Build 25 Initiative:

Local Solutions to the Climate Crisis and Nature Deficit Disorder

The California Native Garden Foundation

Initiative 1

CALIFORNIA NATIVE GARDEN FOUNDATION

Build 25 x 25 Initiative

Our Vision

Our initiative plans to build 25 intentional communities centered around Regenerative Organic Agriculture (ROA) farms throughout the Silicon Valley by 2025. Over the last twenty years, the California Native Garden Foundation has developed a resilient land use model that can be implemented in partnership with landowners and stakeholders to address the climate crisis and social justice issues tied to land use. The model will provide for all essential human needs on site and provide ecological, nature-based education and training in urban areas. By reconnecting with ecological processes, reintroducing multi-functional landscapes into the urban area, and providing accessible higher education in sustainable fields of work, we will begin to heal our communities.

Key Components of Our Land Use Model

Regenerative Organic Agriculture (ROA) to sequester carbon, regenerate native soils and ecosystems, and grow food intensively without detrimental synthetic chemical fertilizers and fossil fuels.

Community hubs of education, business, and housing, providing volunteer opportunities to students and corporate groups, college internships, and classes and events for community members of all ages.

Initiative 1

Build 25 Continued

Native ecology to reduce our water use, provide habitat for native wildlife, and rebuild the unique local microbiome in our soils: bacteria and fungi beneficial to our health and the environment.

Local Partnerships with smaller institutions such as community colleges like the San Jose Evergreen Community College District, that have the land, resources, and agility to step up to the challenge to solve complex land use problems that have contributed to the climate crisis.

Job Creation and Training to prepare our youth for a sustainable future and create jobs that are not reliant on fossil fuels and toxic chemicals. Students will learn how to restore our native ecology, design outdoor spaces, grow food, teach young children in nature, and to cook with indigenous fruits and vegetables.

Connecting Science to Practice

The Center for Urban Sustainability, CNGF's headquarters, will serve as the central hub and model for the other Build 25 x 25 ecovillages. A growing network of scientists will help inform and further develop our land use model putting science into practice and facilitating the flow of knowledge and resource sharing between students, scientists, landowners, educators, and other community members.

“The Agrihood”:

Low income senior, affordable, and market rate housing

Native gardens, a food forest and a regenerative organic farm located on the former Bay Area Agriculture Research Station.

Initiative 2

CALIFORNIA NATIVE GARDEN FOUNDATION

ELSEE: The Environmental Laboratory for Sustainability and Ecological Education

Redefining educational spaces

ELSEE is both a physical model as an outdoor educational garden and a set a curriculum in which youth can learn about and reconnect to land.

The ELSEE model began at California Native Garden Foundation and has served as a community resource and destination for school field trips, classes, and ecological summer camps for over 15 years. As our flagship garden at 76 Race Street, ELSEE is the only SITES certified destination in San Jose, with just under 200 ecological benchmarks, featuring key educational elements, including seven local California plant communities, play structures made of reused materials, an aquaponics system, a chicken coop, and much more.

Initiative 2

Tools for Outdoor Education

ELSEE is an evolving set of curriculum and programs. Our programs are developed and run together with partners and community members including beekeepers, entomologists, ecologists, artists, Native American storytellers, greywater specialists, and college interns from a broad array of majors, ranging from engineering to education to landscape design.

TEACHin Nature

In partnership with San Jose Evergreen Community College District - Workforce Institute, we are developing certification programs for early childhood educators and K-8th grade teachers. Educators will learn to design and build ELSEE gardens at their schools; garner support from administrators, community funding, and volunteers; implement our ELSEE curriculum and Nature Badge programs in their outdoor classrooms; and redesign their own STEAM curriculum for an outdoor classroom. Through this program, teachers will become leaders in ecological education.

Playing with Intent

Nature Immersion curriculum for ages 0-5. Each lesson focuses on the relationship between a specific California native plant and animal and involves a variety of activities to teach and reinforce this lesson, including indigenous storytelling, music and movement, an art/science project, gardening, cooking, and a shared snack/gratitude.

