

Contract Number: CT. PW. 14 * 201
Effective Date: 12-3-13
Term Date: 12-3-2023
Cost: \$2,000. -
Revenue: _____
Total: _____ NTE: _____
Action: _____
Renewal By: 9-1-2023
Term: 12-3-2023
Reviewed by: [Signature]

BOARD OF SUPERVISORS AGENDA ITEM SUMMARY

Requested Board Meeting Date: December 3, 2013

ITEM SUMMARY, JUSTIFICATION &/or SPECIAL CONSIDERATIONS:

The Pima County Flood Control District owns and maintains 4 parcels of riparian open space along the Bear Creek in northeast Tucson, Arizona, specifically APN 114-08-003E; -004A; -006A; and 3460. (the "District Property"). These riparian parcels aggregate approximately 198.88 acres, some of which border the Sabino Canyon Park.

The U.S. Fish and Wildlife Service ("FWS"), part of the U.S. Department of the Interior, is the lead Federal agency responsible for conserving and managing the nation's fish and wildlife resources. The Arizona Partners for Fish and Wildlife Program helps the FWS to fulfill its mission to conserve, protect and enhance fish, wildlife and plants by providing technical and financial support to private landowners in Arizona who wish to improve fish and wildlife habitat on their own land. The Sky Island Alliance, a local Arizona nonprofit corporation ("SIA") applied to FWS under the above-referenced program for federal financial assistance for its *Riparian Restoration Program* and was awarded a \$30,000.00 grant from FWS for the purpose of restoring spring habitat on the District Property by controlling non-native species. In order to document this grant agreement FWS and SIA have negotiated and will enter into a formal Cooperative Agreement. One of the prerequisites of this Cooperative Agreement is the execution of a Sub-Recipient Landowner Agreement between SIA and the landowner (in this case the District) whose property will benefit from the expenditure of the grant money. In order to meet this requirement, the District proposes to enter into the subject Sub-Recipient Landowner Agreement with SIA. Once executed by the BOD, this Sub-Recipient Landowner Agreement will be attached as Exhibit A to the Cooperative Agreement between SIA and FWS. Under the Sub-Recipient Landowner Agreement, SIA will, among other things, coordinate a series of volunteer efforts to remove invasive species and to install native plant materials at the District's Fundoshi Spring Site and in areas disturbed by the invasive plant removal. District will be expected to cost-share a nominal sum, not to exceed \$2,000.00, for plant materials, landfill fees and landscape contractor fees. The District Property will, in turn, greatly benefit from the work to be done by SIA pursuant to the grant from FWS.

STAFF RECOMMENDATION(S): *Staff recommends that the BOD approve and authorize the Chairman to execute the Sub-Recipient Landowner Agreement with Sky Island Alliance.*

Page 1 of 2 Ver. 1 To: CoB. 11-20-13
Vendor: 1 Agenda 12-3-13
Dec 20 (1)

PIMA COUNTY COST: \$ Not to Exceed \$2,000.00 **and/or REVENUE TO PIMA COUNTY:** \$ -0-
FUNDING SOURCE(S): Fund 2005, Object 5151, Unit 115
(i.e. General Fund, State Grant Fund, Federal Fund, Stadium D. Fund, etc.)

Advertised Public Hearing:

☐ **YES** ☒ **NO**

Board of Supervisors District:

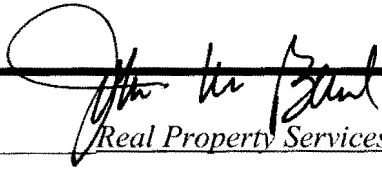
1 ☒ 2 ☐ 3 ☐ 4 ☐ 5 ☐ All ☐

IMPACT:

IF APPROVED: District will execute the Sub-Recipient Landowner Agreement with Sky Island Alliance availing itself of the opportunity to have some of its valuable riparian lands enhanced by the removal of non-native species and restoration of its Fundoshi Spring Site by way of a federal grant to Sky Island Alliance.

IF DENIED: District will not execute the Sub-Recipient Landowner Agreement with Sky Island Alliance and will have failed to avail itself of the opportunity to have some of its valuable riparian lands enhanced by the removal of non-native species and restoration of its Fundoshi Spring Site by way of a federal grant to Sky Island Alliance.

DEPARTMENT NAME: _____


Real Property Services

CONTACT PERSON: Michael D. Stofko

TELEPHONE NO.: 520-724-6667

CONTRACT	
NO. <u>C.T. PW-1410001 0000000000 201</u>	
AMENDMENT NO. _____	
This number must appear on all invoices, correspondence and documents pertaining to this contract.	

FBMS Agreement No: F13AC00852

EXHIBIT A

SUB-RECIPIENT LANDOWNER AGREEMENT

Rancho Fundoshi Spring Restoration

This agreement is made this 9th day of September, 2013, between Sky Island Alliance, a not for profit organization with its address at 300 East University Blvd, Suite 270, Tucson, AZ 85705, (hereinafter "SIA") and Pima County Regional Flood Control District, a political subdivision of the State of Arizona with its address at 97 E. Congress Street, 3rd floor, (hereinafter the "District") hereinafter collectively called the "Parties". This agreement is for the purpose of *restoring spring habitat by controlling non-native species* on lands owned or controlled by the District ("Subject Property"), as described in the legal description below and on the attached Exhibit A.1, incorporated herein by reference.

