Central Valley Water Quality Community Grants Program 2016 Summary List

Summary

This list summarizes 12 projects located throughout the Sacramento and San Joaquin valleys (five in the Fresno office region, six in the Sacramento office region, one in the Redding office region). Seven organizations, including one that successfully completed its SEP funded in 2015, are returning applicants. While the overall number of projects is down for the 2016 Project List, this is a sign of the success as several proposals from the 2015 list are already funded for their work in 2016. Total funding sought ranges from $38,000 to $122,514; many of the projects are scalable in nature and have multi-year potential. The actual work can be adjusted to fit available funding, ensuring maximum efficiency and expediting project launch. Any such adjustments, and all workplan deliverables, would be quantified in enforceable grant contracts between the Rose Foundation for Communities and the Environment and the project organization.

All projects forecast significant water quality benefits and benefits to disadvantaged communities, and most projects forecast high degrees of community support and involvement. Disadvantaged community benefits and involvement include extremely poor communities in watersheds throughout the region, especially the Tulare Lake Basin. Many projects, especially those located in the Fresno office region, also forecast significant public health benefits related to addressing groundwater contaminants that pollute drinking water wells. Public health benefits include improving groundwater management in areas where there are significant concentrations of contaminated water wells, leveraging significant funding for well replacement or rehabilitation and reducing the flushing of pharmaceuticals into public sewer systems. Projects in the Sacramento office and Redding office regions tend to address surface water issues, including urbanization and agricultural pollution, sedimentation and other stormwater runoff impacts, and addressing mining legacy contaminants. Several projects would leverage other grant funding and/or partnerships with counties or governmental agencies, and/or community-based organizations. A number of applicants are working with local communities to identify long-term solutions and to build the capacity of residents to participate actively in protecting local watersheds, including by training youth stewards and conducting citizen science. All but one of the 11 unique projects has a Public Awareness component. The most common project themes that follow in descending order are Pollution Prevention and Trash Clean-up (6 projects), Water Quality Monitoring (6 projects), Watershed Assessment (3 projects), Well Rehabilitation or Replacement (1 project) and Water Treatment (1 project). All the projects encompass more than one activity area.

Fresno Office Region Projects:

California Product Stewardship Council

Project Title: **Sustainable Medication Take Back for Tulare Basin Watershed**
Watershed: **Tulare Lake Basin (Kaweah, St. Johns, and Tule Rivers)**
Grant Request: **$99,950 over 24 months**
Theme: **Public Awareness / Pollution Prevention**

California Product Stewardship Council (CPSC) will expand its award-winning "Don't Rush to Flush Meds in the Bin We All Win!" (DRTF) program to support safe medication disposal in Merced, Fresno, Tulare and Kern Counties. CPSC will collaborate with community partners (pharmacies, hospitals, local community groups, hauling companies and government agencies) to establish up to twenty (20) take-back sites for unwanted medications targeting disadvantaged populations. This will help protect the Tulare Lake Basin from pharmaceutical contamination that occurs through flushing unused medications down the drain or through leachate from landfills. Due to the high costs of water treatment technologies to remove pharmaceuticals, the only viable solution is prevention and source reduction, which is exactly what this project will accomplish. Medication take-back sites commit to paying for ongoing disposal, providing this service to the community free of charge beyond the grant term. Beginning with the lowest-income areas with high poverty rates, outreach will educate the public, medical providers, and others in the product chain about the problems caused by flushing medications, and about using the take-back sites to safely dispose of unwanted medications. CPSC has fostered partnerships in the cities of Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia and Woodlake and currently has DRTF programs underway in Chowchilla and Madera. To measure progress, CPSC will track the increase in take-back sites, pounds of medication collected, and consumer and pharmacist knowledge. This is planned as a two-year project but is scalable, depending on funds available.

