A Community-Based Vision for the Carquinez Waterfront Project led by the Carquinez Recover the Waterfront Committee

Special thanks to our partners and funders:
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In 2017, the State Lands Commission (SLC), in partnership with C&H Sugar Refinery, set out to clear the Carquinez Waterfront site of the huge amount of garbage that had amassed there after years of illegal dumping. This has provided the community with a blank slate to create a space that is both environmental and community friendly. The community responded to this wonderful turn of events by creating the Carquinez Recover the Waterfront Committee.

800,000 Dollars
(cost of garbage removal by SLC and C&H)

Over 12 Metric Tons
(of trash removed from the site)

Over 15 Vehicles
.removed (including boats and RVs)
A Small-Town Vision

The town of Crockett has a rich and varied history that has seen many changes over the years. Prior to the founding of Crockett in 1866, the Carquin, one of eight indigenous communities of the Muwekma Ohlone tribe, lived in the hills and along the shore of the Carquinez Strait.

They benefitted from the food and resources brought forth by the fertile land and abundant tidal marshes. They understood that if they were good stewards of the land, the land would return the bounty. With the coming of the gold rush, the town of Crockett was founded along the Carquinez Strait. In the late 1800s, the small community of Crockett changed at a rapid pace. Sparked by the industrial age, factories dotted the waterfront. Flour, sugar and lumber were being transported by the new railroad.

When C&H Sugar Company bought its factory from a flour mill in 1906, it was a boom time for Crockett, followed by a major population explosion. The heavy industry that kept people at work during the Great Depression also negatively impacted the local ecosystems. The same land that had been so well-cared for by its original inhabitants was being damaged due to a lack of environmental concern and oversight.

The industrial age and an increased population brought changes that often rarely took the native ecosystems into account. Many areas along the shoreline and waterways were disturbed. The waterways were buried under buildings and parking lots, and areas of shoreline were filled in with gravel and dirt. People manipulated the natural landscape around them to suit their needs.

Now, decades later, the CREW Committee intends to bring back the natural beauty of the shoreline by creating a Community Vision Plan to guide them. The CREW brought the community together in a series of four public participation meetings to create a plan that best blended the beauty of the site with the needs of the local community.

The CREW Committee set out to gather the ideas and concerns of the community, that best blends human engagement with natural resource conservation. This has been a consensus-based process and has included nearly 10% of the community in the decision-making effort. While conceptualizing projects, the energized group was able to interact and discuss concerns while also eliminating ideas that were unfeasible. This document addresses those concepts that came to fruition in the meetings.

The planning process, for this important natural corridor, has been led by the CREW Committee, the Contra Costa Resource Conservation District (CCRCD), and the Carquinez Regional Environmental Education Center (CREEC).

These community-based organizations have a long history of environmental stewardship, planning and restoration. To date, the CCRCD has sponsored and coordinated six community watershed planning programs in the county funded through grants. The CCRCD is proud of the community’s work in creating this Community Vision Plan and would like this document to be a living document that can be used and added to by future generations.

We thank the entire community for its efforts to bring this Vision Plan to fruition, and the many organizations that worked so diligently to create a process in which everyone’s ideas were included. Special thanks to the CREW Committee for their tireless work to ensure the entire community was involved in this important project. This grassroots effort shows how important local citizens are to shaping the future of their community...

One project at a time!
The Project

The Carquinez Waterfront is an area situated just west of I-80 under and next to the Carquinez Bridge, adjacent to the town of Crockett, and between Crockett and Rodeo. The CReW Committee formed in late 2017 to develop the Carquinez Waterfront from a waste-disposal area to a fully-integrated community landscape and local habitat restoration. This Waterfront will provide a common use space for activities such as picnics, relaxation, community gatherings, and recreation staging, as well as connections to preexisting infrastructure including open space, the San Francisco Bay Trail route, the Carquinez Strait waterway, non-profit volunteer facilities, and under-bridge plantings.

The Core Area – 3.2 Acres

The Core Area adds the central public space to the Carquinez Waterfront. This area will provide:

- light recreation and relaxation opportunities for visitors;
- a gathering place for community activities, such as art, food truck nights, and cycling events;
- amenities such as picnic tables, barbeques, potable water, improved lighting and security, public restrooms, and electricity; and
- access to the Carquinez Strait, fishing, the Carquinez Bridge, two adjacent restaurants, and connections to the San Francisco Bay Trail route.

The parking lot area (currently coarse gravel with poor drainage) will be replaced with a permeable surface bordered by bio-swales to collect and purify any run-off water using native wetland plants.