The proposed project is located on parcels no. 114-08-003E, 114-08-006A, 114-08-004A, and 114-08-3460 (the Property). The Property is located within unincorporated Pima County, approximately 3 miles *north* of Tucson, Arizona. The location is shown on the attached 7.5-minute topographic map: *Sabino Canyon*, Section 15, Township 13S, Range 15E, of the Salt and Gila River Base Line and Principle Meridian, North Latitude 32.303709° and West Longitude - 110.802662° (Exhibit A.1). These coordinates represent the approximate center of the project area.

I. Project Description:

Project Objectives

1. Assess the ecological condition of the Rancho Fundoshi Spring.
2. Encourage establishment of a diverse array of native plant species to benefit a wide variety of wildlife species.
 - a. Continue Pima County's invasive species removal efforts.
 - b. Increase diversity and density of native plants through augmentation.
 - c. Promote vigor of native plants through proper selection, placement, and maintenance.
3. Preserve and enhance existing biological values of the site, including native plants and microhabitats.

Proposed Work

- Map current distribution of perennial invasives by species present in Bear Canyon in the vicinity of Rancho Fundoshi Spring.
- Conduct a walking survey upstream in Bear Canyon on CNF land to document presence/absence of perennial invasives. If present, coordinate separately with CNF regarding treatment options.
- Conduct a series of volunteer events to manually remove the remaining invasives from the project area. Removal of *Arundo* will be conducted according to the proven protocols

used by the Tucson Arundo Removal Project (Jim Washburne; http://web.sahra.arizona.edu/education2/arundo/report/Washburne_TucsonArundo.pdf). Necessary tools and supplies for this task will include shovels, pickaxes, prybars, gloves, twine, and heavy-duty trash bags.

- Coordinate with neighboring downstream landowner (Stilb) for access through their portion of Bear Canyon to transport removed plant materials to the Tangerine Landfill, located at 10220 W. Tangerine Road, Tucson, AZ.
- Conduct follow-up removal efforts as necessary to maintain invasives control.
- Conduct a series of volunteer events to install plant materials at the spring site and in areas disturbed through invasive plant removal.
- Necessary tools and supplies for this task will include shovels, pickaxes, gloves, Dri-Water cartons, water, and heavy-duty trash bags. Placement of plants on the landscape will be subject to field-approval of Pima County personnel.

The term the Agreement is ten (10) years.

Project Summary	Restoration	Enhancement	Establishment	Total
Upland Acres:				
Wetland Acres:		0.75		0.75
Stream Miles:				
Number of Structures:				

II. Respective Responsibilities of the Parties:

In addition to the specific tasks and contributions to this effort as identified in I. Project Description hereof, the parties further agree as follows:

a. Sky Island Alliance shall:

1. Be responsible for securing any permits needed to carry out the project described in this agreement.
2. Ensure all appropriate federal, state and local permits and authorizations are obtained and the habitat improvement project is in compliance with all applicable state and federal laws prior to commencing work under this agreement.
3. Oversee and coordinate the practices specified in this agreement, thus enhancing the value of the area for resident and migratory wildlife species.
4. Manage the budget and financial information specific to this project and request reimbursement for this project through the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program.
5. Obtain the services of a competent contractor to ensure the practices are completed in a timely manner and meet the specifications of this agreement.
6. Inspect the work periodically and be responsible for the implementation and management of activities described in this agreement.

7. Provide technical assistance in developing a monitoring plan for the purpose of evaluating treatment success.
8. Annually evaluate the management techniques and provide guidance regarding their success and modify the management guidelines as necessary to ensure maximum benefits to wildlife.

b. The District shall:

1. Guarantee ownership of the above-described land and warrant that there are no outstanding rights, including the current enrollment of the land in a federal conservation program, that interfere with this habitat improvement agreement. A change of ownership shall not change the terms of this agreement, which shall remain in effect on the described property for the duration of the period specified in Section IV, below. The District agrees to notify SIA of planned or pending changes of ownership at least 30 days in advance.
2. Cost-share in the works of improvement for the Property, as described in Section III below.
3. Maintain the project improvements for the maximum benefit of wildlife for the term of this agreement.
4. Allow monitoring of the treatment to evaluate effectiveness.
5. Comply with applicable pesticide product labels and with all federal, state, and local laws and regulations relating to the use of such pesticide products. Before using any pesticide product, ensure it is registered for use.

c. Sky Island Alliance and the District mutually agree:

1. To cooperate with each other and with any land management agency that may be affected by this habitat improvement project, to ensure that all participants successfully and satisfactorily fulfill their commitments as set forth in this Agreement.
2. That nothing in this Agreement shall be construed as obligating SIA to any obligation for the future payment of money in excess of appropriations authorized by law.
3. Notices. All written notices concerning this Agreement shall be delivered in person or sent by certified mail, return receipt requested, to the Parties as follows:

For Sky Island Alliance:
Recipient: Sky Island Alliance
Name: Acasia Berry
Address: 300 East University Blvd, Suite 270
City/State/Zip: Tucson, AZ 85705
Phone: 520-624-7080
Email: Acasia@skyislandalliance.org

For the District:
Recipient: Pima County Regional
Flood Control District
Name: Marisa Rice
Address: 97 E. Congress Street, 2nd
floor
City/State/Zip: Tucson, AZ 85701
Phone: 520-724-4616
Email: marisa.rice@pima.gov

4. Modifications within the scope of this Agreement shall be made by mutual consent of the Parties, by the issuance of a written modification, signed and dated

by all Parties, prior to any changes being performed. The Parties are not obligated to fund any changes not approved in advance.

