Arizona Water Protection Fund
FY 2011 Grant Application Review

Application # WPF0397 **Applicant:** COCOPAH INDIAN TRIBE

Title of Project: COCOPAH COLORADO RIVER RESTORATION PROJECT

Additional materials were submitted with this application that could not be reproduced and distributed for review. These materials may be reviewed in person at the Arizona Water Protection Fund offices at (3550 N. Central Avenue, 2nd Floor, Phoenix). The additional materials available are the following:

_____ **Maps**
_____ **Photographs**
__X__ **Disk**
_____ **Other**

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Arizona Water Protection Fund
Application Cover Page
FY 2011

Title of Project: Cocopah Colorado Riber Restoration Project

Type of Project:
- ☒ Capital or Other
- ☐ Water Conservation
- ☐ Research

Stream Type:
- ☒ Perennial
- ☐ Intermittent
- ☐ Ephemeral

Your level of commitment to maintenance of project benefits and capital improvements:
☐ < 5 years ☐ 5-10 years ☐ 11-15 years ☒ 16-20 years

Applicant Information:

Name/Organization:	Cocopah Indian Tribe
Address 1:	County 15th and Avenue G
Address 2:	
City:	Somerton
State:	Arizona
ZIP Code:	85350
Phone:	928-627-2025
Fax:	928-627-3173
Tax ID No.:	

Inside an AMA: Yes ☐ No ☒

If yes, which AMA:
- ☐ Phoenix
- ☐ Tucson
- ☐ Prescott
- ☐ Pinal
- ☐ Santa Cruz

Type of Application:
- ☒ New
- ☐ Continuation

Contact Person:

Name:	Kevin Conrad
Title:	Director, Environmental Protection Office
Phone:	928-627-2025
Fax:	928-627-3173
e-mail:	cocoepo@cocopah.com

Any Previous AWPF Grants:
☒ Yes ☐ No

If yes, please provide Grant #(s):
08-156WPF

Arizona Water Protection Fund Grant Amount Requested:

$265,057.00

If the application is funded, will the Grantee intend to request an advance:
☐ **Yes** ☐ **No**

Matching Funds Obtained and Secured:

Applicant/Agency/Organization:	Amount ($):
1. Applicant	205,006.00
2.	
3.	

Total: 205,006.00

Has your legal counsel or contracting authority reviewed and accepted the Grant Award Contract General Provisions?
☒Yes ☐No ☐N/A

Signature of the undersigned certifies understanding and compliance with all terms, conditions and specifications in the attached application. Additionally, signature certifies that all information provided by the applicant is true and accurate. The undersigned acknowledges that intentional presentation of any false or fraudulent information, or knowingly concealing a material fact regarding this application is subject to criminal penalties as provided in A.R.S. Title 13. The Arizona Water Protection Fund Commission may approve Grant Awards with modifications to scope items, methodology, schedule, final products and/or budget.

Kermit Palmer	Tribal Administrator, 928-627-2021
Typed Name of Applicant or Applicant's Authorized Representative	**Title and Telephone Number**
	8-31-10
Signature	**Date Signed**

Executive Summary

This proposal will restore 30 acres of native wetland, riparian, and upland vegetation within the Cocopah Indian Reservation in the Limitrophe District along the Lower Colorado River. This restoration project is an integral piece to the restoration of the Lower Colorado River in order to increase habitat for wildlife by providing greater connectivity to native habitats as well as providing recreational, educational, and interpretive opportunities for the Cocopah Tribe and the public.

The aquatic, wetland, and riparian ecosystems of the Lower Colorado River have been greatly altered and reduced by over a century of water development projects, deforestation, agriculture and development, and non-native species invasion. These activities have impacted native stands of cottonwood, willow, mesquite, and a variety of native grass, forb, and shrub communities further promoting the establishment and proliferation of non-native, invasive species such as saltcedar and giant cane. Seasonal flooding that provided alluvial seed beds of native cottonwood and willow have ceased to occur causing the demise of natural recruitment of these species as well as ending the natural process of soil desalinization. Also, historic wetlands, aquatic habitats, and back water channels have filled in with sediment due to the lack of scouring flood flows. The ecological integrity of this system has been compromised, which has fostered the growth of low quality habitat dominated by saltcedar. Wildlife species, particularly resident and migratory bird populations, have declined with the loss of suitable cottonwood/willow and bulrush/cattail habitat. In the arid southwest, native wetland and riparian habitats have disproportionately higher species diversity and density than any other habitat type in the overall landscape. Therefore, impacts to these habitats cause a disproportionate threat to regional species diversity.

The Lower Colorado River is the homeland of the Cocopah Indian Tribe, and is the center of the Tribe's way of life. However, with the advent of hydroelectric power and various water management projects the riparian and wetland areas have suffered a radical loss of flow and have deteriorated to the point of being inaccessible and therefore useless to Tribal members and the general public. Initiating this restoration project, will provide a new opportunity to restore productive native habitat that will help recover native wildlife and a valuable resource for the Cocopah Tribe. The Cocopah Tribe has invested over $500,000, via AWPF, federal, and foundation grants in restoring over 40 acres of native, riparian habitat on the West Cocopah Reservation. If funded, this new project will provide the next essential steps to restoring healthy native wetland, riparian, and upland habitat to prevent exotic vegetation re-growth and provide high quality habitat for wildlife. There have been limited restoration efforts in the Limitrophe District of the Lower Colorado River. In order to accomplish this 30-acre wetland, riparian and upland restoration project, the following objectives have been proposed:

1. Restore self-sustaining riparian habitat where water table and soil conditions allow between the Colorado River and the levee within the project area on the Cocopah Indian Tribe's West Reservation.
2. Restore self-sustaining upland habitat in areas where site conditions preclude riparian habitat within the project area.
3. Stabilize and/or revegetate any wetland and riparian habitat impacted by saltcedar and giant cane infestation along the slope of the Colorado River within the project area.
4. Obtain valuable data to apply to future restoration activities within the Limitrophe District.

This will be accomplished by completing the following tasks:

1. Planting and irrigation design based upon water table and soil salinity analysis.
2. Follow up mechanical/herbicide weed removal on the 30 acres site.
3. Revegetate 30-acres of native wetland, riparian, and upland habitats.
4. Plant monitoring within the revegetation areas for two growing seasons post-revegetation.

Project Overview

Background:

Riparian ecosystems are renowned for their high levels of biodiversity, productivity, dynamism, and threatened status (Noss and Cooperrider 1994). Riparian and aquatic environments comprise the smallest areas in the arid southwest, but support a disproportionately higher species diversity and density than any other habitat type in the overall landscape. However, particularly in Arizona, these ecosystems are increasingly imperiled due to extensive modification and exotic species invasion. The Limitrophe region of the Lower Colorado River, including the corridor along the Cocopah Indian Reservation, has been modified extensively by over a century of flood-control, water diversion, and agricultural activities, which have affected the native vegetation and wildlife that depend on it.

In an effort to restore the native riparian, wetland, and aquatic habitats of Arizona, the Cocopah Indian Tribe is proposing to restore 30 acres of native riparian, wetland, and upland habitat below Morelos Dam, the final dam on the Colorado River. The primary goal of implementing this plan is to restore native habitat for both resident and migratory wildlife species along the Lower Colorado River. Some of these species include species of special concern, such as the southwestern willow flycatcher (*Empidonax traillii extimus*), the yellow-billed cuckoo (*Coccyzus americanus*), Yuma hispid cotton rat (*Sigmodon hispidus eremicus*), and MacNeill's sootywing skipper (*Polypore graceless*). The restoration of these habitats will involve, but is not be limited to, three main activities:

- Follow up exotic species removal on the 30-acre site using hand removal and mechanical techniques. This site was originally cleared in 2005, but salt cedar has resprouted in many areas and will require additional removal.
- Revegetating 30 acres between the river and the levee with native riparian, wetland, and upland species including cottonwood, willow, mesquite, and other native species.

This area encompasses 30 acres and is located approximately 8 miles downstream of Morelos Dam on the U.S. (Arizona) side of the river. One of the most ecologically altered riparian landscapes in the Southwest, this area has sustained nearly a century of flow regulation, channelization, non-native species invasion, wildfires and intense illegal immigration. It is now largely comprised of non-native, invasive vegetation such as, saltcedar (*Tamarix spp.*) and giant cane (*Arundo donax*) (See Project Site Photos).

