Arizona Water Protection Fund
FY 2011 Grant Application Review

Application # WPF0405 **Applicant:** Fort Mohave Indian Tribe

Title of Project: Fort Mohave Indian Tribe Habitat Restoration Project

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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**
_____**Disk**
_____**Other**

WPF0405

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Application Cover Page
FY 2011

Title of Project: Fort Mohave Indian Tribe Habitat Restoration Project

Type of Project:
- [X] Capital or Other
- [ ] Water Conservation
- [ ] Research

Stream Type:
- [X] Perennial
- [ ] Intermittent
- [ ] Ephemeral

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

Applicant Information:
Name/Organization: Fort Mohave Indian Tribe
Address 1: 500 Merriman Avenue
Address 2:
City: Needles
State: California
ZIP Code: 92363
Phone: (760) 629-4810
Fax: (760) 629-5767
Tax ID No.: [redacted]

Inside an AMA: Yes [ ] No [X]

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

Type of Application:
- [X] New
- [ ] Continuation

Contact Person:
Name: Beatrice Jacobo
Title: Program Manager
Phone: (760) 629-4810
Fax: (760) 629-5767
e-mail: beatricejacobo@yahoo.com

Any Previous AWPF Grants:
- [ ] Yes
- [X] No

If yes, please provide Grant #(s):

Arizona Water Protection Fund Grant Amount Requested:

$ 1,106,030.25

If the application is funded, will the Grantee intend to request an advance:
- [ ] Yes
- [X] No

Matching Funds Obtained and Secured:

Applicant/Agency/Organization:	Amount ($):
1. Applicant	
2. FMIT Availalble Resources (Land, Water, Labor)	
3.	
Total:	

Has your legal counsel or contracting authority reviewed and accepted the Grant Award Contract General Provisions?
- [X] 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.

Typed Name of Applicant or Applicant's Authorized Representative	Title and Telephone Number
Signature	Date Signed

Project Location & Environmental Contaminant Information
FY 2011

Project Location Information

1. County: Mohave	2. Section: 21	3. Township: 18N	4. Range: 22W

5. Watershed: Lower Colorado River WS
6. 8 or 10 Digit Hydrologic Unit Code (HUC): 15030101
7. Name of USGS Topographic Map where project area is located: Needles NE Topo Map
8. State Legislative District: 3

(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: FMIT
10. Current land use of project area: Undeveloped
11. Size of project area (in acres): 61
12. Stream Name: Center St. Slough
13. Length of stream through project area: 1/4 mile
14. Miles of stream benefited: 1/4 miles
15. Acres of riparian habitat: 61 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 Mohave Valley, AZ. head south on winter Haven Cir toward Valley Park Way/E Valley Parkway. Take 1st R. onto Valley Park Way/E Valley Pkwy, Continue straight onto Puma Road, Turn L. to stay on Puma Rd., Turn L. at AZ-95 S., take 1st R. onto Indian Route 6/King St, take 1st R. onto Green Valley Road, Continue onto Gordon Drive, take Gordon Drive to Dike Road, Turn right, travel approximately 1/4 mile to project site.

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**

Project Location & Environmental Contaminant Information
FY 2011

Project Location Information

1. County: Mohave	2. Section: 19,20,29,30	3. Township: 17N	4. Range: 21W

5. Watershed: Lower Colorado River WS
6. 8 or 10 Digit Hydrologic Unit Code (HUC): 15030101
7. Name of USGS Topographic Map where project area is located: Needles NE Topo Map
8. State Legislative District: 3

(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: FMIT
10. Current land use of project area: Undeveloped
11. Size of project area (in acres): 215
12. Stream Name: Topock Marsh
13. Length of stream through project area: 3/4 mile
14. Miles of stream benefited: 3/4 miles
15. Acres of riparian habitat: 215 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 Needles, Ca., Head N. to Needles Hwy., Slight R. at River Rd., Take the 3rd L. onto N K Street, Continue onto Levee Way, Continue onto Harbor Ave., Turn R. at AZ-95 South/Courtwright Rd., Turn R. at Indian Route 5/ Ranchero Lane, Passing Cheyenne Drive Continue on Indian Route 5 approximately 1 mile to the project.

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 WATER PROTECTION FUND

FMIT Habitat Restoration Program – Avi Kwa Ame

Fort Mojave Indian Tribe
Project Manager Beatrice Jacobo
Needles, California
Phone (760) 629-4810 Fax (760) 629-5767
BeatriceJacobo@yahoo.com

FORT MOJAVE INDIAN TRIBE

August 31, 2010

Executive Summary:

Mojave Indians are Pipa Aha Macav — "The People ByThe River." Mojave culture traces the earthly origins of its people to Spirit Mountain, the highest peak in the Newberry Mountains, located northwest of the present reservation inside the Lake Mead National Recreation Area. The Tribe's spirit mentor, Mutavilya, created the Colorado River, its plants and animals, and instructed the Pipa Aha Macav in the arts of civilization. They were prosperous farmers with well-established villages and trade networks that stretched as far away as the Pacific Ocean.

The Mojave people's deep spiritual connection to the Colorado River has fostered a long tradition of stewardship for waters and land of their home. During the past century, ongoing degradation of the riparian ecosystem of the river has awakened deep concerns among federal, state, and other outside entities that mirror the anxiety of the Mojave people for their homeland. Over the years, the concerns of outside entities have engendered legislation and ongoing programs to address these concerns. This proposal is intended to marry the tools of science to the traditional values of the Mojave people to begin to restore degraded habitat within the Fort Mojave Indian Reservation. The tribe is interested in restoring two areas on the FMIT reservation to a viable and sustainable eco system that will enhance wildlife habitat, provide an area for low impact recreation and eco tourism, which will benefit the tribe and the surrounding communities.

The first project will restore an area adjacent to the Colorado River and eventually be developed into a preserve area, which will be similar to a similar project located on the Colorado River Indian Tribal reservation (CRIT). Both communities are Mojave with CRIT also including the Hopi, Navajo and Chemehuevi people. This project will eventually restore approximately 178 acres.

The second project is located on approximately 600 acres and is adjacent to an existing USFWS project near the Havasu Wildlife Refuge. The tribe has prepared two-project proposal's that encompass approximately 215 acres. This 600-acre tract provides for a long-term project commitment of land and water. The project goal for the area is similar to the goals and objectives of the Lower Colorado River Multi Species Conservation Program (LCR MSCP). The 115 acre project location is flexible and will be situated in an area that is conducive to the overall project success. Soil conditions and terrain will need to be explored prior to a final site selection.

