

WALNUT CREEK
WATERSHED
COUNCIL

2019
ACHIEVEMENTS REPORT



WALNUT CREEK
W **ATERSHED**
COUNCIL

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EXECUTIVE SUMMARY

In 2019, we made good progress towards restoring the watershed through the creation of healthy riparian areas. Using \$44,000 in mitigation funds we received via the San Francisco Regional Water Quality Control Board (SFRWQCB), we identified sites with stands of Arundo in four of the sub-watersheds. While there are over 250 Arundo stands in the watershed, these stands were selected because they were in highly visible locations and because the access was relatively easy. Working with our non-profit partner, the Restoration Trust, we removed the Arundo and other invasive plants (mostly ivy and tree of heaven) from the four sites. Then, with help from the Contra Costa RCD, we had planting events in all four locations. Each event attracted more than 30 volunteers!

This work helped us understand the challenges of what was needed to remove Arundo from the watershed. We created the Arundo Removal and Restoration Team, so that there would be a group that would focus on Arundo removal and replacement. There is a lot of information sharing among team members on the best ways to treat Arundo.

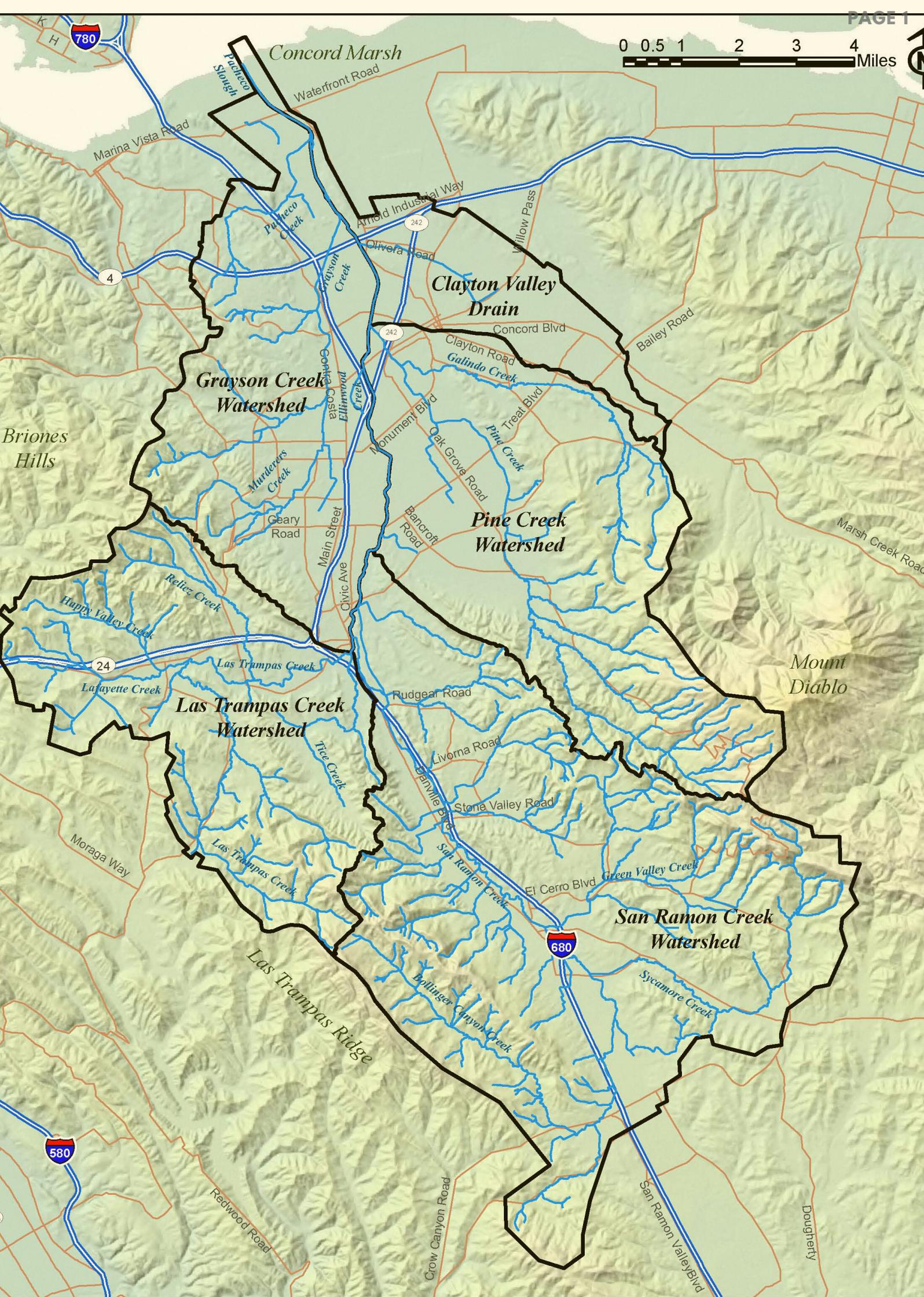
We were gearing up for a much bigger effort in 2020 when COVID-19 arrived. This eliminated the possibility of the large group events that were so successful in 2019. While we were slowed down considerably, we knew that invasive plants would continue to grow in this pandemic, so we have not stopped. Where Arundo or other invasive plants returned at the sites that had been cleared in 2019, we continued to treat those sites, and will continue to do so. With assistance from the RCD, we continued to meet, albeit in a virtual format.