III. Estimated Costs:

Practice Description	Service Cost	District Cost-share	SIA Match
Invasive Species Removal	\$5,054.00		
Native Plant Installation	\$2,308.00		
Maintain/Monitor/Report	\$2,616.00		
Landfill fees ¹		\$250.00	
Plant Materials ²		\$250.00	
Volunteer Hours ³			\$7,084.80
Landscape Contractor ⁴		\$445.00	
Totals	\$9,978.00	\$945.00	\$7,084.80

¹Cost share provided only if the Tangerine Landfill is utilized for invasive species disposal.

²Cost share provided only if the Pima County Native Plant Nursery is utilized to order plant material.

³Includes 320 volunteer hours at the rate of \$22.14/hour.

⁴Assumes one year of effort at same rates as 2013.

Note: The total SIA/Service's and District's cost-share (funds, materials, labor, and/or in-kind services) must remain the same; however, practice allocations may be redistributed upon prior approval by the Service Project Officer.

IV. Project Schedule:

Funded practices identified above will be commenced within 6 months and must be completed within 24 months unless otherwise scheduled. SIA reserves the right to terminate this agreement in accordance to Section VI, Termination Provisions of this agreement if this provision is not met. Should the District be unable to commence or complete the project within the time identified in this agreement, then the District must notify SIA a minimum of 30 days prior to request an Extension of Time.

V. Term of this Agreement:

This Agreement is effective as of the last signature date and expires ten (10) years from that date. The habitat improvements placed on the District's property by SIA become the property of the District upon termination of this Agreement.

VI. Termination Provisions:

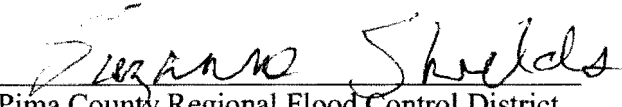
Either Party may terminate this Agreement upon thirty (30) days advance written notice to the other Party. Upon termination, all work performed pursuant to this Agreement shall cease.

- VII. Indemnification.** To the fullest extent permitted by law, SIA will defend, indemnify and hold the District harmless from and against all claims, liabilities, losses, damages, costs, and expenses, including but not limited to reasonable attorney's fees and litigation expenses arising out of or relating (directly or indirectly) to (i) any work or thing whatsoever done, or any condition created in or about the Subject Property during the term of this Agreement; (ii) any act, omission, breach of any provision of this Agreement or negligence of SIA or any of SIA's contractors or licensees or the partners, directors, officers, agents, employees, invitees of SIA or of SIA's contractors or licensees; and (iii) any accident, injury or damage whatsoever occurring in or at the Subject Property. SIA is not obligated to indemnify the District for the consequences of any negligent act or omission of the District, its agents, servants or employees, or claims caused by the District's willful or intentional misconduct.
- VIII. Conflict of Interest.** This Agreement is subject to cancellation within three years after its execution under A.R.S. § 38-511 if any person significantly involved in initiating, negotiating, securing, drafting, or creating this Agreement on behalf of the District is, at any time while this Agreement or any extension of the Agreement is in effect, an employee or agent of any other party to the Agreement with respect to the subject matter of the Agreement.
- IX. Non-Discrimination.** During the performance of this Agreement, SIA shall not discriminate against any employee, client, or any other individual in any way because of that person's age, race, creed, color, religion, sex, disability or national origin. SIA shall comply with the provisions of Arizona Executive Order 75-5, as amended by Executive Order 99-4 and 2009-09 issued by the Governor of the State of Arizona, which is incorporated into this Agreement as if set forth in full herein.
- X. Choice of Law.** The laws of the State of Arizona govern this Agreement and will apply to any action relating to this Agreement and any court action must be brought in a court in Pima County, Arizona.
- XI. Non-Appropriation of Funds.** Notwithstanding any other provision in this Agreement, this Agreement may be terminated if for any reason, the Pima County Board of Supervisors does not appropriate sufficient monies for the purpose of maintaining this Agreement. In the event of such termination, County shall have no further obligations to SIA, other than for services rendered prior to termination.

XII. Signatures.

This Agreement was agreed upon between the District and Sky Island Alliance on

Date



Pima County Regional Flood Control District

9/17/13

Date

Chair, Board of Directors

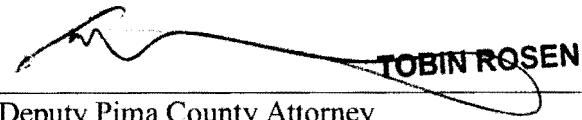
Date

Attest:

Clerk of the Board
Pima County Regional Flood Control District

Date


APPROVED AS TO FORM:



