the present level. On the other hand, the Forest Service could offset the costs by collecting fees for camping and other services.

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<sup>1</sup> <https://www.azgfd.com/fishing/fisheriesmanagement/verdewatershed/>

**7. A determination of the degree to which the State or its political subdivisions might participate in the preservation and administration of the river, should it be proposed for inclusion in the NWSRS**

The AZGFD manages the fish populations within the river; the AZGFD would participate in the preservation and administration of the river, should it be proposed for inclusion in the NWSRS. Native fish management activities include the stocking of razorback sucker and Colorado pikeminnow and angler education programs.

The Arizona SHPO is a State office with a Federal mandate under section 106 of the National Historic Preservation Act. Federal agencies are required to consult with SHPOs regarding the eligibility of historic and cultural properties for nomination to the National Register of Historic Places and on determinations of effect from Federal undertakings and management decisions. Regardless of designation, Federal agencies would still need to consult with the SHPO when undergoing actions within the corridor.

The ADEQ is responsible for protecting public health and the environment by administering the State's environmental quality laws and delegated Federal programs to prevent, control, and abate the pollution of air, water, and land resources. With respect to the Upper Verde River, Segment 2 is preliminarily classified as wild. This classification carries a water quality requirement that the others do not. If water quality within this stretch were to be found to not meet water quality standards, it would be placed on the State's 303(d) list of impaired and threatened waters and on the schedule of streams for developing water quality management plans.

The ADEQ can also take enforcement actions for violations of water quality standards within the reach. The Forest Service has been designated as the management agency for control of nonpoint sources of pollution on National Forest System lands through an intergovernmental agreement (Intergovernmental Agreement 16-R3-91-033) with the ADEQ. The agreement recognizes that best management practices are the primary means for controlling nonpoint sources of pollution.

In February 2010 the City of Prescott, the Town of Prescott Valley, the Salt River Valley Water Users' Association, and the Salt River Project Agricultural Improvement and Power District announced an "agreement in principle" on the "Withdrawal and Use of Water from the Big Chino Sub-Basin and the Protection of Stream Flow in the Upper Verde River." The agreement recognizes the need to protect the Upper Verde River's streamflow and establishes a structure to work cooperatively and in good faith to resolve water resource issues. Generally it provides for:

- Joint efforts to legislatively resolve the constitutionality status of a State law permitting importation of groundwater from the Big Chino Subbasin
- Affirming the quantity of water that may be imported
- Suspension of specified litigation
- Joint funding, development, and completion of a scientific groundwater model for the Big Chino Aquifer
- Joint funding, development, and completion of a groundwater monitoring plan for the Big Chino Aquifer
- An agreement to mitigate the negative effects on the Upper Verde River's base flow caused by pipeline operation
- Confirmation of other water rights not currently under dispute
- Creation and implementation of a water management district for the Big Chino Aquifer, including a quantity cap on groundwater withdrawals
- Measures to protect the Upper Verde River, which may include mitigation triggers and actions
- WSR designation for the headwaters of the Verde River and maintaining a minimum instream flow

**8. The adequacy of local zoning and other land-use controls in protecting the river's ORVs by preventing incompatible development**

The Upper Verde River is located in Yavapai County. Except for a 1.4-mile, 300-acre portion in Segment 3, the entire corridor is on National Forest System land. In Segment 3, a portion of the river is on private land near Perkinsville. The area is zoned residential, with 2-acre minimum lot requirements. This would lend itself to a more rural setting. This type of setting and development is not incompatible with managing the ORVs.

**9. The State or local government's ability to manage and protect the ORVs on non-Federal lands. This factor requires an evaluation of the river protection mechanisms available through the authority of State and local governments. Such mechanisms may include, for example, statewide programs related to population growth management, vegetation management, water quantity or quality, or protection of river-related values such as open space and historic areas.**

See the discussion under #7.

