

AZ Sportsmen For Wildlife Conservation GRANT COMPLETION REPORT

Project Title: CORONADO NATIONAL FOREST GRASSLANDS RESTORATION

Organization: Southern Arizona Quail Forever

Grant #: 2022-Q4-01

Event/Project Completion Date: 15 Oct 2023

Project Location: West of Coronado Monument along the border with Mexico.

Submitted By: Zack May Chapter Treasurer

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Today's Date: 15 Nov 2023

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

AZSFWC Logo displayed at event? (attach photo(s)) No

AZSFWC recognized in all marketing materials & post event articles? (attach all samples) Yes

List any social media recognition of AZSFWC (include all screen print images)

Was there any media or press coverage? (attach copies if available) No

List any other recognition?

Summarize Project Accomplishments :

Executive Summary

Since 2018, Southern Arizona Quail Forever (SAQF), Borderlands Restoration Network (BRN), and Coronado National Forest (CNF) have collaborated to enact the CNF Grasslands Restoration Project and restore 12375 acres of degraded USFS lands along the Arizona/Mexico border. This work includes the construction of over 950 erosion control structures and the restoration of more than 700 acres completed in 2020-2021 and 2021-2022 through the NFF Matching Awards Program. Together with CNF, BRN, and SAQF are proposing to engage local high school youth and volunteers in restoring 100+ acres of degraded woodlands with erosion control structures (ECS), seed pellets, and plantings. ECS, such as one-rock-dams and trincheras, work with the landscape to mitigate the erosive force of runoff, enhance groundwater recharge, and improve water infiltration. ECS also retain soil and organic matter to support native vegetation. Incorporating seed pellets with the ECS will increase native plant establishment and address gaps in wildlife habitat. Simultaneously, CNF staff will conduct routing forest thinning. Combined, these

activities will create a thriving ecosystem and improve the region's resiliency to environmental stressors. This work will improve safety and recreational use of the area, create outreach opportunities, deepen collaboration across multiple public and private organizations, and sustain jobs for restoration practitioners in rural towns.

Narrative Summary

Goals and Objectives

1) Installed 150+ water-harvesting erosion control structures: BRN installed a total of 230 water-harvesting erosion control structures throughout the project area, including 120 one-rock-dams, 79 hybrid log-rock-structures, 23 trincheras, and 3 Zuni bowls . Of these ECS, 44 were second generation structures, which were built on top of previous structures that had filled in with sediment and continued helping to raise the channel bed. Each structure was GPSed and documented in a shapefile.

- **2) Collected and distributed 15+ lbs of native seed in the form of seed pellets:** BRN collected 15 lbs of native grass and forbs, including Blue grama (*Bouteloua gracilis*), Velvet Leaf Senna (*Senna lindheimeriana*), and Tepary bean (*phaseolus acutifolius*). Seed was cleaned and formed into seed pellets using a mixture of clay, compost, and water. The 15 lbs of seed was turned into 305 lbs of pellets, which were then distributed in and around erosion control structures to enhance native vegetative communities. Seed was pelletized to limit predation and to provide seeds with nutrients to assist germination.
- **3) Outplanted 50 quail food plants grown in the BRN Nursery quail food plots:** With a below average monsoon season, BRN decided to reallocate funds to expanding the BRN Nursery quail food plots instead of outplanting because there was a poor chance the plants would survive without adequate precipitation. These plants will be used for seed production in the grow-out field, and have already had seed collected off of them for future quail projects. Species included 125 *Acaciella angustissima*, 125 *Senna hirsuta*, 125 *Senna lindheimeriana*, and 125 *Crotalaria pumila*.
- **4) Restored 100+ acres of currently degraded wildlife habitat:** An estimated 150 acres were impacted by the construction of rock and wood erosion control structures within the project area, along with distribution of seed pellets.

