AZ Sportsmen For Wildlife Conservation GRANT COMPLETION REPORT

Project Title: H4 Cottonwood windmill

Organization: Mogollon Sporting Association/ H4 Ranch

Event/Project Completion Date: Fall 2020

Project Location (Include info such as event center, hunting unit, etc.): Unit 22, Cottonwood wash

Submitted By: Dave Daniels

E-mail: ddaniels@azgfd.gov

Phone #: 480-528-8774

Today's Date: 1/16/21

AZSFWC Recognition:

AZSFWC Logo and Link to AZSFWC on organization's website? (attach screen print image) Yes 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 AZSFWC recognized in all marketing materials & post event articles? (attach all samples) Yes No 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? Payson Round-up newspaper is going to publish an article highlighting the project.

Summarize Project Accomplishments :

Bill & Lori Brown and the H-4 Ranch Allotment added a solar pump and solar panels to an existing well with a windmill for more adequate water distribution at the Cottonwood windmill in between Hwy 87 North and Hwy 188 by Cottonwood Wash 3 miles below Jakes Corner. They also would like to added a water storage tank on the existing water line off Cane Springs in the Upper Slate Creek Pasture off Hwy 87 just North of Slate Creek below the Corrals. Water Storage is important and the storage tank can be hauled to if the water source ever becomes unable to keep up with the demand for water. The water storage also includes some pipeline that connects to existing pipeline and one trough headed south towards Slate Creek. The project benefits Mule Deer, WhiteTail Deer, Javelina, Bear, Mountain Lion, all small game and a few Elk along with a quarterly rotation of livestock.

Measurable Results (Fill in all that are applicable):

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.) ATTACH COPIES OF ALL RECEIPTS:

	Budget Item	Planned	Actual
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See Attached Budget sheets	

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

Cooperator (no abbreviations)	Amount Contributors \$
H4 Ranch provided all labor	

Photographs















QUOTATION

UANTITY	UNITS	DESCRIPTION	Unit Price	Extended Price
1	ea.	Grundfos 6SQF-3 Submersible Pump	\$2,214.00	\$2,214.00
1		Grundfos CU200 Pump Controller - System readout and float control	\$465.00	\$465.00
1	ea.	Grundfos IO-101 Pump Controller - Allows generator or grid input	\$475.00	\$475.00
1	ea. ea.			\$0.00
60	ft.	1" sch. 120 PVC Drop pipe	\$2.75	\$165.00
80	ft.	Submersible pump cable	\$1.25	\$100.00
80	ea.	This system also has the capability of running directly from an AC		\$0.00
	ea.	generator or the grid should the need arise.		\$0.00
	ea.			\$0.00
1	ea.	Fittings, connectors, etc	\$95.00	\$95.00
1		HD 3 wire splice kit	\$11.00	\$11.00
1	ea.			\$0.00
	ea.	255 Watt Solar modules	\$217.00	\$1,736.00
8	ea.	4-Module Reconditioned Top-of-pole Tracking mount, post, concrete	\$1,550.00	\$3,100.00
	ea.	MNPV3 Combiner box	\$89.00	\$178.00
2	ea.	Module Interconnect Cables	\$29.00	\$58.00
2	ea.		\$13.00	\$26.00
2	ea.	20 amp DC breakers	\$110.00	\$110.00
1	ea.	Midnite Solar DC Lightning Arrestor		\$0.00
	ea.			\$0.00
	ea.			\$0.00
	ea.			\$0.00
1 martin	ea.	and the minimum of 2200 callons per day in the		\$0.00
	ea.	This system will produce a minimum of 2200 gallons per day in the		\$0.00
	ea.	winter months and as high as 3300 gpd in the summer if allowed to		\$0.00
	ea.	run continuously.		\$0.00
	ea.	Calculated as per 21' static + 700' vertical + 40' friction loss=761' TDH		
	ea.	Sub-total		\$8,733.00
		Sub-tour		
				\$145.00
	\$4,200.00			
				\$13,078.00
		Installed System Total		\$10,010.00
-				\$3,923.40
30% Federal Tax Credit				
-		25% State Tax Credit		
				0 154 CD
		TOTAL cost after tax credits	L	\$8,154.60
			ROOLO	0010

Black Mountain Excavating Inc.

Name / Address

HC 1 Box #5273-W 49831 N. Hwy 188 Payson, AZ 85541

Loumate		
Date	Estimate #	
9/1/2019	76	

Estimato

5000 West Carefree Hwy Phx, AZ 85086 Project Total Rate Qty Description 8,154.60 8,154.60 1 The Solar Exchange Solor pump Quote 5,590.00 5,590.00 Cottonwood Windmill Project Lat: 33* 58' 21.3" Long: 111* 23' 1 30.6" Materials & Labor 1.) Materials for panels, poles and metal bars \$1090.00 Weld and build frames for solar panels \$950.00 Dig holes and pour concrete for poles to set panels. \$550.00 4.) Set solar panels up on frames and weld and hook electrical to panels for pump. \$500.00 5.) Lay down windmill and set pump and electrical for the Solor pump above the windmill pump. change and maintence windmill pump. \$800.00 6.)Set solar pump into well and hook up the electrical into the solar panels and Solor box. \$600.00 7.) Put pipe into well and plumb into water storage tank and plumb into other water source. \$450.00 8.) Reset windmill tower over the well. \$300.00 9) Test all equipment, pump, panels electrical misc parts and assure all project is in working order and complete. \$350.00 **Total** Thank you for your business. Page 1

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Date	Estimate #
9/1/2019	76

Name / Address AZ Game & Fish Dept 5000 West Carefree Hwy Phx, AZ 85086

		_	Project
	Qty	Rate	Total
Description Date Springs storage Tank Lat: 33* 58' 21.3 Long 111* 23' 30.6" Materials Equipment and labor 1) Haul in 2 Loads ABC level a pad and compact to put storage tank on 58 \$50.00 2.) Metal 15,000 gallon storage tank haul to job site \$250.00 3.) Boits and Hardware\$650.00 4) Put together storage tank and set into place with bricks, level for concrete pour. Labor \$1350.00 5.) Mix and pour concrete for floor of storage tank 6-8" thick materials and Labor \$4,800.00 6.) Glue and seal metal to concrete on bottom of storage tank for incoming water and to go back into line alone with new line for new troughs. \$850.00 8.) New pipeline with through toward the south with escape ramp (Slate Creek). \$950.00 9.) Pick up and travel to town for parts \$300.00 Thank You,	1	12,250.00	12,250.00
turingss		Total	\$25,994
Thank you for your business.	Page 2		