Finally, in response to another grant of mitigation funds from the SFRWQCB, the Restoration Trust prepared a set of plans for a site in Lafayette and a site in Walnut Creek. These plans were approved by the U.S. Army Corps of Engineers and the California Department of Fish and Wildlife. With the additional money, we are funding efforts by two contractors to remove the invasive plants and to propagate and plant native plants suitable for riparian areas for those sites.

In the other two sub-watersheds (San Ramon and Murderers creeks), we are supporting efforts to remove Arundo and to restore more natural habitat. Given all of the changes that have occurred in 2020, I am proud of the efforts made by the volunteers who are making a difference in the riparian areas in our watershed.

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Concord Marsh

Clayton Valley Drain

Grayson Creek Watershed

Pine Creek Watershed

Las Trampas Creek Watershed

San Ramon Creek Watershed

Las Trampas Ridge

Briones Hills

Mount Diablo

Marina Vista Road

Waterfront Road

4

242

242

24

680

580

Redwood Road

Crow Canyon Road

San Ramon Valley Blvd

Dougherty

Lucheco Slough

Pacheco Creek

Grayson Creek

Olivera Road

Arnold Industrial Way

Willow Pass

Clayton Road

Concord Blvd

Bailey Road

Galindo Creek

Clayton Road

Concord Blvd

Clayton Road

Galindo Creek

Treat Blvd

Murders Creek

Geary Road

Main Street

Civic Ave

Monument Blvd

Oak Grove Road

Pine Creek

Bancroft Road

Clayton Road

Happy Valley Creek

Relief Creek

Las Trampas Creek

Lafayette Creek

Las Trampas Creek

WHO WE ARE



An overview

Our mission is to support community efforts, scientific studies, public education, and restoration projects that protect and enhance beneficial uses and resources in the entire watershed. The Council encourages sharing information and promotes collaboration among the stakeholders.

The Walnut Creek Watershed is the largest watershed in Contra Costa County totaling 146 square miles or 96,000 acres, in size. Its 340,000 inhabitants account for over 35% of the County's population. The watershed extends from San Ramon to the south, Martinez to the north, Moraga and Orinda to the west, and Concord to the east. From protected natural lands (Mt. Diablo State Park, East Bay Regional Park District lands, and Walnut Creek Open Space) and grazed lands to suburbs and urban creeks, our watershed has a bit of almost everything. The Walnut Creek Watershed has 309 miles of creek channels - accounting for almost a quarter of all mapped creek channels in Contra Costa County. Over 70% of the channels (by length) in the watershed are natural, meaning they have no flood control or flow restriction devices. Almost 16% of the creeks are in concrete channels. Another 12% are constructed earth channels. Less than 1% of the channels are riprapped. All of this watershed information is from the Walnut Creek Watershed Inventory (Feb 2013).

In 2011, several individuals representing different organizations began meeting to discuss how to create a community-based group with an interest in improving our watershed. After several months, they decided to create a watershed council and started the organization process. The result is the Walnut Creek Watershed Council, which is a voluntary, non-regulatory stakeholder group that supports a healthy and sustainable watershed. Contra Costa County Flood Control and all nine cities and towns in the watershed together with several non-profit organizations and other governmental organizations, have expressed their support. The complete list is at the beginning of this report.

**City and
Town
Supporters:**

City of Concord
City of Lafayette
City of Martinez
City of Orinda
City of Pleasant Hill
City of San Ramon
City of Walnut Creek
Town of Danville
Town of Moraga

Non-profit Agency Supporters:

Diablo Valley Fly Fishermen
Friends of the Creeks
Friends of Pleasant Hill Creeks
Friends of San Ramon Creek
Greenbelt Alliance
John Muir Land Trust
Mount Diablo Audubon Society
Mount Diablo Interpretive Association
Save Mount Diablo
Sustainable Contra Costa
Sustainable Walnut Creek
Walnut Creek Open Space Foundation

Government Agency Supporters:

Central Contra Costa Sanitary District
Central Contra Costa Solid Waste Authority
Contra Costa County Flood Control and Water Conservation District
Contra Costa Resource Conservation District
East Bay Municipal Utility District
East Bay Regional Park District

Business and Industry Supporters:

Marathon Petroleum Company LP

VISION

We envision a Walnut Creek watershed where the creeks are visible and thriving natural assets that join our communities into a unified whole. Grayson, Las Trampas, Pine, San Ramon, Walnut, and tributary creeks are widely appreciated as places where families gather, children explore, and workers take respite in a creek-side cafe. Our homes, businesses, urban centers, public spaces, and neighborhoods are oriented toward their creeks for enrichment and economic benefit,

with enough space to allow for a dynamic channel, natural floodplain habitat, and to protect us from powerful storm hazards. The built environment is constructed to slow down stormwater, capture it in the soil, and release it slowly back to our waterways. Our communities are intertwined with a network of parks and natural areas that provide healthy recreation for the community and habitat corridors for native plants, fish, and wildlife. These corridors connect large natural reserves on the slopes of Mount Diablo and Las Trampas Ridge to the marshes and shoreline of Suisun Bay.



