

**Arizona Water Protection Fund
FY 2014 Grant Application Review**

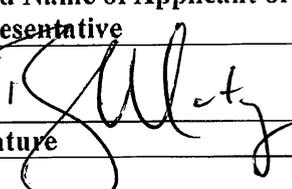
Application # WPF0421 Applicant: Arizona State Parks

Title of Project: Water Conservation Project by Roper Lake
Solar Pumping

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 (2)
 Other

**Arizona Water Protection Fund
Application Cover Page
FY 2014**

Title of Project: Water Conservation Project by Roper Lake Solar Pumping												
Type of Project: <input type="checkbox"/> Capital or Other <input checked="" type="checkbox"/> Water Conservation <input type="checkbox"/> Research	Stream Type: <input checked="" type="checkbox"/> Perennial <input type="checkbox"/> Intermittent <input type="checkbox"/> Ephemeral	Your level of commitment to maintenance of project benefits and capital improvements: <input type="checkbox"/> < 5 years <input type="checkbox"/> 5-10 years <input type="checkbox"/> 11-15 years <input checked="" type="checkbox"/> 16-20 years										
Applicant Information: Name/Organization: Arizona State Parks Address 1: 1300 W Washington Stree Address 2: City: Phoenix State: AZ ZIP Code: 85007 Phone: (602) 542-6922 Fax: (602) 542-4180 Tax ID No.: XXXXXXXXXX		Inside an AMA: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, which AMA: <input type="checkbox"/> Phoenix <input type="checkbox"/> Tucson <input type="checkbox"/> Prescott <input type="checkbox"/> Pinal <input type="checkbox"/> Santa Cruz										
Contact Person: Name: Lisa Padilla Title: Grants Coordinator Phone: (602) 542-6922 Fax: (602) 542-4180 e-mail: lpadilla@azstateparks.gov		Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation Any Previous AWPf Grants: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please provide Grant #(s):										
Arizona Water Protection Fund Grant Amount Requested: \$69,131.58 If the application is funded, will the Grantee intend to request an advance: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Matching Funds Obtained and Secured: <table border="1"> <thead> <tr> <th><u>Applicant/Agency/Organization:</u></th> <th><u>Amount (\$):</u></th> </tr> </thead> <tbody> <tr> <td>1. Applicant</td> <td>50,346.00</td> </tr> <tr> <td>2.</td> <td></td> </tr> <tr> <td>3.</td> <td></td> </tr> <tr> <td align="right" colspan="2">Total: 50,346.00</td> </tr> </tbody> </table>		<u>Applicant/Agency/Organization:</u>	<u>Amount (\$):</u>	1. Applicant	50,346.00	2.		3.		Total: 50,346.00	
<u>Applicant/Agency/Organization:</u>	<u>Amount (\$):</u>											
1. Applicant	50,346.00											
2.												
3.												
Total: 50,346.00												
Has your legal counsel or contracting authority reviewed and accepted the Grant Award Contract General Provisions? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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.												
Bryan Martyn	Executive Director/Arizona State Parks (602) 542-7102											
Typed Name of Applicant or Applicant's Authorized Representative	Title and Telephone Number											
	8/28/13											
Signature	Date Signed											

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Water Protection Fund



Water Conservation Project

by

Roper Lake State Park Solar Pumping

Grant Application

for

Arizona Water Protection Fund

Fiscal Year 2014 Funding Cycle

August 28, 2013

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Executive Summary

The Water Conservation Project for Roper Lake State Park Solar Pumping seeks to conserve and use water resources more efficiently, maintain and enhance riparian areas, demonstrate reliability and the cost effective use of renewable energy at an Arizona State Park (ASP).

Roper Lake was originally developed in the early 1960's by Winny Roper as a private recreational facility. The property was purchased by Arizona Game & Fish Department (AGFD) in 1969. An agreement was executed between AGFD and ASP for management and operation of the lake. In 1974, Roper Lake became an official State Park and it was opened to the public in March of 1975. This particular project has been deferred for many years due to the front-end investment required. However, the project planning was developed and has been maintained by ASP and AGFD.

The water level in the Colorado River Watershed along with that of Lake Powell, Mead, Havasu, and Mohave are dependent upon snowfall, precipitation runoff, flow from other sources, and underground springs along with prudent management. The current regional drought conditions, prevalent throughout the southwest, have created water levels in those areas to decline. Low water levels develop into an unhealthy environment and lead to negative impacts on the riparian habitat for fish and wildlife.

The Water Conservation Project for Roper Lake State Park Solar Pumping will offset water used for energy production by conventional methods (hydropower, thermal, and nuclear) and thereby supplement water levels in the Colorado River Watershed. Additional water in the Watershed will enhance the habitat needs for fish in the lakes and for wildlife that frequents those areas.

Project Overview

Background Information

The more water Arizona conserves, the easier it is to secure precious water resources and maintain a healthy, climate-resilient environment. Since water is used in the production of energy, the more energy Arizona conserves, the easier it is to reduce any harmful effects caused by it and conserve water. Understanding this relationship between water and energy is more important than ever in this water-stressed region.

Less water consumed for producing energy means more water available in Arizona lakes, rivers, and streams that are used by its residents along with fish and wildlife to survive. Using water efficiently helps maintain supplies at a safe level, protecting human health and the environment.

The Colorado River Watershed is located in the northern and western sections of Arizona. Roper Lake State Park is located near Safford, Arizona in the southeastern section of Arizona. The State depends greatly on the Colorado River Watershed for many uses from tourism to energy while ASP similarly depends on Roper Lake State Park in much the same ways but to lesser degrees.

Close to 15 years ago, there had been an operational water pump at Roper Lake State Park running constantly. Since 2007, Roper Lake State Park has been discussing and developing plans to resurrect that water pump.

Solar has been demonstrated to be a reliable power source and can result in significant long-term cost savings, negligible amounts of water consumed, and a smaller environmental footprint compared to conventional power systems.

Overall Goal

To conserve river, lake, and riparian resources along with benefiting any fish and wildlife dependent on those resources of the Colorado River Watershed by the installation and operation of a solar water pump at Roper Lake State Park.

Objectives

Arizona State Parks objective is to conserve water by using a renewable energy source (solar) to pump water from a well at Roper Lake State Park. As a result, this will reduce the overall amount of water that is typically demanded and required to pump water using conventionally produced electricity. This conserved water will remain at its original source thus increasing the quantity of water available to those river, lakes, and riparian resources within the Colorado River Watershed. This aids the long-term effort of the Lower Colorado River Multi-Species Conservation Program (a collaborative effort by multiple state and federal agencies along with cities and water districts) to save native species and their habitats especially those listed as threatened or endangered which includes the razorback sucker, the bonytail chub, the humpback chub, the southwestern willow flycatcher, the Yuma clapper rail, and the desert tortoise.