Deputy Pima County Attorney

9/23/13

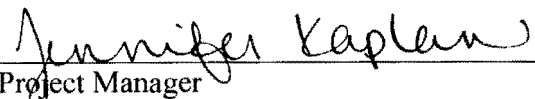
Date



Project Manager
Sky Island Alliance

10/3/2013

Date



Project Manager
Partners for Fish and Wildlife

10/24/2013

Date

EXHIBIT A
Project Maps

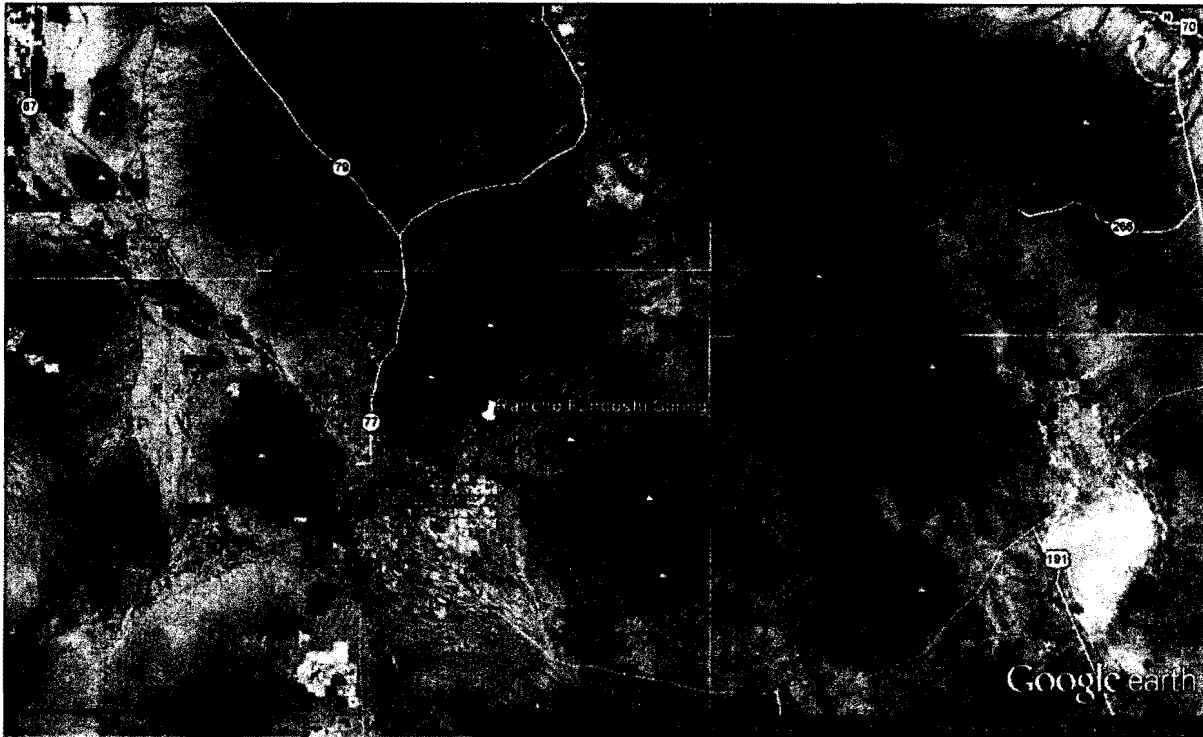


Figure 1. General location of Rancho Fundoshi Spring, northeast of Tucson, Arizona on the southern flank of the Santa Catalina Mountains in Bear Canyon.

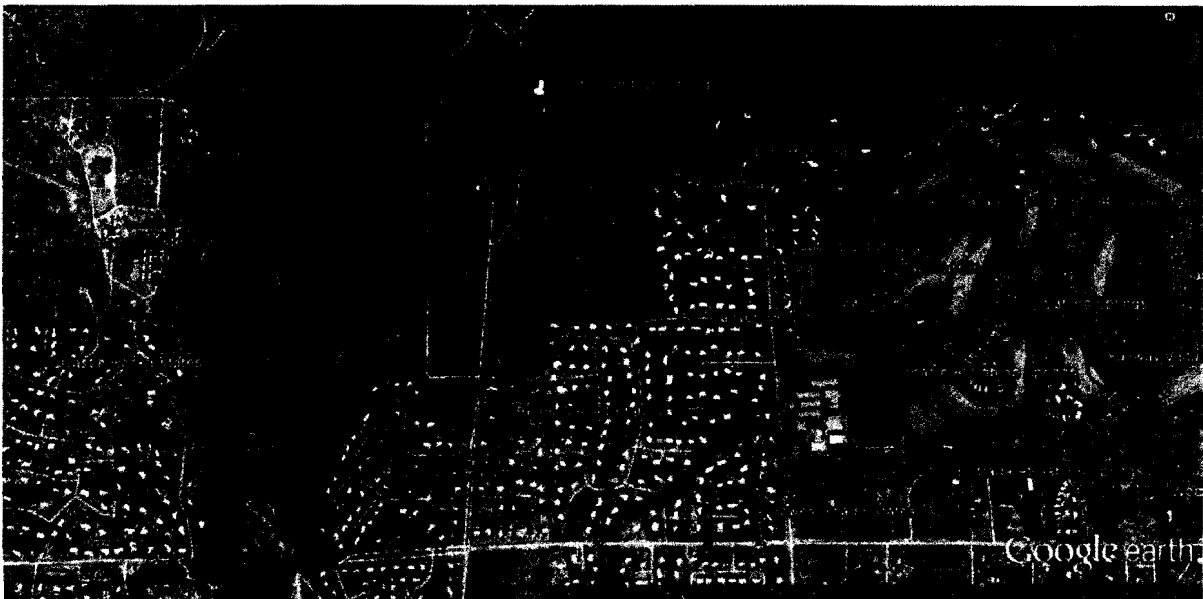


Figure 2. Access to Rancho Fundoshi, from Bear Canyon Road.