Residents, business owners, and government officials share an ethic of stewardship. Private landowners are respected and rewarded for their contribution to excellent stewardship of these lands. Everyone, young and old, knows the names of their closest waterways, and takes joy in spotting a heritage species, such as chinook salmon, river otter, wood duck, or native walnut, that thrive in a resilient and healthy watershed.



Our vision is further defined by the following principles to guide its implementation:

QUALITY OF LIFE

The quality of life is highly valued in local land-use policies, plans, and projects, resulting in communities that reflect the intrinsic natural beauty of the watershed. Residents feel a sense of ownership and connection to their watershed, which they regard as a place of refuge and comfort that they are proud to call home.

HABITAT PRESERVATION AND RESTORATION

The watershed provides core habitat for major biotic communities, connected by habitat corridors across urban and industrial landscapes, to support thriving populations of native flora and fauna, thereby protecting the unique natural heritage of the watershed.

RECREATION AND PUBLIC HEALTH

Everyone in the watershed has ample opportunities for and easy access to healthy recreation in diverse natural environments.

COMMUNITY

Neighborhoods are connected by a network of creeks, providing a sense of community within the watershed. Communities are designed to integrate the creek into their social fabric, and infrastructure is designed to accommodate the creek as a valuable amenity. Local communities are engaged in the well-being of the larger watershed community.

ECONOMICS

Creeks in the watershed are viewed as an asset. This asset value is improved with each development, investment, or mitigation opportunity by incorporating the creek into the community fabric, thus spurring economic growth and creating lasting prosperity.

FORM AND FUNCTION

Natural reaches of creek are preserved and restored to a state of dynamic equilibrium. Creek reaches in urban environments are engineered to provide the form and function necessary to support healthy, natural processes. Urban infrastructure is designed to slow down stormwater, direct it for beneficial purposes, and increase infiltration rates to provide sustainable base flows within the creek system.

RESILIENCY

Rebuilding the urban landscape and reshaping creek corridors results in a resilient system that provides ongoing, sustainable flood protection and other community benefits that are adaptable to future environmental change. As storms become more intense due to climate change, diversion of run-off to infiltration basins to reduce pollutants and recharge groundwater will become more important.

Creeks as Corridors



Creeks serve as vital connections, creating routes for wildlife to access the natural pockets of landscape within our urban setting. Habitat has been fragmented by our lifestyle, with developments and roads barring the migration of plants and animals. But our creeks serve as a natural corridor, traversing our cities and towns, and allowing the natural migration to continue from open space, to a pocket park, to the foothills of Mt. Diablo.

Creeks enhance our everyday life, catching a glimpse of an otter playing in a stream, or a heron taking flight adds a bit of unexpected magic and a touch of awe to one's day.

Enjoying time along our local creeks gives you an opportunity to take a moment to enjoy the changes that take place with each passing of the seasons and explore the circle of life in your own backyard.



To learn more about wildlife in our watersheds, check out our creek groups

City of Lafayette Creeks Committee p. 12

Friends of the Creeks p. 10

Friends of Pleasant Hill Creeks p. 9

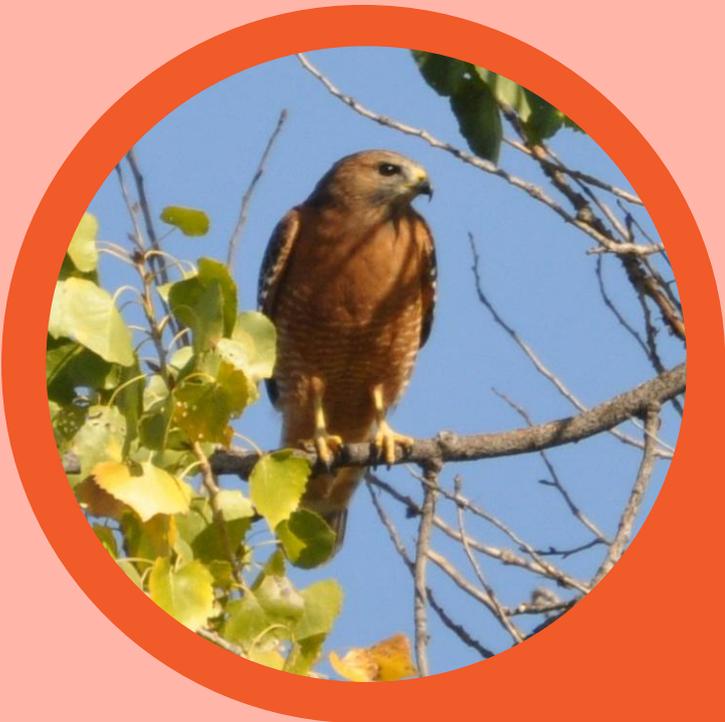
Friends of San Ramon Creek p. 8

Wildlife Highlights from our Partners

Lafayette Creeks Committee

The creeks and their riparian corridors in Lafayette serve as habitat to mammals, birds, fish, reptiles, amphibians, insects and other invertebrates. Larger mammals such as deer, coyote and the native Gray Fox use the creek channels for movement throughout the community. Large birds such as the Great Egret and Great Blue Heron visit and feed in the creek channels. Mallard ducks are commonly sighted swimming in the creeks or hanging out on the banks.

