

COASTAL CONSERVANCY

Staff Recommendation

March 24, 2022

East Palo Alto Rain Garden Project

Project No. 22-004-01

Project Manager: Erica Johnson

RECOMMENDED ACTION: Authorization to disburse up to \$836,400 to Acterra for Climate Resilient Communities to implement the pilot phase of the East Palo Alto Rain Garden Project in the city of East Palo Alto, San Mateo County.

LOCATION: East Palo Alto, San Mateo County

EXHIBITS

Exhibit 1: [Project Location Maps](#)

Exhibit 2: [Flood Maps](#)

Exhibit 3: [Community-based Vulnerability Planning Report – Executive Summary](#)

Exhibit 4: [Letters of Support](#)

RESOLUTION AND FINDINGS

Staff recommends that the State Coastal Conservancy adopt the following resolution and findings.

Resolution:

The State Coastal Conservancy hereby authorizes a grant of an amount not to exceed eight hundred thirty-six thousand four hundred dollars (\$836,400) to Acterra (“the grantee”) for Climate Resilient Communities to implement the pilot phase of the East Palo Alto Rain Garden Project, San Mateo County.

Prior to commencement of the project, the grantee shall submit for the review and written approval of the Executive Officer of the Conservancy (Executive Officer) the following:

1. A detailed work program, schedule, and budget.
2. Names and qualifications of any contractors to be retained in carrying out the project.
3. A plan for acknowledgement of Conservancy funding.

4. Evidence that all permits, and approvals required to implement the project have been obtained.
5. Evidence that the grantee has entered into agreements sufficient to enable the grantee to implement, operate, and maintain the project.

Findings:

Based on the accompanying staff recommendation and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with Chapter 3 of Division 21 of the Public Resources Code, regarding the Climate Ready Program.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
3. The Climate Resilient Communities is a nonprofit organization organized under section 501(c)(3) of the U.S. Internal Revenue Code.

STAFF RECOMMENDATION

PROJECT SUMMARY:

Staff recommends the Conservancy authorize a grant of up to \$836,400 to Acterra for Climate Resilient Communities (CRC) to implement the pilot phase of the East Palo Alto Rain Garden Project, which will reduce flood risk and pollution from stormwater runoff and produce ecological benefits by designing and piloting a rain garden/rain cistern installation program in East Palo Alto.

East Palo Alto neighborhoods are low lying neighborhoods located in the flood plain of the San Francisquito Creek watershed (Exhibit 1). The neighborhoods have a history of extreme flood events due to heavy rainfall and storm surges, and flood risk maps (Exhibit 2) project severe flooding for hundreds of properties in this area of the flood plain. In 2019, CRC, with Acterra as their fiscal sponsor, worked with the community to assess climate change and sea level rise vulnerabilities and identify adaptation strategies. The resulting report (Exhibit 3) contains projections for increased flooding due to rainfall and an increased number of high heat days. The full report indicates that lack of green space in East Palo Alto makes the community vulnerable to flooding and extreme heat. During the community engagement workshops, CRC found that community members favored nature-based solutions that provide multiple benefits, such as rain gardens that provide flood and heat mitigation.

This project prepares CRC and the grantee to implement a community-led effort to reduce flooding associated with stormwater runoff in East Palo Alto. The effort will include stormwater modeling to determine the most effective number and placement of gardens, and the development and implementation of a pilot rain garden and cistern installation program. The rain cistern will not only help decrease stormwater runoff, but also allow for irrigation of rain gardens during dry periods so that the plants and soil of the rain garden continue to function

appropriately. The project is timely because it will complement the San Francisco Bay to Highway 101 Project which included a new levee that San Francisquito Creek Joint Powers Authority completed in 2019 to protect East Palo Alto neighborhoods from flooding. While the new levee will focus on storm surges and sea level rise from the Bay, the rain garden and cistern installation program will address stormwater runoff from the watershed. In addition, rain cisterns coupled with rain gardens will help alleviate socio-economic burdens the communities face, such as water scarcity, food scarcity, and increased heat burden. As part of the project, homeowners will have the opportunity to install rain cisterns and select plants that provide food, shade, wildlife habitat, and/or reduce erosion and pollution associated with runoff.

CRC and the grantee's previous project and community engagement has allowed them to identify 25 homeowners eager to participate in the pilot rain garden and cistern installation program (rain garden program). The 25 rain garden installations are an appropriate scale to pilot the rain garden program training and installations and will also allow for additional data to be collected for the stormwater model. As a part of the rain garden program, the project team will train and hire ten East Palo Alto residents to participate in the Garden Ambassador internship program. The internship program will allow the selected residents to develop transferrable skills in implementing nature-based solutions for environmental issues while earning an income.

