

Walker River Paiute Tribe Nonpoint Source Program

Roy Begay, Nonpoint Source Coordinator Water Resources Department – Schurz, Nevada





Walker Paiute Tribal Reservation – Schurz, Nevada





The reservation is located within three counties in rural Midwestern Nevada about 105 miles southeast of Reno, NV with a population of 1,200 residing in Mineral County. The land base consists of about a third of a million acres (323,466 acres) which is mostly used for grazing, farming and ranching.



Project Goals and Objectives of the Tribe's Nonpoint Source Program

The goal of the Tribe's Non-Point Source Program is to secure funding from various agencies (State, Federal), implement BMP to address non-point source pollution impairment on the Tribe's portion of the Walker River and educate the public on non-point source pollution.

The objective is to administer the program, prepare, implement projects & complete approved nonpoint source projects using tribe's updated nonpoint source management plan & assessment reports.

Inform the community on nonpoint source pollution education using brochures, studies and projects on the program's website – www.paiutewater.us



Kid's Water Quality Camp

 Tule House





Stream Bank Restoration Projects

- <u>2004/2005</u> the Tribe improved seven (7) sites (Harvey #1, Gully #1, ER-33, ER-35, ER-36, ER-37, ER-39) the total square footage of restoration amounts to 55,275, which is 1.26 acre. Some improvements included: removed approximately 30 junk car bodies embedded in riverbank, 5,225 square feet of animal manure removal, 4,500 square feet hay field levee installation, 1,300 square feet of livestock manure containment levee, installed /repaired 1,900 square feet of rock lined drain ditch, 100 feet of new & repaired livestock containment fencing, 28,500 square feet of bed & bank re-shaped, 3,150 square feet of rock toe installation for scour protection, and12,600 square feet of rip rap rock revetment bank stabilization. Sites were re-planted with willow poles, willow fascine & re-vegetated with native plants/brush seeding.
- 2005/2006 the Tribe improved two (2) sites (Flumes & House #1) the total square footage of restoration amounts to 53,875, which is 1.23 acre.
- <u>2006/2007</u> the Tribe improved three (3) sites (Corral #1, Pasture Road Site, Rock Shop Site) the total square footage of the restoration amounts to 19,900 which is 0.45 acre.
- <u>2007/2008</u> the Tribe improved three (3) sites (ER-38, ER-38-2, ER-38-3) the total square footage of restoration amounts to 17,720 which is 0.40 acre.
- 2008/2009 the Tribe improved one (1) site (Site-3) the total square footage of restoration amounts to 31,400, which is 0.72 acre.
- 2010/2011 the Tribe improved one (1) site (ER-34) the total square footage of restoration amounts to 32,065 which is 0.73 acre.
- 2013/2014 the Tribe improved one (1) site (Site 6) the total estimated footage of restoration amounts to 18,000 which is .41 acre.
- <u>2014/2015</u> the Tribe improved one (1) site (Irrigation Return Flow Project) the total estimated footage of restoration amounts to 19,700 which is .45 acre.
- <u>2017/2018</u> the Tribe improved one (1) site (Oxbow Riparian Meander Project) the total estimated square footage of restoration amounts to 82,764 which is 1.90 acre.
- <u>2018/2019</u> the Tribe improved one (1) site (Irrigation Return Flow #2 Project), the total estimated square footage of restoration amounts to 11,475 which amounts to .26 acres.

Photos of Stream Bank Restoration Projects

Stabilizing eroding banks, thus preventing sediment loading into the river, a nonpoint source pollution prevention practice









Solar Livestock Wells Developed on Reservation Rangelands

<u>Objective</u>: Reduce cattle grazing on riparian habitat & wetland complexes. Tribe's nonpoint source management plan lists the following priority non-point source categories as causing impairment to waters on the Walker River Paiute Tribal Reservation. The parameters causing the most consistent impairment across the reservation are animal waste: pathogens, nutrients, biochemical oxygen demand.

<u>Goals:</u> "Development of new watering facilities is needed to make advantage of the forage potentially available and more evenly distribute grazing use. For most of the upland rangelands, development of ground water resources is necessary to create new and dependable livestock watering sites. Water wells, pumps, water storage facilities and water troughs will be required at each site. Due to the remote locations of the planned watering sites, use of solar panels is the most reasonable alternative to supply power to well pumps" WALKER RIVER PAIUTE TRIBE CATTLEMAN'S COOPERATIVE GRAZING MANAGEMENT PLAN 2018 – Synergy Resource Solution

To Date 2024 Year: 2-Wells Restored to Solar Power & 5-New Wells Established With Solar Power



Solar Power for Well Pump



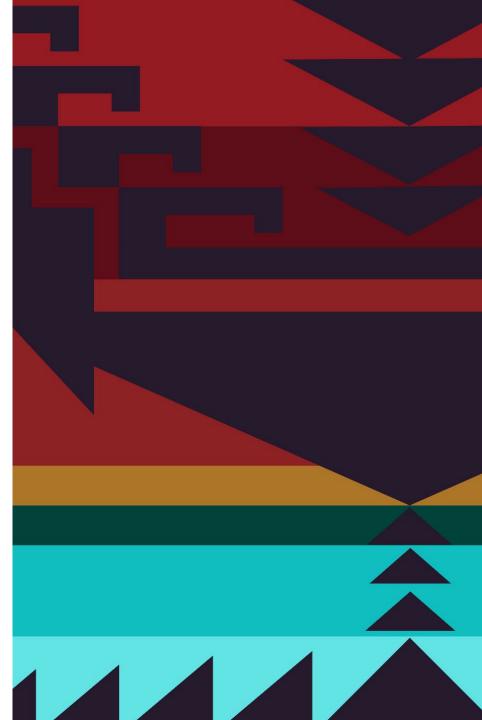
Livestock Water Tank



<u>Unmanned Aerial Vehicle "Drone" Flights</u> <u>for Reservoir, River & Lake Monitoring</u>

The Nonpoint Source Program started using Drones as a tool to monitor, inspect and gather data using photos of the reservoir, river & lake; also, it was used to inform & warn the community of possible flooding concerns during high water peak runoff in spring and summer months – 2017 to 2023 years.







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