

ARIZONA WATER PROTECTION FUND COMMISSION

Business Meeting – November 15, 2022

Arizona Department of Water Resources

Thunder River Conference Room

1110 W. Washington St., Ste. 310

Phoenix, AZ 85007

&

Virtual Meeting via Cisco Webex

Meeting Number (Access Code): 2597 065 9666

Meeting Password: kPrNRanq732

1-415-655-0001 US Toll

Final Meeting Minutes

ATTENDANCE

Commission Voting Members Present

Pat Jacobs – Chairman

Rodney Held – Vice-Chairman

Brian Biesemeyer

John Ladd

Shelley Blackmore

William Schock

Tina Thompson

Stephen Turcotte

Arizona Water Protection Fund Staff

Lizette Fuentes

Sharon Scantlebury

Reuben Teran

Commission Voting Members Absent

None

Commission Non-voting, Ex-Officio Members Present

None

CALL TO ORDER

Chairman Pat Jacobs called the meeting of the Arizona Water Protection Fund Commission to order at 9:02 a.m.

COMMISSION MEMBER ROLL CALL

Mr. Reuben Teran called the roll of the AWPFC Commission. Commissioners present at the time of roll call included Chairman Pat Jacobs, Vice-Chairman Rodney Held, Commissioner Brian Biesemeyer, Commissioner Shelley Blackmore, Commissioner William Schock (via Webex), and Commissioner Stephen Turcotte (via Webex). A quorum of voting Commission members was present.

Commissioner John Ladd (via telephone) and Commissioner Tina Thompson (via Webex) were also in attendance, but joined the meeting after the roll call.

Mr. Teran also called the roll for non-voting, ex-officio members of the Commission. None were present, but Ms. Liza Logan from the State Land Department stated she was in attendance on behalf of the State Land Department Commissioner.

CALL TO THE PUBLIC

Chairman Pat Jacobs made a call to the public. No public comments were made.

REVIEW AND APPROVAL OF THE JUNE 14, 2022 MEETING MINUTES

Vice-Chairman Rodney Held made a motion to approve the meeting minutes from June 14, 2022, with a second from Commissioner Blackmore. Chairman Jacobs called for a discussion on the motion. No comments were made. Chairman Jacobs called for a vote on the motion.

Pat Jacobs – Chairman	Aye
Rodney Held – Vice Chairman	Aye
Brian Biesemeyer	Aye
Shelley Blackmore	Aye
William Schock	Aye
Stephen Turcotte	Aye

The motion passed unanimously.

AWPF EXECUTIVE COMMITTEE MEETING UPDATE

Mr. Teran provided an update on actions taken by the AWPf Executive Committee held on October 13, 2022 meeting, which included 1) approval of the AWPf Executive Committee meeting minutes May 18, 2022, and 2) determination that grant application WPF2304: Energy-Underground Water Hub was not eligible for funding under the AWPf program. Mr. Teran also informed the Commission about public comments made during the two calls to the public during the meeting.

ARIZONA WATER PROTECTION FUND PROGRAM UPDATES

Financial Update

Mr. Teran provided an update on the Water Protection Fund activity and current fund balances from July 1, 2021 to October 31, 2022. The fund balance as of October 31, 2022 was \$3,518,430. Existing grant obligations total \$1,964,717. The current uncommitted fund balance as of October 31, 2022 is \$1,553,712.

Mr. Teran also responded to a question that was asked at the last June 14, 2022 Commission meeting regarding the accounting for the uncommitted balance for administration funds. Mr. Teran explained that the AWPf administration fund balance is committed but not officially documented as an encumbrance like the grant award contract amounts in the State Accounting system that is used to provide the data for this table. Program administration funds approved by the AWPf Commission each year are tracked through the State payroll system, which is different than the State accounting system, and reduced each pay period or when program related expenses are made. For reporting purposes, the AWPf fund balance sheet identifies the remaining amount in the administration account, and these funds are displayed as uncommitted funds since they are not specially identified as encumbered in the State accounting system.

AWPF Program Grant Application Guidelines Triennial Review Process

Mr. Teran explained that every three years the AWPf Commission is required by law to gather public input and comments on the grant application guidelines for AWPf funds which is to be the catalyst for making any significant changes to the grant application manual; outlined the criteria on which the public will be invited to provide comments and input; and described the public outreach efforts that staff intends to implement. Mr. Teran stated that the Commission will have the opportunity to review and comment on the draft public notice letter that is recommended to be discussed at the next Commission meeting.

FISCAL YEAR 2023 GRANT APPLICANT PRESENTATIONS

Chairman Jacobs reminded all presenters to identify themselves and what project they are presenting. He then thanked everyone for attending today's meeting. Mr. Teran stated that for the record he was notified that the applicant for agenda item d. WPF2303 - The Clyne Ranch Project will not be presenting today.

Catlow Shippek with Watershed Management Group provided a presentation on grant application WPF2306 - Protecting and Restoring Habitat and Surface Flow in Tanque Verde Creek.

Commissioner Shelly Blackmore, Commissioner Brian Biesemeyer, and Commissioner William Schock asked clarifying questions on the application and the project.

Skyler Hedden with the Arizona Game and Fish Department provided a presentation on grant application WPF2302 - Becker Lake Wildlife Area: Little Colorado River Habitat Improvement Project. Commissioner Blackmore, Commissioner Biesemeyer, and Commissioner Schock asked clarifying questions on the application and the project.

Rebecca Davidson with the National Forest Foundation, who introduced Kaitlyn Girtin with the National Forest Foundation and Angela Able from the Tonto National Forest, provided a presentation on grant application WPF2305 - Water Crossing Improvements on Unnamed Tributary at Chase Creek 2: East Verde Watershed Protection. Commissioner Blackmore, Commissioner Biesemeyer, and Commissioner Schock asked clarifying questions on the application and the project.

Daric Knight with the Apache Natural Resource Conservation District and Carey Dobson of the Timberline Ranch introduced themselves, and Mr. Knight provided a presentation on grant application WPF2301-Timberline - Upper Little Colorado River Watershed Improvement Project. Vice-Chairman Rodney Held, Commissioner Blackmore, Commissioner Tina Thompson, and Commissioner Schock asked clarifying questions on the application and the project.

Sarah Trube with Sky Island Alliance, who introduced Emily Burns with Sky Island Alliance, provided a presentation on grant application WPF2307 - Protecting Arizona Springs. Vice-Chairman Held, Commissioner Blackmore, Commissioner Thompson, Commissioner Schock and Chairman Jacobs asked clarifying questions on the application and the project.

CALL TO THE PUBLIC

Chairman Jacobs made a call to the public. No public comments were made.

CALL FOR FUTURE AGENDA ITEMS

Chairman Jacobs called for future agenda items. Mr. Teran suggested to include an agenda item for the Commission to discuss and take action on the Triennial Grant Application Review process.

Vice-Chairman Held recommended the Commission and staff review AWPf policies and any past comments or precedents set by the Commission on funding bridge or stream crossing structure related projects, and suggested that a discussion on this topic should be included as part of the grant application voting discussions at the next meeting.

FUTURE MEETING DATE(S)

Chairman Jacobs stated the next meeting date has been established:

- November 29, 2022 at 10:00 a.m. for grant application awards

ADJOURN

Chairman Jacobs adjourned the meeting at 11:55 a.m.

Commission Members

Pat Jacobs, Chairman
 Rodney Held, Vice Chairman
 Brian Biesemeyer
 Shelley Blackmore
 John Ladd
 William Schock
 Tina Thompson
 Stephen Turcotte

Executive Director

Reuben Teran

Arizona Water Protection Fund Commission

1110 West Washington, Suite 310, Phoenix, AZ 85007

Phone: (602) 771-8528

www.azwpf.gov

**Ex-Officio Members**

Thomas Buschatzke
 Director
 AZ Department of Water Resources

Lisa Atkins
 State Land Commissioner
 AZ State Land Department

Advisory Members

The Honorable Sine Kerr
 AZ State Senate

The Honorable David L. Cook
 AZ House of Representatives

NOTICE OF PUBLIC MEETING

Pursuant to A.R.S. § 38-431.02, notice is hereby given that there will be a meeting of the Arizona Water Protection Fund (AWPF) Commission on **Tuesday, November 15, 2022 at 9:00 a.m.** This meeting is open to the public, and in person or virtual attendance options are available. The meeting location and agenda are described below.

Meeting Location:

Arizona Department of Water Resources
 Thunder River Conference Room
 1110 W. Washington St., Ste. 310
 Phoenix, AZ 85007

To ensure an appropriate meeting space, please RSVP to lfuentes@azwater.gov if you would like to attend in person.

Cisco Webex Meeting Information

Link: <https://adwr.info/3E20obG>

Meeting Number (Access Code): 2597 065 9666

Meeting Password: kPrNRanq732

or

Join by Phone

1-415-655-0001 US Toll

Access Code: 2597 065 9666

Dated this 4th day of November 2022

Arizona Water Protection Fund Commission
Meeting Agenda

- I. Call to Order –Chairman Pat Jacobs
- II. Commission Member Roll Call – Executive Director
- III. Call to the Public – Chairman Jacobs
 - Comments from the public will be limited to 3 minutes per speaker.
- IV. Review and Approval of the June 14, 2022 Meeting Minutes – Chairman Jacobs

Arizona Water Protection Fund Commission
Notice of Public Meeting and November 15, 2022 Meeting Agenda (continued)

- V. AWPFC Executive Committee Meeting Update – Executive Director
 - The Commission will be updated on actions taken by the AWPFC Executive Committee at the October 13, 2022 meeting, and informed about public comments made during the meeting.
- VI. Arizona Water Protection Fund Program Updates – Executive Director
 - Financial Update
 - AWPFC Program Grant Application Guidelines Triennial Review Process
- VII. Fiscal Year 2023 Grant Applicant Presentations. Break(s) to be called at the discretion of the AWPFC Chairman. Up to 30 minutes will be allowed for each application, with a maximum of 15 minutes for the applicant’s presentation. Application presentations are not time certain, but will be heard in the following order:
 - a. WPF2306 - Protecting and Restoring Habitat and Surface Flow in Tanque Verde Creek
 - b. WPF2302 - Becker Lake Wildlife Area: Little Colorado River Habitat Improvement Project
 - c. WPF2305 - Water Crossing Improvements on Unnamed Tributary at Chase Creek 2: East Verde Watershed Protection
 - d. WPF2303 - The Clyne Ranch Project
 - e. WPF2301- Timberline - Upper Little Colorado River Watershed Improvement Project
 - f. WPF2307 - Protecting Arizona Springs
- VIII. Call to the Public – Chairman Jacobs
 - Comments from the public will be limited to 3 minutes per speaker.
- IX. Call for Future Agenda Items
- X. Future Meeting Date(s) – Chairman Jacobs
- XI. Adjourn – Chairman Jacobs

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- *The Arizona Water Protection Fund Commission may elect to go into Executive Session for the purposes of obtaining legal advice from its attorney on any of the listed agenda items pursuant to A.R.S. § 38-431.03(A)(3). Executive sessions are not open to the public.*
 - *Agenda items may be taken out of order. No action may be taken on items unless specifically noted on the agenda.*
 - *Members of the Arizona Water Protection Fund Commission may appear by telephone.*
 - *Agenda and backup/supporting documents can be obtained by contacting Lizette Fuentes at 602-771-8472 or lfuentes@azwater.gov, or Sharon Scantlebury at 602-771-8472 or sscantlebury@azwater.gov.*
 - *People with disabilities may request reasonable accommodations such as interpreters, alternate formats, or assistant with physical accessibility. If you require accommodations, please contact Jennifer Marteniez at (602) 771-8426 or by e-mailing jkmarteniez@azwater.gov Please make requests as soon as possible to allow time to arrange the accommodation.*

ARIZONA WATER PROTECTION FUND COMMISSION

Business Meeting – June 14, 2022

Arizona Department of Water Resources
Thunder River Conference Room
1110 W. Washington St., Ste. 310
Phoenix, AZ 85007

&

Virtual Meeting via Cisco WebEx
Meeting Number (Access Code): 2590 328 9261
Meeting Password: g7tNmbphT64
1-415-655-0001 US Toll

DRAFT Meeting Minutes

ATTENDANCE

Commission Voting Members Present

Pat Jacobs – Chairman
Rodney Held – Vice-Chairman
Brian Biesemeyer
Shelley Blackmore
William Schock
Tina Thompson
Stephen Turcotte

Arizona Water Protection Fund Staff

Kelly Brown
Sharon Scantlebury
Reuben Teran

Commission Voting Members Absent

John Ladd

Commission Non-voting, Ex-Officio Members Present

None

CALL TO ORDER

Chairman Pat Jacobs called the meeting of the Arizona Water Protection Fund Commission to order at 10:00 a.m.

COMMISSION MEMBER ROLL CALL

Mr. Reuben Teran called the roll of the AWPFC Commission. Commissioners present included Chairman Pat Jacobs, Vice-Chairman Rodney Held, Commissioner Brian Biesemeyer, Commissioner Shelley Blackmore, Commissioner William Schock, Commissioner Tina Thompson, and Commissioner Stephen Turcotte. Commissioner John Ladd was not present. A quorum of voting Commission members was present.

Mr. Teran also called the roll for non-voting, ex-officio members of the Commission. None were present, but Mr. Tim Gibson from the State Land Department stated he was in attendance on behalf of the State Land Department Commissioner.

CALL TO THE PUBLIC

Chairman Jacobs made a call to the public. John W. Jennings, CEO of Green Star, LP. addressed the Commission.

COMMISSION MEMBER ELECTIONS FOR CHAIRMAN AND VICE-CHAIRMAN

Chairman Jacobs called for nominations for Chairman for 2022 – 2023. Commissioner Thompson nominated Pat Jacobs for Chairman, with a second from Commissioner Biesemeyer. Commissioner Thompson made a motion to cast a unanimous ballot to elect Pat Jacobs as Chairman, with a second from Commissioner Biesemeyer. Chairman Jacobs called for a vote on the motion:

Rodney Held – Vice-Chairman	Aye
Brian Biesemeyer	Aye
Shelley Blackmore	Aye
William Schock	Aye
Tina Thompson	Aye
Stephen Turcotte	Aye

The voice vote was unanimous and Pat Jacobs was elected as the Arizona Water Protection Fund Commission Chairman for 2022 – 2023.

Chairman Jacobs called for nominations for Vice-Chairman for 2022 – 2023. Commissioner William Schock nominated Rodney Held for Vice-Chairman, with a second from Commissioner Biesemeyer. Commissioner Biesemeyer made a motion to cast a unanimous ballot to elect Rodney Held as Vice-Chairman, with a second from Commissioner Schock. Chairman Jacobs called for a vote on the motion:

Pat Jacobs - Chairman	Aye
Brian Biesemeyer	Aye
Shelley Blackmore	Aye
William Schock	Aye
Tina Thompson	Aye
Stephen Turcotte	Aye

The voice vote was unanimous and Rodney Held was elected as the Arizona Water Protection Fund Commission Vice-Chairman for 2022 – 2023.

AWPF COMMISSION FINAL MEETING MINUTES FORMAT

Commission Biesemeyer made a motion for the Commission to adopt abbreviated meeting minutes for the record, and keep a copy of the video recording in the event the Commission needs to go back to obtain details of the meeting, with a second from Vice-Chairman Rodney Held. Chairman Jacobs call for a discussion on the motion. Based on the discussion Commissioner Biesemeyer amended his motion to adopt abbreviated meeting minutes for the records, but also have an audio transcript file available as a

backup copy upon request, along with the copy of the video recording, with a second from Vice-Chairman Held. Chairman Jacobs called for a vote to accept the amended motion.

Pat Jacobs – Chairman	Aye
Rodney Held – Vice Chairman	Aye
Brian Biesemeyer	Aye
Shelley Blackmore	Aye
William Schock	Aye
Tina Thompson	Aye
Stephen Turcotte	Aye

The vote to accept the amended motion passed unanimously. Chairman Jacobs called for a formal vote on the motion.

Pat Jacobs – Chairman	Aye
Rodney Held – Vice Chairman	Aye
Brian Biesemeyer	Aye
Shelley Blackmore	Aye
William Schock	Aye
Tina Thompson	Aye
Stephen Turcotte	Aye

The motion passed unanimously.

REVIEW AND APPROVAL OF THE FEBRUARY 8, 2022 MEETING MINUTES

Commissioner Thompson made a motion to approve the meeting minutes from February 8, 2022, with a second from Commissioner Blackmore. Vice-Chairman Held requested clarification if the Commission is approving the sample abbreviated version of the minutes staff provided, or the full text version of the minutes staff also provided, which he does have suggested corrections. Chairman Jacobs clarified that the new policy adopted by the Commission on the last agenda item will be followed. Chairman Jacobs called for a vote on the motion.

Pat Jacobs – Chairman	Aye
Rodney Held – Vice Chairman	Aye
Brian Biesemeyer	Aye
Shelley Blackmore	Aye
William Schock	Aye
Tina Thompson	Aye
Stephen Turcotte	Aye

The motion passed unanimously.

ARIZONA WATER PROTECTION FUND PROGRAM UPDATES

Grant Application Review Process

Mr. Teran stated that Commission policy has established that only 1 grant cycle will be implemented per year; grant applications are discussed and awarded on a competitive basis during a public meeting; and the Commission does not have an appeal process for applicants whose grant applications were not selected for funding, but the applicant may re-submit another grant application for consideration in a future grant cycle.

Legislative Update

Mr. Ben Alteneder (Arizona Department of Water Resources Chief Legislative Liaison and Ombudsman) provided a brief update on relevant legislation and the status of the State budget process to date. Chairman Jacobs requested clarification if the \$1 million appropriation in House Bill 2538 includes the annual \$250,000 appropriation that has been included in the Arizona Department of Water Resources (ADWR) budget. Mr. Alteneder responded that the \$1 million would be in addition to the \$250,000 appropriated within ADWR's budget.

Financial Update

Mr. Teran provided an update on the Water Protection Fund activity and current fund balances from July 1, 2021 to May 30, 2022. The fund balance as of May 31, 2022 was \$3,061,703. Existing grant obligations total \$2,020,766 and pending fiscal year 2022 grant contracts total \$120,123. The current uncommitted fund balance as of May 31, 2023 is \$920,814.

Vice-Chairman Held requested clarification why the May 31, 2022 fund amount of \$35,897 identified under the administration account balance also shows as an uncommitted fund amount. Mr. Teran stated that he was not able to answer that question at this time but would follow up with ADWR accounting staff and provide an explanation at the next meeting.

Grant Award and Project Status Updates

Mr. Teran reported that 5 of 6 FY 2022 grant award contracts have been fully executed, and one is in the signature process. Mr. Teran also reported that AWP Grant 20-206WPF: Quantifying Benefits for Brush Management on Arizona Rangelands has been withdrawn by the Arizona Association of Conservation Districts.

ARIZONA WATER PROTECTION FUND ADMINISTRATIVE FUND TRANSFER REQUEST

Mr. Teran requested the Commission's authorization to approve a transfer of \$196,800 of the unobligated Water Protection Fund balance to the program administration account for Fiscal Year 2023. Commissioner Turcotte requested clarification on the breakdown of program administration fees. Mr. Teran provided a budget breakdown of projected program administration costs for the Commission. Vice-Chairman Held made a motion to approve a transfer of \$196,800 of the unobligated fund balance to the administration

account for Fiscal Year 2023, with a second from Commissioner Turcotte. Chairman Jacobs called for a vote on the motion.

Pat Jacobs – Chairman	Aye
Rodney Held – Vice Chairman	Aye
Brian Biesemeyer	Aye
Shelley Blackmore	Aye
William Schock	Aye
Tina Thompson	Aye
Stephen Turcotte	Aye

The motion passed unanimously.

FISCAL YEAR 2022 ARIZONA WATER PROTECTION FUND ANNUAL REPORT

Mr. Teran informed the Commission that the draft of the annual report is complete, but a few items such as the fiscal year end fund balance and Chairman cover letter will need to be incorporated prior to it being formally submitted. Commissioner Blackmore made a motion to approve the draft of the Fiscal year 2022 annual report, with a second from Commissioner Schock. Chairman Jacobs called for a vote on the motion.

Pat Jacobs – Chairman	Aye
Rodney Held – Vice Chairman	Aye
Brian Biesemeyer	Aye
Shelley Blackmore	Aye
William Schock	Aye
Tina Thompson	Aye
Stephen Turcotte	Aye

The motion passed unanimously.

FISCAL YEAR 2023 GRANT CYCLE

Vice-Chairman Held made a motion to formally approve implementing a grant cycle for Fiscal Year 2023, with a second from Commissioner Turcotte. Chairman Jacobs called for a vote on the motion.

Pat Jacobs – Chairman	Aye
Rodney Held – Vice Chairman	Aye
Brian Biesemeyer	Aye
Shelley Blackmore	Aye
William Schock	Aye
Tina Thompson	Aye
Stephen Turcotte	Aye

The motion passed unanimously.

FISCAL YEAR 2023 GRANT APPLICATION MANUAL

Mr. Teran presented the proposed fiscal year 2023 grant application schedule. Vice-Chairman Held recommended scheduling application presentations as a separate Commission meeting, allowing time for the Commission members to ask additional clarifying questions of the applicants in writing through the Executive Director, and having the grant selection voting meeting at a later date. Vice-Chairman Held also recommended 15-minute maximum for applicant presentations, 15-minutes for Commissioner questions, and keeping the application schedule flexible with no time-certain blocks. No objections were made by the Commission members.

Mr. Teran requested clarification on Commission member application review preferences. Commissioner members expressed support for using the eCivis reviewer portal to access the grant applications for their individual reviews.

Commissioner Biesemeyer made a motion to approve the Fiscal Year 2023 grant application manual to include the updates and suggestions that have been discussed by the Commission, with a second from Commissioner Schock. Chairman Jacobs called for a vote on the motion.

Pat Jacobs – Chairman	Aye
Rodney Held – Vice Chairman	Aye
Brian Biesemeyer	Aye
Shelley Blackmore	Aye
William Schock	Aye
Tina Thompson	Aye
Stephen Turcotte	Aye

The motion passed unanimously.

CALL TO THE PUBLIC

Chairman Jacobs made a call to the public. No public comments were made.

CALL FOR FUTURE AGENDA ITEMS

Chairman Jacobs called for future agenda items. No agenda items were suggested.

FUTURE MEETING DATE(S)

Chairman Jacobs stated that the future meeting dates have been established:

- November 15 – 16, 2022 for grant application presentations.
- November 29, 2022 for grant application awards.

ADJOURN

Chairman Jacobs adjourned the meeting at 11:38 a.m.

Arizona Department of Water Resources
Water Protection Fund

FY 2023 Fund Activity
For the period July 1, 2022, through October 31, 2022

Description	1302-WPF Grants	1303-WPF Administration	Total
Beginning Fund Balance -	\$3,026,034	\$15,755	\$3,041,790
Revenues:			
Interest Income	\$0	\$14,291	\$14,291
In-Lieu Fee Deposit	\$0	\$0	\$0
General Fund Appropriation	\$625,000	\$0	\$625,000
Transfers - Administrative Expenses	(\$196,800)	\$196,800	\$0
Total - Revenues	\$428,200	\$211,091	\$639,291
Expenditures:			
Salary Expense	\$0	\$65,385	\$65,385
Grantee Payments	\$97,266	\$0	\$97,266
Travel	\$0	\$0	\$0
Operating Expenses	\$0	\$0	\$0
Total - Expenditures	\$97,266	\$65,385	\$162,651
Fund Balance - October 31, 2022	\$3,356,968	\$161,461	\$3,518,430
Less: Existing Grant Obligations	(1,964,717)		
Uncommitted Balance	\$1,392,251	\$161,461	\$1,553,712



Reuben Teran <rteran@azwater.gov>

Public Comment on AWPf grant applications

1 message

Julia Fonseca <Julia.Fonseca@pima.gov>

Tue, Oct 25, 2022 at 1:07 PM

To: "rteran@azwater.gov" <rteran@azwater.gov>

Cc: Robert Padilla <Robert.Padilla@pima.gov>, Eric Shepp <Eric.Shepp@pima.gov>, Linda Mayro <Linda.Mayro@pima.gov>, Karen Simms <Karen.Simms@pima.gov>, Vanessa Prilesen <Vanessa.Prilesen@pima.gov>

On behalf of Pima County, and our Regional Flood Control District, staff has reviewed the applications of all three AWPf projects located in Pima County based on the completed applications provided for review.

Clyne Ranch (WPF2303) is located on land owned by Pima County. This work will be conducted by a new land restoration enterprise, and thus represents an important step in supporting new businesses, as well as contributing to the stewardship of County lands.

Tanque Verde Creek (WPF2306) is located on an important riparian corridor for wildlife as well as a widely used location for outdoor recreation: the lead organization has shown its capability for this kind of work and is supported by the neighboring business and homeowners.