Project Overview:

The goals of this project are (1) to restore native vegetation to approximately 215 acres within a 600 acre parcel of Fort Mojave Indian Tribe (FMIT) lands in such a manner that it establishes a wildlife corridor between U.S. Fish and Wildlife Service (USFWS) land and the Colorado River, and (2) to restore 61 acres of the 186 acre Fort Mojave Preserve (Preserve) to native vegetation. The wildlife corridor listed as Goal #1 will enhance the area's value for native wildlife species. Native wildlife species that have been listed under the Endangered Species Act, have greatly suffered from habitat fragmentation which is a key factor in the decline of many species such as the federally listed Southwestern Willow Flycatcher (*Empidonax traillii extimus*). Goal #2 will begin to convert the habitat at the Preserve from a Saltcedar (*Tamarix spp.*) dominated habitat to native honey mesquite (*Prosopis glandulosa*). Tamarisk is a highly invasive, nonnative plant that currently dominates the Lower Colorado River (LCR) area including the proposed project site. The Preserve has a core area consisting of a large permanent pond supplied through a subsurface water source (groundwater table). Although the Preserve is the site of ongoing tamarisk removal/suppression and subsequent replanting with a mix of native trees, it still

remains a primarily tamarisk dominated area. The long term goal at the Preserve is to not only foster ecosystem restoration but also to preserve the cultural legacy of the Mojave people that is so deeply tied to the water and land. Also the Preserve will share that legacy with surrounding communities in order to enhance understanding of not only the native ecosystem but also the native Mohave people. Although these two goals address concerns on two separate portions of FMIT land, the activities are nearly identical. These goals collectively foster the "string of pearls" concept of the USFWS on FMIT land. Although it may not be possible to restore all degraded lands to the conditions that existed prior to European colonization, it is possible to provide a greater degree of connectivity between existing islands of wildlife habitat (Goal #1) and enhance areas adjacent to core areas of higher quality wildlife habitat (Goal #2).

The objectives for Goals #1 and 2 are very similar. The objectives for both are (1) to remove non-native plant species from the project area, (2) to plant the project areas with native honey mesquite, and (3) irrigate and maintain planted trees for a minimum of three years and (4) suppress tamarisk invasion of the project sites for a minimum of three years to allow native trees to become large enough to "shade out" competing tamarisk sprouts.

The problems this proposal would address are all related to the current domination of the area by tamarisk. These problems are: (1) increased soil and water salinity associated tamarisk domination of an area, (2) increased water usage associated with tamarisk, (3) increases in fire frequency/intensity with associated soil erosion resulting from tamarisk preponderance, (4) reduced biological diversity of the area resulting from the existing monoculture of tamarisk, (5) reduced openness due to dense, existing tamarisk stands impeding movement of larger animals (e.g. deer) through the area and (6) near non-existent availability of cultural significant mesquite.

These problems can all be alleviated by conversion of the project sites from nonnative tamarisk to native honey mesquite. Another common name for tamarisk is Saltcedar. This name indicates the cause of Problem #1 (increased soil/water salinity). Tamarisk promotes itself through the concentration of salts in its foliage and increasing salinity locally through deposition of this foliage in nearby soil and water. Removal of Saltcedar and replacement with native mesquite will reduce soil and water salinity locally over time. Tamarisk is considered to use more water than many native trees (Problem #2), water usage can be reduced locally by conversion to another vegetation type, Tamarisk is known to be a fire prone species that contains naturally occurring flammable oil. Tamarisk domination is associated with an increase in fire frequency and intensity (Problem #3). Increases in fire frequency/intensity in turn are associated with increases in erosion caused by vegetation removal during fires. Removal of Saltcedar and replacement with native mesquite will reduce fire frequency/intensity locally. Tamarisk tends to form a monoculture that excludes other species and reduces plant and animal species richness and diversity (Problem #4). Removal of the Saltcedar monoculture and replacement with native mesquite will promote a more diverse understory of native plants. Tamarisk forms dense stands of vegetation that become so thick that they can inhibit movements of larger animals (Problem #5). Removal of the Saltcedar monoculture and replacement with native mesquite will promote a more open area that will enhance the pass ability of the proposed wildlife corridor and improve access to the Preserve pond. Most importantly, mesquite is currently extremely limited in availability at Fort Mojave Indian Reservation (Problem #6). This threatens the very culture of the Mojave people along with their way of life.

Mesquite trees are a relatively slow-growing, long-lived species that can reasonably be expected to have a 50-100 year lifespan. The expectation of the length of project-related benefits is based on this lifespan. Additional project-related benefits include the fixing of atmospheric oxygen in the soil by mesquite. The tress will be ordered from a local nursery where they have been germinated and trans-planted from cones to gallon pots. A planting of 436 trees per acre will result in over 120,000 trees to be reintroduced to create a dense mesquite bosque resembling original un-altered habitat of the Lower Colorado River.

Project Maps (Project Site 1 & 2)

