## AZ Sportsmen For Wildlife Conservation GRANT COMPLETION REPORT

Project Title: Lower San Luis Well Development

Organization: Friends of Buenos Aires National Wildlife Refuge

Grant #: 2022-Q1-05 )

### Event/Project Completion Date: August 21, 2022

**Project Location** (AZ G&F game management area 36B, Northeast quadrant of Township 21 South Range 9 East Section 29, Pima County

### Submitted By: Friends of Buenos Aires National Wildlife Refuge

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Phone #: 317-354-7352

### Today's Date: September ,2022

### **AZSFWC** Recognition:

AZSFWC Logo and Link to AZSFWC on organization's website? (attach screen print image) Yes 🗌 N	lo 🗌
License Plate Image w/link to MVD on organization's website? (attach screen print image) Yes 🗌	No 🗌
AZSFWC Logo displayed at event? (attach photo(s)) Yes No no event	
AZSFWC recognized in all marketing materials & post event articles? (attach all samples) Yes	lo 🗌

no event

List any social media recognition of AZSFWC (include all screen print images) Was there any media or press coverage? (attach copies if available) Yes No List any other recognition? Spring 2022 newsletter attached and logo with link in photos below

**Summarize Project Accomplishments :** Contractor went from the well head and installed the solar pump and motor, 2 solar panels, 5000 gallon poly tank and associated parts. Refuge staff installed human bubbler, levy lines to put water on the ground and built shallow concrete/stone drinkers to capture water before it went onto the ground. The end result is water for wildlife and humans in a time of ongoing drought.

**Measurable Results** (Fill in all that are applicable) Contractor installed 1 Grundfos Solar Pump and Motor, two 360 watt solar panels and 3" rack pole, 5000 gallon poly holding tank, control box and misc. supplies to complete installation of the above ground infrastructure. Refuge maintenance staff installed two Levy lines 50' and 100' plus concrete basins to capture water from spaced holes in the line. They also installed the bubbler for human use.

**Attendees** (If project was an event, list total # of participants, excluding staff, visiting parents, etc):\_\_\_\_\_ **Visitors** (If the project is an interpretive display, list total # of annual visitors): \_\_\_\_\_

**Brochures, Pamphlets, etc.** (If the project is a brochure, publication, poster or video, list the total produced and distributed): \_\_\_\_\_

Other (please explain):

**Budget** (specifically describe how AZSFWC funds were used; e.g. program promotion, type of equipment, materials and/or supplies, etc.)

Budget Item	Planned	Actual
225' of 10-2 pump wire	\$415	\$525
235 ft. 1 ¼" SCH 120 PVC Drop Pipe	\$458	\$728
8" well seal	\$98	\$98

Panel Rack		\$450
(2) 360 watt solar panels	\$800	\$1080
(1) Steel valve with (3) 1 <sup>1</sup> / <sub>4</sub> " gate valve	\$450	\$540
5000 gallon poly tank	\$4,182	\$5,685
Control box	\$646	\$783
Gravel and ring	\$460	\$460
Electrical wire and conduit	\$256	\$364
5 year warranty	\$195	\$195
(1) Float switch	\$85	\$85
2 men and pump rig	\$2500	\$3200

### **Project Cooperator(s)** (please include any in-kind contributions):

Cooperator (no abbreviations)	Amount Contributors \$
Buenos Aires National Wildlife Refuge- Panel rack pole 3"	\$300
Buenos Aires National Wildlife Refuge- 6 SF-3 Grundfos Solar pump & motor	\$2951
Buenos Aires National Wildlife Refuge 4 staff to install levy lines, bubbler & basins	\$950
donation of levy lines, hardware, concrete, pipe fittings, bubbler manifold, concrete etc	\$180
poly pipe	\$400
Buenos Aires National Wildlife Refuge 37 hours of well site prep	\$1300

# Photographs



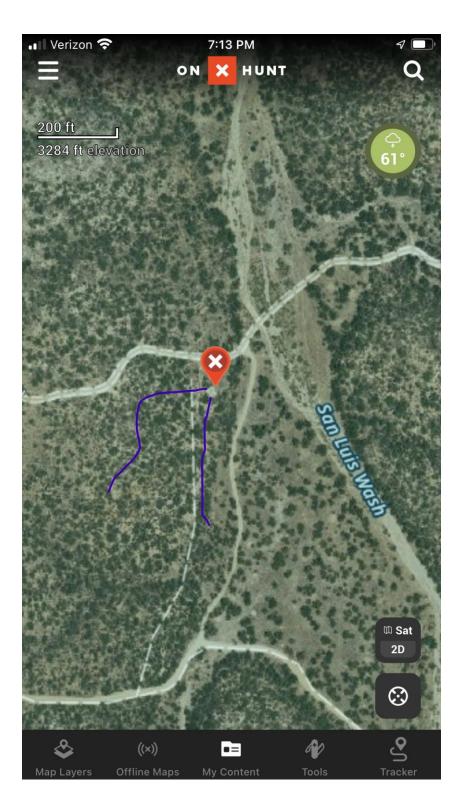
5000 gallon poly tank, solar panels and solar pump and motor



