

## Program Application: 82426328

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### Linked Pre-Application Form - DO NOT DELETE

Coyote Valley Environmental Education Program

### Grant Amount Requested

\$75,000.00

### Organization Name

Mutsun Tribal Foundation

## Urban Grant Program Application Questions

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### Overview

#### Type of project (check all that apply)

#### Grant category (check all that apply)

Environmental Stewardship and Restoration, Parks, Trails, and Public Access, Environmental Education, Urban Agriculture / Food Systems

### Project Location: Address / Neighborhood

What is the physical location of the project? If there is no physical location, please enter "N/A." If the project will be in multiple locations, please list all. Note: project location(s) must be within the Authority's jurisdiction.

559 Monterey Rd. Morgan Hill, CA 95037

### Project Location

#### Open Space Authority District of Project Location(s)(check all that apply)

Authority District 1

#### Who does the project serve? Please indicate which Open Space Authority Districts are served (where do the people served by the program live) (check all that apply)

Authority District 1, Authority District 2, Authority District 3, Authority District 4, Authority District 5, Authority District 6, Authority District 7

#### Project Abstract

The Mutsun Tribal Foundation's Coyote Valley Education Program is a community-based initiative integrating Indigenous ecological knowledge with regenerative agriculture practices to restore native plant communities and riparian ecosystems in Morgan Hill, California. Located at Freshness Farms, the program provides hands-on education and certification in Ecological Land Management (ELM) and Regenerative Organic Agriculture (ROA), aligning with Next Generation Science Standards. Through collaborative training, mentorship, and outreach, the program aims to build an eco-literate workforce, promote sustainable land use, and strengthen cultural and environmental resilience across the region.

### Project Planning

#### Describe the proposed project.

Mutsun Tribal Foundation's Coyote Valley Education Program, is an initiative designed for local community groups to enjoy and learn hands-on about native people, native plants and regenerative agriculture. Its principles are based on forest ecology which reflects the original agriculture practices of indigenous people. By working together, we can restore local native plant communities, teach our people's original practice of regenerative organic agriculture, and restore the local riparian ecology, while we embrace the cultural heritage practices of the MutsunTribe and the broader Ohlone Indigenous people.

Located a few meters from Coyote Creek, the project is based at Freshness Farms, 559 Monterey Road, Morgan Hill, a 70-year-old farm currently being revitalized into a cultural hub of ecological land management (ELM) and regenerative farming practices. The site is envisioned not only as a working farm rooted in Regenerative Organic Agriculture (ROA), but also as a center for earning certificates in ELM and ROA, building eco-literate communities step-by-step, and honouring Indigenous practices.

This project advances the Open Space Authority's mission and Measure Q and T goals by protecting and enhancing ecological health, providing equitable access to nature-based education, and fostering climate resilience through sustainable agriculture. It also supports the Santa Clara Valley Greenprint by strengthening the Coyote Valley greenbelt, improving habitat connectivity, and increasing community engagement in land stewardship.

In collaboration with Freshness Farm's owner, Nasim Nehawandian, this program will engage students, seniors, urban gardeners, farmers, families, and local residents—especially those from the rapidly urbanizing Morgan Hill–San Jose corridor. By equipping citizens with ecological skills, the program addresses urgent environmental challenges such as climate change, soil, water and air pollution, biodiversity loss, compromised soil health and food insecurity, while promoting healthier and more sustainable food systems.

Mutsun Tribal Foundation will ensure that the educational program uplifts Indigenous voices and centers on intergenerational learning. Through collecting, harvesting, saving seeds, organic gardening, cooking, eating together, storytelling, music, craft, and dance, the site will honor ancestral stewardship traditions while creating new pathways of cultural exchange and ecological education. Partnerships with the broader regional Ohlone community will further strengthen this vision and ensure long-term impact.

Two lead instructors who have successfully taught the certification program at prior sites are already confirmed and ready to implement the same curriculum and practicum model at Freshness Farms. Their continued involvement ensures instructional consistency, high-quality delivery, and immediate program readiness.

At its core, the program includes two 32 week Certification Programs with 12-15 students for each class. Participation is fully funded through the OSA grant combining classroom instruction, field practicums, and hands-on ecological projects. Participants will earn credentials in regenerative agriculture, restoration ecology, and Indigenous land stewardship, culminating in two celebratory farm-to-table events that showcase the food grown and the community impact achieved. These events will be open to the public, with proceeds reinvested into community outreach and education.

The living classroom model delivers hands-on workshops, practicums, and field-based demonstrations. The certification's curricula, originally developed in 2009 by the California Native Garden Foundation, align with Next Generation Science Standards (NGSS)—integrating Science & Engineering Practices, Crosscutting Concepts, and Disciplinary Core Ideas from the National Research Council's A Framework for K–12 Science Education (2012).

Key areas of focus include:

- Designing, installing, and maintaining biologically diverse native hedgerows, native riparian habitat and biodiverse food forests. Students will learn adaptation and natural selection through observing native plant survival rates and various species reproductive strategies.
- Cultivating regenerative crops, including drought-tolerant natives and other drought tolerant plant selections, nitrogen-fixing species, perennials, superfoods, comfort and culturally important foods appealing to local ethnic communities (An example of this is barberries, native to the Mutsun Tribal lands and culturally important to immigrant Persians).
- Teaching watershed stewardship through conservation agriculture by building soil complexity and increasing native and edible plant biodiversity. This includes designing and building water-saving systems like subterranean irrigation, greywater and implementing a farm wide composting program.
- Ecological land stewardship routines, rooted in Indigenous eco-literacy and regenerative conservation agriculture practices. They will learn long term resilient farm management plans that integrate nature with sustainable economic practices, such as circular/regenerative economic models. Our workshops will be co-led by Indigenous educators, restoration ecologists, designers, and regenerative organic agriculture farmers.

Funding will support several core components:

Workshops and Educator Support – Compensating ecological and Indigenous educators who will lead classes, blending technical hands-on knowledge with traditional wisdom.

Demonstration Projects – Installing a composting system, greenhouse, propagation facility, solar power to an existing well pump and a greywater system.

Community Engagement – Hosting 5 educational gatherings and maintaining liaisons that connect with diverse groups, including schools, colleges, nonprofit partners, & underserved communities. This includes, senior groups, service clubs, school and college clubs, churches, women's groups, local farmers and neurodivergent youth.

Materials and Supplies – Providing tools, signage, planting materials, and resources to support ongoing learning activities.

The project is ready to begin immediately. The site is fully operational, no additional permits are required, and partners—including both lead teachers—have confirmed participation. Existing infrastructure, including water, power, and farm facilities, will support rapid implementation.

The program's lasting impact will be seen in the restoration of native ecosystems, revival of Indigenous knowledge systems, and development of a community-based model for regenerative land stewardship. By integrating Indigenous cultural education with regenerative organic agriculture and ecological restoration, the project builds a foundation for sustainable land management that future generations can continue to learn from and replicate.

After the initial grant period, the site will remain a self-sustaining educational hub. Certification classes will continue on a fee-based model, with five graduates from the first cohort receiving stipends and transitioning into teaching roles. Revenue from harvest sales, workshops, and continued partnerships will fund ongoing operations, maintenance, and educational activities. This ensures the Coyote Valley Education Program remains financially and programmatically sustainable long after OSA funding concludes.

The Coyote Valley Education Program embodies OSA's Measure Q/T and Greenprint vision by blending ecological restoration, education, and cultural renewal. It is more than an agricultural training site—it is a collaborative, inclusive, and culturally grounded model for community resilience, cultivating not only food and landscapes but also shared responsibility and a deeper relationship with the land we all depend on.

### **Describe key project deliverables and estimated completion dates.**

Project Deliverables and Timeline (March 2026 – February 2027)

#### 1. Educational Workshops & Classes

Deliverable:

Two 32-week certification programs with each class being 12-15 participants, fully funded by the grant. The program will include classroom learning, hands-on practicums, and workforce development sessions focused on regenerative agriculture, native ecology, and Indigenous land management.

Timeline:

March–April 2026: Finalize curriculum, confirm instructors, recruit participants.

May–October 2026: Conduct 12 workshops and 12 practicums (two per month).

November 2026: Participant assessments, certification, and culmination with 2 Farm-to-table events; one at 16 weeks: one at 32 weeks. We will sell tickets for both events.

December 2026–February 2027: Follow-up mentorship and volunteer engagement.

Metrics:

12-15 participants trained and certified in ecological land management and regenerative organic agriculture.

24 workshop/practicum sessions completed.

5 workshops are held that invite others who aren't earning the certificates to earn one day mini certificates in Lawn Busting classes, greenhouse and propagation, composting, drip irrigation and greywater.

80% participants apply skills post-program on the site, at their farms, schools etc.

#### 2. Site Testing & Program Support

Deliverable:

Comprehensive soil and water testing, site assessments, permitting, mentorship stipends, and provision of tools and materials for hands-on learning. These activities ensure safe, data-driven implementation of regenerative and ecological systems.

Timeline:

March–May 2026: Conduct baseline testing, finalize site design, and secure permits.

June–September 2026: Implement site systems and mentor support.

October 2026–February 2027: Continue testing, maintenance, and evaluation.

Metrics:

Baseline data for soil and water health collected.

20% improvement in soil quality indicators through grant period

5 mentors paid for Year 2 program paid certification classes will be implemented..

#### 3. Demonstration Projects

Deliverable:

Establishment of demonstration systems (greenhouse, composting units, drip irrigation, and native and regenerative food forest) co-led by certification participants. These serve as long-term educational and community learning sites open for visits and workshops.

Timeline:

May–July 2026: Site design and installation of core systems.

August–October 2026: Ongoing planting, testing, and maintenance.

November 2026–February 2027: Public access, data collection, and student engagement.

Metrics:

4 demonstration systems installed.

6 school field visits and 4 volunteer days hosted.

Baseline ecological indicators established for ongoing monitoring.

#### 4. Community Engagement & Outreach

Deliverable:

Community awareness programs including public workshops, cultural events, and partnerships with schools and local organizations to promote climate resilience and ecological education.

Timeline:

March–April 2026: Outreach strategy and partner onboarding.

May 2026–February 2027: Conduct 5 community engagement events

Metrics:

5 community events hosted.

300+ community members engaged.

5 new institutional partnerships established.

#### 5. Evaluation & Impact Tracking

Deliverable:

Regular evaluation of ecological, educational, and social impacts with measurable metrics on biodiversity, participation, and curriculum reach.

Timeline:

March 2026: Baseline data collection and metric setup.

August 2026: Mid-term evaluation.

February 2027: Final evaluation and impact report submission.

Metrics:

10% increase in soil organic matter.

35% increase in native species observed.

Over 500 participants reached through direct and indirect engagement.

By February 2027, the project will have:

Certified 12-15 participants through two 32-week certification programs.

Installed 4 demonstration systems for hands-on learning.

Hosted 5 public workshops and 6 school visits.

Improved soil and biodiversity indicators across monitored sites.

Established an ongoing community education hub in Coyote Valley.

Documented measurable ecological and educational impact.

**Does this project require permission, permits, or other approvals? If so, please describe the status of these.**

The Coyote Valley Education Program will take place at Freshness Farms, 559 Monterey Road in Morgan Hill, a privately owned and operated agricultural property with full landowner consent granted by the site owner and project partner, Nasim Nehawandian. As such, no additional permissions are required for program operations or events, since all activities will occur on existing agricultural land zoned for educational and community use.

However, the project is committed to full compliance with local, state, and federal environmental regulations, and any permits that may apply will be secured in a timely manner. Specifically, we will obtain or confirm:

Soil and water testing permits and site baseline analyses, already budgeted in the project plan under "Baseline Site Testing & Permits."

Event-related permissions (for community gatherings, parking, and food service), if required by the City of Morgan Hill, will be coordinated in advance.

Watershed protection alignment with Santa Clara Valley Water, ensuring all restoration and irrigation practices meet best management standards for the Coyote Creek Watershed.

Freshness Farms and the Mutsun Tribal Foundation maintain strong relationships with local agencies, environmental consultants, and indigenous representatives to ensure the project upholds environmental integrity, cultural stewardship, and regulatory compliance throughout its implementation.

At this time, no special use permits or variances are anticipated, and the project is fully authorized to proceed on the designated site upon funding approval.

**What is the lifetime of this project? If applicable, describe plans for operating and maintaining the project in the future.**

The Coyote Valley Education Program is designed as a two-year initiative, with the first year (March 2026 – February 2027) focused on delivering the certification program, workshops, site testing, and community engagement. The second year (March 2027 – February 2028) emphasizes charging fees to earn certificates. Five graduates who received stipends in the first year will become paid teaching assistants and mentors for the second year of the program and beyond, helping lead new classes and community events. Revenue will be generated through course fees, workshops, farm-to-table events, and farm harvests, creating a circular funding model that supports ongoing programming, site maintenance, and staff compensation. Data collection, biodiversity monitoring, mentorship development and curriculum evaluation will continue to measure ecological and educational outcomes, and will ensure long-term sustainability. By the end of the second year, 20% of the farm will be developed into demonstration gardens, habitat restoration areas, and outdoor classrooms. Long-term, the program will function as a self-sustaining educational hub led by the Mutsun Tribal Foundation and Freshness Farms, supported by earned income, community partnerships, and continued volunteer engagement.