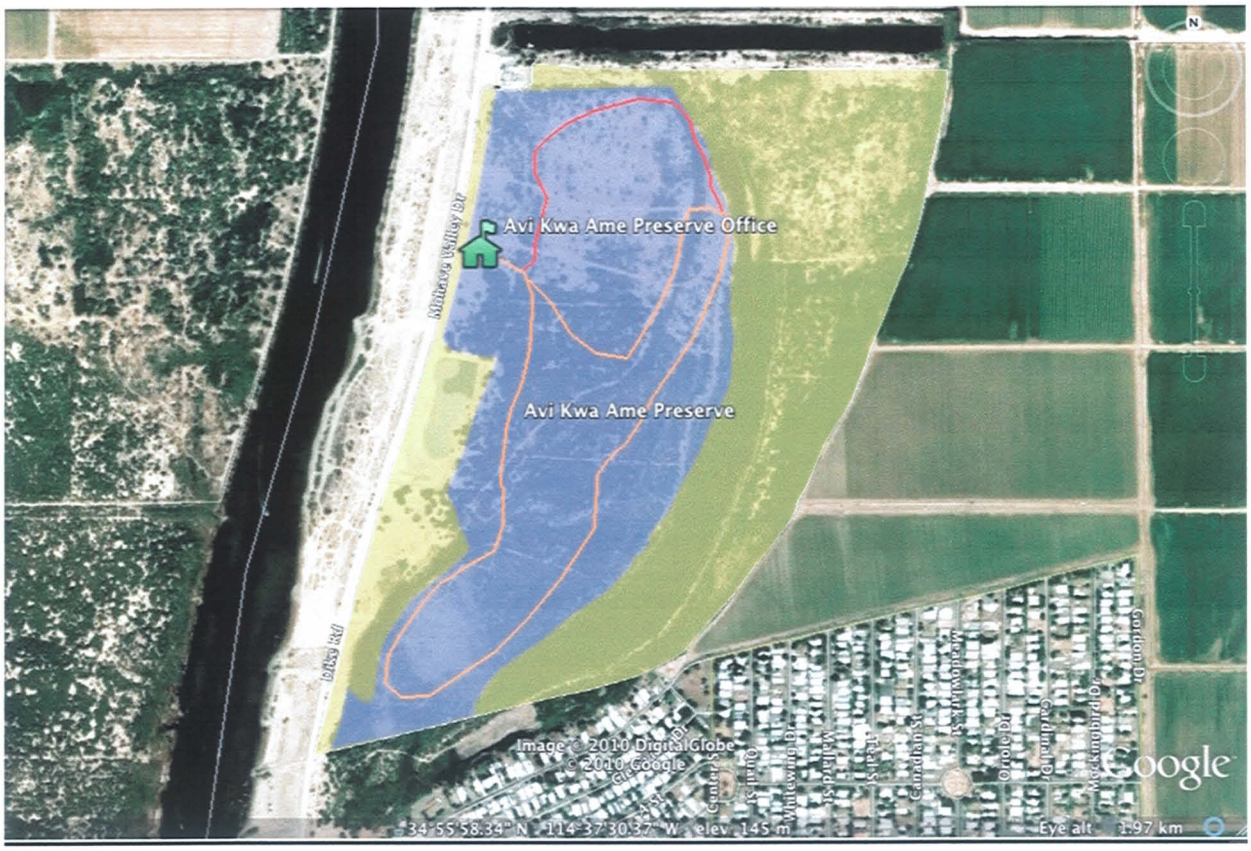


Photo. 1. 61 Acre Preserve & restoration site map

Project Maps (Project Site 1 & 2) cont.a

Photo. 2. 600 Acre Project Site – 100 Acre restoration site 1

Project Maps (Project Site 1 & 2)