- **5) Engaged at least 12 high school-aged youth in restoration projects:** In total, BRN engaged 20 high school-aged individuals in restoration work for the project. Through Borderlands Earth Care Youth (BECY) paid summer internship program 8 BECY interns and 2 facilitators from Patagonia, AZ and 8 BECY interns and 2 facilitators from Douglas, AZ were engaged in quail food plot expansion. This included 933 native plants established in the grow-out field, and quail food plant seed collection at the BRN Nursery. They also pelletized 7 lbs of collected seed into 145 lbs of seed pellets consisting of 8 different species.
- **6) Engaged at least 20 volunteers, including 10 that have not participated before:** BRN and SAQF engaged a total of 32 volunteers, with 19 being new volunteers to BRN and the project. Volunteer tasks included watering and weeding in the nursery greenhouses, as well as transplanting. On April 21 and 22, SAQF, AZGFD, and BRN hosted two volunteer days to build erosion control structures at the project site in celebration of Earth Day. A total of 6 volunteers participated in the Earth Day events and built 13 structures, including 10 one-rock-dams, 1 log rock structure, 1 trinchera, and 1 Zuni bowl.
- **7) Supported jobs for 8 restoration practitioners through BRN:** This project supported jobs for 10 full-time, permanent restoration practitioners employed by BRN. Supported staff included 5 people from the watershed restoration program, 3 from the native plant program, and 2 from the education program.

Outcomes

Tangible outcomes: Tangible outcomes for the project include the construction of 230 rock and wood erosion control structures; the collection, pelletization, and distribution of 15 pounds of native grass seed at the restoration site; and the expansion of Montezuma Quail food plots at the BRN nursery. Erosion control structures work with the landscape to mitigate the erosive force of runoff, enhance groundwater recharge, and improve water infiltration. Erosion control structures also retain soil and organic matter to support native vegetation. As new series of structures are built upon previous structures that have filled in with sediment, the channel bed is raised to help mitigate high flow velocity. Incorporating seed pellets with the erosion control structures will increase native plant establishment and address gaps in wildlife habitat. The establishment and expansion of Montezuma Quail

food plots at the BRN nursery will allow BRN to enhance Montezuma Quail habitat across multiple restoration projects.

Intangible outcomes: BRN engaged local youth, community members, SAQF members, and Arizona Game and Fish Department (AGFD) staff with the project through paid internships and organized volunteer days. These outreach activities provided the opportunity to reconnect individuals with the landscapes they rely on, teaching them about impacts of human-caused land-use change and the theories and techniques used to repair them. By engaging individuals with the stewardship and restoration of the places they know and love, we hope to repair the fractured relationships between humans and the places we live. By providing paid internship opportunities to youth from a local, low-income, underserved community, we hope to inspire individuals to explore environmental career paths and seek new ways to engage with and enhance the sustainability and ecological function of the places they live.

Furthermore, through engagement work and collaboration in this project, BRN has strengthened relationships with SAQF, AGFD, and CNF. This has inspired BRN to apply for additional funding in January 2024 and continue developing these phenomenal partnerships.

Dissemination of Project Results

Project results and volunteer opportunities were shared with the community through organized events and through BRN and SAQF marketing channels. Project updates were regularly shared through the SAQF newsletter, as well as through BRN Instagram, Facebook, and e-newsletter content which was amplified twice by NFF social media efforts to highlight NFF-supported work.

Project Partners

SAQF was a critical project partner, as they provided 100% of the matching funds required to realize this project. They also assisted in the organization of volunteer days and recruitment of volunteers for the project. AZGFD was also an important partner who showed up to participate in volunteer days and discuss the importance of the project for wildlife sustainability. CNF was an important and supportive partner as well, aligning their fuel reduction efforts with BRN erosion

control work to increase the resilience of this landscape to wildfire. CNF also executed all necessary clearances in the project area to allow BRN to do restoration work on USFS lands.

Project Challenges

The summer youth internship did not engage as many youth as was initially planned in erosion control activities. Initially, youth from both Patagonia, AZ and Douglas, AZ were scheduled to work side-by-side building erosion control structures in the project area. However, with many returning youth who had performed erosion control work in previous years, students were able to work at the BRN nursery and learn about Montezuma Quail food plant production, establishment, and seed collection.