Along with restoring habitat for wildlife, another goal of the project is to provide recreational, cultural, interpretive, and educational opportunities. Once an important element in the Cocopah Tribal culture, the Colorado River has since become virtually inaccessible to Tribal members and the public due to non-native species invasion and illegal activities such as: illegal border crossing, illegal trash dumping, and smuggling and drug trafficking. Initiating this restoration project, will provide a new opportunity to squelch the current undesirable activities occurring on the site and provide productive native habitat that will provide a link between the Tribe and the Colorado River. The vision of the Cocopah Indian Tribe is to incrementally restore riparian and wetland

areas along the Lower Colorado River on Tribal lands and eventually create traditional native plant gardens, nature parks, and interpretive trails. Native riparian and wetland restoration has been very limited in the Limitrophe District of the Lower Colorado River. If funded, this project will provide the primary steps to achieving the Tribe's vision.

The first phase of this restoration project has already commenced. In 2005, the Cocopah Environmental Protection Office cleared non-native vegetation from the site using funds from the Environmental Protection Agency. Although this initial treatment temporarily cleared the non-native vegetation from the 30-acre site, re-colonization has been rapid and the site will have to be retreated using a bulldozer and hand clearing treatment. After clearing is accomplished, planting of native riparian and wetland species, including cottonwood, willow, mesquite, bulrush, and other native forbs and grasses will promote a healthy native plant community. Due to the precarious location of this site along the Arizona/Mexico border, this project aims to restore essential habitat for wildlife and community development, while complying with border patrol standards to create a safe corridor. Without this project, the Limitrophe District of the Lower Colorado River will degrade further, continuing the decline species of special concern that depend on this habitat.

Goals:

1. Establish/enhance 30 acres of self-sustaining native habitat, including riparian cottonwood, willow and mesquite communities, upland shrubland and grassland communities, and/or channel bank line/wetland habitat

2. Evaluate the success of the 30 acre wetland, riparian, and upland revegetation project through plant monitoring for two years after revegetation.

Objectives:

1. Restore self-sustaining riparian habitat where water table and soil conditions allow between the Colorado River and the levee within the project area on the Cocopah Indian Tribe's West Reservation.

2. Restore self-sustaining upland habitat in areas where site conditions preclude riparian habitat within the project area.

3. Stabilize and/or revegetate any wetland and riparian habitat impacted by saltcedar and giant cane infestation along the slope of the Colorado River within the project area.

4. Obtain valuable data to apply to future restoration activities within the Limitrophe District.

Statement of Problems/Causes:

- Damaged/Degrading riparian and wetland habitat.
- Increased soil salinity due to insufficient water-flow through historic channels and wetlands.
- Excessive reproduction of non-native plant species.
- Insufficient reproduction of native plant species.
- Lack of critical habitat for several endangered species including the southwestern willow flycatcher and other wildlife species.
- Dams

- River channelization
- Siltation of historic river channels and backwaters
- Introduction of highly flammable, quickly-regenerating, exotic saltcedar
- Human encroachment /Development

Statement of Solutions:

1. Conduct follow up mechanical/hand removal of exotic plant species from a 30-acre area of the Cocopah Indian Reservation and revegetate this area with native wetland, riparian, and upland species.

2. Monitor the success of the revegetation site to determine the potential for other revegetation efforts within the Cocopah Indian Reservation in the Limitrophe District of the Lower Colorado River.

Statement of Project Years of Benefits

The 30-acre revegetation project will be designed and implemented based on the specific water table and soil conditions of the site, and therefore should become self-sustaining by the end of the second full growing season. The Cocopah Tribe intends to work to monitor the success of this project, and will use the information to plan and, where feasible, implement control programs in the foreseeable future. Follow-up maintenance required at this 30-acre site will consist of limited fire control, weed eradication, and tree stand evaluation. The projected years of benefit for this project should exceed 50 years.

Project Location & Environmental Contaminant Information
FY 2011

Project Location Information			
1. County: Yuma	2. Section: 24	3. Township: 9S	4. Range: 25W

5. Watershed: Lower Colorado RIver

6. 8 or 10 Digit Hydrologic Unit Code (HUC): 12090302

7. Name of USGS Topographic Map where project area is located: Greys Well NE and Gadsden

8. State Legislative District: 7

(Information available at: http://159.87.126.6/mapping/default2.asp?tname=Original.2009.Legislative.Map&org2009leg=on&service=ircmaps&init=true)

9. Land ownership of project area: Cocopah Indian Tribe

10. Current land use of project area: Degraded river habitat

11. Size of project area (in acres): 30

12. Stream Name: Colorado River

13. Length of stream through project area: .5

14. Miles of stream benefited: .5 miles

15. Acres of riparian habitat: 30 acres will be:

- ☐ Enhanced
- ☐ Maintained
- ☒ Restored
- ☐ Created

16. Provide directions to the project site from the nearest city or town. List any special access requirements:
From Somerton AZ. Take US 95 south to county Avenue G, turn right, go to County 15th street, turn left, go to BOR levee, turn right, go to 14 1/2 Bridge over MODE canal, turn left, proceed ~ 1 mile to vehical Barrier - at site. Must call Border Patrol Duty Desk to unlock gate at 14 1/2, 928-341-2850

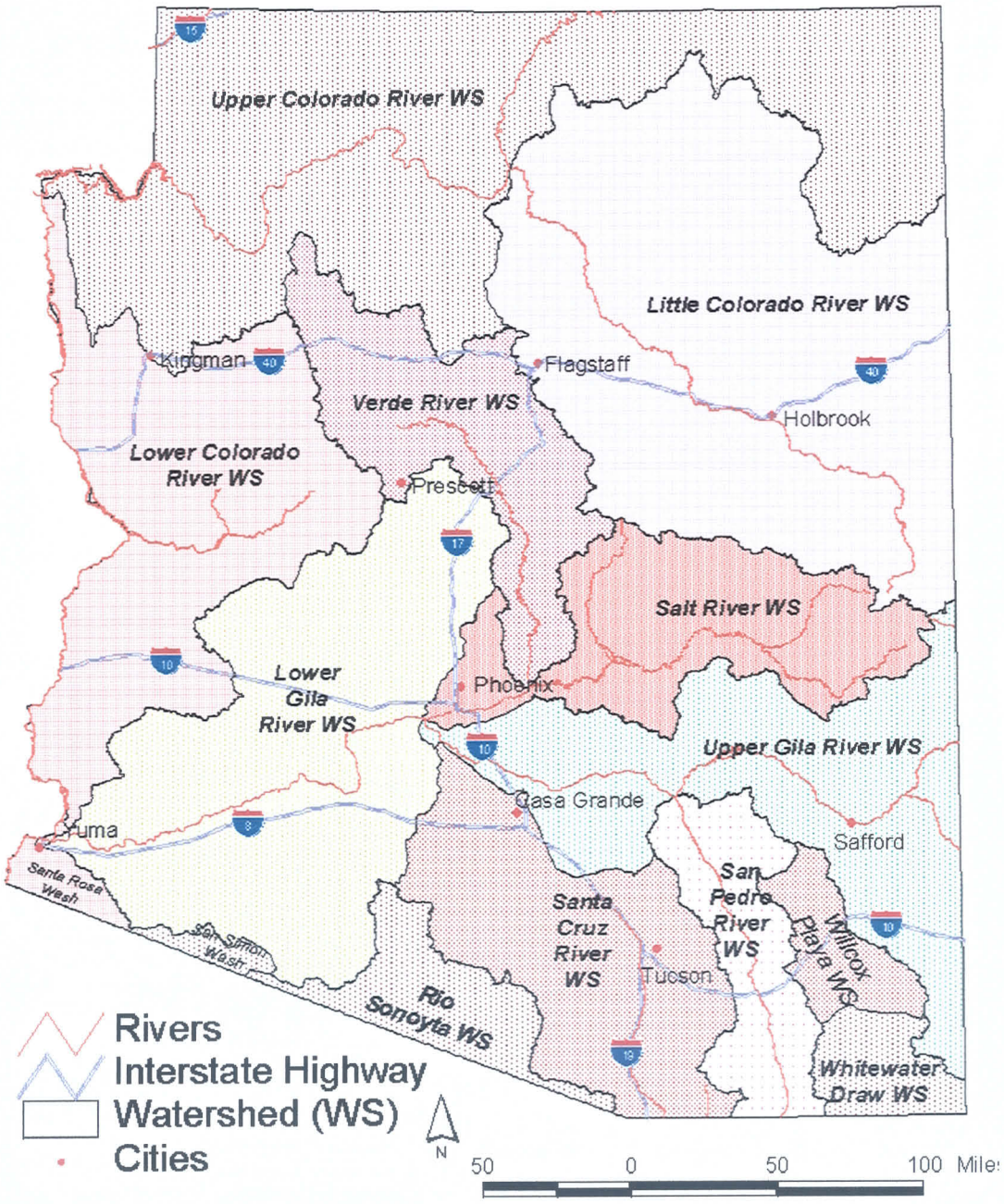
Environmental Contaminant Location Information