RANCHO FUNDOSHI SPRING PROPOSED RESTORATION PLAN

Introduction

Sky Island Alliance (SIA) has received funding from the Wildlife Conservation Society and the US Fish and Wildlife Service (USFWS) Partners Program to conduct restoration activities on springs in the sky island region of southeastern Arizona. Restoration is a natural outgrowth of the collaborative work that SIA has been conducting over the past three years with the Springs Stewardship Institute (SSI) and a wide variety of federal, state, and local land management agencies to create a baseline of information about springs in the region. We have worked together to modify SSI springs assessment protocols to be both implementable with trained volunteers and compatible with the comprehensive Springs Inventory Database, while still maintaining scientific vigor, and have trained over 90 volunteers. This diverse set of volunteers includes students at the University of Arizona, private landowners, environmental consultants, and natural resource professionals from a variety of local (Pima County Regional Flood Control District; Pima County Natural Resources, Parks, and Recreation), and federal agencies (Bureau of Land Management, US Forest Service). With this corps of trained citizen scientist volunteers, natural resource professionals, and SIA staff, we have assessed over 60 springs in southern Arizona. The data collected at springs includes key attributes such as flow, ecological condition, species supported and threats to spring sustainability. By collecting and assessing this data at a regional level we are able to identify springs sites that are high priority for protection and/or restoration. Numerous springs have emerged as sites with restoration potential, and SIA is currently working to restore springs in southern Arizona.

Rancho Fundoshi, owned and managed by Pima County Regional Flood Control District, contains an unnamed spring that is an excellent candidate for restoration. This spring, located in the Santa Catalina Mountains, presents an excellent opportunity to remove invasive plant species from their uppermost location in the Bear Canyon Wash – thereby protecting downstream riparian areas from the continued presence of a source population.

Project Area

Rancho Fundoshi is located in the Santa Catalina Mountains, just outside of Tucson, Arizona (Figure 1). The property is owned and managed by Pima County Regional Flood Control District (PCRFC), who acquired it from The Nature Conservancy in 2012 as part of the county's conservation land holdings. The property includes a portion of Bear Canyon Wash, a major riparian drainage of the Santa Catalina

Rancho Fundoshi Spring Restoration Plan
August 2015

Mountains, and is accessed from Bear Canyon Road (Figure 2). Within the wash there is an unnamed rheocrene (i.e., in channel) spring that emerges at the base of a rock stairway that descends from the ranch house into the canyon (Photos 1 and 2). Despite the lack of a formal name, we are referring to this spring as “Fundoshi Spring” for discussion purposes. Vegetation in the immediate vicinity of Fundoshi Spring is characteristic of the Arizona Upland Subdivision of the Sonoran Desert. The elevation is approximately 2,700 feet above mean sea level.

The project area for this restoration plan includes the portion of Bear Canyon Wash within the Pima County parcels (114-08-003E, 114-08-006A, 114-08-004A, and 114-08-3460). See Attachment A for representative site photographs.