Issue and Solution

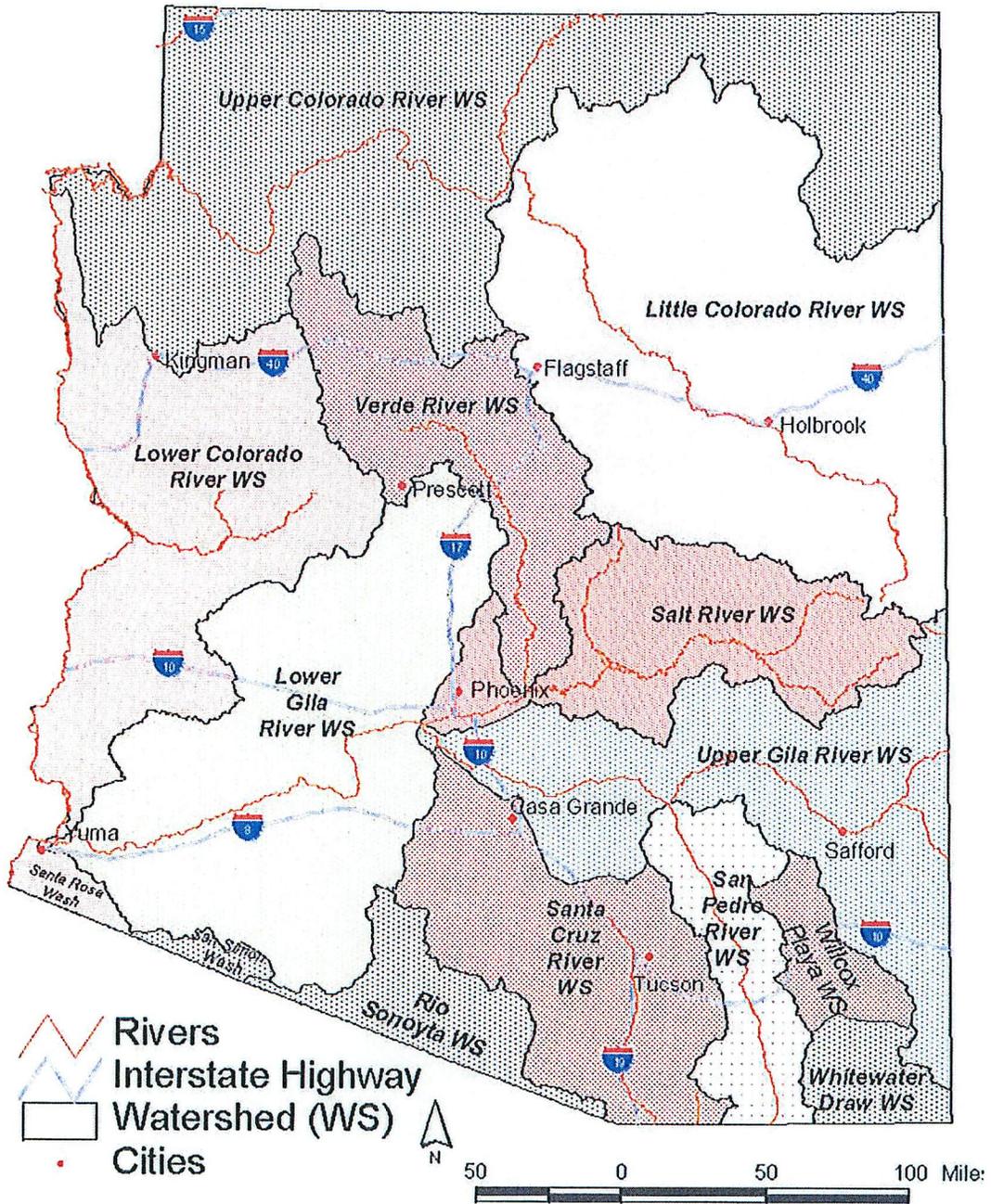
The United States consumes almost 410 million gallons of water every day, according to a recent U. S. Geological Survey (2000, revised in 2004). The primary use of this water occurs for public purposes by cities, counties, etc. and industrial uses (mining, irrigation, etc.) which combined use approximately 205 million gallons. Add indirect water use, such as steam generated in coal-fired power plants (like the Navajo Generating Station near Page, AZ or the Cholla Power Plant near Joseph City, AZ) to spin turbines to make electricity, and there is an additional 196 million gallons consumed. That would be 98% of the water used in the United States in a day. The Institute of Physics (IOP) concluded in its research based on this data and presented in 2012 for publication that this water amount is 12.6% of the annual primary energy consumption in the United States which is equivalent to the annual energy consumption of roughly 40 million Americans.

Water use and energy production are directly related because the production of energy requires water consumption and energy is required to pump, treat, and dispose of water. Approximately 25 gallons of water must be withdrawn to produce each kilowatt-hour (kWh) of thermoelectric energy. Renewable energy options, like the solar array proposed for the Roper Lake State Park, use negligible amounts of water; therefore, conserving water that would be consumed in producing electricity using conventional methods.

Project Location & Environmental Contaminant Information FY 2014

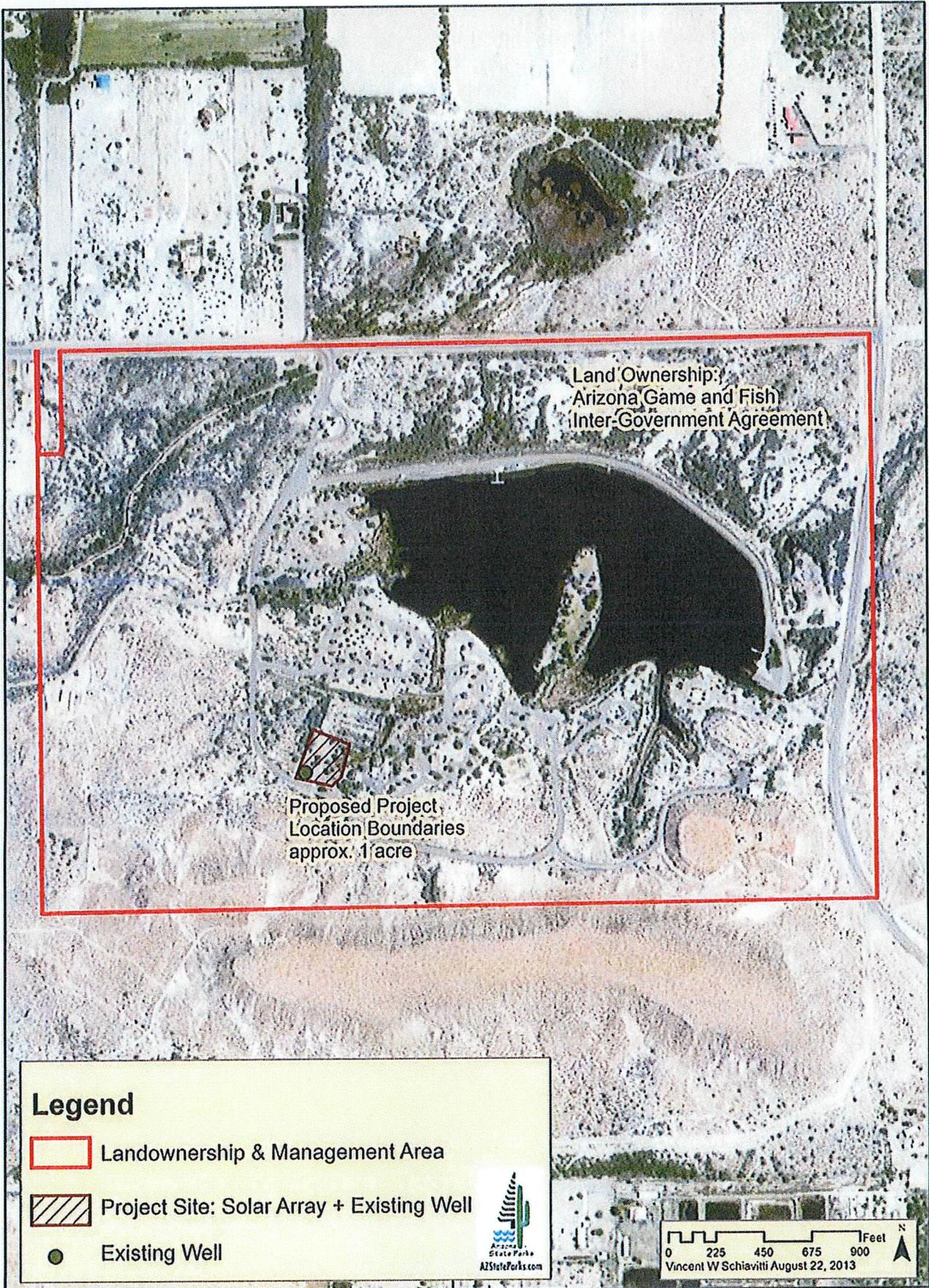
Project Location Information			
1. County: <u>Graham County, AZ</u>	2. Section: <u>8</u>	3. Township: <u>8 South</u>	4. Range: <u>26 East</u>
<p>5. Watershed: <u>Upper Gila River Watershed</u></p> <p>6. 8 or 10 Digit Hydrologic Unit Code (HUC): <u>150400050606</u></p> <p>7. Name of USGS Topographic Map where project area is located: <u>Safford Quad (7.5 min)</u></p> <p>8. State Legislative District: <u>District 14</u> (Information available at: http://azredistricting.org/districtlocator/)</p> <p>9. Land ownership of project area: <u>Arizona Game and Fish Department and Lower Colorado River Watershed</u></p> <p>10. Current land use of project area: <u>Recreation and Lower Colorado River Watershed</u></p> <p>11. Size of project area (in acres): <u>30 acres and Lower Colorado River Watershed</u></p> <p>12. Stream Name: <u>Roper Lake and Lower Colorado River Watershed</u></p> <p>13. Length of stream through project area: <u>Lower Colorado River Watershed</u></p> <p>14. Miles of stream benefited: <u>Colorado River Watershed</u> miles</p> <p>15. Acres of riparian habitat: <u>Colorado River Watershed</u> acres will be:</p> <div style="margin-left: 400px;"> <input type="checkbox"/> Enhanced <input checked="" type="checkbox"/> Maintained <input type="checkbox"/> Restored <input type="checkbox"/> Created </div>			
16. Provide directions to the project site from the nearest city or town. List any special access requirements:			
Environmental Contaminant Location Information			
<p>1. Does your project site contain known environmental contaminants? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, please identify the contaminant(s) and enclose data about the location and levels of contaminants:</p> <p>2. Are there known environmental contaminants in the project vicinity? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, please identify the contaminant(s) and enclose data about the location and levels of contaminants:</p> <p>3. Are you asking for Arizona Water Protection Fund monies to identify whether or not environmental contaminants are present? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p>			

