



THE SIERRA FUND

A Platform for Action

Restoring Ecosystem
& Community Resiliency
in the Sierra Nevada

Adopted by The Sierra Fund Board of Directors
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Join us in helping
to turn our vision
into action

Dear Friends,

We are excited to share The Sierra Fund's (TSF) Platform for Action, describing our strategic plan to restore ecosystem and community resiliency in the Sierra Nevada. After fifteen years of increasingly successful and measurable impact, which is described in our newly released *Five Years for the Sierra*, our board, staff and advisors have taken time to reflect on our strengths and challenges and to think carefully about our next steps and priorities.

A critical component of our thinking is informed by the predicted changes in the Sierra Nevada region caused by the increasingly obvious impacts of global climate change. As the source of most of the developed water in the state – and the epicenter of California's historic and devastating Gold Rush – changes in precipitation and temperature in our region have a dramatic impact on the rest of the state. Looking at our region through the lens of these foundational considerations has led us to a better understanding of both the challenges and the wealth of opportunity we face. We are developing programs that will generate multiple benefits for the region – from improved water quality and water storage systems, to new sources of metals and construction materials, to improved habitat for fish and wildlife, to environmentally healthier communities and forests.

TSF is a leading voice in articulating the connections between the resiliency of the Sierra Nevada ecosystems and communities and the long-term sustainability of California's natural resources. We know what is needed to address environmental challenges facing the region. Our task now is to improve our own capacity, and the region's capacity, to attract and deploy the mechanisms needed to implement these solutions. This means telling the story, about both the problems we have identified and the informed solutions we propose, to key decision makers as well as the public at large.

TSF will continue to propagate our award-winning and effective formula of first identifying problems from a 360 degree viewpoint and then designing targeted pilot projects that fill data gaps and allow us to test best practices for addressing these problems. And, we plan to increase our efforts to engage leaders from federal, state, local and tribal government, universities and other scientific organizations, conservation organizations and the broader community, in collaborative projects to implement the solutions that have been collectively identified.

What follows is an outline of TSF's vision, goals and planned activities over the coming five years, using science and advocacy to "save the Sierra". We are interested in your ideas about our work and hope you will join us in helping to turn our vision into action.

For the Sierra,



Tim Seward
Chair, Board of Directors



Elizabeth "Izzy" Martin
CEO



The Sierra Fund works in the spirit of service to the Sierra Nevada's natural resources and communities. We use science and advocacy to pursue our mission to restore ecosystem resiliency and build community capacity in the Sierra Nevada.

Key to our successful approach is our active engagement of a broadly diverse set of partners in our project design and implementation including local, state, federal and tribal governmental agencies, universities, businesses, environmental and community organizations, all working collaboratively to protect and restore the natural resources and communities of the Sierra Nevada.



Informed by Science, Led by the Community

We use pilot projects to understand problems and to design solutions, an approach that has proven highly effective in allowing The Sierra Fund to leverage targeted activities to the benefit of the greater region. This approach allows us to cultivate interest in our projects by organizations and governmental agencies around the Sierra, the state and the country with the aim of encouraging others to replicate and extend our successes.

We crystallize the results of our work for various audiences by creating attractive, scientifically accurate materials that explain what we have done, why it is important, and how people can learn more and support our work. We take what we have learned directly to government and business leaders to inform their decisions and support effective implementation of resulting programs and investments. We identify and pursue opportunities to expand investment in the region, to ensure that the Sierra Nevada secures the resources needed to effectively restore resiliency. State bonds, federal grant programs, partnerships with private businesses, and collaborative research with universities are some of the targets for our strategic involvement.

"We stand on the shoulders of those who have come before us, and look at problems and opportunities with fresh and optimistic eyes. We achieve a 360° understanding of the problem or issue we are addressing, working to identify opportunities for solving these problems. We conduct research to inform our understanding. Then, we articulate a compelling case for the importance of action."

Elizabeth "Izzy" Martin, CEO

"We rely on transparency and observance of proper protocols while pursuing a cutting edge approach that has demonstrated real impact on the ground where we live. We are opportunistic and strategic. We give 100% to anything we commit to."

Elizabeth "Izzy" Martin, CEO



The Sierra Fund is a place-based organization.

We are of the Sierra Nevada and for the Sierra Nevada, and the nature of this place informs how we have approached our mission.

Our work is shaped by the following strategic considerations:

The Sierra Nevada is huge.

The range of light is shared by two states. In California it encompasses everything inside the boundaries of the Sierra Nevada Conservancy, including all or part of 22 counties. It also serves as the headwaters for most of Nevada's drinking water.

The Sierra Nevada is sparsely populated.

The small population of the area, estimated to be about 800,000 in the 2010 Census versus California's population that same year of over 37 million, is stretched over the 25 million acres that make up the region. This has implications for everything from the number of people working in the region to an ability to generate the political will necessary to protect and restore the region.

The people of the Sierra Nevada vote conservatively.

The demographics of the region show that about 41% of the registered voters are Republicans, 33% Democrats, and 20% decline-to-state their party preference, with the remaining 6% split between a number of small parties. As a result the region is largely represented by Republicans. There are four members of Congress, two members of the State Senate, and four members of the State Assembly that represent the region, some of whose districts extend outside of the Sierra Nevada.

There are areas of deep poverty in the region.

The Sierra Nevada is home to both great wealth and great poverty, in some cases side-by-side. The median household income on average in the region is significantly lower than the California state average and is much lower in the state-identified disadvantaged communities of the region. In addition, the Original People of the area often have very low income levels and most have little access to advanced or secondary educational opportunities. Many are not members of either federally or state recognized tribes.

The federal government owns a high percentage of the region.

The Sierra Nevada has a large presence of federal land owners, mostly in the upper watershed counties. In some regions (such as around Yosemite, Mt. Whitney, Mt. Lassen and Lake Tahoe), the USFS, BLM, Bureau of Reclamation or National Park Service own well more than half of the land in the area.

The Sierra Nevada is beautiful and appears pristine.

To the untrained eye, the region looks clean, green and pristine. People who are not natural resources experts cannot tell by looking that the forests are dangerously overgrown, that the hydraulic mines have major runoff issues which impact the rivers, or that the fish are contaminated.

All of these factors result in underinvestment in the region by government & philanthropy.



Legacy Mining Impacts are just the Beginning of the Story

The Sierra Fund recognizes that a continued focus on the impacts of mining from the Gold Rush is a critical strategic role for our organization because the region's mining history provides an important, and often missing, context in which to address other pressing issues. While global climate change can be considered the defining environmental issue of our day, California's focus on climate change has failed to identify the need to address regional legacy mining impacts in tandem with emerging impacts on the forests. For example, the even-aged forests created as a result of 19th Century Gold Rush-era resource extraction are a generally forgotten reason why climate change is having such a dramatic impact on our forests and why the bark beetle epidemic is so devastating. Similarly, in the Bay-Delta there has been immense focus on addressing issues of mercury contamination. Again, what is being left out of the conversation is why? Why is mercury contamination so pervasive in the Bay-Delta? The answer begins with the Gold Rush.