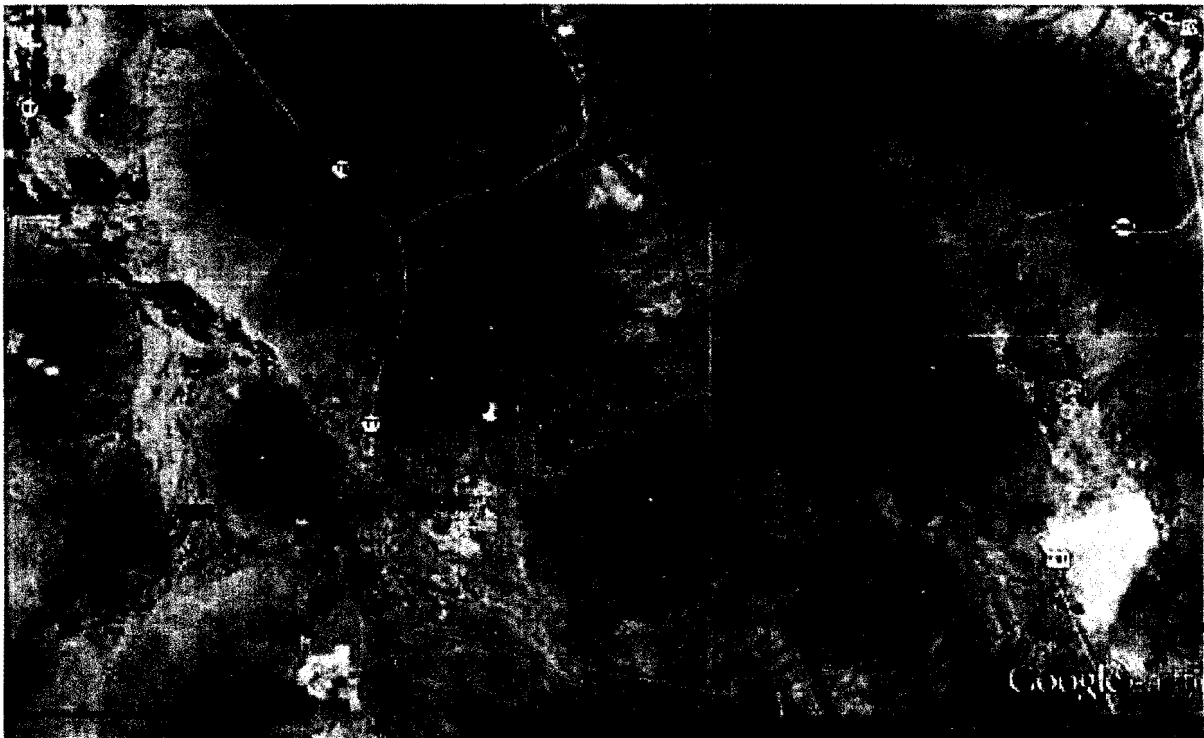


Figure 1. General location of Rancho Fundoshi Spring, northeast of Tucson, Arizona on the southern flank of the Santa Catalina Mountains in Bear Canyon.

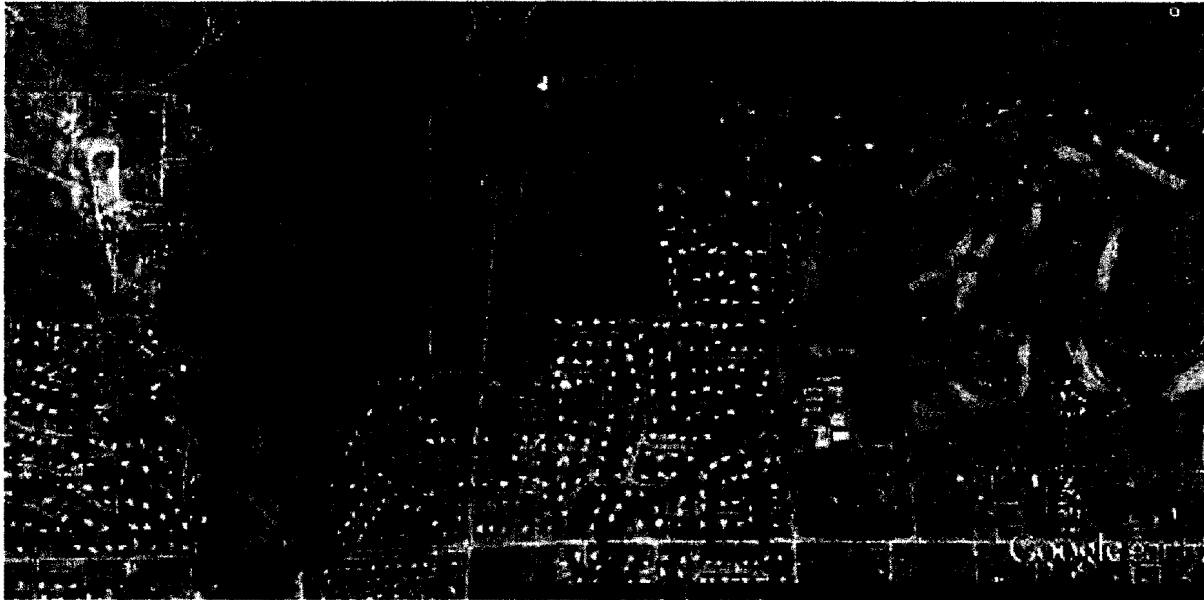


Figure 2. Access to Rancho Fundoshi, from Bear Canyon Road.

Project Goals

1. Assess the ecological condition of the Rancho Fundoshi Spring.
2. Encourage establishment of a diverse array of native plant species to benefit a wide variety of wildlife species.
 - a. Continue Pima County's invasive species removal efforts.
 - b. Increase diversity and density of native plants through augmentation.
 - c. Promote vigor of native plants through proper selection, placement, and maintenance.
3. Preserve and enhance existing biological values of the site, including native plants and microhabitats.

Project Activities

This project will not require heavy machinery – all activities will be completed using hand tools. In addition, SIA will not be changing the geomorphology of the wash and/or associated spring/pools.

Environmental Compliance

This project work is funded in part by the USFWS Partners program, and as such requires compliance with the National Environmental Policy Act of 1972, as amended. No ground-disturbing activities will be conducted until environmental compliance is complete. USFWS will be completing compliance in coordination with USFS and Pima County.

Spring Assessment

Spring Stewardship Institute
 www.springstewardship.org

SIA personnel (Louise Misztal, Carianne Campbell, Nick Deyo, and Christopher Morris) and Pima County staff (Julia Fonseca) conducted a site visit and assessment of the spring at Rancho Fundoshi on June 12, 2013. The assessment followed established protocols¹ to maintain consistency with assessments being conducted throughout the Sky Island Region. Data collected include measures of water quality and quantity, wildlife use and diversity of aquatic fauna, and vegetation. These data will be entered into the SSI database, which will generate a report that can be used as baseline data for monitoring of climate change impacts and response to restoration actions.

Invasive Plant Species Removal

A total of 41 plant species were observed during SIA's site visit in June 2013, with non-native invasives comprising approximately 22% of the diversity (Table 1). Pima County has invested considerable time and effort in the removal and treatment of invasive species since 2009 (before acquisition). Over the past 5 years, almost 100 volunteers have invested over 500 hours in the manual removal of invasives from Bear Canyon Wash at Rancho Fundoshi. In addition, PCRFC has secured a landscape contractor to apply herbicide on four separate occasions. The focus has been on the ornamental invasives that were planted by a previous owner of the property, including giant reed (*Arundo donax*), oleander (*Nerium oleander*), and fountain grass (*Pennisetum setaceum*). The Rancho Fundoshi property abuts the Coronado National Forest (CNF); giant reed and are not known to occur farther upstream in Bear Canyon Wash. This situation makes the removal/treatment effort here particularly valuable from an efficacy standpoint, as the invasives are not expected to re-invade from upstream source populations.

