# Alameda County Flood Control & Water Conservation District

## REPORT TO THE COMMUNITY | FISCAL YEARS 2011 & 2012



## ABOUT THE ALAMEDA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

## **► WORKING TOWARD SUSTAINABILITY**

he Alameda County Flood Control and Water Conservation District (the "District") provides vital protection for Alameda County residents and businesses against flooding.

We plan, design, construct, and maintain flood control infrastructure such as natural creeks, channels, levees, pump stations, dams, and reservoirs.

Our overarching mission is to support the safety, health, and welfare of the residents and businesses of Alameda County.

Good flood control is "invisible" to the public because flooding doesn't typically occur. Alameda County has had few floods in the past decades because of the work the District has done.



Aerial view of Eden Landing Salt Ponds (left) and Hayward shoreline (right).

The District was created in 1949 at the request of county residents. It is a completely separate entity from the County of Alameda and from the Alameda County Public Works Agency, although the District and the Public Works Agency share staff committed to delivering high-quality, effective service to the public.

The District reports regularly to the community on its finances and the important work undertaken to protect Alameda County residents and businesses from flooding. This report covers fiscal years 2011 (July 1, 2010 to June 30, 2011) and 2012 (July 1, 2011 to June 30, 2012).

## REPORT TO THE COMMUNITY FISCAL YEARS 2011 & 2012 - GENERAL MANAGER



Daniel Woldesenbet, Ph.D., P.E. General Manager of the Alameda County Flood Control & Water Conservation District, and Director of the Alameda County Public Works Agency

#### ► REPORT FROM THE GENERAL MANAGER

he Alameda County Flood Control and Water Conversation District is committed to furthering sustainability. "Sustainability" in Alameda County flood control means working to achieve a balance between the economic, social, and environmental aspects of a project or program.

We are a proactive member of Alameda County's sustainability team where we collaborate with other county agencies to develop a better and safer quality of life and healthier environment for our community, while being mindful of and accountable for the financial decisions we make.

## **Economic Sustainability**

Sustainable flood control projects and programs save costs over their life-spans because they are well built and adequately funded for long-term maintenance. Sustainable projects are also resilient, so that they can withstand and recover quickly from extreme floods, earthquakes, or other disruptions. Local services and products are used for sustainable projects whenever possible, which helps support the county's economy and create local jobs.

#### Social Sustainability

Alameda County's flood control infrastructure supports our communities' health and safety. When feasible, our projects provide long-term benefits that enrich the community and lives of Alameda County citizens. These benefits may include, for example, recreational uses of our facilities and beautification to enhance our neighborhoods.

## **Environmental Sustainability**

The San Francisco Bay Area is famous for its rich natural beauty and diverse ecosystems. The District is committed to protecting Alameda County's natural resources. Controlling stormwater runoff, reducing erosion, minimizing pollution, and improving water quality are ongoing District activities to support these goals. As environmental stewards, we are also restoring flood control channels and wetlands to more natural conditions when we can. We are promoting biodiversity by restoring wildlife and aquatic habitat, and landscaping with native plants and trees. We are striving to stay in front of the impact a warming planet and rising sea level will have on Alameda County and the region.



In this annual report, you can read about some of the projects we have completed that reflect our sustainability principles. Flood control improvements in Emeryville (page 5) and Oakland at Lake Merritt (page 9) provide long-term protection and safer, more livable neighborhoods for residents and businesses. In addition to greater flood control, improvements to open space for public enjoyment and outdoor activities of walking and bicycling were included in the Alameda Creek Levee Certification Project (page 11), and Ward Creek Improvement Project (page 6).

Work continues to restore native fish species to the Alameda Creek watershed for greater biodiversity (page 16). The Clean Water Program helps prevent pollution in our creeks and is inspiring a new generation of environmental stewards (page 20).

By incorporating sustainability into projects now, we are helping to ensure that Alameda County's economy and urban environment will thrive in the future.

Please visit our website (acfloodcontrol.org) for more information about us and our projects.