Surrounding Habitat Restoration – 3 Acres

On the hills behind the Core Area, and in small patches on each side, native habitat will be restored. Current non-native grassland will be replaced with appropriate native species propagated from nearby mixed evergreen woodland, riparian forest, and freshwater marsh species. In addition, adjacent to the C&H Sewage Treatment Plant, a demonstration garden using the treatment plants purple water may be installed. This garden will be fenced and designed to be viewed from the outside in. The plants and trees needed will be propagated onsite at the CREEC nursery by local youth, most of whom are from the nearby Bayo Vista housing development in Rodeo. Plants will be installed using East Bay Conservation Core teams and the CREEC youth program.

Under-Bridge Planting – 3 Acres

Freeway ramps and interchanges are underappreciated for their beauty and architectural finesse. When well-designed, they represent a pinnacle of elegant functionality whose artistic qualities can best be appreciated from high above or from below. The Alfred Zampa Memorial Bridge, adjacent to and above the Waterfront, embodies one of the most beautiful ramp designs in Northern California. The area underneath the I-80 ramp is currently planted with low-water plants and has a paved path. We wish to upgrade the water-wise plantings to emphasize the beauty of the bridge structure, install pull-outs at strategic points along the existing path to highlight the most beautiful bridge views. We would also install interpretive panels about the steelworkers who contributed to the construction of the bridge, and about the transportation history of the area. The first step will be the planting of a slope along the road passing under the bridge with hundreds of lavender plants. These will flower en masse in May of each year and provide a quick way to add distinction to the project area and attract visitors and interest in the site, as well as providing the possibility of community involvement events at the site.

Natural plantings were at the forefront of the community’s concepts.
The Community’s Ideas and Concerns

After four public meetings, the community narrowed down their concepts to a list of items that they most desired at the project site. They expressed their concerns and hopes, and whittled them down to a realistic picture of what the Waterfront could be if they had all their ideas came to fruition. The lists on the following page came from the Working Sessions during the meetings. Many items can easily be incorporated into the project, while others may be done in phases in the future. The vision of the community is a bright, comfortable space to enjoy nature, family, and the beautiful view of the Carquinez Strait. We are pleased to have had over 260 community members involved in this Vision Planning process. The success of the Carquinez Waterfront project depends on strong partnerships, collaboration, and the community’s desire to envision a better future for their waterfront.

The small community of Crockett has long awaited the time when they could enjoy their beautiful shoreline without the worry of tripping over the garbage that mars the lovely, open space.

Heidi Petty,
Chairperson
Carquinez Watershed Council
## Working Sessions Results

**Public Participation Meetings**

Below are the final lists created during the Working Sessions of the Public Participation meetings held at the Crockett Community Center. The Concept List began as a 51 item list, and the community voted to keep the top-scoring concepts and eliminate those that were not as relevant or feasible. The Concerns List was created during the first meeting to address what the community felt may pose difficulties for the project. These meetings were filled with an amazing amount of enthusiasm and open communication. We cannot thank the participants enough for the input and insight they provided for this Vision Plan!

### FINAL CONCEPT LIST
- Wildlife Habitat
- Raptor Nesting Platforms
- Living Wall
- Super-Bloom Area
- Pollinator Garden
- Changing Art Installations
- Wetland Restoration
- Learning Center for Children
- Sculpture Garden/Local Artists
- Grassy Recreation Area
- Heritage Green Spaces
- Natural Tree Screen
- Amphitheater/Raised Seating

### CONCERNS LIST
- Water Encroachment
- Land Survey Necessary
- Safety/Security
- Parking Availability
- Lighting
- Restroom Availability
- Trash Control and Pickup
- Safe Right-of-Way
- Effects of Selby Slag Cleanup
- Managing Rising Sea Level
- Homelessness
- Maintenance
- Vehicle Access to Sewer Plant
Crockett residents have always lived with nature around them. They love their wild spaces and want to see a significant area of native plant restoration as part of the waterfront project. The Waterfront is located along the Carquinez Strait, a natural wildlife corridor connecting California’s Central Valley with the Coast. The hills adjacent to the waterfront area offer a great opportunity to enhance the local wildlife habitat and to plant native trees to offset greenhouse gas emissions.