**10. The consistency of designation with other agency plans, programs, or policies, and with meeting regional objectives**

As noted in #7, the City of Prescott, the Town of Prescott Valley, the Salt River Valley Water Users' Association, and the Salt River Project Agricultural Improvement and Power District have an agreement regarding the use of the Big Chino Subbasin. This agreement includes management toward the goal of designation of the Upper Verde River. Additional local plans, policies, and programs aimed at protecting the Upper Verde River include the following:

- The Central Yavapai Municipal Planning Organization board has directed the Arizona Department of Transportation to construct no new roads crossing the Upper Verde River.
- The Upper Verde River Watershed Protection Coalition is a regional association composed of the mayors of Chino Valley, Prescott Valley, and Prescott, plus representatives from the Yavapai-Prescott Tribe and the Yavapai County Board of Supervisors. Their purpose is to work together to balance the water needs of residents while protecting the Upper Verde River's base flow.
- Chino Valley has purchased water rights from historically irrigated acreage in the Big Chino Subbasin and plans to use that water to support growth of the town's water system. To avoid damaging the river's base flow, a progressive, aggressive water conservation ordinance is now under consideration. The goal of the new water conservation rules is to permit 100 percent recharge of highly treated effluent into the aquifer, creating a sustainable water supply for the town without damaging the river.

**11. Support or opposition to designation**

The importance of the Upper Verde River to local communities and users has been known for decades. Support of designation has grown continuously since the early 2000s. Those who have expressed support include members of the public, nongovernmental organizations, and local governments. Several community organizations promote the protection of the Verde River Watershed as a whole and the Upper Verde River specifically. As described in #10, there are several other agency plans, policies, or programs that lead the Forest Service to believe that the community and stakeholders would support designation.

In December 2021, the Forest Service notified the public that it was undertaking a suitability study for the Upper Verde River. All responses received supported designation. Responses came from local members of the public, nongovernmental organizations, and the White Mountain Apache Tribe Historic Preservation Office. The White Mountain Apache Tribe Historic Preservation Office provided a "No Adverse Effect" determination for the project during the notification period in December 2021.

**12. The river's contribution to the river system or basin integrity**

Because of its contribution to existing water appropriations in the Lower Verde River, designation of the entire river system or basin would likely result in additional benefits beyond those experienced by designation of the Lower Verde River. Designation of the more than 38 miles being considered in this study would substantially increase the integrity of the 100 miles of river system below; this is because many of the same management principles applied to the designated reaches below would be applied.

**13. The potential for water resources development**

This study corridor is currently free of major impoundments, and there is no known plan for water resources development.

Within the study corridor there is one known instream flow water right within the Upper Verde River and one for Sycamore Creek, which flows into the Upper Verde River at the boundary of Segments 2 and 3, that have been filed with the Arizona Department of Water Resources. Unlike a consumptive use water right, which diverts water from a river, an instream flow water right ensures a certain amount of water stays within the river. One of the instream flow water rights is held by the PNF and is for 24 cubic feet per second (17,345 acre-feet annually), measured at the United States Geological Survey's Paulden gauge, and for 60 cubic feet per second (43,362 acre-feet annually), measured at the United States Geological Survey's Clarkdale gauge. This water right has a priority date of December 2, 1988. The other instream flow water right is held by the CNF for 2,388 acre-feet annually through Sycamore Creek. While not directly on the Upper Verde River, Segment 4 benefits from this instream flow water right. It has a priority date of July 29, 1985. There are two instream flow water rights upstream of the study corridor. One at the PNF boundary is held by AZGFD for 14,117 acre-feet annually. Further upstream from that, The Nature Conservancy holds an instream flow for 5,646 acre-feet annually.

There are over 20 known consumptive use water rights within the study corridor totaling approximately 20,000 acre-feet annually. Each of these has a priority date prior to those of the instream flow water right held by the Forest Service described above. This means that these consumptive water rights would be fulfilled prior to the instream flow rights. Additionally, there are many consumptive use water rights upstream and downstream of the Upper Verde River study corridor.

Between 2000 and 2021, flows at the United States Geological Survey's Clarkdale gage averaged 119.37 cubic feet per second, which equates to 86,420 acre-feet annually. A process to adjudicate all water rights in the Verde Watershed is scheduled to begin in 2023. Should all of the existing consumptive water rights be adjudicated and fully drawn upon, it would account for less than 25 percent of the flow through the Clarkdale gage. In other words, flows are currently sufficient to

support both the consumptive water rights and the instream flows through the segment.

### 2.3 SUITABILITY DETERMINATIONS

The entire study area is preliminarily determined **suitable**. There is strong public support for designation; also, for over two decades there has been cooperative management by water users to manage the watershed to preserve the values in the Upper Verde River. Because the PNF manages the majority of the study area, it has the ability to directly influence the ORVs and has been managing the corridor as eligible for over 10 years.