Earth Hero Nature Badge Program

Educational Program for youth ages 6-14 to learn and develop skills relating to sustainable land management and ecological land use. Students completing lessons and activities to earn up to 30 badges. This program has been implemented at CNGF's summer Nature Camp and Garden for Ghana.

The California Native Garden Foundation

“ELSEE”


PEBBLE BEACH FOOD & WINE
TICKETS ON SALE
PBFW
VISA
FOOD & WINE
LEXUS

Initiative 3

CALIFORNIA NATIVE GARDEN FOUNDATION

Center for Urban Sustainability

A Model for Future Land Use

The Center for Urban Sustainability (CUS) is a vision for the current gardens at 76 Race St in midtown San Jose, where CNGF currently operates. In partnership with local institutions, the site can be sustainably developed to host:

- LEED-certified affordable student housing
- California native plant-based Culinary Arts Institute
- outdoor education center
- SITES-certified native, regenerative landscape
- Regenerative Organic Agriculture and aquaponics
- sustainable job training
- a venue to host community events and programs

The CUS will act as the hub for a network of knowledge and resource sharing between students, scientists, landowners, educators, and other community members.

The site will utilize renewable energy, onsite stormwater water management, rainwater collection, greywater reuse, aquaponics, repurposed materials, and low embodied carbon building materials such as rammed earth and mass timber. The design maximizes both indoor and outdoor uses and can easily be integrated into the Alameda Urban Village, a key part of San Jose's 2040 general plan.

CNGF is collaborating with the scientific community to integrate ongoing hypotheses and peer reviewed published research that will continuously supplement and inform our land use model. The CUS will be the first ecology and food sovereignty based developments of CNGF's Build 25x25 Initiative, a network of 25 urban agricultural community centers that utilize regenerative urban land use practices to be built by 2025. The CUS will be an example for other communities, land owners, and developers to follow.

Redefining Careers and Education

CNGF is developing seven sustainable job tracks with the Workforce Institute of San Jose Evergreen Community College District. Classes for these new tracks - which include early childhood and outdoor STEAM education, ecological land management, plant-based culinary arts, and ecological engineering- will be held at the CUS. Aligning with CNGF's mission, these tracks will provide affordable, accessible training for college students to acquire skills that will allow their generation to solve the most critical and urgent issues of our time.

The California Native Garden Foundation

CALIFORNIA NATIVE GARDEN FOUNDATION

Continuing a Legacy of Community

The CNGF garden has been a key part of the surrounding community for 20 years, teaching students of all ages and backgrounds about regenerative land use practices, food access, and native ecology. Over the years, the local California native plants in the garden have grown into key habitat for many types of wildlife, including birds, pollinators, and insects.

The garden is the first model of an Environmental Laboratory for Sustainable and Ecological Education (ELSEE), an outdoor teaching garden and model for 10,000 California public schools. ELSEE was designed, built and managed to gain SITES Certification as part of the Sustainable SITES pilot project and meets 200 benchmarks for urban sustainability. These programs were matched with lesson plans and curriculum traditionally taught indoors. Our lessons and project-based learning activities fulfilled CREEC (California Regional Environmental Education Community), as well as the Core Curriculum and Science standards for grades pre-K through 8.

Through the sustainable redevelopment of the garden, we are seizing the opportunity to expand our community and initiate a network of regenerative land use and ecological resiliency throughout Santa Clara County.

Land Justice as Social Justice

If we are to change the current trajectory of climate change and invest in solutions that create a positive future for all people, we must change the way we use land in urban spaces.

The CUS functions like a plant - most of the resources it needs to support itself can be found onsite. Fruits and vegetables grown around the site will feed those living in the affordable student housing and provide produce for the Culinary Arts Institute. Permeable hardscapes will recharge water aquifers, water will be reused in the landscape, and native landscapes will take precedence over agriculture, employing aquaponics and polyculture grow beds to grow non-native food plants intensively.