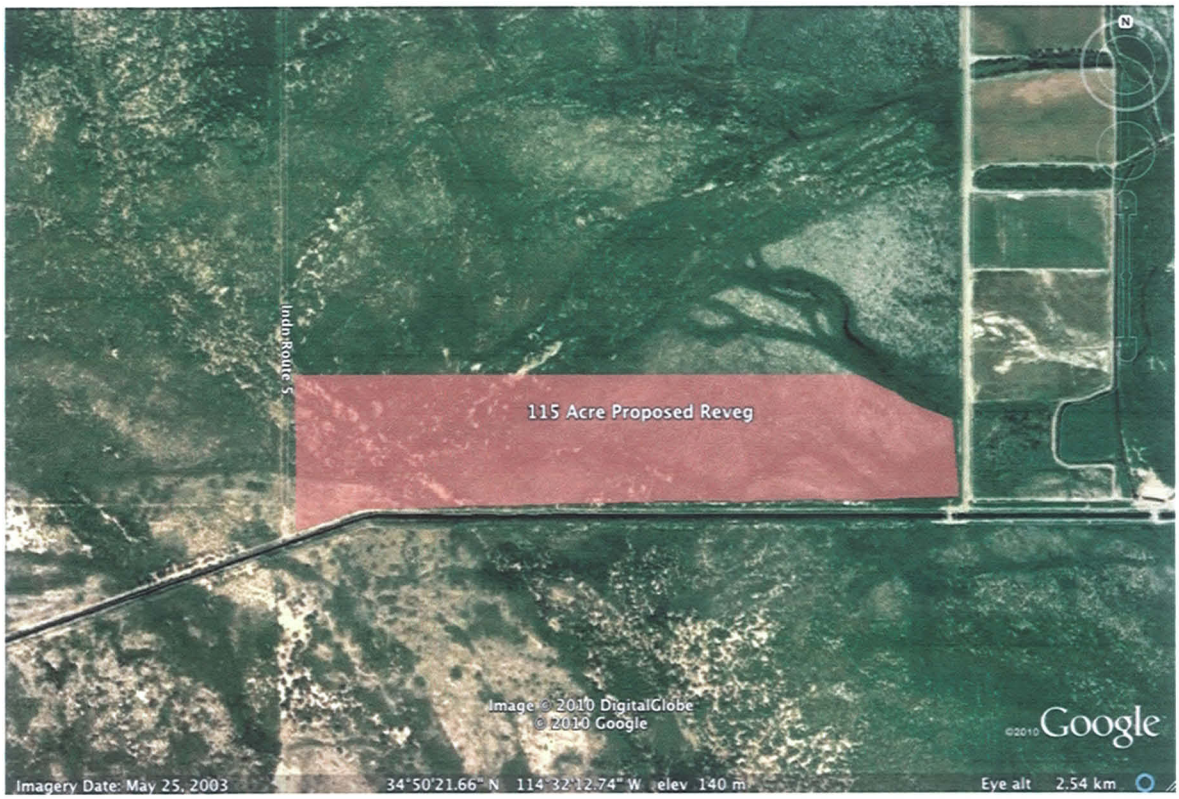


Photo. 3. 600 Acre Project Site – 115 Acre restoration site A

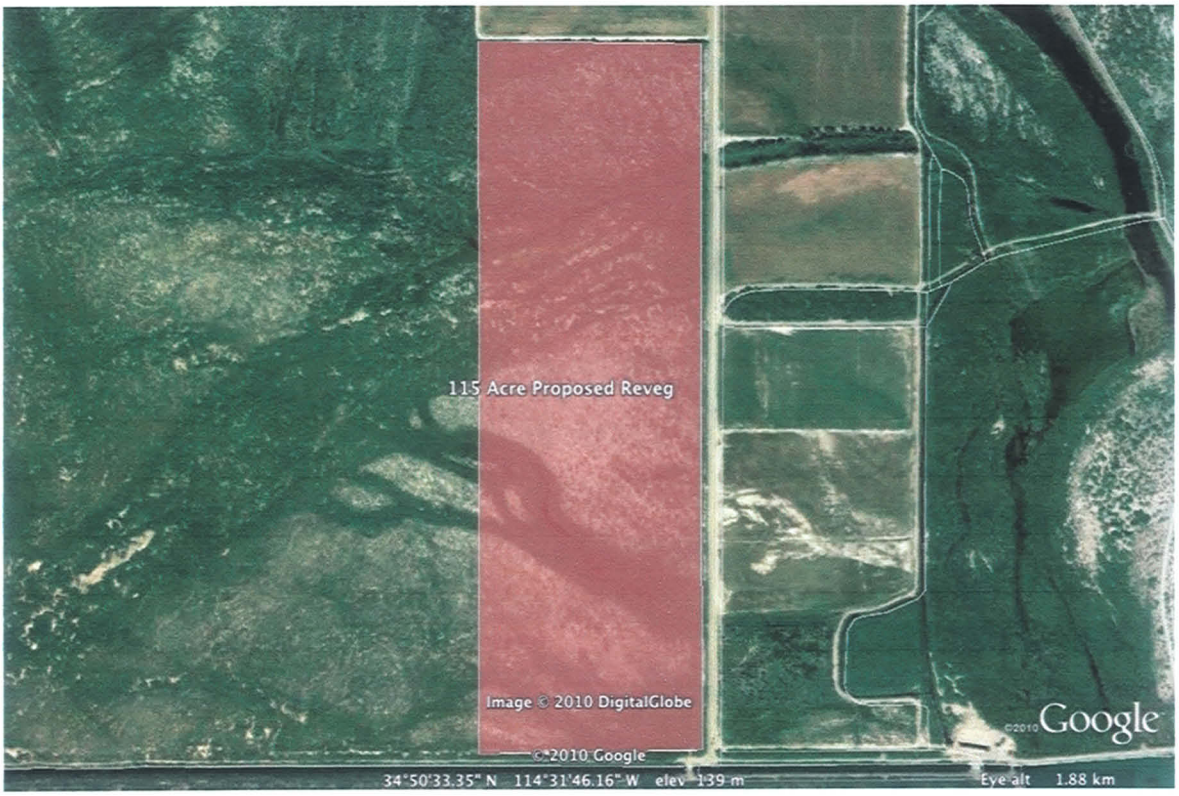
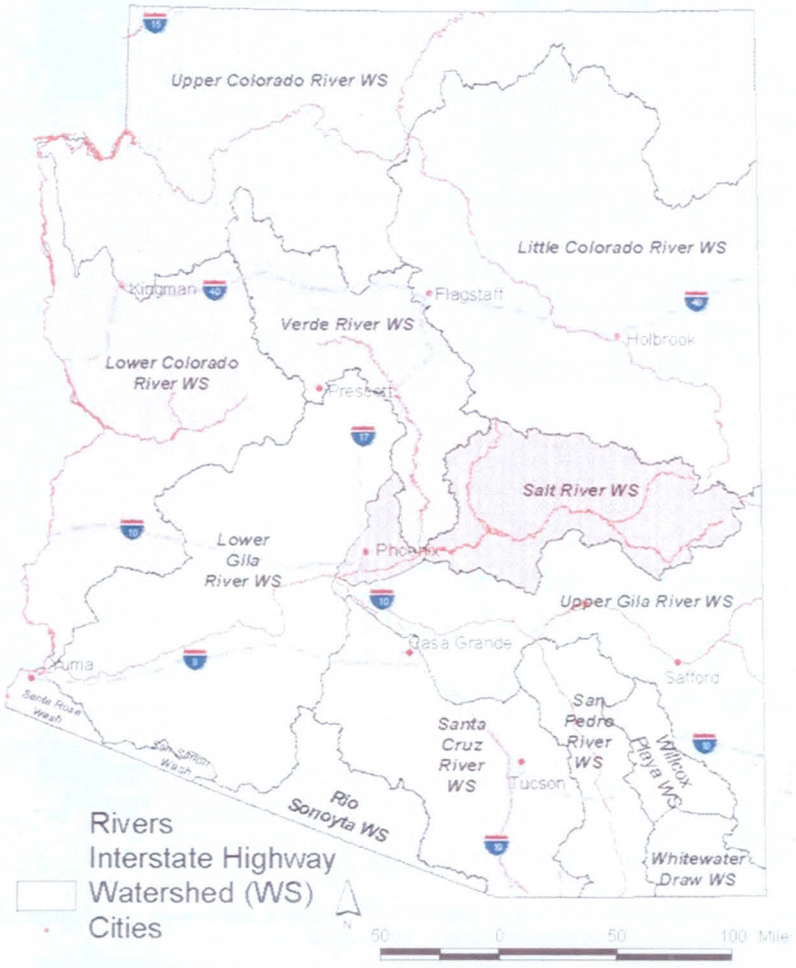


Photo. 4. 600 Acre Project Site – 115 Acre restoration site B

Project Maps (Project Site 1 & 2) cont.

Map. 1 (project location)

Cont. (maps)



Title of Project: _____

Arial Photos.: Preserve Site

Photo: A1

Photo: A2

Arial Photos.: 600 Acre Site cont. a

Photo. A3

Scope of Work:

Task 1: Initial site clearance

Task Description: The first clearing of plots will be done. A tractor with a hitched disking blade will drive through the fields.
Task Purpose: Clear site for tree implementation
Deliverable Description: Photographs of process and completed result
Deliverable Due Date: Prior to the release of funds
Cost: Detailed budget provided
Time frame: Varies according to project size (61-115 Acres)

Task Description: Removal of invasive species
Task Purpose: Controlling of invasive species
Deliverable Description: Photographs of process and monitoring results
Deliverable Due Date: Prior to initial site clearance
Cost: Detailed budget provided
Time frame: Varies according to project size (61-115 Acres)

Task 2: Phase 1 of planting

Task Description: Ordering of Honey Mesquite trees
Task Purpose: Prepare for the planting
Deliverable Description: Photographs and inventory of seeds germinated
Deliverable Due Date: Prior to initial clearance
Cost: Detailed budget provided
Time frame: Varies according to project size (61-115 Acres)

Task 3: Second clearance

Task Description: Second round of clearing will begin
Task Purpose: Prevention of invasive plant life
Deliverable Description: Photographs of process and completed result
Deliverable Due Date: Prior to initial clearing
Cost: Detailed budget provided
Time frame: Varies according to project size (61-115 Acres)

Task 4: Planting and Irrigation

Task Description: Initial Planting of our native riparian trees
Task Purpose: Restore the riparian habitat with tree planting
Deliverable Description: Photographs of process and completed result
Deliverable Due Date: Prior to second round of clearing
Cost: Detailed budget provided
Time frame: Varies according to project size (61-115 Acres)

Task Description: Begin Irrigation
Task Purpose: Feeding water from the irrigation canal to the newly planted trees
Deliverable Description: Photographs of process and completed result
Cost: Detailed budget provided
Time frame: Weekly irrigation through summer, biweekly in winter

Total Cost
Project 1 – 61 Ac.: $265,306.45
Project 2 – 100 Ac.: $395,966.88
Project 3 – 115Ac.: $444,757.25

Task 4: Final Report

Task Description: Gathering of analysis of planting to form a final report
Task Purpose: Provide a written report on restoration efforts in FMIT Preserve
Deliverable Description: Report includes final project photographs, receipts, invoices, and budgets
Deliverable Due Date: Upon project completion

Total Projected Timeline – Varies according to project size (61-115 Acres)

There will be several phases of planting done over the course of the grant to complete the plantings. The first phase of planting will begin in late winter with the last planting done in early spring 2011. Also there will be continued monitoring and removal of invasive species, along with weekly irrigation in the summer months and every other week in the winter months for a minimum of three years following the initial planting.