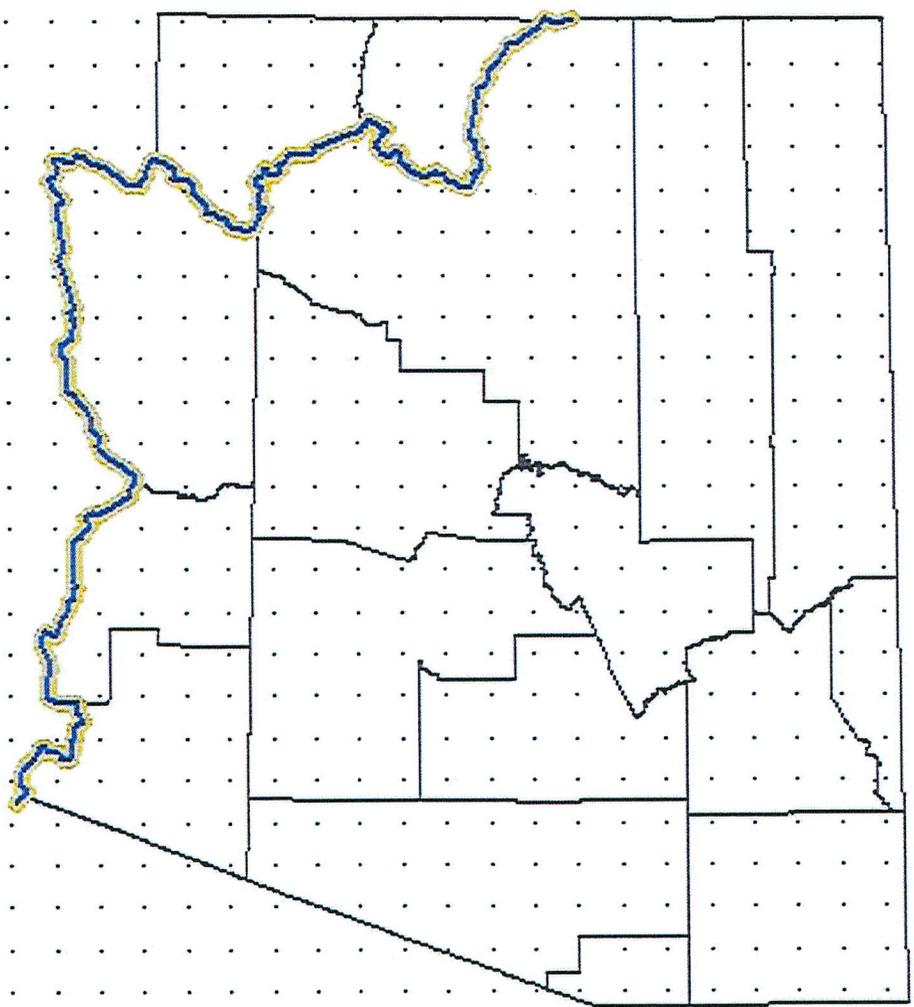
Arizona Watershed Map FY 2014



Title of Project:
Water Conservation Project by Roper Lake State Park Solar Pumping

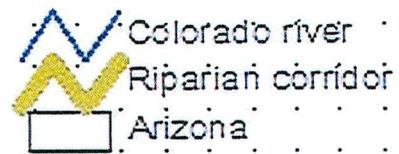
Water Conservation Project by Roper Lake Solar-Pumping

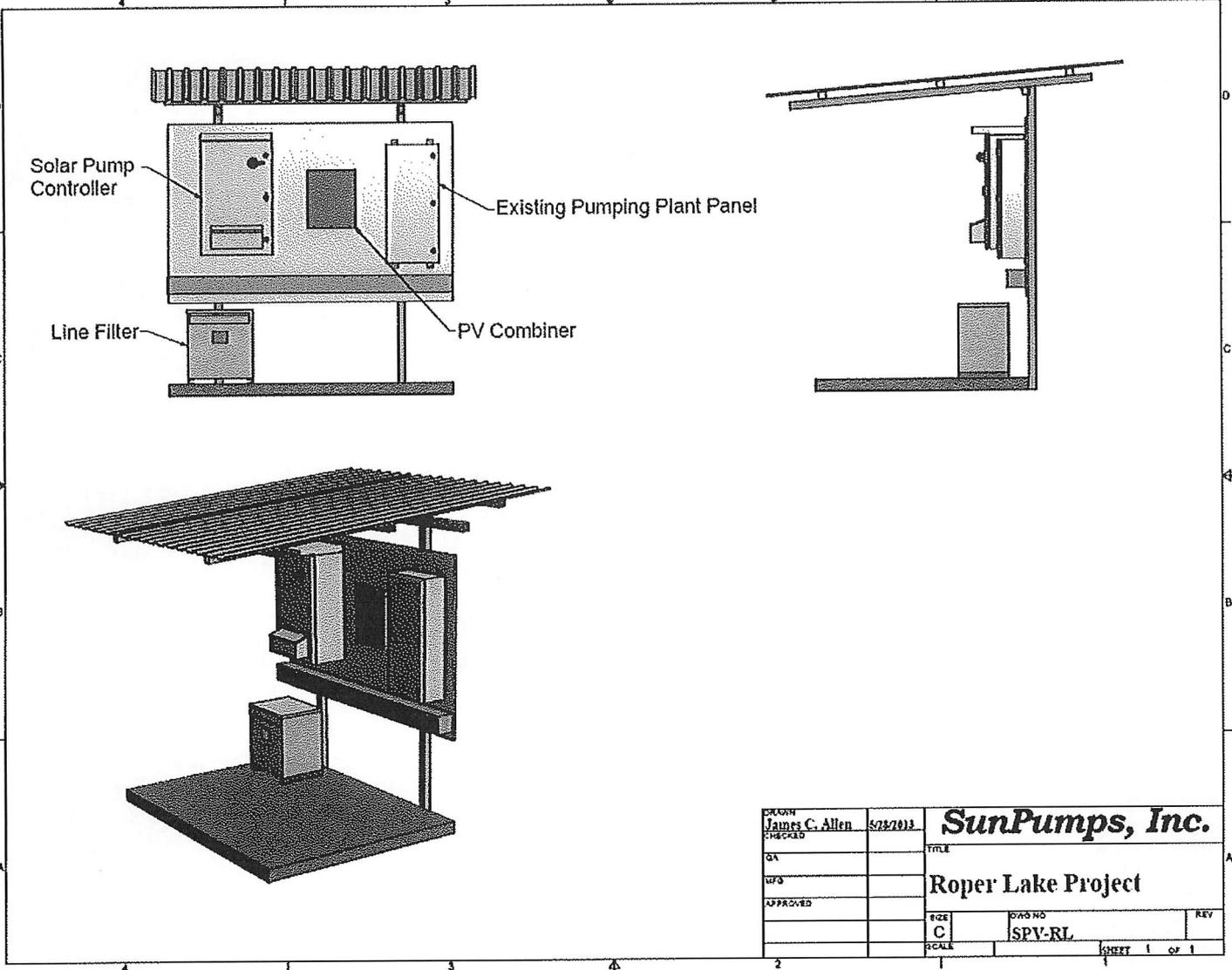




Water Conservation Project for Roper Lake State Park Solar Pumping

The Riparian Corridor along the Colorado River Within Arizona and along its Border will benefit from the water conservation efforts resulting from the Roper Lake State Park Solar Pumping project.





DESIGN	James C. Allen	5/22/2013	SunPumps, Inc.	
CHECKED			TITLE	
QA			Roper Lake Project	
MFG			SIZE	DWG NO
APPROVED			C	SPV-RL
			SCALE	REV
				SHEET 1 OF 1

Scope of Work

Task 1: Permits, Authorizations, Clearances, and Agreements

- **Task Description:** Obtain all permits, authorizations, environmental clearances and agreements necessary to complete the tasks listed in this Scope of Work. These include but are not limited to: Arizona Game and Fish agreements, construction permits, etc. such as:
 - Graham County building permit
 - Arizona Department of Administration (ADOA) - General Services Division and Risk Management Approvals
 - State Fire Marshall
- **Task Purpose:** To comply with all local, state and federal permit requirements, environmental laws such as National Environmental Policy Act (NEPA), and obtain legal access to the project area.
- **Deliverable Description:** Copies of all approved permits, authorizations, clearances, and agreements.
- **Deliverable Due Date:** Prior to any ground disturbing activities. Target date: March 31, 2014
- **Reimbursable Cost:** \$0.00

Task 2: Complete Procurement of Equipment, Construction, and Installation

- **Task Description:** Complete a Request for Proposals procurement inviting experienced solar and water pump vendors/contractors that will be capable of completing the entire project in a reasonable amount of time by December 31, 2014.
- **Task Purpose:** To secure access to the best proposed solar and water pumping equipment and system solution that best serves the needs of Roper Lake State Park.
- **Deliverable Description:** Copies of selected vendors/contractors proposals.
- **Deliverable Due Date:** Prior to any ground disturbing activities. Target date: May 31, 2014
- **Reimbursable Cost:** \$0.00

Task 3: Develop Project Construction and Installation Monitoring Plan

- **Task Description:** The project construction and installation monitoring plan will contain vendors/contractors proposals, equipment specifications, schematics, work plans, and work schedule.
- **Task Purpose:** To establish an adequate monitoring plan for equipment delivery and installation activities, including system testing.
- **Deliverable Description:** Copies of the monitoring plan including all construction and installation plans, vendors/contractors proposals, equipment specifications, schematics, work plans, and work schedule.
- **Deliverable Due Date:** Prior to any ground disturbing activities. Target date: June 30, 2014
- **Reimbursable Cost:** \$0.00

Task 4: Complete Installation of the Solar Array and Water Pump

- **Task Description:** Complete construction necessary to prepare for solar array delivery and installation as well as the water pump delivery and installation. Complete solar array and water pump installation and entire system testing.

