



# Get A GRIP

The Newsletter of the Gila Resources Information Project

Celebrating  
**25**  
Years  
1998 - 2023

SUMMER 2023

## Leading the Charge: GRIP Celebrates 25 years of Environmental Advocacy



Photo credits: GRIP, Julie Dermansky, Gila Conservation Coalition, Beth Cable

By Allyson Siwik, Executive Director

It's hard to believe that 2023 is GRIP's 25th anniversary. The National Center for Charitable Statistics reports that 30% of nonprofits never make it to their 10th year, never mind their 25th! We are extremely grateful to our funders and supporters for making it possible to work to protect community health and the environment for a quarter century.

Since GRIP's incorporation as a nonprofit in 1998, we've made significant strides. Back then, Phelps Dodge, a formidable force both locally and in Santa Fe, had won several regulatory delays in preparing reclamation plans for its inactive tailings ponds and waste piles. Without local citizens demanding action to protect groundwater and air quality, the state government seemed unlikely to find the backbone to force the second largest copper miner in the world to comply fully with the state Mining Act. Concerns grew about the company evading its responsibility to clean up, leaving our community with polluted water, environmental degradation, and no funding to deal with the mess.

Enter GRIP, described by *High Country News* as "a plucky group of New Mexico activists [that] pushes mining reclamation into the 21st century." With an initial board of four concerned citizens – Sally Smith, Harry Browne, CarolBeth Elliott and Michael Berman – we rallied hundreds of residents against Phelps Dodge's influence in the permitting process. And we hired technical and legal experts to develop a model reclamation plan that regulators could contrast with the barebones effort proposed by the company. In 2003, our efforts paid off when the state mandated \$500 million in protective reclamation at the mines, quintupling the company's proposed \$100 million plan.

GRIP went on to achieve other significant victories for the environment and water supplies. In 2003, we appealed the state's approval of the Chino reclamation plan permit, which allowed the use of 9,000 acre-feet of clean groundwater per

year to dilute contaminated mine effluent instead of treating it to meet water quality standards. This misuse of public groundwater supplies exceeded Silver City's annual usage by over three times. Our lawsuit prompted Freeport-McMoRan to devise a water treatment plan, which is now required in the most recent groundwater discharge permit.

In the 25 years since GRIP was established, we expanded our efforts from advocating for socially- and environmentally-responsible mining practices to promoting sustainable management of our water resources, healthy rivers, protection of the Gila region from military training, community resilience and action on climate change, watershed stewardship and restoration, and environmental education.

When threats to our environment and quality of life have emerged over the years, GRIP has consistently risen to the challenge. As a partner in the Gila Conservation Coalition, GRIP played a pivotal role in spearheading the successful 16-year fight to defeat the Gila River diversion project, which posed a severe threat to New Mexico's last wild river. Similarly, GRIP was instrumental in the formation and operation of the Peaceful Gila Skies coalition, which effectively mobilized robust local opposition to the Holloman Air Force Base F-16 airspace expansion project. Thanks to our collective efforts, the Air Force was compelled to revise its plans and expand to the east instead of encroaching upon the Gila. When the NM Environment Department asked GRIP to form a local watershed group, GRIP found the resources to organize the Silver City Watershed Keepers to engage citizens in watershed stewardship.

These remarkable achievements would not have been possible without the steadfast financial support from our valued funders and members, the exceptional dedication and hard work of our board, staff, partners, and volunteers, and the active involvement of our community. We thank you for your commitment to GRIP over the past 25 years!

For me, it's been an honor to serve as GRIP's executive director for the last 20 years. This has been the best, most meaningful job I've ever had, and I'm grateful for the opportunity to do this work with you!

Challenging times lie ahead as we figure out how we're going to address the impacts of climate change here in southwest New Mexico. We must protect groundwater quality and supplies as climate change is expected to reduce water availability by 25% by 2070. We need to build community and ecological resilience in response to a warming climate. And we must work together to sustain community and ecological health.

With your continued support and involvement, GRIP will remain a driver of positive change for our community and environment as we advocate for socially- and environmentally-responsible mining, sustainable water management, and expanded stewardship and restoration of our watersheds.