This summer was a below average monsoon season, with less water available on the landscape compared to the last two years. This meant the chance of outplanted montezuma food plants surviving would be minimal, and it was decided to plant more quail food plants in the BRN Nursery grow-out field to increase seed production for future quail projects.

Reflections

If this project were to be repeated, there is not much we would do differently as its execution was smooth and we were able to accommodate for varying climate factors. Enough water is moving through the system that we would be able to continue building structures above previous ones to continue raising the incised channel bed and stabilize the banks.

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): Included in writeup.

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
Contract labor	\$65,779.30	\$65,779.29

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

Cooperator (no abbreviations)	Amount Contributors
NFF	\$32,889.64
SAQF (includes AZSFWC Grant)	\$32,900.20

Photographs

Visuals are **critical** to effectively communicating project accomplishments and are a requirement of AZSFWC project reporting

Following are a few photo guidelines:

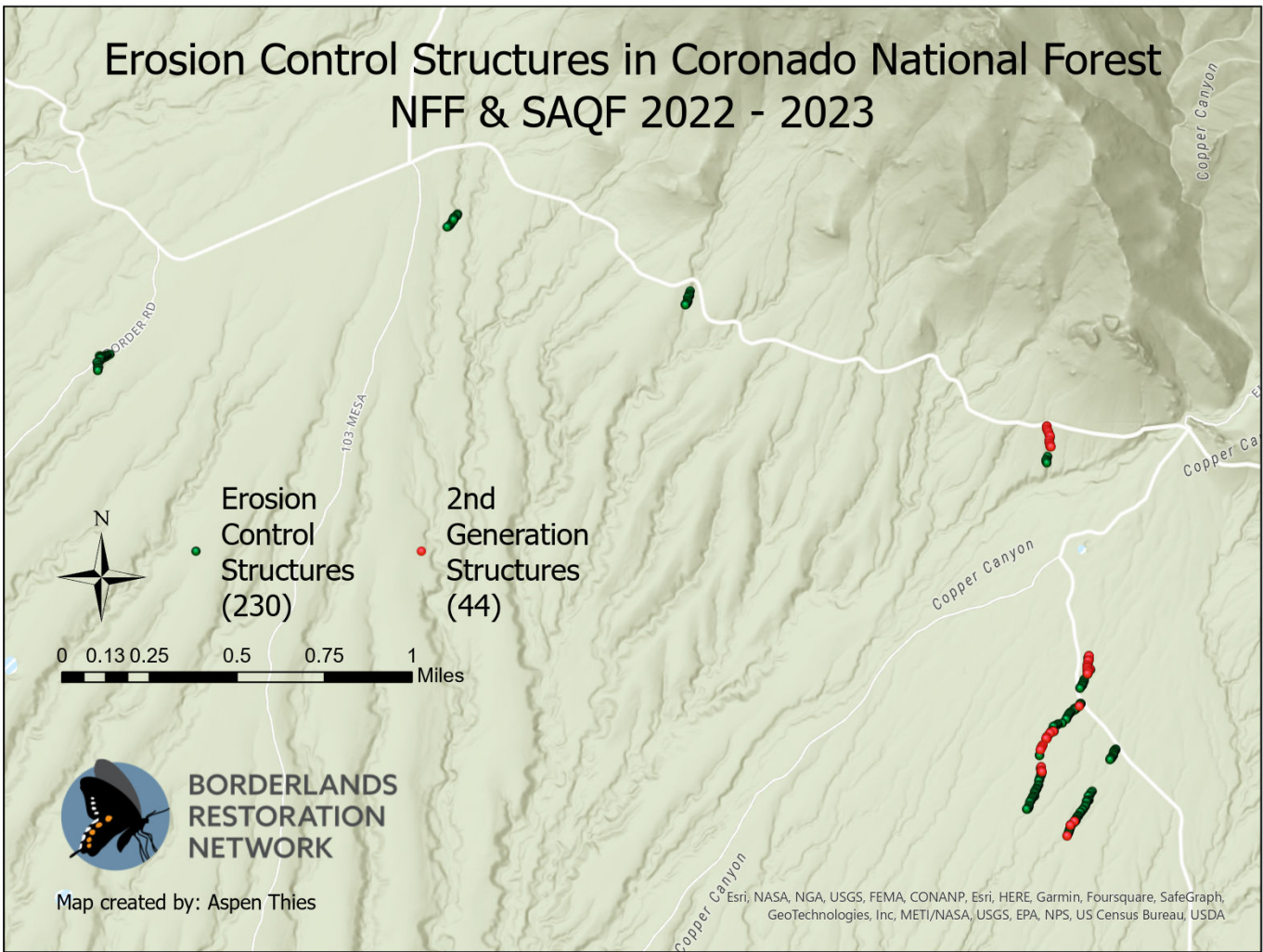
- Please copy photos directly into this document.
- Include information regarding photo credits if needed.