The area under the Alfred Zampa Memorial Bridge provides space for horticultural plantings, as well as areas of lesser access that are ideal for habitat restoration. The most common habitat is our local version of mixed evergreen forest. On the lower portions of hillside and the north-facing slopes, currently this plant community is filled with coast live oak, California bays, and California buckeyes. In the shady understory, California roses, California blackberries, and California coffeeberries will grow, thus attracting birds and other wildlife with their juicy fruits. The trees and shrubs will provide nesting habitat for red-tailed hawks, great horned owls, Anna’s hummingbirds, northern flickers, bushtits, and California towhees. Other wildlife that will use this area include California voles, gray foxes, black-tailed deer, and brush rabbits. The steepest slopes support a mixture of grassland and coastal scrub habitat. In this location, there are already wild California fuchsias to feed the hummingbirds in summer. We’ll add native grasses and wildflowers, California sagebrush, sticky monkeyflower, and coyote brush. This will provide habitat for fence lizards, black phoebes, scrub-jays, mockingbirds, and cliff swallows. There will be lots of native flowers that attract bees and other native pollinators. The use of this space for both people and animals is very important to the community. Likewise, learning from the natural space was an important part of the communities vision. The following pages represent all of the concepts the community asked to be included in the project area.

The Community’s Vision

The community prioritized their interests in specific project features throughout the Public Participation process, narrowing down their vision to a handful of major features they envision being a part of the Carquinez Waterfront project site.

Wildlife habitat was the most important feature to the meeting attendees.
The community selected a natural tree screen feature to be included in the potential design plans. The tree screen would create a natural privacy fence and benefit the environment all in one. The community felt the blend of natural features and industrial architecture of the waterfront would enhance the space. It would also allow for some of the less attractive areas of the site to fit in with the overall plan.

Raised Seating

The Carquinez Recover the Waterfront Vision Planning group advocated strongly for creating raised seating as a feature of the waterfront. Outdoor amphitheater-style seating creates a multipurpose space for entertaining. The raised seating can be used for a variety of reasons including environmental education purposes or local artist performances. The want for raised seating represent the community’s desire to create an inviting waterfront that includes a family multipurpose space. The area where the site meets the hillside could be used to create a small amphitheater-style seating area that overlooks the shore and provides a space for people to enjoy the site from a raised vantage point on the hillside.

“Our livelyhood depends on bringing back the native flora and fauna. Pollinators are of key imprtance to all ecosystems.”

Interpretive Panels

“Interpretation is a communication process designed to reveal the meanings and relationships of our cultural and natural heritage to the public, through first-hand involvement with objects, artifacts, landscapes, and sites.” After restoration of the site, the communities of Crockett, Rodeo, and Port Costa will have a waterfront location that will feature a variety of native plants as well as historical features of the waterfront. By using interpretive panels, designed to educate the public, we can guide both community members and visitors to a variety of features at the site. Interpretive panels can be used for but not limited to: the process of the restoration project, on-site native plant guide, and the history of the Waterfront.
Pollinator Patches

Anyone who has spent time in a garden knows how insects and hummingbirds animate a garden as they go about their business. Many Crockett and Rodeo residents are gardeners; even those without the space or inclination to garden enjoy the pleasure of seeing neighbors’ gardens as they walk around town. Pollinators can animate the space in a way that the slower-moving plants do not. Pollinator gardens are increasing in popularity as more and more people realize the essential role that pollinators play in the production of the food we eat; as much as one-third of the food we eat depends on pollinators. In addition, pollinators play a critical role in wild habitat maintenance. By planting and nurturing flowers on the edge of wild habitats, we help wild as well as domestic pollinators thrive.

One of the great things about pollinator gardens is that pollinators tend to like the kinds of flowers people do. Just like us, some pollinators prefer large, showy flowers. Others like multitudes of small flowers on a graceful plant with a wild look. By providing a diversity of flowers that bloom over a long period of time, we can ensure that a great diversity of pollinators will use our gardens. This extends well beyond honeybees, hummingbirds, and butterflies to include bumblebees, solitary bees, flower flies, bee flies, tiny wasps, midges, flower beetles, and sphinx moths.

On the Carquinez Waterfront there is the opportunity to integrate pollinator patches of flowers along the edges of the main core area. When designing and building the core area, it should be attractive to potential users as well as being consistent with its main purpose as a gathering area for enjoyment, entertainment, and relaxation. Crockett and Rodeo residents love cottage gardens, so the inclusion of pollinator patches at the site will enhance the value of the space and distinguish it from other more turf-dominated spaces. In addition, the flowers will complement the plants grown in the adjacent CREEC nursery and form a haven for pollinators from the surrounding restored wild spaces. Plants will be chosen for their long blooming season and modest water use. Both native and non-invasive non-native species will be planted to increase the diversity of pollinators attracted.