Please join us on this mission by donating to GRIP, volunteering on a project, or participating in one of our campaigns. Read on to find out more!

Help us Protect  
Community Health  
and  
Our Environment

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We depend on your contributions  
to continue our work to protect  
our land, air and water.

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GRIP  
305A N. Cooper St.  
Silver City, NM 88061

**Thank you for your  
support!**







**GILA RESOURCES  
INFORMATION PROJECT**  
Promoting Healthy Communities by  
Protecting Our Environment Since 1998

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## Welcome to New GRIP Staff!

### EMILY COX

#### PICK IT UP- TOSS NO MAS COORDINATOR



As the Silver City Pick It Up-Toss No Mas Coordinator, Emily hopes to encourage younger students to join the fight to restore our community's natural environment and help keep Silver City free of unnecessary litter. Emily is currently a student at Western New Mexico University and is working hard to obtain a degree in Sustainable Development with a focus in Environmental Science. She enjoys hiking, backpacking, learning about plants, and spending lots of time near the Gila River. Emily has been an intern for GRIP on the New Mexico Clean and Beautiful project helping to restore the beauty of the Big Ditch Park. She has also done work with Upper Gila Watershed Alliance teaching water quality monitoring for the Children's Water Festival and aiding in their New Earth Project.

### BAILEY SMITH-HELMAN

#### GRIP SUMMER INTERN



Bailey Smith-Helman is a community education specialist working with farmers on climate-smart agriculture projects on the Central Coast of California. Bailey has a background in environmental and food policy and is interested in how nonprofits and community stakeholders manage local conservation and natural resources. She joined the GRIP team for a short time while exploring Silver City and learning about conservation work in New Mexico and nonprofit management.

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Monthly E-News at  
[WWW.GILARESOURCES.INFO](http://WWW.GILARESOURCES.INFO)

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## NEW MEXICO CLEAN AND BEAUTIFUL YOUTH INTERNS

A big shout out to our New Mexico Clean and Beautiful youth interns Tylan Cantrell, Emily Cox, and Sam Chavez who worked on Big Ditch Park beautification projects this spring, including planting, watering, litter pickup, and graffiti removal. They also assisted Ronald Hartley of Enchanted Touch LLC with construction of additional rainwater catchment/erosion control features on one of the very steep slopes in the park. Thank you interns for your hard work building the park's ecological resilience, as well as making it a beautiful place for our community!



NM Clean and Beautiful interns (left to right) Tylan Cantrell, Sam Chavez, and Emily Cox work with Ron Hartley, owner of Enchanted Touch LLC, to stop erosion and capture rainwater on the steep slope below the Silver City Food Co-op parking lot.  
Photo credit: GRIP

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## Thank You to Our Funders

Lineberry Foundation • 30Something Grant • Town of Silver City

New Mexico Office of Outdoor Recreation • NM Clean and Beautiful

NM Environment Department • McCune Charitable Foundation

Just Woke Up Fund

... and people like you!



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Photo: Dennis O'Keefe



# CELEBRATING 25 YEARS OF MAKING A DIFFERENCE FOR OUR ENVIRONMENT IN SOUTHWEST NEW MEXICO

## From the GRIP Board



Thank you for your generous support that empowers GRIP to fulfill its vital mission. It has never been more important for the life of the planet for us to speak out for the well-being of nature and our human community.

**Sally Smith**  
Co-founder, Board President



GRIP is the the premier community-based environmental group in this area. No one else is working to protect people, air, and water from the impacts of mining. And when new threats arise, people look to GRIP for leadership.

**Harry Browne**  
Co-founder, Secretary/Treasurer



Often people don't want to deal with the mines in a mining community. But it's a good thing; we need to form those relationships. GRIP is such an effective and amazing organization.

**Michael Berman**  
Co-founder, Vice President



GRIP will continue to keep an eye on environmental, conservation, and other issues that impact our quality of life - a friendly watchdog for our community!