1. Does your project site contain known environmental contaminants? ☐ **YES** ☒ **NO** If yes, please identify the contaminant(s) and enclose data about the location and levels of contaminants:

2. Are there known environmental contaminants in the project vicinity? ☐ **YES** ☒ **NO** If yes, please identify the contaminant(s) and enclose data about the location and levels of contaminants:

3. Are you asking for Arizona Water Protection Fund monies to identify whether or not environmental contaminants are present? ☐ **YES** ☒ **NO**

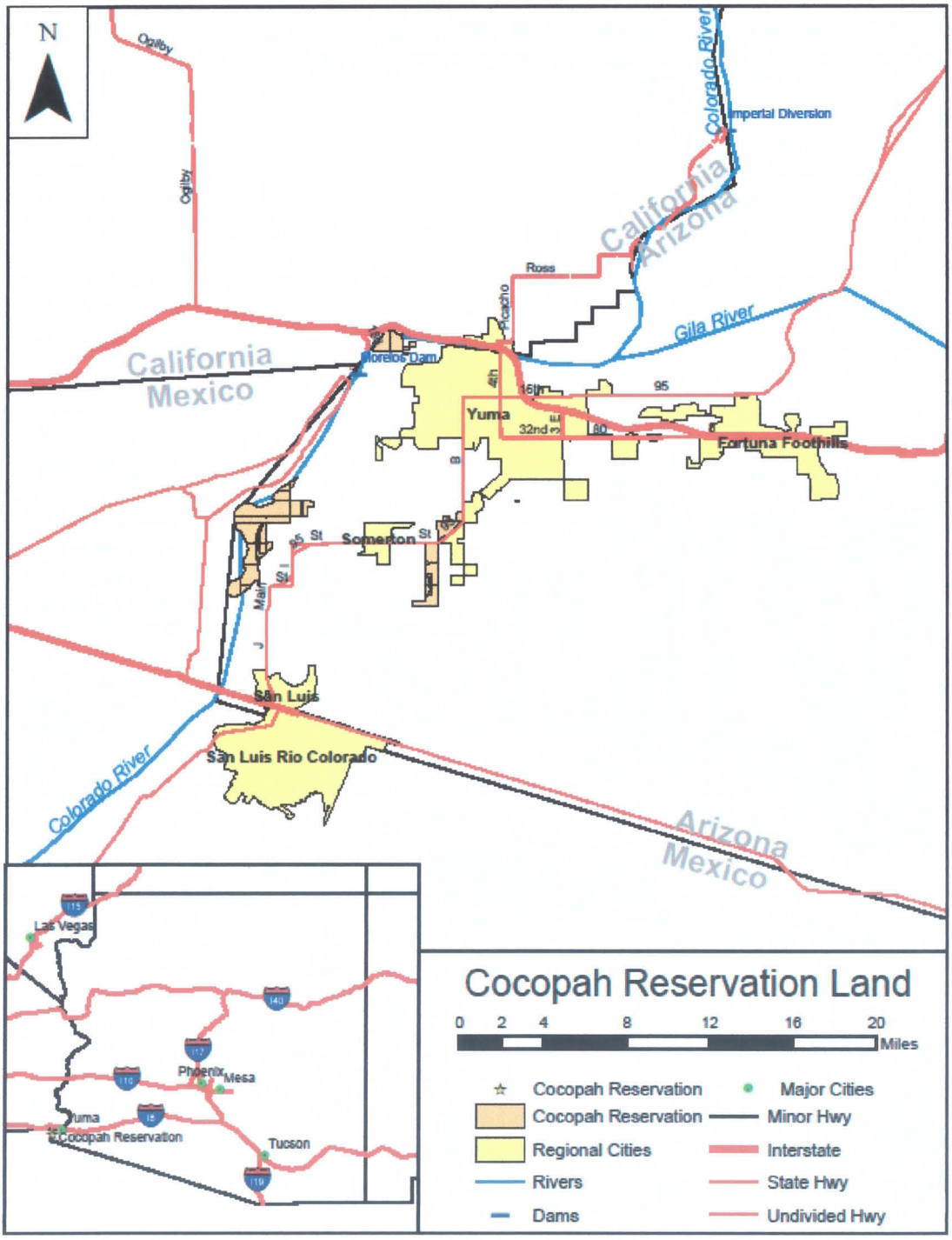
Arizona Watershed Map
FY 2011

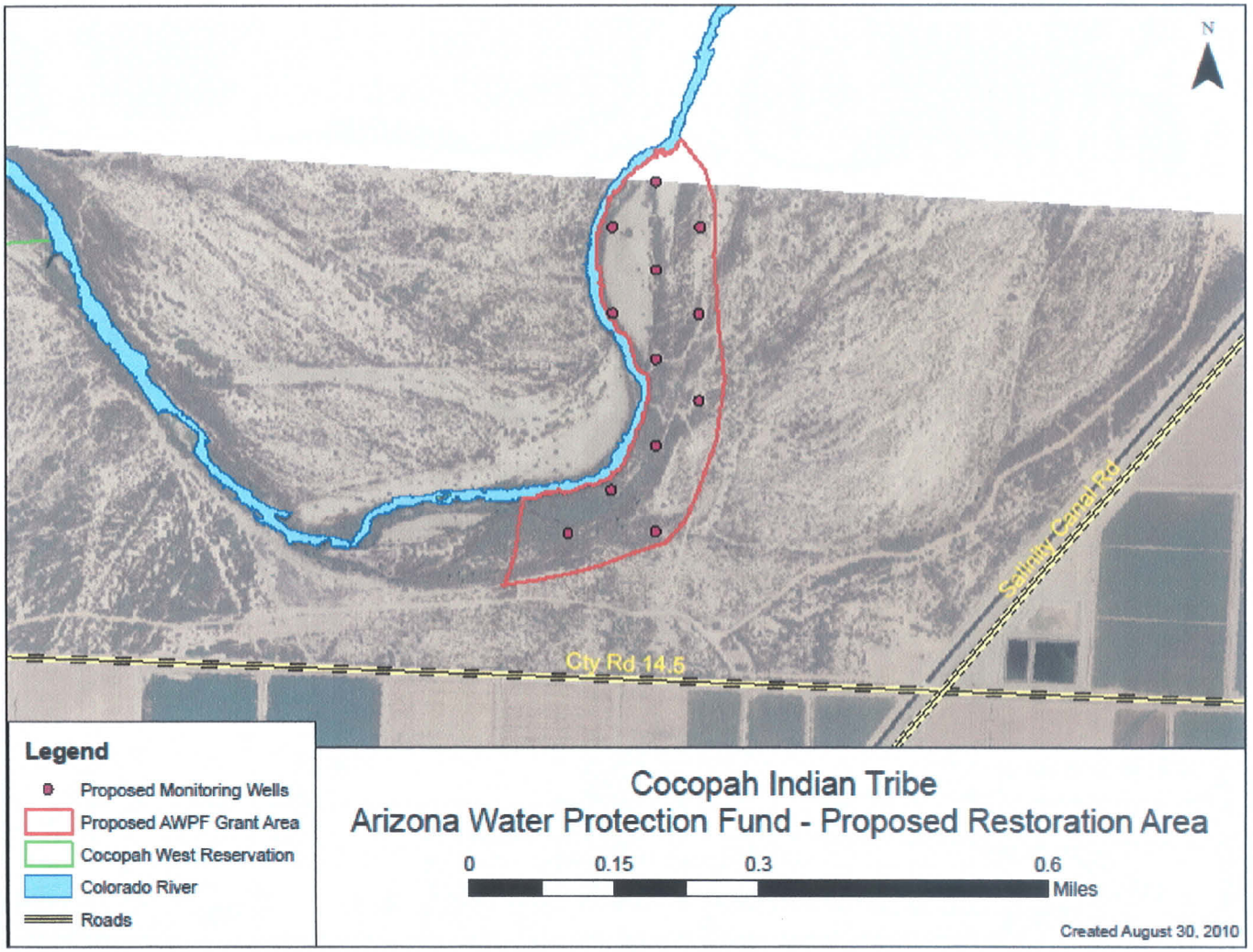


Title of Project: <u>Cocopah Tribe Colorado River Restoration Project</u>

Project Location/Ownership Map(s)

Note: the 7.5 minute USGS map for this location is severely out of date, having been created in 1968 with data that is no longer accurate. Because it does not show the current course of the river, we have not included the USGS map.