California Rural Legal Assistance

Project Title: **Water Quality Planning and Well Rehabilitation in Del Rey, California**
Watershed: **Tulare Lake Basin, southern San Joaquin watershed (Eastern Fresno County)**
Grant Request: **$100,000 over 18 months**
Theme: **Public Awareness / Well Rehabilitation or Replacement**

California Rural Legal Assistance seeks funding to support the residents of Del Rey in partnership with Del Rey Community Services District to abate legacy contamination in the community's groundwater supply. Del Rey is located in the San Joaquin Valley Floor watershed and receives 100% of its water from groundwater sources. The community's drinking water is contaminated with highly toxic pesticide 1,2,3-trichlopropane (TCP), a byproduct of soil fumigants used in agricultural production. All of Del Rey's seven private wells have TCP levels significantly higher than the Public Health Goal. Two of the wells have been rendered completely unusable and are abandoned. This grant seeks to assist Del Rey residents in their efforts to assess the extent of contamination in its wells, develop mitigation and treatment options to remove TCP to a non-detectable level, and develop a blueprint for community engagement, governance capacity and technical assistance. Project phases include: 1)

conducting analysis and planning study to determine potential options for water quality improvement; 2) supporting stakeholder engagement and communications with County and local agencies; and 3) convening community residents for engagement and education. Del Rey is an unincorporated rural farm worker community in southeastern Fresno County with as many as 36% of its residents living in poverty. According to Cal EnviroScreen 2.0, Del Rey is one of California's most environmentally burdened communities. This project could serve as a blueprint for other communities facing identical challenges in the San Joaquin Valley and ultimately help inform the state's efforts to regulate TCP levels in drinking water to a safe level.

Community Water Center

Project Title: **Clean Water for Disadvantaged Communities**
Watershed: **Tulare Lake Basin, Eastside San Joaquin Valley**
Grant Request: **$100,000 over 12 months**
Theme: **Water Quality Monitoring / Public Awareness**

The Community Water Center will further efforts to facilitate access to safe, affordable sources of drinking water for disadvantaged communities in the San Joaquin Valley and Tulare Lake Basin, particularly in the counties of Fresno, Kern and Tulare. CWC will accomplish this utilizing three main strategies: 1) Community Outreach and Education in Disadvantaged Communities; 2) Water Quality Testing in Disadvantaged Communities; and 3) Connecting DAC residents with contaminated water to resources on immediate access to safe water and long-term solution options. According to the California Department of Public Health, 55% of the communities with chronic drinking water violations in the State are in the San Joaquin Valley. These communities bear the brunt of regulatory inaction, suffering from the effects of widespread water contamination and dilapidated infrastructure. Domestic wells in disadvantaged communities are often relatively shallow and may not have been adequately constructed, resulting in extremely high vulnerability to groundwater contamination. The primary groundwater contaminants in these regions include: Arsenic, Nitrate, Chromium VI, Perchlorate, Uranium, 1,2-Dibromo-3-chloropropane (DBCP), 123 Trichloropropane (123 TCP), and bacteria. The demographics of the disadvantaged community residents that CWC has worked with are approximately 90% Latino, 80% women or girls and the median annual income is less than 60% of the statewide average. Community participation and integration of community needs into water planning and decision-making will ensure that water quality needs of disadvantaged communities will be addressed in local water protection and planning efforts and sources of community drinking water supplies will be protected and improved. This project builds on an existing Elk Hills/Vintage SEP; work on that SEP is running ahead of schedule and is due to be completed in March 2016.

Madera Coalition for Community Justice (in process)

Project Title: **Madera Community for Sustainable Water**
Watershed: **Madera Watershed (between the Coastal and Sierra Nevada mountain ranges)**
Grant Request: **$60,000 over 24 months**
Theme: **Pollution Prevention-Trash Clean-up / Public Awareness / Water Quality Monitoring**

Madera Coalition for Community Justice aims to build capacity in Madera County to make water management and planning process more inclusive as the County prepares for its Groundwater Management Plan update, Integrated Regional Water Management Plan, and related water system implementation work. Madera County's water table is depleted by unregulated and unmonitored groundwater well pumping. Severe water shortage due to the drought and a failing water infrastructure is threatening Madera's public health and imperiling the groundwater supply with increased risk of contamination and pollution. The thrust of the project to mobilize the community is twofold: (1) empower community members to become informed and active participants in local, regional and state hearings, and taskforces on watershed planning and protection, upgrading of water system, improving community infrastructure and remediating septic pollution and other contaminants, and (2) establish a cadre of youth watershed stewards who will be trained on the fundamentals of protecting, restoring and improving our surface and groundwater. MCCJ's constituents are predominantly Latino, and a large number of new immigrants and farmworker families, including the largest Indigenous (Mixteco, Zapoteco, Triques, etc.) community north of the Mexican border. According to US Census data, a remarkable 34.8% of children in Madera County lived below the federal poverty line in 2012.