By reconnecting with ecological processes, reintroducing multi-functional landscapes into the urban area, and providing accessible higher education in sustainable fields of work, we will begin to repair the damage done by the current methods of development and heal our communities.

Initiative 4

The California Native Garden Foundation

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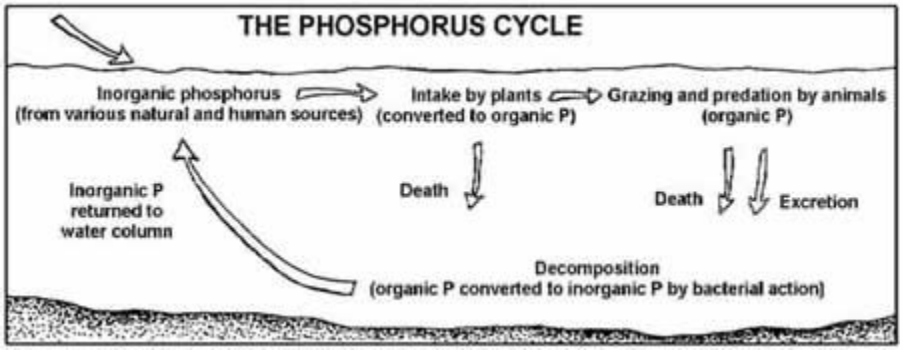
San José Evergreen Community College District
Workforce Institute

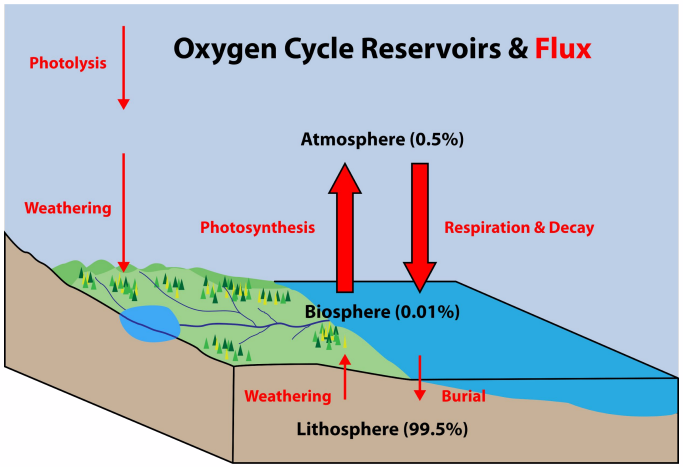
Certification Programs: Seven New Job Tracks for a Resilient Economy

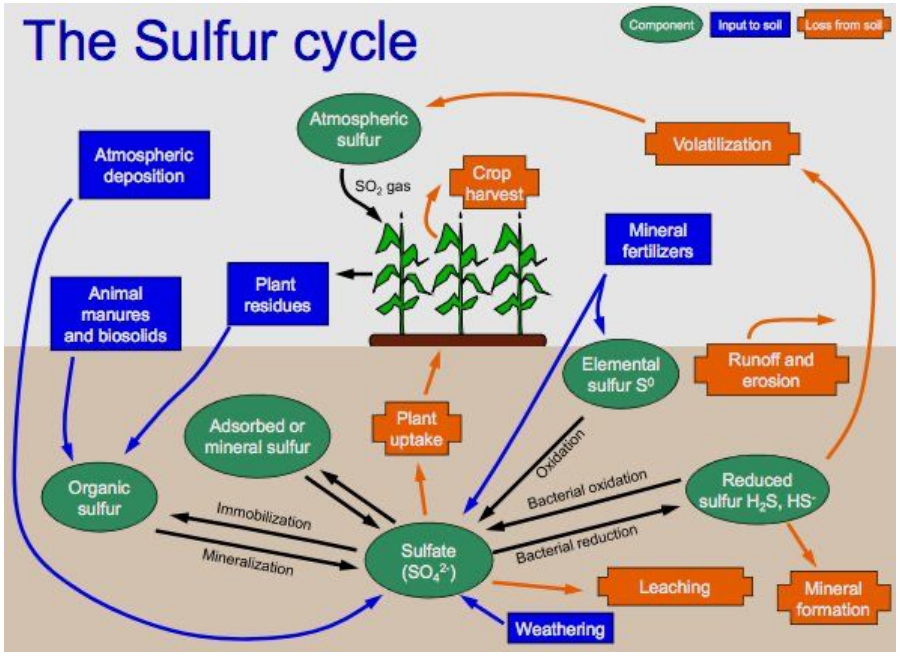
A teaching, training, and research program.