Ecological Footprint of the Gold Rush

The ecological footprint of the Gold Rush era stretches from the Sierra Nevada to the sea. The Sierra Fund has been working to address the impacts of historic mining over the last ten years, developing a sophisticated understanding of the long lasting environmental, cultural and health impacts of that era. Nearly every tree in the region was harvested to build the towns and to timber the mines of the gold and silver strikes on the western and eastern slopes of the Sierra Nevada. Nearly every river and creek was dammed, and thousands of miles of ditches were dug to convey water to the hydraulic, placer and hard rock mines tearing mountains apart looking for gold. Rocks, gravels and sands from the mines were washed down the rivers in such volume that about one-third of the San Francisco Bay was filled in, and the former estuary was drowned in mud forcing river boat pilots to dredge channels for passage, creating the fore-runner of the levee and channel system that makes up the modern Delta.

A Century of Resource Extraction and Mismanagement

Impacts to the region went far beyond those caused by gold mining. Prospectors were followed by timber fellers, farmers and ranchers, who combed every inch of the region and put the resources they found to work producing food, fiber and materials for the growing state and nation. After clearcutting the forests, fires were actively suppressed thereby creating the dangerously overgrown forests we see today. Millions of cows and sheep overgrazed the region, creating meadows that cease to function as water quality and water management basins as they had prior to colonization of this area. Downstream regions were fundamentally altered, first by the flood of sediment and mud that swept down from hydraulic mining and then by the changing flow regime as dams began to capture and hold water in the high Sierra for both water storage and electrical generation. The movement of water across these disturbed ecotones changed dramatically over a very short period of time, engineering a new water regime for all of California.

Climate Change Impacts in the Region

Scientists anticipate that, as a result of global climate change, precipitation in the Sierra Nevada – headwaters for 2/3 of California's developed water – will change dramatically. The effect of this change on a region where forests, rivers and meadows are already devastated by legacy gold and silver mining could include:

- Declining forest health, contributing to wildfires throughout the region;
- Damaged meadows, unable to serve their water quality and groundwater recharge function;
- Increasingly contaminated fish and wildlife, relying on warmer and less reliable sources of water;
- Impoverished communities, struggling with water quality and water accessibility;
- Progressively more run-off of mercury and other heavy metal-contaminated sediment from legacy mines into the state's watershed and food webs; and
- More contaminated sediment, clogging reservoirs and water systems that serve the state and federal water projects.



Our Vision of Headwater Resiliency for Ecosystems & Communities



TSF promotes headwater resiliency with a vision of adaptive recovery for the environment and communities that are still blighted from centuries-old resource extraction.

We identify, articulate, assess and implement ways to address these lasting impacts as demonstrated in the body of work that we have developed over the last ten years.

Our Vision for Restoring Ecosystem Resiliency

Resiliency is the ability to recover from disruptive change and withstand ongoing pressures. The ability to recover from change is directly proportional to the size and extent of the disturbance and the degree to which an ecosystem can tolerate disturbance. Ecosystems have developed around “natural disturbance regimes” where change is a constant and critical component of a dynamic ecosystem function (water levels rise and fall, temperatures change with seasonality). As a result of continuous change, the dynamics of systems select for resiliency. In other words, an ecosystem’s resiliency is its ability to tolerate disturbance without collapsing into a different state that is controlled by a different set of processes

TSF is interested in addressing the disturbance regimes critical to ecosystem resiliency in the Sierra Nevada including the flow regime, sediment regime, fire regime and climate regime. The natural variability of these disturbance regimes is key to restoring ecosystem resiliency but this variability has been fundamentally altered by the impacts of the California Gold Rush.

The Sierra Fund is interested in addressing the disturbance regimes critical to ecosystem resiliency in the Sierra Nevada.

Water Flow Regime

In the 1800s, California’s streams and rivers were engineered to deliver water to the mines and today are operated to deliver water and power during periods of peak demands. As a result, the flow release schedule developed by reservoir operators dominates the current flow regime and may lack critical pulse flows for species and environmental flows. The system’s ability to meet the increased demands for water and power, as well as environmental flows, may depend on the functioning of the “green infrastructure” of the headwaters and the restoration and protection of key areas, such as meadows, that hold water higher, longer and release it slowly over extended periods of time.



Sediment Regime

The hydraulic mine sites were denuded of soil, resulting in a landscape littered with scars which delivered unprecedented amounts of sediment to the streams and rivers. For example, more than three times as much material excavated during the construction of the Panama Canal was washed down the Yuba and Bear River watershed from 1860-1884, leaving deeply incised channels cut to bedrock and terraces disconnected from the floodplain. These scars continue to erode and release sediment contaminated with mercury, choking streams with turbid conditions and filling reservoirs. The system's ability to handle increased sediment loads from denuded mine-scarred landscapes and from overgrazed meadows is dependent on both remediation efforts that abate erosion and on sediment removal efforts coupled with reservoir maintenance that are sophisticated enough to address mercury contamination.

Fire Regime

In the fire prone landscape of the Sierra Nevada, fire is a natural part of the ecosystem function and resiliency of the region. Fire plays a role in seed germination and forest stand diversity. The region-wide removal of timber for the mining operations resulted in today's single-age stands, which are choked with underbrush and full of invasive species. Fire suppression has had devastating effects on this disturbed landscape, in many ways precluding it from

recovering from the impacts of the Gold Rush. The result is an ongoing threat of severe mega fires, the likes of which the region has not seen before, including in areas that are now populated. The system's ability to handle fire, and to recover from severe fire, is directly proportional to continued coordination of efforts on topographically specific forest thinning, invasive species removal, and fire treatments.

Climate Regime

The greatest pressure the Sierra Nevada ecosystems face today is climate change. Longer droughts and warmer temperatures mean that precipitation will be dominated, not by snow, but by rainfall, resulting in a "flashy" system characterized by increased power for erosion and less water late in the season due to decreased snow pack. Under these conditions, erosional forces will dwarf the absorption capacity of the headwaters resulting in mine-scarred landscapes, such as hydraulic mines contaminated with mercury, delivering more sediment and further choking streams, rivers, and reservoirs. Sedimentation will also put increased pressure historic debris control dam infrastructure, originally designed to hold back hydraulic mine debris and tailings, that now litters the landscape with antiquated, overburdened dams.

Efforts to directly improve ecosystem resiliency can and should be supported by the millions of people that love the region but don't live in it. People who come to ski, fish, hunt, camp, boat or hike through the woods are crucial allies in the fight to restore and protect these lovely landscapes.

Our Vision for Supporting Environmentally Healthy, Resilient Communities

The Sierra Nevada has been swept by economic and social changes just as disturbing as the environmental changes, and just as difficult to recover from. Starting with the Original People, who were overrun by gold miners arriving by the tens of thousands in the 1850's, the population of the Sierra Nevada has changed dramatically over the last 150 years. As mechanization of the forest harvest increased and the price of gold fell, the number of people making their living in the mines and forests declined dramatically, creating "ghost towns" throughout the region. The economy of the larger Sierra Nevada was nearly flat in the 1960s, but has been somewhat revived through the growing tourism that now serves as a primary economic driver in the region. A wave of retirees leaving the urban areas of California to live out their "golden years" in the "Gold Country" coupled with an influx of people who can afford to have a second home in the region, means the economy faces both high housing costs and low wages.

Only recently has the threat to the region's natural resources, and the cruel history of its colonization, become visible to the state at large. The task of re-building vibrant, resilient communities in the face of decades of economic and social upheaval has just begun. The expansive and sparsely populated Sierra Nevada has started to incubate organizations with the capacity to implement and sustain projects to restore the region. Traditional tribal leaders have begun to come forward, seeking partnership and support as they attempt to rebuild their culture and repair the environmental damage that has changed the very substance of their communities.

