

Walnut Creek Watershed Council

2017 Achievement Report

IT
PLOPS
BRIGHT
THIRSTY
TRANQUIL
BOUNDLESS
IT GLISTENS
A LIQUID GEM
PLUNGES DOWN
A SLOW DESCENT
IT CALMLY SHINES
A DROPLET COMBINES
ITS WHOLE TRUE FORM
AS IT TOUCHES THE SURFACE
A DISTURBANCE CREATES CIRCLES
OF UNDULATING WAVES AROUND THE
DROP THAT IS ENSHROUDED BY ITS WHOLE
A SIMPLE SIGHT YET COMPLEXITY IS PRESENT
A QUICK REACTION THAT IS SOON HALTED BY AN
INCEPTION OF GRADUAL CALMNESS ENSUED BY IT
COMPLETE SILENCE AS THE SENSES RETURN TO YOU
SLIGHT BREEZE WHISTLES IN THE EAR AS YOUR LISTEN
THE FEEL OF AN AQUEAOUS SOLUTION TOUCHING YOU
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MANY BUSTLING CICADAS BRING YOU BACK TO A
NEW STATE ON REALITY OPPOSITE OF BEFORE
AND WHAT YOU REALIZE NOW IS THAT
WHAT YOU SENSED BEFORE WAS
A SPECIAL FEELING THAT
IS WATER



Bob Simmons
Council Chair

Igor Skaredoff
Vice Chair

Elissa Robinson
Staff to Council

Dominick Myers
Graphic Design

Jungkar Ombadykow

Poem Author

River of Words

2015 Environmental Poetry and Art Contest Finalist

For information: www.stmarys-ca.edu/row

Executive Summary



I hope you enjoy our 2017 Annual Report on the Walnut Creek Watershed.

The Watershed Council is a voluntary, non-regulatory stakeholder group that supports a healthy and sustainable Walnut Creek watershed.

The Annual Report highlights the efforts of several friends groups, non-profits and local governments to improve the health of the Walnut Creek Watershed.

The individual reports show the wide ranging actions that are being taken to improve the watershed, the use of volunteers, and the progress that is being made in many areas. There is still much more to be done.

Rather than a watershed photograph, the front cover is a work of art that was made an eleven year old who submitted it as part of the River of Words contest. The River of Words program is located at St. Mary's, which is in the Walnut Creek Watershed.

I wish to highlight three developments. First, the City of Lafayette has adopted a creek plan for the portion of Lafayette Creek that flows through the downtown. It is the second city in the watershed to do so. Second, while there is some progress on the large restoration project being developed for Galindo Creek in Newhall Park, it is still at least a year away. However, together with the work done by Save Mount Diablo on the upper Galindo Creek watershed, the health of that creek is seeing, and will see, some significant improvement. The Lower Walnut Creek Restoration Project wrapped up its community-based planning process, received over \$2M in new grant funding, and was a featured display at the biennial State of the Estuary Conference.

There are two important projects planned for 2018. The Council has decided to make one of our goals the eradication of *Arundo Donax* from our watershed. *Arundo* is an invasive plant that uses tremendous amounts of water and eliminates potential wildlife habitat. To that end, we have tested some removal strategies and have done some initial mapping of the watershed to find the places where *Arundo* is located. We know that *Arundo* occurs in four of the five subwatersheds and in the main stem, so removal of this pervasive plant will help the watershed.

Second, we are planning two events in the September/October time period. Those events will focus on the removal of invasive, non-native species from our watershed. The first is an evening event scheduled for October 4 at the Diablo Valley College, where we will have speakers talk about the impacts of non-native species. The second is a field event where volunteers get together to remove stands of *Arundo* and treat the remnant stalks. We hope you will attend our fall event and continue to support efforts to improve our watershed.

Sincerely,

A handwritten signature in black ink that reads "Bob Simmons". The signature is written in a cursive, flowing style.