## Daniel Woldesenbet, Ph.D., P.E.

General Manager of the Alameda County Flood Control & Water Conservation District, and Director of the Alameda County Public Works Agency

# Sustainable Flood Control Management

"Flood control is a serious business. That's why the District is proactively working to minimize or eliminate the chance of floods for Alameda County residents, businesses, and property owners. Together with local, state, and federal partners, we're applying sustainability principles while safeguarding the public and the environment."

- Hank Ackerman, P.E., Flood Control Program Manager



## FLOOD CONTROL - STORM DRAINAGE IMPROVEMENTS, EMERYVILLE

#### ► NEW FLOOD CONTROL BYPASS IN EMERYVILLE

meryville is "downstream" of a large swath of land in Berkeley and Oakland. In February 2004 and January 2010, winter storms caused flooding in parts of Emeryville, which jeopardized the post office on 62nd Street and other nearby buildings. Working with the City of Emeryville, the District designed a new flood control bypass system to alleviate the flooding problem along LaCoste Street, 62nd Street, Overland Drive, and 64th Street.



2010 flooding along 62nd Street, Emeryville, looking west.



Previous flooding on 61st Street, Emeryville.



After we completed an engineering evaluation, we designed and constructed new connections to the existing drainage system to pipe storm water off the streets and into San Francisco Bay.

Construction for the new \$8.5 million underground system began in summer 2009 and was completed in November 2010. With the new drainage system in place, the potential of future flooding in the project's vicinity within the cities of Emeryville and Oakland is greatly reduced, and the neighborhood is safer and more livable.

## FLOOD CONTROL - WARD CREEK IMPROVEMENTS, HAYWARD

## ► WARD CREEK DESILTING ENABLES MORE STORMWATER FLOW

Sand and silt carried downhill often build up in creek bottoms in the flatlands near the Bay. When there is too much silt to allow stormwater to flow unimpeded, the channel must be dredged. The process of dredging and removing the silt is called "desilting".



A photo taken in summer shows a section of Ward Creek, Line B, now desilted, which allows ample passage for stormwater during winter rains.

A 4,600-foot length of Ward Creek, Line B, between Old Alameda Creek and Folsom Avenue in Hayward, was desilted and restored to its original design depth in November 2010. The channel width varies from 47 to 54 feet and has an average depth of 10 feet.

Native trees were planted along the channel banks to support wildlife habitat and create a more attractive natural setting.

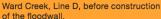
Landscaping with native plants is also consistent with county-wide sustainability initiatives (acgov.org/sustain) for a healthier environment.

#### **▶ WARD CREEK FLOODWALL INCREASES PROTECTION**

ayward neighborhoods adjacent to the Line D section of Ward Creek, stretching from upstream of the Industrial Parkway bridge to Huntwood Avenue, are now better protected from flooding. Along roughly 3,000 feet on both sides of the creek, a 3-foot-high floodwall was constructed at the top of the channel banks.

The construction cost was \$4.6 million. Several other projects to improve flood control along Line D are currently in the design phase.







Ward Creek, Line D, after floodwal construction.



Native vegetation was planted in front of the floodwall (on the right). The access road was resurfaced for bicycle riders and pedestrians to enjoy.

0.6

## FLOOD CONTROL - ESTUDILLO CANAL STUDY, SAN LEANDRO

#### **▶ UPDATE ON THE ESTUDILLO CANAL**

Residents in San Leandro have asked for improved flood control along a section of San Leandro Creek that stretches from Bay Fair Mall to the San Francisco Bay. There are many properties in the nearby neighborhoods that are currently required to purchase flood insurance because of the possibility of flooding along Estudillo Canal.

In 2002, the U.S. Army Corps of Engineers (USACE) began a feasibility study with input from the District. The USACE's objective was to gather data and analyze the flood conditions and perform a benefit/cost assessment to determine if federal funding could be made available for the expensive repair project.



The District has been providing hydrologic data and technical information to the USACE for a feasibility study to expand the channel.



The urbanized Estudillo Canal in San Leandro needs to be upgraded to accommodate the FEMA standard 1% annual chance storm flow.

Ever persistent during study delays, the District took the initiative to do hydraulic modeling and analysis to develop preliminary alternatives that would help correct the problem. Findings were presented in a hydraulics report submitted to the USACE in spring 2012.