N
Cty Rd 14.5
Legend
Proposed Monitoring Wells
Proposed AWPF Grant Area
Cocopah West Reservation
Colorado River
Roads
Cocopah Indian Tribe
Arizona Water Protection Fund - Proposed Restoration Area
0
0.15
0.3
0.6
Miles
Created August 30, 2010

Task Description: The Grantee shall prepare and submit a 30-acre wetland and riparian restoration and vegetation-monitoring plan. This plan will include details on any additional required saltcedar removal and restoration of 30 acres of self sustaining riparian habitat adjacent to the Colorado River to native cottonwood/ willow/mesquite habitat. The plan will also include specific monitoring methods and success parameters.
Task Purpose: To develop and site specific plan that incorporates soil and water table information and directs restoration implementation.
Deliverable Description: Revegetation and vegetation monitoring plans.
Deliverable Due Date: After Contract Execution
AWPF Reimbursable Cost: $3,108

Task #5: Site Clearing

Any remaining exotic vegetation on the 30-acre site will be cleared by hand removal or targeted herbicide application. Existing native plant material will remain on site. The cleared vegetation material will be mulched or piled in windrows on areas that are of low habitat value on the site, covered with sediment, and planted with native vegetation.
Task Purpose: To reduce competition for the native species and move toward the goal of a native self-sustaining habitat.
Deliverable Description: A report with photo documentation of the cleared 30-acre area.
Deliverable Due Date: After the completion of the clearing.
AWPF Reimbursable cost: $16,800

Task #6: Wetland and Riparian Revegetation at the 30-Acre Site
Task Description: Thirty acres of riparian area between the Colorado River channel and the levee will be planted with native species that are appropriate to the community and the existing water table and soil conditions. When possible, cottonwood, willow, and mesquite species will be planted as pole cuttings and/or tall pots down to the water table. In some cases, supplementary irrigation may be required during the first few years after planting. Irrigation will be completed with a water truck or mobile sprinkler system depending on the species used and the specific site characteristics where it is needed (topography, distance from road, distance from river, etc.). Mesquite species are more tolerant of increased soil salinity and pH than cottonwoods and willows, but in areas were soil chemistry will not support any of these tree species, a mixture of native shrub, grass, and herb seed will be spread. This seed mixture will also be used in the understory of the areas planted with riparian trees. The native seed mix will include more alkaline tolerant and drought resistant species to build understory structure and inhibit exotic species invasion. The final planting design will determine the density and location of these species within the site, which will be based on the results of the soil and depth to water table analyses as well as other site characteristics.
Task Purpose: To establish/enhance a native self-sustaining habitat along the Colorado River on the Cocopah West Reservation.
Deliverable Description:
1. Annual reports including planting plans, photos, and project revegetation activities to date.
2. A final year report describing all revegetation construction activities for the 32-acre project.

Deliverable due dates: 12 and 24 Months after Contract Execution
AWPF Reimbursable cost: $154,035

Task #7: Irrigation Design and Set-Up

Task Description: All trees planted in the riparian area will be planted down to the water table or with an irrigation system designed to assist root establishment down to the water table in the first two growing seasons. The irrigation design will depend heavily of the results of the water table

monitoring conducted prior to the revegetation planning and implementation. The water table conditions will inform the revegetation design, species selected, and irrigation system implemented. Irrigation designs may incorporate a water truck for individual tree watering or small area flooding, a buried drip irrigation system installed during revegetation, and/or a mobile sprinkler system depending on the requirements of the site. Some areas were the water table is too deep may be seeded with a drought tolerant native seed mix and may not be irrigated at all.
Task Purpose: To achieve greater revegetation success
Deliverable Description: An irrigation design outlining the planned system and timeline
Deliverable due dates: Prior to revegetation implementation.
AWPF Reimbursable cost: $16,170

Task #8: Two Year Post Revegetation Monitoring

When planting is complete the grantee will conduct bi-annual plant monitoring at the beginning (April-May) and the end (September-October) of the growing season at the revegetation site. Monitoring will include native tree and shrub height measurements, survivorship, condition, and factors affecting growth; rate of exotic weed recolonization; and success of native herbaceous ground cover growth. Monitoring will help determine success of the project by documenting native wetland and riparian vegetation establishment and survivorship and control of exotic species regrowth. Additionally, this monitoring effort will help guide future revegetation efforts within the Limitrophe District of the Lower Colorado River.
Task Purpose:
Deliverable Description:
1. Annual reports including, photos, growth data and cover analyses, and project activities to date.
2. A final monitoring report describing all revegetation activities for the 30 acres including the success of the project and all tree growth, and cover that occurred during the growing season.
Deliverable due dates: 12 and 24 Months after Contract Execution
AWPF Reimbursable cost: $28,875

Task #9: Final Report

Task Description: The Grantee shall prepare and submit a comprehensive final report in accordance with the Arizona Water Protection Fund Final Report Guidelines. The final report shall include a summary of all methodologies used, outcomes of all Tasks, analysis of all Project data, suggestions for any changes or future actions, and an evaluation of the success of meeting Project objectives. The Grantee shall provide all data generated under this Contract, unless otherwise specified in the Special Provisions.
Task Purpose:
Deliverable description: Final report
Deliverable due date: 24 Months after Contract Execution
AWPF Reimbursable Cost: $6,951

Detailed Budget Breakdown

	AWPF Funding Request			
Item	**Item/Hours**	**Unit**	**Rate**	**Total**
Task #1 Permits, Authorizations, Clearances and Agreements				
Outside Services:				
Natural Resource Scientist	8	Hours	$80	$ 640
Administrative Costs (5%):				$ 32

Total for Task #1				**$**	**672**
Task #2 Overall Project Coordination					
Direct Labor Costs:					
Cocopah Environmental Director	80	Hours	$40	$	3,200
Outside Services:					
Natural Resource Scientist	100	Hours	$80	$	8,000
Project Coordination Consultant	100	Hours	$70	$	7,000
Other Direct Costs:					
Consultant Airfare	4	Trips	$300	$	1,200
Consultant Travel (meals @ $50/day, 6 nights lodging @ $100, rental car @ $50/day)	12	Days	varies	$	2,000
Administrative Costs (5%):				$	1,070
Total for Task #2				**$**	**22,470**
Task #3: Depth to Water and Soil Salinity Analyses					
Direct Labor Costs:					
Cocopah Environmental Director	50	Hours	$40	$	2,000
Outside Services:					
Natural Resource Scientist	100	Hours	$80	$	8,000
Other Direct Costs:					
Consultant Airfare	1	Trips	$300	$	300
Consultant Travel (meals @ $50/day, 6 nights lodging @ $100, rental car @ $50/day)	10	Days	varies	$	1,900
Survey Equipment Rental	10	Days	$100	$	1,000
Soil Auger Rental	10	Days	$16	$	160
Soil Sample Lab Analysis	30	Samples	$65	$	1,950
Administrative Costs (5%):				$	666
Total for Task #3					**$15,976**
Task #4 Prepare and Submit Restoration and Monitoring Plans					
Outside Services:					
Natural Resource Scientist	30	Hours	$80	$	2,400
GIS Technician	8	Hours	$70	$	560
Administrative Costs (5%):				$	148
Total for Task #4				**$**	**3,108**
Task #5: Site Clearing					
Direct Labor Costs:					
Cocopah Environmental Director	25	Hours	$40	$	1,000
Outside Services:					
Weed Removal Contractor	30	Acres	$500	$	15,000
Administrative Costs (5%):				$	800
Total for Task #5				**$**	**16,800**
Task #6: Revegetation at the 30-acre Site					