**Describe the project's readiness for implementation.**

The Coyote Valley Education Program is well-positioned for immediate implementation. The project site, Freshness Farms @ Coyote Creek is already secured, with foundational infrastructure in place and a committed landowner partner. Preliminary site assessments and plans have been conducted, and areas for hedgerows, food forests, and demonstration systems (composting, greenhouse, and greywater recycling) have been designated. The curriculum has already been designed. The certification classes have already been conducted successfully at other locations, demonstrating readiness for delivery at this site.

Key partnerships are confirmed with Indigenous educators, ecological restoration practitioners, and regenerative agriculture specialists. These partnerships ensure the integration of cultural knowledge, scientific expertise, and community engagement from the outset.

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## Project Budget

Budget Summary - Grant Request & Budget Summary - Matching Funds

**Grant request: Personnel**

\$32,000.00

**Grant request: Contracted Services**

\$9,375.00

**Grant request: Supplies / Materials**

\$24,000.00

**Grant request: Other Direct Costs**

\$5,000.00

**Grant request: Indirect Costs**

\$4,625.00

**Total Matching Funds**

\$19,000.00

**Total Budget**

\$75,000.00

**Please upload a detailed version of your budget by accessing the link below:**

UGP\_Project\_Budget\_Final\_2025.xlsx

Materials and Budget Template (item #9) found here: <https://www.openspaceauthority.org/programs/grant.html#Materials>

**Provide a brief budget narrative to explain the expenses listed in each of the budget categories (e.g. Personnel).****Personnel (\$38,000)**

Personnel costs cover project leadership and instruction directly related to the Coyote Valley Education Program. Two Lead Instructors (\$16,000) will co-teach certification courses in Ecological Land Management (ELM) and Regenerative Organic Agriculture (ROA) for 32 weeks. A Traditional Ecological Knowledge (TEK) Tribal Elder (\$12,500) will provide cultural and ecological teachings rooted in indigenous traditions. A Volunteer Coordinator (\$6,000) will organize community participants, manage event volunteers, and support student involvement.

Taxes and payroll costs (\$3500) cover required employer tax obligations for paid positions.

**Contracted Services (\$9,375)**

Three Specialized Workshop Consultants (\$9,375) will lead advanced workshops in regenerative agriculture and ecology. Each consultant will contribute 50 hours per year (25 per semester) at \$250/hour, bringing expert-level content and professional training to the certification program.

**Supplies and Materials (\$30,000)**

This category includes all materials directly supporting on-site education, infrastructure, and outreach:

Baseline Site Testing & Permits (\$2,000 matching funds): Soil and water testing (including carbon content, microbial activity, pollutants, and water table assessment) and permit fees.

Design Services (\$6,000): Professional design work for farm layout, infrastructure, and educational signage.

Mentorship & Workforce Development (\$6,000) — \$5,000 grant + \$1,000 match: Stipends for five program mentors who will complete both certification tracks and support teaching in Year 2.

Community Events & Outreach (\$5,000) — \$4,000 grant + \$1,000 match: Covers 10 outreach events including food, water, portable toilets, marketing, volunteer coordination, and digital promotion.

Infrastructure, Tools & Materials (\$10,000) — \$9,000 grant + \$1,000 match: Greenhouse and composting materials, irrigation systems, propagation supplies, plants, seeds, traps, cages, and equipment rentals for educational activities and farm development.

Donated Fruits and Vegetables (\$1,000 matching funds): Local grocery stores will contribute fresh, seasonal produce for two farm-to-table community dinners. These in-kind donations reduce food costs, celebrate local abundance, and strengthen community partnerships aligned with the program's mission.

**Other Direct Costs (\$12,000)**

Funds cover Data and Reporting (\$5,000), including ongoing project evaluation, soil and biodiversity monitoring, and second-year impact reporting to track ecological and community outcomes. As a part of matching funds for the second year, revenue for the second year of the program will be generated through ticket sales and donations at two farm-to-table community events, each accommodating 100 participants at \$35 per ticket (\$7000).

**Indirect Costs (\$4,625)**

Indirect costs (6.2% of the grant request) cover essential administrative overhead - including accounting, insurance, and office support - necessary for managing the grant and coordinating project logistics. This rate is below the allowable 20% limit for nonprofits.

**Matching Funds (\$19,000; 25.3%)**

Matching contributions include in-kind and direct support for mentorship stipends, community outreach, baseline site testing, and infrastructure costs. This reflects partner commitment and aligns with the funder's cost-share requirements.

**Award Amount: The Board reserves the right to award partial funding on projects. If your project were to receive partial funding, what would this mean for your project?**

If we did not receive the full amount requested, it would limit the scope of our work, we wouldn't be able to launch this program and offer both certificates. Our most impactful outcomes have come when both classes were taught together as a cohesive educational program.

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## Project Goals

**Describe the specific problems, issues, or unserved needs the project will address.**

The Coyote Valley Education Program addresses critical gaps in ecological education, climate resilience, and community stewardship within the Coyote Valley. Our site falls directly within the Coyote Creek Watershed, meaning all rainfall and runoff from the property eventually flows into Coyote Creek, influencing water quality, flood resilience, and habitat health downstream.

The site also contributes to stormwater retention and water table recharge, supporting the creation of a bioswale to slow runoff and retain moisture. This aligns with the goals for climate adaptation and habitat preservation of the area. In addition, the project enhances habitat connectivity for foraging and nesting birds, linking to broader regional efforts such as:

The Ogier Ponds–Coyote Creek Separation Project, which improves fish passage and steelhead trout populations

The County's collaboration with Valley Water to restore previously disrupted habitats

Providing future opportunities to build trail connections (e.g., Bay Area Ridge Trail, Coyote Creek Trail), increasing public access and deepening visitor experience through integrated ecological storytelling.

The location's proximity to major regional trails (Bay Area Ridge Trail, de Anza National Historic Trail, and Coyote Creek Trail) makes it an accessible hub for hands-on environmental learning and stewardship programs.

There is also a need for culturally grounded ecological education, particularly Indigenous-led learning that integrates traditional ecological knowledge with hands-on practice. Currently, few programs provide community members, students, and local organizations with experiential training in regenerative agriculture, native plant stewardship, and watershed management.

This project directly addresses these unserved needs by providing:

Certification programs and workshops teaching practical land stewardship, water management, and regenerative farming skills.

Restoration and on-site demonstration projects that allow participants to implement and observe sustainable ecological practices.

Public engagement opportunities, including school field trips, volunteer days, and community events that make hands-on watershed education accessible to diverse audiences.

Indigenous-led instruction to ensure cultural knowledge and stewardship traditions are preserved and shared.

How does this project serve the community?

**Number of people served**

500

**Number of youth served**

75

**Number of programs provided**

9

**Other Grantee Goal #1 (optional)**

In addition to the curriculum classes on designing, building and maintaining native gardens, we would like to have a special lawn busters workshop for Morgan Hill and South San Jose residents, partnering with Morgan Hill and San Jose to help get the word out.

We aim to inspire community members interested in replacing their lawns with native landscapes to attend a one-day, hands-on workshop. Participants will earn a mini certificate in native lawn conversion, equipping them with practical skills to create pollinator-friendly gardens and habitat corridors. Our hope is that these participants will become local ambassadors, encouraging neighbors to join in transforming their streets into connected wildlife corridors.

By experiencing the transformation at the farm firsthand, participants will see how regenerative practices can be scaled from home gardens to community spaces. We anticipate that many will return to enroll in the 32-week certification courses, supporting the program's long-term sustainability and impact. Our goal is to engage at least 50 participants in this initial workshop and build an ongoing network of residents learning, collaborating, and having fun while transforming their neighborhoods—one native garden at a time.

## Other Grantee Goal #2 (optional)

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## Impact

**Describe the lasting impact of the project. Please include whether the program is open to the public and whether any materials developed will be available to the public.**

The program's lasting impact will be seen in the restoration of native ecosystems, revival of Indigenous knowledge systems, and development of a community-based model for regenerative land stewardship. By integrating Indigenous cultural education with regenerative organic agriculture and ecological restoration, the project builds a foundation for sustainable land management that future generations can continue to learn from and replicate.

### Long-Term Environmental and Educational Impact:

The project will establish a self-sustaining demonstration site that continues to serve as a field classroom beyond the grant period. The restored native ecosystems, food forests, and demonstration projects (composting, water reuse systems) will become replicable models for schools, nonprofits, and community organizations seeking to adopt regenerative practices. Over time, the site will improve soil health, water retention, and biodiversity contributing directly to local climate resilience and carbon sequestration.

### Workforce Development and Skills Continuity:

Graduates of the 32-week certification programs will be equipped with tangible, transferable skills in regenerative agriculture, ecological restoration, and sustainable design. This will enable them to pursue careers or community initiatives that advance green infrastructure and food systems. The program thus contributes to long-term workforce capacity-building in environmental and agricultural sectors.

### Preservation and Revitalization of Indigenous Knowledge:

Through direct involvement of Mutsun Tribal Foundation tribal educators and representatives, the project ensures the revival and intergenerational transmission of Indigenous land stewardship knowledge. Participants and visitors will engage with traditional practices, stories, and cultural arts creating deeper respect for Indigenous ecological heritage and strengthening community-to-tribe relationships.

### Public Access and Open Learning:

The program and site are open to the public, offering seasonal workshops, volunteer opportunities, and community events. Visitors including students, families, educators, and partner organizations can participate in guided learning experiences, contributing to ongoing environmental awareness and stewardship.

### Open Educational Resources and Knowledge Sharing:

All curriculum materials, manuals, and documentation developed under this program will be made freely available online to schools, nonprofits, and the public. These open-access resources will support continued learning and replication of project practices across other regions.

### Sustained Community Engagement:

A community liaison and long-term partnerships with schools, local governments, and Indigenous organizations will ensure that the program remains active and inclusive. The project's momentum will continue through annual events, certification graduates involvement, and evolving partnerships that keep the site vibrant and educationally relevant.

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## Climate Resilience

**How does this project enhance and/or raise awareness about climate resilience? Please include any metrics that can be used to help quantify or understand the climate benefits of the project.**

The measurable climate benefits and metrics include:

Soil carbon sequestration: Tracking organic matter increase through composting, soil testing and conservation agriculture practices.

Water savings: Measuring reduction in irrigation needs (up to 25%) through native and drought-tolerant plantings.

Biodiversity gains: Monitoring number and diversity of native plant species and pollinator counts.

Community participation: Tracking number of workshop attendees trained in climate-resilient practices.

Food system resilience: Measuring local food production from regenerative plots.

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## Community Engagement / Stakeholder Support / Community Building

**Describe the community support and/or community engagement process. Please upload any community support letters in the Documents Upload section below.**

The Coyote Valley Education Program is grounded in collaboration and community partnership. This project led by the Mutsun Tribal Foundation in partnership with Freshness Farms @ Coyote Creek, with support from local educators, ecological consultants, and Indigenous knowledge holders. This ensures authentic cultural representation, local ownership, and long-term stewardship.

Community engagement is central to this program design. The project manager, Nasim- the farm owner, will coordinate outreach to schools, nonprofits, neighborhood associations, and underserved groups across the Morgan Hill–San Jose corridor. Engagement will occur through:

- Workshops and volunteer days that invite residents to participate in planting, composting, and habitat restoration activities.
- The volunteer engagement offers meaningful opportunities for individuals and groups to participate directly in the project's implementation. This involvement not only supports the farm's ongoing activities but also inspires the creation of local urban gardens and nature-based projects throughout the community.
- School partnerships and field trips connecting youth to hands-on environmental learning. Field trips for underserved communities and internships for college students help bridge educational gaps and build capacity for environmental careers.
- Public events and cultural gatherings that celebrate Indigenous traditions, local food, and ecological restoration. These events strengthen relationships among residents, schools, and partner organizations while promoting regenerative organic farm models as replicable community initiatives.
- Mentorship opportunities for participants completing certification programs to continue supporting teaching and outreach in the second year.

The project has strong local backing from environmental organizations, educators, and community members who view this as a shared opportunity to build ecological literacy, cultural awareness, and regional climate resilience.

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## Underserved Communities

**Describe how the project addresses open space needs for sensitive populations such as residents of park-poor neighborhoods, underserved, or disadvantaged communities, youth, seniors, persons with disabilities, or is located within an under-resourced community.**

The Coyote Valley Education Program directly addresses open space inequities while providing tangible job training and skill development opportunities for underserved and at-risk populations. The project site, Freshness Farms at 559 Monterey Road in Morgan Hill, is located near SB 535-designated Disadvantaged Communities within the Coyote Creek Watershed—an area historically lacking equitable access to open space and environmental education.

Through partnerships with local schools and Title I institutions, such as El Toro Health Science Academy, P. A. Walsh STEAM Academy, Live Oak High, Central High (continuation school), the program connects youth from park-poor neighborhoods with hands-on outdoor learning experiences in regenerative agriculture, native ecology, and watershed restoration. The classes are fully funded year one to eliminate financial barriers to participation.

The program's two 32-week certification courses provide workforce development and job readiness training for 24–30 participants annually. Graduates earn credentials that prepare them for careers in sustainable agriculture, habitat restoration, environmental education, and green infrastructure. Mentorship and "train-the-trainer" models ensure continuity and local leadership development within the community.

In partnership with the Mutsun Tribal Foundation, the program also centers Indigenous land stewardship education, ensuring cultural inclusion and representation in open space restoration. Collaborations with the West Valley College College of Adaptive Arts engage neurodivergent students, while future connections with the Mindful Aging Project at the Agrihood in Santa Clara will expand education and green space access for low-income seniors seeking meaningful outdoor engagement and intergenerational connection.