Budget Summary

Item Specification Description - 61 Acre Project Phase P1	Balance
I. Invasive Species Control-Mechanical	$59,621.75
II. Soil Sampling	$9,357.00
III. Native Species Propagation	$71,809.20
IV. Revegetation	$107,453.50
V. Cultural Resources Survey	$-
VI. Implementation Leader	$6,750.00
VII. Plan Preparation/Planning	$-
VIII. Revegetation Monitoring	$10,315.00
Budget Totals:	$265,306.45
Per Acre Total:	$4,349.29

Item Specification Description - 100 Acre Project Phase T1	Balance
I. Invasive Species Control-Mechanical	$71,753.75
II. Soil Sampling	$11,480.00
III. Native Species Propagation	$117,720.00
IV. Revegetation	$171,529.13
V. Cultural Resources Survey	$-
VI. Implementation Leader	$6,750.00
VII. Plan Preparation/Planning	$-
VIII. Revegetation Monitoring	$16,734.00
Budget Totals:	$395,966.88
Per Acre Total:	$3,959.67

Item Specification Description - 115 Acre Project Phase T2	Balance

I. Invasive Species Control-Mechanical		$75,563.75
II. Soil Sampling		$12,610.00
III. Native Species Propagation		$135,378.00
IV. Revegetation		$194,986.50
V. Cultural Resources Survey		$-
VI. Implementation Leader		$6,750.00
VII. Plan Preparation/Planning		$-
VIII. Revegetation Monitoring		$19,469.00
	Budget Totals:	$444,757.25
	Per Acre Total:	$3,867.45

Budget Details

61 Acre Clearing & Reveg. (BAER Format)

I. Invasive Species Control-Mechanical	$/Unit			Units		Years	Proposed
25-Gallon Sprayer1 (Quad w/Sprayer)	$75.00	Daily		11.00	Days	3	825.00
25-Gallon Sprayer2 (Quad w/Sprayer)	$75.00	Daily		11.00	Days	3	825.00
250-Gallon Sprayer3 (Truck & Trailer)	$75.00	Daily		22.00	Days	3	1,650.00
500 Gallon Fuel Tank	$410.00	Monthly		5.00	Month	3	2,050.00
D8T Dozer/Ripper (3-7Ac./8Hours)	$5,000.00	Weekly		1.25	Weeks	2	6,250.00
Equipment Freight (Inbound-Dozer)	$600.00	Delivery		2.00	Trips	2	1,200.00
Equipment Freight (Outbound-Dozer)	$600.00	Delivery		2.00	Trips	2	1,200.00
Equipment Fuel (D8, 8230 & 7520)	$-	Flat		-	Project	3	10,433.75
JD 7520 Tractor Water Truck	$100.00	Daily		32.00	Days	3	3,200.00
JD 8230 Tractor x2 (Disk)	$18.00	/Acre(s)		61.00	Acre(s)	2	1,098.00
JD 8230 Tractor x2 (Koenig Scraper)	$40.00	/Acre(s)		61.00	Acre(s)	2	2,440.00
Equip. Freight (In-JD8230) w/pilot car	$950.00	Delivery		2.00	Trips	2	1,900.00
Equip. Freight (Out-JD8230) w/pilot car	$950.00	Delivery		2.00	Trips	2	1,900.00
2,500 Gallon Water Wagon	$50.00	Daily		32.00	Days	3	1,600.00
Koenig Scraper x2	$280.00	Daily		-	Days	2	-
Garlon (6.5 Qts./Acre)	$90.00	/Gallon		25.00	Gallons	3	2,250.00
Round Up/Glyphosate (8 Qts./Acre)	$25.00	/Gallon		122.00	Gallons	3	3,050.00
Vegetable Oil (2.5:1 Ratio Veg. Oil-Garlon)	$10.00	/Gallon		62.50	Gallons	3	625.00
Burn Manager	$125.00	/Day	$12.50	25.00	days	1	3,125.00
Equipment Operator	$140.00	/Day	$14.00	100.00	days	3	14,000.00
				Budget Totals for Invasive Species Control:			$59,621.75

II. Soil Sampling	$/Unit			Units		Years	Proposed
Auger drive/Auger Bits	$175.00	Weekly		2.00	Weeks	1	350.00
Filter/Chemicals	$2.00	/Acre(s)		61.00	Acre(s)	1	122.00
Tractor (JD7520)	$110.00	Daily		11.00	Days	1	1,210.00
Equipment Fuel	$-	Flat		-	Project	1	1,540.00
Equip. Freight (In)	$400.00	Delivery		1.00	Trips	1	400.00
Equip. Freight (Out)	$400.00	Delivery		1.00	Trips	1	400.00
Labor 1 (Lab Analyst)	$100.00	/Day	$10.00	18.00	days	1	1,800.00
Soil Manager (10 hours Per day)	$120.00	/Day	$12.00	18.00	Days	1	2,160.00
Tractor Operator (10 Hr./Day)	$125.00	/Day	$12.50	11.00	Days	1	1,375.00