Revegetation Project Oversight					
Direct Labor Costs:					
Cocopah Environmental Director	40	Hours	$40	$	1,600
Outside Services:					
Natural Resource Scientist	150	Hours	$80	$	12,000
Other Direct Costs:					
Consultant Airfare	5	Trips	$300	$	1,500
Consultant Travel (meals @ $50/day, 6 nights lodging @ $100, rental car @ $50/day)	13	Days	varies	$	2,500
GPS Survey Equipment	13	Days	$100	$	2,500
Riparian Revegetation on 10 Acres					
Outside Services:					
Native Seed & Fertilizer Application Contractor					
Labor	30	acres	$580	$	17,400
Equipment	30	acres	$370	$	11,100
Materials (Native seed mix + fertilizer)	30	acres	$910	$	27,300
Poles/Container Transplant Installation Contractor					
Labor	600	Plants	$46	$	27,600
Equipment	600	Plants	$34	$	20,400
Materials (10' poles and/or container stock)	600	Plants	$38	$	22,800
Administrative Costs (5%):				$	7,335
Total for Task #6					**$154,035**
Task #7: Irrigation Design and Set-Up					
Direct Labor Costs:					
Cocopah Environmental Director	20	Hours	$40	$	800
Cocopah Environmental Technician	80	Hours	$30	$	2,400
Outside Services:					
Natural Resource Scientist	30	Hours	$80	$	2,400
Irrigation Contractor	30	Acres	$300	$	9,000
Other Direct Costs:					
Consultant Airfare	1	Trips	$300	$	300
Consultant Travel (meals @ $50/day, 2 nights lodging @ $100, rental car @ $50/day)	3	Days	varies	$	500
Administrative Costs (5%):				$	770
Total for Task #7				**$**	**16,170**
Task #8: Two-Year Post Revegetation Monitoring					
Direct Labor Costs:					
Cocopah Environmental Director	20	Hours	$40	$	800

Outside Services:					
Natural Resource Scientist	300	Hours	$65	$	19,500
Other Direct Costs:					
Consultant Airfare	4	Trips	300	$	1,200
Consultant Travel (meals @ $50/day, lodging @ $100, rental car @ $50/day)	12	Days	varies	$	4,200
GPS Survey Equipment	12	Days	$100	$	1,200
Monitoring equipment	12	Days	$50	$	600
Administrative Costs (5%):				$	1,375
Total for Task #8				**$**	**28,875**
Task #9: Final Report					
Direct Labor Costs:					
Cocopah Environmental Director	8	Hours	$40	$	320
Outside Services:					
Natural Resource Scientist	60	Hours	$80	$	4,800
GIS Technician	20	Hours	$70	$	1,400
Other Direct Costs:					
Printing Materials Postage	1	Lump	$100	$	100
Administrative Costs (5%):					331
Total for Task #9					**$6,951**
Total Grant Request				**$**	**265,057**

Detailed Matching Funds Breakdown

U.S. Fish and Wildlife Service Tribal Wildlife Grant

Cocopah Indian Tribe Cocopah FWS TWG Restoration Project						
	TWG Funding Request					
Item	**Item/Hours**	**Unit**	**Rate**		**Total**	
Task #1 Permits, Authorizations, Clearances and Agreements						
Natural Resource Scientist	16	Hours	$	70	$	1,120
Administration: (5%)					$	56
Total for Task #1					**$**	**1,176**
Task #2 Develop Restoration and Monitoring Plans						
Natural Resource Scientist	40	Hours	$	70	$	2,800
GIS Technician	6	Hours	$	55	$	330
Printing and Materials	5	Lump	$	10	$	50
Administration: (5%)					$	159
Total for Task #2					**$**	**3,339**
Task #3 Overall Project Coordination						
Cocopah Tribal Environmental Director	40	Hours	$	40	$	1,600
Natural Resource Scientist	85	Hours	$	70	$	5,950
Project Coordination Consultant	100	Hours	$	65	$	6,500
Consultant Airfare	4	Trips	$	300	$	1,200
Consultant Travel (meals @ $50, Lodging @ $135, rental car @ $50)	8	Days	$	235	$	1,880
Administration: (5%)					$	857
Total for Task #3					**$**	**17,987**
Task #4: Follow-Up Site Clearing						
Cocopah Tribal Environmental Director	25	Hours	$	40	$	1,000
Follow up Site Clearing and Weed Eradication	7.0	Acres	$	800	$	5,600
Administration: (5%)					$	330
Total for Task #4					**$**	**6,930**

Task #5: Riparian Revegetation at 7-acre Site					
Project Oversight of 7-Acre Revegetation					
Cocopah Tribal Environmental Director	40	Hours	$ 40	$	1,600
Natural Resource Scientist	54	Hours	$ 70	$	3,780
Air Travel	6	Trips	$ 300	$	1,800
Meals ($50)/Lodging ($135) /Rental Car ($50)	13	Days	$ 235	$	3,055
Riparian Revegetation on 7 Acres					
Site Planting/Seeding Labor	7	acres	$ 2,500	$	17,500
10' Poles (100 Trees/acre)	700	Poles	$ 13	$	9,100
Native Understory Wetland Seed Mix	2	Acres	$ 300	$	600
Native Understory Upland Seed Mix	5	Acres	$ 110	$	550
5' Rebar stakes 2 per tree	1400	per bar	$ 1.75	$	2,450
Equipment (bobcat, trackhoe, tractor, atv, planting device)	18	Days	$ 900	$	16,200
Administration: (5%)				$	2,832
Total for Task #5				**$**	**59,467**
Task #6: One-Year Post-Revegetation Monitoring					
Plant Monitoring					
Cocopah Tribal Environmental Director	20	Hours	$ 40	$	800
Natural Resource Scientist	135	Hours	$ 70	$	9,450
Air Travel	2	Trips	$ 300	$	600
Meals ($50)/Lodging ($135) /Rental Car ($50)	8	Days	$ 235	$	1,880
Monitoring equipment	8	Days	$ 150	$	1,200
Printing	3	Lump	$ 10	$	30
Avian Monitoring					
Natural Resource Scientist	135	Hours	$ 70	$	9,450
GIS Technician	20	Hours	$ 55	$	1,100
Travel (Per diem for 1 person)	25	Days	$ 90	$	2,250
Air Travel	2	Trips	$ 300	$	600
Meals ($50)/Lodging ($135) /Rental Car ($50)	8	Days	$ 235	$	1,880
Equipment	8	Days	$ 150	$	1,200
Printing	3	Lump	$ 10	$	30
Weed Maintenance during monitoring period (herbicide)	2	applications	$ 900	$	1,800
Administration: (5%)				$	1,614

Total for Task #6				**$**	**33,884**
Task #7: Final Report					
Natural Resource Scientist	80	Hours	$ 70	$	5,600
GIS Technician	30	Hours	$ 55	$	1,650
Printing, Materials, Postage	20	Lump	$ 10	$	200
Administration: (5%)				$	373
Total for Task #7				**$**	**7,823**
Total Grant Request				**$**	**130,606**

U.S. Bureau of Reclamation Grant

Cocopah Indian Tribe

USBR Cocopah Restoration Project

Item	*USBR Funding Request*			
	Item/Hours	**Unit**	**Rate**	**Total**
Task #1 Permits, Authorizations, Clearances and Agreements				
Natural Resource Scientist	13	Hours	$ 70	$ 910
Administration: (5%)				$ 46
Total for Task #1				**$ 956**
Task #2 Develop Restoration and Monitoring Plans				
Natural Resource Scientist	30	Hours	$ 70	$ 2100
GIS Technician	4	Hours	$ 55	$ 220
Printing and Materials	3	Lump	$ 10	$ 30
Administration: (5%)				$ 118
Total for Task #2				**$ 2468**
Task #3 Overall Project Coordination				
Cocopah Tribal Environmental Director	30	Hours	$ 40	$ 1200
Natural Resource Scientist	65	Hours	$ 70	$ 4550
Project Coordination Consultant	75	Hours	$ 65	$ 4875
Consultant Airfare	2	Trips	$ 300	$ 600
Consultant Travel (meals @ $50, Lodging @ $135, rental car @ $50)	4	Days	$ 235	$ 470