**CarolBeth Elliott**  
Co-founder, Board Member



Retiring from the mines after 32 years, I joined GRIP to help preserve our precious groundwater resources and protect the health and well-being of future generations.

**Eduardo Arguello**  
Board Member



I have supported GRIP for many years, because every ecosystem needs a protector.

**David Rose**  
Board Member



# RESPONSIBLE MINING PROGRAM UPDATE

## Future-Proofing Our Water Supplies by Protecting Water Quality



Photo credit: Stock Image

Climate change is top of mind for everyone this summer as we deal with sweltering heat, wildfires, and a slow-to-start monsoon. As part of the state's 50-year water plan, scientists have told New Mexicans to expect a 25% reduction in water supplies by 2070 – about 5% every decade - as a consequence of a warming climate.

How can we “future proof” our water resources so that we can ensure sustainable water supplies for communities, the economy, and the environment in response to the impacts of climate change? Water quality protection plays a critical role in ensuring sustainable water supplies by safeguarding the quality of surface and groundwater that we rely on for drinking water, agriculture, industrial use, recreation, and ecosystem health. If our water is polluted, then it is unavailable for use, reducing the overall supply. As water supplies become scarcer due to climate change, we must double down on our efforts to protect water quality.

Strong regulations, oversight and enforcement are needed to prevent contamination of water resources. This is especially important in southwest New Mexico where hardrock mining, the nation's

#1 toxic polluter, has contaminated thousands of acre-feet of groundwater beneath the Chino, Cobre and Tyrone mines. For 25 years, GRIP's Responsible Mining Program has served as a watchdog over mining operations, reviewing permits and advocating for more stringent permit conditions to protect our surface and groundwater from copper mining discharges. GRIP continues to successfully advocate for more rigorous requirements in mine operation, reclamation and clean-up plans and permits that will be more protective of our groundwater supplies which we are 100% dependent on for our drinking water.

Strengthening water quality regulations will also help protect water supplies over the long term. GRIP, Amigos Bravos and the NM Environment Department serve on the Steering Committee for the Toxic Pollutant Working Group that is addressing the impacts of toxic pollutants on water quality in New Mexico. We're discussing the addition of emerging pollutants, such as PFAS, to the list of regulated toxic pollutants in the New Mexico Water Quality Act regulations, as well as bringing the state's acceptable cancer risk level in line with EPA's more stringent risk

level of 1 in 1,000,000. PFAS, a group of per- and polyfluoroalkyl compounds otherwise known as “forever chemicals” because they don't break down in the environment, pose a serious health risk. Recent water quality monitoring conducted by the U.S. Geological Survey (USGS) revealed elevated concentrations of PFAS in the Gila River and many other water bodies around the state. NMED and USGS are currently testing groundwater wells for PFAS to better understand the extent of PFAS levels in New Mexico.

Changes to the federal Clean Water Act over the past three administrations and a recent Supreme Court decision have left a large percentage of NM's waterways without protection from pollutant discharges. For example, because the Mimbres Basin is a closed basin i.e., it does not drain into a river that empties into an ocean, polluters like the Chino and Tyrone mines are no longer required to obtain a federal discharge permit under the Clean Water Act. Moreover, the recent Sackett decision by the Supreme Court has potentially removed protections for the state's intermittent and ephemeral streams that represent 93% of the state's waterways.

New Mexico is one of only three states in the country that does not have “primacy” to implement surface water quality permitting under the Clean Water Act. GRIP is working with a coalition of groups from across the state to support NMED in development of a state surface water quality permitting program that is necessary to protect our surface water resources.

Climate change will continue to put enormous stress on available water supplies, and water quality protection is a critical tool in a multi-faceted approach to achieving water supply security in New Mexico for people and the environment.

Visit the GRIP website at [www.gilaresources.info](http://www.gilaresources.info) to read more about GRIP's work in water resources protection.