# CHAPTER 3

## NEXT STEPS

---

### 3.1 CONSIDERATION OF ALTERNATIVES

A suitability determination is considered a major Federal action under NEPA; as such, it triggers an environmental review. Accordingly, an array of alternatives will be considered, as appropriate, in accordance with FSH 1909.12, section 83.32. An analysis of the existing situation provides the foundation for alternatives development. The type and range of alternatives to consider will vary depending on the affected environment, issues, and opportunities associated with each specific river segment. The array of alternatives presented must be broad enough to encompass all reasonable proposals for use of the river area. Each alternative should be clear as to whether the river segment would be found suitable or not suitable. If an alternative's emphasis is to protect ORVs by means other than designation, that alternative should include any plan components needed to protect the ORVs.

Generally, the following types of alternatives should be considered:

1. The no-action alternative, which maintains current management; this alternative is required.
2. National designation of all eligible segments of the river.
3. Protection of eligible segments by means other than recommending them suitable for national designation.
4. Recommending some eligible segments suitable for designation. An alternative may also include a recommendation of eligible segment(s) at a less restrictive classification (for example, scenic to recreational) to allow a specific resource activity.

### 3.2 INTERIM MANAGEMENT

Forest Service-identified rivers determined to be eligible and suitable are afforded interim protective management until a decision is made on the future use of the

river and adjacent lands through an act of Congress or a determination that the river is not suitable. It is the Forest Service's policy to manage and protect the free-flowing character, preliminary classification, and identified ORVs of eligible or suitable rivers. Forest Service policy provides the interim protection under its planning rule at 36 Code of Federal Regulations 219.10 and FSH 1909.12, chapter 84.

Interim protections for suitable segments are provided administratively by the Forest Service; the suitable segments are not provided legislative protection under the WSR Act. Legislative protection is provided only by formal designation by Congress. Once final determinations have been made, the Forest Service will draft protective management measures for each suitable segment. A suitability determination requires environmental evaluation under NEPA.

The responsible official (usually the forest supervisor) may authorize site-specific projects and activities on National Forest System lands within the corridors of eligible or suitable rivers only where the project and activities are consistent with all of the following:

- The free-flowing character of the identified river is not adversely modified by the construction or development of stream impoundments, diversions, or other water resources projects.
- ORVs of the identified river area are protected.
- For all Forest Service-identified rivers, classification of an eligible river must be maintained as inventoried unless a suitability study is completed that recommends management at a less restrictive classification (such as from wild to scenic or scenic to recreational; Forest Service 2015).

Additional statutory, regulatory, or policy requirements may apply if the study river is located within a wilderness area or other designated area (see Forest Service Manual 2354, Recreation River Management 2354.42e).

**Table 3-1**, below, describes the interim protection standards for Forest Service-identified eligible and suitable study rivers. Forest plan components must meet the intent of these interim river protection measures (Forest Service 2015).

**Table 3-1**  
**Interim Protection for Eligible or Suitable Wild and Scenic Rivers**

| <b>Issue</b>                   | <b>Management Prescription/Action</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Water Resources Projects       | These projects will be analyzed as to their effect on a river's free flow, water quality, and ORVs, with adverse effects to be prevented to the extent of existing Forest Service authorities (such as special-use authority).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Hydroelectric Power Facilities | Forest Service-identified eligible rivers are to be protected pending a suitability determination. Forest Service-identified suitable rivers are to be protected for their free-flowing condition, water quality, and ORVs pending a designation by Congress.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Minerals                       | <p>Locatable Minerals: Existing or new mining activity in a Forest Service-identified eligible or suitable river is subject to regulations in 36 Code of Federal Regulations 228. The mining activity must be conducted in a manner that minimizes surface disturbance, sedimentation, pollution, and visual impairment.</p> <p>Leasable Minerals: For all eligible or suitable rivers, leases, licenses, and permits under mineral leasing laws must include conditions necessary to protect the values of the river corridor that make it eligible or suitable for inclusion in the NWSRS.</p> <p>Salable Minerals: Disposal of salable mineral materials is prohibited for eligible or suitable rivers tentatively classified as wild. For segments tentatively classified as scenic or recreational, disposal of salable mineral materials is allowed if the values for which the river may be included in the NWSRS are protected.</p>                                                                                                                                                                                                                                                                                                                                        |
| Transportation System          | <p>Wild: Roads and railroads are generally not compatible with a wild classification. The Forest Service would prevent actions related to the road system that would preclude protection of the river as wild. The Forest Service would not plan roads outside the corridor that would adversely affect the wild classification. New trail construction should generally be designed for nonmotorized uses. However, limited motorized uses that are compatible with identified values and unobtrusive trail bridges may be allowed. New airfields may not be developed.</p> <p>Scenic: New roads and railroads are permitted to parallel the river for short segments or bridge the river, if such construction fully protects the river's values, including its free-flowing character. Bridge crossings and river water access are allowed. New trail construction or airfields must be compatible with and fully protect identified values.</p> <p>Recreational: New roads and railroads are permitted to parallel the river if such construction fully protects the river's values, including its free-flowing character. Bridge crossings and river access are allowed. New trail construction or airfields must be compatible with and fully protect identified values.</p> |