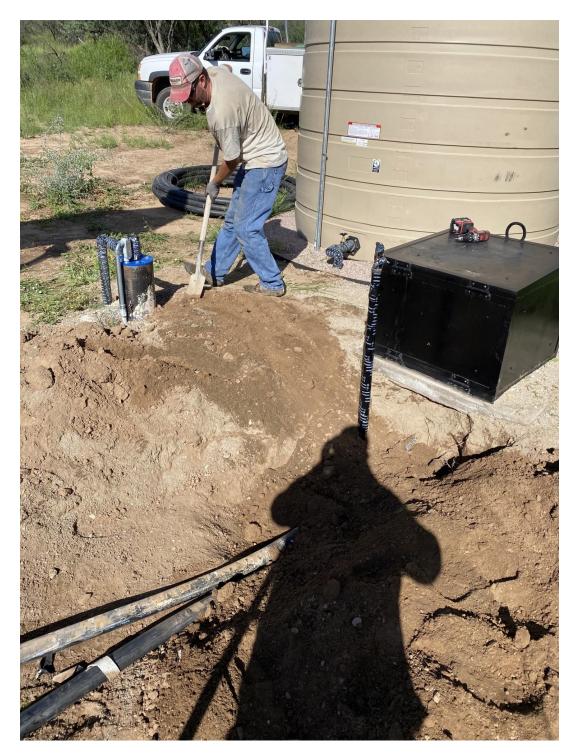
Two levy lines installed into gate valves



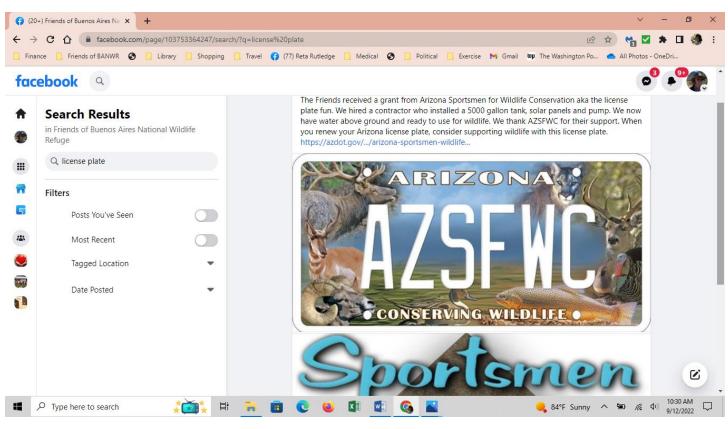
Water from drill holes collects in dirt hollows and spreads



Map location of San Luis well



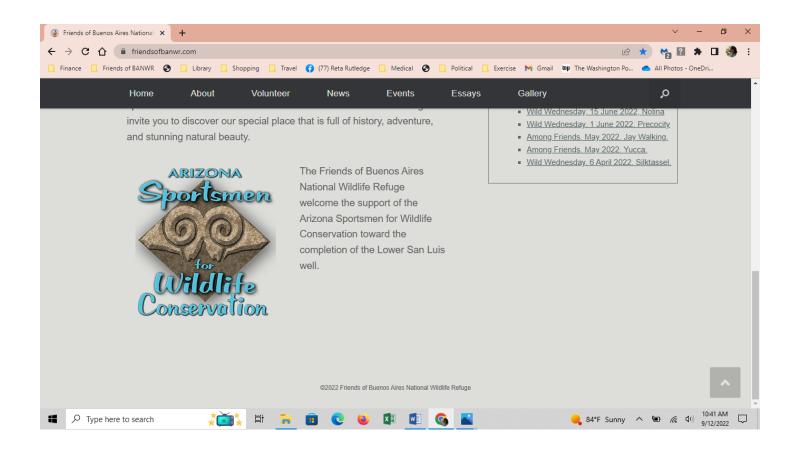
Making connections to the well head





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The Friends applied for and received a grant from Arizona Sportsmen for Wildlife Conservation (AZSFWC) to help put water on the landscape for wildlife. AZSFWC provides funding for habitat projects, partially financed through the wildlife conservation license plate revenue (Wildlife Conservation Habitat Fund). The AZSFWC generously granted the majority of money for renovation of San Luis Well, and the Friends supplied the remainder.