## Copper Flat Mine Water Rights Protest Hearing to Begin



Photo credit: GRIP

New Mexico Copper Corporation has proposed to reopen the Copper Flat Mine outside of Hillsboro. Quintana Minerals operated the mine for a few months in 1982, but it hasn't been open since. Because the company does not have enough water rights to operate and closeout the proposed mine, it filed an application with the State Engineer to lease and transfer water rights from Santa Teresa, NM outside of El Paso to the mine site. Represented by the NM Environmental Law Center, GRIP, Percha Animas Watershed Association, Turner Ranch Properties, Hillsboro Pitchfork Ranch, and Sierra Club have protested the water rights transfer as the mine's operation will reduce flows in Percha and Animas creeks and the Rio Grande, negatively impacting domestic water use, wildlife habitat and recreation. The hearing is scheduled for August 7 - August 25.

## Federal Court Hears Conservation Community's Objections to Florida Mountains Dolomite Mine



Photo credit: New Mexico Wild

On July 12, 2023, the Federal District Court for the District of New Mexico heard oral arguments related to the U.S. Bureau of Land Management's decision to approve American Magnesium LLC's proposal to develop a dolomite mine in the Florida Mountains near Deming. The arguments centered around whether BLM violated federal law and whether BLM's approval of the mining project should be overturned.

In September 2020, a coalition of conservation groups including Friends of the Floridas, GRIP, New Mexico Wild, WildEarth Guardians, and

Amigos Bravos sued BLM to reverse the agency's simultaneous approvals of construction and operation of the dolomite mine, and the exploration activity required to prove the value of the mineral claim. This two-for-one approval violates the Federal Land Policy Management Act and the National Environmental Policy Act. The suit also contends that BLM did not fully evaluate all of the environmental issues due to the failure to identify the impacts of ore hauling through residential areas, and the impacts of necessary ore processing activities.

Approving American Magnesium's mine proposal without a valid plan for processing the ore and without considering the potential adverse effects of mineral processing is akin to investing in a business venture without a clear profit strategy.

Our concern stems from the fact that the BLM has not sufficiently assessed and disclosed the potential significant environmental and community impacts of the entire mine proposal. The public's ability under federal law to provide meaningful input on the proposal is being thwarted by an incomplete mine plan of operations.



# Gila River Festival on Break

Over the past 18 years, the annual Gila River Festival has grown into an incredible celebration of New Mexico’s last wild river, providing a diversity of opportunities for participants to experience and learn about the natural and cultural history of the Gila region through the arts, humanities and natural sciences.

Although the festival has been a labor of love, we have decided to take this year to rest, recharge, and refocus for next year’s Gila River Festival that will be a collaboration with many partners as part of a year-long celebration of the centennial of the Gila Wilderness.

Although we will miss coming together this year, we hope you’ll join us September 27 - 29, 2024 as we celebrate the 100th anniversary of the Gila Wilderness!

## Arizona Regional Airspace Draft EIS delayed until Spring 2024

The release of the draft Environmental Impact Statement for the Air Force proposal for expansion of supersonic airspace over southern Arizona and southwest New Mexico has been delayed until Spring of 2024.

Led by GRIP and its partners in the Peaceful Gila Skies coalition, thirty-four conservation organizations in New Mexico and Arizona submitted joint comments to the Air Force in March 2022 expressing their serious concerns with the proposal to authorize fighter jet maneuvers as low as 100 feet above ground level (AGL) and supersonic flights as low as 5000 feet AGL across the area.

We’ll keep you updated as we hear more about the proposal. More information is available at [www.arizonaregionalairspaceeis.com](http://www.arizonaregionalairspaceeis.com) and [www.peacefulgilaskies.com](http://www.peacefulgilaskies.com).

## Gila Wilderness Feral Cattle Update

Thank you for submitting your public comment earlier this year on removal of feral cattle from the Gila Wilderness. The cattle have caused damage to riparian areas by overgrazing and trampling stream-banks causing erosion, dramatically degrading water quality and destroying fish and wildlife habitat.

The Gila National Forest received more than 5000 comments, the majority in support of its plan to remove the remaining 50 – 150 feral cows using lethal methods.

The agency moved ahead with the feral cattle removal in February and reported that 19 feral cattle were removed by a specialized USDA Animal and Plant Health Inspection Service Wildlife Services team over three days of operations. The total cattle removed as of February 2023 is 153 cows.