Bob Simmons

Walnut Creek Watershed Council

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

Government Agency Supporters:

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

Non-profit Agency Supporters:

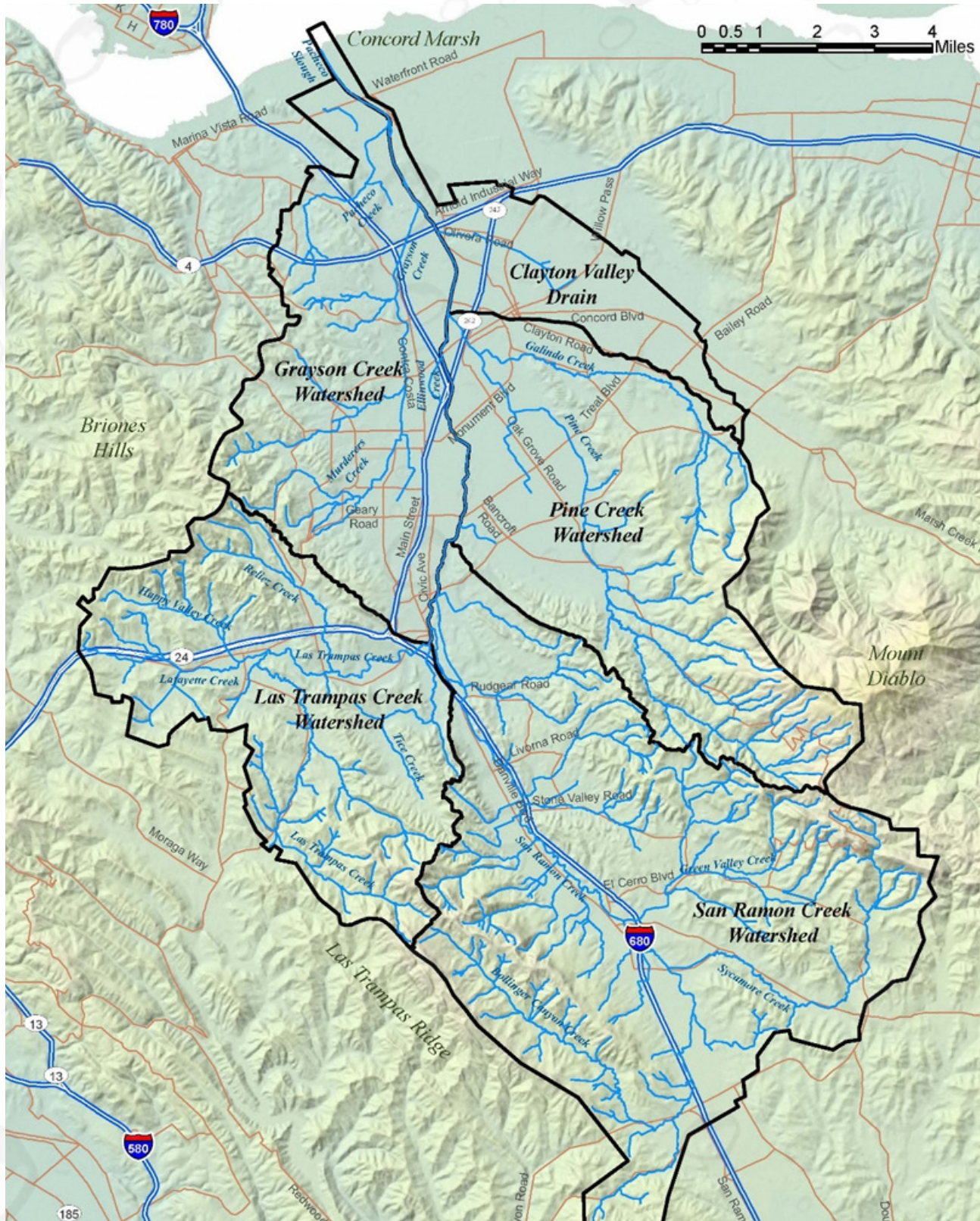
Diablo Valley Fly Fishermen
Friends of the Creeks
Friends of Pleasant Hill Creeks
Friends of San Ramon Creek
Greenbelt Alliance
Mount Diablo Audubon
Mount Diablo Interpretive Association
Muir Heritage Land Trust
Save Mount Diablo
Sustainable Contra Costa
Sustainable Walnut Creek
Walnut Creek Open Space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

Business and Industry Supporters:

Tesoro Refining & Marketing Company, LLC

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Walnut Creek Watershed Map



Overview of the Watershed

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 (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 can be seen in the beginning of this report.