Rural Community Assistance Corporation

Project Title: **Arsenic-free drinking water for Central Valley DACs**
Watershed: **Tulare-Buena Vista Lakes watershed in Fresno County**
Grant Request: **$100,000 over 12 months**
Theme: **Public Awareness / Water Quality Monitoring / Water Treatment**

Rural Community Assistance Corporation (RCAC) proposes to implement a Point of Use (POU) program to provide safe drinking water to Central Valley disadvantaged communities (DACs), with initial outreach to Caruthers and Riverdale in Fresno County. RCAC's POU program takes place in conjunction with Agua4All, a campaign to increase access to and consumption of safe drinking water in low-income rural areas. RCAC will install water bottle filling stations equipped with POU water treatment specifically designed to filter out arsenic to provide immediate access to safe drinking water. RCAC will also work with the communities' water systems, possibly leveraging state funds, to procure vending machines that can fill five gallon jugs with safe water for use in homes for drinking and cooking. The applicant will collaborate with local nonprofit organizations and the city councils and school districts in Caruthers and Riverdale to identify locations, conduct outreach and educate residents about the health benefits of drinking water. RCAC's POU program fits into an overall strategy for watershed contaminant mitigation by providing both an interim measure that results in immediate access to safe drinking water and long-term infrastructure in the form of state-of-the-art water bottle filling stations. According to the 2010 census, Fresno County had the

highest poverty rate in California. An estimated 21% of Caruthers residents and 29% of Riverdale residents live below the poverty level. Reluctant to drink the public water supply due to arsenic contamination, many low-income families spend more than 10 percent of their earnings buying bottled water or choose to consume sugar-sweetened beverages instead.

Sacramento Office Region Projects:

The South Yuba River Citizens League

Project Title: **Growing Green: Reducing Water Quality Impacts from Marijuana Grows in the Yuba Watershed**
Watershed: **Yuba Watershed (Nevada, Sierra and Yuba Counties)**
Grant Request: **$90,079 over 12 months**
Theme: **Pollution Prevention / Public Awareness**

Marijuana grow operations, which have become critical sources of income in many rural and disadvantaged communities, are causing serious water quality pollution problems including: diversion of streams and springs for irrigation; chemical application; erosion caused by land preparation; fuel spills; and reduction of native vegetation. The South Yuba River Citizen League will work directly with DACs in the Yuba watershed to leverage funding received from the National Forest Foundation to research and develop Best Management Practices (BMPs) pertaining to marijuana grow operations. They will target water quality impacts created by the overuse and illegal disposal of chemical pesticides and fertilizers, the erosion of sediment caused by improper forest management practices, accidental dumping of diesel fuels, and overuse of and water diversions from natural streams and rivers. Project work will focus on small, local growers centered in multiple disadvantaged communities in the Yuba watershed, including North San Juan, Grass Valley, Rough and Ready, Camptonville, Washington, Alleghany, Pike and Dobbins. The focus of the "Growing Green" program will be twofold: (1) to explain the negative ecological and water quality issues surrounding marijuana grows; and (2) to provide instructions on farming practices that promote ecologically sustainable grows that do not negatively impact water quality in the Yuba watershed. Upon development of BMPs, SYRCL will create educational outreach materials and a series of easily accessible and freely available online "how-to" webinars for marijuana farmers. These materials, results and outcomes are expected to be applicable to communities and watersheds throughout the Central Valley and beyond.

California Indian Environmental Alliance

Project Title: **Safer Subsistence Fishing: Cache Creek Basin to Sacramento River**
Watershed: **Cache Creek Watershed east from Clearlake into the Sacramento River**
Grant Request: **$50,000 over 12 months**
Theme: **Pollution Prevention / Public Awareness**

This project will address the levels of mercury and PCBs found in the Cache Creek Watershed east from Clearlake into the Sacramento River for the purpose of reducing the exposure of California Indian families to mercury and PCBs by identifying and securing safer fishing locations.