The most common fish species found in Lafayette’s creeks are California Roach and Threespine Stickleback, while trout reportedly live in some of the deeper, colder pools. The creeks also host frogs, California Newt, and numerous insects and invertebrates.



Friends of Pleasant Hill Creeks

Grayson Creek in Pleasant Hill provides valuable habitat for more than 80 species of California native and migratory birds.

For more than two years, volunteers with Friends of Pleasant Hill Creeks (FPHC) and Mt Diablo Audubon Society (MDAS) have conducted a monthly bird survey in two sections of the Grayson Creek riparian corridor in Pleasant Hill. This survey has documented a total of 88 species across the two sites, including more than 80 California native and migratory species.

Notable species include eight species of raptors, six species of woodpeckers and spectacular waterbirds including Hooded Mergansers, egrets, and herons. The survey team has also observed river otters and muskrat foraging in the creek..



Re-planting in December for the Hap Magee and Methodist Church sites was completed.

We co-sponsored four naturalist speakers with our local Library, two in the Spring, and two in the Fall. Interest remains high among our Town! We also participated in our local Earth Day Event at the Library.

Friends of San Ramon Creek

Friends of San Ramon Creek worked with various volunteer groups to cut and remove Arundo growth from 4 sites in 2019: Hap Magee Ranch Park, Bryan Ranch, Sandra Ct, Kendall Lane. This totals to more than 7,100 sq ft of Arundo removed in 2019.

In addition, follow-up treatment with herbicide was done on 3 other sites this year, including one which did not have growth last year (after cutting and painting with herbicide in 2016, with herbicide treatment in 2017).



Topics for the 2019 speaker series included:

- Creek Stewardship for property owners
- Arundo Removal & Replacement
- Gems of the East Bay Regional Park District
- Wildflowers.



Get involved at:

wcwatershed.org/friends-of-san-ramon-creek



Friends of Pleasant Hill Creeks



COMMUNITY CREEK CLEANUPS

More than 60 volunteers cleaned up 3100 linear feet of Grayson Creek in Pleasant Hill. Items removed included: cigarette butts, plastic, Styrofoam, and construction debris. We are grateful to the Pleasant Hill Civic Action Commission and The Watershed Project for sponsoring these cleanups. Since 2017, more than 150 volunteers have removed more than 5,000 pieces of trash from Grayson Creek! Thank you volunteers!

GRAYSON CREEK BIRD SURVEY

Volunteers with Friends of Pleasant Hill Creeks and Mt. Diablo Audubon Society continued monthly bird surveys focused on two sections of Grayson Creek. Since 2017, the Grayson Creek Bird Survey has documented more than 80 species of native and migratory birds in the Grayson Creek Corridor. Contact us for a copy of the bird brochure and for links to online eBird checklists!

WATER QUALITY MONITORING.

Friends of Pleasant Hill Creeks volunteers participated in First Flush data collection and a BMI survey organized by The Watershed Project (TWP). TWP also published two years of water quality data collected from Grayson Creek with help from local volunteers.

LAND USE AND PLANNING

Friends of Pleasant Hill Creeks participated in multiple community meetings and submitted comments as part of the drafting of the new Pleasant Hill General Plan. We also commented and made suggestions on plans for the new park, library, and creekside trail next to Grayson Creek.

EDUCATION AND OUTREACH

Friends of Pleasant Hill Creeks participated in the following community events to raise awareness about our creeks and engage community members in creek stewardship. Earth Day at Diablo Valley College Watershed Day at the Capitol o Tinkers and Thinkers Faire, Nature Day at Wild Birds Unlimited

RECOGNITION

Friends of Pleasant Hill Creeks was honored to receive a volunteer award at the Contra Costa Creeks and Watershed Symposium.

Friends of Pleasant Hill Creeks is an all-volunteer nonprofit organization of Pleasant Hill residents who care about our creeks. Our mission is to engage community members in protecting, restoring, and enjoying our creeks and adjoining open space. We are a project of Social and Environmental Entrepreneurs, a 501(c)(3) nonprofit organization.

Connect with FPHC:

Website: www.pleasanthillcreeks.org

Facebook: @PHcreeks

Email: pleasanthillcreeks@gmail.com.





2019

CLEANUPS

Our first major event of the year was the 30th annual downtown creek cleanup. For the last decade, the balance of what we took out of the creek was shifting from trash to vegetation. But as you can see from this picture, we had a lot of trash and shopping carts were popular again. Perhaps it was because of last year's wet winter. However, the composition of the trash has changed – we still had practically no plastic bags and very little fast food trash. So, we are making progress!



