

CLEARING THE WATERS

A quarterly newsletter by the Surface Water Quality Bureau

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Editor:

Susan j. Ossim

susan.ossim@state.nm.us

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319 Project Spotlight



Sitting Bull Creek Gets a Hand Up

By Daniel Guevara, Environmental Scientist

Sitting Bull Creek is an oasis in the desert lands of southeastern New Mexico; comprised of rock cliffs, cascading water and riparian vegetation. A spring-fed waterfall flows in defiance of its arid surroundings. It is located in the Lincoln National Forest just beyond the periphery of the Chihuahuan desert, approximately 40 miles southwest of Carlsbad.

Those that came to recreate and enjoy this unique refuge over time diminished it. Foot paths created on steep banks, poor drainage control from the road, and perhaps the most disenchanting was the occurrences of human waste near the creek due to inadequate restroom facilities. All of these decreased the water quality of the creek. Severe algal blooms had become a common occurrence, and there were problems with sediment, temperature, and bacteria. As a result, Sitting Bull Creek was added to the state's list of impaired waters. Through collaboration the Surface Water Quality Bureau (SWQB) coordinated with the U.S. Forest Service using 319 funding to close unauthorized trails, manage runoff and erosion from the road and parking lot, and improve the restroom facilities. As a result, Sitting Bull Creek was completely delisted in 2006 as it was found to be fully supporting all designated uses and even upgraded to Primary Contact.

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Problem

Sitting Bull Creek is part of the Pecos River Basin and is only perennial in the upper reaches. In 1998, Sitting Bull Creek, from Last Chance Canyon to Sitting Bull Springs, was officially put on the Clean Water Act Section 303(d) list of impaired waters for excess plant nutrients, stream bottom deposits, fecal coliform, temperature, and total phosphorus. Inadequate infrastructure and a lack of management at the Sitting Bull Falls Recreation Area led to pollution problems. The creek was found to not support the designated uses of warmwater fishery and secondary contact. The sources of these water quality problems were identified as dispersed recreation, improper sanitation, grazing, and roads. Staff from the SWQB made these initial assessments in the mid 1990's and then followed up with an intensive survey of the creek in 2003, after the improvements were made. As a result, Sitting Bull Creek was removed from the impaired waters list and therefore a TMDL was not necessary.

Project Highlights

To address the problems of Sitting Bull Creek, the SWQB collaborated with the Lincoln National Forest to include water quality measures in their plans to renovate the Sitting Bull Falls recreation area. The project was conducted from the fall of 1996 to the summer of 1998. Clean Water Act (CWA) Section 319 funds were used to armor the eroding drainage channels from the road and parking lot to control headcut erosion and sedimentation. A sediment retention basin was added and pipe fencing was installed around the picnic areas to discourage access to the unauthorized trails and protect the riparian area. Additionally, a new water well was installed along with upgraded restroom facilities, which resolved the sanitation issue. Campground hosts were added to monitor the area. This project was a good example of inter-agency cooperation on resource management, as both agencies coordinated on their planning efforts to upgrade the recreation area while at the same time improved water quality.



Algae – Algal blooms had become a common occurrence due to excess nutrients and inadequate restroom facilities.



Drainage from the pavement had caused erosion and sedimentation problems until armored drainage ditches were constructed. Also, unrestricted trail erosion was brought under control using pipe fencing, as seen on the left.



Sediment Basin – an armored basin was constructed to capture stormwater runoff from the paved areas and prevent erosion and sedimentation.

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Results

The success of the project was confirmed in 2006 when the SWQB removed Sitting Bull Creek from the 303(d) impaired waters list, citing significant improvements in land management and water quality data collected in 2003. During the intensive water quality survey of 2003, there were 4 separate sampling events for temperature, and all 4 met the standard of 32.2 degrees Celsius. There were 6 sampling events for bacteria, and all were below the previous fecal coliform criterion. The standards have since been modified and are now based on *E. coli*. In 2013, concentrations were well below the *E. coli* criterion. Nutrient assessments showed acceptable levels for nitrogen, phosphorus, pH, and chlorophyll, and all other values were also acceptable. Therefore, temperature, nutrients, sedimentation/siltation, and fecal coliform were all removed as causes of impairment. The water quality of the creek was excellent at that time, which prompted NMED to add the more restrictive primary contact designated use in 2006-2008 State of New Mexico Integrated CWA Section 303(d)/305(b) Report.