As well, the aim is to work cooperatively with agencies, landowners and California Indian Tribes to design remediation plans and identify funding to initiate cleanup. Cache Creek feeds into Prospect Slough, which accounts for approximately 70 kilograms per year, or 58%, of the total mercury import from the Sacramento River into the San Francisco Bay. The grant will support a partnership between the California Indian Environmental Alliance, the Scotts Valley Band of Pomo, the Habematolel of Upper Lake Pomo and Big Valley Rancheria to identify and inform California Indian Tribes and communities about: 1) safer fishing locations by ranking waters in the area; 2) fill data gaps to inform cleanup and remediation opportunities and 3) provide findings to regional Tribes to use in future Basin Plan Amendments and Integrated Regional Water Management (IRWM) plans. This project will initially study surface water quality, through fish tissue toxicity, related surface and groundwater, and quantity in order to identify waterbodies that can support safe fish and fish tissue targets so that families can utilize the watershed for traditional uses. With the unemployment rate in Clearlake (as of August 2013) close to double the national average of 7%, many residents have limited income to purchase healthy foods.

California Product Stewardship Council

Project Title: **Sustainable Medication Take Back for Tulare Basin Watershed**
Watershed: **San Joaquin River Watershed**
Grant Request: **$99,950 over 24 months**
Theme: **Public Awareness / Pollution Prevention**

California Product Stewardship Council (CPSC) will expand its award-winning "Don't Rush to Flush Meds in the Bin We All Win!" (DRTF) program to support safe medication disposal in San Joaquin and Stanislaus Counties. CPSC will collaborate with community partners (pharmacies, hospitals, local community groups, hauling companies and government agencies) to establish up to twenty (20) take-back sites for unwanted medications targeting disadvantaged populations. This will help protect the Tulare Lake Basin from pharmaceutical contamination that occurs through flushing unused medications down the drain or through leachate from landfills. Due to the high costs of water treatment technologies to remove pharmaceuticals, the only viable solution is prevention and source reduction, which is exactly what this project will accomplish. Medication take-back sites commit to paying for ongoing disposal, providing this service to the community free of charge beyond the grant term. Beginning with the lowest-income areas with high poverty rates, outreach will educate the public, medical providers, and others in the product chain about the problems caused by flushing medications and about using the take-back sites to safely dispose of unwanted medications. CPSC has fostered partnerships in the cities of Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia and Woodlake and currently has DRTF programs underway in Chowchilla and Madera. To measure progress, CPSC will track the increase in take-back sites, pounds of medication collected, and consumer and pharmacist knowledge. This is planned as a two-year project but is scalable, depending on funds available.

Sierra Streams Institute

Project Title: **Promoting Citizen Science for Bear River Watershed Improvement**
Watershed: **Bear River Watershed (portions of Placer, Nevada, Sutter and Yuba counties)**
Grant Request: **$58,400 over 24 months**
Theme: **Water Quality Monitoring / Watershed Assessment**

Sierra Streams Institute is currently leading a multi-agency, watershed-wide restoration planning process for the Bear River, its tributaries, and associated uplands. The watershed has been severely impacted by historical and present-day mining leaving toxic contaminants, in addition to more recent industrial and agricultural chemical discharges. This grant would leverage the Bureau of Reclamation's WaterSMART program funding for the Bear River Watershed Stakeholder Group to bolster this planning process by initiating comprehensive baseline monitoring for the watershed, including collecting extensive water quality data, assessing the aquatic and terrestrial species and habitats that may be affected if the dam is approved, and reducing post-fire erosion with partner landowners. This project will focus on surface water within the Bear River Watershed and will train residents as citizen scientists to collect monitoring data that will inform the Restoration Plan by helping to map priority areas for remedial action and identify potential solutions to critical watershed problems. The Bear River Watershed has been severely impacted by historical and present-day mining, industrial chemical discharges, agricultural chemical runoff, sewage spills, invasive species, and aquatic and terrestrial habitat degradation and post-fire erosion. Yuba County and Grass Valley in Nevada County are classified as "disadvantaged communities." According to the 2014 Census data, poverty rates are well above national (11.3%) and state (16.4%) rates with Yuba County's rate at 28.3% and Grass Valley's rate at 20.6%. As well, this region has been occupied and utilized by citizens of the Nisenan tribes and the Auburn United Indian Community; both underserved native communities that used this land as their ancestral home.