The ability to protect and restore water quality, as well as to protect families from exposure to mercury in fish or other heavy metals in dust, is strengthened by access to accurate information on what happened during the Gold Rush, and how these impacts affect public health today. Getting this message out to the rest of the state – especially the decision makers that have the capacity to help solve these problems – is crucial to generating the resources needed for the communities to implement solutions.

The Sierra Fund believes that an environmentally healthy, resilient community has these entwined elements:

A healthy place to live, work and raise a family, with clean air, water and soil, and

Residents who are empowered to protect and, if needed, restore these resources.

TSF's vision for improving community resiliency focuses on environmental justice; making sure all people who live and work in the Sierra Nevada have the tools they need to protect themselves and their families from exposure to legacy mining toxics and to participate in decisions about their future access to clean water, air, soil and food. Vital to the tenets of environmental justice is the crucial leadership role that must be played by the people who live near environmentally devastated and toxic landscapes, especially those who are economically disadvantaged and/or under-represented.

It is critically important to highlight these challenges and utilize opportunities to make them visible at both the state and national levels, in order to attract new investment to the region for these nascent organizations and activities. Truly collaborative activities take substantial time and investment but are ultimately both effective and sustainable and thus can attract more funding to the region.

Our Vision for Increasing Investment & Capacity in the Sierra Nevada

The Sierra Nevada has attracted the interest and attention of national and international scientists and environmental organizations for decades. Much of this attention has come from outside of the boundary of the region, with groups looking at the towns and rivers of the Gold Country on maps without much understanding of the community dynamics of the region. While this attention is welcome and helpful, it must be met by strong, place-based organizations that understand the current situation and are committed to implementing real solutions on the ground.

The Sierra Nevada region is served by a small but growing network of community and environmental groups working to protect and restore the region. Many have vision and passion but lack capacity to build a lasting and sustainable organization. These groups need new resources to grow, including administrative and technical capacity and funding.

Research into philanthropic giving for the Sierra Nevada region is thin on data. It is easy, however, to document that most of the large public and private foundations in California are located in either the San Francisco Bay Area or Los Angeles, and that none make their home in the region. This results in a perception of the region that is clouded by distance and lack of familiarity with the full story of the Sierra Nevada.

Building a strong philanthropic services presence in the region, led by people who live and work here, will bring new sensibilities to the world of philanthropy. Major donors living in the area first helped form The Sierra Fund by creating Donor Advised Funds that allowed these donors an opportunity to have their charitable investments advised and implemented by an organization that is dedicated to the region. The unstable economic drivers that have impacted the nation and state as a whole, and ushered in the end of the era that created new “dot com” wealth, have also slowed the development of new philanthropy in the region.



Over the next decade the growing population of people that love the Sierra Nevada and come here to recreate—and sometimes to buy second homes—can be recruited to serve the region.

Their contribution can include providing technical expertise as well as funding to the region. Philanthropists from outside of the region need a trusted partner from the region to advise their investments to ensure that they build capacity and have a lasting impact instead of propagating “random acts of conservation” in the region. We are working to become that trusted partner.



The Sierra Fund's signature programs to build resilient headwater ecosystems and environmentally healthy communities rely on the tools of science, policy, outreach & capacity building.

Our Tools



Science

TSF uses a targeted approach to applied science.

We conduct research to ignite and inform land and water use actions that protect and enhance the resources of the Sierra Nevada. We strive to utilize a research-to-practice feedback model where our research methods and outcomes continually inform best practices that can be incorporated into new research projects. Hallmarks of our initiatives are that they are collaborative in nature and that the projects we embark on help inform the development of sound assessment and remediation activities that can be used to inform comprehensive strategic approaches to land and water management. Our approach is implemented through pilot projects that exemplify research and development of new and innovative techniques and technologies. Pilot projects allow us the opportunity to develop and improve techniques to assess and mitigate environmental impacts in the Sierra Nevada. The goal of our pilot projects is to demonstrate effective methods and techniques for monitoring, assessment and restoration that can provide a replicable model which local, state and federal landowners can implement to build capacity on a broader scale.

To achieve our goals, we work with a growing network of collaborative partners and experts who are brought together as advisors at topic-specific forums to inform and advise on pilot projects. For example, TSF's quarterly Mercury Forum is closely integrated with the work of the downstream collaborative partnership Delta Tributary Mercury Council (DTMC), allowing for regional capacity building to address legacy mining impacts from summit to sea. Critical to the success of this model is communication, through publication of pilot project results in peer reviewed literature and presentation of results at professional meetings. In this way, we attract additional scientific interest, as well as investment and expertise into the fields of conservation, restoration and resource management in the Sierra.

“Careful and conscious pilot project selection and design is critical for the success of our model. The selection of pilot projects is strategic and intentional, and is informed by a working group of advisors. We identify the partners that can help us to understand problems and then knit together participatory working groups to carry out projects while building the capacity of our partners. We identify gaps where information is needed to guide solutions, then implement pilot projects designed to fill those scientific data gaps. We seed future opportunities by working with students whose research and project involvement teaches them real skills while making a lasting contribution to knowledge resources in the region.”

Dr. Carrie Monohan, Science Director

Science

Policy

Outreach

Capacity Building



Policy

TSF has developed an important policy presence in the state over the last ten years. We have sponsored legislation, research, conferences, and campaigns with pointed purposes directly related to land and water management actions and to increasing and organizing public and private investment in restoring and protecting the natural resources and communities of the Sierra Nevada. Our policy work to date has been organized around three strategic objectives that implement our mission:

- **Creating and supporting the Sierra Nevada Conservancy (SNC)** to bring new financial and technical resources to the region;
- **Increasing public and private funding** available to the region; and
- **Addressing legacy and current impacts of mining** on the Sierra Nevada's forests, rivers, meadows and communities.



Outreach

To The Sierra Fund, outreach means a two-way flow of information between our organization and various audiences, including people both within and outside of the Sierra Nevada. We aim to reach into all corners of the Sierra Nevada and California at large to touch both the residents and the tourists that love the range.

The goals of our outreach are to engage, convene and listen. We strive to ensure that our work is responsive to the needs of our various audiences and to make sure our educational materials and programming provides these audiences with the best information available on the issues. TSF outreach activities augment the science and policy activities around both of our major programs. We have found that taking people out to see the projects, showing them where we work and introducing them to the landscape that we love, is a very effective way to stimulate both interest in and commitment to our work.

As part of our outreach efforts, we have created working groups of advisors with different foci:

A group of Community Advisors, which includes environmental scientists, doctors, tribal representatives and local leaders, who are experts on pertinent aspects and who contribute to our work through document review, technical advice on specific projects, and strategic visioning for our programs.

A group of Agency Advisors, who work with The Sierra Fund to ensure that their agencies' roles, responsibilities and actions are appropriately characterized.



The Sierra Fund's Mining Toxics Working Group provides expert technical support and direction to our restoration activities. Our advisors include senior staff from every regulatory or landowning agency affected by legacy mines, as well as concerned community members, tribes, environmental activists, and academics.



... collaborative projects have produced results ranging from trail building to acquisition of keystone parcels threatened with development.