We came up with a new concept for Community Service Day this year – a family-oriented creek cleanup focused on kids ages 5-8 in a creek that wasn't too dirty or hard to get around in. Our trial run at Heather Farm was successful, so we did it again with a group of kids and parents from Parkmead School. The kids were very enthusiastic and they missed very little trash. We did a trash assessment afterward as a further teaching experience.

ARUNDO

We had a number of groups from corporate to kids to help us cut and treat arundo during the year; we probably did 4-5 such events. The upshot is that we have been able to start treatment of all the remaining arundo stands in Civic Park except one, even though some of it will be back next year.

As described elsewhere in this report, the WC Watershed Council received \$40,000 in mitigation funds to use for habitat restoration. Because we had some separate money that could only be spent in Walnut Creek, we decided to prepare two sites for planting – one on our own, and one with the Restoration Trust as part of the watershed-wide project. The accompanying photo shows the site after clearing.



LEARN MORE ABOUT FRIENDS OF THE CREEKS AT:
FRIENDSOFTHECREEKS.ORG





RESTORATION OF BAYBERRY POND



The Foundation began serious work on restoring Bayberry Pond in Lime Ridge North in 2008. We had planted acorns the previous two years, but now we arranged to have the pond dredged, cleared weeds, and signed up volunteers to plant native grass. We took an inventory and found that 20% of the area was covered with native plants. Our objective was to improve the site to encourage California red-legged frogs and California tiger salamanders, both of which had been reported in the general area.

However, erosion was a continuing problem and the pond silted up again. Eventually we traced it to an outfall off Ygnacio Valley Road near the top of our drainage.



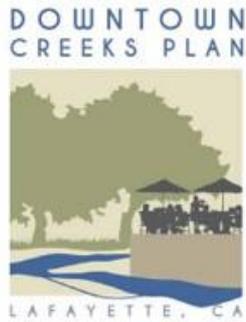
This was a much bigger project than we could handle by ourselves, so we partnered with the City of Walnut Creek, the Natural Resource Conservation Service (NRCS) who offered streamlined permitting and design services, and our rancher Paul Daysh who did the actual construction work. The City made all the arrangements, did the hydroseeding, and paid the majority of the cost. We gathered local native seeds, planted them, contributed to the cost, and will be the caretakers. The reward for all of us is a pond that is holding water after many others have already dried up!

LEARN MORE AT: WCOSF.ORG





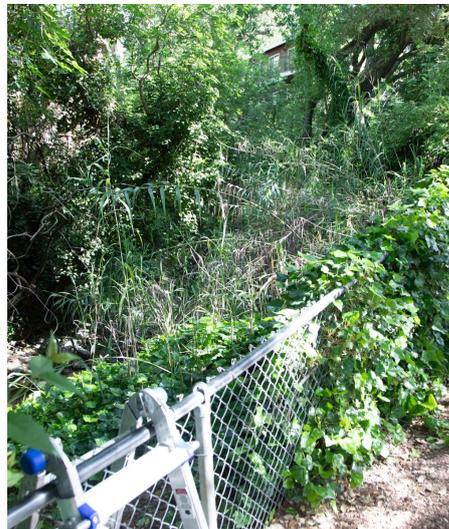
CITY OF LAFAYETTE CREEKS COMMITTEE



We continued to implement the EBRPD Measure WW-funded project rain garden project. City staff completed the initial design of the First Street/Golden Gate Way rain garden site, and the Committee and our graphic designers completed the final draft design of the “Creek Icon.” Committee members met with City staff, other Lafayette Commissions and downtown developers to encourage implementing the DCP.

7th annual Lafayette Creek Day

Creek Day was held at the Brook Street Park on April 27, and focused on clearing the creek bank along the park of Arundo donax and ivy, as well as trash and recyclables. About 15 adults and middle-school students participated. Professor Michael Marchetti (St. Mary’s) hosted tanks displaying native fish and aquatic organisms, and discussed natural creek processes.



Before



After



CREEKS COMMITTEE

Mapping and Removal of Arundo donax

We discovered additional Arundo donax patches by walking the Las Trampas and Lafayette creek channels, and added them to the Watershed Council's GIS map. We removed Arundo patches and other invasive plants at 2 sites, on city property along Mt. Diablo Blvd. (see photos below) and at the Brook St. Park (see Creek Day photos). The Mt. Diablo project was done in coordination with the Watershed Council and The Restoration Trust. The Brook St. Park project began on Creek Day, and was later adopted by three Lafayette Girl Scouts working toward their Silver Award along with their fellow volunteers.



Before



After

Trash Load Reduction

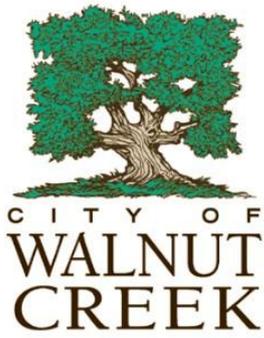
The City of Lafayette achieved a municipal trash load reduction of 88%, as reported to the Regional Water Quality Control Board for the fiscal year ending in 2019. This reduction exceeded the City's target under the stormwater NPDES permit.