Spring surveys, including some that may be on Pima County lands (WPF2307) will benefit wildlife waters in our region, and the organization has an excellent track record for this work with Pima County.

We encourage your support of all three applications. Thank you for the opportunity to comment!

Julia Fonseca, Environmental Planning Manager

Office of Sustainability and Conservation



Reuben Teran <rteran@azwater.gov>

Public Comment for Arizona Water Protection Fund Grant

1 message

Susanna Schippers [REDACTED] >
To: rteran@azwater.gov

Sat, Oct 8, 2022 at 7:06 PM

Dear Mr. Teran,

I would like to express my support for the grant application that would remove invasive Arundo dorax from the Tanque Verde Creek. I live in Tucson near the creek and strongly support removing this invasive species to allow our water table to continue to recover and to benefit native species along the creek.

I support the continued work toward the goal of eradicating Arundo and enhancing stormwater infiltration to reduce erosion and benefit the creek. I fully support Watershed Management Group's application WPF2306, "Protecting and Restoring Habitat and Surface Flow in Tanque Verde Creek."

Sincerely,
Susanna Schippers



Reuben Teran <rteran@azwater.gov>

Public Comment for Arizona Water Protection Fund Grant

1 message

Bethany DeRango [REDACTED]
To: rteran@azwater.gov

Thu, Oct 6, 2022 at 11:50 AM

Dear Reuben,

I am writing as a member of the local community that values healthy riparian systems and supports continued work towards the goal of eradicating Arundo and enhancing stormwater infiltration to reduce erosion and benefit the creek. I fully support Watershed Management Group's application WPF2306, "Protecting and Restoring Habitat and Surface Flow in Tanque Verde Creek".

The surface flow data collected by the WMG demonstrates the value of this watershed to our local community both ecologically and socially, and the strategic removal of Arundo from this stretch of the creek amplifies these values. The targeted removal of this highly invasive, water hungry invasives species of limited distribution is well thought out. While populations of Arundo persist downstream, upstream of this area is currently uninfested which means gains made will not be lost through continuous propagule pressure. Please consider selecting this proposal for funding!

Sincerely,

Bethany DeRango

Public Comment for Arizona Water Protection Fund Grant

1 message

Catherine L Evilsizor [REDACTED] >
To: rteran@azwater.gov

Dear Mr. Reuben Teran,


I am writing to support Watershed Management Group's application WPF2306, "Protecting and Restoring Habitat and Surface Flow in Tanque Verde Creek".

As a Tucsonan with a background as a farmer and backpacker, I deeply cherish healthy riparian systems and available groundwater for all of the species that thrive in these special places in Arizona.

Watershed Management has been doing spectacular work recruiting and organizing volunteers who are deeply committed to the hard work of eradicating invasive Arundo in the Tanque Verde. The a very special, beautiful area. Having grant funding to further enhance this work will help stormwater infiltrate, reduce erosion and make a more beautiful riparian habitat that supports native flora and

I have observed Watershed Management's work improving the health of the creek. They are an impressive organization- leveraging significant community support for their projects. I know they will and increase the effect of the funding you provide to them.

--
 Catherine

--
 Build the world you want to live in.
¡Ahora es cuando!
The most common way people give up their power is by thinking they don't have any. Alice Walker

[Catherine Land Evilsizor](#)

[REDACTED]



Reuben Teran <rteran@azwater.gov>

Public Comment for Arizona Water Protection Fund Grant WPF2306

1 message

dfemer [REDACTED] >
To: rteran@azwater.gov

Thu, Oct 20, 2022 at 2:55 PM

Rueben,

Our family fully supports the work being done to improve riparian systems in Arizona which cannot be done without proper funding, community organizations, and volunteers. Preservation of these areas and specifically the removal and eradicating Arundo along Tanque Verde Creek is an important mission and we strongly support Water Shed Management Group's application WPF2306 "Protecting and restoring Habitat and Surface Flow in Tanque Verde Creek".

Sincerely,

Dudley Emer

Linda Emer



Reuben Teran <rteran@azwater.gov>

Public Comment for Arizona Water Protection Fund Grant

1 message

eshapiro [REDACTED] >
To: rteran@azwater.gov

Thu, Oct 6, 2022 at 11:33 AM

Dear Reuben,

I am writing as a member of the local community that values healthy riparian systems and supports continued work towards the goal of eradicating Arundo and enhancing stormwater infiltration to reduce erosion and benefit the creek. I fully support Watershed Management Group's application WPF2306, "Protecting and Restoring Habitat and Surface Flow in Tanque Verde Creek".

Sincerely,

Eve Shapiro



Reuben Teran <rteran@azwater.gov>

WPF2306 Arundo Removal

1 message

joelle coffman [REDACTED] >
To: "rteran@azwater.gov" <rteran@azwater.gov>

Tue, Oct 11, 2022 at 12:36 PM

Dear Reuben,

I am writing as a member of the Fountain Park community which backs up to the Tanque Verde. We enjoy walking out in the watershed with it's beautiful old cottonwoods. Those trees are in danger due to the drought and Arundo in the watershed is degrading the watershed further. For two years I have volunteered with Watershed Management to help remove Arundo. More work is needed! I value healthy riparian systems and support continued work towards the goal of eradicating Arundo and enhancing stormwater infiltration to reduce erosion and benefit the creek. I fully support Watershed Management Group's application WPF2306, "Protecting and Restoring Habitat and Surface Flow in Tanque Verde Creek.

Sincerely,

Joelle Coffman



Reuben Teran <rteran@azwater.gov>

Public Comment for Arizona Water Protection Fund Grant

1 message

Kyle and Tina Pakka [REDACTED] >
To: rteran@azwater.gov

Wed, Oct 12, 2022 at 10:10 AM

Dear Reuben,

I am writing as a long-time resident of Arizona who is concerned about water conservation. I grew up in Bisbee and have many happy memories of playing in the San Pedro River, and I do not want to see Arizona lose this regional and national treasure. These same feelings apply to all of Arizona's waterways, including Tanque Verde wash. I value healthy riparian systems and therefore support continued work towards the goal of eradicating Arundo from Tanque Verde wash and enhancing stormwater infiltration to reduce erosion and benefit the creek. **I fully support Watershed Management Group's application WPF2306, "Protecting and Restoring Habitat and Surface Flow in Tanque Verde Creek".**

Sincerely,

Kyle Pakka



Reuben Teran <rteran@azwater.gov>

Public Comment for Arizona Water Protection Fund Grant

1 message

Matthew Jensen [REDACTED]
To: rteran@azwater.gov

Thu, Oct 6, 2022 at 5:04 PM

Dear Reuben,

I am writing as a member of the local community that values healthy riparian systems and supports continued work towards the goal of eradicating Arundo and enhancing stormwater infiltration to reduce erosion and benefit the creek. I fully support Watershed Management Group's application WPF2306, "Protecting and Restoring Habitat and Surface Flow in Tanque Verde Creek".

Sincerely,
Matthew Jensen



Reuben Teran <rteran@azwater.gov>

Public Comment on AWPf grant applications

1 message

Julia Fonseca <Julia.Fonseca@pima.gov>

Tue, Oct 25, 2022 at 1:07 PM

To: "rteran@azwater.gov" <rteran@azwater.gov>

Cc: Robert Padilla <Robert.Padilla@pima.gov>, Eric Shepp <Eric.Shepp@pima.gov>, Linda Mayro <Linda.Mayro@pima.gov>, Karen Simms <Karen.Simms@pima.gov>, Vanessa Prilesen <Vanessa.Prilesen@pima.gov>

On behalf of Pima County, and our Regional Flood Control District, staff has reviewed the applications of all three AWPf projects located in Pima County based on the completed applications provided for review.

Clyne Ranch (WPF2303) is located on land owned by Pima County. This work will be conducted by a new land restoration enterprise, and thus represents an important step in supporting new businesses, as well as contributing to the stewardship of County lands.

Tanque Verde Creek (WPF2306) is located on an important riparian corridor for wildlife as well as a widely used location for outdoor recreation: the lead organization has shown its capability for this kind of work and is supported by the neighboring business and homeowners.

Spring surveys, including some that may be on Pima County lands (WPF2307) will benefit wildlife waters in our region, and the organization has an excellent track record for this work with Pima County.

We encourage your support of all three applications. Thank you for the opportunity to comment!

Julia Fonseca, Environmental Planning Manager

Office of Sustainability and Conservation



Reuben Teran <rteran@azwater.gov>

Public Comment for Arizona Water Protection Fund Grant

1 message

Sarah Wolf [REDACTED]
To: rteran@azwater.gov

Wed, Oct 19, 2022 at 12:17 PM

Dear Reuben,

I am writing as a member of the local community that values healthy riparian systems and supports continued work towards the goal of eradicating Arundo and enhancing stormwater infiltration to reduce erosion and benefit the creek. I fully support Watershed Management Group's application WPF2306, "Protecting and Restoring Habitat and Surface Flow in Tanque Verde Creek".

Sincerely,

Sarah Wolf
Tucson, AZ



Reuben Teran <rteran@azwater.gov>

WPF2306 Arundo Removal

1 message

Bocknine [REDACTED] >

Tue, Oct 11, 2022 at 1:28 PM

To: "rteran@azwater.gov" <rteran@azwater.gov>

Dear Reuben,

I am writing as a member of the Fountain Park community which backs up to the Tanque Verde. We enjoy walking out in the watershed with it's beautiful old cottonwoods. Those trees are in danger due to the drought and Arundo in the watershed is degrading the watershed further. For two years I have volunteered with Watershed Management to help remove Arundo. More work is needed! I value healthy riparian systems and support continued work towards the goal of eradicating Arundo and enhancing storm water infiltration to reduce erosion and benefit the creek. I fully support Watershed Management Group's application WPF2306, "Protecting and Restoring Habitat and Surface Flow in Tanque Verde Creek.

Regards,

Steve Coffman



Reuben Teran <rteran@azwater.gov>

Public Comment on AWPf grant applications

1 message

Julia Fonseca <Julia.Fonseca@pima.gov>

Tue, Oct 25, 2022 at 1:07 PM

To: "rteran@azwater.gov" <rteran@azwater.gov>

Cc: Robert Padilla <Robert.Padilla@pima.gov>, Eric Shepp <Eric.Shepp@pima.gov>, Linda Mayro <Linda.Mayro@pima.gov>, Karen Simms <Karen.Simms@pima.gov>, Vanessa Prilesen <Vanessa.Prilesen@pima.gov>

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Tanque Verde Creek (WPF2306) is located on an important riparian corridor for wildlife as well as a widely used location for outdoor recreation: the lead organization has shown its capability for this kind of work and is supported by the neighboring business and homeowners.

Spring surveys, including some that may be on Pima County lands (WPF2307) will benefit wildlife waters in our region, and the organization has an excellent track record for this work with Pima County.

We encourage your support of all three applications. Thank you for the opportunity to comment!

Julia Fonseca, Environmental Planning Manager

Office of Sustainability and Conservation

**FY 2023
ARIZONA WATER PROTECTION FUND
STAFF REVIEW**

Review Date: October 13, 2022	Application Number: WPF2301	Type: Capital Project
Title: Timberline-Upper Little Colorado River Watershed Improvement Project		
Applicant Name: Arizona Association of Conservation Districts		Requested Amount: \$261,000
AWPF Reviewer: Reuben Teran		Matching Funds: \$160,800

SUMMARY:

The project is located on the Dobson Timberline Ranch, within in Apache County, AZ and the Apache Natural Resource Conservation District. The applicant proposes to treat 1,800 acres of invasive juniper trees to support grassland restoration within the Little Colorado River Watershed (LCRW), with the intent to improve watershed conditions and improve forage for wildlife and livestock by increasing water infiltration and stabilizing soil. Juniper will be treated using heavy equipment with rubber tires to masticate the juniper trees. The project area will also be monitored pre and post treatment to document native vegetation ground cover improvements. Treatment of the proposed 1,800 acres of watershed will build on the previously funded Arizona Water Protection Fund grant #17-188WPF, which borders the proposed project and will build upon the landscape-level improvement of the watershed.

APPLICATION EVALUATION CRITERIA:

Overall assessment of the how the application demonstrates that the proposed project positively meets the evaluation criteria and purpose of the program:

- ☐ High
- ☒ Medium
- ☐ Low

Project Will Enhance, Maintain and/or Restore River, Stream and Riparian Resources

The intent of this project is to improve LCRW conditions by using upland restoration treatments that will allow grassland habitat to reestablish and increase ground cover. The goal is to help reduce overland flow, decrease soil erosion, increase water infiltration, and decrease turbidity throughout the watershed to improve water quality and increase water quantity. This project will have direct benefits to the upland watershed conditions and improve forage for wildlife and livestock, and indirect benefits to river, stream, and riparian resources by restoring proper hydrologic conditions and functions within the watershed.

Project Will Benefit Fish and Wildlife Resources Dependent on River, Stream and Riparian Resources

This project will have direct benefits to terrestrial wildlife resources that inhabit the Dobson Timberline Ranch. The application refers to restoring habitat needs for fish (e.g., endangered Spikedace and Loach Minnow) and reducing turbidity and E. coli in the Little Colorado River; however, the Little Colorado River is approximately 13 miles away from the proposed project area, so any benefits will be indirect. Indirect benefits are also anticipated for riparian obligate/dependent species that inhabit Mineral Creek and Wildcat Creek which are located on the east and west sides of the project area, in addition to the many ephemeral washes and drainages within the treatment areas as overall LCRW watershed conditions improve over time.

Feasibility (Measures appropriate to address issues of concern identified above)

Methodologies and designs clearly presented, appropriate and adequate

Juniper treatment methodologies were not completely described, only that heavy equipment with rubber tires will be used to masticate approximately 600 acres of juniper trees per year for 2-3 years. Mastication work will be subcontracted out as part of the scope of work, but should be feasible to complete the objectives of the project.

Clarity and adequacy of the scope of work and deliverables

Overall the scope of work and deliverables are adequate to implement the proposed project. The scope of work and deliverables do not include project plans for juniper mastication. Details of the vegetation removal effort may be included in the Arizona State Land permit that will need to be issued for the project, but it is not clear at this time. A flexible time schedule should be considered since cultural resource clearance and the Arizona State Land permitting process may take longer than anticipated.

Cost/Benefit compared to similar applications submitted

No similar applications were submitted this grant cycle. As a general reference, the total project cost (including both AWPf funds and matching funds) is approximately \$234/acre.

Expertise of applicant/personnel/subcontractors appropriate

The applicant, project personnel, and use of subcontractors are appropriate to implement the project as proposed.

Description of the relationship between any existing plans, reports and/or information relevant to the proposed project

No existing plans were identified as part of the application.

Monitoring

Objectives clearly identified

Monitoring objectives include 1) characterizing tree stand cover and/or density before and after treatment, and 2) monitoring the effects of the treatment on ground cover and vegetation composition. Overall watershed improvement results may not be apparent for several years after treatment, depending on precipitation and land management.

Methods clearly presented, appropriate and adequate to evaluate benefits to rivers, streams and riparian resources and/or dependent fish and wildlife resources

Monitoring methodologies were described in detail and appear adequate to evaluate vegetation response to juniper mastication treatments. The application references benefit to riparian and dependent wildlife resources, but monitoring to evaluate the benefits to rivers, streams, and riparian resources and/or dependent wildlife resources was not proposed in the application.

Other Considerations:

Coordinated effort with state or watershed restoration programs

This project appears to be coordinated effort between multiple stakeholders and part of a larger landscape level restoration effort.

Public outreach

The project does not propose any public outreach components.

Project will support local businesses

The project should support local businesses through hiring local vegetation removal contractors.

If the applicant is proposing to use out of state consultants, there is adequate justification for their use and associated travel costs

The use of out of state consultants was not described in the application.

Broad-based public involvement and support

Letters of support included with the grant application:

- Apache Natural Resource Conservation District
- Arizona Game and Fish Department
- Arizona Antelope Foundation
- Arizona Department of Forestry and Fire Management
- Mule Deer Foundation
- MH Consulting & Project Management

Matching Funds

Matching funds described in the application include:

- Applicant - \$150,800
- Apache Natural Resource Conservation District - \$10,000*

GENERAL COMMENTS:

- The project was submitted under the Water Conservation category but based on the scope of work it should be considered in the Capital or Other category.
- *Clarification is needed regarding the monitoring component of the project and who will be implementing it. Apache NRCD letter of support states that the Arizona Game and Fish Department will complete pre and post monitoring, and the NRCD has pledged \$10,000 of matching funds for this effort. However, the matching budget identifies AACD technical staff as completing the monitoring.

TECHNICAL (project design, hydrology, biology):

None at this time.

ADMINISTRATIVE, POLICY, INSTITUTIONAL FACTORS:

- The project will be implemented on private and State Trust Lands leased by the Timberline Ranch, who is partnering with the applicant (Arizona Association of Conservation Districts), who has submitted the application on behalf of the Timberline Ranch. A letter of support for the project was provided by the Timberline Ranch in the application, with the acknowledgement that additional permits for the vegetation treatments will need to be obtained from the State Land Department to complete the project.

CONTRACT CONDITIONS THAT WILL NEED TO BE ADDED:

- A project implementation agreement between the applicant and the Dobson Timberline Ranch prior to the development of an AWPf grant award contract if the project is selected for funding.

**FY 2023
ARIZONA WATER PROTECTION FUND
STAFF REVIEW**

Review Date: October 19, 2022	Application Number: WPF2302	Type: Capital Project
Title: Becker Lake Wildlife Area: Little Colorado River Habitat Improvement Project		
Applicant Name: Arizona Game and Fish Department		Requested Amount: \$388,075
AWPF Reviewer: Reuben Teran		Matching Funds: \$30,100

SUMMARY:

The Arizona Game & Fish Department (AGFD) is undertaking a project to improve wildlife habitat and riverscape function along a 1.2-mile corridor of the Little Colorado River (LCR) through Becker Lake Wildlife Area (BLWA). Since 2019 the Arizona Game & Fish Department and project partners have invested over \$55,000 toward the completion of assessment, design, and compliance tasks for the project. The overall goal of the project is to improve morphological and ecological diversity of the LCR riverscape through Becker Lake Wildlife Area and help build a resilient and sustaining system that directly benefits stream and floodplain function, habitat for fish and wildlife, recreational opportunities for the public, and efficiency of working lands.

The applicant is proposing to implement the following are restoration practices:

- Floodplain/Backwater Connection, Re-contouring, and Enhancement - Reconnect, re-contour, and enhance 2.45-acres of relic floodplain channels to help distribute and attenuate frequent flood flows (\pm 2-year events) over 15.7-acres of riparian meadow floodplain. Reconnect the river to these floodplain features by excavating 5,400 cubic yards of soil to create wide, shallow swales to provide flood relief and spread and slow flows while also reducing shear stress on streambanks during frequent floods. Shape existing relic channels and strategically place woody debris to increase habitat complexity and roughness.
- River Walk Trail Improvements - Strategically relocate and improve 2,760 feet of the river walk trail to provide an additional 4.7-acre riparian buffer for natural river processes, beaver and other wildlife activity, and agricultural activities. Create an elevated, multi-course, compacted trail prism, with weed barrier underlay, to improve drainage and surface conditions and reduce maintenance. Decommission abandoned sections of trail as required, and salvage/re-use drainage culverts.
- Streambank Soil Bioengineering - Construct a 180-foot-long floodplain bench at the outside of a severely eroded meander bend near the parking area to reduce bank erosion potential, add flood relief, and create a stable platform for dense riparian and wetland plantings. Strategically embed graded rock and boulders within the bench and toe of slope to add erosion protection and protect native plantings.
- Native Revegetation: Riparian Sod & Willow Clump Transplants - Harvest and strategically plant a mosaic of native wetland and riparian vegetation, including 2.45 acres of riparian sodmat and 290 willow clumps, to provide soil stabilization, cover, and habitat. Augment with 0.5-acres of native seed and mulch.

APPLICATION EVALUATION CRITERIA:

Overall assessment of the how the application demonstrates that the proposed project positively meets the evaluation criteria and purpose of the program:

- ☒ High
- ☐ Medium
- ☐ Low

Project Will Enhance, Maintain and/or Restore River, Stream, and Riparian Resources

The project clearly identifies and demonstrates direct benefits to river, stream, and riparian resources by restoring native riparian vegetation and habitat; restoring proper hydrologic conditions and functions; restoring proper stream geomorphology and channel characteristics; restoring floodplain connectivity; and restoring historic wetland and backwater habitats.

Project Will Benefit Fish and Wildlife Resources Dependent on River, Stream, and Riparian Resources

The project has a high potential to protect and restore habitat needs for both aquatic and terrestrial wildlife resources that inhabit the project area.

Feasibility (Measures appropriate to address issues of concern identified above)

Methodologies and designs clearly presented, appropriate and adequate

Methodologies and designs are clearly presented, and include completed engineering drawings and construction plans. The application also included environmental compliance documentation that appears to be complete to implement the project in a timely manner.

Clarity and adequacy of the scope of work and deliverables

Overall, clarity and adequacy of the scope of work and deliverables is evident in the application. However, staff noted that the deliverable for the completed project construction report was targeted for 2023. If the project is not able to be completed in 1 year or less, then multiple progress report deliverables and reimbursement due dates should be considered given the Task cost of \$338,675. With only one deliverable and completion report, the grantee would need to have the cash flow available to cover all construction costs and only request reimbursement after the construction and associated deliverables were submitted and approved.

Cost/Benefit compared to similar applications submitted

There were no similar applications submitted this grant cycle. Costs for implementing this type of project could be considered high, but the long-term benefits to riparian habitats, water quality, and wildlife resources is also high.

Expertise of applicant/personnel/subcontractors appropriate

The applicant, project personnel, and proposed use of subcontractors are appropriate to implement the project as proposed.

Description of the relationship between any existing plans, reports and/or information relevant to the proposed project

This project is being implemented under the guidelines of the Becker Lake Wildlife Area Operational Management Plan, and engineering and construction documents have been developed specifically for the implementation of this project.

Monitoring

Objectives clearly identified

Monitoring objectives were clearly identified, and includes monitoring floodplain channels and near stream wetland backwaters, monitoring the bank erosion potential of cut banks, and native species vegetation response to restoration. A fully detailed monitoring plan will be developed as part of the scope of work.

Methods clearly presented, appropriate and adequate to evaluate benefits to rivers, streams, and riparian resources and/or dependent fish and wildlife resources

The applicant proposes to collect baseline and post-construction monitoring photos at established monumented points; and on-the-ground data for wetland vegetation response, channel/bank migration within new buffer area, flood frequency/floodplain activity, wetted/inundated area, and beaver activity. Data collection for these components will also be augmented with georeferenced drone orthoimagery. In addition, the applicant proposes to establish shallow piezometer/monitoring wells with water level data loggers to constantly measure changes in water level within the floodplain channels and backwaters; and establish long-term timelapse cameras at strategic points in floodplain channels to supplement water level data.

Two additional monitoring objectives were mentioned in the application that, while part of the overall project area improvements, do not directly relate to river and riparian resources. These included monitoring agricultural tailwater ditches and improvements to the river walk trail.

Other Considerations:

Coordinated effort with state or watershed restoration programs

It was not clear if this project was part of a larger watershed restoration program, but it does fall under the Becker Lake Wildlife Area Operational Management Plan.

Public outreach

A specific public outreach component was not proposed as part of the project, but the area is open to the public for wildlife viewing. A component of the project will re-locate and improve a river-walk trail for public access and recreation.

Project will support local businesses

The project has a high potential to support local businesses through contracting and material purchases.

If the applicant is proposing to use out of state consultants, there is adequate justification for their use and associated travel costs

The application did not contain any references to the use of out-of-state consultants or associated travel costs.

Broad-based public involvement and support

2 letters of support were included with the grant application, but these letters were from within the applicant's agency and not necessarily from the public. The letters were from the Arizona Game and Fish

Department's Statewide Native Aquatics Program Manager and Region 1 Aquatic Wildlife Program Manager.

Matching Funds

A letter of commitment of matching funds was provided by Oxbow Ecological Engineering in the amount of \$6,629.35. Other matching funds for the project are being provided directly by the applicant.

GENERAL COMMENTS:

As noted above, there were restoration objectives that were part of the overall project improvements, but not necessarily related to river and riparian resources. These included monitoring frequency/amount of irrigation events use, system function of the agricultural tailwater ditches on the working agricultural lands, and system response and improvements to the river walk trail.

TECHNICAL (project design, hydrology, biology):

- Page 77 of the application states "the contractor shall provide dewatering and/or diversion provisions that allow drainage from the work site during construction and allow the proper construction and installation of items listed.... All temporary fills, crossings, culverts, or other facilities necessary to promote drainage will be installed and removed at the Contractors expense prior to acceptance of the work." And page 98 states "to achieve proper moisture content and compaction for foundations and backfill, surface and subsurface water will need to be controlled..."