Capacity Building

TSF was originally founded to provide a fiscal vehicle for the Sierra Nevada region. TSF established seven Donor Advised Funds in its early years. TSF has also assisted numerous organizations and projects in the Sierra with fiscal project management, administrative support, and organizational incubation. Additionally, we have served as a convener to lead diverse participants in collaborative strategic and program planning meetings. These collaborative projects have produced results ranging from trail building to acquisition of keystone parcels threatened with development. Most recently, TSF has stepped in to provide a fiscal vehicle for projects funded through the Cosumnes, American, Bear, Yuba (CABY) Integrated Regional Water Management (IRWM) Group. We serve as fiscal sponsor for nine regional implementation projects funded by two grants from the CA Department of Water Resources (DWR) and, since 2013, have worked to help CABY resolve management and governance challenges in order to establish a strong vehicle for bringing funding to our region.



Our Mission & Strategic Approach

The Sierra Fund's mission is to restore ecosystem and community resiliency in the Sierra Nevada. We have identified four strategic approaches in our program activities:

Identify and fill key data gaps needed to address identified problems, and develop pilot projects that demonstrate effective solutions and invite replication.

Engage diverse leaders in the work to articulate, advocate for, and win adoption of specific policy changes identified through our program that are needed to advance our mission.

Improve visibility to target audiences of the problems and solutions that we have developed, and involve these audiences in collaborative action to implement the solutions.

Build regional and TSF organizational capacity to be ready to create and seize new opportunities.

Overview of our Programs 2017-2022

Our strategic plan builds upon two overarching programs:

Program I Restoring Ecosystem Resiliency and Environmentally Healthy Communities in the Sierra Nevada

This program has two primary objectives:

A. Ecosystem Resiliency:

To assess and restore ecosystems of the forests, meadows, and rivers impacted by the Gold Rush through projects that demonstrate multiple benefits such as improving water quality, water storage and ecosystem resiliency in the region, especially in light of predicted climate change impacts on the Sierra Nevada.

B. Environmentally Healthy Communities:

To improve overall community health by preventing public exposure to legacy mining contaminants and to engage under-represented and disadvantaged community members in projects that improve their access to clean water and safe fish consumption choices.

Program II Building Community Resiliency in the Sierra Nevada

This program has two primary objectives:

A. Capacity Building and Funding:

To increase and organize public and private investment to protect and restore the natural resources and communities of the Sierra Nevada by advocating directly for funding, and by building the visibility of the region while coordinating effective collaboration among stakeholders in the region.

B. Sierra Investment Services:

To provide philanthropic services in the region.





Program I

Restoring Ecosystem Resiliency and Environmentally Healthy Communities in the Sierra Nevada

Our region is blessed with extraordinarily diverse ecosystems and the diversity and function of these ecosystems is crucial to restoring ecosystem resiliency and environmentally healthy communities. Many conservation organizations view our region as a “big park” but in fact our beautiful mountains and valleys are home to nearly one million human beings. We believe that in order to restore the diversity and function of the natural resources we must also serve the needs of the people who live and work in the area.

We pursue this objective through two integrated programs, Improving Sierra Nevada Ecosystem Resiliency; and Supporting Environmentally Healthy Communities.

Program Objective

To assess and restore ecosystems of the forests, meadows, and rivers impacted by the Gold Rush through projects that deploy and demonstrate multiple benefits such as improving water quality, water storage and ecosystem resiliency in the region especially in light of predicted climate change impacts on the Sierra Nevada.

A. Ecosystem Resiliency

It is critical to understand the origins of disturbance in the Sierra. Only then can targeted acts of restoration activities demonstrate effective ways to promote resiliency in a dynamic ecosystem. We can use this combined knowledge of the greater footprint and resulting action to help the headwaters of our state withstand the ongoing pressures of climate change. TSF's program for improving ecosystem resiliency relies on scientifically rigorous assessment strategies to understand and document threats to resiliency and the impact of proposed restoration strategies on the whole system.

The Sierra Fund has developed several pilot projects that address different elements of mine impacted landscapes. We will continue to build on these projects over the next five years to achieve our strategic goals.



1. Headwater Mercury Source Reduction Projects

Over the next five years TSF's pilot projects will explore technologies, policies and methods to reduce mercury discharge from legacy mines into the state's waters, including the state and federal water projects that flow into the San Francisco Bay and Delta. This work is based on our conceptual model, below, which identifies two opportunities to reduce mercury discharge: at the legacy mines themselves, and in the reservoirs downstream from the mines that receive the mercury-contaminated sediment.

Malakoff Diggins State Historic Park

TSF has been working with CA State Parks for nearly five years to assess the legacy impacts of mining at this historic state park. TSF has developed a written assessment of Humbug Creek, which receives all of the sediment/mercury contaminated discharge from the historic Malakoff Diggins hydraulic pit, as well as evaluating management options for consideration. The Park is completing further assessments required for environmental permitting for potential management solutions.

This project includes scientific support from US Geological Survey (USGS), California State University at Chico, and the California Department of



Conservation's Abandoned Mine Lands Program. TSF has served as a conduit for money to this project from grants received from the SNC and the CA DWR. Funding to continue these activities was provided in the California state budget for FY 2016/2017, and \$8 million more is proposed in the Governor's budget.

scientific and technical support for how to remove and treat sediment from a mine impacted reservoir for several years, and served as fiscal sponsor of funding for the Combie Reservoir aspect of this work from a DWR grant.

The purpose of this project has been to evaluate technologies and methods for removing mercury contaminated sediment from Combie Reservoir and treating it to remove the mercury. The project has successfully demonstrated that materials can be removed from the reservoir without discharging mercury, and was issued all the needed permits for operations to begin. TSF and partners at the USGS, University of California at Davis and California State University at Chico have been providing scientific and other technical support to this NID project for many years.