Please return this completed form and supporting documentation and send along with photos to: **AZ Sportsmen for Wildlife Conservation Grant Program PO Box 75731 New River, AZ 85087** or e-mail to info@azsfwc.org. Phone: 602-361-6478.





Erosion Control Structures in Coronado National Forest NFF & SAQF 2022 - 2023



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Chapter Bank Statement - SQL Server Reporting Services

SQL Server Reporting Services

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10/19/2022	MEMBERSHIP PAYMENT	\$1,035.00
10/21/2022	CK5255 BORDERLANDS REST NETWRK	\$7,500.00
11/4/2022	CK5350 SCCFRA	\$150.00
11/16/2022	CK5243 DISCOUNT TIRE	\$643.24
11/23/2022	CK5400 DAVE STRANGER	\$143.35
12/5/2022	CK5401 SCCFRA	\$275.00
12/28/2022	MEMBERSHIP PAYMENT	\$1,105.00
1/6/2023	CK5402 FRED BERNHART	\$2,500.00
1/17/2023	CK5404 PATAGONIA REGL TIMES	\$160.00
1/17/2023	CK5403 BORDERLANDS RESTORATION	\$10,000.00
2/6/2023	CK5405 ALLYN HAYNES	\$5,320.00
2/8/2023	MEMBERSHIP PAYMENT	\$930.00
2/15/2023	CK5406 DAVE B.	\$698.76
2/17/2023	CK5408 ZACK MAY	\$782.69
2/23/2023	CK5407 SCCFRA	\$1,636.00
2/24/2023	CK5351 RHELLA SPIERING	\$150.00
3/3/2023	CK5409 TONY VALENTINO	\$293.58
3/7/2023	MEMBERSHIP PAYMENT	\$215.00
3/13/2023	CK5410 LAL ENTERPRISES	\$350.00
3/20/2023	CK5411 STEVE H.	\$3,244.50
5/16/2023	CK5413 FIRST PLAZA STORAGE	\$723.60
6/1/2023	CK5412 BORDERLAND RESTORATION	\$10,000.00
6/26/2023	EQUIPMENT INSURANCE	\$253.00
6/29/2023	CK5414	\$3,000.00

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Chapter Bank Statement - SQL Server Reporting Services

SQL Server Reporting Services

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Enter Ending Date 11/14/2023

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Pheasants Forever, Inc. Quail Forever CMS Bank Statement