| <b>Issue</b>           | <b>Management Prescription/Action</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Utility Proposals      | <p>New transmission lines, such as gas lines, water lines, and similar linear facilities, are not compatible and are discouraged. Where no reasonable alternative exists, additional or new facilities should be restricted to existing rights-of-way. Where new rights-of-way would be necessary for a utility line, the proposed project must be evaluated as to its effect on the river's ORVs and classification. Any portion of a utility proposal that has the potential to affect the river's free-flowing character must be evaluated as a water resources project.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Recreation Development | <p>Wild: As stated in the U.S. Department of Agriculture/U.S. Department of the Interior guidelines, major public-use areas, such as large campgrounds, interpretive centers, or administrative headquarters, must be located outside the river corridor.</p> <p>Minimum facilities, such as toilets and refuse containers, may be provided if necessary to protect and enhance the water quality and other identified river values, while also providing for public recreation uses that do not adversely impact or degrade those values. All facilities must be located and designed to harmonize with the river corridor's primitive character, and natural and cultural settings. The facilities must protect identified river values, including the water quality, and be screened from view from the river, to the extent possible.</p> <p>Scenic: Public-use facilities, such as moderate-sized campgrounds, simple sanitation and convenience facilities, public information centers, administrative sites, and river access developments, are allowed within the river corridor. All facilities must be located and designed to harmonize with their natural and cultural settings; protect identified river values, including the water quality; and be screened from view from the river, to the extent possible.</p> <p>Recreational: Recreation, administrative, and river access facilities may be located close to the river. However, recreational classification does not require extensive recreation development. All facilities must be located and designed to harmonize with their natural and cultural settings; protect identified river values, including the water quality; and be screened from view from the river, to the extent possible.</p> |
| Motorized Travel       | <p>Wild: Motorized travel on land or water may be permitted but is generally not compatible with this classification. Where motorized travel options are deemed necessary, such uses should be carefully defined, and the impacts should be mitigated.</p> <p>Scenic and Recreational: Motorized travel on land or water may be permitted, prohibited, or restricted to protect the river values.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| <b>Issue</b>               | <b>Management Prescription/Action</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wildlife and Fish Projects | <p>Wild: Construction of minor structures and vegetation management to protect and enhance wildlife and fish habitat should harmonize with the area's essentially primitive character and fully protect identified river values. Any portion of a proposed wildlife or fisheries restoration or enhancement project that has the potential to affect the river's free-flowing character must be evaluated as a water resources project.</p> <p>Scenic: Construction of structures and vegetation management designed to protect and enhance wildlife and fish habitat should harmonize with the area's largely undeveloped character and fully protect identified river values. Any portion of a wildlife or fisheries restoration or enhancement project that has the potential to affect the free-flowing character must be evaluated as a water resources project.</p> <p>Recreational: Construction of structures and vegetation management to protect and enhance wildlife and fish habitat should fully protect identified river values. Any portion of a wildlife or fisheries restoration or enhancement project that has the potential to affect the river's free-flowing character must be evaluated as a water resources project.</p> |
| Vegetation Management      | <p>Wild: Cutting of trees and other vegetation is not permitted except when needed in association with a primitive recreation experience, to protect users, or to protect identified ORVs. Examples of such exceptions include activities to maintain trails or suppress wildfires. Prescribed fires and wildfires managed to meet resource objectives may be used to restore or maintain habitat for threatened, endangered, or sensitive species or to restore the natural range of variability.</p> <p>Scenic and Recreational: A range of vegetation management and timber harvest practices are allowed, if these practices are designed to protect users or protect, restore, or enhance the river environment, including the long-term scenic character.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Domestic Livestock Grazing | <p>Wild: Domestic livestock grazing should be managed to protect identified river values. Existing structures may be maintained. New facilities may be developed to facilitate livestock management so long as they maintain the values for which a river was found eligible or suitable, including the area's essentially primitive character.</p> <p>Scenic: Domestic livestock grazing should be managed to protect identified river values. Existing structures may be maintained. New facilities may be developed to facilitate livestock management so long as they maintain the values for which a river was found eligible or suitable, including the area's largely undeveloped character.</p> <p>Recreational: Domestic livestock grazing should be managed to protect identified river values. Existing structures may be maintained. New facilities may be developed to facilitate livestock management so long as they maintain the values for which a river was found eligible or suitable.</p>                                                                                                                                                                                                                                    |