This project will help to prepare CRC, the grantee, project partners, and local government to implement a county-wide rain garden program which is projected to require the installation of hundreds of rain gardens and cisterns.

Project tasks are anticipated to be completed by December of 2024, and will include the following:

1. **Stormwater modeling:** HighTide Consulting will conduct stormwater routing and flood risk modeling for the San Francisquito watershed, which includes East Palo Alto and portions of San Mateo County, to determine the optimal number and locations of future rain gardens and rain cisterns to provide significant flood mitigation impacts. HighTide will use publicly accessible models and methods to ensure replicability for other California watersheds.
2. **Community outreach and education:** CRC will integrate the project with the city's climate adaptive agenda and the county's green infrastructure efforts by engaging city, county, and community partners working in climate change adaptation.

CRC will also engage East Palo Alto communities in educational efforts to develop an understanding of climate change impacts, flooding, and pollution from stormwater runoff, and the use of rain gardens and cisterns to alleviate stormwater runoff impacts. The project will directly engage 200+ individuals, engage four or more community organizations, provide twelve workshops, and help to identify additional rain garden recipients.

3. **Garden Ambassador Program development and implementation:** Fresh Approach will develop a paid internship program that will provide participants education on the types and benefits of natural infrastructure, sustainable and edible garden design, rain cistern and

garden irrigation installation, and opportunities to engage with other professionals in the environmental field.

Ten residents from East Palo Alto will be selected to participate in the paid internship program over the course of two years. Experiences and feedback will inform a reiterative process to improve the training experience and implement the internship program at a larger scale in future project phases.

4. Rain garden and cistern installation program pilot

Assessment and design: CRC and subcontractors, Fresh Approach and Grassroots Ecology, will work with 25 households to confirm feasibility for rain gardens and or cisterns on their properties, to design a rain garden and plant palette that meet the homeowner's needs, and to secure agreements that include maintenance and reporting.

Installation: Supervised and guided by Fresh Approach and Grassroots Ecology staff, the Garden Ambassadors will assist in installing two to three rain gardens and cisterns each. Grassroots Ecology will hire 40 San Jose Conservation Corps members to assist with the rain garden and cistern installations and to participate in educational workshops along with the Garden Ambassadors.

Maintenance: Garden Ambassadors will continue to provide support and resources to each rain garden recipient over the course of one year to ensure successful establishment of the plants, after which homeowners are expected to maintain the gardens in the long-term. Fresh Approach staff will solicit post-installation feedback about use, benefits, and maintenance from homeowners using surveys, which will also be leveraged to collect data from these installations that can be used in the model for further analysis.

5. **Documentation and sharing of methodologies:** CRC, HighTide, and Fresh Approach will document the methodology and outcomes of the stormwater modelling, rain garden program, and the Garden Ambassador program. The process and outcomes will be developed into white paper that can be distributed widely to city, county, and community partners.

Site Description: East Palo Alto is a city within the county of San Mateo located on the western edge of the Bay and south of the Dumbarton Bridge. It is separated from neighboring cities by major highways such as the 101 and 84 (Dumbarton) and is bordered by the San Francisquito Creek to the south. About 45% of the city is in the flood plain and is at severe risk of flooding. Previous severe flood events occurred in 1998 and 2012, and necessitated emergency evacuation and rescue to people stranded by the flooding as well as caused damages to more than 1,700 properties and homes cumulatively in East Palo Alto and adjacent cities ([Palo Alto Daily Post](#)).

East Palo Alto residents are predominantly people of color because of redlining practices and racial deed restrictions in the 1950's. Its residents are predominantly working class and people of color (65% Latinx, 12% Black, and 11% Samoan). The city includes two census tracts that are considered disadvantaged communities because they rank in the 88th percentile of low-income

housing burden (CalEnviroScreen 4.0). East Palo Alto neighborhoods face increasing risk of displacement due to projected sea level rise, flood risk, and gentrification caused by the influx of high-income tech professionals in neighboring cities. The rain garden program will focus on neighborhoods with the highest flood risk according to stormwater modeling results. Installation sites will be on private homeowner properties who are identified through outreach efforts.