- **Task Purpose:** To install solar array and water pump system ensuring its compliance with all applicable local, state and federal regulations.
- **Deliverable Description:** Copies of all invoices, completed project photos and system test results.
- **Deliverable Due Date:** January 31, 2015
- **Reimbursable Cost:** \$69,132.00

Task 5:

- **Task Description:** Water Conservation Plan for Water Conservation Project by Roper Lake State Park Solar Pumping .
- **Task Purpose:** T
 - To conserve water along the Colorado River Watershed for the 10 years (or more) from the operation of the solar water pump
 - To conserve 16,878 kilowatts per year, for 10 years (or more) in electric energy by using solar energy to operate the well pump.
- **Deliverable Description:**
 - 10 annual reports of the probable annual volume of water conserved per year due to solar pumping at Roper Lake.
 - 10 annual reports of the annual volume of electric energy (kilowatts) conserved per year due to solar pumping at Roper Lake.
- **Deliverable Due Date:** Annually, beginning on Dec. 1, 2014
- **Reimbursable Cost:** \$0.00

Task 6: Final Report

- **Task Description:** Document and summarize the entire project, including project narrative, future recommendations, project data, maps, photographs, etc. as required by the Arizona Water Protection Fund Commission.
- **Task Purpose:** To document project completion and its success.
- **Deliverable Description:** The Final Report will include a narrative description of completed work, copies of all invoices, maps, and photos of the completed work.
- **Deliverable Due Date:** February 28, 2015
- **Reimbursable Cost:** \$0.00

1 Detailed Budget Breakdown

TASK 4: Complete Installation of the Solar Array and Water Pump (based on price quote from May 27, 2013, the same or equivalent items will be procured)

Budget Summary		
Category	Grant Request	Match
Direct Labor Costs	\$15,945.00	\$35,839.28
Outside Services Costs	\$0	\$0
Other Direct Costs	\$0	\$2,220.00
Capital Outlay & Equipment Costs	\$49,896.00	\$0
Administrative Costs	\$3,292.00	\$12,286.00
Total Project Costs	69,132.00	\$50,346.00

DETAILED BUDGET BREAKDOWN – REIMBURSABLE COSTS				
Item	Amount	Unit	Cost per Unit	Cost
Direct Labor Costs				
Install Submersible Pump, Test Well, Install Parking Structure, and Solar System	1	Each	\$14,750	\$14,750
Sales Tax	\$47,745.92	Percentage	2.5	\$1,193.65
			SUBTOTAL	\$15,943.65
Administrative Costs				
Item	Amount	Unit	Cost per Unit	Cost
5% of Project Costs			SUBTOTAL	\$3,202.00
Capital Outlay & Equipment Costs				
Item	Amount	Unit	Cost per Unit	Cost
240 Watt Solar Modules	42	Each	\$360	\$15,120
Quick Connector Pair for 10 Gauge Wire w/Multi-Contact Connectors	3	Each	\$65	\$195
SPV-7000 Solar Pump Controller	1	Each	\$5,830	\$5,830
Parking Structure with Stamped Engineering Drawings	1	Each	\$10,285	\$10,285
Combiner Boxes, Circuit Breakers & Miscellaneous Electrical Items	1	Each	\$1,500	\$1,500
Grounding Equipment, Lay-in Lugs, etc.	3	Each	\$150	\$450
Miscellaneous Wiring, Fittings, Conduit, Bolts, Splice Kits, Combiners, etc.	1	Each	\$3,500	\$3,500
Surge/ Metal-oxide Varistor (MOV) Lighting Arrester	2	Each	\$105	\$210
5/8" Rebar for Parking Structure Foundation	560	Feet	\$.75	\$420
Concrete for Parking Structure Foundation	20	Yards	\$135	\$2,700
P06-150-3-075 7.5 HP Submersible Pump	1	Each	\$2,497	\$2,497

DETAILED BUDGET BREAKDOWN – REIMBURSABLE COSTS				
VK135A03 7.5HP, 230VAC, 3 Phase Line Filter, NEMA 3R Enclosure	1	Each	\$1,280	\$1,280
3" T&C Galvanized Schedule 40 Drop Pipe	210	Feet	\$10.50	\$2,205
3" x 12" Galvanized Nipple	1	Each	\$49.52	\$49.52
3" x 24" Galvanized Nipple	1	Each	\$95.65	\$95.65
3" Galvanized Tee	1	Each	\$76.25	\$76.25
3" Galvanized Pipe Plug	1	Each	\$28.35	\$28.35
6" x 3" HD Steel Sanitary Well Seal	1	Each	\$105.65	\$105.65
10-3 w/Ground Submersible Pump Cable	230	Feet	\$1.95	\$448.50
Pour Floor and Fabricated Electrical Mounting Panel and Shelter	1	Each	\$750	\$750
Upgrade Existing Electrical Service and Wiring to Meet Code	1	Each	\$1,150	\$1,150
Equipment Rental	1	Each	\$1,000	\$1,000
			SUBTOTAL	\$49,895.92
			TASK 4 TOTAL	\$49,895.92

Arizona Water Protection Fund Grant - Water Conservation Project by Roper Lake Solar Pumping

	ITEM	UNIT TYPE	UNIT QUANTITY	COST PER UNIT	SUB/TOTAL
TASK 1	Permits, Authorizations, Clearances & Agreements				
DIR LAB	Project Coordinator (Water Program Manager)	SALARY + FRINGE	100	\$ 42.07	
DIR LAB	Writer/Administrator (Grants Coordinator)	SALARY + FRINGE	52	\$ 38.88	
	Travel, Lodging & Per Diem	PER TRIP/DAY	2	\$ 370.00	
ADMIN	Administration at 5%	5% COST FACTOR			<u>7,317.20</u>
TASK2	Complete Procurement of Equipment, Construction & Installation				
DIR LAB	Project Coordinator (Water Program Manager)	SALARY + FRINGE	100	\$ 42.07	
DIR LAB	Chief Procurement Officer	SALARY + FRINGE	40	\$ 42.07	
DIR LAB	Fiscal Services Manager	SALARY + FRINGE	40	\$ 42.07	
ADMIN	Administrator/Writer (Grants Coordinator)	SALARY + FRINGE	50	\$ 38.88	
	Administration at 5%	5% COST FACTOR			<u>9,782.08</u>
TASK3	Develop Project Construction and Installation Monitoring Plan				
DIR LAB	Project Coordinator (Water Program Manager)	SALARY + FRINGE	100	\$ 42.07	
DIR LAB	Writer/Administrator (Grants Coordinator)	SALARY + FRINGE	54	\$ 38.88	
OTHER	Travel, Lodging & Per Diem	PER TRIP/DAY	3	\$ 370.00	
ADMIN	Administration at 5%	5% COST FACTOR			<u>7,787.35</u>
TASK4	Complete Installation of the Solar Array Water Pump				
DIR LAB	Project Coordinator (Water Program Manager)	SALARY + FRINGE	100	\$ 42.07	
DIR LAB	Writer/Administrator (Grants Coordinator)	SALARY + FRINGE	28	\$ 38.88	
ADMIN	Administration at 5%	5% COST FACTOR			<u>5,295.64</u>
TASK5	Plan for Water Conservation/Energy				
DIR LAB	Project Coordinator (Water Program Manager)	SALARY + FRINGE	100	\$ 42.07	
DIR LAB	Writer/Administrator (Grants Coordinator)	SALARY + FRINGE	52	\$ 38.88	
ADMIN	Administration at 5%	5% COST FACTOR	1		<u>6,540.20</u>
TASK6	Final Report				
DIR LAB	Project Coordinator (Water Program Manager)	SALARY + FRINGE	100	\$ 42.07	
DIR LAB	Writer/Administrator (Grants Coordinator)	SALARY + FRINGE	80	\$ 38.88	
	Travel, Lodging & Per Diem	PER TRIP/DAY	1	\$ 370.00	
ADMIN					<u>7,317.40</u>
					<u>50,345.36</u>
	ROUNDUP GRANT TOTAL				<u>50,346</u>