External review of the application indicated that more information is needed regarding the dewatering and/or diversion provisions that allow drainage from the work site. The diversion of water may require a surface water right.

- External review of the application suggested that the applicant consult and/or coordinate with the Apache County Flood Control District on the project since floodplain restoration and manipulation activities will be implemented as part of the project.

ADMINISTRATIVE, POLICY, INSTITUTIONAL FACTORS:

- AWPf grant 99-092WPF: Little Colorado River Enhancement Demonstration Project was implemented at the project site (2000-2006) by the Apache Natural Resource Conservation District (Grantee) when the property was privately owned by Gary and Cheryl Enders. In 2002 the property was sold to the Arizona Game and Fish Commission, who partnered with the Apache Natural Resources Conservation District to complete the project. The applicant is proposing to implement similar restoration actions within the project area to compliment the restoration completed during the demonstration project implementation.
- The operation and maintenance (O&M) clause from grant 99-092WPF indicates that O&M shall be for 20 years following the effective date of the grant award contract. That agreement was executed in June 2000, so O&M responsibilities are no longer applicable for that previous grant.
- The application makes references to improve and monitor agricultural tailwater ditches to prevent trail flooding and to support efficient irrigation on Arizona Game and Fish Department lands. Although costs for these specific components were not specifically identified in the detailed budget, they are mentioned in the engineering designs and scope of work as an action that would be

implemented through this project. The project components related to agricultural tailwaters and land irrigation do not appear to be related to the goals of the AWPf, and staff requests the Commission's determination if these specific components should be included in the AWPf scope of work.

CONTRACT CONDITIONS THAT WILL NEED TO BE ADDED:

- Consultation with the Apache County Flood Control District to determine if any floodplain restoration permits or authorizations will be necessary for the project, and a deliverable for the applicable permit/authorization, if deemed necessary.
- Consultation with the Arizona Department of Water Resources Surface Water Program to determine if a surface water right will be necessary for the project, and a deliverable for the applicable surface water right documentation, if deemed necessary.

**FY 2023
ARIZONA WATER PROTECTION FUND
STAFF REVIEW**

Review Date: October 26, 2022	Application Number: WPF2303	Type: Capital Project
Title: The Clyne Ranch Project		
Applicant Name: The Clyne Foundation		Requested Amount: \$80,000
AWPF Reviewer: Reuben Teran		Matching Funds: \$0*

SUMMARY:

The application states that the goals of this project are to raise the local water table to benefit the community, encourage groundwater recharge, combat excessive erosion, and restore the grassland ecosystem of the Sonoita valley. This is planned to be accomplished through the strategic construction of gabions and check dams in an ephemeral wash, and hügelkultur mounds will be built in two flood prone zones outside of the wash. The applicant proposes to support these restoration efforts by planting native vegetation and growth manipulation of mesquite trees to shade waterways near the constructed gabions, check dams and hügelkultur structures. The complementing effects of hügelkultur mounds constructed with gabions and check dams are intended to ensure the maximum absorption and retention of water by the soil. A total of 6 gabions, 100 check dams, and two fields of hügelkultur will be constructed on the Clyne Ranch.

APPLICATION EVALUATION CRITERIA:

Overall assessment of the how the application demonstrates that the proposed project positively meets the evaluation criteria and purpose of the program:

- ☐ High
- ☐ Medium
- ☒ Low

Project Will Enhance, Maintain and/or Restore River, Stream, and Riparian Resources

The project proposes to benefit the local water table, encourage groundwater recharge, combat excessive erosion, and restore the grassland ecosystem of the Sonoita valley by enhancing an ephemeral wash's hydrologic and adjacent floodplain conditions and restoring native riparian vegetation.

Project Will Benefit Fish and Wildlife Resources Dependent on River, Stream, and Riparian Resources

The project has the potential to enhance habitat resources such as increased native vegetation diversity for wildlife that utilize the ephemeral wash and surrounding floodplain.

Feasibility (Measures appropriate to address issues of concern identified above)

The application did not clearly articulate any objectives related to benefitting the ephemeral wash, riparian habitats, or dependent fish and wildlife resources. The stated objectives of the overall project to raise the local water table to benefit the community, encourage groundwater recharge, combat excessive erosion, and restore the grassland ecosystem of the Sonoita valley appear to be indirectly related to the proposed restoration activities, but could be realized in the future.

Methodologies and designs clearly presented, appropriate and adequate

The proposed methodologies appear appropriate to enhance the ephemeral wash and associated floodplain; however, it was not clear if any hydrological principles or engineering practices are going to be applied to the design and/or installation of the in-channel features since they appear to be larger structures that could strongly influence ephemeral stream flow and downstream hydrology.

Clarity and adequacy of the scope of work and deliverables

- Task 2 of the application refers to permits and authorizations. Based on the proposed size and dimensions of the gabions, check dams, and hügelkultur mounds, a surface water right may be necessary if it is determined that these structures could or would retain surface water flows according to state water law.
- The application scope of work did not specify reporting deliverables that would document the progress and/or completion of installed features, revegetation, or monitoring components. Staff recommends that progress report deliverables be included in the scope of work to facilitate project tracking, and provide a means for cost reimbursements throughout the life of the project.
- The application did not contain a Task or associated deliverable for a project final report. Staff recommends that a Task and final report deliverable be added to the scope of work.

Cost/Benefit compared to similar applications submitted

No similar applications were submitted in this grant cycle to evaluate the cost/benefit of this particular project. The detailed budget was not clear on what AWPf funds would specifically be used to support.

Expertise of applicant/personnel/subcontractors appropriate

The application did not contain any past project related experience(s) for the applicant, project personnel, or subcontractors to assess if they have appropriate or related expertise to implement the project as proposed.

Description of the relationship between any existing plans, reports and/or information relevant to the proposed project

The application did not contain a description of any existing plans or information relevant to the proposed project.

Monitoring

Objectives clearly identified

Monitoring objectives included collecting pre and post restoration assessments on groundwater depth, water quality, soils data (moisture, carbon, nutrient, and microbe contents), bird species diversity and abundance, mammal species diversity and abundance, and plant species diversity and abundance.

Monitoring of the proposed gabions, check dams, and native riparian vegetation was not included as part of the scope of work for this project. This information could have been helpful to assess the benefits of these structures to the riparian and ephemeral stream system.

Methods clearly presented, appropriate and adequate to evaluate benefits to rivers, streams and riparian resources and/or dependent fish and wildlife resources

- Proposed monitoring locations were described in the application, but methods on how data would be collected, or examples of sample data sheets, were not included in the application. It appears that a hyperlink describing the proposed monitoring protocols was intended to be added into the tables of Task #1 and #5 in the application's scope of work, but it was not an active hyperlink.
- The proposed monitoring goals appear to be focused on assessing the benefits to groundwater resources, soil status, and biodiversity, and not necessarily documenting improvements to the stream channel and/or riparian resources. The application does state that the proposed monitoring data will be collected by a university certified surveyor.

Other Considerations:

Coordinated effort with state or watershed restoration programs

The application was not clear if this project is a coordinated effort with other state or watershed restoration programs.

Public outreach

The scope of work does not include a specific public outreach component, but the budget does make reference to "Volunteer events on the Ranch".

Project will support local businesses

The proposed project has a high potential to support local businesses through contracting services and material purchases.

If the applicant is proposing to use out of state consultants, there is adequate justification for their use and associated travel costs

A line item in the budget identifies \$6,000 in flight costs for travel between Tucson and California for collaborations, which would appear fall under the use of out of state consultants. It was not clear who the out-of-state consultants are, or what role they would play in this project. Adequate justification for these costs was not provided in the application.

Broad-based public involvement and support

Letters of support included with the grant application:

- Todd and Rachael Allard
- John Hubbell
- Diego Rubi
- Pima County – Note: the letter provided in the application was not dated or signed.

Letters received during the 45-day public comment period:

- Pima County

***Matching Funds**

- A matching funds budget was provided in the application, but it was not clear how the amounts stated directly related to the implementation of the proposed project. The cover page of the application states \$80,000 of project match from the Border Environmental Infrastructure Fund, but no supporting information or letter of support/fund award documentation was provided with the application. The cover page of the application states that the Border Environmental Infrastructure Fund application is pending. Staff could not verify if these funds have been obtained and secured as a cost share for this project.

GENERAL COMMENTS:

- AWPf grant request on the application cover page is \$80,000, and shows \$80,000 in matching funds (= \$160,000). The total task funds identified in the application scope of work = \$192,000; however, the detailed budget request for AWPf totals \$192,830.90. It is not clear if the applicant is requesting \$80,000 or \$192,000, or what specific line items in the budget AWPf funds will be supporting.

See ADMINISTRATIVE, POLICY, INSTITUTIONAL FACTORS section below for more comments related to the proposed budget.

- Cultural resource surveys will be subcontracted as part of the project, with a subcontractor selected post grant-award as part of the scope of work. It was not clear if the restoration actions (gabion construction, check dams, Hügelskultur mounds, etc.) will be constructed by a contractor or on-site staff.
- A flexible timeline should be considered as part of a grant award contract to allow for ample time to obtain all permits and complete project work to minimize any delays in grant deliverable submission.
- Restoration plans are proposed to be submitted to the US Army Corp of Engineers for review, in addition to Pima County for review. It was not clear if there could be any modifications to the proposed project actions based on the review from these entities.
- The project design may have the potential to impound surface water as part of the construction of gabions and check dams. Further consultation with the Arizona Department of Water Resources Surface Water Program is necessary to determine if a surface water right is necessary.
- The application cover page identified the project type as Water Conservation, however based on the scope of work it should be identified as a Capital project.

TECHNICAL (project design, hydrology, biology):

- The application was not clear if any planned engineering will be incorporated into the actual placement of the gabions, check dams, or hügelkultur structures. Since it appears that floodplain features will be affected, staff recommends the applicant also coordinate with the Pima County Flood Control District as part of the scope of work.

ADMINISTRATIVE, POLICY, INSTITUTIONAL FACTORS:

- Control and tenure of the project area was not clearly documented in the application. A project location map submitted with the application shows a yellow circle on what appears to be lands owned by Pima County, and lettered areas on another map that appear to be on private property. The applicant is the Clyne Foundation with the project locations identified on the Project Location and Environmental Contaminant Information form as the Clyne Ranch owned by Doc Clyne, and Pima County lands. The documentation provided by the applicant for control and tenure of the land was that it was "Not Applicable".

A letter of support for the project from Pima County Parks and Recreation was included in the application, but the letter was not signed or dated, nor did it provide clear documentation about allowing access or supporting work on Pima County lands. A follow-up conversation between AWPf staff and Pima County Parks and Recreation Department validated that the unsigned letter was in-fact provided by Pima County Parks and Recreation Department for the grant application.

The legal access to the private property was not fully documented and needs clarification on the relationship between the Clyne Foundation and Doc Clyne. Pima County parcel records show the proposed project areas have various owners: Pima County, Death Trap Holding Co LLC, and Anderson Janet Clyne.

The application has a statement that reads “Access to site is granted through The Clyne Ranch and Pima County Land. We are working with and have permission from both organizations to proceed.” However, documentation of access or permission was not included in the application, or during the public comment period.

- Clarification on the proposed project budgets for both the AWPf request and cost share funds is needed. The project tasks in the scope of work and detailed budget forms both accounted for all project costs, and not specifically for the AWPf fund request of \$80,000. Staff noted that the Administration line item identified \$9,000 for “Contribution to organization salaries”. It is not clear if this is actual staff time salary budget, or true overhead/administration budget. Per statute AWPf is limited to a maximum of 5% administration costs. With all other project costs considered, allowable administrative costs should not exceed \$3,810 with their total grant request of \$80,000.
- Staff noted requests for funding for items such as “Flights...Flights to Tucson and California for collaborations”, “Property Rent....Monthly payments to use the land from land owners”. It is not clear if AWPf funding is being requested to pay for these costs, or if they will be paid for by matching funds. The detailed budget for the project combined both the AWPf fund request and matching funds into one table.
- The scope of work references that native trees, shrubs, and grasses will be planted along each structure, and that existing mesquite trees will be pruned and trained to direct the growth of the canopy to provide shade for the ephemeral waterway and installed structures. Per state statute AWPf funds cannot be used for the planting of mesquite trees. Although the application did not specifically mention purchasing or planting mesquite trees as part of the revegetation effort, the applicant should be advised that costs for the purchase and/or planting of mesquite trees would not be eligible for reimbursement.

CONTRACT CONDITIONS THAT WILL NEED TO BE ADDED:

- Documentation of control, tenure, and authorized access to all portions of the project area from all affected landowners/land managers prior to the development of a grant award contract if the project selected for funding.
- Consultation with the Arizona Department of Water Resources Surface Water Program to determine if a surface water right will be necessary for the project, and a deliverable for the applicable surface water right documentation, if deemed necessary. If it is determined that the stormwater structures are only detaining water, staff recommends incorporating a maintenance plan deliverable into the

scope of work to assure that water will not be retained in the future.

- Consultation with the Pima County Flood Control District to determine if any floodplain restoration permits or authorizations will be necessary for the project, and a deliverable for the applicable permit/authorization, if deemed necessary.
- Consultation with the Arizona Department of Environmental Quality to determine if any necessary stormwater pollution or Clean Water Act related permits are required for this project, and a deliverable for the applicable permit/authorization, if deemed necessary.
- Staff recommends copies of the monitoring plans or protocols that will be used for this project be added as a deliverable to the scope of work.
- Staff recommends that progress report deliverables be included in the scope of work to facilitate project tracking, and provide a means for cost reimbursements throughout the life of the project.
- Staff recommends including a Task and associated deliverable for a project final report be added to the scope of work.

**FY 2023
ARIZONA WATER PROTECTION FUND
STAFF REVIEW**

Review Date: October 31, 2022	Application Number: WPF2305	Type: Capital Project
Title: Water Crossing Improvements on Unnamed Tributary at Chase Creek 2: East Verde Watershed Protection		
Applicant Name: National Forest Foundation		Requested Amount: \$181,230
AWPF Reviewer: Reuben Teran		Matching Funds: \$27,906

SUMMARY:

The National Forest Foundation (NFF) proposes to improve the conditions of the East Verde River (EV) Watershed by improving water quality and enhancing Gila trout habitat on the Unnamed Tributary to Chase Creek 2. Improvements will include constructing a crossing for pedestrian users (hikers and bikers currently cross the stream directly), and a hardened crossing path for equestrian recreationists and cattle downstream of the pedestrian crossing. The project proposes to prevent erosion, reduce sediment deposition and transport, improve stream quality, enhance Gila Trout habitat, and providing long-term protection to riparian resources. The construction and hardening of these proposed water crossings at Unnamed Tributary to Chase Creek 2 also intends support the ongoing trail work within the Tonto National Forest, and increase the sustainability of the EV Headwaters Watershed and habitat. The bridge and hardened crossing are important components of the Tonto National Forest Watershed Restoration Plan and will serve as essential community resources to be used for the public and for natural resource benefit.

APPLICATION EVALUATION CRITERIA:

Overall assessment of the how the application demonstrates that the proposed project positively meets the evaluation criteria and purpose of the program:

- ☐ High
- ☒ Medium
- ☐ Low

Project Will Enhance, Maintain and/or Restore River, Stream, and Riparian Resources

The project proposes to prevent downstream erosion and sediment deposition, and improve watershed health and water quality.

Project Will Benefit Fish and Wildlife Resources Dependent on River, Stream, and Riparian Resources

The project proposes to restore water quality and support aquatic habitat needs of recovering endangered Gila trout populations by lowering the turbidity level of the streams where they have been reestablished.

Feasibility (Measures appropriate to address issues of concern identified above)

Methodologies and designs clearly presented, appropriate and adequate

Proposed methodologies for a pedestrian bridge stream crossing structure and hardened in-stream crossing structure, and preliminary engineering designs, are clearly presented and appear appropriate to meet the

project objectives.

Clarity and adequacy of the scope of work and deliverables

The scope of work and deliverables are clearly described and adequate to facilitate implementation of this project.

Cost/Benefit compared to similar applications submitted

There are no similar proposals submitted in this grant cycle, but costs appear reasonable for the proposed scope of work.

Expertise of applicant/personnel/subcontractors appropriate

The applicant, project personnel, and subcontractors are appropriate to implement the project as proposed.

Description of the relationship between any existing plans, reports and/or information relevant to the proposed project

Existing plans and reports related to the proposed project include:

- Tonto National Forest East Verde River Headwaters Restoration Action Plan
- Biological Assessment - Payson Area Trail Improvement Project (Highline, Arizona, Red Rock, and Strawberry Trails)
- Hydrologic Report and Summary of Findings for Chase Creek Trail Bridge
- Decision Memo – Trail Re-Route and Maintenance Project

Monitoring

Objectives clearly identified

Not Applicable.

Monitoring activities were not proposed as part of the scope of work for this project. However, the application did state: “Future monitoring activities and water quality assessments related to the Water Crossing Improvements at the Unnamed Tributary to Chase Creek 2 are laid out in the signed East Verde River Headwaters Watershed Restoration Action Plan. Activities that would be conducted under this plan include repeat analysis of road and trail conditions, monitoring of riparian vegetation and aquatic habitat, and water quality assessment. The Tonto National Forest is the managing entity responsible for long term monitoring and management.”

Methods clearly presented, appropriate and adequate to evaluate benefits to rivers, streams, and riparian resources and/or dependent fish and wildlife resources

Not Applicable.

Other Considerations:

Coordinated effort with state or watershed restoration programs

The proposed project is a part of the East Verde River Headwaters Watershed Restoration Action Plan.

Public outreach

A specific public outreach component was not proposed as part of the scope of work, but it appears that public volunteer crews will be used to help during the construction activities.

Project will support local businesses

The project has the potential to support local businesses through construction contracting and material purchases.

If the applicant is proposing to use out of state consultants, there is adequate justification for their use and associated travel costs

Not Applicable.

Broad-based public involvement and support

Letters of support included with the grant application:

- USDA Forest Service – Payson Ranger District
- Arizona Trail Association
- Arizona Council Trout Unlimited / Gila Trout Chapter #530 Trout Unlimited

Matching Funds

Matching funds will be provided by:

- Applicant - \$20,000
- USDA Forest Service partner Volunteers/In-Kind - \$7,906

GENERAL COMMENTS:

None at this time.

TECHNICAL (project design, hydrology, biology):

None at this time.

ADMINISTRATIVE, POLICY, INSTITUTIONAL FACTORS:

None at this time.

CONTRACT CONDITIONS THAT WILL NEED TO BE ADDED:

None at this time.

**FY 2023
ARIZONA WATER PROTECTION FUND
STAFF REVIEW**

Review Date: October 27, 2022	Application Number: WPF2306	Type: Capital Project
Title: Protecting and Restoring Habitat and Surface Flow in Tanque Verde Creek		
Applicant Name: Watershed Management Group		Requested Amount: \$195,426*
AWPF Reviewer: Reuben Teran		Matching Funds: ~\$44,325*

SUMMARY:

The goals of this proposed project are to preserve intermittent flows in Tanque Verde Creek and enhance the area's riparian habitat through community-based restoration efforts. The proposed project area falls within a shallow groundwater area that supports riparian habitats in Tanque Verde Creek. This project will focus on 1) treating invasive Giant cane (*Arundo donax*) along an intermittent reach of Tanque Verde Creek, stretching approximately 4 miles from Wentworth Road down to Houghton Road in the City of Tucson, AZ; and 2) implementing approximately 4-6 stormwater restoration projects on the Tanque Verde Creek floodplain to benefit the overall riparian health and hydrology of Tanque Verde Creek. Stormwater restoration features will consist of channel and landscape restoration rock features such as one-rock dams, media lunas, and slope stabilization, as well as native plantings paired with stormwater harvesting basins to capture and retain stormwater.

The project objectives are to:

- 1) Eradicate invasive *Arundo donax* from this upstream reach of Tanque Verde Creek to conserve shallow groundwater and restore native riparian habitat.
- 2) Reduce erosion and stormwater flooding impacts from adjacent parcels and neighborhood street landscape areas impacting Tanque Verde Creek's riparian floodplain habitat to improve water quality and increase stormwater infiltration.
- 3) Increase stewardship of Tanque Verde Creek by deepening community connections through community science monitoring of flow permanence, implementing a native vegetation response plan to *Arundo* removal, and engage residents and businesses in stormwater restoration efforts.

APPLICATION EVALUATION CRITERIA:

Overall assessment of the how the application demonstrates that the proposed project positively meets the evaluation criteria and purpose of the program:

- ☐ High
☒ Medium
☐ Low

Project Will Enhance, Maintain and/or Restore River, Stream, and Riparian Resources

The removal invasive vegetation and post treatment native vegetation pole planting/revegetation will have direct benefits to Tanque Verde Creek and native riparian habitat.

The application states that the project will support restoring local hydrological conditions by constructing stormwater retention features on the floodplain of Tanque Verde Creek to support stormwater infiltration,

reduce erosion, and improve water quality. However, based on the project map provided with the application, it appears that most of the initial stormwater sites are located in areas of high residential development with limited or no obvious tie directly to Tanque Verde Creek. The benefits to the riparian habitat and/or floodplain for this part of the project were not clearly demonstrated. In addition, if there are natural or existing drainage features where these stormwater projects will be constructed, there is a high potential that a surface water right may be needed if the intent of these stormwater projects is to retain flow within the natural drainages as this water becomes subject to appropriation under state water laws.

Project Will Benefit Fish and Wildlife Resources Dependent on River, Stream, and Riparian Resources

The removal of invasive vegetation and native plant revegetation has a high potential to enhance Tanque Verde Creek riparian habitats and support wildlife resources that use the creek.

Feasibility (Measures appropriate to address issues of concern identified above)

Methodologies and designs clearly presented, appropriate and adequate

- Methodologies for the *Arundo* removal part of the project are clearly presented and adequate. The locations of the erosion control and stormwater retention basin project features, and their proximity and/or ties to Tanque Verde Creek were not clear since most appear to be located within residential development.
- Monitoring methodologies appear appropriate to assess the riparian vegetation response and annual flow trends in Tanque Verde Creek.

Clarity and adequacy of the scope of work and deliverables

- Staff recommends Tasks #1 and #2 be broken up into separate tasks. One Task for permitting and clearances, and subsequent tasks for *Arundo* eradication and stormwater harvesting. Staff also recommends these subsequent tasks include progress report deliverables throughout the project timeframe instead of one report at the end of the project or completed action.
- Task #3 references the development of a long-term monitoring and management plan for Tanque Verde Creek; however, there was not a deliverable identified for this action. Staff recommends adding the submittal of this plan to the scope of work.

Cost/Benefit compared to similar applications submitted

No similar applications were submitted this grant cycle, but costs appear reasonable for the scope of work.

Expertise of applicant/personnel/subcontractors appropriate

The applicant, project personnel, and subcontractors are appropriate to implement the project as proposed.

Description of the relationship between any existing plans, reports and/or information relevant to the proposed project

The following plans or reports were referenced in the application:

- Lower Santa Cruz River Basin Study, Bureau of Reclamation:
<https://www.usbr.gov/lc/phenix/programs/lscrbasin/LSCRBSMDOCS.html>
- Pima Association of Government's 2012 Shallow Groundwater Report:
<https://pagregion.com/sustainability/water-quality/water-reliability/>

- Santa Cruz Watershed Collaborative, A Watershed Restoration Plan, adopted 2022:
<https://sites.google.com/site/santacruzcollaborative/plan-resources/plan>

Monitoring

Objectives clearly identified

The application states that monitoring will include 9 existing vegetation monitoring plots with established protocols under the guidance of Carianne Campbell of Strategic Habitats, who will also be hired as a contractor according to the proposed project budget.

The application also references that the applicant will train and supervise a team of community volunteers, known as our Flow365 monitors, to specifically support Tanque Verde Creek flow monitoring and data collection.

Methods clearly presented, appropriate and adequate to evaluate benefits to rivers, streams, and riparian resources and/or dependent fish and wildlife resources

General methods for monitoring were mentioned in the application. It appears that fully developed protocols for the vegetation monitoring have been established through support from the Strategic Habitats organization; and protocols are available for flow monitoring. Staff recommends copies of the vegetation monitoring protocols and flow monitoring protocols to be used for this project be added to the scope of work as deliverable.

Other Considerations:

Coordinated effort with state or watershed restoration programs

The proposed project activities are identified as part of the Santa Cruz Watershed Collaborative Watershed Restoration Plan.

Public outreach

The applicant proposes to provide informational presentations, mailings, and targeted emails to engage local residents, community members, and businesses to assist with restoration and maintenance efforts, monitoring, and to share annual reports on flow and *Arundo* treatment results.

Project will support local businesses

This project has the potential to support local businesses through the use of contracting services and material purchases.

If the applicant is proposing to use out of state consultants, there is adequate justification for their use and associated travel costs

Out of state consultants were not identified in the application.