Nevada Irrigation District's Projects on the Bear River

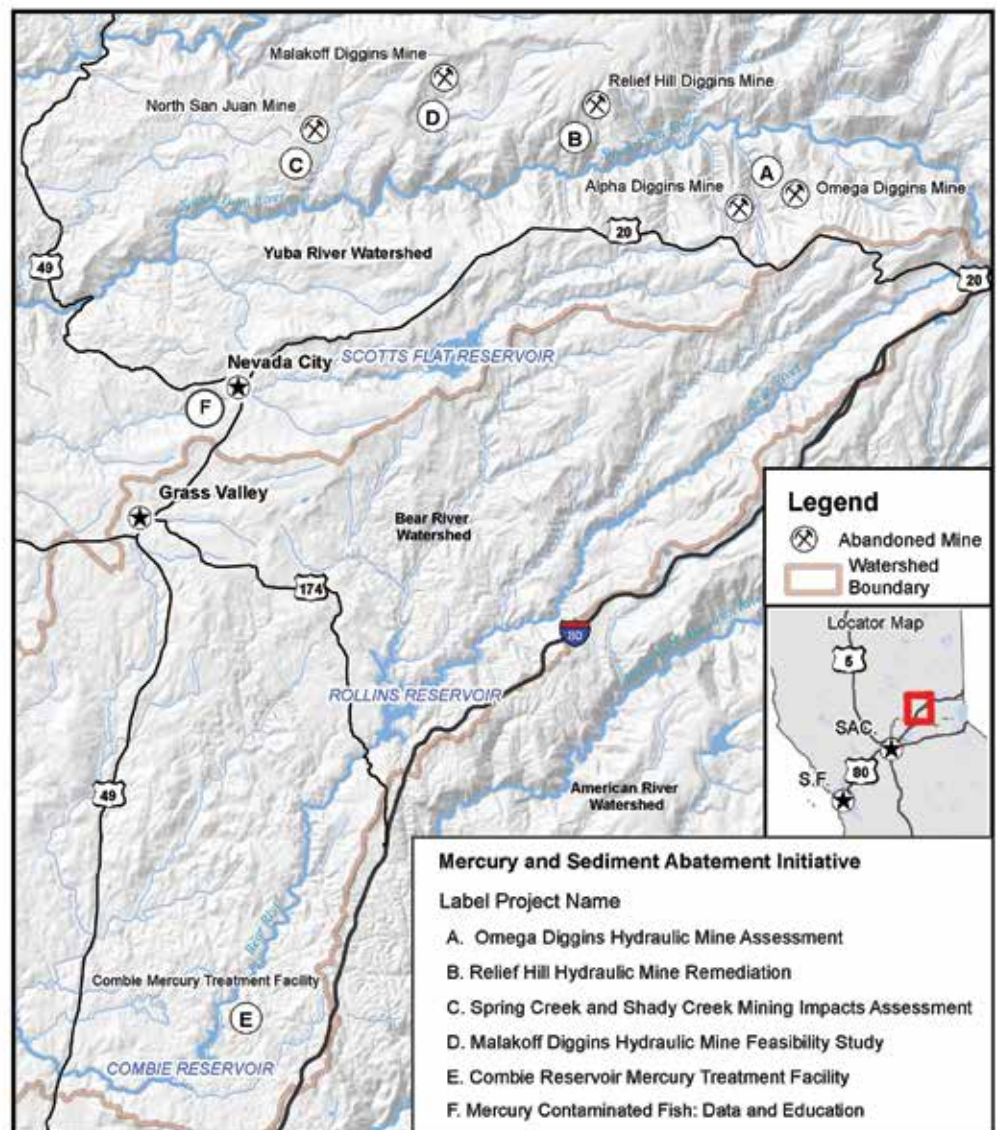
TSF has been supporting the Nevada Irrigation District's projects at Combie and Rollins Reservoirs on the Bear River whose operations have become seriously compromised due to the enormous volume of mercury-contaminated sediment flowing into the reservoirs. TSF has been providing



TSF has supported NID's efforts to attract funding to build their project, which to date has been on a very small scale, up to full-scale operation. Funding for this purpose is in the California state budget proposed in January 2017 by Governor Brown. TSF will support this budget request and work with NID to deploy their operation on this larger scale when the funds become available.

Mercury Forum to Coordinate CABY Sediment and Mercury (SAM) Projects

All partners in CABY IRWM, as well as partners implementing additional projects in the region, participate in a TSF-hosted Mercury Forum, which provides a quarterly opportunity to exchange information and brainstorm solutions together. Projects span a range of different stages, from beginning data collection, to conducting remediation activities. As an on-the-ground component, participants in the Forum tour each other's project sites in order to both see the projects as they are unfolding and to inform ideas for next steps. Over the next five years TSF will continue to convene the Forum and work to recruit new participation in this collaborative effort. (See map for project locations.)



"Consuming contaminated fish is the primary pathway of exposure to mercury, a developmental neurotoxin that can cause irreversible cognitive impacts in infants and children. Exposure prevention is simple—know which locally caught fish are safe to eat and which species should be avoided."

Alex Keeble-Toll, Program Manager

2. Improve Ecosystem Function and Resiliency for Rivers, Meadows, Forests and Fish

Over the next five years TSF will broaden our programs into four new areas that were subject to great disturbance by the Gold Rush: rivers, forests, meadows and access to fish habitat.

Evaluate additional opportunities to address mercury contaminated sediment behind dams

TSF has two opportunities in the near term to expand the understanding of methods to manage mercury-contaminated sediment building up behind two large dams: Rollins Reservoir (another NID dam on the Bear River); and Englebright Reservoir (a United States Army Corps of Engineer [USACE] debris control dam on the Yuba River). TSF has met with operators of both of these reservoirs to provide insight and technical support to their planned sediment management activities. We will provide oversight to the planned sediment management activities at Rollins Reservoir, which could potentially piggy-back onto the project at Combie Reservoir for portions of its operation.

TSF is also working with a group of fish biologists to approach USACE about volitional fish passage opportunities over or around Englebright dam that may have previously been precluded due to the paucity of information on sediment removal and management. TSF has worked with mining engineers to evaluate the feasibility of the sediment removal techniques

at Englebright, so that volitional fish passage could be considered.

We will work with the Army Corps as they update their current sediment management plan at Englebright Reservoir to help identify ways to reduce mercury discharge from this facility and potentially improve fish passage.

Assess abandoned debris control dams on public land for opportunities to reduce physical and chemical hazards and to restore longitudinal connectivity for fish passage

Many debris control dams, constructed to capture hydraulic mining debris so that hydraulic mining could resume post the Sawyer decision of 1884, have long outlived their purpose but continue to interrupt the longitudinal connectivity of associated watersheds. This includes many small debris control dams that are in the Tahoe National Forest. The Tahoe National Forest is working with TSF to identify the location and condition of the debris control dams on their lands as



well as the hydraulic mine sites that are within their contributing watersheds as a way to identify and prioritize mine remediation efforts, and to identify areas to improve habitat for resident salmonids.

Identify opportunities to document improvements in meadow ecosystem function from restoration activities

The Clover Valley, in Plumas County in the Feather River watershed, has been funded for meadow restoration treatments, largely consisting of a series of engineered check dams to slow the passage of water through the meadow allowing it to hold more water and remain a wet meadow. TSF has been invited to manage the already funded meadow restoration project, and to monitor conditions at Clover Valley before and after restoration so that the benefits of restoration can

be quantified. Meadow restoration efforts have often not included adequate before and after monitoring to quantify the ecosystem benefits of the restoration efforts, making it hard to inform watershed wide planning, and hard to advocate for additional restoration efforts. In conducting this monitoring at Clover Valley, we hope to fill vital data gaps about the impact of the restoration on flow attenuation, sediment load reduction and temperature reduction.

Identify opportunities to collaborate with the Tahoe National Forest on forest fuels treatment near hydraulic mine sites

Hydraulic mine sites are scattered across the hillsides of the Yuba and Bear River watersheds. These mine sites are largely denuded of soil and vegetation and therefore are hotspots for mercury and sediment discharge during rain events. The Tahoe National Forest wants to target the contributing and surrounding areas of hydraulic mine sites as priority locations for fuels treatment. Fuels treatment in these areas would help reduce the sediment and mercury impacts following severe burn. TSF will seek funds to conduct fuels treatments in the areas surrounding hydraulic mines as a strategy to restore headwater resiliency in and around these mine impacted landscapes.



Support opportunities for large landscape protection throughout the region

The Sierra Nevada has a complex ownership pattern. Some parts of the region are owned primarily by the federal government (USFS, National Parks and the Bureau of Land Management) while others are chopped up and owned by many private and public entities. The southeastern Sierra has been the target of some important conservation efforts, such as by the Bodie Hills Conservation Partners, for which The Sierra Fund serves as fiscal sponsor.

The Sierra Nevada has a complex ownership pattern. Some parts of the Sierra Nevada are owned primarily by the federal government while others are chopped up and owned by many private and public entities.