Sitting Bulls Falls provides a scenic oasis in the arid Chihuahuan Desert.

Partners and Funding

The partners on this project were the Guadalupe Ranger District of the Lincoln National Forest and the Surface Water Quality Bureau of the NM Environment Department. A total of \$22,700 of CWA 319 funds were used for this project. The project costs included fence material, material for erosion control, outreach kiosks, seeding materials for disturbed areas, and upgrading the restroom facilities. Matching funds and in-kind activities were provided by the U.S. Forest Service.

Post-Fire Update

Sitting Bull Falls Recreation Area has since been heavily impacted by flooding events following the Last Chance wildfire of 2011. The site had been closed for repairs as post-fire floods transported large boulders and debris, damaged the infrastructure, and caused changes to the stream channel. Debris had also blocked road crossings. Years of on site maintenance by the U.S. Forest Service and road work by Eddy County was required to re-open the site to the public.

Related article: http://www.currentargus.com/carlsbad-news/ci_24200932/sunday-living-sitting-bull-falls-closed-by-flooding

As of late May 2015, the Sitting Bull Falls Recreation Area was re-opened for day use.

River Stewardship Program ~ Awarded Projects

New Projects to begin under New Mexico River Stewardship Program

By Abe Franklin, WPS Program Manager

The 2014 New Mexico Legislature appropriated \$2.3 million in capital outlay funds for the River Stewardship Program “to design and construct projects that improve surface water quality or river habitat statewide and to provide state matching funds required by the terms of any federal grant under the Clean Water Act.” NMED working with the State Purchasing Division conducted a request for proposals in summer 2014. A committee of six subject matter experts from NMED, the New Mexico Department of Game and Fish, and the U.S. Army Corps of Engineers evaluated the thirty-nine submitted proposals. The committee’s recommendations led to selection of twelve river restoration projects which are listed below. Agreements with local governments, soil and water conservation districts, non-profit organizations, and for-profit organizations to implement these projects were approved in April 2015, and these projects are now underway.

Projects List:

[El Rito Creek Habitat Enhancement and Bank Stabilization Project](#)

The City of Santa Rosa will improve in-stream fish habitat, stabilize creek banks, and remove invasive trees along a 0.35 mile stretch of El Rito Creek.

[Gallinas Village River and Floodplain Restoration](#)

The Hermit’s Peak Watershed Alliance will implement this project, which entails significant instream restoration, creating side channel wetlands, rerouting floodwaters to a currently inaccessible floodplain, and building a flood water detention area.



[Middle Jaramillo Creek Water Quality Improvement and Riparian Restoration Project](#)

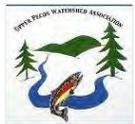
The WildEarth Guardians will improve water quality and riparian functionality in Jaramillo Creek, on the Valles Caldera National Preserve. Providing direct shade over the stream surface will moderate and reduce water temperatures, while constructed exclosures will protect the re-established and planted streambank vegetation from grazing by cattle and elk.



[Middle Percha Creek Silver Fire Rehabilitation Project](#)

The Sierra Soil and Water Conservation District (SWCD) will implement rehabilitation efforts on Middle Percha Creek within the burn scar of the Silver Fire of the summer of 2013.

[Pecos River In-stream and Riparian Restoration](#)



The Upper Pecos Watershed Association will perform stream geomorphology restoration to address post-Tres Lagunas Fire and flood impacts, increasing sinuosity and water depth, thereby reducing water temperature and improving fish habitat.