In November 2012, we learned that the USACE is implementing a new policy and will be re-evaluating all ongoing feasibility studies nationwide. It's not clear how much time this new USACE process will take. In the meantime, the District is continuing to work on the environmental documentation that will be necessary to support the improvements we think are needed.

0.7

## FLOOD CONTROL - ALAMEDA CREEK GEOMORPHOLOGY STUDY, FREMONT

#### **STUDY REVEALS DIRECTION FOR ALAMEDA CREEK IMPROVEMENTS**

luvial geomorphology is the study of how the flow of rivers and creeks, bank erosion patterns, and sediment transport sculpt the channel landform. The District has been studying the geomorphology of Alameda Creek.

Alameda Creek is the largest waterway in Alameda County. These studies have important implications for flood protection, aquatic life, and the costs needed to maintain Alameda Creek.



Alameda Creek flows downstream from Niles Canyon in Fremont to San Francisco Bay.



Alameda Creek (left) is the longest flood control channel in Alameda County (11.5 miles). It flows near the Coyote Hills Regional Park (right) as it approaches the San Francisco Bay. The Alameda Creek Trail (center) runs along the creek banks and is open to the public.

There are three parts to the District's study: sediment transport in the upper and lower portions of Alameda Creek; the flow capacity through the creek for flood control; and the water flow needed for a new fish ladder to enable fish migration upstream. (See page 16 for an overview of the fish ladder project.)

A lot of sediment flows through Alameda Creek and is deposited in the flat portions near the San Francisco Bay. If too much sediment builds up, the creek channel is clogged and flooding may occur. It's expensive to remove the sediment by desilting. The District is looking for more

natural, sustainable ways to keep Alameda Creek clear of silt.

The geomorphology studies have shown how to best control the water flows and creek banks upstream so that less erosion occurs and less sediment is brought downstream.

Downstream, where the tides bring sediment from the Bay into the channel, the studies have shown that sediment builds to a constant height before some of it is carried away by the outgoing tide naturally, without desilting being necessary.

## FLOOD CONTROL - LAKE MERRITT HYDROLOGY STUDY, OAKLAND

#### ► NEW STUDY ADVANCES FLOOD CONTROL AND BOATING TO BAY

he District operates a pumping station near Lake Merritt in Oakland that helps control water levels in the lake to prevent flooding. During high tide, the pump station pumps lake water from the Lake Merritt channel into the Bay. Tide gates at the pump station let water out or keep it in to maintain the water level. During heavy rainfall, the lake level is lowered to allow the lake to receive incoming storm water from upstream creeks without flooding.

Culverts under bridges at 10th Street and 12th Street were too small, however, to let enough water flow from the lake to the Bay.

To correct the problem, in 2010, the City of Oakland asked the District to provide hydrology studies for the lake and a new bypass channel around the District's pump station. The bypass will enable boats and fish to pass between Lake Merritt and the Bay all year round.

In 2012, the City of Oakland installed a larger culvert under the 12th Street Bridge. The 10th Street culvert will be removed during construction beginning in 2013.



A future bypass channel around the District's pump station will enable boating and fish passage between Lake Merritt and the Bay.

The new bypass channel is part of a plan to create a major new park stretching from the eastern mouth of the Lake Merritt channel to the Bay estuary. The Lake Merritt neighborhood will be even more vibrant with the bypass channel and new parkland with outdoor activities and attractive views. For more information, see the Estuary Policy Plan, which is part of the City of Oakland's General Plan.

# Maintaining & Preserving Infrastructure

"Much of the county's flood control infrastructure was built 50 years ago. It's aging well, thanks to regular maintenance, but wear and stress have taken a toll, just as they do on cars. Things give out, sometimes unexpectedly. We're constantly evaluating and repairing."