County- and State-wide Watershed Events

In addition to our active participation in the Watershed Council and the Arundo Removal and Replacement Team, Committee members took part in watershed events throughout 2019 sponsored by county and state organizations. These included the California Invasive Plant Council wildland volunteer training in March, Watershed Day at the Capitol in April, construction of a rock diversion berm in San Ramon Creek in June, and the Contra Costa County Creek and Watershed Symposium in December. At the symposium, Committee members hosted a booth, contributed a poster about our rain garden project and networked with fellow attendees.

Learn more about about the Creeks Committee

www.lovelafayette.org/city-hall/city-departments/public-works/creeks/downtown-creeks-preservation-restoration-development-plan



30 YEARS

The City of Walnut Creek, in partnership with Friends of the Creeks, hosted its 30th Annual Creek Cleanup to work on different segments of downtown creeks. 75 volunteers picked up about 15 cubic yards of trash and removed 5 cubic yards of invasive vegetation!



BAYBERRY POND RESTORATION



We completed work on Bayberry Pond and the drainage gully in Lime Ridge Open Space, in late October 2019. This project improved the resiliency of the grazing operation and wildlife habitat and will ultimately improve overall rangeland health and fire resiliency on the City of Walnut Creek's Open Space Division's land.

11 CLASSROOMS

The City of Walnut Creek sponsored 11 local classrooms (259 kids and accompanying adults) to participate in the Kids for the Bay program. The Field Trips help students and their adult chaperones to connect with nature in their local watershed environment, teach them how they can protect this environment by reducing trash and waste, especially plastics, and are key part of their science and environmental education curriculum.





The Town of Danville maintains approximately 4.6 miles of creeks and drainage channels, with others being maintained by the Contra Costa County Flood Control District and private property owners.

CREEKS MAINTENANCE

The Maintenance Department removed debris from 38 Town-maintained creeks and ditches. The towns' CRM technology allows residents to quickly report issues for staff to respond to spills, illegal dumping, creek and drain maintenance.

GREEN INFRASTRUCTURE

The Town of Danville adopted a Green Infrastructure Plan to address water quality protections over the course of the next twenty years.

PESTICIDES

There are no pesticides used in maintenance of over 200 acres of parks and 60 acres of roadsides and the Oak Hill Park pond. The town collaborates with the City of San Ramon and San Ramon Valley Unified School District to only use chemicals approved by the Healthy Schools Act.

POND MAINTENANCE

The Town replaced five aeration stones submerged in the Oak Hill Park pond, continued to perform alum treatments as needed, completed vegetation cultivation and applied monthly applications of microbes for algae control and water clarity. Monthly water quality testing continues for the pond. A new filtration system with four filters was installed to help clean the water for the UV system to fight bacteria more effectively and efficiently.

SOIL PRESERVATION

The town continues to perform sports field soil treatments based on bi-yearly soil testing, including the use of only organic fertilizers. Quality control of soil continues bi-yearly in our parks.

OUTREACH AND EDUCATION

The town hosted the annual Bike-to-Work Day on May 9. Over 185 cyclists stopped at the town's Energizer Station. Reusable bags, free water bottles, trail maps and food were given away to all participants. The Kids for the Bay (KftB) Elementary Environmental Education Program celebrated another year of pollution prevention education at Greenbrook Elementary School. The annual Earth Day event was celebrated on April 13. This is the 9th year the event has been hosted to educate residents about environmental protection. Two local plant nurseries participated in the Our Water Our World tabling event.

STORM DRAINS

Over 200 curb markers were replaced in 2019 and approximately 1000 homes surrounding the storm drains were provided with pollution prevention messages. The town Street Sweeping Program covered over 6,000 curb miles to prevent debris from entering storm drains. 593 Drain inlets were inspected and cleared as needed.

VILLAGE THEATRE PARKING LOT CAPITAL IMPROVEMENTS PROJECT

The Village Theatre Parking Lot capital improvement project was completed in early 2019. The project included bio-filtration planters for storm water treatment, new landscape planting, four EV charging ports and construction of a pedestrian bridge which serves a connection from the downtown area to the Eugene O'Neill Pocket Park, Community Center and Library.





In November 2019 The Watershed Project led two creek monitoring labs for Environmental Science classes at Diablo Valley College, giving the students hands-on experience in using water quality meters, taking detailed observations, and learning about benthic macroinvertebrates. We will repeat these programs during the spring semester.