[Post-Fire Restoration of the Rito de los Frijoles at the Bandelier National Monument Visitors Center](#)

Keystone Restoration Ecology will perform channel and floodplain restoration on the Rito de los Frijoles to improve stream function, stabilize the stream channel, create an accessible floodplain and increase habitat diversity with riparian plantings.



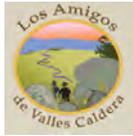
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River Stewardship Program continued from page 4

Red River Town Park Restoration Project

The Town of Red River will restore a half mile of the Red River in the heart of downtown. Objectives include measurably restoring the balance of erosion and sedimentation, improving the riparian corridor for terrestrial and avian species, increasing fish-holding capacity, and increasing recreational opportunities.

Restoring Hydrologic Functioning to the Rito de los Indios, Valles Caldera National Preserve



Los Amigos de Valles Caldera will restore channel form and function, lower temperature, and reduce sediment on the Rito de los Indios and tributaries burned by the Las Conchas Fire in the Valles Caldera National Preserve.

Rio Grande Corridor at Buckman Phase II

Rio Grande Return will implement Phase II of the “Habitat Restoration and Specification Plan for the Rio Grande Corridor at Buckman.” Eight acres of riparian area will be restored along 0.75 river miles.



San Juan River Restoration Project

The San Juan SWCD will restore areas along the San Juan River below Navajo Dam by removing nonnative trees such as Russian olive and salt cedar, and restoring the river’s riparian areas by planting willows, cottonwoods, and native grasses.



San Vicente Creek Urban Watershed Restoration Project

Stream Dynamics, Inc. will build water harvesting structures to treat and utilize stormwater runoff in Silver City.



Track Fire Burn Area Perennial Stream Restoration Project

The City of Raton will rehabilitate Segerstrom Creek, a perennial stream located within the Track Fire Burn Area. The project goals are to restore the creek to its proper geomorphology and restore the floodplain while mitigating head cutting and the resulting adverse effects on the surrounding floodplain and to decrease sediment transport into Lake Maloya.

Anyone can access much of the information on these and other projects in the Grants Reporting and Tracking System (GRTS). Just follow the instructions at www.env.nm.gov/swqb/wps/GRTS. The River Stewardship Program projects are currently listed under the 2014 grant for New Mexico, and are indicated with “RSP” in their titles. More general updates on the River Stewardship Program will be provided at www.env.nm.gov/swqb/RiverStewards.

~ The 2015 New Mexico Legislature did not pass a capital outlay bill that as drafted would have supported the River Stewardship Program starting in 2016. News reports of a possible special session of the Legislature indicate that such a bill may yet be passed this year. ~

For more information, please contact Karen Menetrey, the River Stewardship Program coordinator
505-827-0194 or Karen.Menetrey@state.nm.us.

Nonpoint Source Management Program Updates

By Abe Franklin, WPS Program Manager

Section 319 of the Clean Water Act requires states to develop management programs to assess and control nonpoint source (NPS) pollution. New Mexico's NPS Management Program is described in a plan that, with few exceptions, has been revised every five years since 1989. The Environmental Protection Agency (EPA) approved the newest NPS Management Plan in January 2015. The resulting plan will be effective through 2019 and is available at www.env.nm.gov/swqb/wps/Plan/.

The NPS Management Plan establishes how the state will utilize federal Section 319 funding, along with other resources and programs, to address NPS pollution. One of the main changes in the new NPS Management Plan is that on-the-ground Section 319 projects will primarily implement watershed-based plans that have been reviewed by EPA and found to meet their planning requirements. Watershed-based plans in New Mexico are geared to implement total maximum daily loads (TMDLs). As of May 2015, watersheds with watershed-based plans are the Cimarron Watershed, Gallinas watershed (upstream of Las Vegas), Pecos Headwaters watershed (Pecos River upstream of I-25 and its tributaries), the Rio Santa Barbara watershed, and the Rio Grande watershed in New Mexico downstream of Elephant Butte Reservoir. These watershed-based plans are available at www.env.nm.gov/swqb/wps/#WatershedPlanning, and at a new site www.env.nm.gov/swqb/wps/WBP/ still under construction.