The Forest Service and citizens have been in the field monitoring and report that there is still noticeable cow sign along the river and the high country, but the impacts are much less. The Forest Service says it remains committed to removing all of the cows from the Gila Wilderness and currently has a contract with a feral cow removal expert.



## R. Marley fined \$44,850 for Asphalt Emulsion Spill in Gila National Forest



Photo credit: Dylan Duverg 

In May, the New Mexico Environment Department (NMED) issued a \$44,850 fine to trucking company R. Marley for spilling 2,000 gallons of asphalt emulsion down Jaybird Canyon in the Gila National Forest north of Pinos Altos on September 26, 2022. The spill was never reported to the NM Environment Department (NMED) by the company or State Police. Nine days elapsed before a local resident discovered the spill and reported it to NMED.

The Environment Department cited R. Marley for three violations of the New Mexico Water Quality Act: 1) failure to timely notify NMED of a discharge of water contaminants; 2) discharge of a contaminant to surface water that altered the physical or chemical properties of the stream bottom harming aquatic life and wildlife dependent on the stream; and 3) discharge of refuse into a natural watercourse.

Because failure to comply with the Water Quality Act, or any regulation or standard promulgated pursuant to the Water Quality Act is a prohibited act, NMED assessed penalties of \$12,000 for failure to comply with three sections of the Water Quality Act; a multi-day penalty of \$27,000 since the failure to report the spill resulted in a 9-day delay before cleanup began; and an upward adjustment factor of 15% (\$5,850) due to

the 9-day delay that intensified the potential for environmental harm.

NMED and the Gila National Forest held a site visit with R. Marley on May 22 to evaluate the restoration activities carried out by the company. As a result of the inspection, R. Marley installed rock to prevent head cutting of the creek. Confirmatory soil sampling was also conducted to determine if there is any diesel- or motor oil-related organics remaining in the soil, but results are unavailable as of press time. If there are any organics in the soil, more soil removal will be required. Additionally, NMED worked with NMDOT and the Department of Public Safety to make sure that the agencies and their staff know the spill notification requirements of the state Water Quality Act to prevent future failures in proper spill notification.

NMED PHONE NUMBER TO REPORT  
A SPILL/ENVIRONMENTAL ISSUE

**866-428-6535**

**Report an Environmental  
Issue or Incident to the  
NM Environment Department**

You can report an environmental concern or possible violation of a license, permit, or rule directly to NMED online at [www.env.nm.gov](http://www.env.nm.gov)  
>>> General >>> Report an environmental issue or incident, or call 866-428-6535. Please provide as much information as you can.

- What is the problem?
- Where is the problem located?
- When did the problem occur?
- How long has the problem been going on?
- What kind of materials or substances are involved?
- How much?
- Who is involved or caused the incident?
- Have any actions been taken already?



# Exploring of the Wonders of Nature through the SCWK Summer Camp

By Beth Cable, SCWK Coordinator

The Silver City Watershed Keepers' (SCWK) second annual summer camp was a resounding success, with 42 campers from schools in the Silver and Cobre School Districts, as well as home-school students, taking part in the enriching experience. The camp spanned three weeks in June, with two weeks at Big Ditch Park in Silver City and one week at the Bayard Public Library in Bayard.

During the camp, students in fourth, fifth, and sixth grades explored some of the county's most significant locations, including the Gila and Mimbres rivers, San Vicente Creek and Mimbres Culture Heritage Site, learning about their watershed, conservation, science, and local cultural history. Many of the campers were experiencing these magical places for the first time.

Thanks to generous funding from the NM Outdoor Equity Fund and Lineberry Foundation, this nature camp offered a unique and cost-free opportunity for local youth, providing snacks, lunches, and transportation to ensure equal access for all children.

The camp was thoughtfully arranged and organized by Silver City Watershed Keepers Coordinator Beth Cable, with a goal of nurturing the students' understanding of ecology, natural and cultural history, all while fostering a sense of place. The days were packed full of activities led by coordinator and Camp Director Beth Cable, Assistant Director Emerson "Indi" Blake and three interns: Willow Sprague-Robinson from Aldo Leopold Charter School, Sophiana Read from St. John's College, and Zion Lopez from Silver High School.