By transforming a historic 70-year-old farm into an accessible community learning hub, this project creates inclusive, multi-generational access to open space—bridging education, culture, and ecology while building career pathways and climate resilience for underserved populations in the Morgan Hill–San Jose corridor.

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## Organizational Capacity

**Briefly describe the organization and its ability to successfully implement this project. This might include successful past projects, key staff qualifications, financial resources, etc.**

I, Anthony Mondragon, am an indigenous Californian who was never allowed the privilege of growing up and living on my tribal lands, experiencing the season's harvests, and having the traditional ecological knowledge that my tribal elders passed on. I was instead thrust into the dominant California culture with no recognition of my tribal roots and ancestral lands. Part of my journey with starting Mutsun Tribal Foundation has been driven by my desire to find a place where my grandmother's histories and transcribed oral interviews by ethnographer John P. Harrington can be archived in a cultural center on lands owned by the Mutsun tribe. My vision and driving purpose are for the lands to be used for retreats, celebrations, speaking and music events where community farms and gardens bring nature's abundance back to the land.

To that end, I have balanced my need to support my family as a licensed California contractor while successfully organizing and managing community events, like the Westend Concert for the last 15 years and participating in many other local musical events as well as supporting non-profits that teach music such as the organization Guitars Not Guns.

A key partner in this project, Nasim Nehawandian, owner of Freshness Farms for 18 years, provides financial and operational leadership. With a background in engineering and experience with the U.S. Department of Commerce's National Institute of Standards and Technology, she also has extensive experience in community-supported agriculture, education, and small-farm management.

Alrie Middlebrook, author, consultant, and pioneer in native garden and farm design, contributes decades of expertise in regenerative organic agriculture and ecological land management. Her workshops and speaking engagements have inspired systemic change in urban land use and sustainability education. She has trained and mentored hundreds of students over the years, and is confident in the teachers she has chosen for the Coyote Valley Education Program since they have taught the ELM and ROA certification courses under her leadership in the past. The certification courses were successfully taught at Elmwood Correctional Facility, where inmates had the opportunity to take both certification courses and gained skills learning to build native gardens and practice regenerative organic farming under Alrie and the teacher's facilitation.

Jillian Glazer, certified Permaculture Design Consultant and Communications professional, serves as Volunteer Coordinator, bringing experience in ecological design and team facilitation.

Together, this team integrates Indigenous leadership, business management, and ecological design expertise to successfully implement and sustain the Coyote Valley Education Program.

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## Leadership & Innovation

**Describe how this project employs innovative approaches or encourages collaboration and partnerships.**

The Coyote Valley Education Program employs an innovative, collaborative model that bridges science, community, and culture to advance watershed health and environmental education.

Innovative Approaches:

-Combines ecological restoration with community food production, demonstrating how working landscapes can enhance habitat, water quality, and local resilience.

Uses training the trainers certification model, equipping local mentors, educators, and volunteers with technical skills in soil health, native planting, and water conservation.

-Employs citizen science and data collection for monitoring biodiversity, soil health, and water quality, ensuring community participation in scientific outcomes.

-Incorporates Indigenous ecological knowledge through partnerships that honor traditional land stewardship practices and cultural education.

Collaborations and Partnerships:

The program brings together a network of partners including:

Freshness Farms: The host site and landowner partner.

Santa Clara Valley Water: For watershed alignment and technical guidance.

Local schools and Title I Institutions : For youth engagement and field programs. Schools we will be serving close to the project site include:

Barrett Elementary 6.7 miles

Central High 3.0 miles

El Toro Health Science Academy 5.4 miles

Lewis H. Britton Middle 4.8 miles

Live Oak High 6.7 miles

P. A. Walsh STEAM Academy 5.6 miles

Environmental nonprofits and Indigenous educators: For co-created curriculum, teaching and community participation.

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## Documents Section

**Document Uploads (please combine into one file if possible)**

letters of support.pdf

**Additional files (if needed)**

Teacher:Mentee Resumes.pdf

**Additional files (if needed)**

course materials:plans.pdf

**Submitted Date - Internal**

## Summary Field:

Name: Average Score (no bonus)

Form: Staff Review

Summary Type: average

Field: Base Score Total

Decimal: 2

Currency: No

Description/Help Text: NONE

Short Name: NONE

Field Purpose: NONE

Filter:

- ALL:
  - isComplete | is | true

## Summary Field:

Name: Total Count of Submitted Reviews

Form: Staff Review

Summary Type: count

Field: NONE

Decimal: NONE

Currency: No

Description/Help Text: NONE

Short Name: NONE

Field Purpose: NONE

Filter:

- ALL:
  - isComplete | is | true
  - Folder | is | Submitted

### Program Application: File Attachments

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**Please upload a detailed version of your budget by accessing the link below:**

UGP\_Project\_Budget\_Final\_2025.xlsx

**Document Uploads (please combine into one file if possible)**

letters of support.pdf

**Additional files (if needed)**

Teacher:Mentee Resumes.pdf

**Additional files (if needed)**

course materials:plans.pdf

Instructions

**Santa Clara Valley Open Space Authority | 2025 Urban Grant Program**

**INSTRUCTIONS**

Please provide a detailed project budget. More information, including a detailed list of direct and indirect costs, is available in the Urban Grant Program Guidelines (<http://www.openspaceauthority.org/urban>). A sample budget is included in a separate tab.

The Budget Form in a separate tab in this document. The budget categories are listed below with a description of each field.

**PROJECT**

**Project Name:** The name of the project  
**Organization:** The name of the organization requesting funding

**PERSONNEL**

Estimate employee and volunteer time directly related to the project. Hourly rates for employees can include salary plus fringe benefits, payroll tax, etc, but can not include indirect costs. Note: please list position titles only.

**Position title:** Title of each employee working directly on this project. Note: please list position title only.  
**Description of Budget Item:** The amount of time (e.g. hours) and the hourly rate for each employee. Hourly rates can include salary plus fringe benefits, payroll taxes, etc, but can NOT include indirect costs. Please provide adequate detail to show how totals were calculated.  
**Grant Request:** The amount requested from this Grant (if applicable).  
**Matching Funds:** The amount funded through matching funds (if applicable).  
**Total:** This column will be automatically calculated.

**CONTRACTED SERVICES**

Labor, supplies, and materials to be provided by consultants/contractors for project implementation.

**Item:** The item listed  
**Description of Budget Item:** Please provide a description of the item with adequate detail to show how totals were calculated.

## Instructions

<b>Grant Request:</b>	The amount requested from this Grant (if applicable).
<b>Matching Funds:</b>	The amount funded through matching funds (if applicable).
<b>Total:</b>	This column will be automatically calculated.
<b>SUPPLIES AND MATERIALS</b>	
Supplies and materials that are <u>directly related</u> to the project.	
<b>Item:</b>	The item listed
<b>Description of Budget Item:</b>	Please provide a description of the item with adequate detail to show how totals were calculated.
<b>Grant Request:</b>	The amount requested from this Grant (if applicable).
<b>Matching Funds:</b>	The amount funded through matching funds (if applicable).
<b>Total:</b>	This column will be automatically calculated.
<b>OTHER DIRECT COSTS</b>	
Other direct costs that are <u>directly related</u> to the project. This might include travel, service fees for fiscal sponsorship, or newly-acquired equipment.	
<b>Item:</b>	The item listed
<b>Description of Budget Item:</b>	Please provide a description of the item with adequate detail to show how totals were calculated.
<b>Grant Request:</b>	The amount requested from this Grant (if applicable).
<b>Matching Funds:</b>	The amount funded through matching funds (if applicable).
<b>Total:</b>	This column will be automatically calculated.
<b>INDIRECT COSTS</b>	
Indirect costs are eligible for grant funding only for 501(c)(3) Nonprofits and are <u>limited to 20%</u> of grant funding. Indirect costs cannot be counted as matching funds.	
<b>Item:</b>	20% Administrative overhead for Nonprofits
<b>Description of Budget Item:</b>	Any additional description
<b>Grant Request:</b>	The amount requested from this Grant (if applicable).
	The percent of grant funding
<b>Total:</b>	This column will be automatically calculated.

Instructions

<b>GRAND TOTAL</b>	
<b>Grant Request:</b>	This column will be automatically calculated.
<b>Matching Funds:</b>	This column will be automatically calculated.
<b>Total:</b>	This column will be automatically calculated.
<b>COST SHARE</b>	
A minimum of 25% of grant request in matching funds is required. A project budget with less than 25% of the grant request in matching funds does NOT meet the grant requirements and will not be considered for funding.	
<b>Matching Funds:</b>	This column will be automatically calculated.
<b>MATCHING FUNDS</b>	
Please describe the source of matching funds listed above. This might include cash match (e.g. grantee's own funds, donations, grants, etc) or in-kind match (non-cash contribution such as volunteer time).	
<b>Source:</b>	The source of funding (e.g. In-kind contributions, Organization's contributions, Donations, Grant, etc.).
<b>Description:</b>	Any additional description.
<b>kind)</b>	Indicate whether the funding is cash or in-kind match.
<b>Pending)</b>	Indicate whether the matching funds are secured or pending.
<b>Matching Funds:</b>	The amount funded through matching funds.

Budget Form

**Santa Clara Valley Open Space Authority | 2025 Urban Grant Program**

**PROJECT BUDGET**

Highlighted cells are automatically calculated.

**PROJECT**

Program

Organization: Mutsun Tribal Foundation

**PERSONNEL**

Estimate employee and volunteer time directly related to the project. Hourly rates for employees can include salary plus fringe benefits, payroll tax, etc, but can not include indirect costs. Note: please list position titles only.

Position Title	Description of Budget Item	Grant Request (\$)	Matching Funds (\$)	Total
Project Manager	the project on-site			
Lead Instructors (2)	both teachers.	\$ 16,000.00		\$ 16,000.00
Tribal Elder	hours/year at \$250/hour.	\$ 12,500.00		\$ 12,500.00
Volunteer Cordinator	10 hrs/month for an year at \$50/hour		\$ 6,000.00	\$ 6,000.00
Taxes	Income tax and payrolls	\$ 3,500.00		\$ 3,500.00
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
<b>TOTAL PERSONNEL</b>		<b>\$ 32,000.00</b>	<b>\$ 6,000.00</b>	<b>\$ 38,000.00</b>

**CONTRACTED SERVICES**



Budget Form

				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
<b>TOTAL SUPPLIES AND MATERIALS</b>		<b>\$ 24,000.00</b>	<b>\$ 6,000.00</b>	<b>\$ 30,000.00</b>
<b>OTHER DIRECT COSTS</b>				
Other direct costs that are <u>directly related</u> to the project. This might include travel, service fees for fiscal sponsorship, or newly-acquired equipment.				
<b>Item</b>	<b>Description of Budget Item</b>	<b>Grant Request (\$)</b>	<b>Matching Funds (\$)</b>	<b>Total</b>
Data and Reporting	biodiversity monitoring.	\$ 5,000.00		\$ 5,000.00
Farm-to-Table Event Revenue	activities.		\$ 7,000.00	\$ 7,000.00
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
<b>TOTAL OTHER DIRECT COSTS</b>		<b>\$ 5,000.00</b>	<b>\$ 7,000.00</b>	<b>\$ 12,000.00</b>
<b>INDIRECT COSTS</b>				
Indirect costs are eligible for grant funding only for 501(c)(3) Nonprofits and are <u>limited to 20%</u> of grant funding. Indirect costs cannot be counted as matching funds.				

Budget Form

Item	Description of Budget Item	Grant Request (\$)	Matching Funds (\$)	Total
20% administrative overheads			n/a	\$ -
<b>TOTAL INDIRECT COSTS</b>		<b>\$ 4,625.00</b>	n/a	<b>\$ -</b>
<b>PERCENT OF GRANT REQUEST</b>		<b>6.2%</b>	n/a	n/a
<b>GRAND TOTAL</b>				
		<b>Grant Request (\$)</b>	<b>Matching Funds (\$)</b>	<b>Total</b>
<b>TOTALS</b>		<b>\$ 75,000.00</b>	<b>\$ 19,000.00</b>	<b>\$ 89,375.00</b>
<b>COST SHARE</b>				
				(%)
A minimum of 25% of grant request in matching funds may be required. This field is automatically calculated.				<b>25.3%</b>
<b>MATCHING FUNDS</b>				
Please describe the source of matching funds listed above. The total matching funds listed here should match the total matching funds listed under Grand Total above. This might include cash match (e.g. grantee's own funds, donations, grants, etc) or in-kind match (non-cash contribution such as volunteer time).				
Source	Description	(cash or in-kind)	Pending)	(\$)
Nasim out-of-pocket expense	Volunteer Coordinator	Cash	Secured	\$ 6,000.00
Nasim out-of-pocket expense	Mentorship & Workforce Development	Cash	Secured	\$ 1,000.00
Nasim out-of-pocket expense	Baseline Site Testing & Permits	Cash	Secured	\$ 2,000.00
Nasim out-of-pocket expense	Community Events & Outreach	Cash	Secured	\$ 1,000.00
Nasim out-of-pocket expense	Infrastructure, Tools & Materials	Cash	Secured	\$ 1,000.00
Local grocery stores + Freshness Farms	farm-to-table dinners	In-kind	Pending	\$ 1,000.00
Ticket sales and donations	Farm-to-Table Event Revenue	Cash	Pending	\$ 7,000.00

Budget Form

<b>TOTAL MATCHING FUNDS</b>				<b>\$ 19,000.00</b>





Sample Budget

				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
<b>TOTAL SUPPLIES AND MATERIALS</b>		<b>\$ 1,600.00</b>	<b>\$ -</b>	<b>\$ 1,600.00</b>

**OTHER DIRECT COSTS**

Other direct costs that are directly related to the project. This might include travel, service fees for fiscal sponsorship, or newly-acquired equipment.