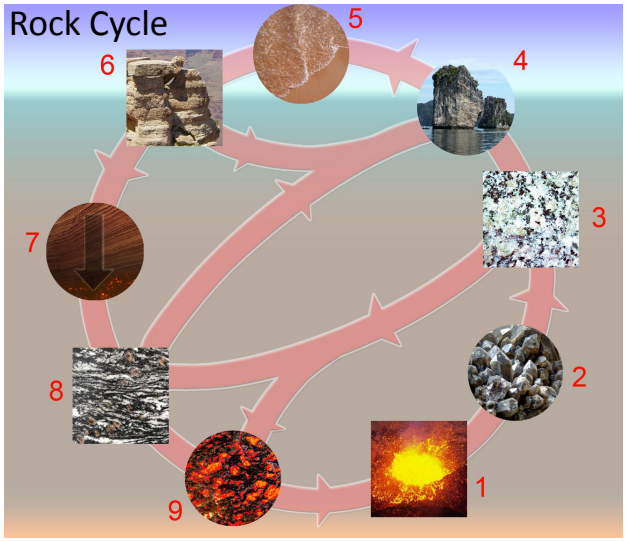
- Ecological Land Management
- Regenerative Organic Agriculture
- Playing with Intent: Nature Immersion plus Food for Pre-K Teachers
- Culinary Arts for a Plant Based Diet
- TeachIN Nature: STEAM Education in the Outdoor Classroom Teachers for 6-14 years
- Regional Ecologist
- Ecological Engineering Technician

Humans have disrupted every major planetary cycle.