“When I take my evening walk around Crockett, I love seeing the evening primroses expand and the bumblebees take advantage of the fading light to gather pollen from the just opened flowers.”
<table>
<thead>
<tr>
<th>Local Natives</th>
<th>Garden Favorites</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Asclepias fascicularis</em></td>
<td><em>Asclepias curassavica</em></td>
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<tr>
<td>Narrow-leaf milkweed</td>
<td>Mexican milkweed</td>
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<tr>
<td><em>Aster chilensis</em></td>
<td><em>Aster x frikartii</em></td>
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<td>California aster</td>
<td>Frikart’s aster</td>
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<td><em>Epilobium canum</em></td>
<td><em>Buddleia davidii</em></td>
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<td>California fuchsia</td>
<td>Butterfly bush</td>
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<tr>
<td><em>Eriogonum nudum</em></td>
<td><em>Echinacea purpurea</em></td>
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<tr>
<td>Nude buckwheat</td>
<td>Purple Coneflower</td>
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<tr>
<td><em>Eriophyllum confertiflorum</em></td>
<td><em>Lantana camara</em></td>
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<tr>
<td>Golden yarrow</td>
<td>Lantana</td>
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<tr>
<td><em>Grindelia camporum</em></td>
<td><em>Lavandula cultivars</em></td>
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<tr>
<td>Gumplant</td>
<td>Lavender</td>
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<tr>
<td><em>Monardella villosa</em></td>
<td><em>Salvia species</em></td>
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<tr>
<td>Coyote mint</td>
<td>Sage</td>
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<tr>
<td><em>Perideridia kelloggii</em></td>
<td><em>Verbena bonariensis</em></td>
</tr>
<tr>
<td>Kellogg’s Yampah</td>
<td>Argentine verbena</td>
</tr>
</tbody>
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Super-Bloom Space

This project creates a community gathering space where people will come to enjoy the water views and open space while seeing and learning about the benefits of greening spaces.

On a gentle slope adjacent to the bridge we will incorporate a “super bloom” that becomes an attraction to draw both the local community and others further away. This area will be known as Lavender Hill and it will consist of a mass planting of a single cultivar of non-invasive, low water use lavender (Lavandula x intermedia ‘Provence’). When the lavender is in mass bloom in May, it will form a magnificent display. Local people can walk to the site along the bike path under the bridge and it will form a destination at this time of year. Honeybees are particularly attracted to lavender, as they hail from the same region as lavender, but many other pollinators are attracted to lavender as well. Being convenient to the I-80 corridor, the super bloom will attract people from other communities too. This could help bring additional income as well as introduce visitors to this new regional resource. Semiannual, volunteer grooming sessions will also keep the lavender in top shape while enhancing nearby businesses, and bring the community together to share in a common goal. These type of activities will help to build a sense of ownership and pride in the project in addition to maintaining the plantings. Studies have shown that a community involved in the care of a space, makes it more likely they will benefit from the projects goals and objectives. When the community becomes the steward of an area, everyone benefits.

“When I was a child, the waterfront was a wetland filled with ponds and animals. We would spend our afternoons playing with the animals in the ponds and enjoying the beautiful space.”
Art Installations

Why support community art? The towns of Crockett, Port Costa, and Rodeo have become a vibrant hub of art over the years. They are filled with galleries, artists and artisans. Therefore, it makes sense that when designing their waterfront, community members chose to include a changing art installation as an important part of their concepts for the project area. They asked to have local artists spotlighted and have new, changing installations to draw people to the area. The benefits of including public art installations in a project are vast. Not only can it be enjoyed by all, imagined by all, related to by all, but art (specifically community art) can draw together the community and cast a “far reaching” affect to other communities - even the global community. It brings people together through the common bond of art and beauty.

Art & Health

Does public art increase public health? Art that is accessible can have a “wellness affect” on the viewer. Recently, public art has begun being conducted by health agencies and looked at by community planners. “The health impact of community-engaged and community-based public art is more complex to measure in terms of health impact, but what we do know from evaluation projects is exciting and encouraging. Public art developed and installed in community spaces can impact community health in multiple ways. Much of this is participatory public art, which engages community members in the planning and creation of the art itself.” Current studies such as the one being conducted in Detroit by Power House Productions reveals that public art “can increase community members sense of identity and belonging, reducing isolation and negative mental health and emotional health outcomes.”