Broad-based public involvement and support

Letters of support included with the grant application:

- Nik Crosby
- Pima County Flood Control District
- Forty Niners Country Club
- Forty-Niner County Club Estates Homeowners Association

Letters received during the 45-day public comment period:

- Susanna Schippers
- Bethany DeRango
- Catherine Evilsizor
- Dudley and Linda Emer
- Eve Shapiro
- Joelle Coffman
- Kye Pakka
- Matthew Jenson
- Pima County
- Sarah Wolf
- Steve Coffman

*Matching Funds

- It appears that the \$2,000 amount in Task #1 inadvertently showed up as \$20,000 total, which overstates the total amount of matching funds for this Task. Also, matching funds for Task #4 only include \$125 for administrative costs, with no actual project related funding to account for these administrative costs.
- The administrative costs for matching funds varied among the different tasks. The description states administrative costs (5% direct match and 5% of requested funds), however it was not entirely clear how the administrative costs were calculated.
- In general, matching costs appear to be approximately \$20,000+ less than what is stated on the application cover page.

GENERAL COMMENTS:

WMG plans to continue to engage adjacent landowners to formally request permission to access and remove *Arundo*. A landowner access agreement form has been developed and will be shared with landowners for project area access. Letters of support submitted with the application include Forty-Niners Country Club, Forty-Niners Country Club Estates Homeowners Association, Nik Crosby, and Pima County Regional Flood Control District, who include the most strategic access points and portions of the creek. Formal access and project implementation agreements with these and other landowners will need to be provided if project is selected for funding.

TECHNICAL (project design, hydrology, biology):

Clarification is needed on the specific locations of the erosion control and stormwater management activities. The application states that 4-6 stormwater restoration features will consist of channel and landscape restoration rock features such as one-rock dams, media lunas, and slope stabilization, as well as native plantings paired with stormwater harvesting basins to capture, retain, and infiltrate stormwater. If these features are constructed within an existing natural channel then a surface water right may be necessary.

More information is needed regarding the specific placement of erosion control and stormwater management aspects of this project if the application is selected for funding.

ADMINISTRATIVE, POLICY, INSTITUTIONAL FACTORS:

- The detailed budget for Task #1 identified “Volunteer workday snacks and refreshments” totaling \$720. However, information in Task #2 stated that these costs would be covered by the landowner/neighborhood association. Typically, the only reimbursement for food related items authorized is for per diem when traveling on project related work. Staff recommends these costs and associated overhead (\$36) be removed from the AWPf fund request.
- It appears the detailed budget for Task #3 inadvertently omitted costs totaling \$500 (Outreach Materials). These could be added into the grant request budget (with 5% overhead at \$25).
- *Original grant request = \$195,657 [- \$756 (Task 2) + \$525(Task 3)] = **\$195,426**
- Based on these statements in the application, it appears the applicant may plan to transfer long-term maintenance responsibilities to the landowners/ land managers. As part of an AWPf grant award contract, the operation and maintenance for any grant assisted structure is 20 years.
 - The application states “The landowner/neighborhood association will also agree to monitor performance of the restoration features and assume maintenance responsibilities. WMG will assist the landowner/neighborhood association with maintenance trainings and oversight during the duration of this grant. A maintenance and establishment guide will be provided to each landowner/neighborhood association.”

CONTRACT CONDITIONS THAT WILL NEED TO BE ADDED:

- Formal access and/or project implementation agreements between the applicant and the Forty-Niners Country Club, Forty-Niners Country Club Estates Homeowners Association, Nik Crosby, and Pima County Regional Flood Control District, prior to the development of a grant award contract if the project is selected for funding. Access agreements with other landowners after the project has commenced could be submitted as part of the scope of work.
- Staff recommends Tasks #1 and #2 be broken up into separate tasks . One Task for permitting and clearances, and subsequent tasks for *Arundo* eradication and stormwater harvesting. Staff also recommends these subsequent tasks include progress report deliverables throughout the project timeframe instead of one report at the end of the project or completed action.
- Consultation with the Arizona Department of Water Resources Surface Water Program to determine if a surface water right will be necessary for the project, and a deliverable for the applicable surface water right documentation, if deemed necessary. If it is determined that the stormwater structures are only detaining water, staff recommends incorporating a maintenance plan deliverable into the scope of work to assure that water will not be retained in the future.
- A deliverable for a long-term monitoring and maintenance plan to be developed as part of the scope of work.
- A deliverable for a copy of the vegetation monitoring protocols that will be used for the project.
- A deliverable for a copy of the flow monitoring protocols that will be used for the project.

- Clarification from the Commission on questionable budget items (Volunteer workday snacks and refreshments = \$756).
- Clarification from the Commission on operation and maintenance expectations for the applicant and/or potential to transfer these responsibilities to a 3rd party.

**FY 2023
ARIZONA WATER PROTECTION FUND
STAFF REVIEW**

Review Date: October 28, 2022	Application Number: WPF2307	Type: Research Project
Title: Protecting Arizona Springs		
Applicant Name: Sky Island Alliance		Requested Amount: \$53,356
AWPF Reviewer: Reuben Teran		Matching Funds: \$59,000

SUMMARY:

The overall goals of the project are to establish protection for at least 30% of springs on State and private lands under the Arizona Department of Environmental Quality's (ADEQ) Surface Water Protection Program. The applicant is proposing to survey at least 500 springs over the next 5 years (approximately 100 springs per year) on State and private lands to be able to nominate them for ADEQ's Protected Surface Waters List (PSWL). Project activities would include engaging approximately 100 community scientists and approximately 20 private landowners in surveying springs to contribute data and protect the Springs of Arizona. Spring surveys would entail using a simple smart phone app to collect data and site photographs of spring conditions through the Sky Island Alliance's Spring Seeker Program (www.skyislandalliance.org/springseeker). Funding is also being requested to analyzing existing spring data and formatting it into nominations for any springs that would qualify for protections from the 800 completed Spring Seeker surveys in the Sky Island Alliance's springs database, and up to 1,000 completed surveys in the Springs Online database.

APPLICATION EVALUATION CRITERIA:

Overall assessment of the how the application demonstrates that the proposed project positively meets the evaluation criteria and purpose of the program:

- ☐ High
☒ Medium
☐ Low

The application was submitted under the Research category. The scope of work for the project generally relates to a data collection and analysis project, but not necessarily a research project that implements in-depth scientific research.

Research is applicable to river and riparian restoration and or fish and wildlife that are dependent on river and riparian resources

Overall, the data collection proposed is applicable to support future protection of springs and their associated riparian habitat.

Application demonstrates use of the Scientific Method

Background research includes data collection, analysis, and synthesis

- Data collection will build on existing data, or generate new data

The proposed project does include data collection, analysis, and synthesis. Project activities will both generate new data and compile existing data.

- Quality literature review provided
A literature review was not provided.

Hypothesis or hypotheses are clearly articulated

A hypothesis was not applicable for the proposed scope of work for the project.

Research/experimental design is clearly presented, appropriate and adequate:

- Test hypothesis or hypotheses
Not applicable under the proposed project scope of work.
- Analyze data and draw conclusions
Data collection efforts will follow the format and protocols of the Sky Island Alliance's Spring Seeker Program. However, a sample of the specific data to be collected was not included in the application. Review of the website references require users to download and install the application on their computer desktops and/or mobile devices.

There was little to no information on how existing data would be compiled, analyzed, and transformed into ADEQs spring protection nomination format. It is also not clear what specific criteria or biological and physical spring components are necessary to be eligible for spring protection nominations.

- Report results
Reporting of data collection analysis and/or results was not clearly articulated in the scope of work. The only clear deliverable under the data collection and analysis Task is a list of springs with sufficient existing data to nominate them for protection.

Feasibility

Clarity and adequacy of the scope of work and deliverables

In general, half of the proposed scope of work primarily focuses on outreach efforts and associated deliverables (e.g., participant lists, trainings provided, contact logs, media outreach etc.). Deliverables for the two tasks related to actual data collection/analysis and spring nominations consisted of a list of springs that will be nominated for protection, and a list of at least 100 springs nominated annually.

A brief description of the activities planned to be completed was identified in the scope of work, which includes analyzing spring related data from the Spring Seeker and Springs Online databases, with the goal of inputting all data into the Springs Online database on an annual basis. Primary data collection protocols will follow the guidance and resources (mobile phone apps, forms, etc.) of the Sky Island Alliance Spring Seeker Program. However, deliverables were not proposed for any data that could or would be provided to AWPf as part of the data collection effort.

Cost of research reflects potential benefits of outcomes

The cost for this data collection project reflects the potential benefits of the proposed outcomes.

Expertise of applicant/personnel/subcontractors appropriate

The applicant and project personnel have the expertise to implement the project as proposed.

Description of the relationship between any existing plans, reports and/or information relevant to the proposed project

Data collection efforts would be implemented under the guidelines and protocols of Sky Island Alliance's Spring Seeker Program.

Research results may be translatable

Results from this data collection and analysis effort should be translatable to inform future natural resource management actions.

Proposal includes some form of publication as a deliverable

The only form of formal publication proposed for this project is the project final report. Outreach efforts in Task #6 identifies generating public awareness and support of spring protections, and other outreach tasks appear to target volunteer recruitment and private landowner coordination.

Other Considerations

Project will support local businesses

It was not clear if the proposed project would support local businesses.

Out of state consultants are justified

Not applicable.

Broad-based public involvement and support

No specific letters of public support were included with the grant application.

Letters received during the 45-day public comment period:

- Pima County

GENERAL COMMENTS:

- All required sections of the application were addressed as part of the application submittal process, but many sections were noted as "Not Applicable" with little to no information to review. These included Project Location Schematic Maps, Project Site Photographs, and Evidence of Control and Tenure of Land. Because this is a research/data collection project planned across the State at various locations, land ownerships, and timeframes the applicant did not identify specific project areas. The applicant is proposing to obtain access to project sites from willing landowners and/or land managers as part of the scope of work.
- The application states that the Spring Stewardship Institute is allowing the applicant access to their database to analyze existing springs that have been surveyed on state lands. However, a letter of support for this use of the data or the overall project from the Spring Stewardship Institute was not included in the application.
- The proposed timeframe for this project is a 5-year period. Only one deliverable was proposed for each task, but it is not clear how reimbursements would need to be made over the course of the project.

ADMINISTRATIVE, POLICY, INSTITUTIONAL FACTORS:

- Documentation of control and tenure of the project areas, including site access, was not included with the application. The application states “ N/A. This is research/monitoring project solely requiring site access permits.” The scope of work includes a task to obtain access to various project areas as springs are identified for assessment, but at this time is not clear exactly where project data collection activities will take place.

The application states that the applicant holds access permits for Arizona State Parks and Trails lands, and Pima County lands, and that they have begun the application process for a State Trust permit. Evidence of these permits or related work to obtain them were not included in the application.

CONTRACT CONDITIONS THAT WILL NEED TO BE ADDED:

- Staff recommends the addition of progress report deliverables, at a minimum, to facilitate project tracking.
- Staff recommends a deliverable that includes a description of the data compilation and analysis methods to be used for the project, to include sample data collection sheets and/or online data forms.

An aerial photograph of a vast, dense forest, likely a riparian woodland, with a mix of green and brownish trees. A solid red arrow points horizontally from the left edge of the frame towards the center, partially overlapping the text.

Timberline-Upper Little Colorado River Watershed Improvement Project

**Apache Natural Resource Conservation District & Arizona Association of
Conservation Districts**

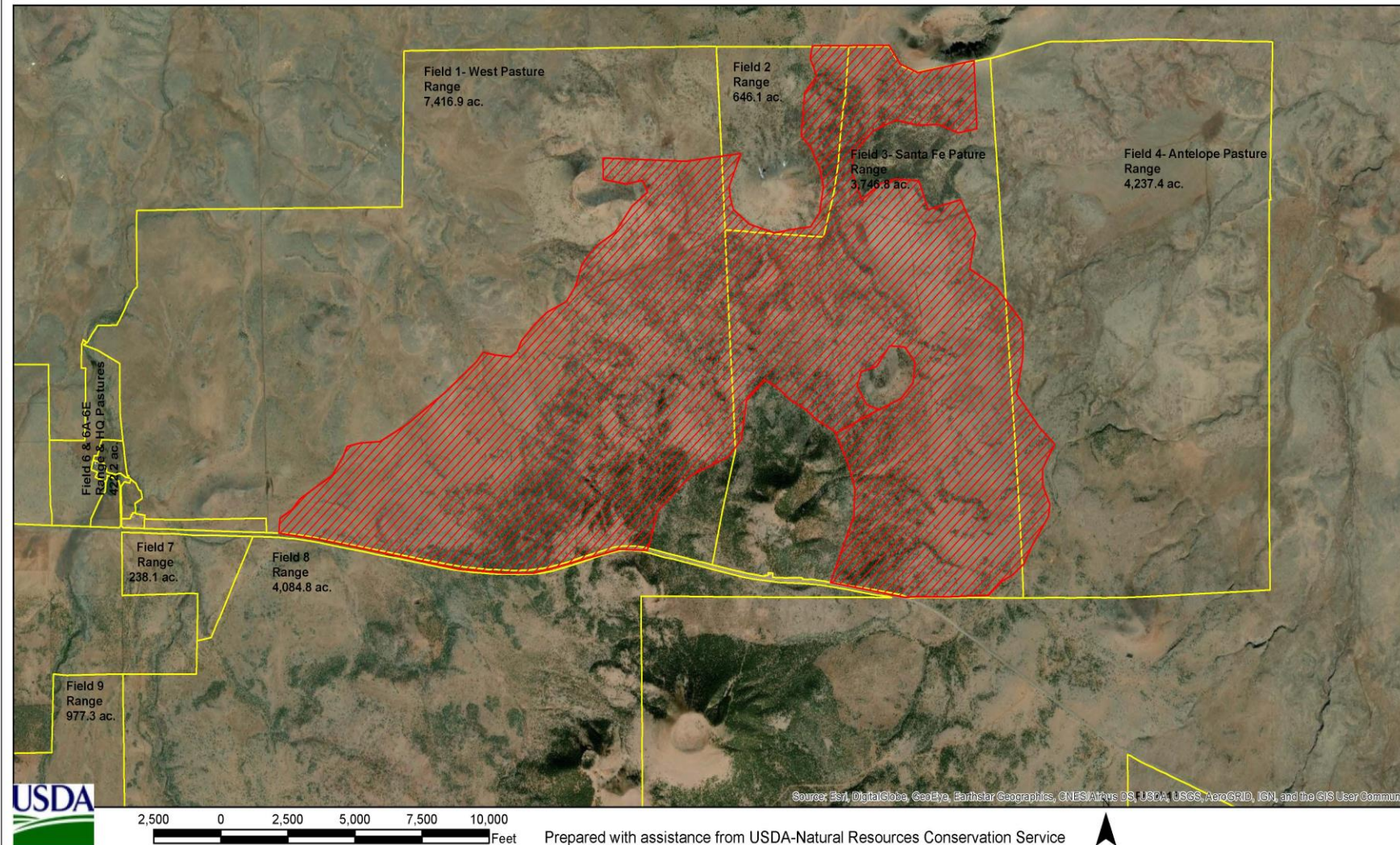
GOALS

1. To improve Little Colorado River Watershed(LCRW) conditions using grassland restoration treatments that improve water quality and increase water quantity.
2. To protect/restore habitat needs for fish and wildlife.
3. Expand conservation landscape level project.
 - Over 30,000 acres of grassland restoration completed to date within Apache NRCD

Customer(s): TIMBERLINE CATTLE CO LLC
State and County: AZ, Apache County, Arizona

Field Office: SPRINGVILLE SERVICE CENTER
Agency: USDA/NRCS

Date: 8/19/2021
Assisted By: KELSY TAYLOR



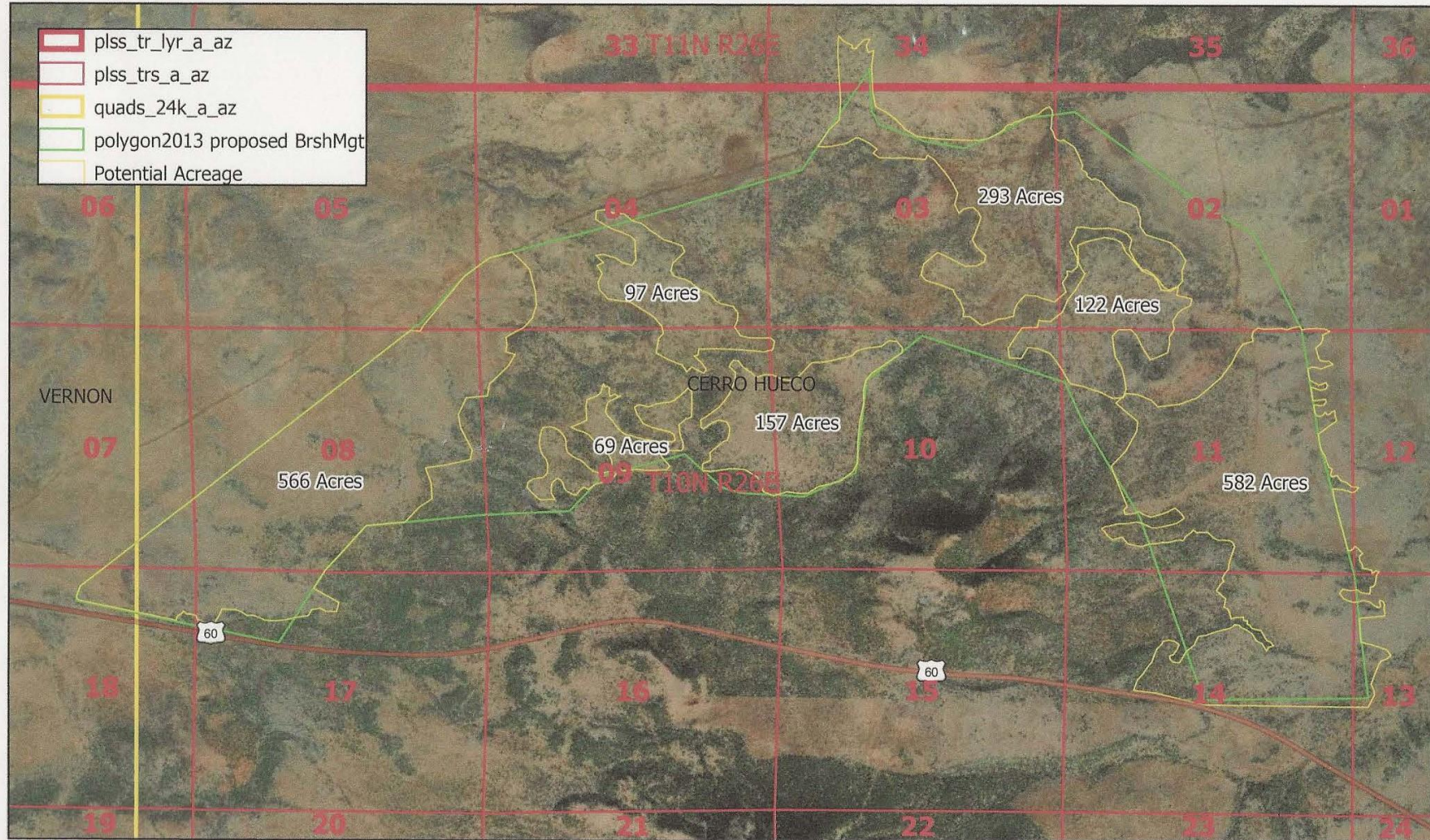
Project Area

Potential Acreage to be Verified on Site

Date Printed:
8/23/2022 4:03 PM

Customer(s): Apache NRCD
Field Office: Springerville Service Center
District: Apache NRCD

Agency: USDA - NRCS
State and County: AZ, Apache County
Assisted By: James Eddy



0 0.39 0.78 1.55 2.33 3.1 Miles

Scale: 1:37,015

Prepared with assistance from USDA-Natural Resources Conservation Service



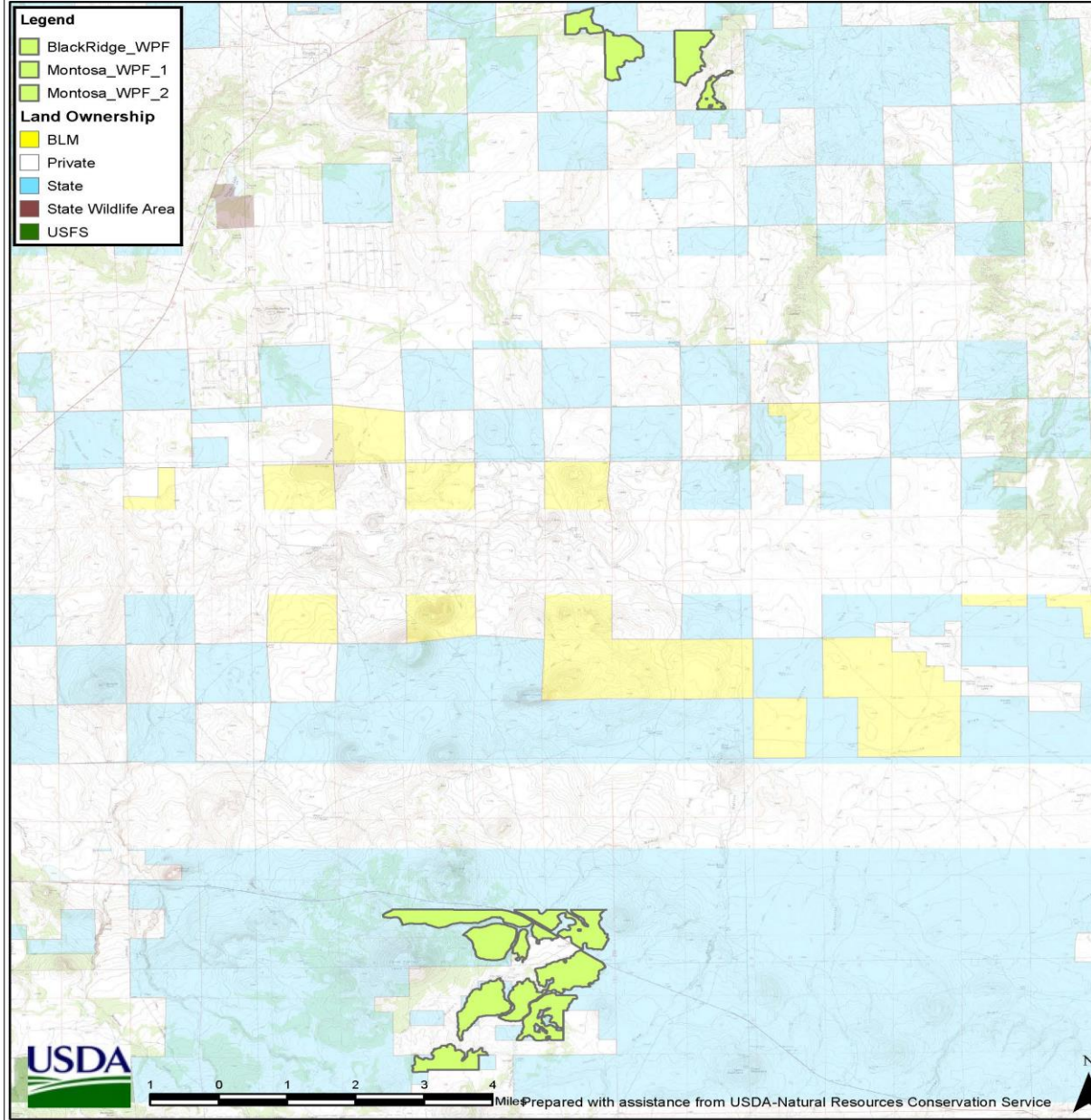
Project
Area
Polygons

J. Albert Brown Brush Management Map

Date: 3/9/2020

Customer(s): J ALBERT BROWN RANCHES
District: APACHE NRCD
Agency: USDA-NRCS

Field Office: SPRINGVILLE SERVICE CENTER
Assisted By: DREW RADICH
State and County: AZ, Apache County, Arizona



Landscape Project

OBJECTIVES

1. **Improve watershed health** by controlling invasive brush (juniper) to restore the LCRW to historic grassland conditions.
2. Improve ground cover (i.e., reestablish grasslands) to reduce soil erosion, stabilize soil, and increase water infiltration.
3. Restore habitat needs for fish and wildlife (i.e., wild ungulates, endangered Spikedace, Spinedace, and Loach Minnows)
4. Reduce turbidity and amount of E.coli present in the LCR.

STATEMENT of SOLUTIONS

1. Improve watershed health using mechanical brush control methods to treat 1,886 acres of juniper in a landscape scale project.
2. Apache NRCD, AZ Game & Fish, and ADFFM are providing pre- and post-treatment monitoring.
 - Photo Monitoring plots (rangeland health)
 - Wildfire severity mitigation risk assessments
 - Wildlife habitat assessments/game surveys
 - Mule Deer
 - Pronghorn

OUTCOME



Removal of juniper will allow grasslands to reestablish, thus increasing ground cover, which will help reduce overland flow, decrease soil erosion, increase water infiltration, and decrease turbidity throughout the watershed, which increases water quality and supports water conservation.