- Henry Fockler, Field Maintenance Supervisor



## MAINTAINING & PRESERVING INFRASTRUCTURE - ALAMEDA CREEK LEVEE CERTIFICATION, FREMONT

## LEVEES UPGRADED AND CERTIFIED AT ALAMEDA CREEK

n the wake of Hurricane Katrina, the Federal Emergency Management Agency (FEMA) mandated certification of levees to protect against floods. The District is required to certify the existing levees are currently providing protection against a 1% annual chance flood (meaning a flood that has a one in a 100 chance of occurring within any given year). The levee evaluation and certification project is also a good example of sustainability-taking preventative measures today to avoid costly flood damage in the future.



Levee repairs were made along the south Alameda Creek levee to meet FFMA flood protection requirements. Photo shows construction of an 80-foot-deep by 4-foot-thick cutoff wall to control seepage



A 50-foot-deep sheetpile wall was installed to north and south levees along a total of 2,400 feet. smoother pathway for public use.



A new all-weather surface on parts of the Alameda Creek Regional Trail provides a

The District has been systematically evaluating its levees, and making repairs when necessary, since 2007. In 2010, about 2,400 feet of north and south levee repairs along Alameda Creek upstream of Ardenwood Boulevard were completed to control seepage. In 2011, approximately 2,300 feet of the south levee along Alameda Creek was repaired downstream of Ardenwood Boulevard. Additionally in 2011, roughly 3,000 feet of the north levee reconstruction was completed between the Union Pacific Railroad and Alvarado Boulevard in Union City.

With the \$6.6 million upgrade completed, Alameda Creek levees are now FEMA certified and accredited. Nearby property owners are not required to purchase flood insurance. As an added benefit for the community, the District re-paved portions of the Alameda Creek Regional Trail on top of the levees, which are now open to the public for walking and biking.

## MAINTAINING & PRESERVING INFRASTRUCTURE - SAN LORENZO CREEK SLIDE REPAIR, HAYWARD

## ► A SUDDEN SLIDE REQUIRES AN UNEXPECTED REPAIR

he District must be prepared at all times for the unexpected, especially during wet weather. During a heavy rain in late May 2011, a large tree at the toe of San Lorenzo Creek fell over into the creek, causing the earth embankment behind it to slide into the creek. The tree blocked the creek channel bottom, while the slide undermined a patio precariously close to the foundation of Casa Sandoval, a 7-story senior housing facility in Hayward.



In May 2011, heavy rain caused an embankment slide along a section of San Lorenzo Creek.



District staff performed repairs on an accelerated schedule to fix the problem.



A special cellular grid, filled with concrete, soil, and sand, was used on the slope for ground stabilization, erosion control, and earth retention. Native vegetation and seeds were planted on top of the grid.

The District's maintenance crew responded quickly to remove the fallen tree. Shoring up the landslide area required a more complex repair that had to be completed within a few months before the winter 2011 rains began.

A team of District staff rolled up their sleeves, honed in on the problem, and finished a design for the repair within roughly two months—way ahead of the many months usually required. Construction of the \$315,000 landslide repair took 40 calendar days and was completed by mid-October 2011.

## MANAGING TREES FOR PUBLIC SAFETY

hile we love trees, they can sometimes be hazardous to public safety. Non-native eucalyptus trees are especially unstable. They grow fast, splinter easily, and can damage creek banks by increasing erosion. When branches fall, they can block the flow of storm water through creek channels and cause flooding. In the worst case scenario, people can be hurt and buildings damaged by falling trees.



Hazardous trees were removed or pruned at three locations along San Leandro Creek.

The San Leandro Creek corridor has extensive stands of large trees that pose a significant hazard to public safety. In the last few years, several trees on District property have fallen, causing damage to private property.

After a risk evaluation in 2011, and with strong support from nearby residents, we removed a total of 18 dangerous eucalyptuses at three locations along San Leandro Creek at Huff Avenue, Haas Avenue, and St. Mary's Avenue in San Leandro. Of special concern were the trees near the footbridge off Haas Avenue used by children en route to Bancroft Middle School. Other trees were pruned. Tree logs were used to shore up creek banks.

New native trees, including beautiful sycamores, were planted to replace the old trees. The District also processed 400 cubic yards of green waste and distributed the compost to local schools, community gardens, and non-profit businesses.



Unstable eucalyptus trees growing near a footbridge used by school children were cut down to prevent possible injuries to people and property.