Mission

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



Vision

Adopted June 2nd, 2016

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 take 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 have 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.



Friends of the Creeks

Things got off to a fast start this year with a proposed development on the creek in downtown Walnut Creek. We did not feel it focused on the creek enough, and the Planning and Design Review Commissions agreed with us and had a number of other objections to it. It has been withdrawn.



We continued to work on our restoration project in Civic Park, planting more of the creek channel with native grasses and flowers, weeding, and doing other upkeep.



We put on the 28th annual Downtown Creek Cleanup on May 13. About 170 people attended and we removed 16 cubic yards of debris – two thirds unwanted vegetation and one third trash. While the amount of trash shows a long-term downward trend, we had an uptick in large items this year which we believe was caused by a lot of high water and the number of homeless camping in the creek channel.

As always, we did an arundo removal project in September as part of Corporate Volunteer Week. After a lapse of a few years, we returned to our fish sampling program and worked in Tice Creek, looking at five sites. We did not find a wide variety of fish, but they were all native. Crayfish divided between one native species and one non-native. We also recorded a variety of birds and native plants.



Friends of San Ramon Creek 2017 Report

The Friends of San Ramon Creek support programs and projects which promote a healthy San Ramon Creek and the 54-square mile San Ramon Creek watershed.

- **Programs:** In cooperation with the Danville Library, we advertised and helped present three speakers in the Danville Library in May and June. We participate in activities of the Walnut Creek Watershed Council, including help starting a watershed-wide Task Force to explore arundo eradication.
- **Earth Day:** Working with several Danville groups and individuals, we had a table at Earth Day on April 22 next to San Ramon Creek. EBRPD led a creek tour for families.



- **Creek Work:** Arundo which was removed in 2016 was treated to reduce re-growth, including our furthest-upstream patch.



Cutting the last canes.

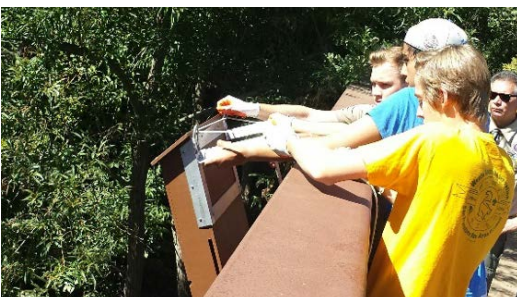


Treatment later.

- Trash was collected along SR creek by members of the SRV High School Environmental Club.



- An Eagle Scout candidate was assisted in fabricating and installing 2 bat houses over SR Creek.





Friends of Pleasant Hill Creeks

Friends of Pleasant Hill Creeks (FPHC) is an all volunteer organization of Pleasant Hill residents who care about our creeks. Two creeks, **Grayson Creek** and **Murderers Creek**, flow through the City of Pleasant Hill, connect with Walnut Creek, and then drain into Suisun Bay. After a hiatus of several years, FPHC was re-launched in 2017 with the mission to “protect, restore, and enjoy” our creeks.

Creek Cleanup and Trash Assessment:

More than 50 volunteers participated in a cleanup of Grayson Creek in Pleasant Hill as part of 2017 Community Service Day. Sponsored by the City of Pleasant Hill's Civic Action Commission, the cleanup focused on approximately 1550 feet of Grayson Creek between Golf Club Rd. and Chilpancingo Pkwy. More than 20 cubic yards of trash were removed. In conjunction with the cleanup, boy scout Sean Mitchell (Troop 239) led a team of volunteers who catalogued approximately 3,000 pieces of trash, from straws to shopping carts to sofas. In total, ten state and local agencies and organizations participated. The cleanup and trash assessment were highlighted in an article in the East Bay Times.