Partners

Dobson – Timberline Cattle Co

Apache Natural Resource Conservation District

Arizona State Land Department

Arizona Department of Fire and Forestry Management

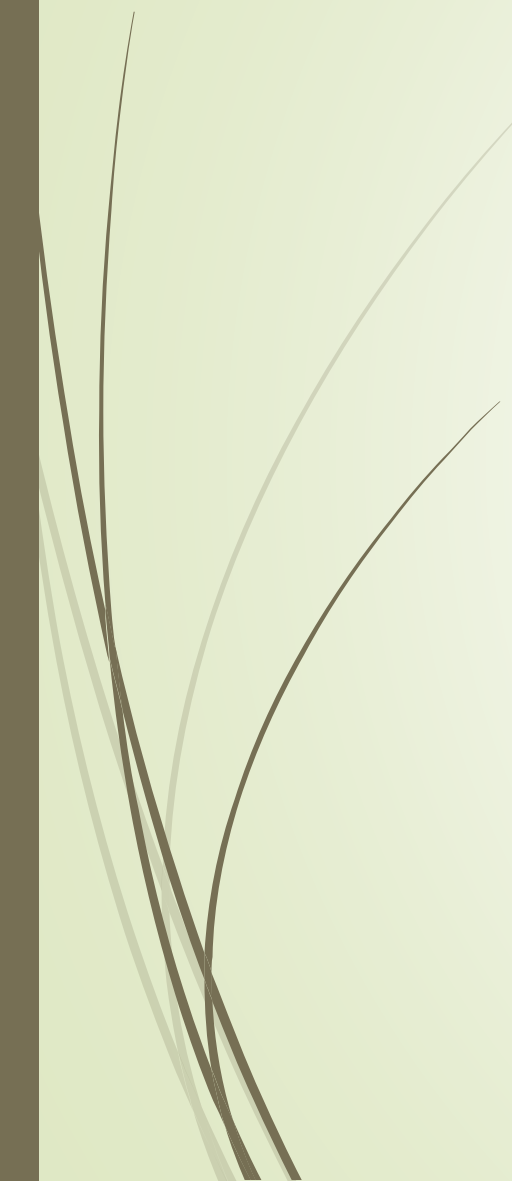
Arizona Game and Fish Department

USDA-NRCS





SUMMARY

- The Timberline project proposes restoring a portion of the Upper Little Colorado River Watershed by treating 1886 acres of grassland by removing invading juniper trees within the Little Colorado River Plateau.
 - The intent of this project is to continue with a landscape-level treatment of grassland restoration within the watershed.
 - Why grassland restoration? Healthy grasslands contribute to:
 - improved forage base for terrestrial wildlife and livestock.
 - mitigating wildfire risks by removing canopy fuels.
 - increased water infiltration into the soils and shallow aquifers.
 - reduced erosion by curbing excessive over-land flow of stormwater.
 - an important component of enhancing water quality and quantity in the watershed
- 

Thank You



Questions?

Becker Lake Wildlife Area

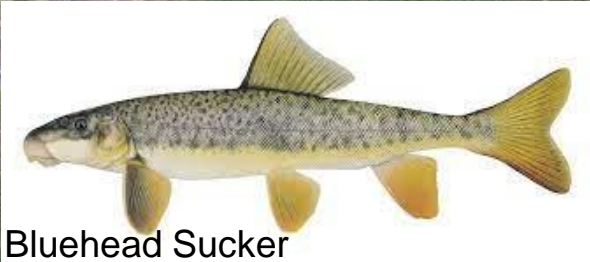
Little Colorado River Habitat Improvement Project



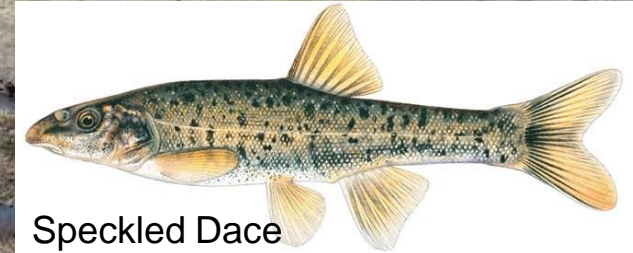
Little Colorado Sucker



Little Colorado Spinedace



Bluehead Sucker



Speckled Dace



Skyler Hedden¹ and George Cathey, PE, CERP²

¹Arizona Game and Fish Department; shedden@azgfd.gov

²Oxbow Ecological Engineering; george@oxbow-eco-eng.com

Project Summary

Construction Drawing and Specifications ✓
AZGFD Environmental Assessment Checklist (EAC) ✓
Cultural Survey and SHPO Consultation ✓
ADEQ 401 Certification ✓
ADEQ NPDES Construction General Permit ✓
USACE Jurisdictional Delineation ✓
Contractor and Engineer Site Visits ✓
Project Implementation **Arizona Water Protection Fund?**

1. Floodplain/Backwater Connection, Re-contouring, and Enhancement
2. River Walk Trail Improvements
3. Streambank Soil Bioengineering
4. Native Revegetation

Background

- The Arizona Game & Fish Department (AGFD) is undertaking a project to improve wildlife habitat and riverscape function along a **1.2-mile corridor of the Little Colorado River (LCR)** through Becker Lake Wildlife Area (BLWA).
- Since 2019 the AGFD and project partners have **invested over \$55,000 toward the completion of assessment, design, and compliance tasks for the project.**
- AGFD is seeking funding from AWPf to implement construction and monitoring activities and take the project through to the finish line.



Background

The **Becker Lake Wildlife Area - Little Colorado River Habitat Improvement Project.**

- Demonstrates direct benefits to a perennial rivers
- Demonstrates commitment to continued maintenance of proposed enhancements
- Protects/Restores native riparian vegetation and habitat
- Restores proper hydrologic conditions/functions
- Restores proper stream geomorphology/channel characteristics
- Restores floodplains
- Restores wetlands/backwater areas
- Improves watershed conditions using near-stream restoration treatments that improve water quality or increase water quantity
- Protect/Restores habitat needs for fish and wildlife

Capital Improvement Components Fits

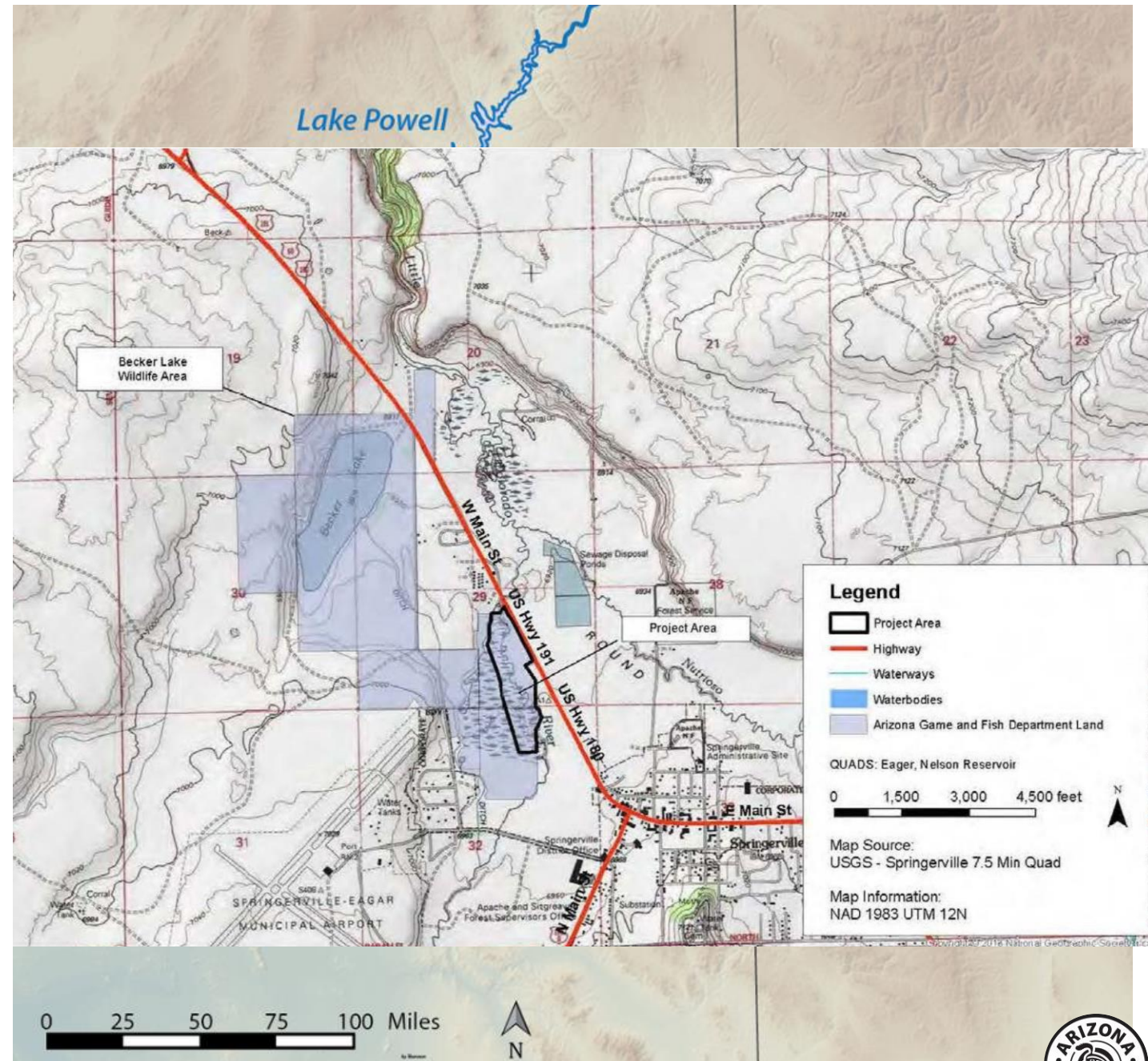
Arizona Game and Fish Department Management Goals for the Wildlife Area

Best Management Strategies to reduce sediment loading on the Little Colorado River – Outlined by ADEQ Total Maximum Daily Load (TMDL) Report

Arizona Water Protection Fund Program Goals

Location

- North of Springerville, AZ
- BLWA consists of approximately 634 acres of Arizona Game and Fish Commission deeded lands located within the town limits of Springerville in Apache County.
- The wildlife area provides a variety of habitat including:
 - > 1 mile of LCR stream-side habitat, 120 acres of wet meadow
 - > 5 acres of stream riparian habitat, an 85-acre lake
 - plains grassland community on the uplands.



Existing Conditions: Abandoned Floodplain

- The river runs along a wide, undeveloped meadow complex.



Relic,
disconnected
channel

Existing Conditions: Streambank Erosion

- Multiple raw vertical / overhanging banks
 - Steep bank angles
 - Little or no root density or bank protection bank angles
 - Stratified bank soils creates a high potential for further bank erosion
- Without intervention/stabilization efforts, significant source of non-point source sediment pollution.



Existing Conditions: Agricultural Erosion

- Adjacent agricultural land, being flood irrigated, drainage was being routed directly to the river via a culvert.
- Erosion in the river at the culvert outlet
- Breached ditch adjacent to the field and was flooding the trail and causing headcut to form on the trail edge/streambank interface and reduced water quality.



Existing Conditions: River Walk Trail

- The popular "River Walk Trail" that closely parallels the banks of the Little Colorado River through Becker Lake Wildlife Area provides access and viewing opportunities to the public.
- Multiple trail locations that have been damaged by natural river processes, agricultural runoff, and beaver activity.



Existing Conditions: Native Vegetation

- Low density of riparian vegetation present within the corridor, other than a few patches of coyote willow and narrowleaf cottonwood
 - Accelerating bank erosion and channel incision.



Existing Conditions: Beaver Activity

- Beaver activity is evident within the river corridor, with multiple large dam complexes throughout the site.
- Provide multiple important ecosystems services:
 - fish refugia
 - increased aquatic habitat heterogeneity
 - increased lateral connectivity to the floodplain
 - increased area of inundation for groundwater water recharge and riparian vegetation health
- The presence of the beaver and the ecological services they provide have been considered and integrated into this habitat improvement plan.



Goals

- 47.5-acre project area - 6,400-feet long corridor of connected floodplain and channel habitats.
- Overall goal of the project:
 - Improve morphological and ecological diversity of the LCR riverscape and help build a resilient and sustaining system that directly benefits stream and floodplain function, habitat for fish and wildlife, recreational opportunities for the public, and efficiency of working lands.



Objectives

1. Floodplain/Backwater Connection, Re-contouring, and Enhancement
2. River Walk Trail Improvements
3. Streambank Soil Bioengineering
4. Native Revegetation



Solutions

- Completed inventory and habitat assessment for the project by a restoration team
 - Developed a set of site-specific practices that, if implemented holistically, could be used to meet the project goals and objectives.
- The following are restoration practices that will be utilized to meet project objectives



Solutions:

Obj 1 Floodplain/Backwater Connection, Re-contouring, and Enhancement

- Reconnect, re-contour, and enhance 2.45-acres of relic floodplain channels to help distribute and attenuate frequent flood flows (\pm 2-year events) over 15.7-acres of riparian meadow floodplain.
- Reconnect the river to these floodplain features by excavating 5,400 cubic yards of soil to create wide, shallow swales to provide flood relief and spread and slow flows while also reducing shear stress on streambanks during frequent floods.
- Shape existing relic channels and strategically place woody debris to increase habitat complexity and roughness.



Solutions:

Obj. 2 River Walk Trail Improvements

- Relocate and improve 2,760 feet of the river walk trail to provide an additional 4.7-acre riparian buffer for natural river processes, beaver and other wildlife activity, and agricultural activities.
- Create an elevated, multi-course, compacted trail prism, with weed barrier underlay, to improve drainage and surface conditions and reduce erosion and maintenance.
- Decommission abandoned sections of trail as required, and salvage/re-use drainage culverts.
- Improve/re-route agricultural tailwater ditch adjacent to the relocated trail to prevent trail flooding and streambank/trail erosion and improve water quality.



Solutions

Obj. 3 Streambank Soil Bioengineering

- Construct a 180-foot-long floodplain bench at the outside of a severely eroded meander bend near the parking area to reduce bank erosion potential, add flood relief, and create a stable platform for dense riparian and wetland plantings.
- Strategically embed graded rock and boulders within the bench and toe of slope to add erosion protection and protect native plantings.



Solutions:

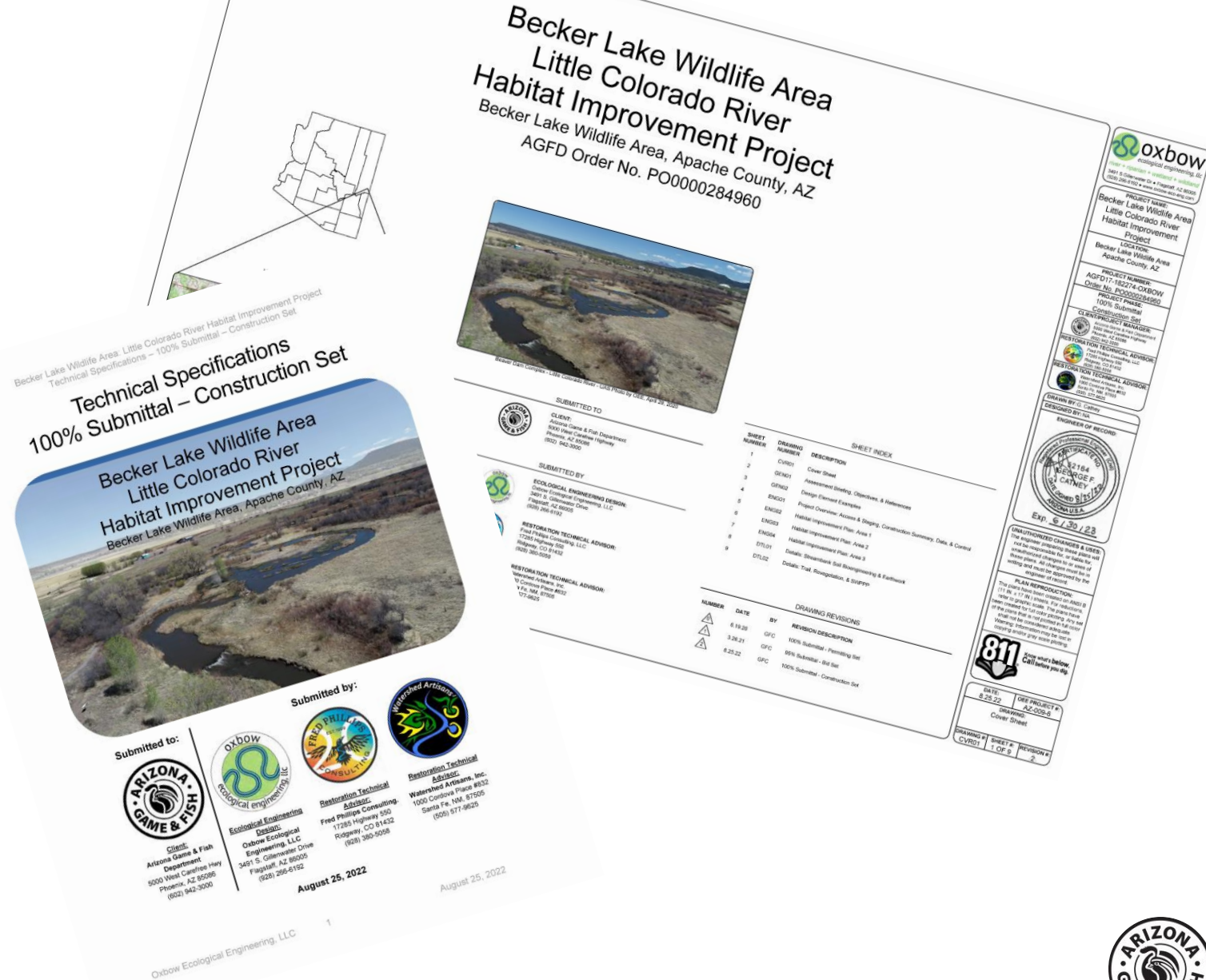
Obj. 4 Native Revegetation

- Riparian Sod & Willow Clump Transplants
- Harvest and strategically plant a mosaic of native wetland and riparian vegetation, including 2.45 acres of riparian sodmat and 290 willow clumps, to provide soil stabilization, cover, and habitat.
- Augment with 0.5-acres of native seed and mulch.



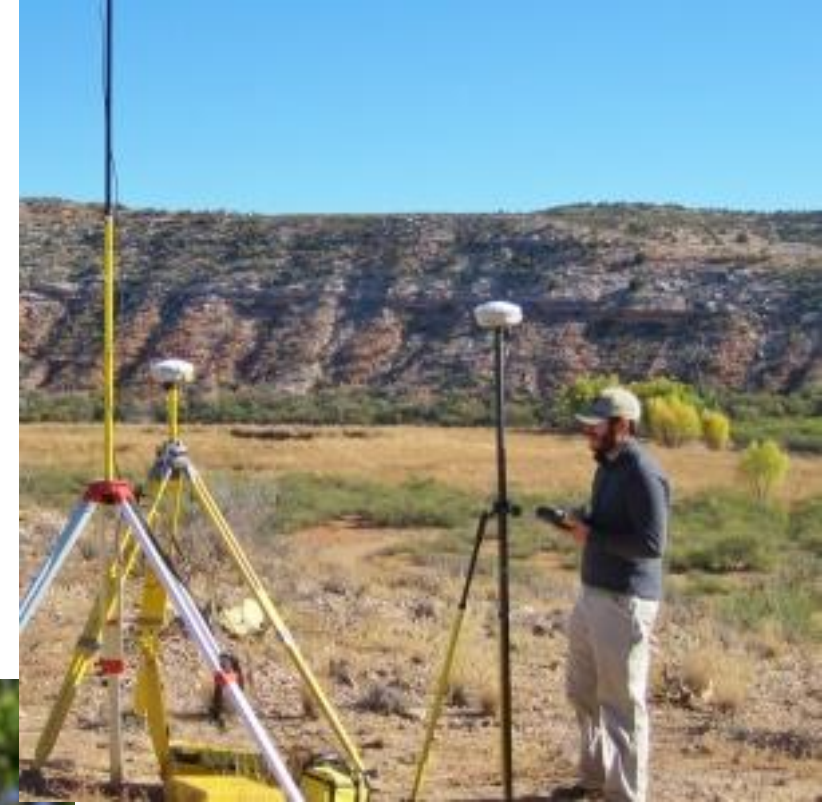
Implementation

- Complete: Construction drawings & specifications
- Complete: Compliance
- Construction administration/observation
- AGFD On-Call Contractor



Monitoring

- Establish monitoring wells with water level data loggers to constantly measure changes in water level within the floodplain channels and backwaters.
- Establish long-term timelapse cameras at strategic points in floodplain channels to supplement water level data.
- Utilize drone orthoimagery, supplemented with on the ground observations to estimate:
 - Wetland vegetation response
 - River dimension and beaver activity,
 - Measure Bank Erosion Potential (BEP) and/or Bank Erosion Hazard Index (BEHI)
 - Vegetation responses
- Coordinate with AGFD land managers to monitor frequency/amount of irrigation events on working lands and system response



Review Comments/Discussion

- **Feasibility – Clarity & accuracy of deliverables**

- Staff noted that the deliverable for the completed project construction report was targeted for 2023.
- If the project is not able to be completed in 1 year or less, then multiple progress report deliverables and reimbursement due dates should be considered given the Task cost of \$338,675.
- With only one deliverable and completion report, the grantee would need to have the cash flow available to cover all construction costs and only request reimbursement after the construction and associated deliverables were submitted and approved.

- **Applicant Response**

- This is great guidance – we can add multiple progress report deliverables

Review Comments/Discussion

- **Monitoring - Methods clearly presented, appropriate and adequate to evaluate benefits to rivers, streams, and riparian resources and/or dependent fish and wildlife resources.**
 - Two additional monitoring objectives were mentioned in the application that, while part of the overall project area improvements, do not directly relate to river and riparian resources.
 - These included monitoring agricultural tailwater ditches and improvements to the river walk trail.
- **General Comments**
 - As noted above, there were restoration objectives that were part of the overall project improvements, but not necessarily related to river and riparian resources.
 - These included monitoring frequency/amount of irrigation events use, system function of the agricultural tailwater ditches on the working agricultural lands, and system response and improvements to the river walk trail.
- **Applicant Response**
 - We can remove these monitoring criteria from the monitoring plan if funded.
 - For clarification - Agricultural tailwaters are currently causing streambank erosion and headcutting within the stream corridor. We were hoping to monitor improvements to make sure objectives of reducing erosion and headcutting are being met.

Review Comments/Discussion

■ Technical Comments

- Page 77 of the application states “the contractor shall provide dewatering and /or diversion provisions that allow drainage from the work site during construction and allow the proper construction and installation of items listed.... All temporary fills, crossings, culverts, or other facilities necessary to promote drainage will be installed and removed at the Contractors expense prior to acceptance of the work.”
- And page 98 states “to achieve proper moisture content and compaction for foundations and backfill, surface and subsurface water will need to be controlled...”
- External review of the application indicated that more information is needed regarding the dewatering and/or diversion provisions that allow drainage from the work site. The diversion of water may require a surface water right.
- External review of the application suggested that the applicant consult and/or coordinate with the Apache County Flood Control District on the project since floodplain restoration and manipulation activities will be implemented as part of the project.

■ Applicant Response

- These application excerpts are from the technical specifications package which detail construction criteria.
- The applicant has reviewed these specifications and these excerpts from Page 77 and Page 98 are general specifications and are not applicable to this specific project and, as such, will be removed.
- To clarify, ***no dewatering and/or diversion provisions that allow drainage from the work site are needed for this project.***

Review Comments/Discussion

- **Administrative, policy, & Institutional Factors**

- The application makes references to improve and monitor agricultural tailwater ditches to prevent trail flooding and to support efficient irrigation on Arizona Game and Fish Department lands.
- Although costs for these specific components were not specifically identified in the detailed budget, they are mentioned in the engineering designs and scope of work as an action that would be implemented through this project.
- The project components related to agricultural tailwaters and land irrigation do not appear to be related to the goals of the AWPf, and staff requests the Commission's determination if these specific components should be included in the AWPf scope of work.

- **Applicant Response**

- For clarification - Agricultural tailwaters are currently causing streambank erosion and headcutting within the stream corridor. We were hoping to monitor improvements to make sure objectives of reducing streambank erosion and headcutting are being met.

Review Comments/Discussion

- **Contract Conditions that will Need to be Added**

- Consultation with the Apache County Flood Control District to determine if any floodplain restoration permits or authorizations will be necessary for the project, and a deliverable for the applicable permit/authorization, if deemed necessary.
- Consultation with the Arizona Department of Water Resources Surface Water Program to determine if a surface water right will be necessary for the project, and a deliverable for the applicable surface water right documentation, if deemed necessary.