Each student received a backpack filled with essential naturalist tools, such as hand lenses, rulers, butterfly guides, water bottles, pencils, clipboards,



Photo credit: Beth Cable

and journals. Guided by Les Brandt of the Gila Native Plant Society, the campers engaged in nature journaling and plant sketching, learning about track and scat identification, weather observations, and species accounts. Melissa Amarello of Advocates for Snake Preservation brought a male Gophersnake and female Gray-Banded Kingsnake to dispel any fears and encourage interaction with these fascinating reptiles.

Under the guidance of ornithologist Dave McDonald, the students embarked on a nature hike along San Vicente Creek and were thrilled to spot a rare, downy black hawk nestling with the help of a spotting scope. Blair Wolf educated them on hummingbird physiology and behavior, while Ava Bjornstad taught them map and compass skills for Leave No Trace challenges.

At the Gila River, Dylan Duvergé and Emily Cox conducted water quality assessments by collecting and identifying macroinvertebrates through the "streambed shuffle" technique. Chiricahua Apache leader Joe Saenz also shared insights into edible plants and native culture.

Escaping from the scorching heat, the campers found relief in the refreshing waters of the Gila and Mimbres rivers. Beyond the educational experiences, they shared stories, enjoyed picnic lunches under the shade of trees, and forged new friendships.

Thank you to the Silver and Cobre School Districts that generously provided delicious lunches, GRIP board member CarolBeth Elliott for picking up lunches, while Alicia Edwards of Healthy Kids Healthy Communities Grant County supplied healthy snacks for the campers.

Plans are in the works with the Outdoor Equity Fund for Nature Discovery Summer Camp 2024. Stay tuned! If you would like to get involved or have any questions, contact the Silver City Watershed Keepers at [silvercitywatershedkeepers@gmail.com](mailto:silvercitywatershedkeepers@gmail.com).

*GRIP's Silver City Watershed Keepers project engages citizens in protection and restoration of the Silver City watershed.*

## Litter Be Gone: Pick It Up-Toss No Mas Reports FY23 Results



WNMU students volunteer for a monthly community trash cleanup.

Photo credit: Candice Baca

This past fiscal year, the litter prevention program Pick It Up-Toss No Mas recruited 300 volunteers who contributed 700 volunteer hours to collect 7,965 pounds of trash, debris and recyclables from Silver City's roads and waterways. By encouraging residents to take pride in our community, the partnership between the Town of Silver City and GRIP's SCWK has organized community members, sports teams, businesses, and organizations to help keep Silver City clean and beautiful.

The program also produced a second video on how to properly cover and secure loads before bringing them to the landfill in order to prevent litter, traffic hazards, and accidents on our roadways. AAA Foundation for Traffic Safety reports that unsecured loads cause about 51,000 crashes, 125 deaths and 10,000 injuries every year in the U.S. They also dump over 1 billion pieces of trash on our roads, polluting our community and our planet. The video has reached nearly 10,000 people on social media

and through Silco Theater advertising. A shout out to SkyWest Media for producing another excellent video for the program!

The Business Pledge Program was unveiled in January to encourage local businesses to commit to keeping areas around their businesses clean and litter free by providing adequate trash receptacles and recycling bins, educating employees about the importance of proper disposal and recycling of solid waste, and promoting the litter prevention goals of the program. Thank you to Enchanted Touch LLC, In N Out Lube, W&N Enterprises, State Farm John Saari, Billy Billings Enterprises, and Kneeling Nun Mercantile for taking the pledge!

With funding from New Mexico Clean and Beautiful and working with the Town of Silver City Parks Department, the Pick It Up-Toss No Mas program installed three additional trash receptacles at key locations in Big Ditch Park and Lions Park. These trash receptacles will provide more opportunity to properly dispose of trash in our downtown parks.