SIA proposes the following tasks:

- Map current distribution of perennial invasives by species present in Bear Canyon Wash in the vicinity of Rancho Fundoshi Spring.
- Conduct a walking survey upstream in Bear Canyon Wash on CNF land to document presence/absence of perennial invasives. If present, coordinate separately with CNF regarding treatment options.
- Conduct a series of volunteer events to manually remove the remaining invasives from the project area. Removal of *Arundo* will be conducted according to the proven protocols used by the Tucson *Arundo* Removal Project (Jim Washburne; http://web.sahra.arizona.edu/education2/arundo/report/Washburne_TucsonArundo.pdf). Necessary tools and supplies for this task will include shovels, pickaxes, pry bars, gloves, twine, and heavy-duty trash bags.
- Coordinate with neighboring downstream landowner (Stilb) for access through their portion of Bear Canyon Wash to transport removed plant materials offsite to a designated waste disposal facility.
- Conduct follow-up removal efforts as necessary to maintain invasives control.

¹ Protocols developed by SIA and the Springs Stewardship Institute.

Inventory of the Pima County Desert Bioregion
August 2014

SIA will not be using herbicide to treat invasive plant species, and will coordinate activities with Pima County personnel to ensure there are no scheduling conflicts with landscape contractor personnel who may be applying herbicide.

TABLE 1. Plant Species Observed in Bear Canyon Wash in the vicinity of Rancho Fundoshi Spring on June 12, 2013. Non-native invasive species are indicated with red font.

Form	Species	Common Name	spring	channel (thalweg)	channel bars and floodplain	rock cliff
tree	<i>Acacia greggii</i>	catclaw acacia			x	
herb	<i>Ambrosia ambrosioides</i>	canyon ragweed			x	x
herb	<i>Artemisia ludoviciana</i>	mugwort				x
shrub	<i>Arundo donax</i>	giant reed			x	
shrub	<i>Baccharis salicifolia</i>	seep willow	x		x	
herb	<i>Brickellia sp.</i>	brickellia				x
herb	<i>Bromus rubens</i>	red brome			x	
herb	<i>Carlwrightia arizonica</i>	Arizona wrightwort				x
shrub	<i>Celtis pallida</i>	desert hackberry				x
shrub	<i>Cephalanthus occidentalis</i>	buttonbush	x			
herb	<i>Conyza canadensis</i>	horseweed			x	
shrub	<i>Coursetia glandulosa</i>	baby bonnets			x	x
herb	<i>Cynodon dactylon</i>	Bermuda grass		x	x	
herb	<i>Datura wrightii</i>	sacred datura			x	
herb	<i>Descurainia pinnata</i>	tansy mustard			x	
herb	<i>Enneapogon cenchroides</i>	soft feather pappusgrass			x	
herb	<i>Eragrostis intermedia</i>	plains lovegrass			x	
herb	<i>Eragrostis lehmanniana</i>	Lehmann's lovegrass			x	
herb	<i>Eriogonum sp.</i>	buckwheat			x	
tree	<i>Fraxinus velutina</i>	Arizona ash		x		
herb	<i>Juncus sp.</i>	rush	x			
herb	<i>Maurandya antirrhiniflora</i>	snapdragon vine			x	
shrub	<i>Mimosa biuncifera</i>	wait a minute bush			x	
herb	<i>Muhlenbergia porteri</i>	bush muhly				x
herb	<i>Muhlenbergia rigens</i>	deergrass	x		x	
shrub	<i>Nerium oleander</i>	oleander	x			x
shrub	<i>Opuntia phaeacantha</i>	brown-spine prickly pear			x	
tree	<i>Parkinsonia florida</i>	blue paloverde				x
herb	<i>Pennisetum setaceum</i>	fountain grass	x			x
herb	<i>Phacelia distans</i>	wild heliotrope			x	
tree	<i>Platanus wrightii</i>	Arizona sycamore	x	x		
herb	<i>Polypogon monspeliensis</i>	rabbitfoot grass	x		x	

Report 2011

tree	<i>Populus fremontii</i>	Fremont cottonwood		x		
tree	<i>Prosopis velutina</i>	velvet mesquite			x	
herb	<i>Pseudognaphalium canescens</i>	Wright's cudweed			x	
shrub	<i>Salix exigua</i>	coyote willow	x		x	
tree	<i>Salix gooddingii</i>	Goodding's willow	x			
herb	<i>Sisymbrium irio</i>	London rocket			x	
herb	<i>Stemodia durantifolia</i>	stemodia	x			
herb	<i>Typha sp.</i>	cattail	x			
herb	<i>unknown aquatic plant</i>	<i>unknown aquatic plant</i>	x			

Installation of Native Plants

SIA proposes to install up to 50 native plant materials around the spring-fed pond and in areas of invasive species removal to increase diversity and improve wildlife habitat opportunities. SIA consulted the Madrean Archipelago Biodiversity Assessment (MABA) database² for records of plant species that are known to occur in the Santa Catalina Mountains under similar site conditions. This information, combined with the species observed onsite on June 12, was used to construct a list of native plant materials (native to Bear Canyon) that would be appropriate for this site (Table 2). This list was vetted with considerations of probability of plant material availability, wildlife benefits, probability of success, and species potential to compete with aggressive non-native invasive plant species. Species that provide wildlife benefits but that are likely to establish quickly through natural recruitment from adjacent natural areas (e.g., desert broom [*Baccharis sarothroides*]) were not included. PCRFCFCD has noted that native annuals recruit quickly in this system after invasives are removed.