					Budget Totals for Soil Sampling:		$9,357.00
III. Native Species Propagation	**$/Unit**			**Units**		**Years**	**Proposed**
Delivery (53' Semi Trailer)	$400.00	/Load		13.30	Loads	0	5,319.20
Tree Propagation 1-Ga. Pots	$2.50	/Unit Cost		26,596.00	Trees	0	66,490.00
					Budget Totals for Native Species Propagation:		$71,809.20
IV. Revegetation	**$/Unit**			**Units**		**Years**	**Proposed**
Delivery Yuma-Needles (Irrigation Sys.)	$700.00	/Unit Cost		2.00	Loads	0	1,400.00
Planting	$500.00	/Acre(s)		61.00	Acre(s)	0	30,500.00
JD 7520 Tractor & Planter (600/day)	$125.00	Daily		44.00	Days	0	5,500.00
Equipment Fuel	$-	Flat		-	Project	0	6,001.50
Veg. Monitoring Interns (Planting)	$125.00	/Hr.	$12.50	66.00	Days	0	8,250.00
Caterpillar Backhoe 420D E-Stick	$2,252.00	Monthly		1.00	Month	0	2,252.00
Equipment Freight (Inbound)	$400.00	Delivery		2.00	Trips	0	800.00
Equipment Freight (Outbound)	$400.00	Delivery		2.00	Trips	0	800.00
Drip Irrigation System	$750.00	/Acre(s)		61.00	Acre(s)	0	45,750.00
Irrigation Pump Rental	$6,200.00	/Unit Cost		1.00	Pump	0	6,200.00
Lodging (5 planters)	$53.00	/Day		44.00	Days	0	2,332.00
					Budget Totals for Revegetation:		$107,453.50
V. Cultural Resources Survey	**$/Unit**			**Units**		**Years**	**Proposed**
Survey & Report Writing	$500.00	/Day		-	Flat	0	-
					Budget Totals for Cultural Resources Survey:		$-
VI. Implementation Leader	**$/Unit**			**Units**		**Years**	**Proposed**
Project Assistant Clearing, Burn & Equip	$15.00	/Hr.		150.00	Hours	1	$2,250.00
Project Assistant Land Cond. & Chem. App.	$15.00	/Hr.		150.00	Hours	1	$2,250.00
Project Assistant Irrig. Prep. & Chem. App.	$15.00	/Hr.		150.00	Hours	1	$2,250.00
					Budget Totals for Implementation Leader:		$6,750.00
VII. Plan Preparation/Planning	**$/Unit**			**Units**		**Years**	**Proposed**
BAR Plan Preparation/Planning	$1,104.10	/Day		-	Days	1	-
					Budget Totals for Plan Preparation/Planning:		$-
VIII. Revegetation Monitoring	**$/Unit**			**Units**		**Years**	**Proposed**
Ecologist (17 Plots)	$160.00	/Day	$20.00	18.00	Days	0	2,880.00
Intern (17 Plots)	$80.00	/Day	$10.00	18.00	Days	0	1,440.00
Permitting - Arch. Clearance	$32.00	/Acre(s)		61.00	Flat	1	1,952.00
Permitting - Clean Water Act Compliance	$35.00	/Acre(s)		61.00	Acre(s)	2	2,135.00
Lodging (Ecologist)	$53.00	/Day		18.00	Days	2	954.00
Lodging (Intern)	$53.00	/Day		18.00	Days	2	954.00
					Budget Totals for Revegetation Monitoring:		$10,315.00

Budget Detail (cont.)

100 Acre Clearing & Reveg. (BAER Format)							
I. Invasive Species Control-Mechanical	$/Unit			Units		Years	Proposed
25-Gallon Sprayer1 (Quad w/Sprayer)	$75.00	Daily		18.00	Days	3	1,350.00
25-Gallon Sprayer2 (Quad w/Sprayer)	$75.00	Daily		18.00	Days	3	1,350.00
250-Gallon Sprayer3 (Truck & Trailer)	$75.00	Daily		35.00	Days	3	2,625.00
500 Gallon Fuel Tank	$410.00	Monthly		5.00	Month	3	2,050.00
D8T Dozer/Ripper (3-7Ac./8Hours)	$17,750.00	Monthly		1.00	Month	2	17,750.00
Equipment Freight (Inbound-Dozer)	$600.00	Delivery		2.00	Trips	2	1,200.00
Equipment Freight (Outbound-Dozer)	$600.00	Delivery		2.00	Trips	2	1,200.00
Equipment Fuel (D8, 8230 & 7520)	$-	Flat		-	Project	3	11,238.75
JD 7520 Tractor Water Truck	$100.00	Daily		15.00	Days	3	1,500.00
JD 8230 Tractor x2 (Disk)	$18.00	/Acre(s)		100.00	Acre(s)	2	1,800.00
JD 8230 Tractor x2 (Koenig Scraper)	$40.00	/Acre(s)		100.00	Acre(s)	2	4,000.00
Equip. Freight (In-JD8230) w/pilot car	$950.00	Delivery		2.00	Trips	2	1,900.00
Equip. Freight (Out-JD8230) w/pilot car	$950.00	Delivery		2.00	Trips	2	1,900.00
2,500 Gallon Water Wagon	$50.00	Daily		15.00	Days	3	750.00
Koenig Scraper x2	$280.00	Daily		-	Days	2	-
Garlon (6.5 Qts./Acre)	$90.00	/Gallon		41.00	Gallons	3	3,690.00
Round Up/Glyphosate (8 Qts./Acre)	$25.00	/Gallon		200.00	Gallons	3	5,000.00
Vegetable Oil (2.5:1 Ratio Veg. Oil-Garlon)	$10.00	/Gallon		102.50	Gallons	3	1,025.00
Burn Manager	$125.00	/Day	$12.00	41.00	days	1	5,125.00
Equipment Operator	$140.00	/Day	$14.00	45.00	days	3	6,300.00
				Budget Totals for Invasive Species Control:			$71,753.75
II. Soil Sampling	$/Unit			Units		Years	Proposed
Auger drive/Auger Bits	$175.00	Weekly		2.00	Weeks	1	350.00
Filter/Chemicals	$2.00	/Acre(s)		100.00	Acre(s)	1	200.00
Tractor (JD7520)	$110.00	Daily		10.00	Days	1	1,100.00
Equipment Fuel	$-	Flat		-	Project	1	1,400.00
Equip. Freight (In)	$400.00	Delivery		1.00	Trips	1	400.00
Equip. Freight (Out)	$400.00	Delivery		1.00	Trips	1	400.00
Labor 1 (Lab Analyst)	$100.00	/Day	$10.00	29.00	days	1	2,900.00
Soil Manager (10 hours Per day)	$120.00	/Day	$12.00	29.00	Days	1	3,480.00
Tractor Operator (10 Hr./Day)	$125.00	/Day	$12.50	10.00	Days	1	1,250.00
				Budget Totals for Soil Sampling:			$11,480.00
III. Native Species Propagation	$/Unit			Units		Years	Proposed
Delivery (53' Semi Trailer)	$400.00	/Load		21.80	Loads	0	8,720.00
Tree Propagation 1-Ga. Pots	$2.50	/Unit Cost		43,600.00	Trees	0	109,000.00
				Budget Totals for Native Species Propagation:			$117,720.00
IV. Revegetation	$/Unit			Units		Years	Proposed
Delivery Yuma-Needles (Irrigation Sys.)	$700.00	/Unit Cost		2.00	Loads	0	1,400.00
Planting	$500.00	/Acre(s)		100.00	Acre(s)	0	50,000.00
JD 7520 Tractor & Planter (600/day)	$125.00	Daily		73.00	Days	0	9,125.00
Equipment Fuel	$-	Flat		-	Project	0	12,202.13
Veg. Monitoring Interns (Planting)	$125.00	/Hr.		110.00	Days	0	13,750.00