Finally, our heartfelt gratitude to Candice Baca, who led the Pick It Up-Toss No Mas program during its second year of operation. Candice brought her passion for our community and enthusiasm for the program to every clean-up event and development of the Business Pledge Program. With a creative spirit and a fun-loving attitude, she found ways to make picking up litter fun, such as the Dash for Trash plogging event. Thank you, Candice!



# From Degradation to Restoration on San Vicente Creek



Photo credit: GRIP

More than 650 willows and 300 native trees and shrubs have been planted along San Vicente Creek to stabilize stream banks and restore the riparian corridor.

In response to the urgent need to build ecological resilience, GRIP’s San Vicente Creek restoration project is healing severely degraded streams and riparian corridors that are central to Silver City’s character and the quality of life of its residents.

San Vicente Creek drains the 38-square mile Silver City watershed from its headwaters in the Silver City Range and Pinos Altos Mountains to the north, and it discharges to the Mimbres River 16 miles northwest of Deming. Its two main tributaries, Silva Creek and Pinos Altos Creek, meet in the heart of downtown, providing wildlife habitat, cooling

shade, and a beautiful dose of nature right where we Chihuahuan Desert dwellers need it the most.

Starting in the 1870s, extensive woodcutting and cattle grazing denuded vegetation from the Silver City watershed. Subsequent flooding incised drainages throughout the watershed, most acutely in San Vicente Creek. Stormwater removed as much as 55 vertical feet of soil, carving clear down to bedrock and forming The Big Ditch.

The upper watershed is in much healthier shape now, but new problems have arisen. Pavement still creates high volumes of storm water that harm the riparian habitat, a problem that will increase as extreme storms become more frequent due to climate change. The Town’s sewage system creates another challenge. Flood waters expose and damage pipelines, and maintenance and repair activities destroy vegetation and add to erosion.

To protect the riparian habitat and to reduce climate-related threats to human health and infrastructure, GRIP has partnered with the Town of Silver City on a multi-year, comprehensive stream restoration project. With nearly half a million dollars from the NM Environment Department River Stewardship Program, GRIP and six local subcontractors have replaced non-native trees with natives, modified the stream channel to reconnect the floodplain more naturally, stabilized creek crossings for utility access, and constructed water harvesting infrastructure to capture and slow urban stormwater.

The project also builds resilience by reducing the threat of urban wildfires. We are removing slash and thickets of highly flammable Siberian elm, Tree of Heaven, tamarisk, and Russian olive. Recent arson-caused fires in the Big Ditch underscore the importance of this effort.

Restoration of San Vicente Creek and the Silver City Watershed will take years. This project has demonstrated that with multi-stakeholder collaboration, financial resources, dedicated volunteer support, and perseverance we can restore the ecological health of our local waterways for the benefit of people and wildlife.

## San Vicente Creek Water Quality Update

The Silver City Watershed Keepers completed quarterly water quality monitoring on June 29, 2023. Parameters measured - temperature, dissolved oxygen, turbidity, phosphates, and nitrates - were within New Mexico Water Quality Act limits. San Vicente Creek and Pinos Altos Creek met water quality criteria for aquatic life, livestock watering, wildlife habitat, and primary contact (swimming).

Additional testing after a sewer line overflow on June 18 showed high *E.coli* bacteria levels in San Vicente Creek below the spill. Swimming/wading downstream was discouraged until *E. coli* concentrations decreased. Resampling a week later showed safe levels. The next quarterly monitoring event will take place in September. Contact us at [silvercitywatershedkeepers@gmail.com](mailto:silvercitywatershedkeepers@gmail.com) to help.

# Resiliency in Our Communities

By Bailey Smith-Helman, GRIP Summer Intern

Resiliency is a term that’s gained popularity in climate change spaces over the last few years. Climate resiliency is defined as the capacity of social, economic, and ecosystems to cope with a hazardous event, trend, or disturbance that results from climate change. In recent years, resiliency projects have received major attention and funding from federal and local governments. These projects often rely on green infrastructure and involve extensive research to respond to environmental changes without major disruptions to human life. Although these large-scale resiliency projects are essential to maintaining the function of our current systems, small-scale efforts can also have a significant impact on the resiliency of both social and ecological systems. We often hear calls to create resilient communities to withstand the effects of climate change, but what does this really look like? Since resiliency can look very different at different scales and across communities, it is important to understand these community-led efforts.