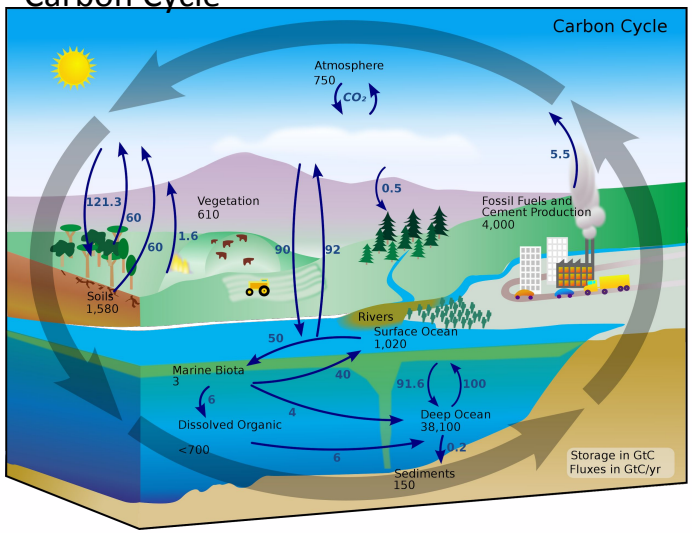




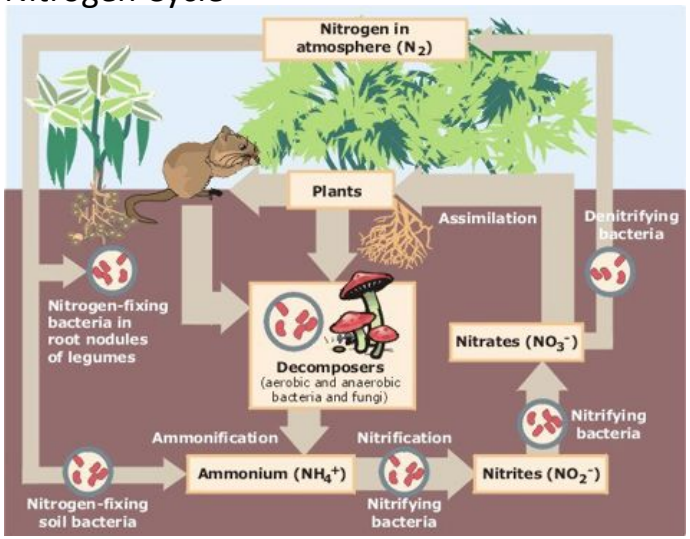


Our four initiatives present solutions. By communities working together we can reverse this crisis in a few short years.

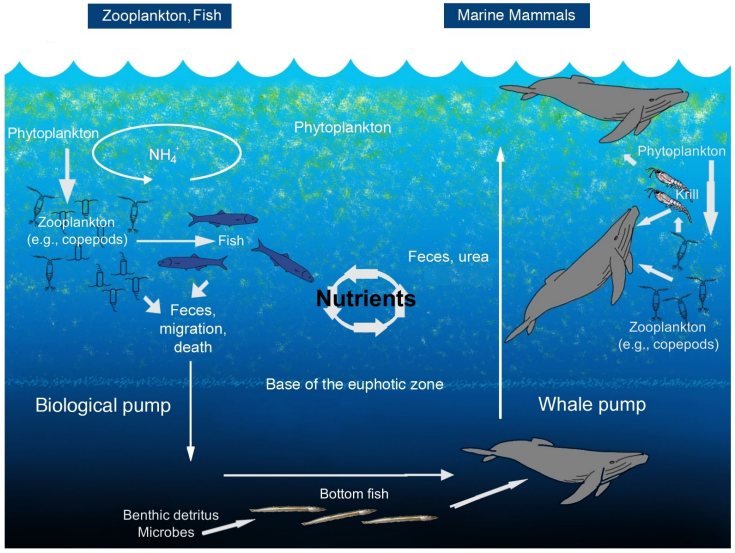
Carbon Cycle



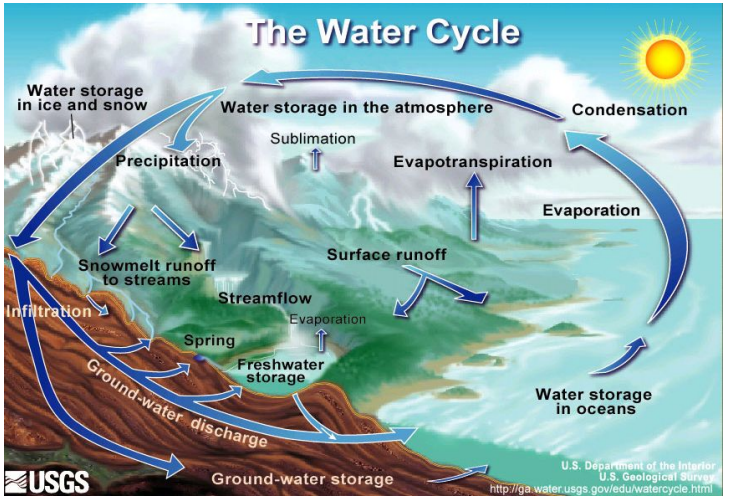
Nitrogen Cycle



Nutrient Cycle



Water Cycle



What are the most sustainable food systems?