- **Applicant Response**

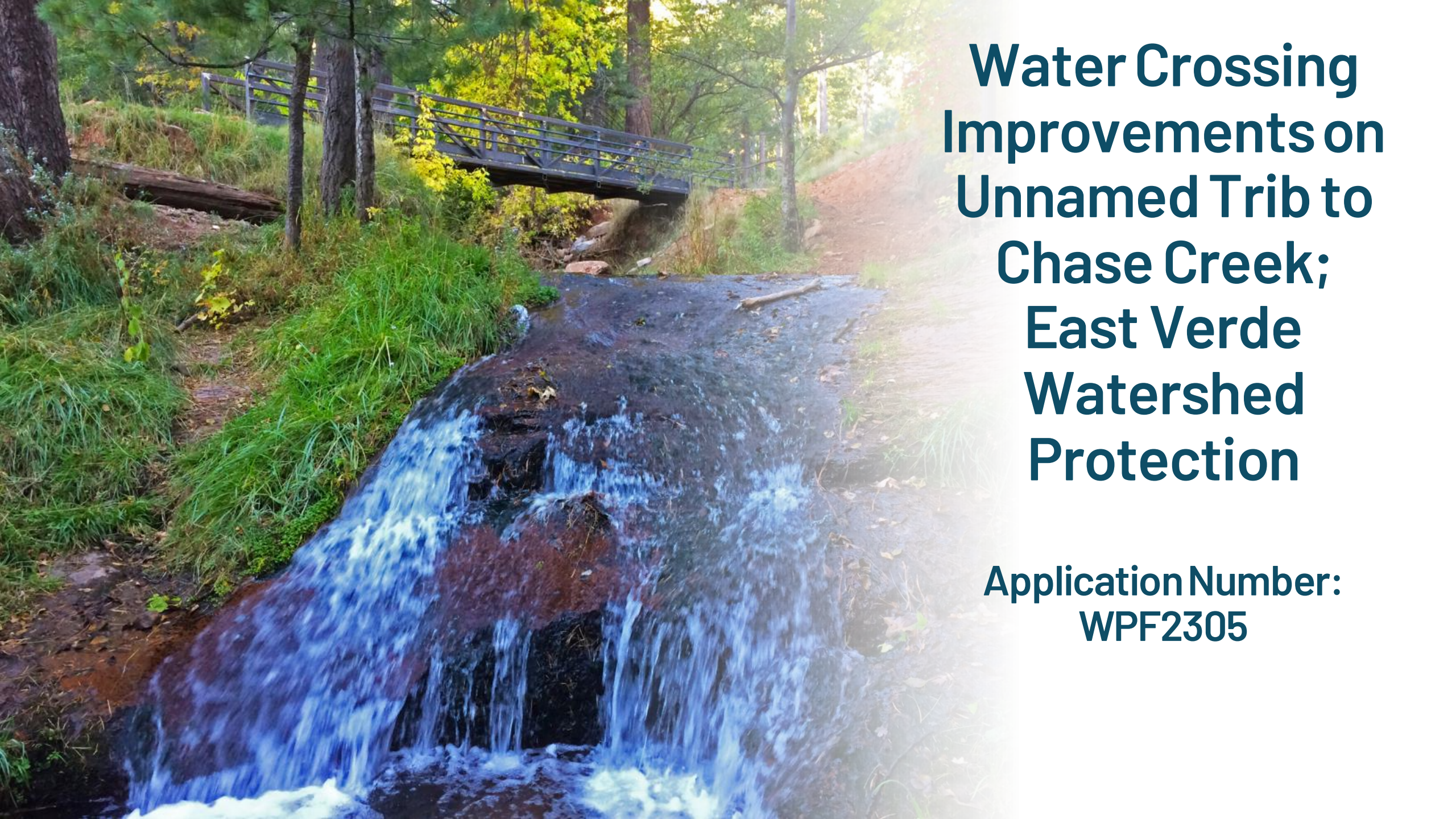
- To clarify, ***no dewatering and/or diversion provisions that allow drainage from the work site are needed for this project.*** But we will get in contact with both the Apache County Flood Control District and Arizona Department of Water Resources Surface Water Program to determine if any other permits/authorizations are needed to implement the project.



National Forest Foundation

Chartered by Congress, the National Forest Foundation was created in 1993 with a simple mission: *bring people together to restore and enhance our National Forests and Grasslands.*





Water Crossing Improvements on Unnamed Trib to Chase Creek; East Verde Watershed Protection

**Application Number:
WPF2305**



Forest Service

Southwestern
Region

November 2021

Tonto National Forest

East Verde River Headwaters Watershed Restoration Action Plan

Payson Ranger District, Tonto National Forest
Gila County, Arizona



Tonto National Forest

East Verde River Headwaters
Watershed Restoration Action Plan

Table 6: Restoration Objectives for the East Verde River Headwaters Watershed

Indicator/Attributes	Current Score	Score After Implementation of Essential Projects	Essential Project #
Water Quality (1)			
Impaired Waters (303d listed)	Good	Good	NA
Water Quality Problems (other)	Fair	Good	1, 2, 3, 4, 7, 8, 9, 11
Water Quantity (2)			
Flow Characteristics	Fair	Fair	NA
Aquatic Habitat (3)			
Habitat Fragmentation	Fair	Good	1, 7, 8, 9
Large Woody Debris	Fair	Good	7, 8, 9
Channel Shape and Function	Fair	Good	1, 2, 3, 4, 7, 8, 9
Aquatic Biota (4)			
Life Form Presence	Good	Good	7, 8, 9
Native Species	Fair	Good	7, 8, 9
Exotic and /or Invasive Species	Fair	Fair	NA
Riparian Vegetation (5)			
Vegetation Condition	Fair	Fair	7, 8, 9
Roads & Trails (6)			
Open Road Density	Poor	Fair	1, 3
Road/Trail Maintenance	Poor	Good	2, 3
Proximity to Water	Poor	Fair	1, 3
Soils (7)			
Soil Productivity	Fair	Good	4, 5, 6, 11
Soil Erosion	Fair	Good	4, 5, 6, 7, 8, 9, 11
Soil Contamination	Good	Good	NA



Southwestern
Region

November 2021

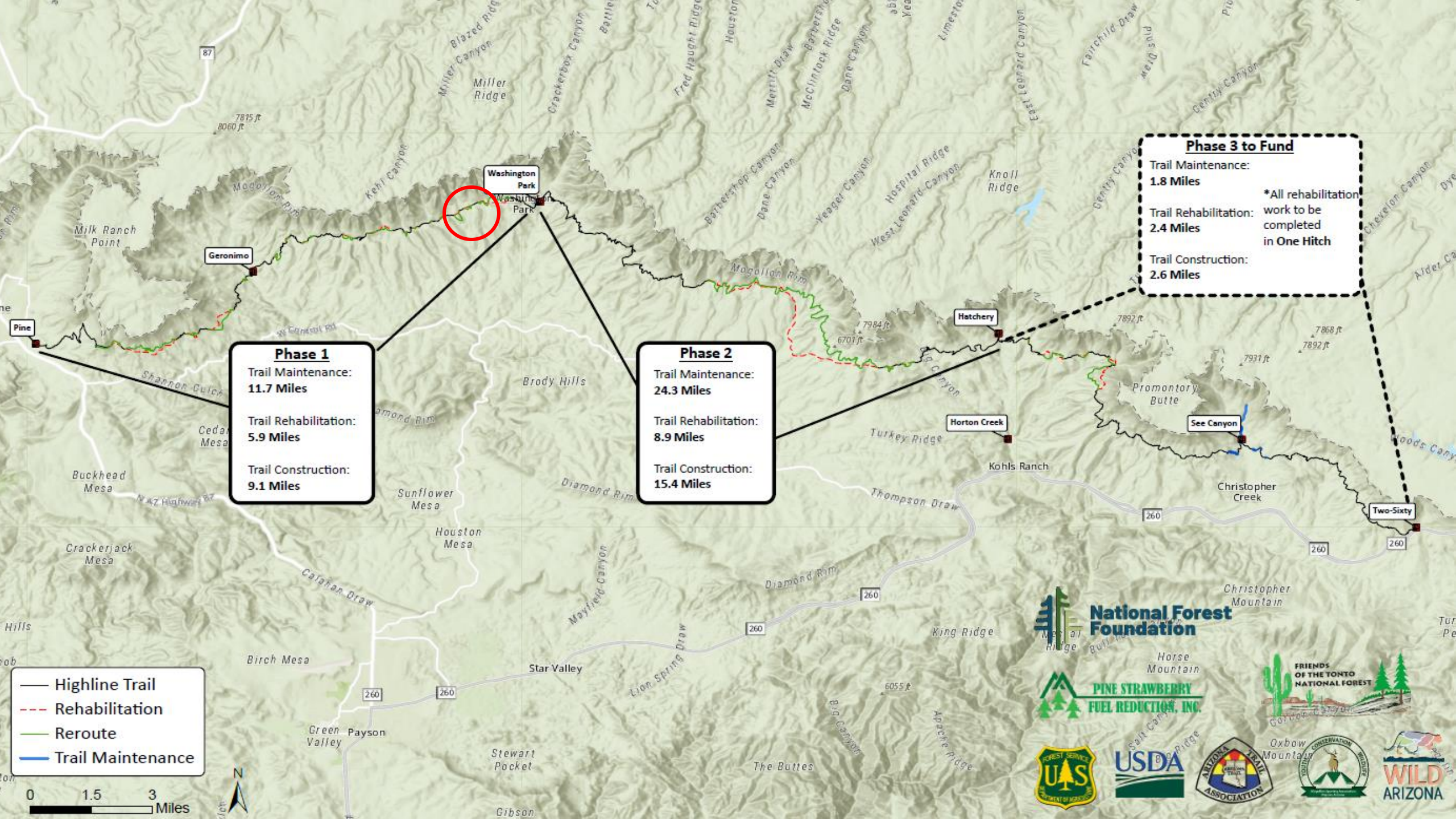
Tonto National Forest

East Verde River Headwaters Watershed Restoration Action Plan

Payson Ranger District, Tonto National Forest
Gila County, Arizona



WRAP Essential Project #	Name	Time frame	Funded?	NEPA Complete?	Stage for FY23
1	Route Decommissioning	FY22- FY26	Y	Y	Implement
2	Road BMPs	FY24- FY27	N	Y	Plan
3	Highline Trail Improvements	FY22- FY25	Partially	Y	Implement
4	Restoration of Dispersed Camping Areas	FY23- FY25	N	Y	Plan
5	Keger Timber Sale	FY24- FY25	Y	Y	Plan
6	Bear Canyon Prescribed Fire	FY27	Y	Y	NA
7	East Verde Stream Habitat Restoration	Complete d in FY21	Y	Y	Completed
8	Dude Creek Stream Habitat Restoration	FY22- FY23	Y	Y	Implement
9	Chase Creek Stream Habitat Restoration	FY23- FY26	N	Y	Plan
10	Wildlife Water Catchment Restoration	FY22- FY23	N	Y	Plan
11	Dude Fire Revegetation	FY22- FY26	Partial	Y	Ongoing
12	Noxious Weed Removal	FY22- FY27	N	Y	Plan



Phase 1

Trail Maintenance:
11.7 Miles

Trail Rehabilitation:
5.9 Miles

Trail Construction:
9.1 Miles

Phase 2

Trail Maintenance:
24.3 Miles

Trail Rehabilitation:
8.9 Miles

Trail Construction:
15.4 Miles

Phase 3 to Fund

Trail Maintenance:
1.8 Miles

Trail Rehabilitation:
2.4 Miles

Trail Construction:
2.6 Miles

**All rehabilitation work to be completed in One Hitch*

- Highline Trail
- - - Rehabilitation
- - - Reroute
- Trail Maintenance

0 1.5 3 Miles





Reducing Erosive Slopes



Hardening Erosive Crossings



Water Crossing Improvements in the East Verde Watershed

Project Area: **Chase Creek, a designated recovery stream for Gila Trout**, northern portion of the Tonto National Forest in Gila County.

Direct Benefits: This project will restore aquatic habitat conditions to **protect Gila Trout** and will improve **proper hydrologic conditions** and functions within East Verde Watershed by reducing erosion and sedimentation into the Chase Creek tributary.

This project will also **support the economic and recreational resources** the Highline Trail provides and will significantly contribute to the Essential Activities outlined in the Tonto National Forest's **East Verde Watershed Restoration Action Plan**. This project will also improve safety for users, and for cattle and horses crossing the stream.

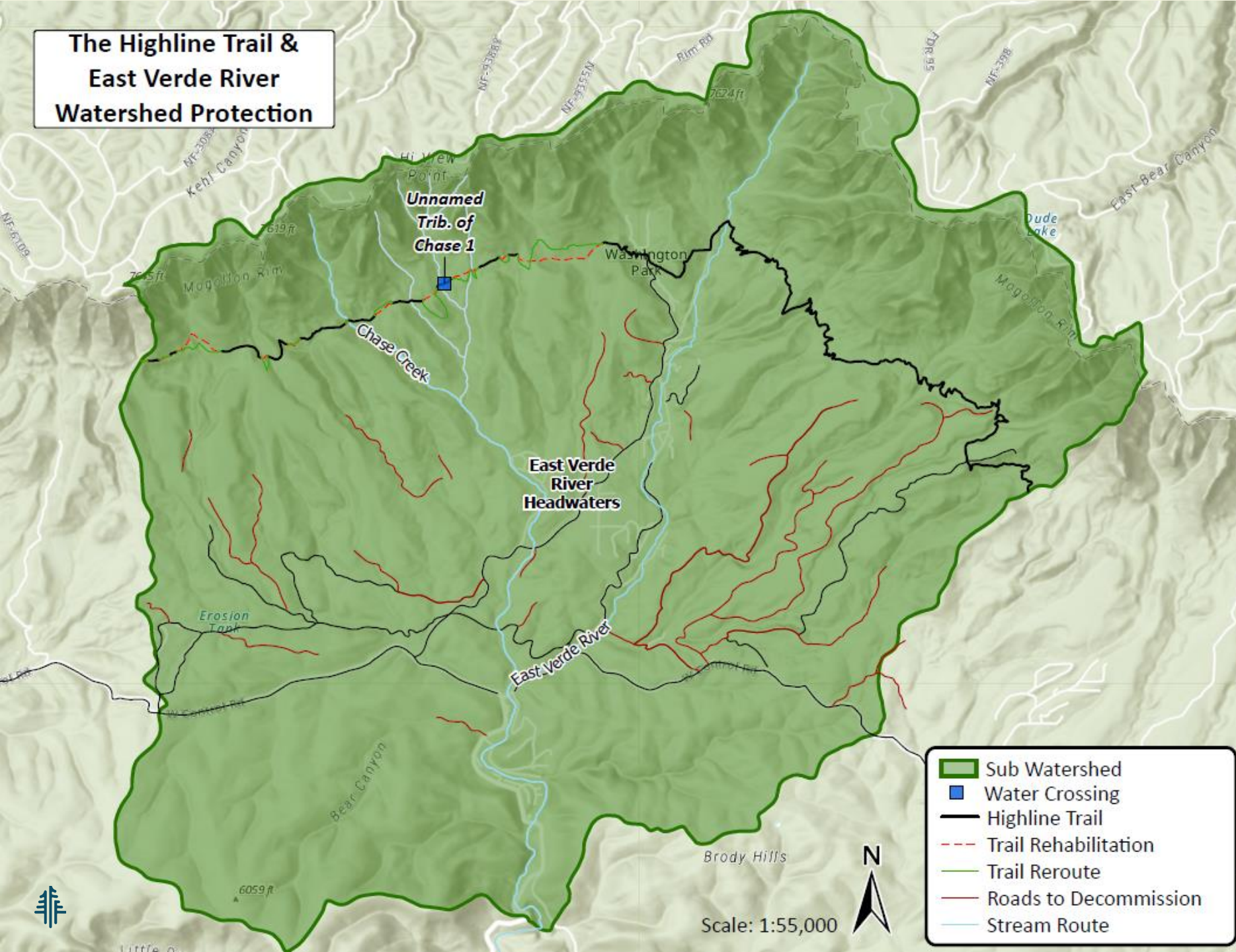
Public Involvement: Local and watershed stakeholders are actively contributing to the numerous projects outlined in the WRAP, including this proposed project: **Trout Unlimited, Arizona Game and Fish Department, Tonto National Forest, Pine Strawberry Fuels Reduction, Mogollon Sporting Association, Arizona Trails Association, Wild Arizona, MHA Foundation**, and many more!





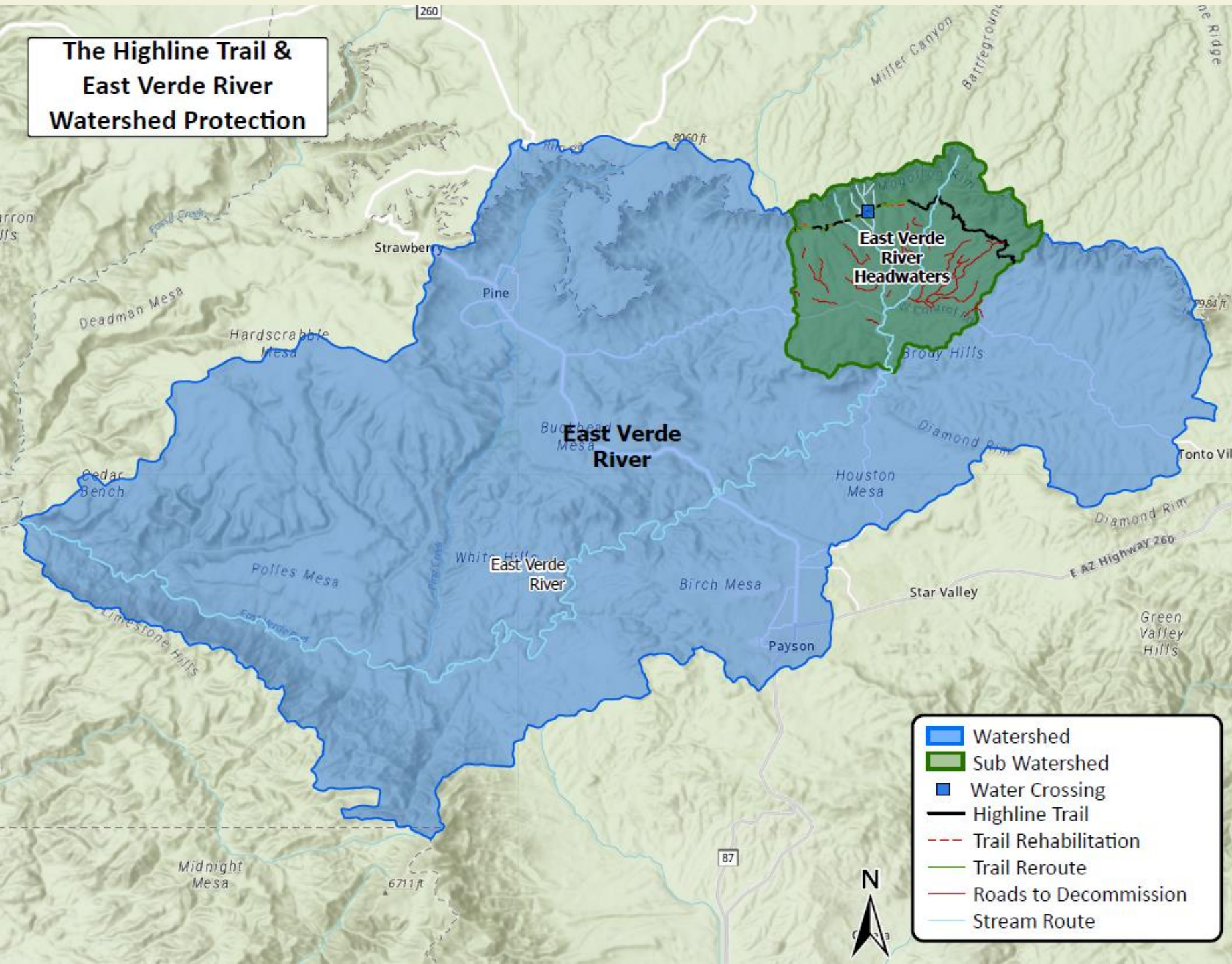
**The Highline Trail &
East Verde River
Watershed Protection**

Project Location



**The Highline Trail &
East Verde River
Watershed Protection**

Project Location





Project Need





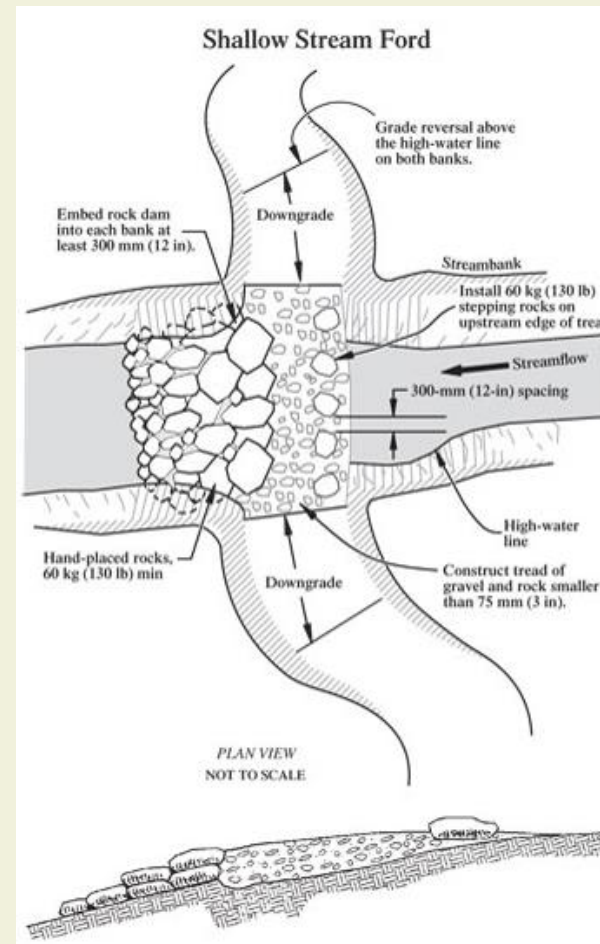
Project Need




Tasks and Timelines

Task 1 Authorizations and Agreements	Task 2 Layout, Engineering Plans, Geotechnical Design	Task 3 Abutment Materials and Construction	Task 4 Bridge Delivery and Installation	Task 5 Hardened Water Crossing
NFF will obtain all agreements and clearances needed	NFF will procure services of engineering firm per USFS standards	NFF will procure materials needed for bridge abutments and transport to project site	NFF will acquire bridge (fabricated), delivered to approved staging area. NFF will coordinate installation.	NFF will secure USFS design and coordinate construction of hardened crossing
Copies of SHPO NEPA NFF-Tonto Agreement	Bridge design Abutment design Hardened crossing layout	Abutments constructed and installed	Prefab bridge delivered and installed	Hardened water crossing constructed
Timing: Prior to fieldwork	Timing: No later than April 30, 2023	Timing: No later than Oct 31, 2023	Timing: No later than May 31, 2024	Timing: No later than Oct 31, 2024
\$3,360	\$35,219	\$37,856	\$109,341	\$20,000
Task #6 – Final Report and Presentation to the AWPf Commission			\$3,360	Timing: No later than January 31, 2025

非



A helicopter is shown in silhouette, lifting a large, rectangular metal structure, possibly a bridge component or a large gate, from a forested hillside. The structure is suspended by cables and hangs in the air. The background is a dramatic sky filled with heavy, grey clouds, with some light breaking through near the horizon. The foreground shows the dark silhouette of a forested ridge.