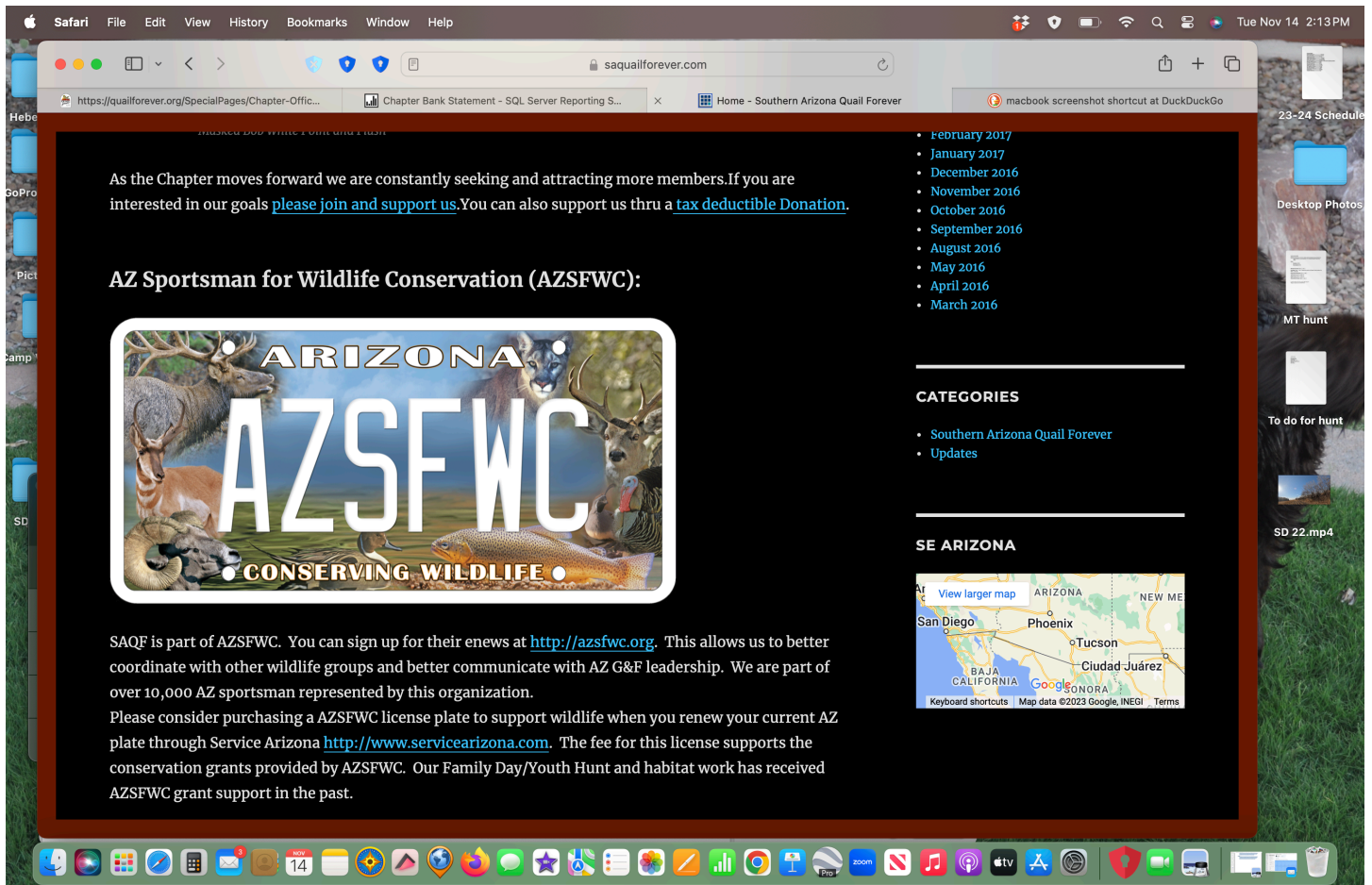
Checking Southern Arizona (AZ) - 3163

Account Number: 1010-3163 Run Date: 11/14/2023
Begin Date: 10/1/2022
End Date: 11/14/2023

10/31/2023	CK5301 JIM LITTLEJOHN	\$43.77
11/10/2023	CK5303 BORDERGANDS REST NTWRK	\$5,400.20
Total Checks & Withdrawals		\$57,787.08