Item	Description of Budget Item	Grant Request (\$)	(\$)	Total
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
<b>TOTAL OTHER DIRECT COSTS</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**INDIRECT COSTS**

Indirect costs are eligible for grant funding only for 501(c)(3) Nonprofits and are limited to 20% of grant funding. Indirect costs cannot be counted as matching funds.

Item	Description of Budget Item	Grant Request (\$)	(\$)	Total
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Sample Budget

<b>TOTAL MATCHING FUNDS</b>				<b>\$ 6,692.00</b>

# *Alrie Middlebrook Design*

landscape designer & artist

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Dear Jackie,

It is with great solidarity that I recommend funding for the Mutsun Tribal Foundation's Educational Grant. As a past member of the Santa Clara County Urban Growers Network championing the Eat Grow Learn community network, I deeply respect our tribal partners' love for Mother Earth and their traditional ecological knowledge.

We are united by our shared commitment to community-based regenerative agriculture and ecological land management. I volunteer my time to provide technical guidance and mentorship to young professionals and students who will complete certification classes in Regenerative Organic Agriculture (ROA) and Ecological Land Management (ELM). These graduates will be prepared to teach future classes at Freshness Farms by 2027.

In 2024, I retired as Founder and Executive Director of the California Native Garden Foundation, after also founding and leading Middlebrook Gardens for 31 years, where I oversaw the creation of over 1,000 native gardens. Since retiring, I've continued designing native gardens and educational farms for private clients and nonprofits such as A Living Library: Think Park, which offers paid internships for high school and college students. I have also built alliances with Bay Area Rotary Clubs supporting sustainable environmental projects and grants for nonprofits.

Currently, I am advancing the Santa Clara County Eat Grow Learn Community Network, which includes the Agrihood, Gavilan College, Valley Water, the County of Santa Clara, and Freshness Farms. San José State University business students, Rotaract members, and students from the College of Adaptive Arts at West Valley College are participating to measure the network's impact on workforce development and carbon reduction.

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RESTORE THE BEAUTY OF CALIFORNIA - PLANT A NATIVE GARDEN

(408) 666-1518 Los Gatos, California

alrie@alriemiddlebrookdesign.com www.alriemiddlebrookdesign.com

# Alrie Middlebrook Design

landscape designer & artist

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Since 2022, I've been honored to work with Antonio Moreno of the Pajaro Valley Ohlone Indian Council, a skilled leader in the Mutsun Tribal project. After fifty years in this field, I feel uniquely prepared to contribute to this work at a time when the need has never been greater.

With your support, we can continue building a resilient educational farm that meets local needs and provides free, long-term workforce development opportunities for marginalized students—ensuring the program's sustainability far beyond this grant cycle.

Sincerely,

Alrie Middlebrook

[Alriemiddlebrookdesign.com](http://Alriemiddlebrookdesign.com)

Founder and Retired Executive Director

California Native Garden Foundation

Author: "Designing California Native Gardens: The Plant Community Approach to Artful Ecological Gardens"

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RESTORE THE BEAUTY OF CALIFORNIA - PLANT A NATIVE GARDEN

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Los Gatos, California

[alrie@alriemiddlebrookdesign.com](mailto:alrie@alriemiddlebrookdesign.com)

[www.alriemiddlebrookdesign.com](http://www.alriemiddlebrookdesign.com)

Jackie McBride  
Community investment Specialist  
Urban Grant program  
Open Space Authority

Dear Jackie,

I am writing to support the Mutsun Tribal Foundation Coyote Valley educational grant. I am a member of the Pajaro Valley tribal community & a dance troupe member.

I have been working on this project for a year or so with Anthony Mondragon, Director Mutsun Tribal Foundation.

I also worked/participated with Kat Napoli, who formed Ancestral Roots and Tradition Society in Morgan Hill.

We all participated in a creek clean up and educational program last May.

We were honored by a grant from Rotary to bring tribal members together to share our stories of the land. We all worked together to make a very successful event.

In 2022, I first met Alrie Middlebrook when she contracted with an elder leader in our community to feature us in Resiliency Fairs that CNGF had at the gardens at ELSEE, the CNGF headquarters in San Jose. We became friends and I have gotten to know other friends at CNGF and participated in many Monday night community dinner at the gardens.

I am a California native landscape professional and Director of Landscape/Gardens at "A Living Library"/LifeFrames in SF.

I also serve as a member of San Francisco's "Urban Forestry Council"- seat 7.

I recommended that "A Living Library" hire Alrie to redesign the Seneca bio-swale, our sidewalk cutouts, and "green spaces" around our High School & "Seneca Ave. project".

I have been working with Alrie on our project since last fall, we work well together.

I have also helped her with other projects and know she is committed to partnerships with tribal members to begin to heal our traditional territories & lands, and bring young people together with elders to build stronger respectful communities.

Respectfully submitted,

**Antonio Moreno**  
**S.F. - "A Living Library"/"Lifeframes"**  
**P.M. for Seneca Project**  
**Dir. of Landscape & Gardens**

Dear Open Space Authority,

I, Nasim Nehawandian, am writing in strong support of Alrie Middlebrook and her leadership in advancing native plant restoration and environmental education throughout our region. I have known Alrie for more than 20 years as both a mentor and a friend, and it has been my privilege to collaborate with her on projects that integrate ecological design, Indigenous practices, and community-based learning.

A vision Alrie and I have long shared is the transformation of Freshness Farms into an environmental education oasis that unites ecological restoration with Indigenous land stewardship. Through our partnership with the Mutsun Tribal Foundation, this vision is becoming a reality—rooted in cultural revitalization and ecological healing.

Freshness Farms, now a registered nonprofit organization, received its IRS tax-exempt status on August 14, 2025. We have hosted events with Mutsun Tribal Elders, who have offered blessings on their ancestral lands. Anthony Mondragón, founder of the Mutsun Tribal Foundation and great-grandson of Ascención Solórsano, the medicine woman of the Mutsun people, has shared his vision of creating a space where traditional knowledge and ecological education come together to restore balance to the land and community.

Aligned in our mission, we are working collaboratively—with Alrie's continued guidance—to develop educational programs that cultivate environmental literacy and stewardship. Freshness Farms is also partnering with Santa Clara County Parks through a Public Benefit Partnership supporting watershed restoration and outdoor education in Coyote Valley.

In addition, I helped establish the Coyote Valley Agroecology Coalition, which has built strong partnerships with local organizations including the American Association of University Women, the Rotary Club, and Gavilan College to promote sustainability and community engagement.

I wholeheartedly support this grant proposal and believe Alrie's vision and leadership will continue to inspire meaningful environmental and cultural restoration in our region.

Sincerely,  
Nasim Nehawandian  
Founder, Freshness Farms



## SUSAN ELLENBERG

BOARD OF SUPERVISORS, DISTRICT 4  
COUNTY OF SANTA CLARA  
COUNTY GOVERNMENT CENTER, EAST WING  
70 WEST HEDDING STREET, 10th FLOOR  
SAN JOSE, CALIFORNIA 95110



October 14, 2025

Jackie McBride  
Community Investment Specialist  
Urban Grant Program  
Santa Clara Valley Open Space Authority

This letter is to express support for California Native Garden's work in the community related to ecological land management and re-entry workforce development.

In 2024, California Native Gardens received a \$46,000 Inventory Grant from District 4 to conduct lessons at the Elmwood Correctional Facility through which participants created a native garden and obtained certificates related to native gardens and regenerative row crops.

We look forward to continued partnership and support additional grant funding towards these shared goals.

Sincerely,

Susan Ellenberg  
Board of Supervisors, District 4  
County of Santa Clara



## **Dheyaira Calahorrano**

(415) 424-6782 | dheyaira@integraretsf.org | San Francisco, CA

### **PROFESSIONAL PROFILE**

A dedicated Community Health Educator and Permaculture Advocate with over 10 years of experience bridging holistic health, native plant gardening, and bilingual/bicultural education. Expertise in cultivating community-driven programs that integrate permaculture principles, herbalism, and nutritional wellness to empower Latino and multicultural families. Proven ability to manage projects, facilitate workshops, and build resilient learning communities centered on ecological and personal well-being.

### **CORE COMPETENCIES**

- **Native Plants & Permaculture:** Permaculture Design | Native Plant Gardening | Herbalism | Learning Gardens | Sustainable Land Stewardship
- **Community Health & Education:** Community Health Worker (CHW) | Health Coaching | Medicare Workshop Facilitation | Bilingual (Spanish/English) Education | Resource Navigation
- **Program & Project Leadership:** Program Development & Coordination | Community Outreach | Volunteer Management | Multicultural Collaboration | Grant-Funded Initiatives
- **Scientific & Technical Skills:** Laboratory Management (PCR, Cell Culture) | Data Management | IATA Certified Shipping | Botanical Knowledge

### **PROFESSIONAL EXPERIENCE**

**Founder & Lead Educator** | IntegrArte / Learning & Healing Garden Network | San Francisco, CA | *Apr 2022 – Present*

- Designed and launched a self-directed learning and permaculture program for the Latino community in the Mission District, establishing a network of gardens ("Mushuk Nina") as living classrooms.
- Facilitate workshops on permaculture principles, native plant gardening, herbalism, and healthy nutrition for families, fostering a multicultural community of learners.
- Co-founded the *Latina Mission Moms Committee* to support Latino parents in homeschooling and provide culturally-relevant educational resources and tutoring.
- Organized and led bilingual (Spanish/English) science, art, and cultural activities for youth and families, integrating environmental education.

**Health Worker II** | San Francisco General Hospital | San Francisco, CA | *Aug 2014 – Apr 2022*

- Provided holistic health coaching and self-management education to a diverse caseload of 50+ patients, integrating knowledge of nutrition and wellness.

- Conducted medication reconciliation, patient follow-up, and system navigation, serving as a crucial link between clinical care and community-based health.
- Utilized bilingual and bicultural skills to ensure clear communication and build trust with Spanish-speaking patients.

**Intake & Referral Specialist** | Good Samaritan Resource Center | San Francisco, CA | *Aug 2013 – Aug 2014*

- Served as the first point of contact for over 500 families, providing resource information and referrals to community services.
- Implemented a proactive follow-up system to ensure client understanding and program effectiveness, making 600+ support calls.

**Laboratory & Research Roles** | UC Berkeley, UCSF, & SFGH Foundation | Berkeley & San Francisco, CA | *Apr 2003 – Dec 2012*

- Held progressively responsible roles managing laboratories, processing biological specimens, and ensuring compliance with university and safety regulations.
- Developed meticulous organizational skills through inventory management, data entry, and the processing of thousands of samples for HIV and HPV research studies.
- *Roles included: Lab Manager Assistant (UC Berkeley), Research Associate (UCSF), Lab Technician (UCSF), & Community Health Worker (SFGH Foundation).*

## **EDUCATION & PROFESSIONAL DEVELOPMENT**

**Community Health Worker Program** | City College of San Francisco | *May 2013*  
**Bachelor of Science** | Central University of Ecuador, Quito, Ecuador | *\*1994\**

### **Relevant Coursework & Certifications:**

- Diabetes: Diagnosis, Treatment, and Opportunities | UCSF, Coursera
- Nutrition for Health Promotion and Disease Prevention | UCSF, Coursera
- IATA Certification (Infectious Substances Shipping)

## **AWARDS**

**Chicana/Latina Foundation Scholarship Awardee** | *\*2013\**

# JILLIAN GLAZAR

815.953.8073



jillianglazar@gmail.com



- Regenerative Farmer
- PR & Marketing Strategist

352 W. Main St. Apt. B, Los Gatos, CA 95030



## SUMMARY

I am currently working full-time as a dental hygienist while learning all I can about regenerative farming and native ecosystems. I am gaining both knowledge and experience that will allow me to become a farmer who uses regenerative practices to grow food for the public. I am passionate about studying models that allow for a network of farms to share resources and enter mainstream food markets.