Administration: (5%)				$	585
Total for Task #3				**$**	**12280**
Task #4: Follow-Up Site Clearing					
Cocopah Tribal Environmental Director	20	Hours	$ 40	$	800
Follow up Site Clearing and Weed Eradication	5.0	Acres	$ 1500	$	6000
Administration: (5%)				$	340
Total for Task #4				**$**	**7140**
Task #5: Riparian Revegetation at 5-acre Site					
Project Oversight of 5-Acre Revegetation					
Cocopah Tribal Environmental Director	30	Hours	$ 40	$	1200
Natural Resource Scientist	42	Hours	$ 70	$	2940
Air Travel	5	Trips	$ 300	$	1500
Meals ($50)/Lodging ($135) /Rental Car ($50)	10	Days	$ 235	$	2350
Riparian Revegetation on 5 Acres					
Site Planting/Seeding Labor	5	acres	$ 2,500	$	12500
10' Poles (70 Trees/acre)	350	Poles	$ 13	$	4550
Native Understory Wetland Seed Mix	2	Acres	$ 300	$	600
Native Understory Upland Seed Mix	3	Acres	$ 110	$	330
5' Rebar stakes 2 per tree	700	per bar	$ 1.75	$	1225
Equipment (bobcat, trackhoe, tractor, atv, planting device)	7	Days	$ 900	$	6300
Administration: (5%)				$	1675
Total for Task #5				**$**	**35170**
Task #6: One-Year Post-Revegetation Monitoring					
Plant Monitoring					
Cocopah Tribal Environmental Director	15	Hours	$ 40	$	600
Natural Resource Scientist	50	Hours	$ 70	$	3500
Air Travel	1	Trips	$ 300	$	300
Meals ($50)/Lodging ($135) /Rental Car ($50)	5	Days	$ 235	$	1175
Monitoring equipment	5	Days	$ 150	$	750
Printing	3	Lump	$ 10	$	30
Weed Maintenance during monitoring period (herbicide)	2	applications	$ 900	$	1,800

Administration: (5%)				$	408
Total for Task #6				**$**	**8563**
Task #7: Final Report					
Natural Resource Scientist	80	Hours	$ 70	$	5,600
GIS Technician	30	Hours	$ 55	$	1,650
Printing, Materials, Postage	20	Lump	$ 10	$	200
Administration: (5%)				$	373
Total for Task #7				**$**	**7,823**
Total Grant Request				**$**	**74400**

STATE HISTORIC PRESERVATION OFFICE
Review Form

In accordance with the State Historic Preservation Act (SHPO), A.R.S. 41-861 *et seq*, effective July 24, 1982, each State agency must consider the potential of activities or projects to impact significant cultural resources. Also, each State agency is required to consult with the State Historic Preservation Officer with regard to those activities or projects that may impact cultural resources. Therefore, it is understood that **recipients of state funds are required to comply with this law** throughout the project period. All projects that affect the ground-surface that are funded by AWPF require SHPO clearance, **including those on private and federal lands.**

The State Historic Preservation Office (SHPO) must review each grant application recommended for funding in order to determine the effect, if any, a proposed project may have on archaeological or cultural resources. To assist the SHPO in this review, the following information MUST be submitted with each application for funding assistance:

- A completed copy of this form, and
- A United States Geological Survey (USGS) 7.5 minute map
- A copy of the cultural resources survey report if a survey of the property has been conducted, and
- A copy of any comments of the land managing agency/landowner (i.e., state, federal, county, municipal) on potential impacts of the project on historic properties.
  NOTE: If a federal agency is involved, the agency must consult with SHPO pursuant to the National Historic Preservation Act (NHPA); a state agency must consult with SHPO pursuant to the State Historic Preservation Act (SHPA),
  OR
- A copy of SHPO comments if the survey report has already been reviewed by SHPO.

Please answer the following questions:

1. Grant Program: Arizona Water Protection Fund

2. Project Title: Cocopah Tribe Colorado River Restoration Project

3. Applicant Name and Address: Cocopah Tribe, Cty 15 & Ave. G. Somerton, AZ 85350

4. Current Land Owner/Manager(s): Cocopah Tribe

5. Project Location, including Township, Range, Section: Yuma, Township 9S, Range 25W, Section 24

6. Total Project Area in Acres (or total miles if trail): 30

7. Does the proposed project have the potential to disturb the surface and/or subsurface of the ground? ☒ YES ☐ NO

8. Please provide a brief description of the proposed project and specifically identify any surface or subsurface impacts that are expected: The project will restore 30 acres of native riparian and upland habitat for both resident and migratory wildlife species along the Lower Colorado River on the Cocopah Reservation. The restoration of this area will impact the surface and subsurface

by removing exotic plant species on 30 acres using hand removal and mechanical techniques. The area will be replanted with cottonwood, willow, mesquite and other native species.

9. Describe the condition of the current ground surface within the entire project boundary area (for example, is the ground in a natural undisturbed condition, or has it been bladed, paved, graded, etc.). Estimate horizontal and vertical extent of existing disturbance. Also, attach photographs of project area to document condition: The project area was cleared up invasive saltcedar in 2005 using hand and mechanical techniques. Some of the saltcedar has returned and native plants/trees exist. The area is 30 acres and vertical disturbance will be limited to a few feet when removing invasives. Ground water testing will include inserting several pvc pipes into the ground up to twelve feet. Cottonwood and other plant poles will be planted several feet into the ground.

10. Are there any known prehistoric and/or historic archaeological sites in or near the project area?
☐ YES ☒ NO

11. Has the project area been previously surveyed for cultural resources by a qualified archaeologist?
☐ YES ☐ NO ☒ UNKOWN

If YES, submit a copy of the survey report. Please attach any comments on the survey report made by the managing agency and/or SHPO

12. Are there any buildings or structures (including mines, bridges, dams, canals, etc.), which are 50-years or older in or adjacent to the project area? ☐ YES ☒ NO

If YES, complete an Arizona Historic Property Inventory Form for each building or structure, attach it to this form and submit it with your application.

13. Is your project area within or near a historic district? ☐YES ☒ NO

If YES, name of the district:

Please sign on the line below certifying all information provided for this application is accurate to the best of your knowledge.

Applicant Signature	/Date	Applicant Printed Name
	10-31-10	Kermit Palmer

FOR SHPO USE ONLY
SHPO Finding: ☐ Funding this project will not affect historic properties. ☐ Survey necessary – further GRANTS/SHPO consultation required (*grant funds will not be released until consultation has been completed*) ☐ Cultural resources present – further GRANTS/SHPO consultation required (*grant funds will not be released until consultation has been completed*)
SHPO Comments

For State Historic Preservation Office:	Date:

Supplemental Information

Key Personnel

Kevin Conrad, Cocopah Tribe

Kevin Conrad has been Director of the Environmental Protection Office for the Cocopah Indian Tribe for over two years. He has a B. S. in Environmental Science, Biology, from Northern Arizona University. He currently is managing eight grants including five involving riparian restoration. As EPO Director, Conrad supervises all habitat restoration projects for the tribe.

Robin Bay, Habitat Management, Inc

Ms. Bay is a Senior Environmental Scientist for Habitat Management, Inc. a natural resource consulting company. She has over ten years of environmental reclamation, land management, and field research experience working with mining, industry, non-profit, and government partners. She has technical and management experience with revegetation planning, baseline vegetation data collection and assessments, reclamation success evaluations, noxious weed surveys and control, NEPA evaluations, wetland surveys and creation, and erosion control measures. Ms. Bay has designed, managed, and implemented many disturbed land reclamation projects in a wide variety of ecosystems from high alpine to arid riparian. She has also conducted and published several quantitative research projects evaluating revegetation and reclamation techniques including a 2008 paper on revegetation after saltcedar removal in various locations across the Southwest.