There are some exceptions to this new requirement, detailed in the NPS Management Plan. TMDLs are not required for some streams because a sufficient plan to address the water quality problem has already been developed. These streams are called Category 4B streams, and their plans are called Category 4B demonstrations. As of May 2015, Sandia Canyon on the Pajarito Plateau is New Mexico's only Category 4B stream. The Category 4B demonstration for Sandia Canyon is available at www.env.nm.gov/swqb/303d-305b/2014-2016/LANL/, and could be implemented with support of Section 319 funding.

In May, NMED started requesting proposals for projects that implement watershed-based plans or the Sandia Canyon Category 4B demonstration. NMED will support these projects partly with Section 319 funds. Check the State Purchasing Division web site (www.generalservices.state.nm.us/statepurchasing) or the NMED request for proposals (RFP) page (www.env.nm.gov/swqb/RFP) for information.

Another exception to the requirement that on-the-ground Section 319 projects implement watershed-based plans is that Section 319 funds can be used to address wildfire impacts under some circumstances. In any year with a major wildfire in the watershed of one or more streams with a coldwater or cool water aquatic life designated use, with severity outside the natural range of variability for the affected forest types, WPS staff will participate in post-fire response planning, to assist USFS or other stakeholders with development of plans that qualify as alternatives to watershed-based plans. In years in which such a fire occurs, a portion of Section 319 watershed project funds will be used to implement these plans to reduce the impacts to water quality. We were fortunate that 2014 had few fires of this sort, but we will see what 2015 brings us!

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The revised NPS Management Program also includes a revised set of priority watersheds. You may review these on our web-based GIS, at <https://gis.web.env.nm.gov/SWQB/>. Select the data layers called “NPS Priority Watersheds - Planning”, “NPS Priority Watershed - Protection”, and “NPS Priority Watersheds - Implementation.” Section 5 of the NPS Management Plan provides more information on each of these.

The revised NPS Management Program describes state-funded work done by NMED and other agencies considered to meet the requirement in the Clean Water Act that the federal share of NPS Program costs not exceed 60%. The River Stewardship Program is a key state initiative that provides much of the required match. The River Stewardship Program is summarized at www.env.nm.gov/swqb/River-Stewards/, and the details of River Stewardship Program projects are provided in the Grants Reporting and Tracking System (www.env.nm.gov/swqb/wps/GRTS/) along with those of Section 319 funded projects.

For more information on the NPS Management Program, or to request a hard copy of the NPS Management Plan, please contact the state NPS coordinator, Abe Franklin, at abraham.franklin@state.nm.us.

Watershed Protection Section Update

By Susan j. Ossim, Environmental Scientist - NM Field Team, Silver City

On May 28, 2015, the Watershed Protection Section released a request for proposals (RFP). The RFP solicits proposals for projects that implement watershed-based plans, focus on meeting the goals of TMDLs, or on meeting the goals for Category 4B streams.

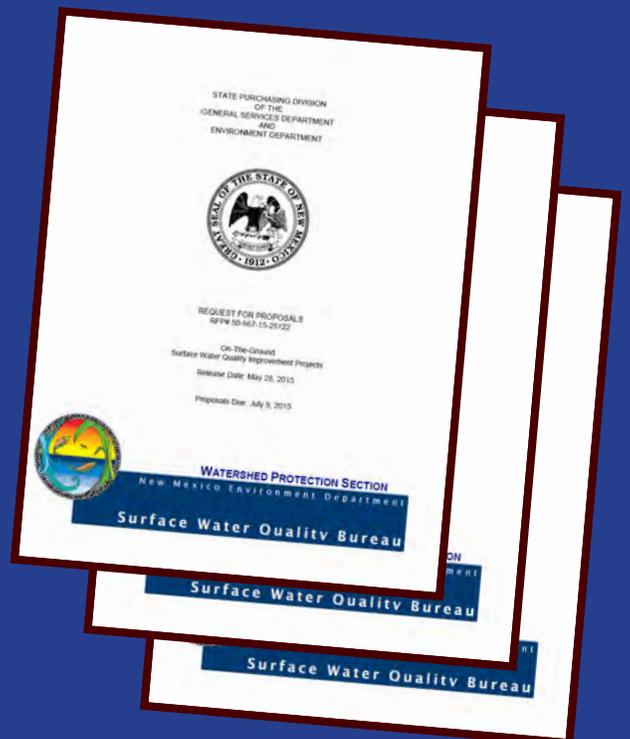
The fundamental aim for a project solicited through this procurement is improvement of water quality sufficient for the impaired designation to be removed.