PHEASANTS\ch3163 Page 2

Approved Budget	(a) NFF Funds Requested	(b) Partner Non-Federal Funds	(c) Partner In-Kind Contributions	(d) Other Federal Funds	(e) Total Category Value
Expense Categories:					
Personnel	\$ 20,909.00	\$ 25,661.00	\$ 8,985.00	\$ -	\$55,555.00
Fringe Benefits	\$ 4,098.16	\$ 3,621.88	\$ -	\$ -	\$7,720.04
Travel	\$ 3,831.25	\$ -	\$ -	\$ -	\$3,831.25
Equipment	\$ -	\$ -	\$ -	\$ -	\$0.00
Supplies	\$ 492.68	\$ 626.39	\$ -	\$ -	\$1,119.07
Contractual	\$ -	\$ -	\$ -	\$ -	\$0.00
Other	\$ 559.00	\$ -	\$ -	\$ -	\$559.00
Total Direct Charges	\$29,890.09	\$29,909.27	\$8,985.00	\$0.00	\$68,784.36
Indirect Charges	\$2,989.00	\$2,990.93	\$0.00	\$0.00	\$5,979.93
Grand Total	\$32,879.09	\$32,900.20	\$8,985.00	\$0.00	\$74,764.29
Actual Expenses to Date					
	(a)	(b)	(c)	(d)	(e)
Expense Categories:					
Personnel	\$ 22,950.78	\$ 22,950.78	\$ 8,985.00	\$ -	\$54,886.56
Fringe Benefits	\$ 4,498.35	\$ 4,498.36	\$ -	\$ -	\$8,996.71
Travel	\$ 1,256.63	\$ 1,256.63	\$ -	\$ -	\$2,513.26
Equipment	\$ -	\$ -	\$ -	\$ -	\$0.00
Supplies	\$ 1,186.92	\$ 1,186.91	\$ -	\$ -	\$2,373.83
Contractual	\$ -	\$ -	\$ -	\$ -	\$0.00
Other	\$ 7.00	\$ 7.00	\$ -	\$ -	\$14.00
Total Direct Charges	\$29,899.68	\$29,899.68	\$8,985.00	\$0.00	\$68,784.36
Indirect Charges	\$2,989.96	\$2,989.97	\$	\$	\$5,979.93
Grand Total	\$32,889.64	\$32,889.65	\$8,985.00	\$0.00	\$74,764.29



If you plan to volunteer, please respond to this email and indicate which day you are able to help to ensure we have enough tools.

Earth Day was started in 1970, after a devastating oil spill in America brought environmental issues to the forefront of public consciousness — SAQF will improve our habitat by reducing erosion in the Coronado National Forest.

Dates: Friday, April 21 and Saturday, April 22

Times: 9 AM-1PM

Help needed either or both days. Even an hour of work will be appreciated. The worksite is in prime Mearns' quail habitat. The elevation is 5400 feet so it will be cooler than our urban areas. Highs are forecast in the 70s.

Location: * Hwy 92, S of Sierra Vista

- * Just pass MM 334, turn right at Coronado National Memorial sign

- * Go past Visitor Center [is worth time to stop], up mountain past Montezuma Pass LookOut [views are amazing] and start down the mountain

- * Turn left at Copper Creek Road [first turn available] follow to work sight which is **left** at fork.

The work will involve building rock dams - it is not as hard as it sounds. It is a bit of a drive from the Tucson area but you will see some beautiful scenery and improve wildlife habitat. Please call Zack May 520-301-8135 or Jim Littlejohn 520-490-1374 with questions or help with directions. Zack will be there Friday and Jim on Saturday.

Restoration Work: The project you will be assisting is funded jointly by the National Forest Foundation, AZSFWC and SAQF to improve the quail and other wildlife habitat. The Watershed Crew for Borderlands Restoration will show you how to build rock structures to slow water flow, increase infiltration, trap sediment and establish vegetation —this process mitigates on-site erosion. We get credit for our in kind labor donation for matching funds.