Ms. Bay has assisted the Cocopah Tribe with two previous revegetation projects in the Limitrophe District between 2008-2010 covering over 50 acres on the Cocopah West Reservation. She also assisted the Cocopah Tribe and the National Wildlife Federation with the development of the Cocopah's Natural Resource Management Plan in 2007.

Garrit Voggesser, National Wildlife Federation

Voggesser is the Senior Manager of the National Wildlife Federation's Tribal Lands Conservation Program. NWF's Tribal Lands Conservation Program's mission is to ensure the well-being of wildlife populations and habitat on and near tribal lands by working in partnership with tribal governments, environmental staff, and members, while respecting tribal culture and sovereignty. As manager of the Tribal Lands Program, Voggesser's work focuses on a variety of ecosystem restoration and protection projects, wildlife, habitat, climate change, and water quantity and quality issues with tribes throughout the nation.

For the past 8 years, NWF has partnered with the Cocopah Indian Tribe to protect the environmental and cultural integrity of the 23-mile Lower Colorado River Limitrophe (the final stretch of the river in the U.S.), including 12 miles within the Cocopah Reservation. NWF is engaging over 20 government agencies, NGO's and community-based partners from the U.S. and Mexico to conserve and restore this vital link for plants and animals along the Lower Colorado River. NWF has served as a consultant to the Cocopah Tribe on the development of a reservation natural resource management plan, reservation riparian restoration plan, and native habitat restoration on the reservation.

Project Site Photographs

11s 707067 3611261 facing 35°

11s 707067 3611261 facing 45° top facing 0° bottom

11s 7077111 3611263 facing 35°

11s 7077111 3611263 facing 45°

11s 7077111 3611263 facing 0°

Description of Monitoring/Sampling Plans

The following are the sampling, revegetation, monitoring and photo point plans for this 30-acre riparian and wetland revegetation project.

MONITORING STRATEGY AND SUCCESS CRITERIA

In addition to providing information about the success of this project, this monitoring plan will help test the methods proposed for the remaining actions.

Vegetation Monitoring

The primary purpose of monitoring vegetation is to determine if vegetation is establishing and thriving, if conditions are suitable for the vegetation planted, document the success of the project, and help guide future revegetation efforts. Vegetation sampling will evaluate the vegetative cover, transplant success, and revegetation method success. Monitoring will occur at the beginning (March-April) and end (September-October) of the first full growing season after revegetation is completed. Both quantitative and qualitative techniques will be used to monitor vegetation growth at the site. Specific monitoring methods will be described in the submitted revegetation and monitoring plan and will be tailored to the specific revegetation methods that are implemented. Monitoring methods will include:

- Vegetation cover transects;
- Shrub density and species diversity belt transects;
- Transplant survival, growth, and health monitoring;
- Photo documentation; and

- Development of a site-wide species list.

Line transects (25-meters in length) will be established at the site to quantitatively measure vegetation and ground cover be species and life form. The transects will be established on a grid using mapping software and located in the field using a sub-meter accuracy GPS unit to prevent sampling bias. Line transect data will be used to evaluate revegetation success in terms of vegetative cover. These data will also be used to evaluate the presence and extent of non-native species such as saltcedar.

A belt transect extending 1 meter on either side of the line transect will be used to collect shrub/tree density counts. All species occurring within this belt transect will be recorded to evaluate species diversity on the site.

All trees and/or shrubs transplanted on the site as poles or containerized stock will be mapped at the time of planting. A subset (5-15%) of these individuals will then be randomly selected for survival monitoring. The randomly selected transplants will be located in the field a sub-meter accuracy GPS unit to prevent sampling bias. Each transplant will be evaluated for survival rate, condition, and size (height and basal diameter or volume for trees or shrubs, respectively).

In addition to quantitative evaluations, photos will be taken to evaluate the site qualitatively over time. Photo points will be established prior to site clearing activities and mapped with a sub-meter accuracy GPS unit. Photos will be taken from the same photo points multiple times during site clearing, revegetation implementation, and during each of the subsequent monitoring periods. These photos will be used to evaluate the success of the project on a site-wide qualitative basis.

Success Criteria

Productive native habitat development is the primary criterion that measures project success. The following table provides criteria for vegetation that will be used to assess the success of this revegetation project in relation to pre-treatment conditions. We expect to see an increase in the diversity and abundance of avifaunal and all wildlife use in the restoration site.

Performance Measure	1-Year Performance Goal	5-Year Performance Goal
Tree/Shrub Transplant survival	50-60 % survival	35-45% survival
Vegetation Cover	10-15 % cover	20-30% cover
Saltcedar Cover	< 3% cover	<5% cover

Under this AWPF-funded project, vegetation will be monitored two years after revegetation. Above-ground growth is typically slow in the first two years. However, the data from this project and the data from the FY 2009 AWPF project to restore 40 acres will provide a general forecast of revegetation success. Vegetation survival is better understood with a longer monitoring period, typically 5 to 10 years. Thus, the grantee will continue to monitor and maintain the vegetation after completion of the TWG-project.

Certain site features may influence data collection: insect damage, browsing, beaver activity, soil erosion and drift, and "edge effects," including vandalism. These and other influences will be noted throughout the monitoring period. Baseline conditions for vegetation will be established for the project using maps and results of preliminary site analyses. These data will provide information to assess whether the project objectives are being met. Vegetation monitoring data will be evaluated along with soil and depth-to-water data to evaluate trends. Community health

will be measured as a function of vegetation growth, survival, extent of insect damage or browsing, weed encroachment, and regeneration.

Description of Revegetation/Restoration Plans or Research Designs

30-ACRE REVEGETATION PROJECT PLAN

The restored area will feature not only native riparian species, but also native wetland and upland species, a much greater diversity of habitats than currently exists at this site. The result will be an area that will be more functional and attractive to birds and wildlife.

Exotic Vegetation Clearing

Prior revegetation activities, invasive saltcedar will be cleared from the 30-acre site using a bulldozer in areas where saltcedar resprouts are greater than 5' and hand removal/targeted herbicide application of saltcedar in areas where resprouting is not as intense. All cleared non-native plant material will be mulched or left on site in spoils piles in areas of low habitat value.

Planting and Irrigation Design

Soil samples will be collected and ground water monitoring wells will be installed prior to revegetation activities to characterize the site and inform the revegetation design. It is critical to understand the soil and water table conditions on the site before selecting revegetation species or methods for revegetation. Many native species are sensitive to soil salinity, alkalinity, and texture as well as drought. Thus, the appropriate species for the site can only be selected after these conditions are known.

Composite soil samples of 0-12" will be collected for at least every 4 acre area. Additionally a single core will be collected every 10 acres in 1-ft increments down to the water table in conjunction with well installation. All soils samples will be sent to a laboratory for pH, salinity, SAR, texture, organic matter, and fertility (NPK) analysis.

The depth to water table will be measured with the installation monitoring wells at least every 2-3 acres. Depth will be measured in the well at least once per month for at least 6 months prior to revegetation to monitor seasonal fluctuations. Maps displaying the depth-to-water and soil characteristics will be prepared for the revegetation planting design.

After all soil and ground water data are analyzed, a planting, irrigation, and monitoring design will be developed for the site. This design will specify the species to be planted, along with planting locations, monitoring transects, and a detailed irrigation design.

Revegetation Construction Activities

This project will involve a total of 30 acres of native revegetation, including riparian, wetland, and/or upland habitat. The project area will be planted with native species that are appropriate to the community and the existing water table and soil conditions. This will likely mean that multiple species and revegetation methods will be used in various portions of the project area.

When possible, cottonwood, willow, and mesquite species will be planted as pole cuttings and/or tall pots down to the water table. In some cases, supplementary irrigation may be required during the first few years after planting. Irrigation will be completed with a water truck or mobile sprinkler system depending on the species used and the specific site characteristics where it is needed (topography, distance from road, distance from river, etc.). Mesquite species are more tolerant of increased soil salinity and pH than cottonwoods and willows, but in areas were soil

chemistry will not support any of these tree species, a mixture of native shrub, grass, and herb seed will be spread. This seed mixture will also be used in the understory of the areas planted with riparian trees. The native seed mix will include more alkaline tolerant and drought resistant species to build understory structure and inhibit exotic species invasion. The final planting design will determine the density and location of these species within the site, which will be based on the results of the soil and depth to water table analyses as well as other site characteristics.