Great Egrete
Catching Fish
pictured left
Great Blue Heron
pictured above

Bird Survey: In partnership with the Mt. Diablo Audubon Society, volunteers are conducting monthly bird surveys in order to document avian biodiversity in the Grayson Creek riparian corridor, which provides habitat for multiple species of wildlife. A species checklist and survey results will be published in 2018. In addition, FPHC is working with the California Bluebird Recovery Program to identify appropriate sites for bluebird nest boxes.



New Pleasant Hill Library: FPHC is actively participating in the design process for the new Pleasant Hill Library, which will be built on Oak Park Blvd. adjacent to Grayson Creek. Key inputs include creating connections between the library, nearby schools, and the creek as well as optimizing opportunities for open space, outdoor education, wildlife viewing, and a multi-benefit green corridor that links public spaces and trails.

Water Quality Monitoring: Volunteers attended trainings with the Contra Costa Watershed Forum Monitors group and began collecting monthly water samples from Grayson Creek in 2017. Measurements of pH, dissolved oxygen, and other parameters are being monitored.

Community Outreach: FPHC is participating in the Friends of Pleasant Hill Education Green Team and providing regular updates to the Walnut Creek Watershed Council and Contra Costa County Watershed Forum.



Connect with **FPHC:**

FPHC launched a new **website** in 2017

www.pleasanthillcreeks.org

as well as a **Facebook** page which has more than 100 followers

[@PHcreeks](https://www.facebook.com/PHcreeks)

Email is another way to connect with us

pleasanthillcreeks@gmail.com

2017 ACHIEVEMENTS REPORT

for the Walnut Creek Watershed council



Litter reduction efforts

We contributed to our success in reducing more garbage in downtown areas, thanks to our enhanced municipal maintenance and the newly installed solar compactors. In prior years, most littering was due to overfilled trash bins in busier commercial areas and during special events.



Wireless technology automatically notifies staff when the bins are approaching capacity and need to be emptied. The bins are ADA compliant with both hand- and foot-operated levers.

Our numbers

96% REDUCTION OF GARBAGE IN CREEKS

70 BIGBELLY GARBAGE CANS/COMPACTORS

198 SYSTEMS TO SCREEN TRASH IN OUR STORM DRAIN INFRASTRUCTURE

CREEK WALK WATERSHED EDUCATION PROGRAM

335 STUDENTS & TEACHERS

5 ELEMENTARY SCHOOLS

9 FIELD TRIPS

During Spring 2017, elementary students visited the Creek Walk at Civic Park. They learned to identify and research native plants around Civic Park, investigated terrestrial invertebrates, identified decomposers and consumers. They ended the day by participating in the community service projects after their field trip.



Coffer dam crew

Last August, Councilmembers Simmons and Carlston joined volunteers from Friends of the Creeks and staff members from the City's Maintenance Division and the Contra Costa County Flood Control District to place sandbags in the San Ramon Creek to divert low flows to the natural channel which enhances wildlife and plant habitat.

City of Walnut Creek

CONTINUED



COMMUNITY SERVICE DAY

On October 28, more than 1,000 volunteers came out to work at 33 community projects. This service day was rescheduled due to poor air quality from the North Bay fires. Some park and nature-related projects included invasive plant removal, restoration works at the pollinator garden, litter pick-ups and more. These projects occurred at Pine Creek, Walnut Creek and their tributaries.

Initiatives @ Our Parks and Open Space

21

PARKS UNDERWENT TURF & IRRIGATION CONVERSIONS

45%

LESS PESTICIDES USED IN PUBLIC PARKS

88%

LESS PESTICIDES USED IN PUBLIC FACILITIES

Integrated Pest Management

The City of Walnut Creek did not apply chemicals containing organophosphates, pyrethroids, carbamates or fipronil. We adhere to IPM decision-making steps for managing pests public properties, parks and facilities.

Special Studies & Research

Our Park Maintenance division completed the following studies to conserve water and explore less toxic solutions to pest management.