Grant Applicant Qualifications: CRC is the community-based organization that will be implementing the project. They serve East Palo Alto, North Fair Oaks, and Belle Haven with community based-climate adaptation assistance and have multiple programs that serve the project area, such as the East Palo Alto Climate Change Team and the Resilient Home Program.

CRC is fiscally sponsored by Acterra, a Bay Area 501(c)(3) nonprofit that has partnered with community-based organizations and local government to address local environmental issues since 1970. Acterra is committed to supporting the administration of the grant and has long managed grants of this nature, acting as the sole applicant or fiscal sponsor for grants or contracts of large scope and scale. Between CRC and Acterra, there are six months of operating cash on hand to maintain and manage cash flow while awaiting reimbursements. In addition to the fiscal support provided by Acterra, CRC has hired a Development Manager who will support financial operation and oversight of this project.

CRC's Climate Change Community Team of East Palo Alto successfully partnered with Acterra as their fiscal sponsor, to plan and implement their Community-based Vulnerability Planning Pilot Project which was funded by San Mateo County and Caltrans, and completed in 2020. The community planning project required close coordination with the County, consultants from Urban Permaculture Institute and Environment and Ecology, and various community-based organization including Youth United for Community Action, Nuestra Casa, and Anamatangi Polynesian Voices. The community planning project engaged and built the capacity of more than 100 East Palo Alto residents and leaders to plan and implement strategies that address climate change and improve the lives and livelihoods of the community. The community planning project set the stage for the proposed rain garden project and continued partnerships with Acterra and the community-based organizations listed above.

CRC has also worked directly with 200+ homeowners in East Palo Alto through their Resilient Home Program since 2016 to connect them with resources to make home upgrades including solar panels, weatherization, and home energy audits. These relationships and experiences will be leveraged to identify additional candidates for the rain garden program and secure the necessary homeowner agreements and city permits to move forward.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on September 23, 2021, in the following respects:

Selection Criteria

1. Extent to which the project helps the Conservancy accomplish the objectives in the Strategic Plan.

See the “Consistency with Conservancy’s Strategic Plan” section below.

2. Project is a good investment of state resources.

The project prepares communities and local governments to address climate change impacts and vulnerabilities in East Palo Alto by developing and piloting a rain garden and cistern installation program. The project aims to increase permeable surfaces within the watershed, targeting vulnerable East Palo Alto neighborhoods to reduce flood risk while providing additional benefits such as shade trees, edible plants, and water storage. The grantee and their partners have done significant planning and community engagement through their Community-based Vulnerability Planning Pilot Project in 2019. The outcomes of community planning project and the installation of a community rain garden set the stage for this project, making it feasible to implement.

The project will also produce a white paper to document the methodology and outcomes of the stormwater modelling, rain garden program, and the Garden Ambassador program. The project will use publicly accessible models and tools, and the methods and analysis will be distributed widely to increase potential to be replicated in other areas of the state.

The project has secured \$67,880 of private foundation money and individual donations to help fund their continue community engagement and overhead costs. An additional \$74, 930 will be leveraged as in-kind services by project partners CCCT, Grassroots Ecology, and Fresh Approach (see Project Financing below).

The project advances statewide goals and is consistent with regional and local plans, including the following:

- Executive Order N-82-20: Governor Newsom called for accelerated use of nature-based solutions and actions to help protect climate-vulnerable communities to deliver on California’s climate change goals. This project will pilot a rain gardens and cisterns program to address climate change impacts in vulnerable communities and will be scaled up to the county level in future phases.
- The project advances the San Mateo County Stormwater Resource Plan (SRP) developed by the City/County Association of Governments of San Mateo County as part of its Countywide Water Pollution Prevention Program. The stormwater modeling and analysis will allow for project installations to complement the SRP’s Green Streets prioritization area and prioritize SRP’s high-priority sites for regional stormwater capture projects (16 of which are located within East Palo Alto).
- The project advances the San Mateo County General Plan by reducing upstream areas covered by pavement and impermeable surfaces to mitigate problems of downstream flooding, and by enhancing the adaptive capacity of traditional stormwater infrastructure by use of rain gardens and cisterns.

- The project advances the Bay Area Integrated Regional Water Management Plan by addressing critical water supply needs of disadvantaged communities within the region by installing rain cisterns which provide additional water supply and storage capacity to households.

3. Project benefits will be sustainable or resilient over the project lifespan.

The project provides short term maintenance support but will secure landowner agreements from participating households for long-term maintenance. The rain gardens and cistern installations will be designed with input from each household to meet household needs and ensure long-term maintenance by the homeowner. Incentives for homeowners include free installation, reduced flood risk, their input on the plant palette, and potential to increase property value. In the future, the program will be scaled up to the county level to provide significant flood risk reduction and other benefits (see number 4 below).