In my community, resiliency looks like vacant lots turning into green spaces that contribute to ecosystem services and social networks. In Detroit, Michigan, hundreds of homes have been abandoned and torn down as people left the city in search of work and a better life. For many years these vacant lots stood as symbols of urban blight, but some Detroiters have transformed these plots into symbols of resilience - creating urban farms, community gardens, and pocket prairies. These vacant lots are now filled with edible and native plants that support the urban ecosystem by reducing the urban heat island effect, improving local air quality, and increasing groundwater absorption. While pocket prairies provide refuge to native plants and animals, urban farms contribute to a small but strong local food economy. By taking control of these empty spaces, communities have created resilient oases that will withstand the effects of climate change and



Silver City Watershed Keepers volunteers Loren Poole, Mary Barrett, and Paul Leitner keep the San Vicente Creek restoration plantings watered every week until the monsoons arrive. Photo credit: GRIP

social change as Detroit continues to recover from decades of urban decay.

In Silver City, resiliency has taken different forms throughout history. Living in an arid climate, prone to drought, wildfire, and flash flooding, requires social and ecological resilience too. In the 1930s, resiliency looked like Silver City, the Forest Service and the Civilian Conservation Corps working together to repair the Silver City watershed by constructing check dams on deep arroyos to slow down runoff and recharge groundwater for Silver City’s water supply. Decades later, resiliency efforts took the form of residents working together to turn the Big Ditch, a site of environmental destruction from flooding due to deforestation and cattle grazing in the upper watershed, into a public greenway that would help deter similar damage for generations. This greenway has served

as habitat for migratory birds and a recreation and gathering place for community members. Today, resiliency looks like community groups restoring ecological systems by reintroducing native plants specifically adapted to Grant County, using green infrastructure to slow waterflow and provide water to gardens, and stopping erosion by reinforcing streambanks with native trees. These resiliency efforts rely on a partnership between people and the local ecosystem, and this partnership will only become more important as climate impacts become stronger.

Resiliency efforts like these don’t happen without community action. For the last 25 years, GRIP has worked alongside stakeholders to maintain a resilient watershed that will support the Silver City area for generations.



## JOIN THE GRIP FOR THE FUTURE SOCIETY

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and water are protected for the future!

Find out more at  
[www.gilaresources.info](http://www.gilaresources.info) or  
call Allyson at 575.538.8078

Dennis O'Keefe



## GILA RESOURCES INFORMATION PROJECT 25TH ANNIVERSARY CELEBRATION

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**OCTOBER 8, 2023 | 5PM - 7PM**

**WHISKEY CREEK ZÓCALO  
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ARENAS VALLEY**

**RSVP BY 10/2/23 TO GRIP@GILARESOURCES.INFO**

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## CALENDAR OF EVENTS FALL 2023

### San Vicente Creek Restoration Volunteer Day

Friday, August 25, 2023  
9:00 - Noon

### GRIP 25th Anniversary Celebration

Sunday, October 8, 2023  
5:00 - 7:00 pm  
Whiskey Creek Zócalo  
RSVP to [grip@gilaresources.info](mailto:grip@gilaresources.info)

### Pick It Up – Toss No Mas Community Trash Cleanups

August 19, September 16,  
October 14, November 18  
Grant County Community Foundation  
Parking Lot  
1106 North Pope St. Silver City  
[Silvercitytossnomas.org](http://Silvercitytossnomas.org)

### Silver City Watershed Keepers Rainwater Harvesting Workshop and Bike Tour with Stream Dynamics

Saturday, October 21, 2023  
9:00 am - 3:00 pm; Lunch included  
RSVP to  
[silvercitywatershedkeepers@gmail.com](mailto:silvercitywatershedkeepers@gmail.com)

**More events at  
[www.gilaresources.info](http://www.gilaresources.info)**