Project Coordinator (Water Program Manager)	SALARY + FRINGE	1	\$ 42.07	\$ 42.07
Chief Procurement Officer	SALARY + FRINGE	1	\$ 42.07	\$ 42.07
Fiscal Services Manager	SALARY + FRINGE	1	\$ 42.07	\$ 42.07
Grants Coordinator	SALARY + FRINGE	1	\$ 38.88	\$ 38.88
Administration at 5%	5% COST FACTOR	1		
Travel, Lodging & Per Diem	PER TRIP/DAY	4	\$ 370.00	\$ 1,480.00

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: FY 2014 Arizona Water Protection Fund
2. Project Title: Solar Water Pumping at Roper Lake Project
3. Applicant Name and Address: Arizona State Parks, 1300 W. Washington St, Phoenix AZ 85007
4. Current Land Owner/Manager(s): Arizona Game and Fish (Owner)/Arizona State Parks (Mgt)
5. Project Location, including Township, Range, Section: Township: 8 South, Range: 26 East, Section: 8
6. Total Project Area in Acres (or total miles if trail): 1 acre PROJECT SITE. 30 surface acres LAKE.
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 solar array support structures would be built on the existing graded asphalt parking lot, with the modules mounted on top. The array will be located approximately 100 feet from the well. There are no pipelines in the system other than a short

discharge pipe.

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 solar array structure would be erected on the existing graded parking lot.

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 UNKNOWN

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.

Bryan Maltyn
Applicant Signature

1 8/28/13
/Date

BRYAN MALTYN
Applicant Printed Name

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

Ground disturbing areas outside of parking lot not surveyed. Not clean if parking lot was surveyed prior to installation – monitoring may be necessary.

(Signed by James Cogswell, Compliance Specialist/Archeologist, Arizona SHPO , August 26, 2013.)

For State Historic Preservation Office:

Date:

Arizona State Parks will conduct and obtain a SHPO permit during the project Permits & Authorizations... phase, which is listed as Task 1 in the grant application narrative.

2 1/2

To be eligible for the National Register, a property must represent an important part of the history or architecture of an area. The significance of a property is evaluated within its historic context, which are those patterns, themes, or trends in history by which a property occurred or gained importance. Describe the historic and architectural contexts of the property that may make it worthy of preservation.

- A. HISTORIC EVENTS/TRENDS – Describe any historic events/trends associated with the property: _____
 - B. PERSONS – List and describe persons with an important association with the building: _____
 - C. ARCHITECTURE – Style: _____ no style
- Stories: _____ Basement Roof Form: _____

Describe other character-defining features of its massing, size and scale: _____

INTEGRITY

To be eligible for the National Register, a property must have integrity (i.e. it must be able to visually convey its importance). The outline below lists some important aspects of integrity. Fill in the blanks with as detailed a description of the property as possible.

Location - Original Site Moved: Date: _____ Original Site: _____

DESIGN

Describe alterations from the original design, including dates: _____

MATERIALS

Describe the materials used in the following elements of the property:

Walls (structure): _____

Walls (sheathing): _____

Windows: _____

Roof: _____

Foundation: _____

SETTING

Describe the natural and/or built environment around the property: _____

How has the environment changed since the property was constructed? _____

WORKMANSHIP

Describe the distinctive elements, if any, of craftsmanship or method of construction: _____

NATIONAL REGISTER STATUS (if listed, check the appropriate box)

Individually Listed; Contributor; Non-contributor to _____ Historic District



Date Listed: _____ Determined eligible by Keeper of National Register (date: _____)

RECOMMENDATIONS ON NATIONAL REGISTER ELIGIBILITY (opinion of SHPO staff or survey consultant)

Property is is not eligible individually.

Property is is not eligible as a contributor to a listed or potential historic district.

More information needed to evaluate.

If not considered eligible, state reason: _____

KEY PERSONNEL – Arizona State Parks

AWPF 2014

Water Conservation Project by Roper Lake State Park Solar Pumping

Robert D. Sejkora, Water Program Manager

A member of the Arizona Governor's Drought Task Force with over 33 year experience in water management, Mr. Sejkora is responsible for the Water Rights Program for all the Arizona State Parks and Natural Areas.

Michelle Marie Reddy, Assistant Park Manager

The current Assistant Park Manager at Roper Lake State Park, Ms. Reddy has over 13 years experience in park management and visitor services. She is also certified in law enforcement and emt and is studying for water certification.

Robert Young, Park Manager

The Park Manager at Picacho Peak State Park. Mr. Young has over 16 years of management experience in Recreation, Historical and Natural Area State Parks.

Margie Silva, Sr. Procurement Specialist

Current Chief Senior Procurement Officer for Arizona State Parks. She has over 14 years experience in Arizona Government procurement.

Miryom D. Snyder, Chief Fiscal Manager

Current Acting Chief of Fiscal Operations for Arizona State Parks for 5 years. She has over 17 years experience in Capital Improvement Programs; Grant and Aid Programs including Heritage Funds; Growing Smarter and Recreation Trail Programs; Federally Funded Programs, including historic preservation and interagency cooperative agreements.

Lisa Padilla, Grants Coordinator

As Grants Coordinator for Arizona State Parks, Ms. Padilla has several years of experience in grant writing, contract administration, capital improvement projects, and contract administration.

3 Supplemental Information

PROJECT SITE PHOTOS



PROJECT SITE PHOTO CAPTIONS
Roper Lake State Park
Hot Tub Trail parking lot entrance

The 42-module solar array structure will be mounted on the surface of the parking lot and the pump controller will be installed next to the well (hot tub)

(Clockwise from top left corner)

1. NE view – parking lot entrance
2. South view – view of well site, located behind fence
3. North view – site of solar array structure

The following tables were provided as target size and output range for a solar array at Roper Lake State Park to pump water from a well.

Solar Module	Sharp 240
Watts/Module	240
Series /String	14
Parallel Strings/ Sub Array	3
DC System Voltage	356
Inverter Efficiency	95%
Power Cost /KW	\$0.140
Best Tilt, Fixed	30 Degrees

Sub Array Total Watts	10,080
Total Array Watts	2,520

Array Type	
Modules / Row	168
Module/ Array	0.250
No. Sub Arrays	42
No. Modules	42
PV Watts Derate	0.92

Per Array of 168 Modules		Safford, AZ Weather Data												
		30 Degree Fixed												
Gross DC KW Hours		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yearly Total
Daily	209.370	242.466	273.946	303.638	303.377	295.420	266.989	272.615	276.365	265.855	228.900	206.75		
Monthly	6,490	7,516	8,492	9,413	9,405	9,158	8,277	8,451	8,567	8,242	7,096	6,409		97,516
	0.83	0.81	0.79	0.77	0.75	0.73	0.74	0.74	0.74	0.77	0.76	0.83		
Net AC KW Hours		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yearly Total
Daily	173.580	195.848	216.225	232.393	227.782	216.701	196.326	200.407	205.020	203.656	174.071	170.887		
Monthly	5,381.0	5,483.7	6,703.0	6,971.8	7,061.2	6,501.0	6,086.1	6,212.6	6,150.6	6,313.3	5,222.1	5,297.5		73,384
Power \$	\$ 753.34	\$ 767.72	\$ 938.42	\$ 976.05	\$ 988.57	\$ 910.14	\$ 852.05	\$ 869.77	\$ 861.08	\$ 883.87	\$ 731.10	\$ 741.65		\$ 10,273.77

Total Array of 42 Solar Modules		Roper Lake Grid Tie System												
		Safford, AZ Weather Data												
		30 Degree Fixed												
Gross DC KW Hours		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yearly Total
Daily	8,793.5	10,183.6	11,505.7	12,752.8	12,741.8	12,407.6	11,213.5	11,449.8	12,607.3	11,165.9	9,613.8	8,683.4		
Monthly	272,600	315,691	356,678	395,337	394,997	384,637	347,620	354,945	359,827	346,143	298,028	269,186		4,095,687
Efficiency	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Net AC KW Hours		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Yearly Total
Daily	39.9	45.0	49.7	53.5	52.4	49.8	45.2	46.1	47.2	46.8	40.0	39.3		
Monthly	1,237.6	1,261.3	1,541.7	1,603.5	1,624.1	1,495.2	1,399.8	1,428.9	1,414.6	1,452.1	1,201.1	1,218.4		16,878
Power \$	\$ 173.27	\$ 176.58	\$ 215.84	\$ 224.49	\$ 227.37	\$ 209.33	\$ 195.97	\$ 200.05	\$ 198.05	\$ 203.29	\$ 168.15	\$ 170.58		\$ 2,362.97

The expected output available is highlighted in the green, and is shown as 16,878 AC KW Hours annually. This offsets a power demand that would have been placed on conventional power production facilities. Thus, there is a 10 year savings of water consumption or movement that would have been used to produce 168,780 AC KWQ Hours. This saved water can then be used or managed for riparian purposes and the various species dependent upon it.