## EDUCATION

### Illinois State University

Bachelor's Degree in **Communications**  
with a focus in **Public Relations**  
2011-2015

### Parkland Community College

Associates in Applied Science - Dental Hygiene  
2017-2019

## SKILLS

- Seed Starting & Transplanting
- BioComplete Compost & Tea
- Permaculture Garden Design
- Avid home cook & gardener
- Skilled in APA Style Grammar & Writing
- Experience in Sales & Public Relations
- Professional-level interpersonal communication skills
- Google Drive, Microsoft Suite, Canva
- Social Media Marketing
- Video Content Creation for Youtube

## CERTIFICATIONS

- Certified Permaculture Design Consultant
- Expected to be certified as Soil Consultant in 2026 (Soil Food Web)
- Registered Dental Hygienist in California
- Former member of the Public Relations Student Society of America

## PROFESSIONAL EXPERIENCE

### Volunteer Gardener

Hester Farm | 2025

- Propagate and plant perennial food plants
- Harvesting native foods for culinary boxes delivered to restaurants

### Soil Consultant in Training

Dr. Elaine Ingham's Soil Food Web | 2025

- Currently undergoing online coursework to become certified as a Soil Consultant
- Course outlines Dr. Elaine Ingham's Soil Food Web, a term she coined after 40 years of research as a microbiologist
- Completing the Foundation Course and passing the Assessment
- Learning to use a microscope to assess what biology is missing
- Learning to make BioComplete Compost and tea, which amends dirt and turns it back into healthy soil capable of nutrient cycling

### Permaculture Designer & Consultant

Medicine for the People, Sole Proprietor | 2022-2025

- Implement original garden designs using a permaculture whole-systems approach, working 'with nature not against it'
- Grow annual and perennial food gardens
- Maintained projects, working with annual and perennial plants
- Hired to conduct research on ecosystems for client projects
- Interned and currently volunteer at the Santa Cruz Permaculture Farm

### Dental Hygienist

Zeidler Dental Group | 2019 - Present

- Work together with dental team to provide great dental care
- Responsible for training new staff
- Apply technical skills as a healthcare provider, i.e. cleanings, x-rays, administering local anesthesia & periodontal scaling

### Marketing Director & Sales

Elite Bridal | 2017- 2019

- Created and implemented Strategic Marketing Campaigns
- Blogging and creating social media content

**PURPOSE:** Finding solutions to help reduce diseases**EDUCATION:**

BS, Biological Sciences, Concentration in Molecular Biology, Minor in Chemistry and Bioinformatics

San Jose State University, CA

May 2027

**Programs and clubs**

- Undergraduate Research Opportunities Program - SJSU Research & Innovation
- Rotaract club (SJSU)- President
- Bioinformatics Club (SJSU) - Vice President
- Indian Student Organization (SJSU) - Financial Coordinator
- Neoscience club (SJSU) - Secretary
- Pre-med Psychology club (SJSU) - Treasurer
- Founder institute - via Spartup at SJSU

**Volunteering**

- SWE++ (Society of Women Engineers) SJSU - 10 weeks python programming tutoring for middle school girls
- BMES (Biomedical Engineering Society) SJSU - Bay Area Biomedical Device conference 2025
- Spartup SJSU - events co-ordinator - provides a bridge between students interested in startups & mentors

**WORK EXPERIENCE****Research Intern - Immunology and computational biology @ Cell Signaling Technology, Danvers, MA**

May '25 - Aug '25

- Worked at the core in the Antibody Technology group and the bioinformatics team to streamline Ab technology used at CST
- Worked on proprietary CST technology in collaboration with other research teams
- Presented at annual Antibody tech & protein group meeting
- Used computational tools to analyze immune signaling and gene expression data.

**Teaching Assistant - Principles of Biology @ San Jose State University**

Aug '25 - Present

- Aid students in class with streamlining thought process, and helping out with any doubts
- Grade papers & record maintenance for all sections of "Principles of biology" at SJSU

**Academic Excellence Workshop Facilitator - General Chemistry @ San Jose State University**

Jan '25 - Present

- Led/ Tutored Chemistry 1A workshops and assisted students with core concepts and labs.

**Undergraduate research assistant - Bioinformatics and Immunology @ Dinh Lab at SJSU**

Aug '24 - Present

- Analyzed single-cell RNA-seq data based on transcriptional regulation of endothelial cell heterogeneity
- Poster presentations at symposiums such as College of Science and Research week @ SJSU
- Part of SJSU's Undergraduate Research Opportunity Program (UROP).

**Research Intern - Microbiology & Cell Biology @ SRISTI & Gram Bharati Research Lab**

Jun '23 - Present

- Collected and analyzed field samples; supported microbiological studies.

**Lab Technician intern @ Indian Red Cross Society (IRCS)**

Jun '24 - Jul '24

- In-house lab technician and on-field blood camp assistance

**Orthopedic Surgery Intern with Dr. Keyur Buch, India**

May '23- Jun '23

- Shadowing an orthopaedic surgeon, assistance in surgery, post-surgical care and visiting NGOs for patient care

**General Medicine Intern with Dr. Smruti Trivedi, India**

May '23 - Jun '23

- Managed EMRs using online medical platforms and assisted in patient ECGs and vaccination procedures

**ACADEMIC SOCIETIES AND WORKSHOPS**

- Cal State LA-MolSSI PREC Computational Molecular Science Winter Workshop
- Stanford - Comprehensive Cancer Research Training Program
- Boston Protein Design and Modelling club
- Bay Area Bioinformatics Forum
- Life Science Hikers - Bay Area & Boston chapters

**SKILL SET**

- **Laboratory skills:** Pipetting, Inoculation, Autoclave, Cell cultures, Protein purification, Silver Stain, Peptide/ Protein Assays, Immunoglobulin enrichment & depletions, Western Blots, SDS PAGE gels, DNA Gel shifts, 10X BEAM & chip loading, Bioanalyser chips, NGS library prep & data analysis, Immunohistochemistry staining, qRT-PCR, PCR, cDNA amplification
- **Biotechnological software:** BLAST, Galaxy server, Loupe, 10X genomics cloud, Cell Ranger, Single-cell sequencing
- **Technical** - Python, R, UI/UX, Machine Learning, Linear Regression, Prototyping, EMR Systems (HealthPlix), Microsoft Office Suite
- **Academic & Teaching** - Curriculum development, One-on-one tutoring, Group instruction, Data collection & analysis, Scientific writing, Mental math expertise (UCMAS certified)
- **Soft Skills** - Cross-cultural communication, Public speaking, Problem-solving, Active listening and mentoring, Team leadership, Event organization, Patient care
- **Language fluency** - English, Hindi, Gujarati, French (limited proficiency), Sanskrit (limited proficiency)

### ***VOLUNTEER EXPERIENCE***

Indian Red Cross Society - Help organise field blood camps, assistance and technician  
Blind People's Association - Tutor computer skills instructor for teachers and students  
Mental Math Club - Founder & teacher of the Mental Math Club at Chinmaya International Residential School  
Khedut Haat (Farmers market) - Support farmers with cataloging, setting shop and data collection  
Fuel My Dream - Led crowdfunding campaign raising 35k for University Construction

### ***CERTIFICATIONS***

- Johns Hopkins University: Introduction to Biology of Cancer
- Tel Aviv University: Viruses 101
- HarvardX: Principles, Statistical and Computational Tools for Reproducible data science (ongoing)
- Berkeley: Introduction to Biostatistics (MCELLBI X471) (ongoing)

### ***ACCOMPLISHMENTS***

- Music: Visharad (equivalent to bachelors) in Indian classical music
- Karate: Black belt with twice International gold
- Dance: Kathak (classical dance) 7 year graduate
- Mental Math: UCMAS Mental Math graduate (All levels completed)
- Trinity London: Communication and Speaking Skills - Distinction grade 5
- Model United Nations - IAEA Committee Chair (CIRS-MUN '23), Best First-time Delegate (SIHMUN), Harvard MUN delegate
- School council

# Rachel Warners

809 Mission St  
Santa Cruz, CA  
95060  
**(616) 427-0124**  
**rachwarners@gmail.com**

## EXPERIENCE

### **Pacific Roots Regenerative Gardens LLC, Bay Area, CA — Founder**

October 2024 - Present

Started the LLC Pacific Roots Regenerative Gardens that provides organic and sustainable landscape management for clients throughout the Bay Area.

### **Confidence Landscaping, Campbell, CA - Director of Organic Landscape Management**

September 2020 - October 2024

Land Management Director for Confidence Landscaping. Research, field work, client education and problem solving to maintain healthy, sustainable gardens. Some landscape design and project management for installation.

### **California Native Garden Foundation, San Jose, CA - Volunteer Coordinator, Educator at Elmwood Correctional Facility**

September 2020 - October 2024

Part time responsibilities educating and leading volunteers at our urban regenerative farm, sustainable learning center and farm stand. Additionally, contracted by CNGF to teach Ecological Land Management and Regenerative Organic Agriculture to inmates at Elmwood Correctional Facility. Students gained knowledge in the classroom that they implemented directly to a garden we built together in the jail.

### **Calvin University, Grand Rapids, MI — Green Team Director**

Summer of 2018, 2019, 2021 and 2022

Worked with a local nonprofit as a mentor (2018/19) and director (2021/22) of a high school outdoor education program. Managed a crew of 9 high schooler and college students employed to install and maintain green infrastructure projects while learning about watershed ecology.

## EDUCATION

### **Calvin University, Grand Rapids, MI — B.S. Biology**

Graduated May 2019 | 3.82/4.0 GPA |

Graduated with honors and minors in Spanish and Environmental studies. Spanish-immersion study abroad program in Arequipa, Perú and volunteered with the Peruvian reforestation organization, Patrulla Ecologica.

## SKILLS

A people person - skilled in leadership, collaboration and boosting morale

**Experience** with large project and team management

**Passion** for ecology, environmental justice and reconnecting people to nature

Genuine **excitement** for meaningful work that is contagious

**Grit** - really good at digging holes

## OTHER

Took time off in 2024/2025 to through hike the Pacific Crest Trail and Camino De Santiago

Outdoor Educator with Mission Springs - taught middle school science in the redwood forest

2 Summers Ecotoxicology Research in the Great Lakes

Published Restoration Note in Journal of Ecological Restoration

4 Years Calvin Varsity Basketball: 2 Years Captain

Spanish Fluency

### **Course Highlights:**

- Plant Taxonomy
- Ecological and Evolutionary Systems
- Environment and Society
- Planning Sustainable Communities
- Research Design and Methodology
- Independent Research
- Comparative Anatomy
- Comparative Physiology
- Biostatistics
- GIS

### **Awards:**

- Honors Fellow
- Trustee Scholarship
- Dean's List each semester



## SUMMARY

Sophie's background spans GIS, environmental policy, water, planning, climate, native plants and CEQA. She excels in streamlining processes to maximize efficiency and advance sustainability. Other strengths include public speaking and relationship building, stemming from her innate networking abilities and robust communication skills.

## EDUCATION

### San José State University (M.A.)

Urban and Regional Planning with Advanced Certification in Environmental Planning

### University of California, Santa Cruz (B.A.)

Environmental Studies with Honors, Legal Studies

## SKILLS

*Hard Skills:* ArcGIS Pro, Esri, Data Analysis, French (fluent), Microsoft Suite, AutoCAD, QA/QC, CEQA, Technical Writing, Content Creation, Implementation Scheduling, Regulatory Compliance, Data Mapping, Research, Strategic Planning, Documentation.

*Soft Skills:* Collaboration, Creativity, Leadership, Presentations and Public Speaking, Stakeholder Engagement, Capacity Building, Workshop Facilitation, Customer Service.

## AWARDS

Masters Thesis "Growing Together: A Comprehensive Study of Community Gardens - San Jose, CA" awarded the San José Rotary Challenge Award - awarded to students who rise to the challenge of finding creative solutions to create sustainable, just, and healthy communities.

## EXPERIENCE

### Native Garden Design Assistant · Alrie Middlebrook Design - July 2024-Feb. 2025 · 8 mos

- Conducted site visits to historic and environmental sites, documenting landscape features and calculated square footage for client sites to support planning and design work.
- Prepared invoices, tracked project expenses, and maintained documentation (tree and plant reference documents) for multiple client's native garden projects.
- Organized and facilitated meetings with clients, vendors, and community partners.
- Assisted in coordinating plant and material orders, including communication with seed vendors and nurseries.

### Environmental Impact Assessment Assistant · San José State University Jan-May 2024 · 5 mo

- Prepared California Environmental Quality Act documents including Categorical Exemptions, Initial Study, and EIR sections for the Pleasant Hills Golf Course Redevelopment Project.
- Participated in the community engagement workshops in an advisory role.
- Collaborated with project biologist and project manager for site assessment and mitigation implementation.

### GIS Technician I — San José Water Company June 2022- July 2023 · 1 year and 1 mo

- Reduced the company's asset mapping backlog by 45% within the first two months.
- Filled data requests for regulatory compliance agencies.
- Performed QA/QC on all work to ensure data accuracy.
- Digitized a total of 15 miles of water mains, 305 fire hydrants, 443 line valves, 500+ air valves, 5 water station upgrades and tank replacements, and 400 service lines in ArcMap and ArcGIS Pro based on engineering as-builts.

### Parks Planning Intern · City of San José Parks, Recreation [...](PRNS) Jan-May 2022 · 5 mos

- Created and presented an Esri StoryMap for the Council Taskforce, Parks Deputy Director, SJ Park's Advocate founder to display the status of the city's park access metrics and equity goals.

## **Climate Action Planning Fellow ·**

### **San Joaquin County Office of Education/AmeriCorps Jan 2021 - August 2021 · 8.5 mos**

- Established four new networks to build capacity for environmental literacy efforts in San Joaquin County, which connected students, teachers, County staff, and regional partners.
- Analyzed networks through data mapping softwares to inform equitable outreach strategies.
- Evaluated SJCOE's sustainability policies, provided recommendations to green the campus facilities/programs.
- Hosted environmental education workshops for underserved youth at the local conservation corps on topics of climate action and resilience, environmental justice, and green careers.

### **Environmental Planning Intern · City of Santa Cruz Water Dept. June 2019 - Mar 2020 · 9 mos**

- Collaborated with biologists, project managers, engineers, and planners to draft permits and construction implementation schedule for the Newell Creek Inlet/Outlet Replacement Project.
- Developed a matrix of federal, state, regional, and local environmental regulations and codes, best management practices, and mitigation measures for water projects.
- Analyzed capital improvement projects and budgets of 46 water utilities to help the Santa Cruz Water Director initiate a coalition in order to address the issue of aging water infrastructure in California.