Next Steps and Looking Ahead at the East Verde WRAP

- **Water Crossing** – Reducing erosion, protecting aquatic species
- **Road Decommissioning** – Reducing erosion
- **Chase Creek Restoration** – Invasive species management, protecting aquatic species
- **Project Monitoring** – Tonto NF directed and supported

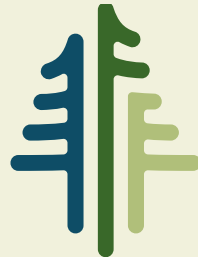


Thank You

Contact:

Rebecca Davidson
Director, Southwest Region
rdavidson@nationalforests.org

nationalforests.org



National Forest Foundation

Protecting and restoring habitat and surface flow in Tanque Verde Creek #WPF2306



Catlow Shipek, Program Director
Jim Washburne, Sr. Project Specialist





Pinal County

IRONWOOD FOREST
NATIONAL
MONUMENT

Santa Cruz River

TUCSON
MOUNTAIN
PARK

Tanque Verde Creek

Pima County

86

286

83

90

82



SCWC - Watershed Restoration Planning Tool



Legend

Flow Status - Current

- Intermittent
- Perennial
- Effluent Dominated
- Intermittent Effluent

Major Flow Channels



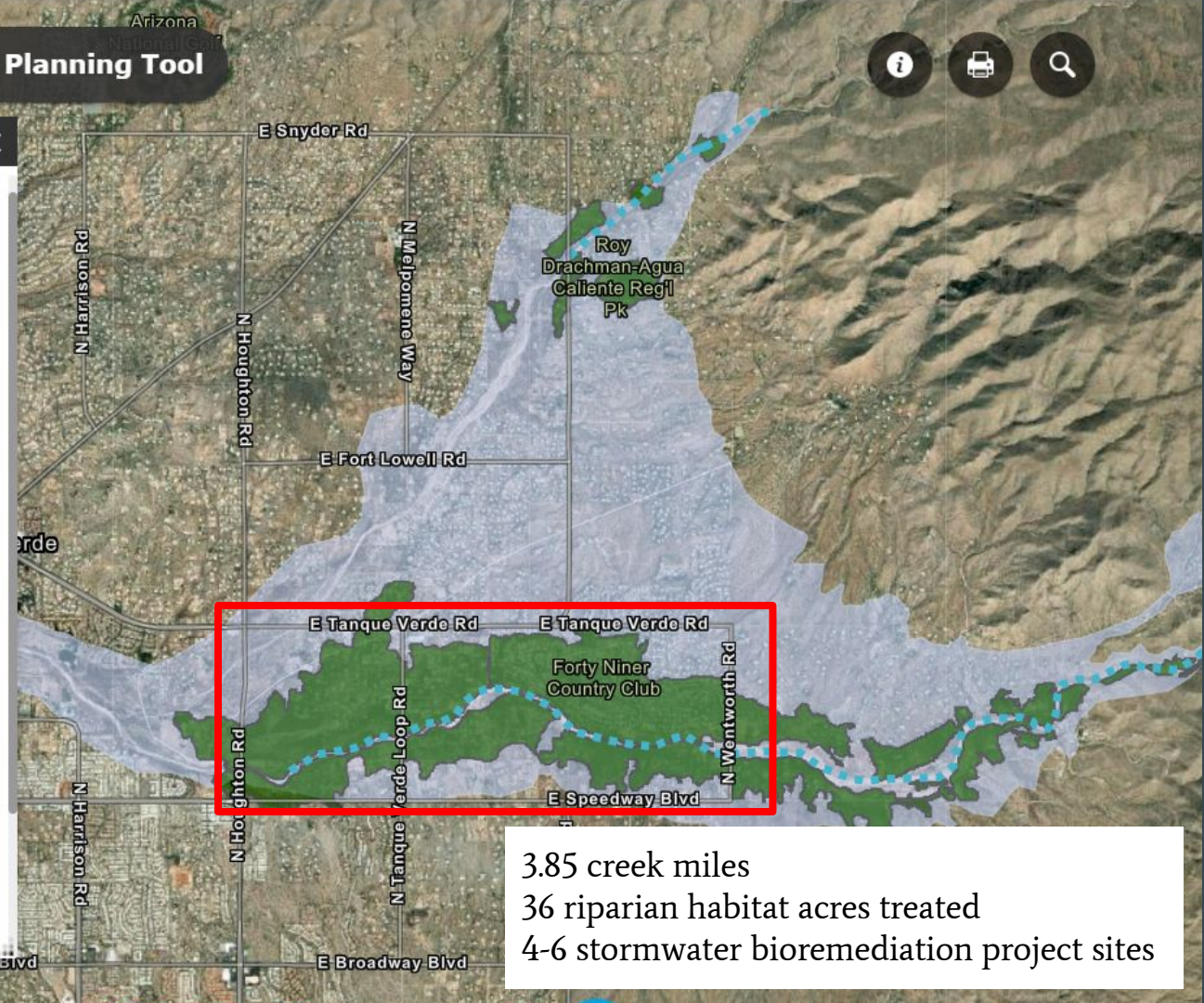
The Loop trail



2019 Riparian Forest Vegetation



Shallow Groundwater Area



3.85 creek miles
36 riparian habitat acres treated
4-6 stormwater bioremediation project sites



Responses to Staff Comments

Agreement with staff comments:

- Separate Tasks #1 and #2 into permitting/clearances, and then project implementation
- Include long-term monitoring and management plan as a deliverable

Matching Funds:

- Apologize for spreadsheet typo listed in Task #1; Revised match total = \$38,064
- 5% administrative costs for matching funds were calculated based on:
 - “5% of direct match and 5% of Requested funds”

Responses to Staff Comments

- Volunteer snacks: critical to support volunteer efforts. Neighborhood will not provide for Task #1 Arundo workdays. However, understand funding constraints and can remove expense.
- Maintenance:
 - WMG will provide maintenance agreements from landowners
 - WMG is committed to the health of Tanque Verde Creek and through its River Run Network and Flow365 Community Science Monitoring program will provide ongoing assistance for maintenance.

Responses to Staff Comments

- Landowner Agreements can be provided if selected for funding
- Stormwater restoration treatments in channels will not retain surface water.
 - Purpose of features is to stabilize soil surface to reduce erosion, filter stormwater to enhance infiltration, and support native riparian habitat plantings.
 - Secondary purpose is to engage and invest neighbors on creek health and arundo eradication
 - General placement of features has been identified by WMG and neighborhood.
 - WMG would like to reserve funding for 1-2 structures to incentivize engagement of other landowners adjacent to the creek if appropriate. If not, then we can place all structures within 49ers HOA area.

AWPF Goal: Project Will Enhance, Maintain, and/or Restore River, Stream, and Riparian Resources

WMG Objective 1: Eradicate
Arundo donax (Giant Cane)

71% of requested funding



Context

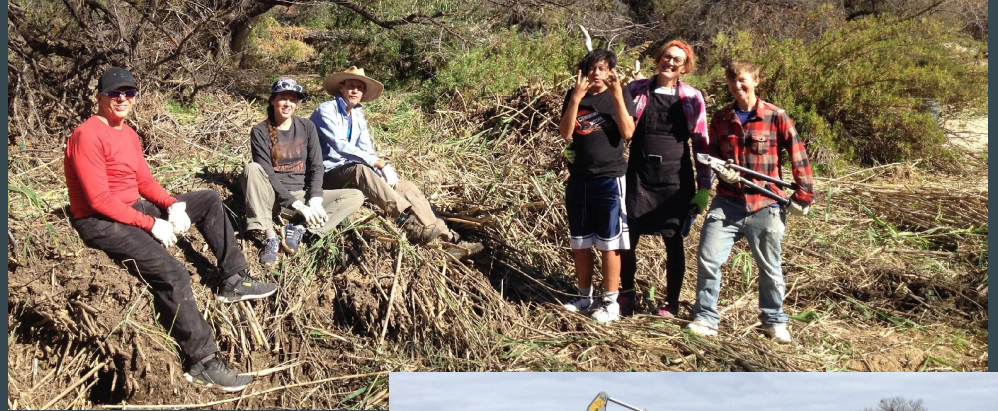
- Arundo Donax
 - 20 ft Tall
 - Looks Like bamboo
- Transpires 3-4 times more water than native riparian plants



Arundo Removal

General Process

- Flood channel has priority for removal
- Smaller stands first
- Cut cane stalks and stack for removal
- Haul cane to green waste
- Dig out rhizomes
- Remove rhizomes from channel to dry



What Have We Already Done?

- Weekly spring, fall, & winter workdays
- 18 tons of invasive Arundo was removed last season by WMG's River Run Network volunteers
- Monitoring and spot removal of upstream treated areas
- WMG's goal: complete eradication from middle & upper Tanque Verde Creek within 3-5 years

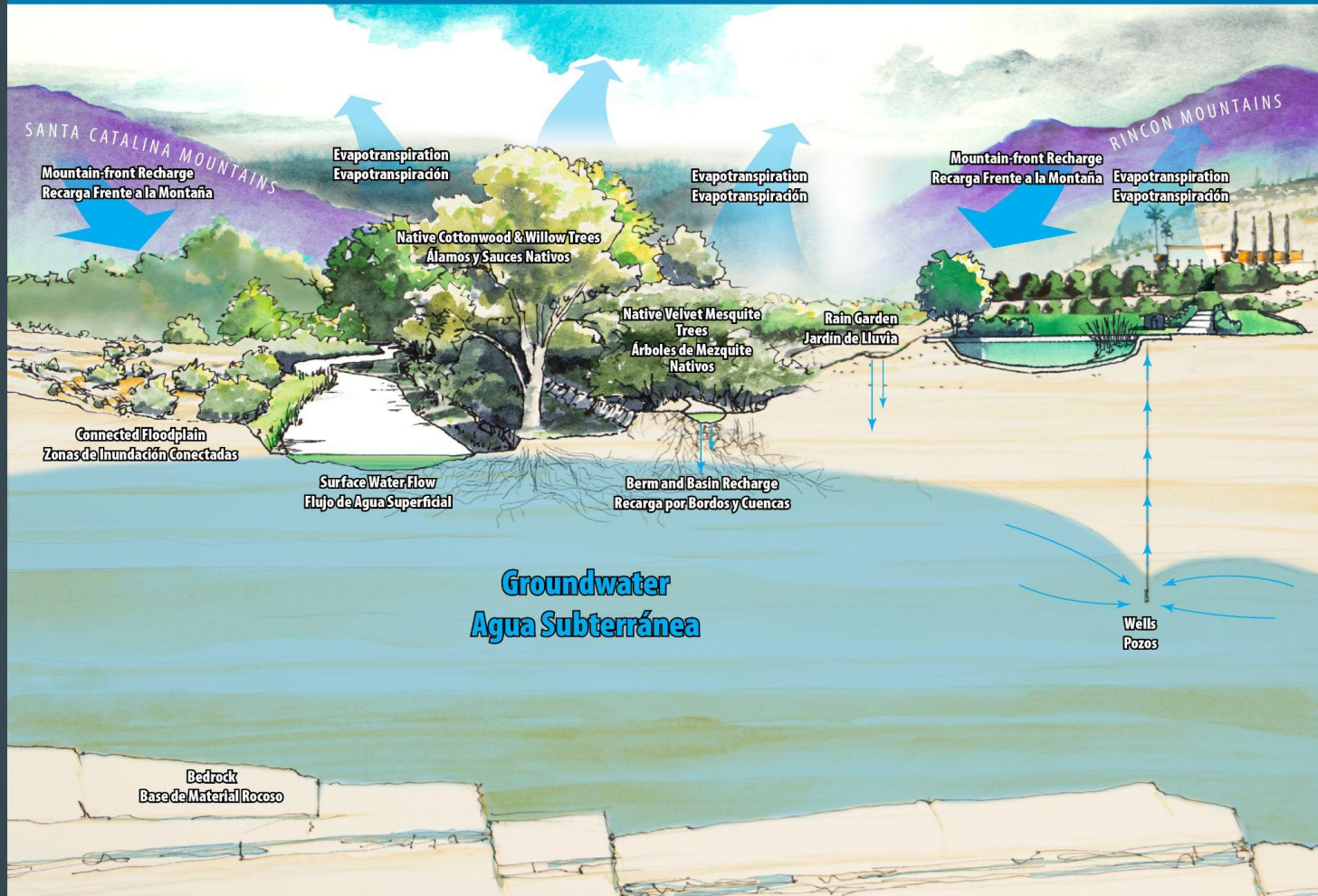
AWPF Goal: Project Will Enhance, Maintain, and/or Restore River, Stream, and Riparian Resources

WMG Objective 2: Reduce erosion, enhance infiltration, and improve stormwater quality

15% of requested funding



Desert Creek Flows Are Sustained by Shallow Groundwater





SCWC - Watershed Restoration Planning Tool



Legend

Flow Status - Current

- Intermittent
- Perennial
- Effluent Dominated
- Intermittent Effluent

Major Flow Channels



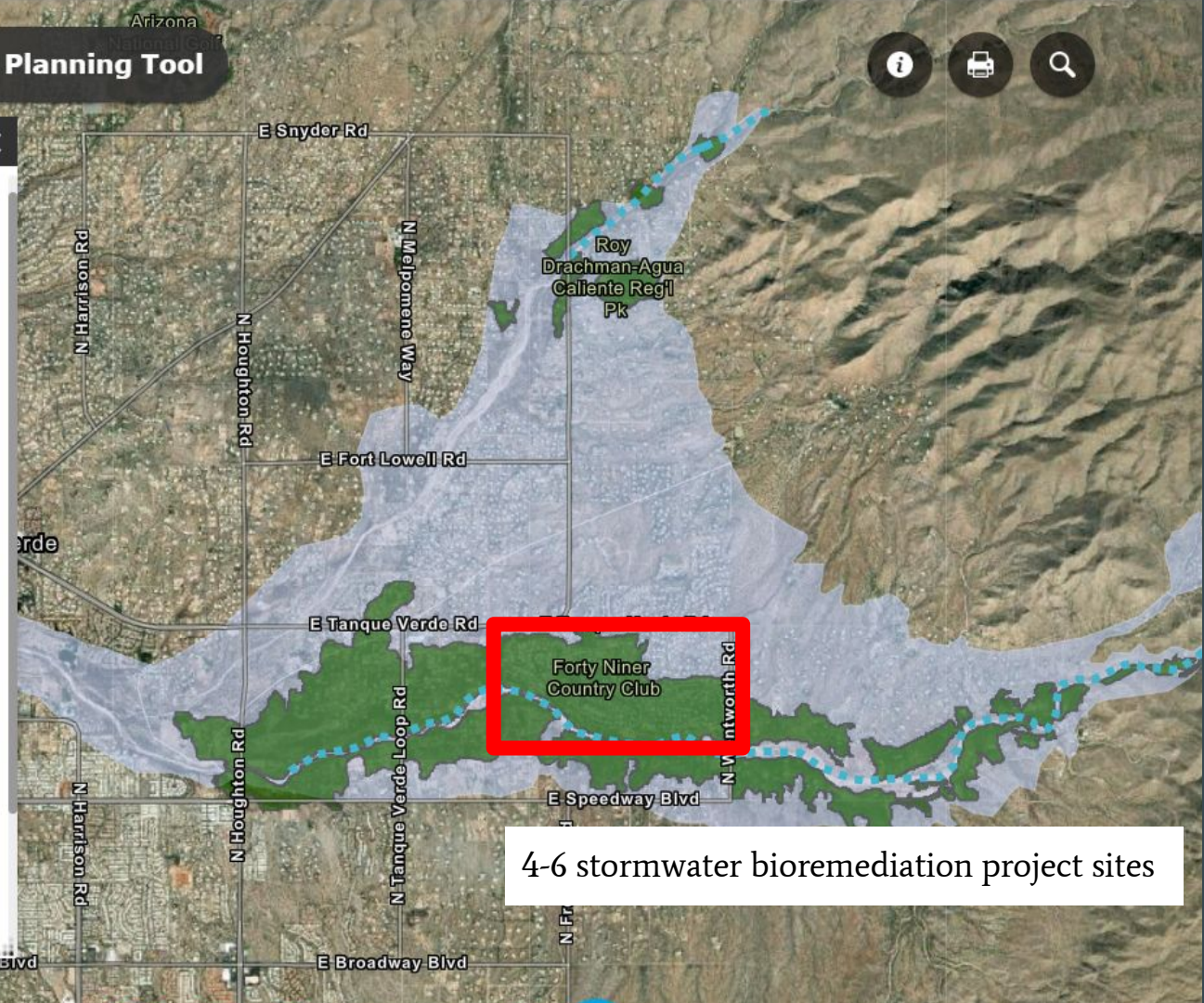
The Loop trail



2019 Riparian Forest Vegetation

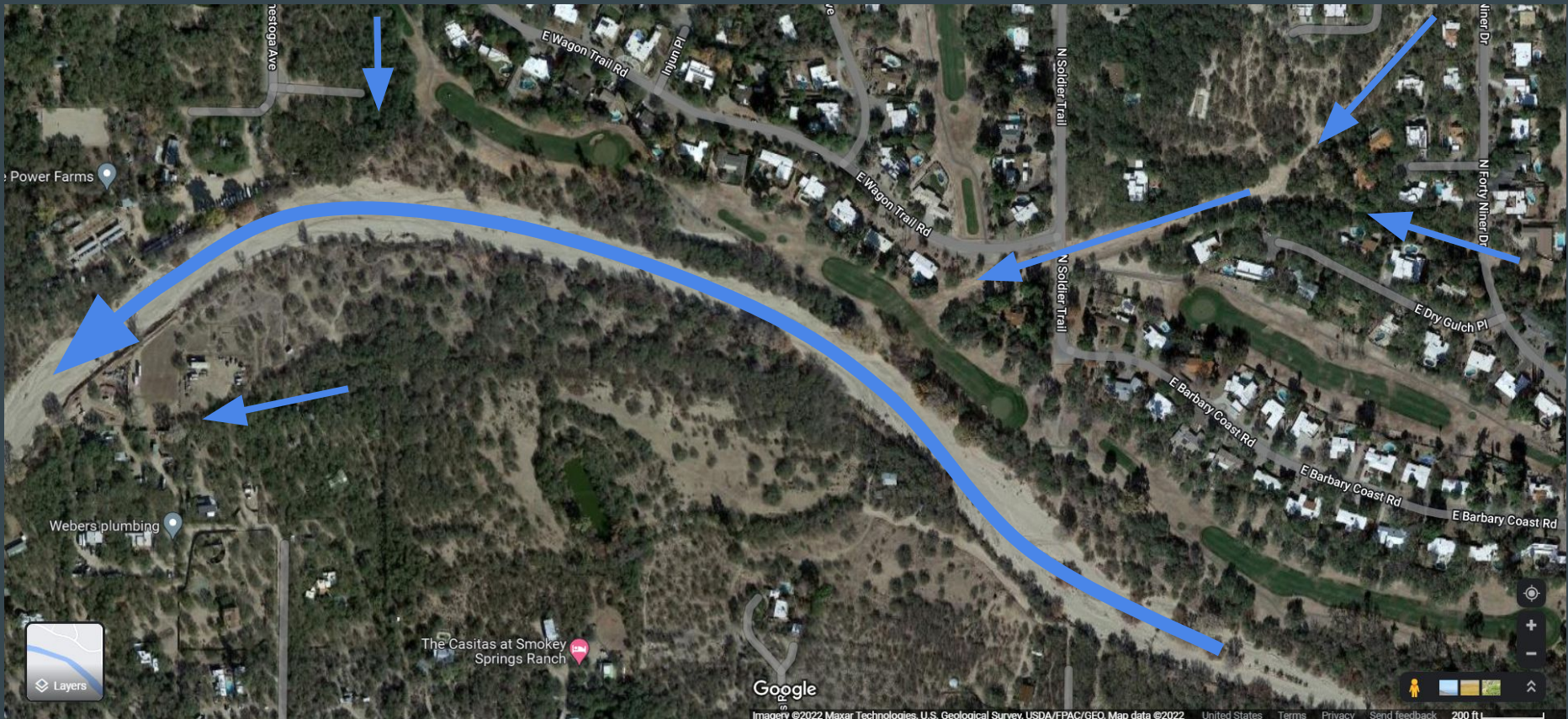


Shallow Groundwater Area



4-6 stormwater bioremediation project sites

Tanque Verde Creek Landscape: Low Density and Rural Residential

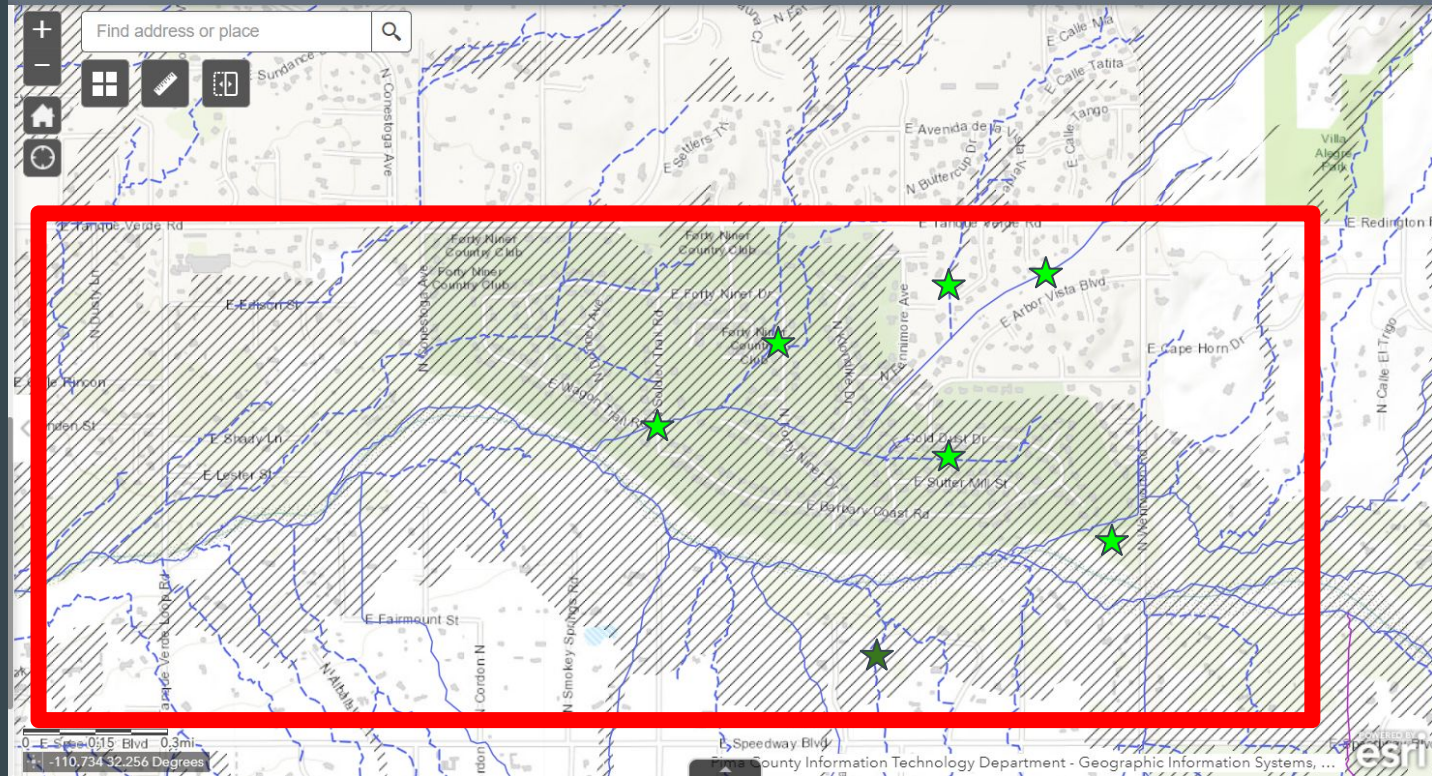


Shallow Groundwater: Stormwater recharge creek connections

MAP:

Hatching: Important
Riparian Area -
designated by Pima
County

Blue Lines: drainages
and Tanque Verde
Creek



Map: Pima Association of Governments: Resiliency Planning Tool

WMG Objective 2: Reduce erosion and stormwater impacts to improve water quality



Shallow groundwater
stormwater projects:

- Rock filter structures to slow and enhance infiltration
- Riparian plants to enhance habitat connectivity
- No impoundment of surface water

WMG Objective 2: Reduce erosion and stormwater impacts to improve water quality

Shallow groundwater stormwater projects:

- Rock filter structures to reduce channel bank and bed erosion & slow and enhance infiltration
- No impoundment of surface water

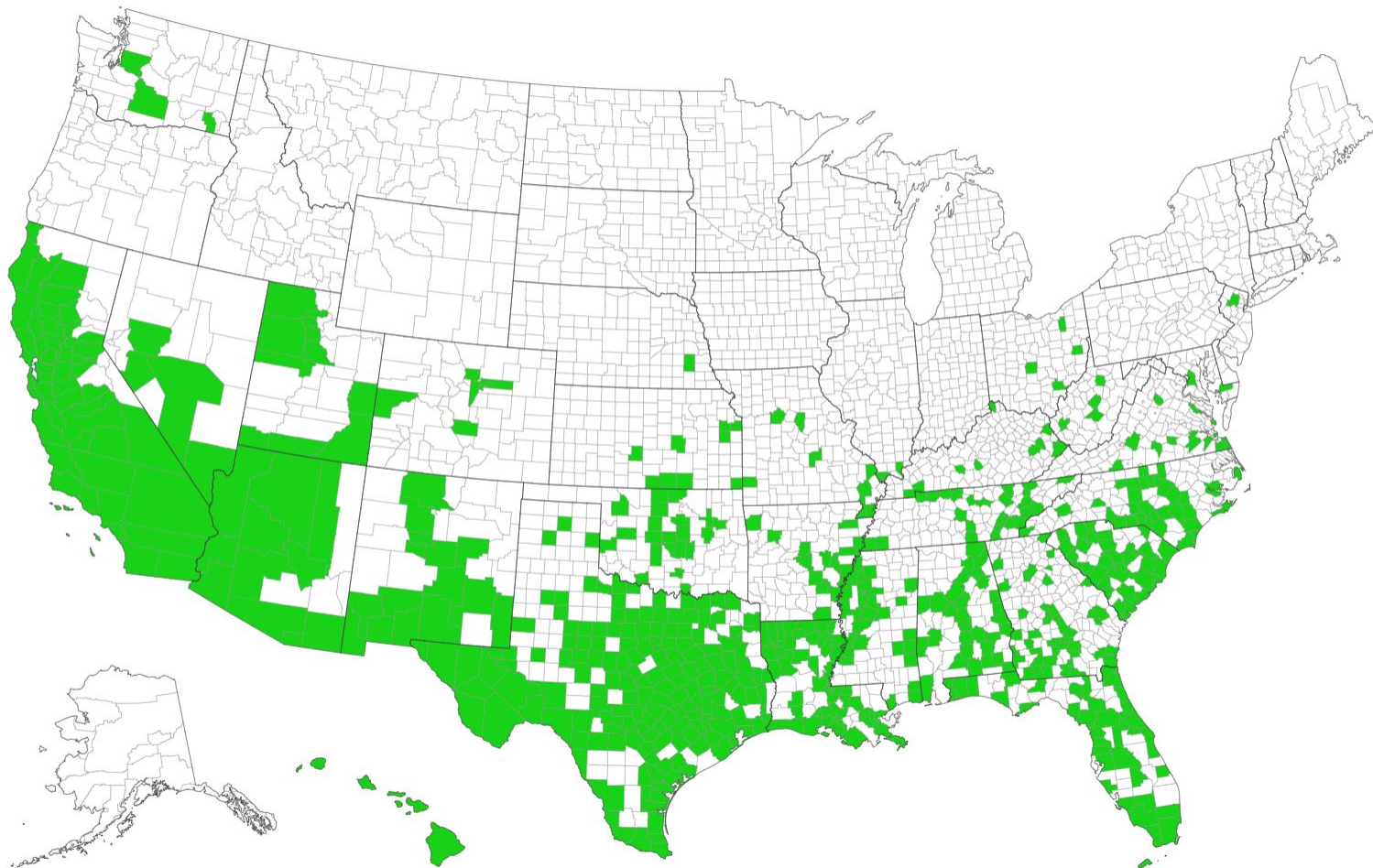


An aerial photograph showing a river winding through a lush, green forest. The river is light brown, suggesting sediment or sand, and is flanked by dense, vibrant green trees and vegetation. The perspective is from directly above, looking down at the river and the surrounding forest canopy.