4. Project delivers multiple benefits and significant positive impact.

The project alleviates multiple stressors identified by East Palo Alto communities, such as: Reducing flood risk; improving public health by increasing green space; addressing food and water scarcity by providing edible plants and rain cisterns; reducing extreme heat risk by providing shade trees; and providing ecological benefit by increasing native plants for wildlife habitat and reducing pollution from stormwater runoff.

In addition, the project will provide economic benefit to underserved communities by providing paid job training through the Garden Ambassadors program which will hire residents from East Palo Alto. Project partners will also provide training to and hire 40 San Jose Conservation Corps members to assist Garden Ambassadors. The grantee will engage four or more community-based organizations and provide leadership opportunities within those organizations to advance the rain garden program.

The project team also anticipate that rain garden and cistern installation may increase the property value of homes and/or alleviate economic burden associated with increased heat, scarce water allocations, and flooding. This may encourage low-income homeowners to stay in their homes, decreasing the opportunity for developers to purchase homes and displace the community.

5. Project planned with meaningful community engagement and broad community support.

The Community-based Vulnerability Planning Pilot Project of 2019 engaged with local communities and government in public co-visioning processes to develop this project, which reflects community wants and needs, and advances local government goals. The project team has a track record working within communities and incorporating other community organizations in the process.

Communities will continue to be engaged through this project with the help of four or more community-based organizations that the grantee has identified as project partners: Youth United for Community Action, Nuestra Casa, and Anamatangi Polynesian Voices, and East Palo Alto Climate Change Community Team. Engagement strategies include door-to-door visits, 16 public workshops co-hosted by community-based organizations, and outreach materials translated into Spanish, Samoan, and Tongan languages prevalent in the communities of East Palo Alto.

Feedback from surveys and direct communication with participants in the rain garden and cistern installation program as well as the Garden Ambassadors program will be incorporated into the project findings. This will provide opportunity to adjust the program and its processes as they prepare to scale the program up.

The project has received letters of support from local government and the Conservation Corps Chapter (Exhibit 4): the City of East Palo Alto (Office of the City Manager and Office of Sustainability), the City and County Association of Governments of San Mateo County, and the San Jose Conservation Corps and Charter School.

PROJECT FINANCING

Coastal Conservancy	\$836,400
Sand Hill Foundation	\$15,000
Tundra Foundation	\$15,000
Grove Foundation	\$15,000
Individual Donations	\$22,880
Project Total	\$904,280

Unless specifically labelled “Required Match” the other sources of funding listed above are provided as estimates. The Coastal Conservancy does not typically require matching funds, nor does it require documentation of expenditures from other funders. Typical grant conditions require Grantees to provide any funds needed to complete the project.

Conservancy funds are anticipated to come from FY2019/20 appropriations to the Conservancy from the “California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018” (Prop 68, Public Resources Code Division 46, Chapters 1-13, Sections 80000-80173). In particular, Chapter 10 of Prop 68 allocates funds to the San Francisco Bay Area Conservancy Program for projects to improve a community’s ability to adapt to the unavoidable impacts of climate change; improve and protect coastal and rural economies, agricultural viability, wildlife corridors, or habitat; develop future recreational opportunities; or enhance drought tolerance, landscape resilience, and water retention. (Pub. Res. Code sections 80130 and 80133(b)).

The recommended project is within the San Francisco Bay Area Program and will be undertaken pursuant to the Climate Ready Program established in Chapter 3 of the Conservancy's enabling legislation (see Consistency with Conservancy's Enabling Legislation section below). The project purpose is to prepare the City of East Palo Alto for climate change impacts by developing and piloting a rain garden installation program to be implemented at a city-wide scale.

An additional \$74,930 will be contributed to the project in in-kind services and materials including:

- East Palo Alto Climate Change Community Team (CCCT) member time and expense to oversee, guide, and promote the project, at an estimated value of \$49,680. CCCT members and other community partners will donate approximately \$3,000 in rental space for community meetings, workshops, and other events.
- HighTide has committed 100 hours in-kind to publication and sharing of methodology, at a value of \$11,500.
- Grassroots Ecology has committed \$10,125 of in-kind services/materials including time for project administration/coordination, supporting training/curriculum development for the Garden Ambassador program, "bonus" native plants for completed installations, and field trainings with Garden Ambassadors at Grassroots Ecology sites, including Cooley Landing Park in East Palo Alto.
- Fresh Approach has committed \$625 worth of edible plants from its community gardens as a bonus for rain garden recipients who complete their installations and are taking over full maintenance responsibilities for their site.