The Sierra Fund

Project Title: **Building an Integrated Regional Water Management Collaborative Serving the CABY Region**
Watershed: **Cosumnes, American, Bear and Yuba River watersheds**
Grant Request: **$122,514 over 12 months**
Theme: **Public Awareness / Pollution Prevention / Watershed Assessment**

This project will leverage a $5.5 million grant awarded by the Department of Water Resources to The Sierra Fund's program "*CABY Headwaters Resilience and Adaptability Program*," a multi-year collaboration between fifteen government and non-profit organizations. This grant would leverage that process and would allow The Sierra Fund to help project partners to more deeply engage with tribal leaders, disadvantaged community members (including those in the 18 communities in the CABY region that are identified by DWR as disadvantaged), and others in the region as projects funded through the DWR grant (from mercury remediation activities to meadow restoration to installation of new water pipes) are implemented. The project targets surface water pollution including legacy mercury from gold mining, discharges from old or malfunctioning sewer systems, and sediment from stormwater. This grant would support the

creation of educational materials and help The Sierra Fund develop a portfolio of projects that emerge from consultation with tribal leaders and disadvantaged community residents, and convene community meetings about watershed plans. The project will prioritize rural, isolated communities with deeply entrenched poverty, including Camptonville, North San Juan, and North Auburn. An important outcome of the project would be increased participation from these constituencies in the Cosumnes, American, Bear, Yuba (CABY) Integrated Regional Water Management (IRWM) collaborative. Note: fully funding this grant would support Year 2 of a three-year process.

Tuolumne River Trust

Project Title: **Stanislaus County Water Stewardship Campaign**
Watershed: **Tuolumne watershed (Stanislaus County)**
Grant Request: **$50,000 over 12 months**
Theme: **Water Quality Monitoring / Public Awareness / Pollution Prevention and Trash Clean-up**

The Tuolumne River Trust aims to improve water quality of the Tuolumne River as it flows through West Modesto, one of the most socioeconomically disadvantaged communities in Modesto County. The lower Tuolumne River is listed as impaired for water temperature, mercury, Group A Pesticides, Diazinon, and Chlorpyrifos. Dry Creek, a tributary to the Tuolumne River at Modesto, is listed as impaired for E. coli, Diazinon, and Chlorpyrifos. Trash is also a major problem. Project activities are: 1) building on baseline water quality information by recruiting monitoring teams from West Modesto (WM) to add two neighborhood monitoring sites; 2) implementing an Adopt a River pollution prevention campaign to combat hazardous trash dumped in the River and river parks; and 3) a launching a Water Literacy Campaign to improve awareness of water pollution and water quality by working with the local elementary schools. 85% of the school children in West Modesto are designated as socioeconomically disadvantaged. According to the US Census in 2012, in the region as a whole 19.2% of households had incomes below the Federal poverty level, significantly higher than both California (15.3%) and the nation as a whole (14.9%).

Redding Office Region Project:

California Urban Streams Alliance – The Stream Team

Project Title: **The Stream Team General Support**
Watershed: **Sacramento River and its tributaries (Butte, Glenn and Tehama Counties)**
Grant Request: **$38,000 over 12 months**
Theme: **Watershed Assessment / Water Quality Monitoring / Public Awareness**

California Urban Streams Alliance – The Stream Team, a community-based watershed stewardship group, aims to expand its existing citizen monitoring program to maximize the benefits to disadvantaged communities (DACs) working on water quality issues in the

Sacramento River Watershed. The water quality in Butte County watersheds are declining as a result of urban development and increasing stormwater runoff. This project will leverage citizen involvement and knowledge to accomplish low-cost watershed assessments and ecosystem restoration; facilitate stewardship actions to achieve water resource management goals and objectives; implement Low Impact Development (LID) demonstration projects to reduce stormwater runoff; integrate science ambassador programs in schools; and implement Residential Landscape Irrigation Conservation Education/Outreach. The Stream Team is currently working within DACs located in Butte County and has established working relationships with community groups, schools, and municipal stormwater programs. This project will target specific water quality challenges on a case-by-case basis in DACs as they occur throughout the watershed. It can be scaled and modified to provide support to communities in Butte, Glenn, and Tehama counties. According to US Census data, more than 1 in 4 children under 18 live in poverty in this region. All of the students in the schools and greater than 80% of the neighborhoods targeted by this project are identified as socio-economically disadvantaged.

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