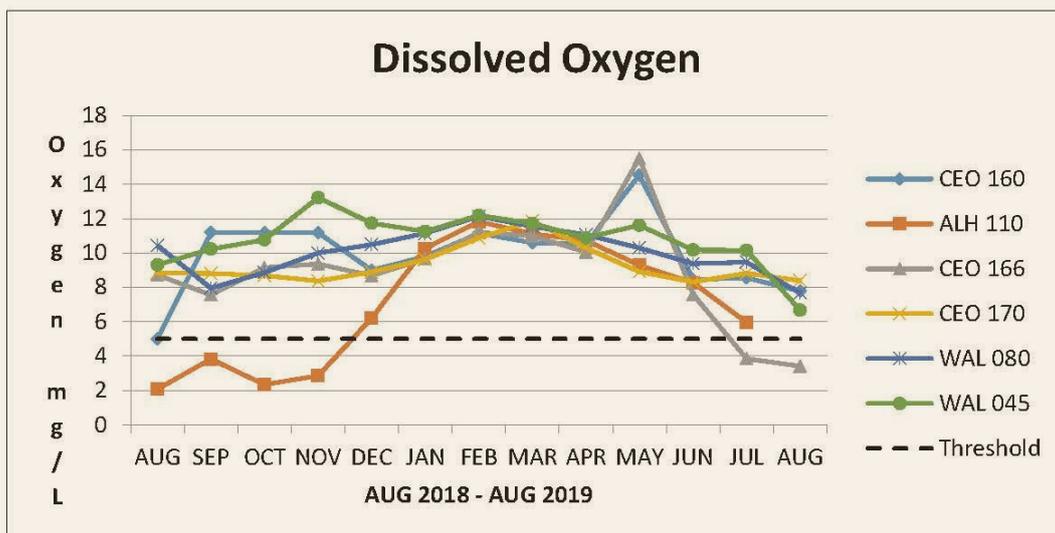
Our monthly water quality monitoring program visited six sites in the Walnut Creek Watershed every month and recorded temperature, dissolved oxygen, pH, specific conductivity, turbidity, and nitrates. We found pH, temperature, and turbidity to be within the healthy range; dissolved oxygen to be mainly within the healthy range, except for in Alhambra Creek; and specific conductivity and nitrates to be high.

We are adding at least eight new monitoring sites in the Walnut Creek Watershed this year, and we've built a tool to explore our data and the data of others in the area!

Explore your creek here: <https://app.thewatershedproject.org/>



Matt Greer works with students to measure water quality in Grayson Creek.



Dissolved oxygen falls below the healthy threshold in Alhambra Creek (ALH110) in the late summer.

To learn more or to get involved please contact Helen at helen@thewatershedproject.org or visit us online at www.thewatershedproject.org.





BAYBERRY POND

This past fall, the Contra Costa Resource Conservation District (CCRCD) in partnership with the US Department of Agriculture's Natural Resource Conservation Service (NRCS), the City of Walnut Creek, and the Walnut Creek Open Space Foundation restored the Bayberry Pond and Gully in the Lime Ridge Open Space. Construction on the Bayberry Pond began in late October.

Over the years, road runoff from winter rains on Ygnacio Valley Road cut a gully into the hill that eventually found its way to the Bayberry Pond. This runoff carried with it the sediment from the gully which slowly deposited into the Bayberry Pond. Over time, this sediment collected, slowly raising the water level and decreasing the available water for livestock and wildlife in the Lime Ridge Open Space.

These ponds are also important habitat for threatened species like the California Tiger Salamander. While CTS spend more than $\frac{1}{4}$ of their lives underground, they breed in these ponds in the early Winter months with the first rains. The California Tiger Salamander then return to their burrows (which are typically adopted ground squirrel burrows) while salamander larvae hatch and grow out within these ponds.

After growing for two to three months, CTS then leave the ponds to find burrows to live in during the summer before emerging again in winter to breed. In light of this, the Contra Costa Resource Conservation District along with the California Department of Fish and Wildlife developed the Voluntary Local Program. Through this program, ranchers and landowners interested in restoring degraded ponds and landscapes can enroll and receive take coverage for California Tiger Salamander.

Spoils from the pond restoration were deposited nearby and hydroseeded with a mix of natives in order to reduce invasive species, prevent weeds, and encourage native grasses and flowers to emerge.

Contra Costa RCD will be monitoring the pond and gully this winter/spring to ensure that it continues to work as planned in addition to monitoring the pond for California Tiger Salamander larvae. We hope that the restoration of the pond in addition to the construction of some other livestock water facilities like troughs in the Lime Ridge Open Space will allow the grazing tenant to move livestock into parts of the property that were previously unusable because of no reliable water resources. This should allow for better fuels management with regard to fire risk, invasive species control, native grass and vegetation promotion, and enhanced wildlife habitat.

SHELL RIDGE LIVESTOCK WATERING PROJECT

Another project enrolled in the Voluntary Local Program occurred in the Shell Ridge Open Space. This project involved the construction of a new, below-ground storage tank, a new above-ground storage tank, 3 new cement troughs, 5 improved existing troughs, and approximately 5000' of buried pipe. Through this project, Contra Costa RCD, the NRCS, the City of Walnut Creek, the Walnut Creek Open Space Foundation, and the grazing tenant were able to install a new livestock watering facility which will open the open space to be properly grazed for reduced fire risk in the surrounding neighborhoods. Through better grazing, we hope to remove invasive species and promote native grasses that need temporary disturbance in the form of grazing. This project occurred in September 2019 and was completed in November.