Riparian /Wetland

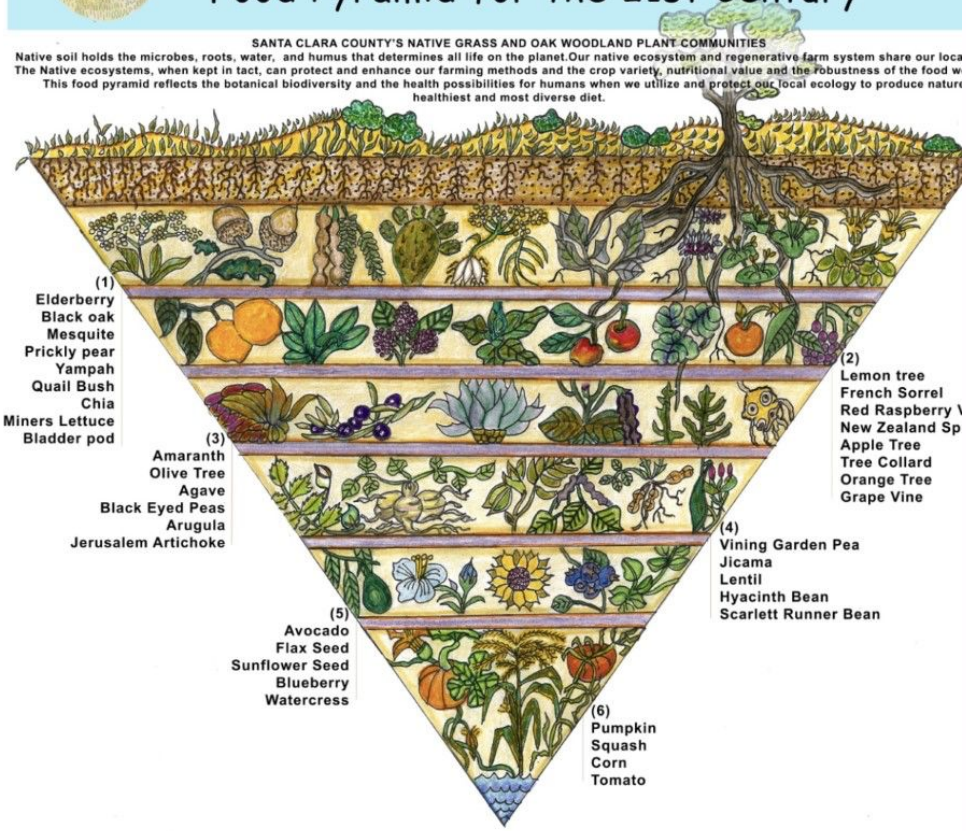
Oak woodland/ Grassland

Sustainable food systems have support primate/human life for 200,000 generations or 4 million years

California Native Garden Foundation's Food Pyramid for the 21st Century

SANTA CLARA COUNTY'S NATIVE GRASS AND OAK WOODLAND PLANT COMMUNITIES

Native soil holds the microbes, roots, water, and humus that determines all life on the planet.Our native ecosystem and regenerative farm system share our loca
The Native ecosystems, when kept in tact, can protect and enhance our farming methods and the crop variety, nutritional value and the robustness of the food w
This food pyramid reflects the botanical biodiversity and the health possibilities for humans when we utilize and protect our local ecology to produce nature
healthiest and most diverse diet.



(1) NATIVE EDIBLE PLANTS: Indigenous Californians ate nearly 1000 Native food plants. When Europeans came, the life expectancy of Native Californians and European was similar except Native people had better skin, teeth and disposition. They also spent far less time and expense providing for themselves and their families, as California was so rich in plant life.

(2) PERENNIAL FOOD PLANTS: These plants are high on the pyramid because they require far few resources to produce abundant food for many many years.

(3) DROUGHT TOLERANT FOOD PLANTS: These plants will continue to be far more significant in the human diet in the 21st Century. These are some of the plants that ar compatible with our local soils and Mediterranean climate. They are native to California, Western and Central North America. Others are native to other drought susceptible regions of the world.