3. Articulate and Promote Policies to Restore Ecosystem Resiliency

Taking what we have learned through our projects and research, and applying it to the policy environment, requires that we look at a suite of issues including land management, modern mining policies and water quality regulations. TSF has been effective in developing and implementing policies that promote responsible land use management and directing new resources toward restoring resiliency to the Sierra Nevada's headwaters. We will continue to address these policy issues over the next five years:

Protect Water Quality

TSF will continue to focus on “getting the mercury out” by participating in forums and hearings to shape pending regulations on mercury discharge under development by the State Water Resources Control Board. We have identified gaps in regulatory protection for water quality that need to be filled with smart and effective policies and we will advocate for policies developed to regulate mining water quality impacts, such as those caused by legacy gold mines still discharging mercury into rivers, or by modern suction dredge gold mining in streams and rivers. We will ensure that policy makers understand options for reservoir operators to reduce mercury discharge and mobilization.

Reforming Modern Mining

TSF has worked closely with Governor Brown's administration to reform the Surface Mining & Reclamation Act (SMARA) with an eye to ensuring that modern mine operations protect neighborhoods and water quality, and prevent the creation of any more un-reclaimed mines. We will support neighborhood participation in implementation of this new legislation. We will advocate for an increase in the “gold fee,” currently \$5/oz. of gold mined in the state, and direct these new funds to abating chemical hazards of legacy abandoned gold mines on publicly owned properties.

Advising Smart Land Management

Legacy gold mines lie underneath many towns founded during the Gold Rush, creating land use challenges when mine scarred lands are proposed for development today. In addition, as the price of gold rises, it raises the pressure to re-open gold mines, sometimes in established neighborhoods. TSF will continue to work with neighborhoods and communities to evaluate proposals to open new mines in the Sierra Nevada as they arise. We will work to improve due diligence in assessment of mine-impacted properties prior to acquisition or private development.

4. Improve Public Understanding of the Lasting Impacts of the Gold Rush

TSF's campaign on the topic of legacy mining is aimed at building political will to understand the problems in the Sierra Nevada and the multiple benefits attainable by remediating the mines and restoring the forests, meadows and rivers that surround them. TSF makes the case to invest in the Sierra within specific constituencies including scientists, regulators, land managers, and the larger statewide conservation movement.

Over the next five years we will: continue to convene our Reclaiming the Sierra Conference on a biennial basis to provide a forum for sharing state of the art information about how to assess and address the impacts of legacy mining; participate in important conferences and events where our target audiences gather; seek opportunities to place our information in scientific and policy journals, including publishing results from our projects; and participate in community outreach events throughout the heart of the Gold Rush region, from fairs to conferences.

Program Objective

To improve overall environmental community health by preventing public exposure to legacy mining contaminants and engaging under-represented and disadvantaged community members in projects to improve their access to clean water and safe fish consumption choices.

B. Environmentally Healthy Communities

In order to build environmentally healthy communities throughout California, TSF will continue to lead the statewide dialogue about the need to finally assess and address the lasting legacy of the Gold Rush and to protect the health of residents of our state.

TSF has researched, assessed and described two primary pathways of public exposure to mining toxics: either from dusty activities such as working on or riding dirt bikes on legacy mine tailings, or by consuming wild caught fish. The impacts of these exposures are disproportionately borne by disadvantaged community members that rely on wild caught fish to supplement their food budget. We believe that it is critical to educate residents and visitors to the region about ways that they can prevent exposure.

To address this we will expand our work with Tribal leaders, Spanish-speaking residents, and the faith community over the next five years.

1. Assessment Strategies to Reduce Community Exposure to Mining Contaminants

Over the next five years, The Sierra Fund will continue our two existing projects that focus on assessment and abatement strategies to reduce legacy mining contaminant exposure via eating fish and engaging in dusty activities, and will start a new project to improve our capacity to reach even more people with information on how to protect their health and the health of their families.

Safe Fish Consumption

In order to provide and make accessible information needed to avoid mercury exposure, we will continue our efforts to identify and publicize safe “wild caught” fish consumption choices. We will also continue our data collection effort to fill identified data gaps and to inform the development of new fish advisories, including catching and analyzing fish from specific water bodies and speaking with anglers to learn about their consumption patterns. TSF will continue to hold annual “Post It Days” working with land managers in the CABY watersheds to put up state-developed fish advisory posters at public fishing holes. In addition, we will deploy our newly developed educational program aimed at families with children, titled “Fishing for Fun”, that outlines the problems associated with consuming mercury contaminated fish and explains how the contamination occurs.

We have been disappointed in the response of some land managers at public fishing holes who have refused to post the fish consumption advisory posters that apply to water bodies under their jurisdiction. TSF will craft policy language requiring entities that allow public access to water bodies subject to an active fish consumption advisory to allow the posting of that advisory, and will identify a champion in the legislature to carry forward this important policy reform.

Preventing Dusty Exposures

One important opportunity to limit new public exposure to potentially dangerous heavy metals comes when privately held land is sold or transferred to a public entity that plans to allow public access. TSF has conducted research on public land to test public trails for heavy metals and other dangerous materials that were released by legacy mining activities.

These include naturally occurring materials such as lead, arsenic and asbestos, which were co-located with gold-bearing rock resulting in them being crushed and dispersed around historic mine sites. Our research has demonstrated that, while some trails through legacy mines have no detectable mining contaminants which pose a threat to the public, others have dangerous levels of these substances. TSF has also documented that, in some cases, the public has been invited to recreate on lands that have clear chemical or physical hazards after the abandoned mine lands have been acquired by public agencies or non-profit organizations. We have further documented that some privately held “toxic assets” have been acquired using public dollars for public uses, creating potential liability for the new public landowner.



Over the next five years, we will work with public land managers to develop a protocol for proper “due diligence” when assessing mine impacted lands prior to acquisition for public use. We will work with regulators to develop best practices for assessing properties with known legacy mining features, including how this assessment informs the appraisal effort, and to make sure that the properties are properly remediated for physical and chemical hazards prior to allowing public access.

TSF works with Gold Country communities to help them identify threats to their community from legacy mining activities. We will continue to support the City of Grass Valley, and other Gold Country towns, in their actions to apply for and receive “Brownfields” funding to identify properties in the City that are compromised by legacy mining toxics.

2. Engage Disadvantaged Communities in Water Quality Programs

TSF will take our findings about mining impacts on water quality, fish and dust, and extend them to under-represented and disadvantaged community leaders. In addition, we are working with partners in the region to assess the water quality and water access needs of disadvantaged communities, an assessment that is required by the CA Department of Water Resources as part of Proposition 1, passed by voters in November 2014. The Sierra Fund will:

Participate in the IRWM Disadvantaged Community (DAC) Needs Identification

TSF has been appointed by the CABY IRWM as their representative to the Mountain Region DAC Coordination Committee, overseeing the development and implementation of the state mandated DAC needs identification and engagement activities now beginning in the region. TSF will provide technical support to this effort as well as provide financial support to tribal and DAC representatives who participate on their own behalf in this effort, in order to ensure that these under-represented but affected populations have a voice.

Establish a Spanish-Language Outreach Program

TSF will develop Spanish-language versions of existing outreach materials, and develop new educational materials as appropriate, in order to conduct effective outreach to low-income Spanish-speaking populations in the Sierra. This outreach will be aimed at people in the community who rely on consumption of wild caught fish, with a secondary goal of encouraging

community members to participate in the DWR-required needs assessment and engagement activities.

Increase DAC Involvement in CABY

The newest focus of our outreach program is on increasing the diversity of involvement in the CABY IRWM from disadvantaged populations, especially Tribal representatives and low-income populations, including Spanish speakers. This involvement is important for ensuring that CABY's planning processes, and subsequently funded implementation projects, are responsive to the needs of all residents of the region. As part of this effort, TSF will work with DAC leaders to identify water quality problems and potential projects to address these issues, and will support their efforts to obtain funding from the state level for the implementation of these DAC identified projects.