Container Plants

Container plants would be obtained from reputable growers of native plants in southern Arizona, potentially to include: the Pima County Native Plant Nursery (Tucson, AZ), Nighthawk Natives Nursery (Tucson, AZ), Desert Survivors Nursery (Tucson, AZ), and Signature Botanica Nursery (Wickenburg, AZ). Container sizes will vary by species and growth form, and will be limited by current availability. Shrubs would likely consist of a mix of 9-inch treepots and/or 5/1 gallon containers. Grasses and small perennials would likely consist of a mix of D-40 or SC-10 containers and/or 1 gallon containers. Wetland plants may be salvaged from other pools in Bear Canyon with landowner permission. Container plants may be installed with Dri-Water irrigation supplement in the planting holes (but not at the surface) to aid in plant establishment.

SIA proposes the following tasks:

² <http://www.madrean.org/maba/symbflora/checklists/checklist.php?cl=2720&pid=74>

Rancho Fundoshi Spring and Restoration Plan
August 2017

- Conduct a series of volunteer events to install plant materials at the spring site and in areas disturbed through invasive plant removal.
- Necessary tools and supplies for this task will include shovels, pickaxes, gloves, Dri-Water cartons, water, and heavy-duty trash bags. Placement of plants on the landscape will be subject to field-approval of Pima County personnel.

TABLE 2. Proposed plant palette for the Rancho Fundoshi Spring restoration project area. This list contains a range of species that SIA has determined to be appropriate for installation at this location. Note that all of these species may not be installed based on planting space available and budgetary limitations.

Scientific Name	Common Name
SHRUBS	
<i>Anisacanthus thurberi</i>	desert honeysuckle
<i>Celtis pallida</i>	desert hackberry
<i>Cephalanthus occidentalis</i>	buttonbush
<i>Coursetia glandulosa</i>	baby bonnets
<i>Dodonea viscosa</i>	hopbush
<i>Gossypium thurberi</i>	desert cotton
<i>Lycium andersonii, exertum, or fremontii</i>	wolfberry
<i>Mimosa biuncifera</i>	wait a minute bush
SMALL PERENNIALS	
<i>Abutilon abutiloides</i>	shrubby Indian mallow
<i>Ambrosia cordifolia</i>	Sonoran bursage
<i>Brickellia sp.</i>	brickellbush
<i>Datura wrightii</i>	sacred datura
<i>Dicliptera resupinata</i>	Arizona foldwing
<i>Maurandya antirrhiniflora</i>	snapdragon vine
<i>Psilostrophe cooperi</i>	western paperflower
<i>Sarcostemma cynanchoides</i>	desert milkweed
<i>Sphaeralcea ambigua</i>	globemallow
GRASSES	
<i>Eragrostis intermedia</i>	plains lovegrass
<i>Bothriochloa barbinodis</i>	cane beardgrass
<i>Hopia obtusa</i>	vine mesquite
<i>Muhlenbergia porteri</i>	bush muhly
<i>Muhlenbergia rigens</i>	deer grass
<i>Pappophorum vaginatum</i>	pappus grass
<i>Sporobolus airoides</i>	alkali sacaton
WETLAND PLANTS	
<i>Anemopsis californica</i>	yerba mansa
<i>Carex spp.</i>	native sedges

Native species that may have been lost to the
August 2014

<i>Eleocharis sp.</i>	native spikerush
<i>Juncus sp.</i>	native rush

Maintenance

SIA will conduct at least two follow-up site visits to remove any additional weeds and check survivorship of newly installed plant materials. Container plants may be watered if necessary.

Proposed Schedule

The USFWS and USFS will be working together to complete the environmental compliance documentation for this project, and the project schedule will be dependent upon that work. The schedule proposed below (Table 3) assumes that this process will be complete in March 2014; it will be adjusted as necessary.

TABLE 3. Proposed Project Schedule.

	2013							2014											
Task	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Spring Assessment Fieldwork																			
Spring Assessment Data Entry and Report																			
Invasives Field Survey and Mapping																			
Environmental Compliance Complete																			
Volunteer Events for Invasives Removal																			
Volunteer Events for Plant Installation																			
Monitoring and Maintenance																			

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Appendix C - 2014-2015 Conservation Plan
August 2014

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Attachment A: Photos



Photograph 1. View into Bear Canyon Wash from Rancho Fundoshi house. Row of large oleander plants is clearly visible in the center of the photo, as well as areas of fountain grass and giant reed. The USFS boundary is in the vicinity of the large riparian trees.



Photograph 4. Oleander seedlings are common at the Rancho Fundoshi spring site, evidence that this invasive species is spreading.

Appendix A: Appendix C: Proposed Restoration Plan
Appendix A: C-12



Photograph 5. Spring-fed pools exist, even at the hottest and driest time of year (June 2013).