Native trees and shrubs were planted to replace the trees removed.

## MAINTAINING & PRESERVING INFRASTRUCTURE - CULL CANYON DAM & RESERVOIR, CASTRO VALLEY

## ► AN UPDATE ON CULL CANYON DAM & RESERVOIR

n FY2005, California's Division of Safety of Dams (DSOD) began a seismic safety study along the Hayward Fault. As part of its study, the DSOD asked the District to evaluate the seismic stability of the dams at both Cull Canyon and Don Castro Reservoirs.

Our engineers concluded that the Cull Canyon Dam would be unstable during a major earthquake. Until a permanent solution is found, the water level behind the dam has been lowered for public safety.



Cull Canyon Reservoir offers swimming, fishing, trails, and picnic tables. Over 11,000 cubic yards of silt were removed from the reservoir in 2001.



Cull Canyon Reservoir's water level was lowered for public safety as a precaution. Solutions for the dam and desilting the reservoir are being evaluated.

Meanwhile, deposits of silt from upstream creeks have continued to build up in both reservoirs. Despite past dredgings, the water level at Cull Canyon Reservoir is now less than six feet at its deepest point. Because desilting is so expensive, we are evaluating all possible options to deal with the Cull Canyon Dam and Reservoir.

Ultimately, the solution will depend on public input, available funding, and effective flood protection for public safety. The good news is that the swim area at Cull Canyon Regional Recreation Area, which is operated by the East Bay Regional Park District, will remain unaffected.

# **Environmental Restoration**

"We live in one of the most beautiful urban environments in the world. At the District, we see ourselves as environmental stewards. We take every opportunity to enhance natural settings, encourage wildlife, and improve the health of the land, water, and air."

- Kwablah Attiogbe, Environmental Services Manager



## ENVIRONMENTAL RESTORATION - ALAMEDA CREEK FISH LADDER, FREMONT

## ► ALAMEDA CREEK FISH LADDER TO BE BUILT

Restoration of the environment for aquatic and wildlife habitat is an important part of sustainability. During four years of negotiations, the District, together with the Alameda County Water District (a separate agency), engaged regulatory agencies in reaching approval of a design for a fish ladder in Alameda Creek that will enable fish to migrate upstream and over a large concrete barrier that protects the BART track footings from erosion.



The fish ladder will enable steelhead trout and salmon to swim up Alameda Creek and spawn for a thriving fish population.

In 2012, the final design was approved. The planning phase of the project is now complete, and the California Department of Fish and Wildlife has provided a \$1 million grant to construct the ladder.

Additional measures are being considered to improve fish habitat in Alameda Creek. For example, the regional Public Utilities Commission and the Alameda County Water District have agreed to release more water from upstream to enable adequate water flow in the creek channel for spawning steelhead to swim upstream where they can lay their eggs.

The District is considering cutting notches through other concrete barriers in the channel to create low-flow water streams perfect for fish to swim within the creek throughout the year.



Without a fish ladder, fish can't swim up or downstream over the concrete footings of railroad tracks and BART.

## **ENVIRONMENTAL RESTORATION - AGUA FRIA CREEK, FREMONT**

#### ► AGUA FRIA CREEK FLOOD CONTROL IMPROVEMENTS

A 900-foot section of steep earthen bank and channel bed on both sides of Agua Fria Creek was badly undercut and eroded in a residential area of Fremont (east of the Interstate 680 Mission Boulevard exit, between Briar Place and Mary Beth Court).



Roughly 900 feet of the Agua Fria Creek channel was so badly eroded that some banks were undercut. Reconstruction of the creek bed and banks was necessary.



Thirty-foot-deep shoring piles were drilled at the top of the south creek bank to stabilize the slope during construction.



Creek meanders were widened and banks contoured to create natural floodplains. This creek area can now accommodate a 100-year storm event.

In 2011, we began a new design of the banks that included adjusting the meanders of the creek to better protect against flooding. The design included lining the banks and creek bed with rocks and boulders to protect against erosion, and creating pools of varying depths along the creek bottom for diverse aquatic life. Creating habitat and promoting biodiversity is another important principle of sustainability.