(4) NITROGEN FIXING PLANTS: These are the most special category of plants because of two reasons. First, they fix nitrogen in the soil. In regenerative agriculture, nitro fixing plants are used to replace tilling and chemical fertilizer application. Secondly, they are grown for food, not just cover crops. In the Blue Zones Project, they studied communities worldwide that had the largest populations of people living past 100 years old. The common food plant that each community most frequently ate was some sp of beans.

(5) SUPERFOODS: These plants have the highest levels of nutrients and caloric value compared to other plants. Selecting more superfoods can assure a well balanced di minerals, vitamins, micronutrients and phytochemicals. Many of the plant foods in our pyramid are already superfoods, including all of the Native edible plants. But this ban includes a few more.

(6) COMFORT FOODS: These are the fruits and veggies that most of us grew up eating. They will always be a part of our diet. Unfortunately, these plants have also been t most altered by chemical agriculture. Because so many of these plants are grown and eaten, we have naturally eliminated other food plants from our diet which may be he for us to eat. Other choices have simply not been available. So most Americans diet includes less than 30 varieties of fruits and vegetables.

Nature + Local Food = CO_2 Reduction + CO_2 Sequestration = Climate Stabilization
Ecosystem Restoration + Plant and Animal Biodiversity = Planet Health
Planet health = Human and All Living Organisms Health

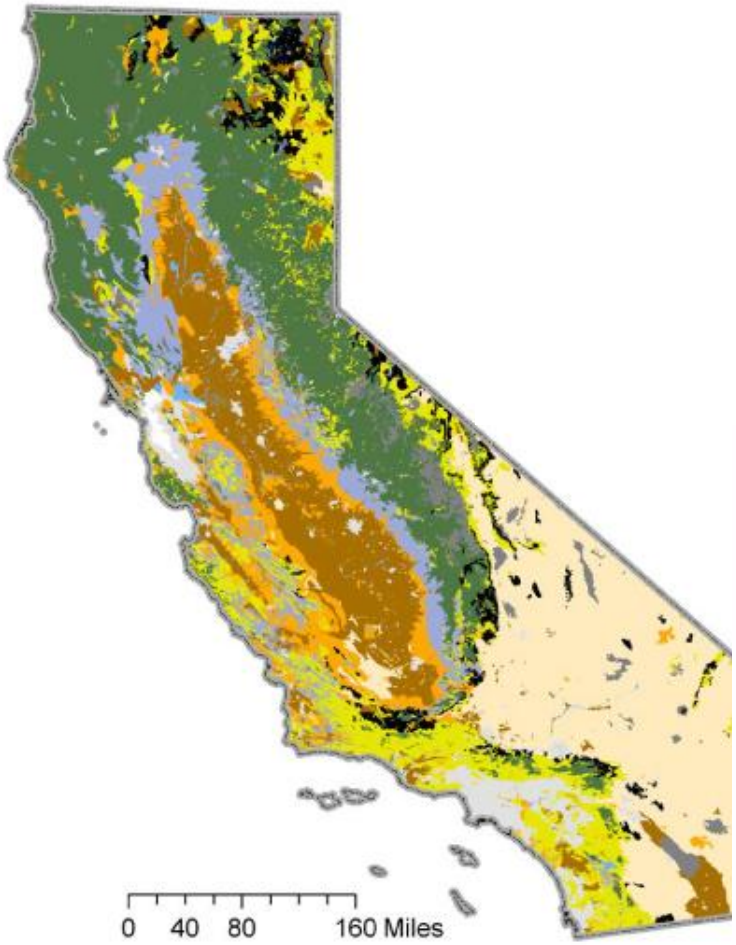
cngf.org

What are Ecosystem Services?

Our initiatives protect ecosystem services.