A monitoring plan and documentation will demonstrate the solar production of power that replaced conventional power production.



GOVERNOR'S
OFFICE OF ENERGY POLICY

August 27, 2013

Arizona Department of Water Resources
3550 N. Central Ave, Suite 200
Phoenix, AZ 85012

Re: Arizona Water Protection Fund Fiscal Year 2014

Dear Review Committee:

The Governor's Office of Energy Policy is pleased to support Arizona State Parks in its efforts to promote water conservation at Roper Lake State Park. The park is an important part of the community offering a unique habitat for the areas wildlife and recreation for residents.

The Governor's Office of Energy Policy is supportive of this proposal and is willing to engage in activities as appropriate to help conserve water and save energy. The water used to produce energy is an opportunity that has been overlooked as a conservation measure in communities and organization

We welcome this opportunity and look forward to assisting with this important and valuable project.

Leisa B. Brug, Director
Governor's Office of Energy Policy - and -
Energy Policy Advisor to Governor Janice K. Brewer
1700 West Washington Street, Ste. 250
Phoenix, AZ 85007
lbrug@az.gov
(602) 771-1244 - office



Graham County Board of Supervisors
921 Thatcher Blvd • Safford, AZ 85546
Phone: (928) 428-3250 • Fax: (928) 428-5951

Drew John, Chairman
Danny Smith, Vice Chairman
James A. Palmer, Member

Terry Cooper, County Manager/Clerk

August 27, 2013

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

Dear Commissioners,

On behalf of the Graham County Board of Supervisors (GCBOS), located in Safford, Arizona, I write in support of the Water Conservation Project by Roper Lake State Park Solar Pumping, as it seeks to conserve and use water resources more efficiently, maintain and enhance riparian areas, demonstrate reliability and the cost effective use of renewable energy at an Arizona State Park (ASP). The lake and the park are providing a myriad of benefits to our community members and Arizonans in nature, wellness, recreational and economic pursuits.

The Water Conservation Project for Roper Lake State Park Solar pumping will offset water used for energy production by conventional methods (hydropower, thermal, and nuclear) and thereby supplement water levels in the Colorado River Watershed. Additional water in the Watershed will enhance the habitat needs for fish in the lakes and for wildlife that frequents those areas.

Thousands of Arizonans care deeply about the riparian areas of the state and the continued conservation of energy, and the Water Conservation Project by Roper Lake State Park Solar Pumping is something that all Arizonans can be proud of. The Graham County Board of Supervisors supports this project and looks forward to conserved water, protected wildlife, usage of water and land at Roper Lake State Park.

Sincerely,

Drew John
Chairman
Graham County Board of Supervisors



Mayor Wyn "Chris" Gibbs

717 W. Main Street
P.O. Box 272
Safford, AZ 85548-0272
Phone: (928) 432-4000
Fax: (928) 348-3111
TDD: (928) 428-0778

August 28, 2013

Arizona Department of Water Resources
3550 N. Central Ave, Suite 200
Phoenix, AZ 85012

Re: Arizona Water Protection Fund Fiscal Year 2014

Dear Review Committee:

The City of Safford is pleased to state its support for Arizona State Parks in its efforts to promote water conservation at Roper Lake State Park. The park is an important part of the community offering a unique habitat for the area's wildlife and recreation for residents.

The City of Safford is supportive of this proposal and is willing to engage in activities as appropriate to help conserve water and save energy. Water conservation is an often overlooked category for opportunities within our organization's service area.

We welcome this opportunity and look forward to assisting with this important and valuable project.

Sincerely,

Wyn "Chris" Gibbs
City of Safford, Mayor

Dennis Raymond Scheall, Director of Teaching & Research Support – University of Arizona, Retired

DBA

Resource Design & Fabrication

Subsidiary of WESTWATER, L.L.C
Water Resource Investigations

DENNIS R. SCHEALL
MOBILE FIELD SERVICE
CELL: 520-730-7523

OFFICE ADDRESS:
835 WEST CALLE CATAVINOS
TUCSON, AZ 85704

With my forty five plus years of serving the citizens of the State of Arizona, University of Arizona, I am a participant and innovator in the field of Hydrology Engineering which includes many water conservation projects, in particular the development of solar energy.

I view the solar pumping project at Roper State Park as a valuable demonstration of the goals to relieve the dependence on traditional electrical power while contribute to saving water that would otherwise be used to produce electrical energy by hydropower, coal-fired, natural-gas fired, or nuclear.

It is refreshing to see such an innovative approach that realizes the connection between conventional electricity production and the use of water.

I support the Water Conservation Project by Roper Lake State Park Solar Pumping. I recommend that the AZ Water Protection Fund award the grant to State Parks as proposed.

Dennis R Scheall

WESTWATER, L.L.C.

Water Resource Investigations

3639 West Kings Avenue, Phoenix, AZ 85053-2827

August 27, 2013

ARIZONA WATER PROTECTION FUND
C/o Robert D. Sejkora
Water Resource Program Manager
ARIZONA STATE PARKS
1300 West Washington
Phoenix, AZ 85007

Dear Sir/Madam:

The purpose of this letter is to lend support to the "Roper Lake State Park Solar Pumping Proposal."

I previously served as Director-WRLD Division/Senior Hydrologist with the Arizona State Land Department, and Chief Forensic Hydrologist with the Office of the Arizona Attorney General-WRAT. During those tenures I worked with the Arizona Protection Fund evaluating various proposals. I presently am a private consultant in water resources and an Adjunct Professor with the University of Arizona-Department of Hydrology and Water Resources. I also work as a volunteer with Bob Sejkora in the Arizona State Parks (ASP) Water Resource Program.

I believe the solar project proposed by ASP is (1) Hydrologically sound; (2) Advantageous to the operation of the Roper Lake SP; and (3) beneficial to the environment.

Therefore, I highly endorse this project toward consideration by your Commission. If I can furnish any further information, please contact me at any time.

Sincerely yours,
WESTWATER, LLC

/s/ Don W. Young

Don W. Young, PhD

WW/dy

Intergovernmental Agreement
Between Arizona Game and Fish Commission
and
Arizona State Parks Board
Roper Lake State Park

This Intergovernmental Agreement ("Agreement") is made between the Arizona Game and Fish Commission, a State agency, ("Commission") and the Arizona State Parks Board, a State agency ("Board"), for the management of real property known as Roper Lake, pursuant to Arizona Revised Statutes § 11-951 through 11-954, as amended. Hereinafter, the term "Department" or "Director" shall mean the Arizona Game and Fish Department and its Director, acting as administrative agents for the Commission. The term "Parks" or "Parks Director" shall mean the Arizona State Parks Department and its Executive Director, acting as administrative agents for the Board.

I. RECITALS

1.1 Pursuant to Title 17, Chapter 2 of the Arizona Revised Statutes, the Commission is charged by law with responsibility for managing the State's fish and resident wildlife, and the Commission supports the maintenance and enhancement of public recreation opportunities through the development of conditions and areas suitable for hunting and fishing.

1.2 Pursuant to Title 41, Chapter 3, Article 1.1 of the Arizona Revised Statutes, the Board has responsibility for the selection, establishment and maintenance of areas in the State for the education, pleasure, recreation and health of its citizens.

1.3 The Commission owns or controls a portion of land known as Roper Lake ("the Roper Lake Property" or "Property"), Graham County, Arizona, which includes Section 8, Township 8 South, Range 26 East, of the Gila and Salt River Base and Meridian, Graham County, Arizona.

1.4 On December 31, 1974, the Commission and the Board entered into a 25-year management agreement for the operation of Roper Lake as a state park. That agreement expired on December 31, 1999.

1.5 The Commission desires that the Board continue management of the Property as a state park for public recreation purposes in accordance with the terms and conditions set out below.

1.6 The Board has determined that the Roper Lake Property is suitable for continued use as a state park recreational facility in accordance with the terms and conditions set out below.

1.7 The Parties release any claims they may have for the period from the expiration of the previous agreement to the signing of this agreement.

NOW THEREFORE, and for good and valuable consideration, the sufficiency and receipt of which is acknowledged, the parties hereby agree as follows:

AGREEMENT

II. PURPOSE

The purpose of this Intergovernmental Agreement is to provide for the continued management and operation of the Roper Lake Property as a state park recreational facility managed by the Board.

III. AUTHORITIES

3.1 For the Commission:

A. A.R.S. § 17-231(A)(8), granting the Commission authority to exercise the powers and duties necessary to carry out state laws relating to wildlife.