Graffiti Reduction

Does art fight blight? Many urban cities are effectively fighting blight with art. Cities such as Detroit, Pittsburgh, and Baltimore find that engaging the community in creating murals gets them better results than arresting and fining “graffiti artists” who tag and deface public and private property. Areas that have public murals and other community art installations have greatly reduced blight caused by graffiti. Locally, the City of Vallejo has found that art sculpture installations at their Ferry Building and City Hall, as well as murals in their downtown area, has reduced blight from graffiti and garbage as well as encouraged building owners to update and improve their buildings.
Living Wall

A popular idea emerging from our public meetings was to include a green or living wall. Also called biowalls or vertical gardens, living walls are very popular today. They combine a solid structural feature with a softer, organic layer.

What is a Green or Living Wall?
Some green or living walls are covered with climbing plants, while others involve a modular system that allows plants to root on the wall itself. Generally, green walls are made of repeated panels or integrated fabric systems that attached to a structural wall or frame. The panels can be made of any water-resistant material, but often include polypropylene compartments, geotextiles, irrigation tubing, growing medium, and lush vegetation. In addition to watering and fertilizing, vertical plant walls require other maintenance, including pruning, dusting, weeding, and sometimes, plant replacement. Vertical plant walls or gardens are heavy, so they must be designed to carry the increased weight.

A Green Vision
Constructing a living wall at the Carquinez Waterfront will provide a green barrier that reflects the natural habitat near the core of the project. It would be a feature that meshes well with the mixed-use aesthetic of the site itself. A green or living wall can serve as a transition between varying uses of the space, such as from natural space to developed space, from industrial space to recreation space, from paved space to green space, or from open space to enclosed space. Living walls create a visually pleasing, environmental friendly transition between zones.

Living Art
Green walls are ancient; originally, they were used to grow edible plants. These include the espaliered fruit trees of Europe and the vertical melon beds of Japan. Although we don’t think of them as green walls, most grape vines are trained as a series of low, green walls. Modern green walls were conceived as a form of living art. Therefore, it isn’t surprising, that this community of artists and gardeners included a green wall in the Carquinez Waterfront plan.

Eco-Friendly
Having a wall covered with plants reflects the love of gardens so evident in Crockett, Port Costa and Rodeo residents. The wall expands the space available for plant growth, while preserving horizontal space for other uses. Installing a living wall is an excellent way to expand plant habitat, without competing for available space in the mixed-use Carquinez Waterfront site.

Although plants grown in a vertical garden need frequent watering and fertilizing because they’re exposed to more light and wind, the site has potential access to purple water from the nearby wastewater treatment plant and adjacent hillside spring. By tapping into these water sources, a green wall could be maintained so that it is green in the environmental and the vegetative sense.
Creating a Cooler Micro-Climate
Adjacent to their surface, green walls create a shadier, moister micro-environment that is enriched with fresh air from the plants’ release of oxygen. If the green wall was adjoined by a seating area, then visitors could take advantage of this beneficial atmosphere. Being immersed in a plant-filled space will enhance visitors’ experience of the site.

Plant Choices and Diversity
Under the right conditions, a green wall can support a great diversity of plant species, including a mixture of groundcovers, ferns, low shrubs, perennial flowers, and edible plants. Plant choices can be designed to thrive in full sun, shade, and in exterior as well as interior applications.

Annual Flowering Vines for Full Sun
• Thunbergia alata  Black-eyed Susan
• Ipomoea x multifida  Cardinal climber
• Ipomoea quamoclit  Cypress vine

Perennial Flowering Vines for Full Sun
• Clematis species  Clematis
• Bougainvillea cultivars  Bougainvillea
• Hardenbergia comptoniana  Lilac vine
• Lonicera hispidula  Hairy honeysuckle

Perennial Herbs for Part Shade
• Aeonium cultivars  Aeonium
• Asparagus densiflorus  Fern asparagus
• Dudleya brittonii  Baja dudleya
• Heuchera cultivars  Alumroot
• Liriope muscari  Lilyturf
• Nephrolepis cordifolia  Fishbone fern
• Pelargonium tomentosum  Peppermint geranium
• Aspidistra elatior  Aspidistra
• Bergenia cordifolia  Heart leaf saxifrage
• Achillea millefolium  Yarrow
• Asarum caudatum  Wild ginger
• Epilobium canum  California fuchsia
• Festuca species  Fescue grass
• Satureja douglasii  Yerba buena

“I love the living wall at San Francisco MOMA. You know you’re in the city, but the outdoor space is so green and inviting.”
Freshwater Wetland

The historic tidal salt marsh that once occurred on the waterfront site was filled long ago. However, a freshwater wetland formed spontaneously four years ago on the area along Dowrello Drive. Excess water drains into the road. We propose using this excess water to construct a wetland on the eastern side of the parcel. Water draining from the permeable paving and bioswales could be routed through this area. Water will enter the wetland and undergo a process of natural filtration. This constructed freshwater wetland would improve the water quality of water emptying into the Strait of Carquinez from the Waterfront, would provide a small but highly useful habitat for local wildlife, and provide an attractive water feature.