Two Public meetings are scheduled (see ‘Events’ on page 8) to allow potential applicants the opportunity to ask questions. The deadline for submitting written questions is June 16, 2015.

Projects identified through this RFP will be funded up to 60% of actual project costs with Federal Section 319 funds or state funds managed by NMED. A minimum of 40% of project costs, which may include the value of in-kind labor and services must be paid through additional non-federal sources.

The RFP will be open until **July 9, 2015**

For more information please visit; <https://www.env.nm.gov/swqb/RFP/index.html> or contact Abe Franklin at abraham.franklin@state.nm.us.



EVENTS & ANNOUNCEMENTS

June

June 8th - 319 RFP Public Meeting. Location: Las Cruces. Las Cruces City Hall, 700 N. Main St., Conference Room 2007 B, Las Cruces, NM. 4-6 pm.

June 11th - 319 RFP Public Meeting. Location: Santa Fe. State Records and Archives, 1205 Camino Carlos Rey, Room 2022 (Yucca Room), Santa Fe, NM. 2-4 pm.

June 13th - Upper Pecos Watershed Association hosts their annual Spring River Cleanup 2015. 9:30-11:30 am. Picnic to follow at noon. For more information: call Lexy at 505-757-3600 or upwa@pecoswatershed.org.

June 15th - Quivira Coalition deadline for proposal submittal to apply for a *Quivira Land Health Workshop* on their property in 2015. Visit: <http://quiviracoalition.org/> for more details.

June 19th-21st - Midnight Meadows; Carson National Forest near Questa, NM; Albuquerque Wildlife Federation volunteer restoration project. Partnership with Amigos Bravos. For additional details and to sign-up: Albuquerque Wildlife Federation - <http://abq.nmwildlife.org/>

June 19th-21st - Valles Caldera National Preserve. Join with Los Amigos de Valles Caldera for a weekend project and camping. Perform work that will enhance the water quality of the six tributaries of San Antonio Creek. For those not wanting to camp, day volunteers are welcome. More information will be provided as work date nears. Contact: Jack Crane at jdcrane@valornet.com

June 20th - Santa Fe. Santa Fe River Cleanup with the Sierra Club-Northern Group. 9-11 am. Contact Kathleen Davis if attending, 505-795-3286, kdav40@gmail.com

July

July 15, 2015 - Santa Fe. *Hydrology and the Law Seminar*. Using the science for resolving water rights and supply issues. Law Seminars International. Visit: www.lawseminars.com or call 206-567-4490.

July 17th-19th - Valles Caldera I at Valle Jaramillo; Valles Caldera National Preserve west of Los Alamos, NM; Albuquerque Wildlife Federation volunteer restoration project. Partnership with Los Amigos de Valles Caldera. For additional details and to sign-up: Albuquerque Wildlife Federation - <http://abq.nmwildlife.org/>

August

August 14th-16th - Valles Caldera II at Valle Seco; Valles Caldera National Preserve west of Los Alamos, NM; Albuquerque Wildlife Federation volunteer restoration project. Partnership with Los Amigos de Valles Caldera. For additional details and to sign-up: Albuquerque Wildlife Federation - <http://abq.nmwildlife.org/>

If you have a related event that you would like distributed, please send an email to susan.ossim@state.nm.us