Source: Forest Service 2015

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## CHAPTER 4

### LIST OF PREPARERS

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| Team Member                                                 | Role or Area of Expertise                           |
|-------------------------------------------------------------|-----------------------------------------------------|
| <b>Prescott National Forest</b>                             |                                                     |
| Jason Williams                                              | Forest Service Project Lead, Wild and Scenic Rivers |
| Tony Papa                                                   | Deputy District Ranger, Supporting Line Officer     |
| Julie Rowe                                                  | Recreation Program Manager                          |
| Danielle Carmon                                             | Social and Economic Values, Tribal Relations        |
| Kevin Hurrell                                               | Environmental Compliance                            |
| Chad Yocum                                                  | Water Resources                                     |
| Albert Sillas                                               | Biological Resources                                |
| Leigh Johnson                                               | Regional Wild and Scenic Rivers Coordinator         |
| Chris Welker                                                | Lands and Special Uses                              |
| <b>Coconino National Forest</b>                             |                                                     |
| Janie Agyagos                                               | Biological Resources                                |
| Matt O'Neil                                                 | Fish and Wildlife                                   |
| Francisca Adrian                                            | Wild and Scenic Rivers                              |
| Reba McCracken                                              | Water Resources                                     |
| Mike Dechter                                                | Environmental Compliance                            |
| <b>Bureau of Reclamation</b>                                |                                                     |
| Dominic Graziani                                            | Environmental Protection Specialist                 |
| William Stewart                                             | Fish Biologist                                      |
| Amoryn Smith                                                | Civil-Hydrosystems Engineer                         |
| Danny Falcon                                                | Engineering Division Manager                        |
| <b>Environmental Management and Planning Solutions Inc.</b> |                                                     |
| Kate Krebs                                                  | Project Manager, Wild and Scenic Rivers Specialist  |
| Alli Yamnitsky                                              | Wild and Scenic Rivers Specialist                   |
| Kevin Doyle                                                 | Resource Team Lead                                  |
| Theresa O'Halloran                                          | Geographic Information Systems Lead                 |
| Lindsay Chipman                                             | Biological Resources                                |

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## REFERENCES

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Forest Service. 2010. Upper Verde River Eligibility Report Update for the National Wild and Scenic River System. Prescott National Forest, Prescott, Arizona. December 2010.

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Forest Service GIS. 2022. Prescott National Forest. Prescott, Arizona. February 2022.

Interagency Wild and Scenic Rivers Coordinating Council. 1999. The Wild and Scenic River Study Process. Technical Report of the Interagency Wild and Scenic Rivers Coordinating Council. Portland, Oregon and Anchorage, Alaska. December 1999.

\_\_\_\_\_. 2021. A National System. Internet website: <https://www.rivers.gov/national-system.php>.

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## GLOSSARY

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**Classification.** Identification of the class (wild, scenic, or recreational) that appropriately describes an eligible river, based on the criteria established in section 2(b) of the WSR Act (FSH 1909.12, chapter 80, section 80.5).

**Determination.** A finding in a study report that a river segment does, or does not, meet the criteria found in this chapter to be eligible; or a finding that an eligible river is or is not suitable for inclusion in the NWSRS (FSH 1909.12, chapter 80, section 80.5).

**Eligible river.** A river segment that has been evaluated and found to be free flowing and, in combination with its adjacent land area, possesses one or more ORV (FSH 1909.12, chapter 80, section 80.5).

**Forest Service-identified study rivers.** Rivers that the Forest Service has identified for study to determine their potential inclusion in the NWSRS, as directed under section 5(d)(1) of the WSR Act. These include the inventory of rivers being studied for eligibility, the eligible rivers being studied for suitability, and the rivers determined to be suitable and recommended for inclusion in the NWSRS but that are not yet designated (FSH 1909.12, chapter 80, section 80.5).

**Outstandingly remarkable value (ORV).** A scenic, recreation, geologic, fish and wildlife, historic, cultural, or other similar river-related value that is a unique, rare, or exemplary feature and is significant when compared with similar values from other rivers at a regional or national scale (FSH 1909.12, chapter 80, section 80.5).