### **Nuclear Policy and Research Intern · Committee to Bridge the Gap Aug-Dec 2018 · 5 mos**

- Participated in environmental planning and permitting meetings with agencies and consultants to evaluate EPA compliance to state and federal nuclear contamination monitoring requirements.
- Hosted a community workshop to notify Hunter's Point residents about nuclear contamination.

### **Freelance Environmental Blogger — Tumblr · Self-employed Feb 2014 - Aug 2019 · 5 yrs 7 mos**

- Created an environmental/nature blog that accumulated 70,000+ followers.
- Built relationships and regularly corresponded with followers and other bloggers through online networks and regularly answered questions/provided advice to followers on a variety of topics.
- Generated revenue through running advertisements through Google AdSense.

### **Campaign & Project Management Lead · Flip the West Sept-Nov 2020 · 3 mos**

- Spearheaded a bill proposal and strategic plan to require regional climate action strategies.
- Originated a mental health resource guide and infographics for the program volunteers.
- Designed infographics for the Senate race candidates in midwestern swing states.

### **Teaching Assistant · Environmental Policy and Economics Jan-March 2018/19 · 6 mos**

- Co-led and assisted two groups of twenty students twice a week with environmental policy and economics course material through group discussions and exercises.

### **Student Cashier · UC Santa Cruz Bay Tree Bookstore, Nov 2017-Sept 2019 · 1 year 11 mos**

- Managed key relationships and developed a reputation for increasing customer satisfaction.
- Solved customer complaints and provided information regarding products.
- Maintained and organized store displays to enhance product visibility and trained six new employees on store policies, services, and operations to provide excellent customer satisfaction.

## ***VOLUNTEER***

- American Planning Association (APA) - Northern Section Board Member (present)
- California Planning Foundation - Liaison (present),
- California Native Garden Foundation - Lead Volunteer (present)
- Our City Forest - Tree Planting Volunteer (2021)
- Santa Cruz Ski and Snowboard Club - Staff, President (2016-2019)
- Environment California - Canvasser (2017)
- DHS Environmental Club - President (2015)

# Stella Tinker

[stella.c.tinker@gmail.com](mailto:stella.c.tinker@gmail.com) | [503-369-5874](tel:503-369-5874) | [linkedin.com/in/stella-tinker](https://www.linkedin.com/in/stella-tinker)

## Education

- **Stanford University, expected graduation June 2028**  
Urban Studies major | 3.9 GPA | Palo Alto, CA
- **Cleveland High School**  
International Baccalaureate Diploma | High School Diploma | Portland, OR | 2024

## Work and Volunteer Experience

- **Advising Fellow**  
Matriculate | San Jose, CA | 2025-26
  - Mentor high school juniors and seniors through their college application, enrollment and transition process, provide individualized support.
- **Partnership for Climate Justice in the Bay Fellow**  
Valley Verde | San Jose, CA | Summer 2025
  - Advanced food sovereignty and equitable food access through hands-on work with Valley Verde, a local food justice non-profit. Initiated and led the first-ever “Garden Art Gathering” – a community-building event that brought together local artists, volunteers and residents for a day of collaborative service projects. Improved volunteer recruitment, retention and management by optimizing systems: developed integrated databases and online forms, launched volunteer feedback surveys, enhanced outreach strategies, and proposed website improvements.
- **Osage Ballet Intern**  
Osage Ballet | Pawhuska, OK | Summer 2024
  - Supported logistics, administrative coordination and community engagement for a production of *Wahzhazhe*, a contemporary ballet that tells the history of the Osage people from pre-contact to present day.
- **Student Ambassador**  
Blanchet House | Portland, OR | 2022-23
  - Led outreach efforts within school and local communities to promote awareness of supportive food and housing programs in collaboration with Blanchet House, a local non-profit that addresses homelessness and food insecurity.

## Activities

- Stanford Powwow Committee, 2024-25, 2025-26
- Euphoniumist, Stanford Wind Ensemble, 2024-25
- “We The People” Constitution Team Mentor, 2023-24
- Oregon Outdoor School Student Leader, 2023, 2024

## Affiliations

- Enrolled member, Osage Nation

# Adrian Deily

San Luis Obispo, CA 93405 • ayear620@gmail.com • (925) 848-5442 • www.linkedin.com/in/adrian-deily

## **EDUCATION**

California Polytechnic State University (Cal Poly), San Luis Obispo

Masters of Science: **Environmental Science and Management**, September 2023

Bachelor of Science: **Environmental Management and Protection**, June 2022

Minor: **Spanish**

Dean's List: **6 Quarters**

### **Relevant Coursework**

Global Climate Change, Research Planning, Advanced Environmental Science, Advanced Environmental Management, General Chemistry, Physics, Botany, Dendrology, Landscape Installation and Maintenance, Principles of Irrigation, Geographic information systems (GIS), Soil Science, Spanish, Environmental management, Forest health, and Agroecology courses.

## **SKILLS/KNOWLEDGE**

- ArcGIS Pro, ArcGIS Online, Microsoft Office, OpenLCA
- Proficient in Spanish language and beginner Italian language

## **PROFESSIONAL EXPERIENCE**

**California Native Garden Foundation / Americorps Climate Action Corps – San Jose, CA**

*Manager and Climate fellow* November 2023 – November 2024

- Taught two educational certificates in Ecological Land Management and Regenerative Organic Agriculture at Elmwood Correctional Facility
- Managed a labor crew and directed landscape installations, maintenance, and enhancements
- Worked closely with grant writing and fundraising teams to acquire revenue for a nonprofit
- Expanded knowledge of California native plants, regenerative organic farming, and ecological land management
- Spearheaded financial planning such as expense tracking, bidding landscapes, and ordering supplies

**Swift Subtropical, Bear Creek Ranch LLC - Los Osos, CA**

*Farming Intern* June 2023 – October 2023

- Oversaw 600 acres of ranch land and organic subtropical fruits
- Delegated tasks to employees including harvesting, food safety, and planting
- Managed 50 head of organic grass fed black angus cattle by rotationally grazing, feeding, castrating, and immunizing
- Translated safety meetings from English to Spanish

**California Polytechnic Organic Farm - San Luis Obispo, CA**

*Farming Intern* April 2021 - January 2022

- Tended to 11 acres of crops by irrigating, weeding, fertilizing, and harvesting
- Managed farmers market booth and delegated tasks to student volunteers
- Tasked with delivering produce to supermarkets and other vendors
- Developed tractor driving and machinery skills

**BrightView Landscape - Pleasanton, CA**

*Landscape services Intern* Summer 2020

- Shadowed managers and crew leaders during day-to-day tasks.
- Improved customer relations and refined managerial skills
- Installed irrigation systems, new enhancements, and hardscapes
- Enhanced Spanish language skills

## **FORESTRY EXPERIENCE**

**Soquel Demonstration State Forest – Santa Cruz County, CA**

*Graduate Student Researcher* September 2022 – June 2023

- Implemented transects to collect geophysical and evapotranspiration data of plots
- Compiled scientific literature for completion of a dissertation

- Guided undergraduate researchers

**Swanton Pacific Ranch Forest Stewardship Senior Project – Swanton, CA**

*Crew Member Summer 2022*

- Drafted a mock timber harvest plan (THP) for a coast redwood plot of the Little Creek watershed
- Played the role of a registered professional forester (RPF), hydrologist, botanist, and civil engineer
- Collaborated with industry professionals

**COMMUNITY/CAMPUS INVOLVEMENT**

**California Polytechnic Plant Conservatory - San Luis Obispo, CA**

*Volunteer September 2018 - June 2019*

- Volunteered once a week for two hours
- Transplanted, weeded, watered, and cleaned
- Educated on various plant species; growing conditions and care

# **Ecological Land Management Certification**

## **Courses & Practicum**

Program participants will learn to design, build, and manage urban gardens that restore nature, especially with local California native plants. Ecological landscaping reduces CO2 emissions and sequesters carbon, conserves, captures and cleans water, preserves biodiversity and restores healthy soil and its complex network of soil microbiomes. Graduates will be prepared to start their own business after first working as an ecological landscaping professional, with opportunities to work with professional landscape companies, land owners or managers or to improve your ecological land management knowledge if you are currently employed as a landscape professional.

Students who complete 32 classes, including the final semester project, will receive a certification in Ecological Land Management. This certification will allow graduates to gain entry to professional landscape companies or to improve your professional training to gain opportunities for advancement with your current employers.

Each of these hands-on practicums will be taught by mentors who are experts in their fields, at a variety of sites. Students who complete the two semester series will be certified in Ecological Land Management by CNGF, Lab for Nature-Based Urban Living and the San Jose Evergreen Community College District Workforce Institute.

Students will learn 10 components to Ecological Land Management:

- Soil management,
- Native plant communities
- Invasive plants
- Propagating native and sustainable food plants
- Water management: irrigation, re-use, cleansing, and storage
- On-site waste management; composting, vermi-composting and repurposing
- Stewardship practices; site work plans specific to site and demographics
- Regenerative Organic Agriculture
- Controlled Environment Agriculture (aquaponics, aeroponics, hydroponics)
- Client management and community outreach and volunteer education for sustainability

Students will be introduced to 3 landscape business models, including

- Non-profit
- California for profit Corporation
- California Co-ops

Students will be introduced to 7 garden models, including

- Residential native gardens
- School gardens
- Church gardens
- Gardens at parks
- Corporate gardens
- Restoration projects in non-urban areas
- Senior Gardens

## **Course Descriptions**

### **Course One: Soil Management**

Students will compare native soil and disturbed soil, and their impacts on healthy ecosystems. We learn about how soil -- with its complex microbiome -- is the foundation of our ecosystem. We will identify different kinds of soil, and discover how native plants and hedgerows help restore optimal soil benefits. We will learn to create, maintain, and use composting, vermi-composting, and compost tea facilities. We will compare new soil microbial science to non-sustainable agricultural standards, on topics including no-till agriculture, polyculture, continuous planting (rather than leaving fields fallow), composting solutions to building healthy soils, and the use of native hedgerows and locally native insectary plants.

Instructors Name & **Contact Information:**

- Prof George Sellu [gsellu@santarosa.edu](mailto:gsellu@santarosa.edu) (707) 527-4648

**Total Instructional Hours: 7**

### **Course Two: Native Plants Communities**

Students will learn about the regional native plants of Northern California. We will meet at several locations representing a range of regional ecosystems in order to observe and compare plant communities in depth, including riparian, oak woodland, chaparral, coastal bluff, mixed evergreen, redwood, oak woodland, wetland, grassland, and ecotone (the area between two plant communities). By studying plant communities and learning to identify the native plants that grow within them, and their relationship to the native plant community where they thrive, we will be better able to restore local ecosystems in urban environments, using sustainable systems.

Instructors Name & Contact Information:

- Alrie Middlebrook [alrie@cngf.org](mailto:alrie@cngf.org)
- Allegra Watson [allegrawatson96@gmail.com](mailto:allegrawatson96@gmail.com)
- Tara Larson and Jane Burgunder CNGF designers [tlarson@ucdavis.edu](mailto:tlarson@ucdavis.edu)

- jane.burgunder@gmail.com
- Sierra Watson grassroots ecology

**Total Instructional Hours: 7**

### **Course Three: Propagating**

Students will learn when and how to save seeds and make cuttings from different kinds of plants in order to create a more sustainable and economic model. Students will learn how to collect and propagate local native plants from intact ecosystems, with permission, in order to recreate the plant communities of the local region.

Instructors Name & Contact Information:

- Erin Dougherty [plants@nativerevival.com](mailto:plants@nativerevival.com)
- Pete Villieux [pete@eastbaywilds.com](mailto:pete@eastbaywilds.com)
- Nicky Hughes [nihughes@cabrillo.edu](mailto:nihughes@cabrillo.edu)
- Sierra Watson grassroots ecology

**Total Instructional Hours: 7**

### **Course Four: Invasive Plants**

Exotic plants are popular in California, because people from all continents have introduced them. Some exotic plants can easily become invasive. Invasive plants can disrupt the microbial networks of our soil, making it difficult for some native plants to germinate, and threatening beneficial birds and insects. In this course, we will learn about invasive plants, how they impact our local ecosystems, how to identify them, and protocols to remove them without chemicals. This will include a field practicum, where we will train and demonstrate to students ecological solutions and protocols for invasive plant eradication that will also favorably modify the microbial ecology of the soil to a naturalized soil beneficial to an enhanced biodiversity of local native ecosystems.

Instructors Name & Contact Information:

- Alrie Middlebrook [alrie@cngf.org](mailto:alrie@cngf.org)
- Stewart Winchester [stewwinchester@sbcglobal.net](mailto:stewwinchester@sbcglobal.net) 510-685-7024
- Josiah Clark [Josiah.clark621@gmail.com](mailto:Josiah.clark621@gmail.com)

**Total Instructional Hours: 7**

### **Course Five: Water Management (Capture, Holding, Cleansing, Reusing)**

Northern California is prone to drought. In addition to planting drought-tolerant, regional native plants, ecological landscape specialists must understand how to use more sustainable forms of irrigation and water use. In this course, we will learn how to convert to different kinds of irrigation, and when and where those are most appropriate. Methods we will learn include drip irrigation, polyline, drip emitters, micro-sprays, and netafim we will also introduce smart controllers. All methods to retain rainfall on site, to reuse and cleanse it, we will also cover downspout diversion, rainfall capture, storage, cleansing and pumping of rainwater for year

round food production, grey water systems, porous paving, constructed wetlands and food forests.