The restoration was completed in October 2012. More than 100 native trees were planted to replace the non-native trees removed during construction.

Native grasses and shrubs were also planted.

## **ENVIRONMENTAL RESTORATION - TULE PONDS, FREMONT**

## ► HANDS-ON LEARNING AT THE TULE PONDS

great way for students to learn about flood control and environmental stewardship is at the Tule Ponds at Tyson Lagoon. The tule ponds are a wetlands-based stormwater treatment system with an educational center on 17 acres in Fremont. Three connected ponds filter incoming water from storm drains. As the water flows sequentially through the ponds, wetland vegetation removes sediment and pollutants before the water flows to the Bay.



A tule house, built by students using tule reeds, is similar to those once inhabited by Native Americans.



The Tule Ponds at Tyson Lagoon includes an educational center where students and teachers can learn about storm water treatment, habitat creation, and native landscaping.

Open to school groups, teachers, and students of all ages, the ponds provide a hands-on learning experience to enable future generations to understand and gain interest in environmental stewardship by discovering more about the environment, native plants, and wildlife.

The District partners with Math/Science Nucleus, a non-profit education group, to manage the site and develop educational programs. High school students can also fulfill community service requirements at the site.

In 2010 and 2011, student involvement increased, and modest improvements were made to the educational center, including upgrading the restrooms.

# Clean Water Program

"We can prevent pollution just by changing a few simple things in our daily routines. I love to see the moment when people suddenly realize they just need to wash their cars differently, or stop using a particular product on their lawns. It's so easy when more people participate"

- Sharon Gosselin, Alameda County Clean Water Program Manager



## **► CLEANER WATER FOR A HEALTHIER ENVIRONMENT**

he Flood Control District's Clean Water Program (CWP) works to protect and enhance the water quality in local creeks and watersheds.

The program involves water quality monitoring and watershed assessment, illicit discharge and connection inspection, priority pollutant control, and community outreach to promote watershed stewardship and water pollution prevention practices.



Kids learn about watershed conservation through the Clean Water Program's outreach efforts and Adopt-a-Creek groups.

The District's CWP supports and participates in collaborative watershed stewardship efforts through the Friends of Sausal Creek (sausalcreek.org), Friends of San Leandro Creek (fslc.org), and Alameda Creek Watershed Council, as well as by partnering with the City of Oakland to implement the Clean Creeks Program. The District's CWP participates in community events such as the Alameda County Fair and Alameda County Home and Garden Shows, Bringing Back the Natives Garden Tour, and school Earth Day events. The District's Clean Water Program also reaches out to school-age children through programs that include the Tule Ponds at Tyson Lagoon and the CWP's Hands-On Conservation Program.

The CWP is also addressing the escalating trash problem in the District's channels through the Hot Spot Assessment and Cleanup Program.



The Clean Water Program staffs a booth at county events where the public can learn more about water pollution and keeping creeks healthy.

The District is a member of the Alameda Countywide Clean Water Program (cleanwaterprogram.org), a consortium of the 14 cities of Alameda County, Alameda County Unincorporated Area, the District, and Zone 7 Water Agency. Through the Countywide Program, member agencies collaboratively implement various storm water permit compliance requirements that help improve water quality.

# **Financials**

"The District receives revenue from a variety of sources and expends funds for a variety of flood control purposes. For at least the past 40 years, projects have been funded on a pay-as-you-go basis. This means that periodically reserves will increase significantly to fund very expensive projects."

- Keith Whitaker, Management Services Administrator



## **FINANCIAL OVERVIEW**

The District undertakes a number of large and small projects every year to reduce the potential for local flooding, maintain flood control infrastructure, preserve the environment, and prepare for future needs.

Four District departments—Construction and Development, Engineering, Maintenance and Operations, and Management Services—work to meet these goals.

The figures and graphs on the following pages provide an overview of the District's sources of revenue and how the District allocates those funds toward flood protection and clean water in Alameda County.

Generally, revenue generated within a flood control zone can only be spent within that zone. Therefore, revenue and expenditure figures are presented for each zone separately.