We are working with partners in the region to assess the water quality and water access needs of disadvantaged communities.

Program II



Building Community Resiliency in the Sierra Nevada

The Sierra Nevada’s rich resources and history have inspired the passionate commitment of people dedicated to protecting the region’s natural splendor and to repairing the damages caused by the last two hundred years of ruthless natural resource extraction. Though sparsely populated by year-round residents, the region’s beauty attracts millions of visitors who share an intense devotion to the range of light. Tapping into the passion this beauty inspires is key for protecting and restoring the Sierra Nevada and helping the people who live there.

TSF’s program to build resilient communities in the region leverages widespread emotional investment in the region to create new resources and new capacity for organizations and agencies working hard to improve the resiliency of our region. We have two programs that address this challenge: Capacity Building and Funding Program and Sierra Investment Services.

Program Objective

To increase and organize public and private funding to protect and restore the natural resources and communities of the Sierra Nevada by advocating directly for investment and by building the visibility of the region while coordinating effective collaboration among stakeholders in the region.

A. Capacity Building and Funding

This element of our program focuses on two tactics: outreach and advocacy to build support for investment in our region and scaffolding for collaborative activities by providing effective and reliable project management capacity to various organizations and agencies.



1. Advocacy for the Sierra Nevada

TSF has built a reputation for creative and timely policy development. TSF has provided input to governmental agency grant guidelines development, stimulated new prioritization of effort by regulatory or land management agencies, and crafted policy concepts and publicized their importance. We will continue to broadcast the financial and capacity needs of the Sierra Nevada, both within the region and at a statewide level, and identify opportunities to promote a policy environment which favors better investment and regulation for the benefit of our region.

Resources Policy Education Project

This program is aimed at building greater understanding by legislators and staff, administrative officials, journalists, and conservation groups of the challenges facing the region by taking them on tours which highlight our projects. These tours are designed for specific groups and focus on topics that depend upon the different audiences including: California legislators and their staff; officials who lead regulatory agencies with jurisdiction over Sierra lands and issues; leaders from the conservation community; water agency and business organizations; and journalists.

Sierra Nevada's Voice in the State Capitol

TSF has a small but impressive presence in the State Capitol. When issues arise that directly relate to the Sierra Nevada region we are asked to meet with leaders in the Capitol to share our perspective. Over the next five years, we will: continue to monitor budget proposals and advocate for funding investment in the Sierra Nevada; participate in efforts to improve investment criteria for government agencies that give out public dollars, ensuring that the funds are efficiently and effectively invested; and participate in efforts to identify and secure new funding sources for the Sierra, such as watershed improvement fees or investment of greenhouse gas funds.

TSF's signature annual winter legislative reception in Sacramento attracts hundreds of people from in and around the State Capitol, ranging from Senators and Assembly Members to appointed officials and agency staff, as well as leaders from throughout the Sierra Nevada. This event brings urban legislators and staff into contact with rural folks, and for many Sierrans it is their only annual opportunity to gather and interact with elected decision makers. The event always features recognition of policy leaders who are honored with TSF's coveted "Golden Pinecone" Sierra Nevada Leadership Award acknowledging their contribution to the Sierra. We will continue to use this forum to create relationships with legislators, administrative leaders and other groups that can help support our conservation policy goals.



Senators Wolk, Monning, Allen and Hancock join Senator Pavley in honoring Elizabeth "Izzy" Martin on the floor of the California State Senate, February 17, 2016.

2. Building Capacity for Effective Collaboration

TSF's conscientious project management capacity has led a variety of organizations to seek our support in implementing complex, multi-partner projects that bring multiple benefits to our region, including improved water quality and integrated regional planning. In addition, we provide a fiscal home to a number of small non-profit organizations.



Provide Fiscal Sponsorship of CABY IRWM Grants

We will continue to provide fiscal management for implementation grants from the DWR that fund a variety of water quality improvement and infrastructure improvement projects throughout the CABY region. As a subset of this work, we will continue to coordinate and provide fiscal management for the suite of projects addressing sediment and mercury in the Bear and Yuba watersheds that are part of our CABY IRWM.



Provide fiscal sponsorship to non-profit organizations in the Sierra Nevada

The Sierra Fund serves as a fiscal sponsor to several organizations whose mission and activities complement and extend our own. We will continue to be available as a fiscal sponsor for regional groups or organizations requiring such services and which help us to achieve our mission.

"Capacity building and collaboration are powerful concepts that are sometimes used to describe simply convening a group of stakeholders. It is not enough to get people into the room—you need to do your homework and know who should be at the table and why their voice is important.

Opportunities for effective collaboration must be identified, strategically planned for, and thoughtfully executed. At The Sierra Fund we do a tremendous amount of legwork to ensure that when we bring people together we have created the circumstances to build capacity across the board—for ourselves, our partners, and our community."

Alex Keeble-Toll, Program Manager

Program Objective

To stimulate philanthropic investment in the region among stakeholders in the region.

B. Sierra Investment Services

Much of the philanthropic giving to the Sierra Nevada comes from foundations and wealthy individuals who do not live or work in the region. The support that is generated from these sources is important and welcome, however, the region itself has only a handful of place-based foundations providing philanthropic services.

Our Sierra Investment Services program provides management assistance to donors wishing to play a philanthropic role in the Sierra as a whole. A small but important piece of our Sierra Investment Services Program is our donor advised and grant management program. TSF has the honor of managing several donor advised funds, ensuring that gifts are being held at the donors' discretion in investment instruments that help build their fund over time. TSF makes grants to non-profit organizations at the direction of donor advisors.

The Sierra Fund will continue to seek passionate philanthropists interested in investing in the region through creation of donor advised funds and other instruments of philanthropy. We will:

Manage Donor Advised Funds to Maximize Return and Impact

Our Donor Advised Funds are managed to ensure careful and prudent investments. We provide services to these funds including identification of potential grantees, as well as helping those interested in growing their fund to secure new sources of funds.

Attract New Investors

As our reputation for careful management and smart strategic planning grows, we hope to continue to attract new investors. We are interested in attracting funds from companies that have a connection to the Sierra Nevada, either through their name or their location, and will pursue relationships with these donors as they are identified. We will continue to maintain our ability to take gifts of stock, to accept funds from trusts and wills, and to reach out to people interested in building our capacity in the region.





Organizational Development Activities to Build Capacity

The Sierra Fund is committed

to becoming an organization that is strong enough to tackle the problems that threaten the communities and natural resources of the region. Over the next several years, we will focus on building our marketing and communication program, strengthening our board and staff, maintaining prudent financial management, and taking the time for rigorous program evaluation.

Marketing and Communication

Considering where the conversation about the Gold Rush's impacts was when we started our Reclaiming the Sierra program in 2006, we consider our efforts to characterize the problem and raise public awareness about the impact of legacy mining on California's water supply extremely successful. We believe that the critical path forward is to demonstrate, to those working downstream and in other areas of the State, that the impacts of the Gold Rush underlie many of California's most significant environmental issues of our day. We see a lot of similarities between how organizations addressing climate change have tailored their messaging and how we plan to tailor our messaging about legacy mining impacts.