B. A.R.S. § 17-231(B)(3), granting authority to construct facilities relating to the preservation of wildlife.

C. A.R.S. § 17-231(B)(7), granting the Commission authority to enter into agreements for the operation of facilities for preservation of wildlife.

3.2 For the Board:

A. A.R.S. § 41-511.03, directing the Board to preserve and maintain areas of natural features and scientific interest for the education, pleasure, and recreation of people of the state.

B. A.R.S. § 41-511.04(A)(1), granting the Board the authority to manage selected areas as state parks.

C. A.R.S. § 41-511.05(2), granting the Board the authority to make such agreements necessary to perform its duties.

IV. TITLE, RESERVATIONS AND LIMITATIONS

4.1 This Agreement governs the management of the Roper Lake Property situated in Graham County and more particularly described as:

1. The Northeast Quarter of Section 8, Township 8 South, Range 26 East of the Gila and Salt River Base and Meridian.

2. The East Half of the Northwest Quarter of Section 8, Township 8 South, Range 26 East of the Gila and Salt River Base and Meridian.

EXCEPTING THEREFROM: Beginning at a point 1,320 feet East of the Northwest corner of said Section 8, Township 8 South, Range 26 East, Gila and Salt River Base and Meridian; running thence East 105 feet; thence South 420 feet; thence West 105 feet; thence North 420 feet to the point of beginning.

All occurring in Graham County, Arizona.

- 4.2 The Commission shall retain title in fee simple to the Roper Lake Property.

- 4.3 The Commission excepts and reserves from this Agreement all mineral rights and claims, pursuant to A.R.S. § 17-241(C). This Agreement is subject to the rights of entry and disposition set forth in these statutes.

- 4.4 The Commission reserves the right to grant other rights in, upon, over and across the described premises for any purpose whatsoever compatible with the uses provided for herein.

V. MANAGEMENT

- 5.1 Areas of Authority. The Commission and Board shall, within their respective areas of jurisdiction, continue to develop and manage the Roper Lake Property for water-oriented recreation and related outdoor recreation activities.

- 5.1.1 The Commission will manage and administer the water and water surface of Roper Lake for fish and wildlife purposes, and shall have the right to specify and restrict public recreational use of the water surface area consistent with fish and wildlife management, dam safety, and public safety purposes, and will enforce title to Game and Fish laws and Boating and Water Sports laws in cooperation with all peace officers of the State or County. The Commission shall bear the responsibility and cost for stocking the lake with fish.

- 5.1.2 The Board shall manage the Roper Lake Property as a state park recreational facility, as provided for herein, for the purpose of developing, operating and maintaining a public water-oriented recreation area and in no event shall any part of it be used for any other purpose without the written consent of the Commission. The Board shall have the right to administer the Property consistent with public safety purposes.

- 5.2 Fee Collection. The Board may collect its regular user fees from the public for the use of the Property, which shall be deposited and distributed in the same manner as other Board fees and charges.

- 5.3 Compliance. The parties acknowledge and agree that this Agreement and the Commission's obligations and liabilities thereunder are subject to the terms, provisions and

conditions of the Warranty Deed conveyed to the Commission from W. D. Roper, husband of Marie Roper, dated March 31, 1969, attached as Exhibit B and incorporated herewith, and any and all federal, state or local governmental rules, regulations, provisions, requirements, and reservations now in force and effect or hereafter effective. The Board hereby acknowledges that it shall fully comply with the terms and conditions of the Warranty Deed and that any and all rights of the Board created hereby are subordinate to that deed.

5.4 Future Planning. Designees from Parks and the Department shall meet at least annually, and whenever either party deems otherwise necessary, to discuss concerns and future plans for the Property. This meeting is intended to allow the parties to coordinate their efforts to manage and improve the facilities and resources for the benefit of the public. Parks shall coordinate with the Department on the scheduling of this meeting.

5.5 Insurance. The Board agrees to maintain insurance under the State's existing insurance policy and/or any comparable insurance policy, or in a reasonable amount, to insure the State of Arizona, Board, Commission, Department, and all representatives, officers and employees thereof against any and all claims, demands, liabilities and costs of whatsoever kind and nature arising out of the use, maintenance or occupancy of the Roper Lake recreational area or any portion thereof by the Board, the Parks Department, its agents, officers or employees under this Agreement.

5.6 Facilities.

5.6.1 Construction and Maintenance. The parties understand and agree that any and all facilities constructed upon the Property shall be at the Board's expense and under its control and supervision. Except that the Commission shall bear the responsibility for and cost of maintaining and operating the dam, water wells and water distribution system, which is used to fill Roper Lake, and the Commission shall make annual or other payments to the Lebanon Reservoir & Ditch Company. The Board shall bear the responsibility for pumping and related utility costs.

5.6.2. Improvements. Habitat improvement done on or in the lake shall be done at the Commission's expense and under its control and supervision. The Commission or the Department shall notify the Board or Parks at least 30 days in advance of such habitat improvement activities and shall coordinate its habitat improvement activities with Parks' operations at the Property. Habitat improvement done between the shoreline and the park boundary shall be done at the Board's expense and under its control and supervision. The Board agrees to submit its plans and proposals for habitat improvement to the Department at least 30 days prior to commencing such activities for the Department's review and comment. If the Department does not respond to such submittal within the 30-day period, the parties agree that such plans and proposals shall be deemed approved by the Department.

5.6.3. Encumbrances. The Board agrees to keep the facilities, improvements under its control, and all structures thereon free and clear from any and all liens of laborers, mechanics, or material men and all liens of a similar character arising out of or growing out of the construction, repair, alteration and maintenance of such facilities or improvements.

5.6.4. Structures. The Board agrees that at its own expense it will keep and maintain the Property and all improvements placed thereon by the Board in good condition and repair. The Board agrees that the ownership and title to structures, facilities and improvements heretofore or hereafter placed upon the Property by the Board is and shall vest in the Commission and that the Commission shall not be liable or responsible for payment of the cost or value of such structures, facilities and improvements unless agreed upon by the Commission. The Board agrees that upon the expiration or termination of this Agreement, the Board shall surrender to the Commission the Property together with all permanent structures, facilities and improvements erected thereon by the Board. At the expiration or termination of this Agreement, the Board shall have the right to remove from the premises all items of personal property that are not permanently affixed to the real property.

5.7 Annual Budget. The Board shall annually budget funds sufficient for the continuous development, maintenance and operation of the Roper Lake Property, its water-oriented recreational area and related recreational facilities. The performance of any financial obligation or the expenditure of any funds by the Board under this Agreement is contingent upon the State Legislature making the necessary appropriations.

5.8 Archaeological Finds. Pursuant to A.R.S. §§ 41-861, 41-862, and 41-863, the parties shall report to the Department, Parks, and the Arizona State Museum any archaeological or paleontological site or object that is discovered on the Property and immediately cease land-disturbing activities in the area of the site or object. Such activities may resume upon compliance with state statutes and the direction of Arizona State Museum.

5.9 Residences. Consistent with current Policies and Procedures of the Arizona State Parks Board, Parks employees and personnel may occupy the residences on the subject property and Parks may provide a residence area for employees on the Property.

5.10 Personnel. The Board shall provide, at its own expense, personnel required for the development, maintenance, and operation of the Property and related recreational facilities placed or allowed upon the Property, except that enforcement of Game and Fish laws by Department personnel, and personnel for habitat improvement within the lake, shall not be at the Board's expense.

5.11 Contact Person. The parties agree that all communications relating to the Roper Lake Property, habitat improvement, and other activities relevant to this Agreement shall be directed as follows:

For the Department: Habitat Branch Chief (602) 789-3602
For Parks: Chief of Resources Management (602) 542-7147

VI. DURATION

6.1. Term. The term of this Agreement shall be twenty-five (25) years, counted from the effective date of this Agreement and terminating twenty-five years hence, unless sooner terminated as hereinafter provided.

6.2. Option to Renew. Provided it is then in full compliance with the terms and conditions of this Agreement, the Board shall have the right upon expiration to renew this Agreement for an additional twenty-five (25) year period. The renewal option shall be exercised by the Board's delivery of Notice to the Commission no less than six (6) months prior to the expiration of the term. The parties may amend the terms of the renewal Agreement upon the mutual written approval of such changed terms and conditions as mutually acceptable to the Board and Commission.

VII. TERMINATION AND DISPOSAL OF PROPERTY

7.1. Termination. The Commission or the Board may terminate this Agreement upon six (6) months written notice to the other party.

7.2. Abandonment. In the event the Board abandons this Agreement prior to its automatic termination, the Agreement shall become void, and the right to use the land and all the rights of the Board shall terminate. The Board further agrees in that event to execute and deliver a complete release of all right, title and interest to the Roper Lake Property to the Commission.