# Revenue To Pay For Projects Is Received From Several Sources:

**Taxes:** The District receives a very small portion of the 1 percent countywide property tax annually. However, a large portion (nearly 40 percent) of the funds earmarked for flood control is reallocated

by law to the state's Educational Revenue Augmentation Fund (ERAF), not to flood control projects.

## Aid from Government Agencies:

The District applies for and receives federal and state grants for flood control and water quality projects.

**Use of Money:** The District receives interest on cash and emergency reserves, and rental revenue from District-owned property.

Assessment Revenue: The District receives property assessments moneys based on land use category and anticipated stormwater runoff from the property. These assessments have not increased since the early 1990s and cannot be increased without a vote of the community, in accordance with Proposition 218.

**Other Revenue:** Developers and builders pay permitting fees to the District. This category also includes other small sources of revenue.

Clean Water Program: The District receives a small amount of revenue from assessments on property within unincorporated Alameda County to cover the costs of the Clean Water Program.

# **Expenditures Fall Into The Following Categories:**

## Information Technology Improvements:

Hardware and software purchases and support for District operations.

**Administration:** Human resources, accounting, and other office services.

## **Construction and Development:**

Permitting and technical assistance for new developments in unincorporated areas, and construction inspection, laboratory testing, and contract administration.

**Engineering:** Designing and securing clearance and permitting for construction of new flood control structures or upgrades to existing facilities.

## **Maintenance and Operations:**

Maintenance of the District's vast inventory of infrastructure, and operation of pump stations and other flood control systems.

Clean Water Program: Activities associated with the District's responsibility as a copermittee of the regional NPDES permit.



By the numbers, the District manages approximately:

- 170,323 acres
- 200 miles of natural creeks
- 91 miles of earthen channels
- 36 miles of concrete channels
- 240 miles of underground pipe
- 13 miles of improved channels
- 19 pump stations
- 5 reservoirs

District-Wide (From an accounting perspective, "District-Wide" covers general revenue and expenditures that apply to all zones.)

venue and expenditures that apply to an	201100.)
FY 2011 Revenues	
1. Taxes	\$24,640,404
2. Aid from Governmental Agencies	1,224,579
3. Use of Money	585,519
4. Assessment Revenue	9,398,858
5. Other Revenue	703,465
6. Clean Water Program	1,416,987
Total	\$37,969,812
FY 2011 Expenditures	
1. Info.Technology Improvements	\$1,243,123
2. Administration	1,819,972
3. Construction & Development	2,734,302
4. Engineering	27,914,252
5. Maintenance & Operation	12,413,244
6. Clean Water Program	1,709,573
Total	\$47,834,466
FY 2012 Revenues	
1. Taxes	\$27,392,250
2. Aid from Governmental Agencies	435,912
3. Use of Money	412,753
Assessment Revenue	9,408,926
5. Other Revenue	883,775
6. Clean Water Program	1,571,874
Total	\$40,105,490
FY 2012 Expenditures	
1. Info.Technology Improvements	\$1,298,421
2. Administration	845,427