“When I was a child, the waterfront was a wetland filled with ponds and animals. We would spend our afternoons playing with the animals in the ponds and enjoying the beautiful space.”
The towns that line the shores of the Carquinez Strait face special challenges with rising tides and flooding. The waterfront in Crockett is no exception. This site has a large influx of drainage water, groundwater and natural spring intrusion. This intrusion in the gravel-infilled waterfront presents a huge challenge in designing a viable project for the site. The use of water-wise and water-capturing methods in the project will be an important aspect in the planning of the project’s main features. Bioswales, water gardens, water capturing devices, and retention basins can be used to hold the water and slow the flow down to avoid intrusion in the main area. The site is currently subject to heavy flooding throughout the rainy season. As the water sits above ground much of the season, it continues to pick up pollutants. The longer it sits, the more it is polluted. Therefore, the project must include water-wise measures in its design to ensure its longevity.

**Bioswales**

Bioswales are landscape elements designed to remove silt and pollution from surface water runoff. They consist of a swaled drainage course with gently sloped sides (less than six percent), and filled with vegetation, compost and/or riprap. Bioswales, rain gardens, and retention basins can greatly reduce the amount of sitting water in the area and allow the water to be moved or held until it can be properly distributed back through the ground and/or into the Strait. When combined with water gardens filled with native plants, these flood reduction measures allow the water to be natural filtered through the surface layers as it slow flows through the substrate.

“We have enough water on our planet, but potable water which is being processed economically at this point of time is not sufficient, which needs to be focused upon, so that estimated water scarcity in future by experts and conservationists may not become a point of dispute in between countries, which we all facing for oil and other rare commodities.”

Nitin D Sharma
Environmental Education Outdoors!

We are living in a time when children, teens and adults, are living in front of electronic screens, and losing their connection to the natural world and other people. Some are perhaps even losing the ability to develop empathy and tolerance, as well as forsaking a healthy future due to inadequate sunshine, exercise and personal connections. Furthermore, a significant proportion of the local population experiences additional stressors of poverty, which adds more potential obstacles. Yet, all of these challenges are perfect reasons to bring this diverse population together to shape the solution to a sustainable and healthy environment, and future.

Our Vision for an Outdoor Learning Center

Imagine what our world would be like today if, beginning centuries ago, all people were taught to appreciate the natural world. Imagine if everyone learned not only about nature but from nature. Unfortunately, that is not what happened and today we have a plethora of environmental interactions, as well as social, problems, that are interfering with a future of peace, health and sustainability.

This is a critical time for environmental learning centers to surface all over the globe to teach respect for the environment and the interconnected web of life hypothesis, and to facilitate teamwork and problem solving in a supportive and enjoyable setting.

We want our outdoor learning center to be an integral part of our overall proposal for the Carquinez Waterfront project. Our educational program would teach children and adults alike to be part of the solution to create a healthy and sustainable community, biosphere, and future for all living things.

Through storytelling, games, crafts, field trips, gardening, nature-related sports, environmental education, and restoration work, we can foster curiosity, creativity, teamwork, leadership and problem solving capabilities. We would also introduce a contemplative practice through discussion, song and meditation. The focus would be on inner well-being and gratitude for nature and all its offerings, as well as concrete ideas of how we can give back to nature and our communities.
According to the Environmental Protection Agency (EPA), the average American spends 93% of their life indoors: 87% of their life is indoors; and another 6% of their life is in automobiles. That leaves only 7% of their time outdoors, or one-half of one day per week. May 1, 2018

AGE-RELATED ENVIRONMENTAL EDUCATION AND ACTIVITIES FOR PARTICIPANTS FROM PRESCHOOL-AGED CHILDREN TO ADULTS

ACTIVITIES COULD INCLUDE

- EDUCATIONAL GAMES AND CRAFTS
- ENVIRONMENTAL EDUCATION CURRICULUM
- PROPAGATING AND PLANTING NATIVE PLANTS
- REMOVING INVASIVE PLANT SPECIES
- GROWING EDIBLE PLANTS PEER MENTORSHIPS
- NATURE JOURNALING
- CLEANING UP THE SHORELINE
- CREATING LOCAL PROJECT

“I’d like to see kids enjoying an outdoor space to learn in!”