Thank you for your consideration!

Your support is crucial for restoring Tanque Verde Creek

Additional slides



WMG Objective 2: Reduce erosion and stormwater impacts to improve water quality

Shallow groundwater
stormwater projects:

- Rock filter structures to slow and enhance infiltration
- Riparian understory plants to enhance habitat connectivity
- No impoundment of surface water





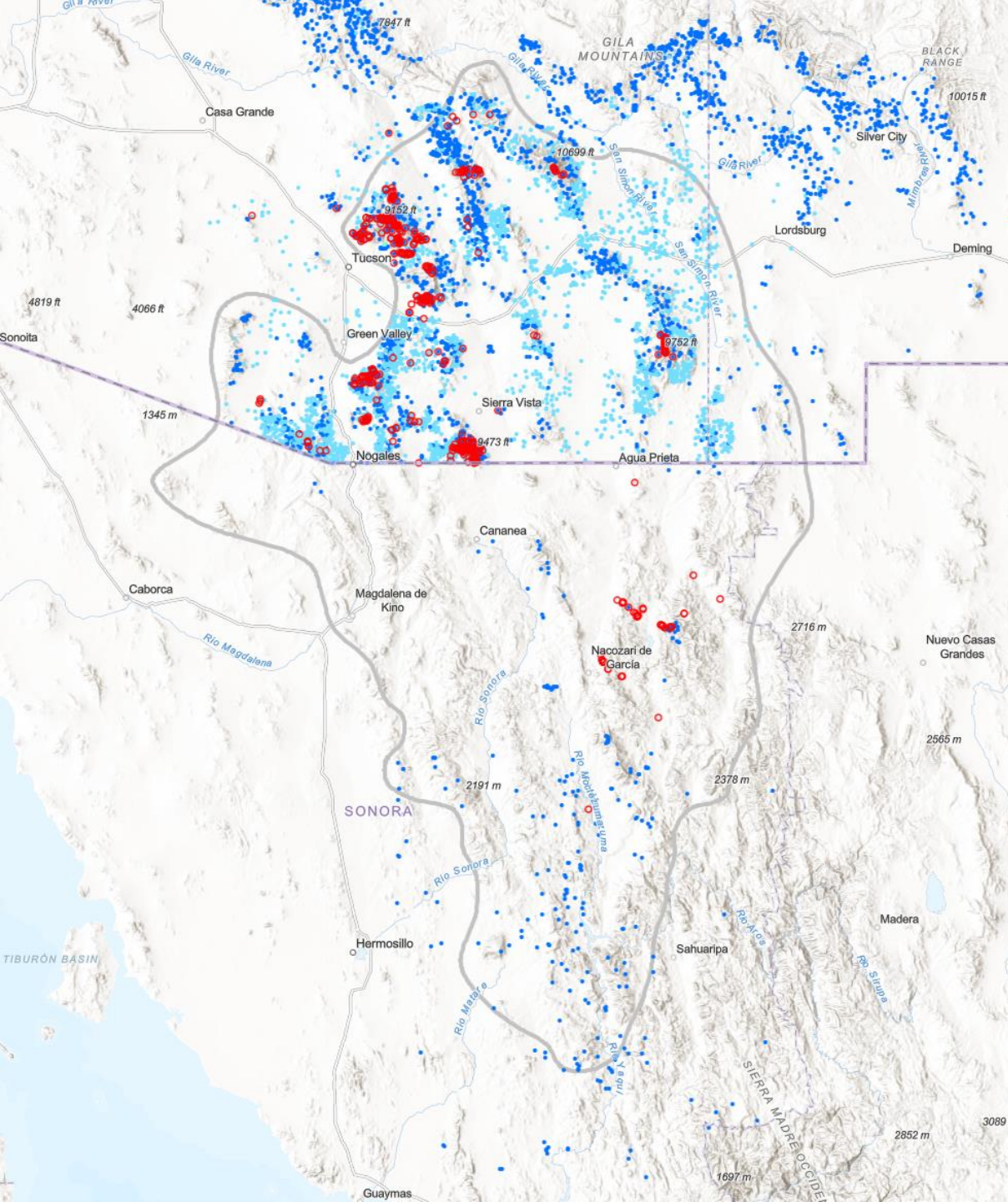
Protecting Arizona Springs

Sarah Truebe, PhD
Sky Island Alliance

SKY ISLAND ALLIANCE

We protect and restore the diversity of life and lands in the Sky Island region of the U.S. and Mexico.

We're working to ensure the Sky Islands are a place where nature thrives, open space and clean water are available to all, and people are connected to the region and its capacity to enrich our lives.



Springs and Water Sources

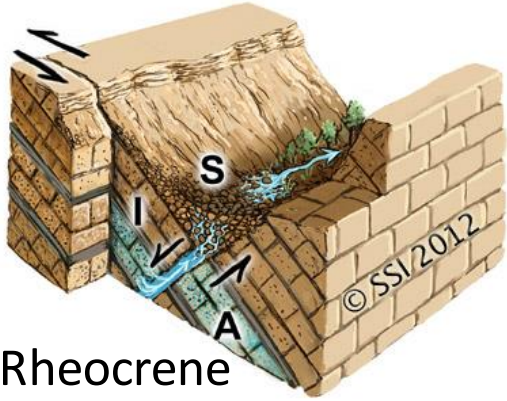
- Few rivers and lakes
- But 4000+ springs north of the border just in southern Arizona (~12,000 in Arizona total)
- Many springs are currently unprotected at the Federal and state levels

Spring Seeker Surveys

- >860 completed

What is a
spring? What
are the types of
springs?





Rheocrene



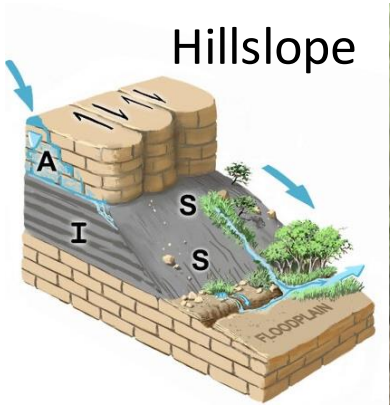
Alamo Spring, Pajarita Mountains



Douglas Canyon Spring, Galiuro Mountains



Oak Spring, Huachuca Mountains



Hillslope



McGrew Spring, Whetstone Mountains



Juniper Spring, Chiricahua Mountains



Kinglet Spring, Catalina Mountains



La Cebadilla Cienega, Tucson Basin



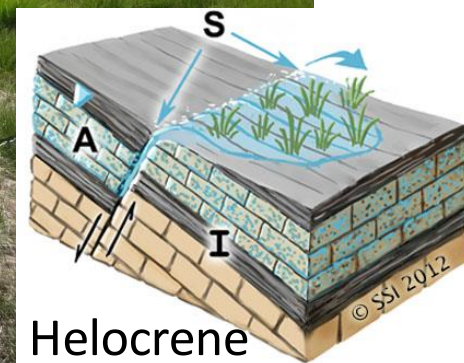
San Pedro Valley area



Baldy Spring, Santa Rita Mountains



Hospital Flat, Pinaleno Mountains



Why are springs important?

- Water!
 - Rest stops for wildlife
- Riparian plants and animals
- Springs endemic species
- Recreation, human, livestock uses
- Cultural history
- Climate refugia (drought, wildfire)

(Springer & Stevens 2008, Cartwright et al. 2020, Davis et al. 2017)



Bill Williams Spring, Catalina Mountains



Threats to springs

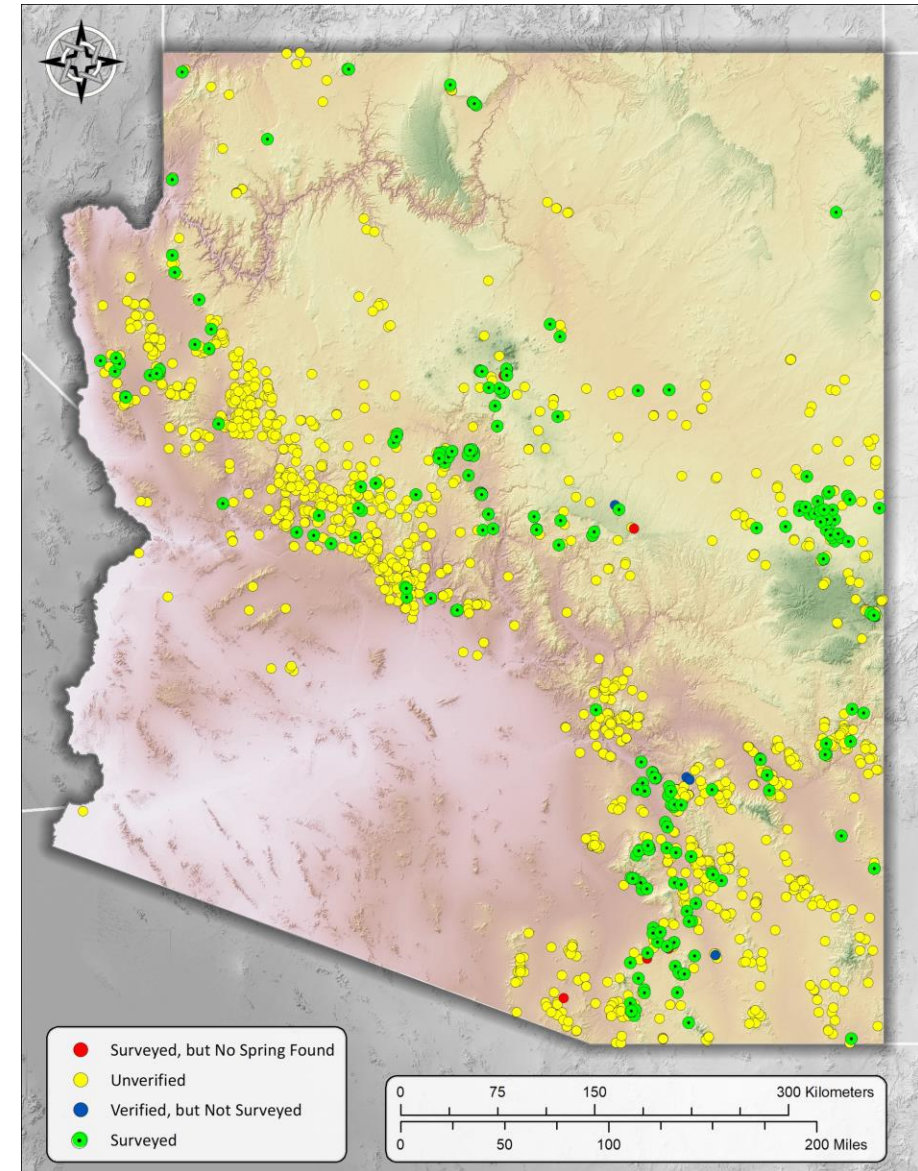
- Estimated ~90% of springs habitat is lost
- Groundwater overdrafting & development
- Grazing, trampling
- Pollution
- Climate change (drought, flooding, wildfire)
- Invasive species (plant and animal)
- Lack of information on spring locations and condition
- Lack of Federal- or state-level protections

Surface Water Protection Program

- Created a Protected Surface Waters List, which **includes**:
 - All WOTUS and any interstate or international waters
 - Specific stretches of specific rivers and adjacent wetlands
 - Intermittent waters used by people for drinking, recreation, fishing, etc.
 - Perennial or intermittent tributaries to major rivers (**may include some springs**)
- But, **excludes**:
 - Groundwater
 - “Ephemeral” waters
 - Any spring that is NOT in a riverbed/tributary NOR used for drinking or recreation

...**Unless** specifically nominated to the PSWL (stakeholder guidance document in progress for *how* to do this!)

Springs on non-Federal, non-Tribal lands



(Credit: Jeff Jenness, Spring Stewardship Institute)

SPRING SEEKER



SKY ISLAND ALLIANCE

- Bilingual mobile app
- No equipment required
- 10+ min at each site



ArcGIS Survey123

11:43 38%

Sky Island Spring Seeker

Additional Photos

What is the name of the water source? (if known)

255

Is the water source wet today? *

☐ Yes - there is standing or flowing water of any quantity

☐ Moist ground only - wet or damp soil (no standing or flowing water)

☐ No, but there are plants here that need extra water.

☐ No, it is totally dry

If you know how reliable this water source is, tell us about it.

☐ Always has standing or flowing water



Sabino Creek, Catalina Mountains

SPRING SEEKER

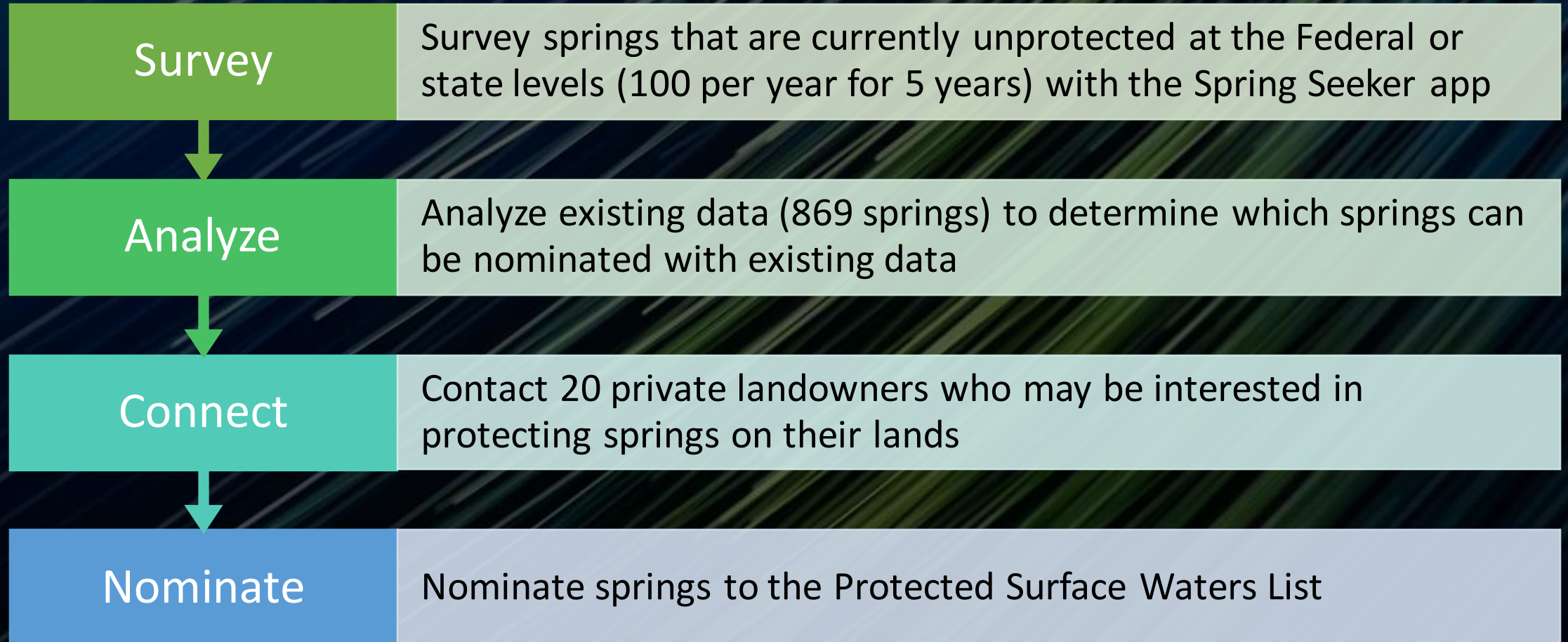


SKY ISLAND ALLIANCE

Survey Questions

- Water
- Plants
- Animals
- Impacts (human, livestock, wildfire, invasive species, etc.)
- Best route to get there

Proposed Project





Proposed Deliverables

- Permits
 - State Parks, Pima County – obtained
 - State trust – in process
- 20 more active Spring Seeker volunteers (100 total)
- Existing springs data and new data as acquired input to Springs Online (global database)
- 500 springs nominated to the Protected Surface Waters List
- Annual progress reports to AWPf
- Final report to AWPf, including dashboard access



Land Manager Springs Dashboard. This springs viewer dashboard shares the results from Sky Island Alliance's community science Spring Seeker program. The pullout tab on the left allows you to filter by date submitted and landowner. Click on any spring to see some other information about it. For more information about our Spring Seeker program, please contact Sarah at sarah@skyislandalliance.org.

Number of springs in view

779

Standing or flowing water

545

Moist ground only

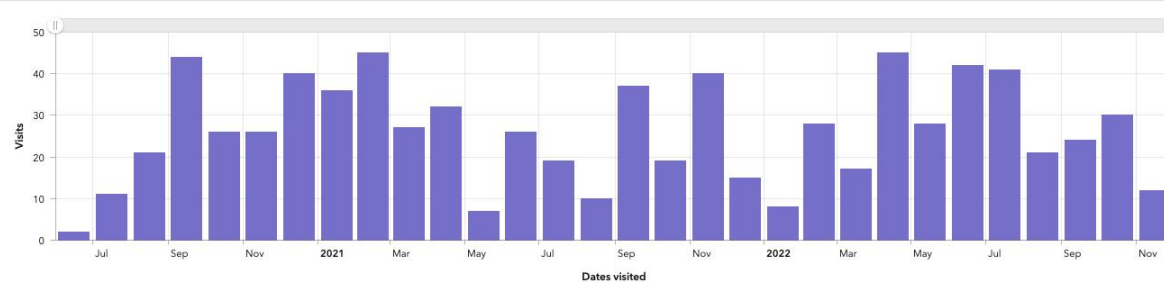
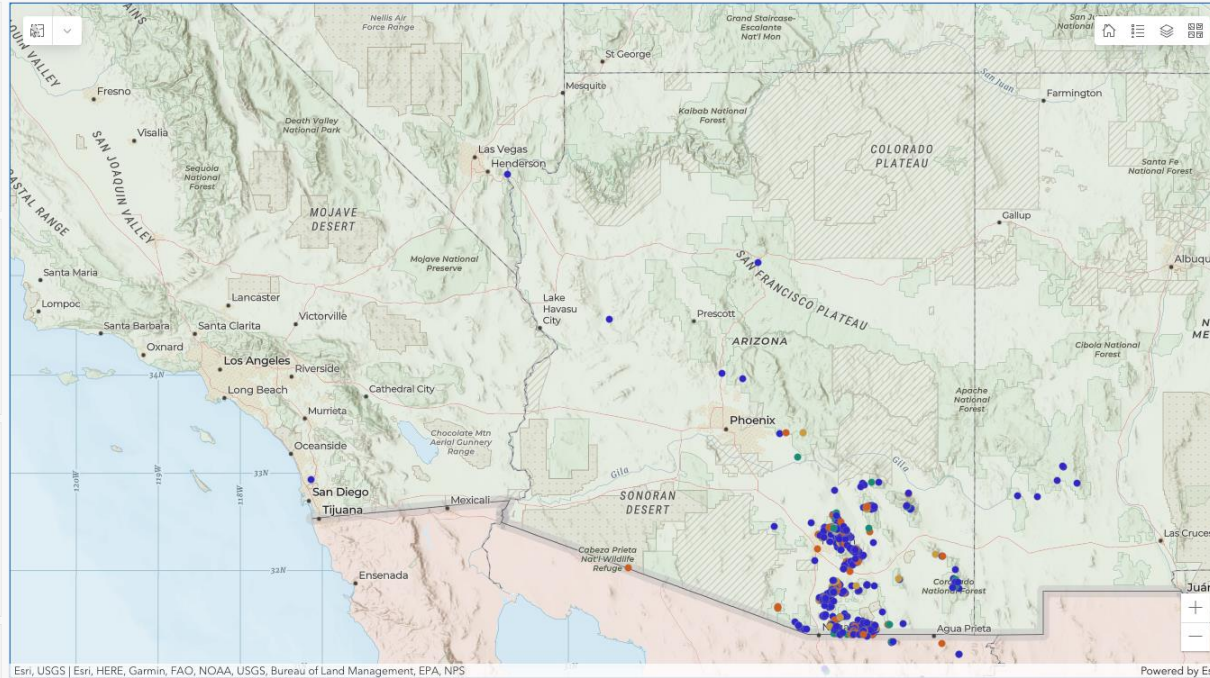
53

Dry but vegetated

42

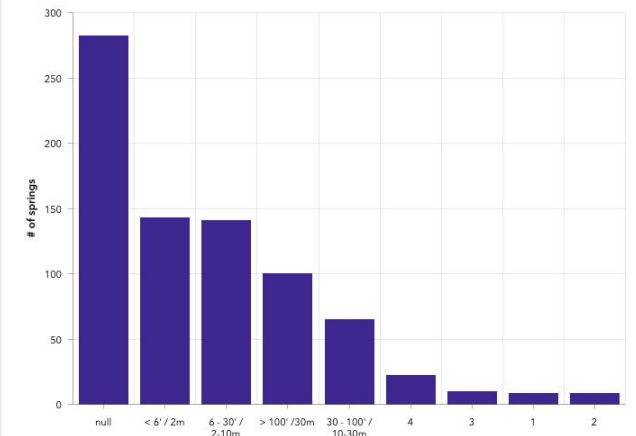
Totally dry

135



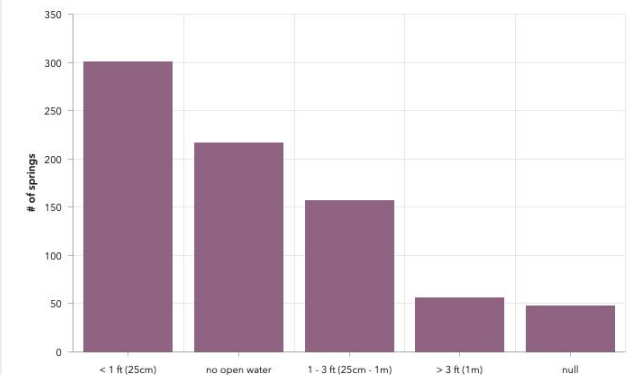
This graph shows the number of visits to springs by month (click on a month, or two, to just see those springs).

Water Reach



This graph shows the number of springs (filtered by viewing area or another category) based on the reach of the spring's water.

Depth of water



This graph shows the number of springs (filtered by viewing area or another category) based on the depth of each spring's water.



Questions?



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