We define our target audience over the next five-years as organizations and agencies working on topics including or related to mercury, sediment, water supply and watershed resiliency, climate change, fish passage, meadows restoration and forest mortality. These targets include scientists, policy makers, and non-profit organizations, both in and outside of the Sierra Nevada, that are well-recognized, well-connected, and well-funded, as well as the philanthropic communities.

TSF has developed a storyline that ties the ravaged forests, meadows and rivers to the concerns and interests of the whole state. We believe that the neurotoxic element mercury and its intimate relationship with gold – a metal that prompted a million people to move to California when it was discovered – make an interesting angle for journalists. We just need to catch their attention to get this story told.

We are exploring both Augmented Reality (AR) and Virtual Geography Technology as tools that could be used for effective storytelling aimed at convincing our various target audiences that legacy impacts are serious, that there are effective solutions to legacy mining impacts, and that they could work with us to get these solutions in place and get the problems solved. We will launch an effective communications campaign that utilizes these sorts of tools in addition to various social media avenues including Facebook, Instagram, and blogging.

TSF has developed a storyline that ties the ravaged forests, meadows and rivers to the concerns and interests of the whole state.

Deepening our Bench in Recruiting Board Leaders

TSF has long been led by a Board of Directors with personal connections to the region and big visions for how to approach and solve the threats to the area's natural resources and communities. These leaders have each brought decades of experience to the task from the business, finance, science, law, politics and government arenas. The current board includes two members who work for tribal governments in the region. At present there are seven members, including two that live outside of the Sierra Nevada and five that live within the region. The current Board is committed to striving for diversity on the Board and TSF staff. The Board has set a goal of recruiting members who bring new capacity in several areas, including increasing our presence in the San Francisco Bay Area and in the southern Sierra Nevada, and in building our fundraising capacity.

Recruiting New Staff Members

TSF has been led for more than ten years by a small and slowly growing team of talented staff members who are all deeply committed to our vision and mission. At this time the staff includes a total of eight positions. Over the next five years we are committed to increasing the diversity of our staff, including filling a bilingual outreach position.

Financial Management

TSF has a diverse funding base that includes government and foundation grants, gifts from individuals, and fee for service income. We have carefully managed the growth of our organization using the "Goldielocks" formula - not too fast or too slow but just right. Over the next few years we plan to grow our financial base by increasing our visibility to conservation foundations and other donors, while continuing to raise funds by providing services such as being a coordinator and fiscal conduit for collaborative projects.

Planning and Evaluation

TSF will conduct an annual planning process, where board and senior staff members will set measurable outcomes for the organization at the beginning of each year, which relate to the overarching objectives identified in this document. Staff and board will revisit progress made toward these goals as part of the following year's annual planning process, as a tool for candid analysis of how the organization should adapt project content and approach to meet the changing needs and opportunities of the Sierra. This process will serve as a basis for both fundraising and budgeting goals for each year.



The Long View

The hardest challenge that TSF—or any organization—faces is just the simple one of staying around to keep working on behalf of the mission. We believe that there are at least 100 years of hard

work ahead to rebuild the resiliency of our region, and we want to create an organization capable of lasting that long and beyond. To that end, TSF has developed “long term” project ideas that we will explore as we pursue the five years of planned activity described in this document. These potential new directions will be evaluated as we move forward:

Establish a full-time advocacy presence in Sacramento, and build capacity to be heard in Washington, DC

Though TSF has been very effective in securing legislation and budget proposals over the last fifteen years, our work would be tremendously strengthened with a more consistent presence in these policy arenas on a regular basis. A full-time advocate could work with administrators to implement new policy programs, identify and support financial mechanisms to bring new funding to our region, raise the profile of the connectivity of the health of the Sierra Nevada headwaters with the rest of the state, and bring new visibility to a positive narrative of rebuilding resiliency in our region.

Evaluate and implement development of a new “environmentally conscious” gold product

A result of efforts to remove and treat sediment behind the reservoirs located below legacy gold mines will, in addition to improved water quality, yield thousands of ounces of gold. That gold has the potential to attract a lot of interest in the story of its recovery as well as generate new funds for restoration activities in the Sierra Nevada. TSF will evaluate the opportunity to develop this gold product, including potentially convening and informing a coalition of various partners (potential suppliers) and consumers (ethical metalsmiths) in order to get the conversation rolling, to provide a forum within which to define the roles and next steps, and then continue to communicate and amplify the story of this product to other interested parties.

Development of new collaborative research capacity with regional academic institutions

We currently have project-level working relationships. TSF will explore the potential for a program between universities that would allow students to enroll in courses taught by TSF staff and working group members on field methodology in subjects ranging from assessing effective meadow restoration projects to evaluating sediment removal projects in regional reservoirs. The data collected as part of these joint research projects could be used by TSF to publish our findings in industry and scientific journals, thereby carrying our work around the world.

Support opportunities for large landscape protection throughout the region

Over the last 15 years we have helped identify and secure funding for acquisition of large landscapes, including the Sierra Buttes and a long stretch of the Yuba River connecting a state park to USFS and BLM properties. The south eastern Sierra has been the target of some important conservation efforts. We will remain vigilant for opportunities to support protection and acquisition of large landscapes threatened by inappropriate development.

TSF will also serve as a bridge to organizations outside of the region hoping to support large landscape acquisition with an eye to protecting these lands from inappropriate development. It is important that these acquisitions, including conservation easements, have a local partner to manage the lands post-acquisition. With the federal government owning 50% of the landscape already, a Sierra Nevada acquisition strategy that exacerbates the already big problem of “absentee landownership” needs to be countered with a strategy that supports local economies and organizations. These local partners can ensure that the land is properly managed to reduce fire danger improve water quality and create jobs.

Secure and dedicate a permanent home for our work

We are exploring the establishment of a Sierra Nevada “Center for Science and Policy” aimed at testing pilot projects, developing innovative new policy programs, and improving capacity of regional organizations and individuals working in support of our mission. A physical home could include space for research laboratories, retreats and seminars, field plots, collaborative brainstorming, and educational activities. It could even include a hands-on, public facility featuring meadow, forest and riparian ecosystems.

Develop relationships of support with non-residents who love the Sierra Nevada

Far more people come to the mountains for recreation and relaxation than actually live in the region year-round. Tapping into the passion that these people feel for the area and helping them to be involved in restoring ecosystem and community resiliency in the region could reap enormous political and financial benefits. This will require finding ways to reach into the hearts and minds of these potential allies and ensuring that the far-reaching benefits of our work is clearly communicated to those who live outside of the region.

Deepen and extend our impact throughout the range

While TSF has been active in projects throughout the region, our impact has been primarily on the northwestern slope of the Sierra Nevada. Over the next ten years we hope to improve our visibility and impact in the whole range by bringing our resources to regions such as the southeastern Sierra Nevada. This area presents very different opportunities and challenges but shares a similar history of resource extraction and disturbance.



Our Leaders

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John Regan, Treasurer
Patty Brissenden, Emeritus Chair
Adrienne Alvord
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Kelsey Westfall, Outreach Coordinator & Policy Assistant
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Jerry Meral
Rob Moser
Judge William Newson (retired)
Drummond Pike
David Welch

** deceased*



We are of the Sierra,
driven by an unfolding
understanding of
our region which
encompasses the
headwaters of both
California and Nevada.
As an organization,
The Sierra Fund is
advised by all who rely
on the natural resources
of the Sierra Nevada;
whether they steward
forests, meadows or
rivers, they come to visit
and recreate, or they
rely upon the water,
which originates from
headwaters of
the Sierra Nevada.