Instructors Name & Contact Information:

- Alan Hackler, [alan@baymaples.com](mailto:alan@baymaples.com)
- product representatives from Rainbird, Netafim, and Ewing
- Jeff Sheehan Confidence Landscaping [jeff@confidenceland.com](mailto:jeff@confidenceland.com)

**Total Instructional Hours: 7**

### **Course Six: Waste Management:**

We will learn ways to avoid shipping vegetative waste to landfills. Sustainable solutions keep waste on site for reuse, repurpose, chipping, mulch creation, and composting. Multiple solutions for private and public properties are required to be used on site, rather than transported. Students will be trained in all solutions.

Instructors Name & Contact Information:

- Scott Beall, Zanker Recycling, Manager of Zanker supply product development team  
408-263-2385 [scott@zankerrecycling.com](mailto:scott@zankerrecycling.com)
- Evergreen Supply Product development team
- Cngf composting team

**Total Instructional Hours: 7**

### **Course Seven: Stewardship Practices, 12 Months/Year:**

Students will study methods of online seasonal care of native gardens, including strategies to protect plants from infestation and pathogens. We will learn specific skills to mimic nature's renewable, seasonal calendar. Each garden has a 12 month/year work plan and involves pruning, editing, replacements, mulching, transplanting, dividing, invasives eradication, redesign, irrigation trouble shooting and repair, gopher mgmt.

Instructors Name & Contact Information:

- Alrie Middlebrook [alrie@cngf.org](mailto:alrie@cngf.org)
- Julie Swift [julie@wildnatives.com](mailto:julie@wildnatives.com)
- Rebecca Schoenberger [info@canativescapes.com](mailto:info@canativescapes.com)
- Rachel Warners Confidence Landscaping /CNGF
- Elizabeth Sarmiento Smart Yards

**Total Instructional Hours: 7**

### **Course Eight: Introduction to Regenerative Organic Agriculture and Controlled Environment Agriculture**

Students will be introduced to the practice of ROA, creating native hedgerows, and the six categories of edible food plants grown in our region. ecosystems services, food security, food

sovereignty, social justice and land justice embodied in the build 25 Initiative through teaching, training and research to empower youth to lead us out of the fossil fuel age.

Instructors Name & Contact Information:

- Alrie Middlebrook, [alrie@cngf.org](mailto:alrie@cngf.org)
- Paul or Elizabeth Kaiser Singing Frog Farms, [info@singingfrogsfarm.com](mailto:info@singingfrogsfarm.com)
- Raul Lozano [info@Valleyverde.org](mailto:info@Valleyverde.org)
- Cayce Hill [cayceh@Veggielution.org](mailto:cayceh@Veggielution.org)
- Matt Stone, [matt@sharkcityfarms.com](mailto:matt@sharkcityfarms.com)
- Ken Armstrong [ken@ouroborosfarm.com](mailto:ken@ouroborosfarm.com)

**Total Instructional Hours: 7**

### **Course Nine: Client Management/Community Outreach**

Urban ecological land managers serve as ambassadors, helping to educate different populations about how we can transform land in cities to mimic how the planet renews itself. We will practice effective ways of communicating about healthy soil, native plant communities, irrigation, and how all urban citizens benefit when we restore local ecosystems, here in the heart of San Jose.

Instructors Name & Contact Information:

- Sherry Osaka [sdosaka@sustainable-landscape.com](mailto:sdosaka@sustainable-landscape.com)
- Alan Hackler, [alan@baymaples.com](mailto:alan@baymaples.com)
- Elizabeth Sarmiento Smartyards
- Jeff Sheehan [jeff@confidenceland.com](mailto:jeff@confidenceland.com)
- CNPS staff from Hidden Villa; First 5 leaders; CNGF Leadership Intern Graduates
- mentors and instructors can be drawn from these professional partnership organizations.

**Total Instructional Hours: 7**

### **Second Semester: Field Study Practicum**

Students will actually convert an existing residential lawn to an ecological garden, including the regional native plant communities with a food producing urban farm component that will feed four people. We will also learn to start with a parking lot or weed filled empty lot and restore it to the local ecosystem. We will learn which natives can be transplanted and when and how to transplant; which natives can be pruned and when and how much; how long native plants live and what plant to replace a native plant with once a plant has died. When is the best time to plant a native garden and what native plants attract the most species of native bees? What is different about managing native gardens from non native gardens? Can a native garden survive without water and care? How can we best replicate nature's strategies?

Instructors Name & Contact Information:

- CNGF Intern Graduates; Matt Stone

## Ecological Training Certificate Logistics

### Potential Funding Sources (specific organizations & contact information)

- City of San Jose Parks Dept: Nicolle Burnham, Deputy Director, Capital Programs [nicolleburnham@sanjoseca.gov](mailto:nicolleburnham@sanjoseca.gov)
- City of San Jose Mayor's Office: MacKenzie Mossing, Deputy Chief of Staff [mackenzie.Mossing@sanjoseca.gov](mailto:mackenzie.Mossing@sanjoseca.gov)
- County of Santa Clara: Susan Ellenberg, County Supervisor [sellenberg@sjsud.org](mailto:sellenberg@sjsud.org)
- County Office of Education: Director of Environmental Education WI will have better contacts than CNGF.
- Daycare and preschool operators and owners: Refer to spread sheet of local day care owners and operators. Bright Horizons manages all Google day care centers. for example.
- Stanford: Patrick Archie, Director, Stanford Educational Farm [jparchie@stanford.edu](mailto:jparchie@stanford.edu)
- Santa Clara University: Katherine Rondthaler [krondthaler@scu.edu](mailto:krondthaler@scu.edu)
- San Jose State University: Kristen Wonder, Campus Sustainability Coordinator [kristen.wonder@sjsu.edu](mailto:kristen.wonder@sjsu.edu)
- Google: Ricardo Benavidez, Director, Social Infrastructure [benavidez@google.com](mailto:benavidez@google.com)
- Apple: Lisa Jackson, VP Environmental Initiatives [lpjackson@apple.com](mailto:lpjackson@apple.com)
- Core Development: David Neale [dneale@thecorecompanies.com](mailto:dneale@thecorecompanies.com)
- McKnight Foundation: Stephanie Duffy, Director of Grants [sduffy@mcknight.org](mailto:sduffy@mcknight.org)
- Silicon Valley Community Foundation: Mauricio Palma, Community Leadership [mpalma@siliconvalleycf.org](mailto:mpalma@siliconvalleycf.org)
- Irvine Company: Natalie Khoddam, Director of Environmental Health and Safety (949) 720-2000
- Jay R. Paul Charitable Foundation (631) 537-3553
- Cisco Systems, [Support for Nonprofits](#)
- Essex Property (650) 655-7800
- Intel: Todd Brady, Director, Global Public Affairs and Sustainability [Tbrady@intel.com](mailto:Tbrady@intel.com)
- Sobrato Philanthropies (650) 876-7010
- Prometheus Real Estate Group (650) 931-3400
- Diocese of San Jose: Oscar Cantu, Bishop (408) 983-0100
- Catholic Charities: Gregory Kepferle, CEO; Advocacy and Community Engagement Office 408-325-5196
- West Valley Mission College District: Bradley Davis, Chancellor (408) 741-242
- Santa Clara County Cities and Towns:
  - **Campbell** - Recreation and Community Services [recreation@cityofcampbell.com](mailto:recreation@cityofcampbell.com) 408-866-2105
    - City Council Members:
      - Susan M. Landry, Mayor [susanl@campbellca.gov](mailto:susanl@campbellca.gov)
      - Liz Gibbons, Vice Mayor [lizg@campbellca.gov](mailto:lizg@campbellca.gov)
      - Paul Resnikoff, Council Member [paulr@cityofcampbell.com](mailto:paulr@cityofcampbell.com)

- Anne Bybee, Council Member [anneb@cityofcampbell.com](mailto:anneb@cityofcampbell.com)
  - Rich Waterman, Council Member [richw@campbellca.gov](mailto:richw@campbellca.gov)
- **Cupertino** - Parks and Rec [recreation@cupertino.org](mailto:recreation@cupertino.org) (408) 777-3362
  - City Council Members
    - Steven Scharf, Mayor [sscharf@cupertino.org](mailto:sscharf@cupertino.org) 408.777.3191
    - Darcy Paul, Vice Mayor [dpaul@cupertino.org](mailto:dpaul@cupertino.org) 408.777.3195
    - Rod Sinks, Council Member [rsinks@cupertino.org](mailto:rsinks@cupertino.org) 408.777.3194
    - Liang Chao, Council Member [liangchao@cupertino.org](mailto:liangchao@cupertino.org) 408.777.3192
    - Jon Willey, Council Member [willey@cupertino.org](mailto:willey@cupertino.org) 408.777.3193
- **Gilroy** - Adam Henig, Manager, Parks and Rec [adam.henig@cityofgilroy.org](mailto:adam.henig@cityofgilroy.org) (408) 846-0577
  - City Council Members
    - Roland Velasco, Mayor [roland.velasco@cityofgilroy.org](mailto:roland.velasco@cityofgilroy.org) (408) 710-8508
    - Cat Tucker, Mayor Pro Tempore [cat.tucker@cityofgilroy.org](mailto:cat.tucker@cityofgilroy.org) (408) 500-2523
    - Marie Blankley, Council Member [marie.blankley@ci.gilroy.ca.us](mailto:marie.blankley@ci.gilroy.ca.us) (408) 465-6032
    - Dion Bracco, Council Member [dion.bracco@cityofgilroy.org](mailto:dion.bracco@cityofgilroy.org) (408) 422-1734
    - Peter Leroe-Munoz, Council Member [peter.leroe-munoz@cityofgilroy.org](mailto:peter.leroe-munoz@cityofgilroy.org) (408) 427-4697
    - Fred M. Tovar, Council Member [fred.tovar@cityofgilroy.org](mailto:fred.tovar@cityofgilroy.org) (408) 710-0548
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    - Michael S. Goldman, Council Member [goldmancouncil@sunnyvale.ca.gov](mailto:goldmancouncil@sunnyvale.ca.gov) 408-507-3128
    - Mason Fong, Council Member [FongCouncil@sunnyvale.ca.gov](mailto:FongCouncil@sunnyvale.ca.gov)

#### Class Locations:

- Environmental Lab for Sustainability and Environmental Education (ELSEE) at 76 Race St., San Jose
- Hester Farms at 1460 The Alameda, San Jose
- Educare Silicon Valley, 1399 Santee Dr., San Jose FMSD
- First 5 Family Resource Center, 1399 Santee Dr., San Jose FMSD
- First5 FRC Cureton School ARUSD
- First 5 FRC Hubbard Academy ARUSD
- Urban parks such as Guadalupe River Park
- Private residences
- Native gardens at a variety of San Jose schools and churches
- Regional parks, such as Alum Rock Park and the Los Gatos Creek Trail.

#### Materials and Supplies

- Each student will need their own hand tools (pruners, loppers, gloves, toolbag, hand trowel) journal, phone and computer.

## Target Population

- Contractors
- Park employees
- Landscape professionals.
- College students
- Second careers
- City planners
- Architects
- Graduate students
- Teachers
- Climate activists
- HS students

## **COURSE SYLLABUS REGENERATIVE ORGANIC AGRICULTURE (ROA) CERTIFICATION**

*“In the end we will conserve only what we love. We will love only what we understand and we will understand only what we are taught.”*

- Senegalese ecologist, Babia Dioum.

### **Course description**

Our modern global food system is extremely destructive to the earth and human health, using harsh chemicals and extractive, unsustainable farming practices. As a society, we have grown accustomed to the exploitation inherent to our food, and lost sight of a method of nourishing ourselves that is reciprocal with the land and good for our communities. The goal of this course is to introduce the field of Regenerative Organic Agriculture (ROA), convey that building an understanding of this concept can help us address the environmental challenges facing our planet, and provide lifelong skills.