			$12.50				
Caterpillar Backhoe 420D E-Stick	$2,252.00	Monthly		1.00	Month	0	2,252.00
Equipment Freight (Inbound)	$400.00	Delivery		2.00	Trips	0	800.00
Equipment Freight (Outbound)	$400.00	Delivery		2.00	Trips	0	800.00
Drip Irrigation System	$750.00	/Acre(s)		100.00	Acre(s)	0	75,000.00
Irrigation Pump Rental	$6,200.00	/Unit Cost		1.00	Pump	0	6,200.00
Lodging (5 planters)	$53.00	/Day		73.00	Days	0	3,869.00
					Budget Totals for Revegetation:		$171,529.13
V. Cultural Resources Survey	$/Unit			Units		Years	Proposed
Survey & Report Writing	$500.00	/Day		-	Flat	0	-
					Budget Totals for Cultural Resources Survey:		$-
VI. Implementation Leader	$/Unit			Units		Years	Proposed
Project Assistant Clearing, Burn & Equip	$15.00	/Hr.		150.00	Hours	1	$2,250.00
Project Assistant Land Cond. & Chem. App.	$15.00	/Hr.		150.00	Hours	1	$2,250.00
Project Assistant Irrig. Prep. & Chem. App.	$15.00	/Hr.		150.00	Hours	1	$2,250.00
					Budget Totals for Implementation Leader:		$6,750.00
VII. Plan Preparation/Planning	$/Unit			Units		Years	Proposed
BAR Plan Preparation/Planning	$1,104.10	/Day		-	Days	1	-
					Budget Totals for Plan Preparation/Planning:		$-
VIII. Revegetation Monitoring	$/Unit			Units		Years	Proposed
Ecologist (17 Plots)	$160.00	/Day	$20.00	29.00	Days	0	4,640.00
Intern (17 Plots)	$80.00	/Day	$10.00	29.00	Days	0	2,320.00
Permitting - Arch. Clearance	$32.00	/Acre(s)		100.00	Flat	1	3,200.00
Permitting - Clean Water Act Compliance	$35.00	/Acre(s)		100.00	Acre(s)	2	3,500.00
Lodging (Ecologist)	$53.00	/Day		29.00	Days	2	1,537.00
Lodging (Intern)	$53.00	/Day		29.00	Days	2	1,537.00
					Budget Totals for Revegetation Monitoring:		$16,734.00

Budget Detail (cont.)

115 Acre Clearing & Reveg. (BAER Format)							
I. Invasive Species Control-Mechanical	$/Unit			Units		Years	Proposed
25-Gallon Sprayer1 (Quad w/Sprayer)	$75.00	Daily		20.00	Days	3	1,500.00
25-Gallon Sprayer2 (Quad w/Sprayer)	$75.00	Daily		20.00	Days	3	1,500.00
250-Gallon Sprayer3 (Truck & Trailer)	$75.00	Daily		41.00	Days	3	3,075.00
500 Gallon Fuel Tank	$410.00	Monthly		5.00	Month	3	2,050.00
D8T Dozer/Ripper (3-7Ac./8Hours)	$17,750.00	Monthly		1.00	Month	2	17,750.00
Equipment Freight (Inbound-Dozer)	$600.00	Delivery		2.00	Trips	2	1,200.00
Equipment Freight (Outbound-Dozer)	$600.00	Delivery		2.00	Trips	2	1,200.00
Equipment Fuel (D8, 8230 & 7520)	$-	Flat		-	Project	3	11,238.75
JD 7520 Tractor Water Truck	$100.00	Daily		15.00	Days	3	1,500.00
JD 8230 Tractor x2 (Disk)	$18.00	/Acre(s)		115.00	Acre(s)	2	2,070.00
JD 8230 Tractor x2 (Koenig Scraper)	$40.00	/Acre(s)		115.00	Acre(s)	2	4,600.00
Equip. Freight (In-JD8230) w/pilot car	$950.00	Delivery		2.00	Trips	2	1,900.00
Equip. Freight (Out-JD8230) w/pilot car	$950.00	Delivery		2.00	Trips	2	1,900.00
2,500 Gallon Water Wagon	$50.00	Daily		15.00	Days	3	750.00
Koenig Scraper x2	$280.00	Daily		-	Days	2	-
Garlon (6.5 Qts./Acre)	$90.00	/Gallon		47.00	Gallons	3	4,230.00
Round Up/Glyphosate (8 Qts./Acre)	$25.00	/Gallon		230.00	Gallons	3	5,750.00
Vegetable Oil (2.5:1 Ratio Veg. Oil-Garlon)	$10.00	/Gallon		117.50	Gallons	3	1,175.00
Burn Manager	$125.00	/Day	$12.00	47.00	days	1	5,875.00
Equipment Operator	$140.00	/Day	$14.00	45.00	days	3	6,300.00
				Budget Totals for Invasive Species Control:			$75,563.75
II. Soil Sampling	$/Unit			Units		Years	Proposed
Auger drive/Auger Bits	$175.00	Weekly		2.00	Weeks	1	350.00
Filter/Chemicals	$2.00	/Acre(s)		115.00	Acre(s)	1	230.00
Tractor (JD7520)	$110.00	Daily		10.00	Days	1	1,100.00
Equipment Fuel	$-	Flat		-	Project	1	1,400.00
Equip. Freight (In)	$400.00	Delivery		1.00	Trips	1	400.00
Equip. Freight (Out)	$400.00	Delivery		1.00	Trips	1	400.00
Labor 1 (Lab Analyst)	$100.00	/Day	$10.00	34.00	days	1	3,400.00
Soil Manager (10 hours Per day)	$120.00	/Day	$12.00	34.00	Days	1	4,080.00
Tractor Operator (10 Hr./Day)	$125.00	/Day	$12.50	10.00	Days	1	1,250.00
				Budget Totals for Soil Sampling:			$12,610.00
III. Native Species Propagation	$/Unit			Units		Years	Proposed
Delivery (53' Semi Trailer)	$400.00	/Load		25.07	Loads	0	10,028.00
Tree Propagation 1-Ga. Pots	$2.50	/Unit Cost		50,140.00	Trees	0	125,350.00
				Budget Totals for Native Species Propagation:			$135,378.00
IV. Revegetation	$/Unit			Units		Years	Proposed
Delivery Yuma-Needles (Irrigation Sys.)	$700.00	/Unit Cost		2.00	Loads	0	1,400.00
Planting	$500.00	/Acre(s)		115.00	Acre(s)	0	57,500.00
JD 7520 Tractor & Planter (600/day)	$125.00	Daily		84.00	Days	0	10,500.00
Equipment Fuel	$-	Flat		-	Project	0	13,534.50
Veg. Monitoring Interns (Planting)	$125.00	/Hr.		126.00	Days	0	15,750.00