Arizona Sportsman for Wildlife Conservation provided the majority of the funds needed to complete the Lower San Luis Well. Purchase of wildlife conservation license plates supports this wildlife work. https://azmvdnow.gov/plates

### Lower San Luis Well

The Refuge, Southern Arizona Quail Forever and Altar Valley Conservation Alliance paid to improve an old hand dug 50' well that was dry. They had it dug to 245' with the well pipe capped and waiting for further money to complete the well.

The Friends wanted to complete this project so volunteer, Tonia Wolf wrote a grant to Arizona Sportsman for Wildlife Conservation, AZSWC, to hire a contractor who would buy and install the solar panels, pumps, storage tank etc. to get water on the ground for wildlife. AZSWC gets money from special Arizona license plates that support conservation and they offer grants for wildlife conservation projects throughout Arizona.

On February 22<sup>nd</sup>, we were notified that we RECEIVED the grant! The contractor has ordered the 5,000-gallon tank as the first step. Stay tuned.

Picture below shows the well head waiting for the improvements to become a fully functional well.





### NEWS from the Friends of Buenos Aires National Wildlife Refuge April 2022

A lot has been happening at Buenos Aires NWR since our last newsletter of September 2021. The Friends are actively pursuing projects both indoors and outdoors, particularly in response to habitat improvement and wildlife viewing opportunities. If you are not a member and would like to join, please see the last section of this newsletter. We would love to have you join our team!

#### About Us

The Friends is a group of citizens dedicated to preserving and perpetuating the wildlife and wild lands that are part of Buenos Aires National Wildlife Refuge. We welcome you to the world of semi-desert grasslands, sky island mountains, and desert waterways.

As volunteers, we work to enhance public awareness and understanding of the Refuge's natural history and ecology. We work in harmony with the Refuge to provide the greatest benefit for the present and help assure the legacy of Buenos Aires National Wildlife Refuge in perpetuity.

The Friends were founded in 1995 and provide a wide variety of programs and services to the Refuge and the public. We have offered educational classes such as photography and wildlife identification. Some classes were overnight and the participants stayed in the Environmental Education Center in Brown Canyon.

Friends of Buenos Aires National Wildlife Refuge is a non-profit, 501(c)3 organization that supports Buenos Aires National Wildlife Refuge. We assist the Refuge in restoring and protecting native Sonoran habitats and wildlife and in providing wildlife-oriented education and recreation. We seek out and acquire funding for both environmental conservation activities and wildlife conservation activities that are identified by Refuge management as part of their mission.

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In this time of budget shortfalls and short-handed staff, not only are efforts by the Friends important but so are the contributions of seasonal volunteers. Every year ten or more dedicated souls travel from near and far parts of the U.S. to spend several months volunteering at Buenos Aires. They staff the visitor center, do maintenance work, restore habitat and help with wildlife projects.

On March 18 the Refuge and the Friends honored these volunteers with an appreciation lunch. The Friends arranged for and purchased the yummy catered food. People gathered under the spreading pines at the Visitor Center, with Baboquivari Peak in the background, as staff member Hannah Pierce gave out awards and certificates.



**Restoring Habitat** 

projects on America's wild lands. In projects at Buenos Aires in November and March, these dedicated folks removed barbed wire and built erosion control structures. See the stories that follow!



Wilderness volunteers and their coordinator Reta Rutledge (lower row, left), one of our Friends Board members.

### **Getting Rid of Barbed Wire**

This is an ongoing project and we are on the home stretch! When Buenos Aires Ranch became Buenos Aires Refuge, hundreds of miles of barbed wire fence zigzagged across the refuge. Now, thanks to many years of volunteer effort, only ten to twenty miles of fence remain.

These fences are a hazard for deer and pronghorns, which can become entangled and die in these treacherous barriers. Pronghorns evolved in open spaces and do not instinctively jump an obstacle, preferring to try to go through or under the fences. Deer are vulnerable too.