- Turf conversion with warm-season grass species
- Insecticide study to control white grubs in turf grass



City of Walnut Creek

CONTINUED



CREEK WALK, OAK WOODLAND & POLLINATOR GARDENS

Our City Council allocated funds to build outdoor "classrooms" at Civic Park so visitors and residents can enjoy and learn about our watershed, local creeks and how our behavior impacts them. It's the only natural segment of Walnut creek that is accessible to the public. Maintenance of these areas are done primarily by volunteers with some support from the City

Our Watershed Classroom Volunteers

1,867

HOURS LOGGED BY VOLUNTEERS
(2017)

6,629

HOURS LOGGED BY VOLUNTEERS
SINCE INCEPTION (2014)

300

ANNUALS PLANTED (SPRING 2017)
BY STUDENT VOLUNTEERS

Pollinator Garden

Volunteers planted the areas adjacent to the Iron Horse Trail and built a new demonstration area in the inner garden with native plants (Yerba Mansa, Brook Orchid and Scarlet Monkey flowers).



Weekly volunteering opportunities

Since its inception in 2014, volunteers (church groups, schools, and adult groups) continue to be the heart of these gardens. Student volunteers from Springstone combined their volunteering work with science activities (such as seed and vegetation propagation). In 2017, they planted annuals as part of their Biology class.



To learn more about the projects or volunteer opportunities, contact:
Patrice Hanlon (Volunteer Coordinator) at phpatrice@gmail.com



Save Mount Diablo 2017 Report

Our Mangini Ranch property is 208 acres and houses the headwaters of Galindo Creek. We have dedicated stewards who monitor the property on a monthly basis, informing us of projects and maintenance as needed. Here is a snap shot of 2017:



Students and local business employees planted native bunchgrasses near the recently restored seasonal pond.

Photo by: Al Johnson

Pond Habitat Restoration:

Following the restoration of our seasonal pond in 2016, there has been an effort to restore the pond habitat, beginning with a bunchgrass seeding in 2016. In 2017, we planted more bunchgrasses as well as removed weeds downstream, as part of the volunteer component for our Conservation Collaboration program, which partners with local schools and businesses in an effort to connect the youth and the outdoors.

Endangered Species Habitat Management: We partnered with a local rancher as a means to control invasive populations and promote native endangered species habitat.

Culvert Removal: The early January storms had uncovered a large broken culvert in Galindo Creek. We waited for drier months to finally go in and remove the two large pieces of culvert.

Controlled Noxious Weeds: Our Integrated Pest Management team, along with the East Bay Trail Dogs, helped control the population size of invasive weeds including Artichoke thistle, Mustard, and *Dittrichia graveolens*. These groups helped clear the headwaters of Galindo Creek, and increase the water table for native plants.

To learn more or to get involved please visit Save Mount Diablo's new website at
www.savemountdiablo.org



TOWN OF DANVILLE

2017 WATERSHED ACTIVITY REPORT

WATER CHANGES EVERYTHING



LEGISLATIVE

Danville Town Council Adopted a Green Infrastructure Plan Framework to be rolled out over the next two years.

NATURAL POND MAINTENANCE

The Town of Danville uses microbes to maintain a natural balance in the pond at Oak Hill Park. This monthly program minimizes algae growth and eliminates the need to use pesticides.

NO PESTICIDES

The Town of Danville maintained our creeks through hand weeding, without the use of any pesticides. New maintenance measures have been incorporated to protect the local flora and fauna.

TOWN-WIDE DRAIN INLETS

The Town's Maintenance Services Department doubled the number of inlets cleaned totaling 1157 in 2017.

TECHNOLOGY

GIS application is now being utilized to track Storm Drain/Curb Marker Projects.

DOWNTOWN DRAIN INLETS

The Town's 65 downtown drain inlets are cleaned three times a year to comply with the Municipal Regional Permit (MRP).