Planting

The following native plant species will be used in the revegetation project

- Fremont cottonwood (*Populus fremontii*)
- Goodding willow (*Salix gooddingii*)
- Sandbar willow (*Salix exigua*)
- Honey mesquite (*Prosopis glandulosa*)
- Screwbean mesquite (*Prosopis pubescens*)
- Four-wing saltbush (*Atriplex canescens*)
- Quailbush (*Atriplex lentiformis)*
- Seepwillow (*Baccharis salicifolia*)
- Arrowweed (Pluchea sericea)
- Inkweed (*Suaeda torreyana*)
- Alkali bulrush (*Schoenoplectus maritimus*)
- Olney three-square bulrush (*Schoenoplectus americanus*)
- Hardstem bulrush (*Schoenoplectus acutus*)
- Giant cattail (*Typha spp.*)
- Inland saltgrass (*Distichulus Spicata*)
- Alakali sacaton (*Sporobolus airoides*)
- Yerba mansa (*Anemopsis californica*)
- Wolfberry (*Lyceum andersonii*)
- Evening primrose (*Oenothera deltoids*)
- Western sea purslane (*Sesuvium verrucosum*)
- Wild heliotrope (*Heliotropium curassavicum*)
- Sonoron Panic Grass (Panic sonorum)
- Other suitable native riparian and wetland species

The final planting design will determine the density and location of these species within the site, which will be based on the results of the soil and depth-to-water analyses and other site conditions. Wetland species will primarily be planted by seed and plugs from local native stock or purchased from the nearest nursery that has the appropriate species. The planting density of the wetland species will be determined in the final planting design. In the riparian area, approximately 50 trees (cottonwood, Goodding willow, and sandbar willow) per acre will be planted at 30-40 ft. spacing, depending on site suitability. The spacing between planted trees will have to be wider due to security/visibility measures required by border patrol. The area may be hand-weeded or selectively treated with herbicides during native vegetation establishment to limit the encroachment of saltcedar and giant cane, thereby enhancing the natural recruitment of native grasses and forbs. Planting activities also include hand-broadcasting seeds of alkali sacaton (*Sporabolus airoides*), four-wing saltbush (*Atriplex canescens*), salt heliotrope (*Heliotropium curassavicum*), yerba mansa (*Anemopsis californica*), quailbush (*Atriplex lentiformis*) and other native under-story species to promote under-story development in the revegetation area.

Site Maintenance
When planting is complete the grantee will conduct regular maintenance of the revegetation site for two years. Maintenance activities will be conducted during the growing season and will include: maintaining the irrigation system, removing exotic weeds, and re-planting vegetation in the case of mortality. By the end of the first growing season, the plantings should be well established for long-term self-sustainability.

Existing Plans, Reports, Information Relevant to the Project

The Cocopah Indian Tribe has been actively planning restoration of the Limitrophe District for the past 10+ years. Plans have included making this area an international wildlife refuge and restoring the entire Limitrophe district from Morales Dam to the Northern International border. More recently this entire are has been slated for restoration in a restoration design plan developed by the Cocopah Tribe, Habitat Management, Inc., and the National Wildlife Federation. We have also developed a natural resource management plan for the reservation.

Letters of Community Support

Habitat Management, Inc.
Environmental & Natural Resource Management
Consulting & Construction Services

August 26, 2010

Arizona Water Protection Fund Commission
Arizona Department of Water Resources
3550 North Central Ave
Phoenix, AZ 85012

To Whom It May Concern:

I am writing to give my strong support on behalf of Habitat Management, Inc. for the Cocopah Indian Nation's proposal to the Arizona Water Protection Fund Commission for the Tribe's riparian restoration efforts in the Limitrophe District of the Lower Colorado River. As experienced restoration ecologists, we at Habitat Management, Inc. have reviewed the proposal and commend the Cocopah's proactive approach to riparian restoration and public involvement to protect and preserve critical habitat and wildlife for future generations. Habitat Management, Inc. has been the contract consultant implementing the revegetation work on the Cocopah's previous 40-acre restoration area upstream of the area described in the proposal. We have extensive experience with revegetation planning and implementation as well as project management. The lessons we and the Cocopah Tribe have learned during the implementation of the previous restoration projects along the Limitrophe will be applied to this new project to ensure even greater success.

Riparian areas are a crucial focus for restoration efforts due to their important role in biodiversity and susceptibility to exotic species invasions. The Cocopah have already taken action to remove the exotic saltcedar from this site and others in 2005. While the control of exotic, invasive plants is often the focus of these habitat restoration efforts, removal of weeds alone does not necessarily lead to re-establishment of desirable, native communities. For this reason we praise the Cocopah's comprehensive commitment to truly restoring a functional habitat at this site.

The Cocopah Tribe has undertaken an ambitious conservation effort to protect the Lower Colorado River Limitrophe. The proposed project will further the progress toward this goal. Additionally, it will continue to unite and strengthen the coalition of local, tribal, national, and international partners committed to this goal. The Cocopah recognize the critical role of broad-based partnerships to meet our current conservation challenges. This commitment to cooperation in efforts to protect our culturally and ecologically critical areas is what will ultimately make this conservation effort a success. I highly recommend the Cocopah's proposal to your commission.

Sincerely,

Robin F. Bay
Sr. Environmental Scientist

14 Inverness Drive East · Suite A-100 · Englewood · CO · 80112
303 770 9788 · rbay@habitatmanagementinc.com · www.habitatmanagementinc.com

NATIONAL WILDLIFE FEDERATION®
2260 Baseline Road, Suite 100
Boulder, CO 80302
303-786-8001
www.nwf.org

August 25, 2010

Arizona Water Protection Fund Commission
Arizona Department of Water Resources
3550 North Central Avenue
Phoenix, Arizona 85012

To Whom It May Concern:

On behalf of the National Wildlife Federation, I am writing to pledge my strong support for the Cocopah Indian Tribe's proposal to the Commission for the tribe's riparian restoration efforts in the Limitrophe section of the Lower Colorado River. We champion the Cocopah's proactive approach to riparian restoration and public outreach to protect wildlife and habitat for future generations. We have worked with the Cocopah Tribe since 2002 to restore and protect the Colorado River.

The Cocopah's protection of the Lower Colorado River Limitrophe is an ambitious and admirable undertaking. Their conservation efforts unite a coalition of local, tribal, national, and international partners for the protection of a critical ecosystem and its wildlife. The Cocopah's efforts recognize that it is critical to form broad-based partnerships to meet the conservation challenges we all face. It is that respect for cooperation as well as the effort for protecting culturally and ecologically critical areas that we all have a stake in that makes conservation successes possible. I highly recommend the Cocopah's proposal to your Commission.

Sincerely,

Garrit Voggesser
Manager, Tribal Lands Conservation Program

Evidence of Control and Tenure of Land

The Cocopah Indian Reservation was established by Executive order No. 2711 by President Woodrow Wilson on September 27, 1917. This Executive Order established the West and East Reservation with approximately 1,772 acres. On April 18, 1985, President Ronald Reagan signed the Cocopah Land acquisition Bill HR 730, which increased the Cocopah Reservation by nearly 4,237 acres and establishing the North Reservation. This project will occur wholly on the West Reservation.

Source: Cocopah Indian Tribe Boundary Report. Mr. Webb. Cocopah Indian Tribe, Somerton, Arizona, 2002.

Legal Description: SECT,TWN,RNG:25-09S-25W DESC: LOTS 9 THRU 17 & 25 FT THRU 29 IN & LOTS 2 THRU 8 IN SEC 26 & LOTS 1 & 2 IN SEC 27 & ACCRETION (PER OPINION M36867 12 -21-72

Evidence of Physical and Legal Availability of Water

Groundwater will be used for the irrigation of this project from the Public Water System, ID number 0400071, on the West Reservation. Water for the PWS is supplied by well number 55-205529. This well is 295 feet deep, has a borehole diameter of 18 inches, is screened from 215-275 feet, was drilled via the mud rotary method and pumps 200 gallons per minute.