A particularly hazardous area is along Arivaca Road, which bisects the refuge east and west. To get from the north or south half of the refuge to the other, animals have to jump two fences and also can get confused on the pavement in between. Recently the Refuge gave permission to remove wire along both sides of 8 miles of the 12-mile-stretch from highway 286 to Arivaca. Six long miles of this barrier were removed by Wilderness Volunteers and local and seasonal volunteers this winter!

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Fence removal along Arivaca Road with the pavement beyond.



The Friends purchased a mechanical wire roller that twines the messy stuff into neat bundles.

In a collaborative effort, several organizations are working together to remove fence in the northern end of the Altar Valley near Three Points. Seven groups were there on April 8th to finish the work a remaining after a 3-day period earlier this winter. Three Friends members joined folks from the Game & Fish Department, Friends of Ironwood National Monument, Arizona Wildlife Federation, Coalition for Sonoran Desert Protection and other groups. The wire winder that the Friends bought was put to use again, and 7 1/2 miles of barbed wire fence came down. There will be future projects in this effort, with a goal of opening up a corridor through the Altar Valley and the Avra Valley to the north.

The result will be restored, natural open spaces "where the deer and the antelope roam."



Pronghorns photographed on the refuge by the Wilderness Volunteers.

### **Controlling Erosion**

The refuge grasslands are subject to erosion now more than they were in presettlement times. Attempts to control this have involved large rock dams called gabions and smaller one-rock dams. Recently an enterprising person was hired under contract by the Friends of BANWR to supervise construction of a new kind of check dam – made of mesquite trees.



A wash dammed with cut mesquite,

Kyle Thompson was hired and contracted by the Friends to design and install these erosion control devices, placing quite a few around the refuge headquarters area. They are particularly effective in controlling runoff that threatens to develop into an eroded channel. Seventeen mesquite dams were installed in March by Wilderness Volunteers, with Kyle coordinating. The first dams were put in several years ago and appear to be effective at erosion control. It is gratifying to see how our work is resulting in improved habitat! sediment to drop behind the dam. This sediment build up provides a place for seeds to germinate and grow, which is one more way to slow the water. In the best case, the sediment builds the wash back up to ground level and a variety of plants have established themselves in the channel.



Cutting Mesquite. Field work can be fun!

#### The Cienega Boardwalk

Arivaca Cienega is a seasonal wetland where artesian flow sometimes brings water to the surface, creating semi-marshy conditions. Over the years the Cienega boardwalk has dried, splintered and rotted over many sections, and some handrail sections have collapsed. The condition precluded doing repairs so the old boardwalk was removed.

The Friends of Buenos Aires helped to coordinate up to six volunteers to join staff for three days this March in building 10' sections of boardwalk to replace the ailing sections. 43 of these sections were built in the refuge carpentry shop. Refuge fire crew and maintenance staff moved them to the Cienega, where they are now installed. This shows what can happen when Friends members, refuge staff, and area volunteers all work together to benefit wildlife and wildlife viewing opportunities.



Stacks of boardwalk constructed by volunteers in the refuge carpentry shop.



Installing the boardwalk at Arivaca Cienega. The wide spots for are pull outs to admire the view without stopping other traffic.

Water for Wildlife

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Story below.



San Luis Well is a solar-operated well. It was a 45' hand dug well that no longer reached water. A couple of years ago, the refuge had the will drilled to 245' and the capped wellhead sat waiting. To become functional, we needed a solar pump, solar panels, holding tank and other above-ground supplies. A combination of funds from AZSFWC, Friends and the Refuge hired a well contractor who purchased and installed everything. Future embellishments may include a small concrete trough to catch overflow, with feeder lines on the

#### project, and made possible through efforts of the Friends of Buenos Aires!



The tank at San Luis Well holds 5000 gallons of water for use by wildlife and habitat.

If you have not renewed your membership or joined Friends, here's how you can do it. Joining the Friends is a great way to help wildlife and habitat!

### Categories of membership are:

Gila Monster \$25 Jackrabbit \$50 Jaguar \$100 Pronghorn \$500 Masked Bobwhite, lifetime membership \$1000

To join, you may send a check, payable to Friends of BANWR to: Friends of BANWR PO Box 81 Green Valley, AZ 85622 OR,

You may go to our website *http://www.friendsofbanwr.com* and pay through PayPal.

Thank you!

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### **Friends Board of Directors**

Bonnie Swarbrick, President Reta Rutledge, Vice-President Sarah King, Secretary Evelyn Kelley, Treasurer AJ Lander, Director Jeannie Groven, Director Mailing Address: Friends of BANWR P.O. Box 81 Green Valley, AZ 85622

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