EDUCATION AND PUBLIC OUTREACH

- Boy Scout Storm Drain/Curb Marker Project replaced 250 storm drain/curb markers and provided pollution prevention education to over 1500 surrounding homes.
- Danville 2017 Earth Day Event celebrated its 7th year of educating residents about environmental protection.
- The Town of Danville provided commuter education at the Town's Bike to Work Day energizer station on May 11th.
- Kids for the Bay (KftB) elementary environmental education program celebrated another year of prevention by educating our youth about pollution prevention.
- Our Water Our World Program continues to educate consumers buying pesticides at local nurseries.



CITY OF LAFAYETTE

CREEKS COMMITTEE

2017 Accomplishments

Finished the Downtown Creeks Preservation, Restoration and Development Plan. Worked with consultant and city staff to finalize the plan. Obtained feedback from City Commissions, Committees, property owners and regulatory agencies. Prepared responses and presented final draft to Planning Commission and City Council leading to adoption on October 23, 2017.

DOWNTOWN CREEKS PLAN



Hosted Annual Creek Day on April 29 at Leigh Creekside Park.

Worked with Lafayette Parks and Recreation Department to plan event. Focus of Creek Day was removal of annual weeds/grasses. Coordinated with local Boy Scouts and schools to

recruit youth participants.

Led creek walk and staffed booth at Lafayette's Earth Day. Led a walk for Sustainable Lafayette on March 19 to present proposed projects in the Downtown Creek Plan area. Provided information on creek care and water quality. Answered questions regarding the draft Downtown Creeks Plan and its potential projects at Lafayette's Earth Day celebration.



Contra Costa
Resource
Conservation
District

Our mission is to facilitate conservation and stewardship of the natural resources in Contra Costa County.

In 2017, the **Contra Costa Resource Conservation District** organized six meetings with speakers representing a wide array of interests and topics designed to inspire and engage our council members. There were also opportunities to attract a new audience, whether working with the Contra Costa Clean Water Program on their Stormwater Resource Plan, or sharing the work done by UC Berkeley at the Greening Grayson Creek event.



As a coordinator, one of the most enjoyable events was the December meeting where we had our **first Year-in-Review** as a Council. This meeting brought council members together to talk about individual accomplishments throughout the watershed. It helped create an understanding of these events on a broader scale, creating connections and sparking ideas.

CCRCDD had a year of transition, saying goodbye to our Executive Director, Ben Wallace at the beginning of the year, and in November welcoming Chris Lim into that leadership role. Chris grew up in the Walnut Creek watershed, and is excited to return to Contra Costa County and work to improve the creek.

Another change that occurred in 2016 is that **Heidi Petty turned over coordinating the watershed council to Elissa Robinson**. In April, 2016 Heidi said "So long," after serving as coordinator for over three years. Thank you for your hard work, dedication, and passion in serving the Walnut Creek Watershed Council.

In 2018 I look forward to sharing more opportunities to educate and engage with council members, and look to **broaden public participation in our activities**. With this group there is always something new and exciting to participate in, and I look forward to working with you in 2018.

- Elissa Robinson, Resource Conservationist



Contra Costa
Resource
Conservation
District



www.ccrdd.org

CONTRA COSTA WATERSHEDS STORMWATER RESOURCE PLAN

In 2016, the Contra Costa Clean Water Program was awarded a Proposition 1 planning grant to fund the development of the *Contra Costa Watersheds Stormwater Resource Plan (Plan)*. Significant work was done in 2017 and the Plan is scheduled to be completed by the end of 2018.

California's **Stormwater Management Planning Act** requires the development of a Stormwater Resource Plan in order to receive grant funds for runoff projects from any bond approved by voters after January 2014. This requirement applies to Proposition 1 which authorized \$200 million in grants for multi-benefit stormwater management projects.

The *Stormwater Resource Plan* used a watershed-based planning approach and a significant outreach effort to develop stormwater management project concepts that will help meet water quality requirements and provide additional benefits such as flood control, habitat restoration, community enhancement, and groundwater recharge. Five workshops were held in 2017 to develop an extensive list of potential Stormwater projects throughout the county. One of the workshops was conducted as part of a Walnut Creek Watershed Council meeting.