2019 Highlights

The Flood Control and Water Conservation District works to reduce flood risk, promote stormwater quality and restore and enhance natural resource in an environmentally sensitive manner for the communities throughout Contra Costa County.



Creek & Channel Safety Awareness Program

The District assisted Walnut Creek Intermediate students with their 5th annual Creek & Channel Safety event in October warning about the dangers of going into creeks and channels. Students participated in a poster contest where the winners were awarded during a lunch rally along with a presentation from the County Fire District's Swift Water Rescue Team, including their gear and boats.



Stay Out, Stay Alive!

2019 Contra Costa Creek and Watershed Symposium

This year marked the 20th anniversary of the Contra Costa Creek and Watershed Symposium. The District worked closely with the Contra Costa Resource Conservation District to plan, organize, and sponsor the symposium. The District showcased several posters, shared District project updates, and history about the watershed.



Streamside Management Program for Landowners (SMPL)

SMPL started through a partnership with the CA Urban Streams Partnership and provides free advice on creek care, restoration, and maintenance for Contra Costa County residents living within the vicinity of natural creeks. The program assisted 32 county residents. Common problems included: erosion, entrenchment, fire management concerns, and fallen trees. The program also hosted workshops with lectures and hands-on field demonstrations.

Giving Natives A Chance

The District, with support from The Restoration Trust, hosted 50 volunteers at the 7th annual Giving Natives a Chance planting event in December at the Clayton Valley Drain. This year's work included planting 5,000 native creeping wild rye grass plugs on the south creek bank, pulling invasive weeds, and removing a pickup truck's load of garbage out of the creek. Native cover is likely to increase as the native vegetation grows and expands.





Lower Walnut Creek Restoration Project

This year was pivotal for the Lower Walnut Creek Restoration Project.

Lower Walnut Creek was originally built by the Army Corps of Engineers in the 1960s, it quickly filled with sediment and the Corps returned into local control in the 1990s. The vision of this project is to transform the facility into a sustainable system for fish and wildlife, within District budget, and ultimately, to reduce flood risk for the community.

Final Engineering Design

Significant progress was made on the design phase of the Lower Walnut Creek Restoration Project, with 95% plans completed in December. The CEQA document was approved in mid-November and regulatory permits are underway.

Funding

This year proved to be a great year for securing implementation funding for the Lower Walnut Creek Restoration Project. Five different grantors awarded (or recommended award) of nearly \$12M for construction. Notable awards include \$6.9M from the SF Bay Restoration Authority (plus another \$1M for John Muir Land Trust for public access), and \$1.4M from the National Fish and Wildlife Foundation (NFWF) to strengthen natural infrastructure and improve habitat for fish and wildlife.

The NFWF grant was a nationwide competitive award, and one of only four, and by far the largest grant award in California. Acknowledging the diversity of project benefits, the California Fish and Wildlife Department awarded the project \$950,000 for its plan to sequester greenhouse gases by restoring wetlands.

Outreach

Lower Walnut Creek Restoration Project outreach continued throughout 2019, with site tours, speaking engagements, and information tables at both the 2019 State of the Estuary Conference and the 2019 Creek and Watershed Symposium.



Next Steps

The Project is scheduled to begin construction in late 2020 and finish in late 2021. Public access work to follow in 2022 by the John Muir Land Trust.

Follow the Lower Walnut Creek Restoration Project on Facebook or visit www.lowerwalnutcreek.org



Work at Kubicek Basin

Removing invasive plants from Kubicek Basin was an exciting challenge for the Flood Control and Water Conservation District and volunteers this year! The District focused on removing *Arundo donax* and *dittrichia graveolens* to create a healthier Pine Creek and to support native plants and wildlife.



Spring Arundo Removal

In May, the District held an *Arundo donax* removal event at Kubicek Basin, located in Walnut Creek.



Volunteers included ten students from Diablo Valley College. They spent the morning cutting down *Arundo donax* with hand tools and ensuring the removal process did not disturb the riparian area.



Returning to the Basin

After our spring *Arundo donax* removal event, Public Work's Environmental Division returned to Kubicek Basin to assess the growth of the invasive species and to apply treatment as needed. Within nine weeks, *Arundo donax* had grown back as though it was never cut. In response, the Environmental team returned in late July to remove any remaining *Arundo donax* stalks.



Kubicek Basin is named after Milton Kubicek, former Contra Costa County Deputy Public Works Director, whom provided service to the County for 39 years.

Fall Dittrichia Removal

For Walnut Creek Community Service Day in October, the District shifted focus from *Arundo donax* to *dittrichia graveolens*, also known as stinkwort. The invasive species can kill grazing animals with its seeds and can cause allergic reactions to people who come into contact with its resin.



An aerial photograph of a stream. The water is a deep blue color, reflecting the sky. The stream is surrounded by a dense layer of fallen leaves in various shades of yellow, orange, and brown. Some green grass blades are visible on the left side of the frame. The overall scene is a natural, autumnal setting.

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