			$12.50				
Caterpillar Backhoe 420D E-Stick	$2,252.00	Monthly		1.00	Month	0	2,252.00
Equipment Freight (Inbound)	$400.00	Delivery		2.00	Trips	0	800.00
Equipment Freight (Outbound)	$400.00	Delivery		2.00	Trips	0	800.00
Drip Irrigation System	$750.00	/Acre(s)		115.00	Acre(s)	0	86,250.00
Irrigation Pump Rental	$6,200.00	/Unit Cost		1.00	Pump	0	6,200.00
Lodging (5 planters)	$53.00	/Day		84.00	Days	0	4,452.00
					Budget Totals for Revegetation:		$194,986.50
V. Cultural Resources Survey	$/Unit			Units		Years	Proposed
Survey & Report Writing	$500.00	/Day		-	Flat	0	-
					Budget Totals for Cultural Resources Survey:		$-
VI. Implementation Leader	$/Unit			Units		Years	Proposed
Project Assistant Clearing, Burn & Equip	$15.00	/Hr.		150.00	Hours	1	$2,250.00
Project Assistant Land Cond. & Chem. App.	$15.00	/Hr.		150.00	Hours	1	$2,250.00
Project Assistant Irrig. Prep. & Chem. App.	$15.00	/Hr.		150.00	Hours	1	$2,250.00
					Budget Totals for Implementation Leader:		$6,750.00
VII. Plan Preparation/Planning	$/Unit			Units		Years	Proposed
BAR Plan Preparation/Planning	$1,104.10	/Day		-	Days	1	-
					Budget Totals for Plan Preparation/Planning:		$-
VIII. Revegetation Monitoring	$/Unit			Units		Years	Proposed
Ecologist (17 Plots)	$160.00	/Day	$20.00	34.00	Days	0	5,440.00
Intern (17 Plots)	$80.00	/Day	$10.00	34.00	Days	0	2,720.00
Permitting - Arch. Clearance	$32.00	/Acre(s)		115.00	Flat	1	3,680.00
Permitting - Clean Water Act Compliance	$35.00	/Acre(s)		115.00	Acre(s)	2	4,025.00
Lodging (Ecologist)	$53.00	/Day		34.00	Days	2	1,802.00
Lodging (Intern)	$53.00	/Day		34.00	Days	2	1,802.00
					Budget Totals for Revegetation Monitoring:		$19,469.00

August 11, 2010

To Whom It May Concern:

The Fort Mojave Senior Center offers our support for the Natural Resource Department efforts to acquire grant funding for Aha Macav Preserve.

The Fort Mojave Senior Center provides a place for senior members of the Fort Mojave Indian Tribe to socialize and share meals. Our visitors would greatly benefit from the enhancement of the preserve. It would provide a serene atmosphere and an opportunity for them to benefit from physical activity. The Aha Macav Preserve is a site that provides an excellent balance between natural resource protection and recreational use. It would be a great benefit to enhance the Aha Macav Preserve site and soon surrounding areas in a similar manner.

We are excited for this project and offer our support throughout this project.

Sincerely,

Bonnie Jackson

Bonnie Jackson, ~~Director~~ Site Manager.

August 17, 2010

To Whom It May Concern:

As a member of the Fort Mojave Indian Tribe, I would like to offer my support to the 'Natural Resources Department (NRD) in their efforts to seek grant funding for the restoration of Aha Macav Preserve.
From my experiences and involvement with the Fort Mojave Community, and the planning and implementation of area projects, I feel the Natural Resource Department's undertaking of the restoration of Fort Mojave land has been and will continue to be a success. The NRD projects have provided plants not only culturally significant to the community, but also a vast riparian habitat for native plants and wildlife.
I look forward to this project and offer my support to assist with the proposed enhancement of "Aha Macav Preserve".

Sincerely,

Cheryl Thomas

Fort Mojave Tribal Member

August 17, 2010

To Whom It May Concern:

As a member of the Fort Mojave Indian Tribe, I would like to offer my support to the 'Natural Resources Department (NRD) in their efforts to seek grant funding for the restoration of Aha Macav Preserve.
From my experiences and involvement with the Fort Mojave Community, and the planning and implementation of area projects, I feel the Natural Resource Department's undertaking of the restoration of Fort Mojave land has been and will continue to be a success. The NRD projects have provided plants not only culturally significant to the community, but also a vast riparian habitat for native plants and wildlife.
I look forward to this project and offer my support to assist with the proposed enhancement of "Aha Macav Preserve".

Sincerely,

Fort Mojave Tribal Member

August 17, 2010

To Whom It May Concern:

As a member of the Fort Mojave Indian Tribe, I would like to offer my support to the 'Natural Resources Department (NRD) in their efforts to seek grant funding for the restoration of Aha Macav Preserve.
From my experiences and involvement with the Fort Mojave Community, and the planning and implementation of area projects, I feel the Natural Resource Department's undertaking of the restoration of Fort Mojave land has been and will continue to be a success. The NRD projects have provided plants not only culturally significant to the community, but also a vast riparian habitat for native plants and wildlife.
I look forward to this project and offer my support to assist with the proposed enhancement of "Aha Macav Preserve".

Sincerely,

Madeline Lewis

Fort Mojave Tribal Member

August 17, 2010

To Whom It May Concern:

As a member of the Fort Mojave Indian Tribe, I would like to offer my support to the 'Natural Resources Department (NRD) in their efforts to seek grant funding for the restoration of Aha Macav Preserve.
From my experiences and involvement with the Fort Mojave Community, and the planning and implementation of area projects, I feel the Natural Resource Department's undertaking of the restoration of Fort Mojave land has been and will continue to be a success. The NRD projects have provided plants not only culturally significant to the community, but also a vast riparian habitat for native plants and wildlife.
I look forward to this project and offer my support to assist with the proposed enhancement of "Aha Macav Preserve".

Sincerely,

Marguerite Stevens

Fort Mojave Tribal Member