A significant focus of the Plan is developing green infrastructure project concepts for municipalities throughout the county. Green infrastructure is recognized as the preferred approach to mitigate water quality impacts associated with urbanization. Green infrastructure facilities such as rain gardens, permeable pavement, infiltration basins, and constructed wetlands can also provide additional community and environmental benefits.

The *Stormwater Resource Plan* will serve multiple important purposes for Contra Costa municipalities and other stakeholders. It will help Contra Costa municipalities fulfill the Green Infrastructure Plan requirements of the Municipal Regional Stormwater Permit, as well as position municipalities and other Contra Costa entities (e.g., watershed groups) to compete for stormwater management grant funding in the future.

For more information about the *Contra Costa Watersheds Stormwater Resource Plan*, please contact Rachel Kraai at Rachel.Kraai@pw.cccounty.us.



The Contra Costa Clean Water Program is comprised of Contra Costa County, nineteen of its incorporated cities and the Contra Costa Flood Control & Water Conservation District. The CCCWP strives to eliminate stormwater pollution through public education, inspection and enforcement activities, and industrial outreach.



During 2017, the Contra Costa County Flood Control & Water Conservation District continued its strong push to better connect with leaders and citizens in the County along with involving the community as a whole. Here are a few highlights.



Creek and Channel Safety Program Stay Out Stay Alive

The District held an event at Walnut Creek Intermediate School to warn students about the dangers of going into creeks and channels. Students participated in a poster contest and the winners were awarded during a lunch rally involving the County Fire District's Swift water Rescue team.

Giving Natives a Chance

Held 5th Annual event in December of 2017 with a record 150 volunteers, who planted 7,000 native grass plugs and picked up about 1000 lbs. of trash from the Clayton Valley Drain area.



CSAC Challenge Merit Award

Senior Hydrologist Mark Boucher received the California State Association of Counties award for developing the RainMap tracking and flood forecasting which helps to determine when there will be flooding based on rainfall conditions that are easy to monitor. Check it out at www.cccounty.us/RainMap !



Other highlights:

- Creek clean-ups in Pine Creek and Walnut Creek
- District installed 7 new stream gauges funded by a \$205,000 DWR Flood Emergency Response Grant.

Goats for Weed Abatement

Goats were again brought this past year to help eliminate wild and invasive species of weeds and grass. They were used around the creeks and channels in the Walnut Creek Watershed.



2017 ACHIEVEMENTS



LOWER WALNUT CREEK RESTORATION PROJECT

2017 was a banner year for the Lower Walnut Creek Restoration project! Significant planning work continued this year to bring the restoration concept closer to reality.

LOWER WALNUT CREEK

In April, The Flood Control District, in conjunction with their technical consultant, Environmental Science Associates (ESA), published the detailed Feasibility Study, which analyzed all the planning alternatives considered in the restoration project. This study also looked at, in partnership with East Bay Regional Park District, alternatives for an exciting six mile extension of the Ironhorse Trail through the project.

Lower Walnut Creek Tours

The District continued the popular series of Saturday site tours, and, as you can see in this picture, attendees always paid close attention to their tour guide! This group was actually distracted by the surprise appearance of an osprey, flying through Pacheco Marsh at the north reach of the project. There is always something interesting that happens on our site tours.



Next Phase of Restoration Project

With the pending completion of the planning phase of work, the District requested qualifications and proposals from consulting firms interested in helping with the design phase of work. At the conclusion of this process, the District chose ESA to continue as part of the project delivery team.



In the fall, the District finalized the terms of the previously announced \$537,000 grant with the California Department of Fish and Wildlife, and announced the award of an additional \$1,500,000 grant from the US EPA San Francisco Bay Water Quality Improvement Fund. The CDFW grant helps pay for the CEQA, permitting and design efforts, and the EPA grant helps fund design work, interim vegetation management and also partial construction implementation of the south reach.



Also in the fall, the Lower Walnut Creek Restoration Project was featured at the biennial State of the Estuary Conference both at a table and also in the poster session.

What's next?