“KIDS WHO PLAY MORE OUTDOORS HAVE FULLER AND MORE WHOLESOME LIVES. OFTEN, WHEN THEY GO OUTDOORS THEY TRANSFORM. I LOVE WATCHING MY OLDER DAUGHTER’S SMILE GROW AS HER SENSES AWAKE TO THE SIGHT OF BIRDS AND BUTTERFLIES, THE SMELL OF FLOWERS AND TREES AND THE SOUNDS OF WATER RUSHING OR LEAVES RUSTLING.

IMPORTANTLY, SHE GETS A VITAL BREAK FROM HER INTENSELY REGIMENTED LIFESTYLE.”
Nesting Platforms

Providing nesting platforms is a popular way to invite birds into the area. Many birds of prey return every year to the same nesting site, adding new material so the nest gets larger and larger. In extreme cases, this can damage the tree or structure the nest is on, causing the nest to fall. Providing platforms or other robust structures for birds to build their nests on increases reproductive success. As long as there is an adequate food supply, ospreys in particular, are found locally and are fairly tolerant of nearby human activity and other birds.

Ospreys are among the many predatory birds that live along the Carquinez Strait. By constructing simple platforms, we can provide places for these magnificent birds to thrive among the community and to enjoy the benefits of the waterfront project alongside their human neighbors. Building nesting platforms is one way to ensure the project brings wildlife habitat as well as recreational opportunities. Thus, encouraging the public’s awareness of the native fauna that surrounds them.

“Crockett has ospreys that I can watch from my house... it would be wonderful to have nesting platforms.”
Simple Amenities

**Trash Bins**
**Simple Trash Cans**

The community preferred the garbage cans that had closed, locking lids with small front openings. They felt that this type of trash receptacle would be less likely to be used for illegal dumping that can result in messy, overflowing receptacles.

They felt the project should include, not only trash and recycling bins, but composting bins as well. They were concerned about the pickup of the bins and wanted the CReW Committee to ensure that frequent, and regularly scheduled, garbage service was part of the project plan.

**Bike Racks**
**Simple Style Racks**

Crockett, Rodeo, and Port Costa see a lot of bicycle traffic through their towns. Community members would like to give the cyclists a good place to stop and enjoy the project while keeping their bikes safe. They chose a simple U-shaped rack that would tuck into the backdrop of the site, rather than standing out as a main feature.

By encouraging people to bicycle to the project site, we will reduce the amount of car traffic in the area and reduce pollution and greenhouse gases as well.

**Picnic Tables**
**Sitting Areas**

Overall, the participants wanted to have seating available to the project’s visitors. Whether it be benches with or without tables, the community felt it was an inviting feature. The wide variety of benches available for public spaces will allow the CReW Committee members to ensure that the benches fit with the final project design.

Some community members were concerned that seating would encourage loitering by transients, so it is important to choose a design that discourages theft and long-term occupation.

**Restrooms**
**Simple Style**

The community chose a simple, safe style of restrooms that were visible from most vantage points. They felt the more modern designs were often inefficient and unsafe. They recommended front facing bathrooms with no barrier walls in front of the doors. Good lighting and safety was at the forefront of the discussion.

As with the seating and bicycle racks, they felt that the addition of the restrooms would make the area more user friendly and allow bicyclist a place to stop while riding through town.
Parking Lot Features

Permeable pavements have become an integral part of many community projects in recent years. Permeable pavements are alternative paving surfaces that allow stormwater runoff to filter through voids in the pavement surface into an underlying stone reservoir, where it is temporarily stored and/or infiltrated. The flooding issues the project site has had over the years will be greatly reduced by creating the proper balance of permeable surfaces and water moving measures such as bioswales and rain gardens.

Permeable Pavers
Parking Areas and Walkways

The community was concerned about the costs associated with solar power installation and maintenance. However, as more and more solar companies crop up in California, and the price of solar panel installation decreases, “going green” becomes a more economical choice for cities and parks. The long-term savings as the industry becomes more affordable, outweigh the upfront costs of installing solar energy grids in the Waterfront project.

As more and more electric and hybrid cars enter the roadways, the community decided that installing an electric charging station in the parking lot of the project was an important feature. As we construct new projects, we should stay progressive in environmentally-friendly installations. Giving people the option to charge their cars provides the added benefit of bringing more (and potentially new) visitors. The charging station will attract people seeking a nice place to spend some time while charging up their electric vehicle.

Water Fountains

The more our site can provide to the public, the more the public will enjoy their visit and return. The addition of amenities like drinking fountains can greatly add to the attractiveness of a project to its visitors. The community would like to have a water capture unit to recycle any wasted water into a watering system.