**River.** A flowing body of water or estuary, or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, rills, and small lakes (FSH 1909.12, chapter 80, section 80.5).

**River corridor.** The geographic area generally encompassed within one-quarter mile on either side of the river's ordinary high-water mark that is studied for eligibility or suitability and that contains the river and its ORVs (FSH 1909.12, chapter 80, section 80.5).

**River segment.** A distinct section of a river; in the context of WSR planning, river segment refers to a distinct portion of a river that has a beginning, an endpoint, and a specific classification. A river may be one segment with a classification or have multiple segments, each with a different classification (FSH 1909.12, chapter 80, section 80.5).

**Study process.** The generic term applied to both the process of inventorying rivers to determine whether they are eligible for inclusion in the NWSRS and evaluating eligible rivers to determine whether they are suitable for inclusion in the NWSRS (FSH 1909.12, chapter 80, section 80.5).

**Study report.** The documentation for the inventory and evaluation of WSR eligibility or suitability (FSH 1909.12, chapter 80, section 80.5).

**Study river.** See Forest Service-identified study rivers.

**Suitable river.** A river that a Federal agency has studied and determined to be suitable for inclusion in the NWSRS but that has not been statutorily designated. A river found suitable for inclusion in the NWSRS is one that the Forest Service will recommend or has recommended for inclusion in the NWSRS (FSH 1909.12, chapter 80, section 80.5).



## COUNCIL AGENDA MEMO

**MEETING TYPE/DATE:**      **WORKSHOP MEETING**      **01- 3-23**

**DEPARTMENT:**      **Human Resources**

**AGENDA ITEM:** Approval of Appointment of Tyler Goodman as Interim City Manager.

### ITEM SUMMARY

With the upcoming departure of the current City Manager, the Council is asked to appoint an Interim City Manager to run the operations of the City of Prescott.

### BACKGROUND

Tyler Goodman is the current Deputy City Manager. He has been employed with the City of Prescott since 2016.

### FINANCIAL IMPACT

Mr. Goodman will begin his interim acting City Manager assignment upon appointment by Mayor and Council at the annual salary of \$175,000. Based on peer survey data and current internal salaries, \$175,000 is the suggested entry salary to be used in the recruitment for a new City Manager.

**Recommended Action:** MOVE to approve appointment of Tyler Goodman as Interim City Manager

### ATTACHMENTS

1. [Interim City Manager appointment agenda item 1.3.2023.doc](#)

MEETING DATE/TYPE: VOTING MEETING 1-3-2023

DEPARTMENT: Human Resources

**AGENDA ITEM:** Approval of Appointment of Tyler Goodman as Interim City Manager

**Approved By:** Mayor/Council

### Item Summary

Article III Section 5 of the Prescott Charter requires the appointment of an Acting City Manager.

Primary responsibilities of the position are set forth by the City Charter.

Mr. Goodman will begin his interim acting City Manager assignment upon appointment by Mayor and Council at the annual salary of \$175,000. Based on peer survey data and current internal salaries, \$175,000 is the suggested entry salary to be used in the recruitment for a new City Manager.

**Recommended Action:** MOVE to appoint Tyler Goodman Interim City Manager



## COUNCIL AGENDA MEMO

**MEETING TYPE/DATE:**      **WORKSHOP MEETING**      **01- 3-23**

**DEPARTMENT:**      **City Manager**

**AGENDA ITEM:** Receive a Presentation from Staff Regarding a Letter Received From the Town of Prescott Valley for a Proposed Investment Plan for Prescott AMA Safe-Yield Goal with Verde River Flow Protection; and Possible Adjournment to Executive Session to Discuss and Consult with the City's Attorneys for Legal Advice, to Consider the City's Position and Instruct its Attorneys and Necessary City Employees, and Discussions Regarding Possible Settlement Discussions Pursuant to A.R.S. § 38-431.03(A) (3) and A(4).

### ITEM SUMMARY

This item is to discuss a proposed investment plan for the Prescott AMA Safe-Yield goal.

### BACKGROUND

The proposal was received from Prescott Valley with a request to receive input from the Prescott City Council.

### FINANCIAL IMPACT

This item and proposed action would have no financial impact. Any actions that would incur financial impacts would be considered separately by the Council at a future meeting.

**Recommended Action:** *Staff recommends receiving presentation and determining whether to adjourn into executive session for discussion and possible action related to the proposed investment plan for Prescott AMA Safe-Yield Goal with Verde River Flow Protection*