2017 ended with the publication of the comprehensive Project Study Report, which serves as a detailed look at the preferred alternative as well as the roadmap to the next phases of work that kick off in 2018: CEQA, regulatory permitting and project design. On our current schedule, we're looking forward to the start of construction in 2020.

Stay tuned...lots of work coming up in 2018!

And a neat surprise in November was a mention of the project at the International Climate Change Conference in Bonn, Germany. Lower Walnut Creek was featured as an example of a project that is being designed to be especially resilient to sea level rise. It was nice to get recognized for upholding one of the main goals of the Lower Walnut Creek Restoration project.





Greening Grayson Creek

On May 16, the Watershed Council hosted an evening meeting in Pleasant Hill to discuss a long-range vision of modifying traditional gray flood control infrastructure in Grayson Creek to a green natural stream.

Flood Control District's 50 Year Plan

The County Flood Control District adopted a policy several years ago to begin planning the eventual replacement of the District's traditional concrete structures with natural stream systems. To underscore the long range planning needed to achieve this objective, the policy was entitled The 50 Year Plan. To assist in planning the conversion of concrete channels to natural creeks, the District has been working with a professor and two graduate students at the University of California at Berkeley.

Partnership with UC Berkeley

Professor Matt Kondolf and graduate students Ari Frink and Jennifer Natali began studying Grayson Creek in early 2016, and they described their work at the evening meeting.

Professor Kondolf has worked in a variety of river basins throughout the world and discussed the concept of river restoration. The graduate students discussed several of the maps and information they had learned so far. They also looked at opportunity areas for installing green infrastructure, which are planted infiltration areas or bio-retention areas that treat stormwater to remove pollutants from paved surfaces. Visually exciting graphics were prepared by the graduate students to show what a restored section of Grayson Creek would look like at various locations.

Future of Grayson Creek

The evening meeting provided the community with a potential future vision for Grayson Creek. The community will need to stay engaged with the Flood Control District throughout this process for many years. The Watershed Council also intends to stay involved with the District to shepherd this process along. The professor and graduate students expect to have their report completed by the first part of 2018.



2017 ACHIEVEMENTS

Flood Control District

Giving Natives a Chance:

Bringing the Community Into the Practice of Modern Flood Control

Contra Costa County's Flood Control District has worked hard to develop environmentally sound approaches to its projects, and often brings the community into the picture whenever possible.

On December 2nd, the District sponsored its 5th annual "Giving Natives a Chance" event – getting a helping hand in restoring native grasses to an area in Central County.

This year's enthusiastic volunteers began the day with an hour dedicated to creek clean-up. They picked up more than 50 bags of garbage -- approximately 1000 pounds of trash removed from the creek that would have entered the bay and ultimately the Pacific Ocean. Next up was the process of weeding and digging, and then planting approximately 7000 native grass plugs. Mike Carlson, Deputy Public Works Director, and Concord Vice Mayor Edi Birsan welcomed the volunteers and thanked them for all of their efforts. John Zentner of the Restoration Trust explained to the troops the importance of these plants in our ecosystem, the function that each species would perform in the channel, and then trained the volunteers on the proper planting technique.

Giving the Natives a Chance started in 2013 on the west side of Solano Way in Concord. This year's event was the largest attended event to date, with nearly 150 volunteers giving up their Saturday morning. Of this group, we had more than 100 high school students giving back to the environment and their community.

The flood control channel was planted with Santa Barbara sedge, Baltic rush, and creeping wild rye. Each species has

different environmental needs, and has beneficial effects on separate parts of the channel. These species are native grasses or sedges that provide erosion control, fire suppression and are compatible with flood control objectives. They spread from underground rhizomes that anchor the soil and are all perennial species, meaning they stay green all year and are not susceptible to fire. They do not have woody stems, so during floods, they lay down on the slope, which does not impede the flow of water during high-flow events.

The District would like to thank all the volunteers for all of their support. This year the group included students from Alhambra High School, San Ramon Valley High School, Boy Scout Troop 239, Public Works employees, and many other community members who were generous enough to donate their time.



Volunteers performs creek clean-up of weeds and trash



Volunteers get ready to plant 7,000 native grass plugs