Saving Energy

Keeping the costs down, can also help the environment. The community emphasized the importance of making the site a cost effective and low maintenance area. Using solar energy will make it possible for the project site to have stand-alone, power-requiring amenities without the need for electrical wiring to be run across most of the site. Small panels can be used on light poles and signs.
Working with the Natural Landscape to Improve Drainage

The community felt that flood protection and reduction were of the highest importance in the project area. The site has long-term flooding issues, and it is often nearly impossible to navigate the deep puddles in both the road and parking lot areas at the project site. While designing the project, we will attempt to use the natural slope of the land to move water to the constructed and installed mechanisms, such as bioswales and rain gardens, to hold, slow down and filter runoff from the parking lot. In order to create the proper drainage, some areas may require additional soil and rocks.

Using Natural Sloping for Drainage
Thanks for your important participation

A huge thank you to all 276 community members that participated in this wonderful process! This Vision Plan truly represents the wishes of the community because the community was involved from start to finish! A special thank you to the Carquinez Recover the Waterfront Committee for their perseverance and enthusiasm. You were the glue that held this project together! And on that note, we present the CReW Committee members:

CO-CHAIRS: DEAN KELCH, HEIDI PETTY

MEMBERS:

LARRY HAYDON
ELIZABETH HARRISON
HANK DOWRELIO
MITCHELL GRIFFITH

JULIE LYONS
MEAGAN HURLEY
ASHLEY TOMMAJAN
CHRIS GOEHE

MARY WAIS
HEIDI PETTY
BROOKS DEES
EARL FLEWELLEN

DEAN KELCH
ALICIA JOHNSON
BONNIE PANNELL
MIKE KIRKER

Without the community, there would be no vision...

Just a few of the many community members that contributed to this process...

ANDREW ALVA
HECTOR ALVAREZ
DEBORAH BRANDON
FRANK BROSNAH
BILL CONCANNON
PETER CRAIG
LISA DAMAREL
BILLIE DAVIS
BROOKS DEES
PAULA EDWARDS
EARL FLEWELLEN
CHRIS GOEHE
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ELIZABETH HARRISON
ALICIA JOHNSON
DEAN KELCH
CAROL LAMPSON
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JACQUE RAPP
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DAN ROBERTSON
JOHN SIMON
KAY SMITH
MERV SILVERMAN
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ED TENNANBAUM
MYUKI TENNANBAUM
JAMIE VALLADAO
MARY WAIS
DAN WEINSTEIN
RON WILSON
CROCKETT LIONS’ CLUB

A special thank you to Jamie Valladao for her beautiful cover photo and the photo for our logo!
Thank you to our local agencies for bringing together the community to create this vision.

**Carquinez Recover the Waterfront Committee**  
Community Citizen Group

The Recover the Waterfront group, in collaboration with the Contra Costa Resource Conservation District, is a grassroots group of community members seeking to create a community space with a suite of “green” infrastructure and projects designed to rethink our most precious resources, clean water and air.

Their goal is to transform the Crockett waterfront into a space that is both beautiful and functional while promoting its use by both the community and its native flora and fauna.

**Carquinez Regional Environmental Education Center**  
Non-Profit

Carquinez Regional Environmental Education Center, CREEC’s mission is to encourage and educate our youth and communities to restore and conserve native ecosystems.

CREEC has been doing butterfly habitat restoration and native plant propagation in Crockett since 1998. Our nursery and greenhouse is located near the Alfred Zampa Memorial Bridge and is generally open Saturdays 10-2 and Wednesdays 1-5.

**Carquinez Watershed Council**  
Community Group led by CCRCD

The Carquinez Watershed Council is comprised of local citizens, community groups, and organizations that have an interest in the activities and projects in the Carquinez watershed.

The Carquinez Watershed Council promotes the stewardship of the sub-watersheds that flow into the Carquinez Strait by providing a forum for education, resources and community engagement activities that benefit the health of the watershed.

**Contra Costa Resource Conservation District**  
Special District of Contra Costa County

The RCD is a Special District and also a type of non-profit. Our mission is to provide an organized means for local people to play a prominent role in carrying out voluntary, cooperative natural resource conservation programs in Contra Costa County.

The mission of the Contra Costa Resource Conservation District is to facilitate conservation and stewardship of the natural resources in Contra Costa County.
REFERENCES


CK-12 Foundation: Resource Library. (2018). Introduces soil and water as natural resources while discussing ways to preserve these resources. Retrieved from https://www.ck12info.org


Thank you to Phillips66, Rodeo for generously printing this Vision Plan.