The Coastal Conservancy does not typically require in-kind services and materials as part of a grant nor does it require documentation of in-kind services and materials.

The proposed project was selected through a competitive grant process under the Conservancy's "Proposition 68 Guidelines San Francisco Bay Area Conservancy Program - Climate Adaptation Funds" adopted August 22, 2019. The proposed project meets the evaluation criteria in the Proposition 68 Guidelines as described in detail in this section, the "Project Summary" section above, and in the "Consistency with Conservancy's Project Selection Criteria" section above.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

Section 31113 of Chapter 3 of Division 21 of the Public Resources Code establishes the Climate Ready Program and authorizes the Conservancy to address the impacts and potential impacts of climate change on resources within the Conservancy's jurisdiction (Section 31113(a)). The recommended project will address resources within the Conservancy's jurisdiction because it will be undertaken within the County of San Mateo, one of the nine counties of the San Francisco Bay Area (Chapter 4.5 of Division 21 of the Public Resources Code).

Section 31113, subsections (b) and (c) authorize the Conservancy to award grants to nonprofit organizations and public agencies to undertake projects including those that address extreme weather events, sea level rise, flooding, and other coastal hazards that threaten coastal communities, infrastructure, and natural resources. Consistent with these sections, the recommended project will pilot a rain garden installation program to address and alleviate impacts from extreme weather such as flooding and extreme heat days.

Section 31113(c) requires that Conservancy grants under the Climate Ready Program must prioritize projects that maximize public benefits, and either 1) reduce emissions of greenhouse gases, reduce hazards to harbors and ports, preserve and enhance coastal wetlands and natural lands, conserve biodiversity, and provide recreational opportunities, or 2) reduce flood risk and enhance fish and wildlife habitat. Consistent with that section, the recommended project will maximize public benefits by improving East Palo Alto neighborhoods with green space and rain gardens that reduce flood risk and provide wildlife habitat.

Section 31113(d) states that when allocating funds made available pursuant to Chapter 10 of Proposition 68 the Conservancy shall prioritize projects that (A) use natural infrastructure, (B) provide multiple public benefits, and (C) consider projects in a variety of ecosystems. Consistent with this section, the recommended project will use natural infrastructure to help adapt to climate change. Rain gardens and cisterns implemented at a city-wide scale will reduce flooding from stormwater runoff, increase urban green space with native plantings, and reduce heat.

Section 31113(d)(2) requires that the Conservancy provide information to the Office of Planning and Research (OPR) on any projects funded pursuant to this subdivision. Consistent with this section, the Conservancy will provide relevant information to OPR.

CONSISTENCY WITH CONSERVANCY'S [2018-2022 STRATEGIC PLAN](#) GOAL(S) & OBJECTIVE(S):

- Consistent with **Goal 8, Objective B** of the Conservancy's 2018-2022 Strategic Plan, the proposed project will plan and design a rain garden and cistern installation program that will increase resilience to climate change impacts.
- Consistent with **Goal 8, Objective C** of the Conservancy's 2018-2022 Strategic Plan, the proposed project will implement the rain garden and cistern installation program pilot that will increase resilience to climate change impacts.
- Consistent with **Goal 16, Objective A** of the Conservancy's 2018-2022 Strategic Plan, the proposed project prioritizes and directly benefits East Palo Alto, which contains two census tract disadvantaged communities.
- Consistent with **Goal 16, Objective B** of the Conservancy's 2018-2022 Strategic Plan, the proposed project increases the resilience to climate change impacts of communities within East Palo Alto which lack capacity to mitigate climate change impacts without assistance due to historic systemic inequities that persist today.

CEQA COMPLIANCE:

The installation of rain gardens and cisterns as part of the pilot program under the proposed project is categorically exempt from the California Environmental Quality Act ("CEQA") under Title 14 of the California Code of Regulations, Section 15304 (Minor Alterations to Land) because installing a rain garden and planting native plants are landscaping activities that will be water efficient and do not involve removal of healthy, mature, scenic trees.

All other elements of the proposed project are categorically exempt from CEQA under Section 15306 (Information Collection) and because they involve information collection and resource evaluation, and there will be no serious or major disturbance to an environmental resource.

Upon approval of the project, staff will file a Notice of Exemption.