1. Global and regional climate regulation
2. Water cycle
3. Carbon cycle
4. Nitrogen cycle
5. Biodiversity
6. Pollination
7. Soil health
8. Sustainable food systems
9. Restoration of local native plant communities

Ecosystems of California



- Marine
- Coastal Bluff/ Coastal
- Prairie
- Redwoods
- Mixed Evergreen
- Woodland
- Oak Woodland
- Grassland
- Riparian
- Coastal Sage Scrub
- Chaparral
- Desert

Regional ecosystems have supported
Indigenous people's diets for 10,000 years

Coastal Bluff

Coastal Bluff Food

Beach Strawberry

Coastal Bluff

California Blackberry

A good source of Folate, Magnesium and Vitamin E.

Redwoods

Food from the Redwoods

Salal berries

These berries are high in Vitamin C and have been known to reduce inflammation and help digestion.

Food from the Redwoods

Salmonberry

Many parts of this plant have been traditionally used to treat various ailments but now is enjoyed as a sweet to slightly sour, delicate berry.

Food from the Redwoods

Huckleberry

Mixed Evergreen Woodland

Food From Mixed Evergreen Woodland

Chanterelles

Food From Mixed Evergreen

Douglas Fir

Food From Mixed Evergreen

Yerba Buena

Food From Mixed Evergreen Woodland

Miner’s Lettuce

Chaparral

Food from Chaparral

Cleveland Sage

Food from Chaparral

Quail bush

Food from Chaparral

Manzanita berries

Oak Woodland

Food from Oak Woodland

Mariposa Lily bulbs

Food from Oak Woodland

Acorns

Food from Oak Woodland

Elderberry

Grassland

Food from Grasslands

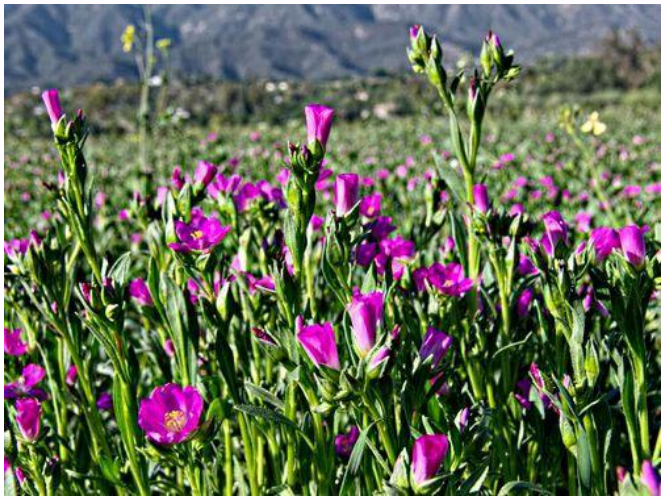
Yampah

Food from Grasslands

Chia

Food from Grasslands

Clarkia



Red Maids

Pinole made from Clarkia and Red Maid Seeds

Wetlands

Food from Wetlands

Cattail

Food from Wetlands

Nettle

Food from Wetlands

Pennywort

Food from Wetlands

Arrowhead Plant

Riparian

Food from Riparian ecosystems

Golden Currant

Food from Riparian ecosystems

Watercress

Food from Riparian ecosystems

California Wild Grape

Coastal Sage Scrub

Food from Coastal Sage Scrub

Bladderpod

Food from Coastal Sage Scrub

Yucca

Food from Coastal Sage Scrub

Creeping Sage

Desert

Food from the Desert

Agave

A well known sugar substitute that contains antioxidants and anti-inflammatory properties.

Food from the Desert

Mesquite

Food from the Desert

Prickly Pear

This dessert fruit contains a good source of amino acids, fatty acids and antioxidants.

Thank you for listening!

Any Questions?

Visit our website at cngf.org or scan the QR code below.

To place an order for a Nature-in-a-Box visit: cngf.org/Nature-in-a-Box

To request a free consultant for a native garden design: middlebrook-gardens.com

To visit our farm stand: Rose Garden Farmers Market Dana St. Across from Lincoln HS San Jose, Ca. Every Saturday 9-1 pm

To volunteer, donate, partner, request a tour info@cngf.org