7.3. Expiration. The parties acknowledge and agree that if the Commission's interest or right to possession in the Roper Lake Property terminates prior to the expiration of this Agreement's term, this Agreement is automatically terminated along with any and all of Commission's liabilities or obligations hereunder, provided, however, that a voluntary sale or disposition of the Property by the Commission shall be subject to this Agreement and the provisions contained herein.

7.4. Default. In the event that the Board shall fail to correct any default hereunder or fail to be in full compliance with the terms, conditions, provisions, and requirements as set forth or referred to herein within sixty (60) days after notice thereof by the Commission, then this Agreement and any and all of the Commission's obligations hereunder, if any, shall become terminated at the option of the Commission without prejudice to the right of Commission to recover from the Board all damages and sums payable accrued up to and including the date of termination.

7.5. Disposal of Property. In the event of termination of this Agreement, any improvements or structures on the Property shall be disposed of as set out in Section 5.6 above.

VIII. NOTICES

Any notices to or demand upon either party hereto by the other party pursuant to this Agreement shall be in writing and shall be forwarded by registered or certified U.S. Mail, return receipt requested, postage prepaid, addressed as follows:

- | | |
|---|--|
| (a) <u>If intended for Commission, to:</u>
Director
Arizona Game & Fish Department
2221 West Greenway Road
Phoenix, Arizona 85023 | (b) <u>If intended for Board, to:</u>
Executive Director
Arizona State Parks
1300 W. Washington
Phoenix, Arizona 85007 |
|---|--|

IX. MISCELLANEOUS

9.1 No Assignment of Agreement. The Board shall not assign this Agreement or any portion thereof without the written consent of the Commission.

9.2 Performance. The failure of either party to require strict performance of the terms, covenants, agreements, and conditions of this Agreement shall not constitute a waiver or relinquishment of that party's right to strictly enforce thereafter such terms, covenants, agreements, or conditions which shall at all times continue in full force and effect.

9.3 Arbitration. To the extent required pursuant to A.R.S. § 12-1518 and any successor statutes, the parties agree to use arbitration to resolve any dispute arising out of this Agreement, after exhausting all applicable administrative remedies.

9.4 Non-discrimination. In the event that it applies, the parties agree to comply with the Governor's Executive Order No. 99-4, amending 75-5, and all other applicable Federal and State anti-discrimination laws, rules and regulations, including the Americans with Disabilities Act.

9.5 Conflict of Interest. This Agreement is subject to cancellation pursuant to A.R.S. § 38-511 in the event of an illegal conflict of interest.

9.6 Records. Pursuant to A.R.S. §§ 35-214 and 35-215, both parties shall retain all data, books, and other records relating to this Agreement for a period of five years after completion or termination of the Agreement.

9.7 Other Agreements. This Agreement in no way restricts either party from participating in similar activities with other public or private agencies, organizations, and individuals.

9.8 Limitations. This Agreement shall not be construed to limit or expand the statutory responsibilities of either party beyond those granted by law.

9.9 Non-Availability of Funds. This Agreement shall be subject to available funding, and nothing in this Agreement shall bind any party to expenditures in excess of funds authorized for purposes outlined in this Agreement.

9.10 Amendments. Modifications of this Agreement may be made by mutual consent of the parties only in writing, signed and dated by both parties, prior to performing any changes. Neither entity is obligated to fund any changes not approved in accordance with this paragraph.

9.11 Successors. This Agreement shall be binding upon the successors and assigns of the Board and Commission.

9.12 Clause Numbers and Headings. Clause numbers and headings are for convenience only and are not to be construed as part of this Agreement.

X. WAIVER.

10.1 The parties agree to waive any claim each may have against the other for the period from the expiration of the previous Management Agreement dated December 31, 1974 and the Effective Date of this Agreement.

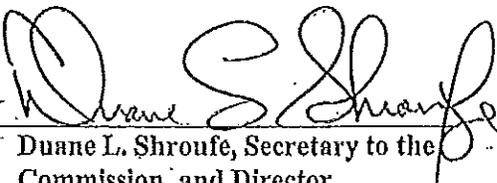
XI. SIGNATURE AUTHORITY

11.1 This Intergovernmental Agreement is effective as of the date filed with the Secretary of State.

11.2 By signing below, the signer certifies that the person has the authority to enter into this Agreement and has read the foregoing and agrees to accept the provisions herein.

ARIZONA GAME AND FISH COMMISSION

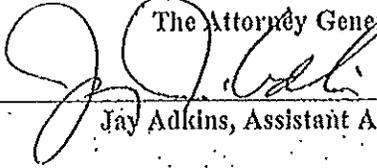
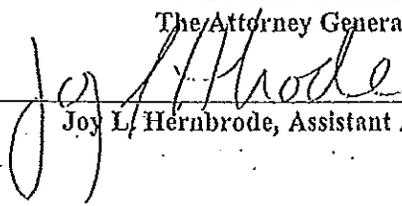
ARIZONA STATE PARKS BOARD

By: 
Duane L. Shroufe, Secretary to the
Commission, and Director,
Arizona Game & Fish Department

By: 
Kenneth E. Travous
Executive Director
Arizona State Parks

Date: X 8-20-02

Date: X 8/7/02

FOR THE ATTORNEY GENERAL:	FOR THE ATTORNEY GENERAL:
<p>Attorney General No. _____, which is an agreement between public agencies, has been reviewed pursuant to A.R.S. 11-952 by the undersigned Assistant Attorney General who has determined that it is in proper form and is within the powers and authority granted under the laws of the State of Arizona to those parties to the Agreement represented by the Attorney General.</p> <p>Dated this <u>16th</u> day of <u>July</u>, 2002</p> <p style="text-align: center;">JANET NAPOLITANO The Attorney General</p> <p style="text-align: center;"> Jay Adkins, Assistant Attorney General</p>	<p>Attorney General No. _____, which is an agreement between public agencies, has been reviewed pursuant to A.R.S. 11-952 by the undersigned Assistant Attorney General who has determined that it is in proper form and is within the powers and authority granted under the laws of the State of Arizona to those parties to the Agreement represented by the Attorney General.</p> <p>Dated this <u>16th</u> day of <u>July</u>, 2002</p> <p style="text-align: center;">JANET NAPOLITANO The Attorney General</p> <p style="text-align: center;"> Joy L. Herbrode, Assistant Attorney General</p>

FOR THE SECRETARY OF STATE:
<p>Dated this _____ day of _____, 2002</p> <p style="text-align: center;">BETSEY BAYLESS Secretary of State</p> <p>By: _____</p>

NO. 25477
Filed with the Secretary of State
Date Filed: 09/10/02

Retrey Bayless
Secretary of State

By: William D. Greenwald

REGISTRATION OF EXISTING WELLS

READ INSTRUCTIONS ON BACK OF THIS FORM BEFORE COMPLETING
PRINT OR TYPE - FILE IN DUPLICATE

REGISTRATION FEE (CHECK ONE)

EXEMPT WELL (NO CHARGE)

NON-EXEMPT WELL - \$10.00



FOR OFFICE USE ONLY

REGISTRATION NO. 628221

FILE NO. D(8-26)8 bda

FILED MMW 9 1982 AT 3:14 pm

FILED (DATE) (TIME)

SHA _____

AMA _____

48

1. Name of Registrant: Arizona Game and Fish Commission

2222 N. Greenway Rd. Phoenix AZ 85023

(Address) (City) (State) (Zip)

2. File and/or Control Number under previous groundwater law:

N/A 35 N/A

(File Number) (Control Number)

3. a. The well is located within the NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 8,
of Township U R2/S, Range 26 E/W, G & SRB & M, in the
County of Graham.

b. If in a subdivision; Name of subdivision _____
Lot No. _____, Address _____

4. The principal use(s) of water (Examples: Irrigation - stockwater - domestic - municipal - industrial)
Recreation Roper Lake water supply, also wildlife including fish.

5. If for irrigation use, number of acres irrigated from well N/A.

6. Owner of land on which well is located. If same as Item 1, check this box

(Address) (City) (State) (Zip)

7. Well data (If data not available, write N/A) All well data is approximate.

a. Depth of Well 1,700 feet

b. Diameter of casing 6 inches

c. Depth of casing plugged with cement to 1,000 feet

d. Type of casing N/A

e. Maximum pump capacity N/A gallons per minute.

f. Depth to water 150 feet below land surface.

g. Date well completed _____
(Month) (Day) (Year)

8. The place(s) of use of water. If same as Item 3, check this box .

1/4 $\frac{1}{4}$ 1/4, Section _____ Township _____ Range _____

1/4 $\frac{1}{4}$ 1/4, Section _____ Township _____ Range _____

Also possibly within Dept. owned land in this area (see map).

Attach additional sheet if necessary.

9. DATE 6-4-82 SIGNATURE OF REGISTRANT [Signature]

MICROFILMED