### **Course objectives**

- Gain an understanding of ROA and how to grow food regeneratively
- Gain the skills and knowledge necessary to plan and maintain a food garden
- Think critically and systematically about conventional food systems
- Create a functioning food garden and permaculture forest using ROA techniques
- Gain a certification to progress towards a career

### **Class structure**

- This course meets for 12 weeks, with one lab day and one lecture day per week
- We have class every Tuesday and Thursday from 3:30 pm to 5:00 pm
- To receive a certificate of completion, you need to attend 18 out of 24 classes
- The last week will focus on next steps to pursue continuing education and/or jobs
- The syllabus is a tentative outline based on how our garden evolves

<b>Course Outline</b>	<b>Date</b>	<b>Topics</b>
<a href="#">Week 1: Class Welcome and Introduction to ROA</a>	Tues 6/4	Lecture: Go over syllabus, explore ROA vs Conventional and why it's important
	Thurs 6/6	Lab: Explore the site, spread mulch
<a href="#">Week 2: Deep Dive on Principles of ROA</a>	Tues 6/11	Lecture: 40 principles of ROA <a href="#">Homework</a>
	Thurs 6/13	Lab: Continue mulching, start demolition
Week 3: Soils	Tues 6/18	Lecture: Soil management and regeneration, gut microbiome, mental and physical health
	Thurs 6/20	Lab: Continue mulching, continue demolition
<a href="#">Week 4: Soils Cont.</a>	Tues 6/25	Lecture: Intro to composting -- three bin method, biodynamics, mulching and more
	Thurs 6/27	Lab: Install shade cloth for nursery, begin constructing compost bins
<a href="#">Week 5: Ecological Systems</a>	Tues 7/2	Lecture: System balance, integrated pest management, native hedgerows
	Thurs 7/4	Lab: Complete nursery and compost bins
Week 6: Plants - Traditionals	Tues 7/9	Lecture: Food forest, permaculture, companion planting, seasonality
	Thurs 7/11	Lab: Plant, weed, water, prepare cardboard for sheet mulching
Week 7: Plants Cont - Natives	Tues 7/16	Lecture: Native food pyramid, intro to California native plant communities
	Thurs 7/18	Lab: Continue to plant, weed, water, mulch
Week 8: Propagation	Tues 7/23	Lecture: Intro to propagation
	Thurs 7/25	Lab: Continue to plant, weed, water, mulch
Week 9: Irrigation	Tues 7/30	Lecture: Irrigation installation, being waterwise
	Thurs 8/1	Lab: Install irrigation
Week 10: Food	Tues 8/6	Lecture: Cooking, preservation, medicinals
	Thurs 8/8	Lab: Garden completion tasks
Week 11: Herbalism	Tues 8/13	Lecture: Intro to growing and using herbs

	Thurs 8/15	Lab: Garden completion tasks
Week 12: Next Steps	Tues 8/20	Lecture: grant writing, community gardens, getting a job in the field, continuing education
	Thurs 8/22	Lab: Graduation and celebration



November 14, 2023

**Our goals** for using the grant funding we received from Susan Ellenberg, if this aligns with your vision:

1. Establish a Propagation and Nursery Learning Center for the students who are taking certification classes, as well as interested members of Elmwood staff and members of the sustainability team, to propagate native and food plants.
2. We would like to develop a regenerative organic farm, along with composting and mulch centers, to train students, as well as feed the Elmwood population.
3. We also hope to create a composting center for each garden or farm site at Elmwood; teaching about composting curriculum is integrated into the nursery operation.
4. We would like you to consider the plan of building a small aquaponics training farm at the nursery area.
5. We believe that learning outdoors, growing and enjoying food together, and creating beautiful native gardens together is one of the most joyous and therapeutic activities that humans can engage in. We want to bring a sense of joy and wonder into everything we do.
6. With students, we would like to transform your existing Serenity garden by planting native plants and adding areas for mulch and compost.

**Questions:**

- Are there regulations about how many students per class? We're hoping for 8-16.
- How many hours per week will they have? We're hoping for two 90-minute classes for both Ecological Land Management (ELM) and Regenerative Organic Agriculture (ROA), equaling three hours per week for each class. This will be a combination of demonstration, lecture, and hands-on practicum.
- How many members of the sustainability team could work with us, and in what capacity?
- We would like to start with the nursery and propagation project, with a combination of Elmwood students, Elmwood sustainability team, and CNGF staff and volunteers. This would enable us to eventually have enough native and food plants to populate the farms and gardens. Is this feasible?
- We hope to teach two 12-week classes, one in Ecological Land Management and one in Regenerative Organic Agriculture. Is this feasible?

- How shall we market these? Posters? Can you distribute these if we create them?
- Are students allowed to grow, harvest, prepare or cook, and eat food- and medicinal-plants?
- Can we bring in partners from the Urban Growers Network as guest speakers? For example, Our City Forest has developed nursery protocols to prevent pathogens, including Sudden Oak Death - we would like to invite such experts as guest teachers, if this is possible.
- Do you have shade and seating for student gatherings close to the sites? Otherwise, we can buy our own portable canopies.

## **Elmwood Certification Curriculum Proposal**

We plan to teach two 12-week certification classes, taught sequentially:

1. Ecological Land Management
2. Urban Regenerative Organic Agriculture

There will be two meetings per week. Each will consist of 30 minutes of lecture/ demonstration, followed by 1 hour of hands-on instruction. Maximum class size is 16 students.

We prefer to teach classes outdoors unless we are showing slides.

For outdoor classrooms, we prefer a shade canopy with tables. Two shade canopies would be ideal for eight people each. There will be four teachers, two per class time and four per hands-on training time. We may also want to bring one to four CNGF volunteers or interns to assist.

The remaining two teachers not participating in class time will be preparing and setting up the hands-on training that will follow each class.

All students will be given assignments at the end of each practicum. Students will receive extra credit for every hour of time they work between class time. (Will this be permissible? Could members of the sustainability team or staff support/supervise this?)

Upon graduation from the certification program, students will be recognized for their extra credit time.

Classes and certifications will be paid for by the grant from President Ellenberg, which totals \$45,000.

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## **BUDGET**

### **Teachers (4): \$36,400**

Each teacher works 5 hrs./wk., which includes 2 hours for preparation and cleanup, for 26 weeks, for a total of 130 hours – 72 hours of class time for both certificates, including practicum. Each teacher will be paid for 26 weeks, which includes 24 weeks of teaching and two weeks of preparation time for the program, evaluation time with staff, and planning and holding the graduation ceremony. In addition, volunteers, fellows, and interns may be joining the teachers.

### **Mileage Reimbursement: \$1,022**

\$255.50 per teacher, which covers one way from CNGF to Elmwood (7.5 miles), 2 days per week, at 65.5 cents per mile.

### **Supplies: \$7,578**

Plants, equipment, tools, materials, food, and food preparation.

### **Total Budget: \$45,000**

## **Class #1: Ecological Land Management, Development, and Construction**

When humans intentionally steward nature, we discover she is endlessly resilient and abundant. This class will train students to restore our local ecosystems in the city. Increasingly, institutional and residential clients are wanting beautiful, drought-tolerant, native gardens that support biodiversity, build healthy soil, and reduce waste. This program will give students skills and knowledge to manage native gardens.

### **•Module One: Soil Management**

Students will compare native soil and disturbed soil, and their impacts on healthy ecosystems. We learn about how soil – with its complex microbiome – is the foundation of our ecosystem. We will identify different kinds of soil, and discover how native plants and hedgerows help restore optimal soil benefits. We will learn to create, maintain, and use composting, vermi-composting, and compost tea facilities. We will compare new soil microbial science to non-sustainable agricultural standards, on topics including no-till agriculture, polyculture, continuous planting (rather than leaving fields fallow), composting solutions to building healthy soils, and the use of native hedgerows and locally native insectary plants.

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## •Module Two: Native Plants Communities

Students will learn about the regional native plants of Northern California. We will meet at several locations representing a range of regional ecosystems in order to observe and compare plant communities in depth, including riparian, oak woodland, chaparral, coastal bluff, mixed evergreen, redwood, oak woodland, wetland, grassland, and ecotone (the area between two plant communities). By studying plant communities and learning to identify the native plants that grow within them, and their relationship to the native plant community where they thrive, we will be better able to restore local ecosystems in urban environments, using sustainable systems.

## •Module Three: Propagating

Students will learn when and how to save seeds and make cuttings from different kinds of plants in order to create a more sustainable and economic model. Students will learn how to collect and propagate local native plants from intact ecosystems, with permission, in order to recreate the plant communities of the local region.

## •Module Four: Invasive Plants

Exotic plants are popular in California because people from all continents have introduced them. Some exotic plants can easily become invasive. Invasive plants can disrupt the microbiome of our soil, making it difficult for some native plants to germinate, and threatening beneficial birds and insects. In this course, we will learn about invasive plants, how they impact our local ecosystems, how to identify them, and protocols to remove them without chemicals. This will include a field practicum, where we will train and demonstrate to students the ecological solutions and protocols for invasive plant eradication that will also favorably modify the microbial ecology of the soil to a naturalized soil beneficial to an enhanced biodiversity of local native ecosystems.

## •Module Five: Water Management (Capture, Holding, Cleansing, Reusing)

Northern California is prone to drought. In addition to planting drought-tolerant, regional native plants, ecological landscape specialists must understand how to use more sustainable forms of irrigation. In this course, we will learn how to convert to different kinds of irrigation, and when and where those are most appropriate. Methods we will learn include drip irrigation, polyline, drip emitters, micro-sprays, and netafilm. and all methods to retain rainfall on site, to reuse and cleanse it. We will also cover downspout diversion, rainfall capture, storage, cleansing and pumping of rainwater for year-round food production, gray water systems, porous paving, constructed wetland, and food forests.

## •Module Six: Waste Management:

We will learn ways to avoid shipping vegetative waste to landfills. Sustainable solutions keep waste on site for reuse, repurpose, chipping, mulch creation, and composting.

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Multiple solutions for private and public properties are required to be used on site, rather than transported. Students will be trained in all solutions.

**•Module Seven: Stewardship Practices, 12 Months/Year:**

Students will study methods of online seasonal care of native gardens, including strategies to protect plants from infestation and pathogens. We will learn specific skills to mimic nature's renewable, seasonal calendar. Each garden has a 12 month/year work plan and involves pruning, editing, replacements, mulching, transplanting, dividing, invasives eradication, redesign, irrigation trouble shooting and repair, gopher mgmt.

**Module Eight: Introduction to Regenerative Organic Agriculture and Controlled Environment Agriculture**

Students will be introduced to the practice of ROA, creating native hedgerows, and the six categories of edible food plants grown in our region.

**•Module Nine: Client Management/Community Outreach**

Urban ecological land managers serve as ambassadors, helping to educate different populations about how we can transform land in cities to mimic how the planet renews itself. We will practice effective ways of communicating about healthy soil, native plant communities, irrigation, and how all urban citizens benefit when we restore local ecosystems, here in the heart of San Jose.

**Class #2: Urban ROA: Regenerative Agricultural Development and Construction**

By learning from the wisdom of nature, Urban ROA uses native plant hedgerow; compost; no chemicals; no-till agriculture; cover crops; green manure; propagation, including seeds and cuttings; drip irrigation, including subterranean irrigation; mulching; foliar feeding; growing a large diversity of food plants, including planting, weeding, removing invasives, nursing, and harvesting; preparing and eating unique sustainable foods and creating recipes; and eating together, enabling us to grow enough food within each neighborhood that all our citizens will have access to locally grown, farm-fresh, and nutritious food. Urban ROA is a key for restoring our local ecosystem services, food security, food sovereignty, social justice, and land justice.

**•Module One: Introduction to Regenerative Organic Agriculture and Controlled Environment Agriculture**

Students will be introduced to the practice of ROA, creating native hedgerows, and the six categories of edible food plants grown in our region.

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## •Module Two: Soil Management

In this course, we will learn about how soil – with its complex microbiome – is the foundation of our ecosystem. We will learn how to identify different kinds of soil and discover how native plants and hedgerows help to maintain soil. We will compare new science to old permaculture standards, on topics including no-till agriculture, the importance of polyculture and of continually growing plants (rather than leaving fields fallow), and the use of native hedgerows and insectary plants.

## •Module Three: Compost and Waste Management

There will be no vegetative waste shipped to landfills; it will be kept on site for reuse, repurpose, chipping, mulch creation, composting. We will learn how to create, maintain, and use composting, vermi-composting, and compost tea facilities. Multiple solutions for private and public properties are required to be used on site, not transported. This also requires on-site demonstrations and practicums for multiple strategies to avoid removal of any vegetative material. Students will be trained in all solutions.

## •Module Four: Propagation

Students will learn when and how to save seeds and make cuttings from different kinds of plants in order to create a more sustainable and economic model.

## •Module Five: Native Plants Communities

In this course, we will learn about the native plants of Northern California, with a focus on plant communities and families of different regions. By studying plant communities and learning to identify the native plants that grow within them, we will be better able to restore local ecosystems in urban environments, using beautiful, native landscaping.

## •Module Six: Invasive Plants

Exotic plants are popular in Northern California because so many plants thrive in our temperate climate, and native “pests” are less drawn to plants that did not evolve in our ecosystem. Partly for this reason, exotic plants can easily become invasive. Invasive plants can disrupt the microbiome of our soil, making it difficult for some native plants to germinate, and threatening beneficial birds and insects. In this course, we will learn about invasive plants, how they impact our local ecosystems, how to identify them, and protocols to remove them without chemicals. This will include a field practicum, where we will train and demonstrate to students ecological solutions and protocols for invasive plant eradication that will also favorably modify the microbial ecology of the soil to a naturalized soil beneficial to an enhanced biodiversity of local native ecosystems.

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**•Module Seven: Management Practices, 12 Months/Year**

To protect plants from infestation and pathogens: ongoing care of native gardens.

**•Module Eight: Water Management (Capture, Holding, Cleansing, Re-using)**

Northern California is prone to drought. In addition to planting drought-tolerant, regional native plants, ecological landscape specialists must understand how to use more sustainable forms of irrigation. In this course, we will learn how to convert to different kinds of irrigation, and when and where those are most appropriate. Methods we will learn include drip irrigation, polyline, drip emitters, micro-sprays, and netafilm. and all methods to retain rainfall on site, to reuse and cleanse it. We will also cover downspout diversion, rainfall capture, storage, cleansing and pumping of rainwater for year-round food production, gray water systems, porous paving, constructed wetland, and food forests.

**•Module Nine: Client Management/Community Outreach**

Urban ecological land managers serve as ambassadors, helping to educate different populations about how we can transform land in cities to mimic how the planet renews itself. We will practice effective ways of communicating about healthy soil, native plant communities, irrigation, and how all urban citizens benefit when we restore local ecosystems, here in the heart of San Jose.



Freshness Farm @ Coyote Creek - Phase 1