2,526,692

30,061,152

10,788,499

2,230,632

Total \$47,750,823

3. Construction & Development

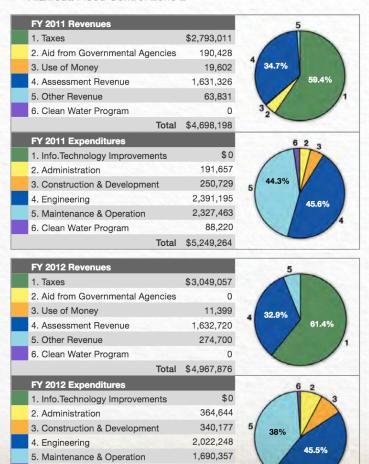
5. Maintenance & Operation

6. Clean Water Program

4. Engineering

## Alameda Flood Control Zone 2

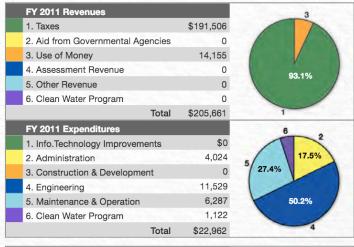
6. Clean Water Program



27.778

Total \$4,445,204

## Alameda Flood Control Zone 2A



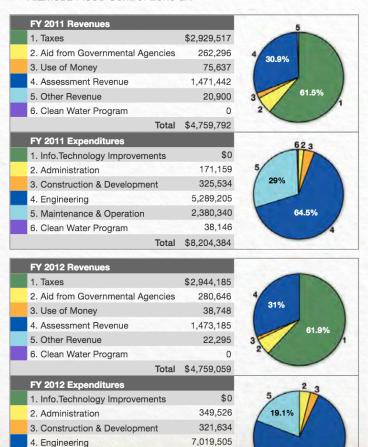


73.7%

## Alameda Flood Control Zone 3A

5. Maintenance & Operation

6. Clean Water Program



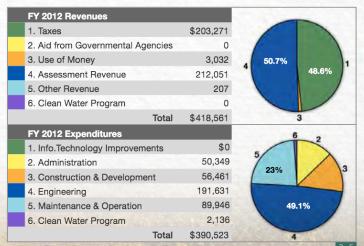
1,818,600

Total \$9,522,887

13,622

## Alameda Flood Control Zone 4

FY 2011 Revenues	
1. Taxes	\$193,830
2. Aid from Governmental Agencies	0
3. Use of Money	3,603
4. Assessment Revenue	210,945
5. Other Revenue	1,943
6. Clean Water Program	0
Total	\$410,321
FY 2011 Expenditures	
1. Info.Technology Improvements	\$0
2. Administration	30,604
3. Construction & Development	52,828
4. Engineering	124,762
5. Maintenance & Operation	88,887
6. Clean Water Program	5,983
Total	\$303.064

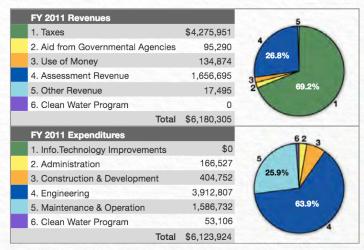


## Alameda Flood Control Zone 5

#### FY 2011 Revenues \$5,072,549 2. Aid from Governmental Agencies 325,784 27.6% 3. Use of Money 147,438 4. Assessment Revenue 2,150,311 5. Other Revenue 94,756 6. Clean Water Program 0 \$7,790,838 Total FY 2011 Expenditures 1. Info.Technology Improvements \$0 264,034 2. Administration 552,123 3. Construction & Development 6,236,817 4. Engineering 5. Maintenance & Operation 2,321,827 6. Clean Water Program 162.153 Total \$9,536,954 FY 2012 Revenues 1. Taxes \$5,176,004

#### 2. Aid from Governmental Agencies 0 28.3% 3. Use of Money 101,971 4. Assessment Revenue 2,120,071 69.1% 5. Other Revenue 95,514 6. Clean Water Program 0 Total \$7,493,560 FY 2012 Expenditures \$0 1. Info.Technology Improvements 503,757 17.2% 2. Administration 534,845 3. Construction & Development 4. Engineering 8,606,113 73.4% 5. Maintenance & Operation 2,019,512 6. Clean Water Program 55.825 Total \$11,720,052

## Alameda Flood Control Zone 6





83.8%

294,073

\$351,115

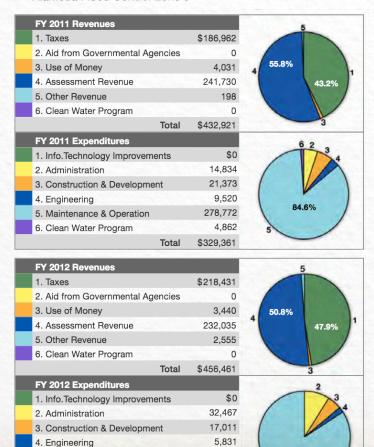
Total

1,733

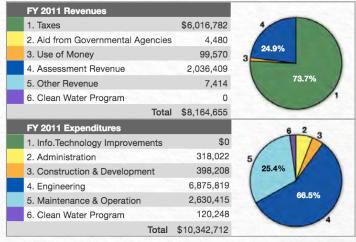
## Alameda Flood Control Zone 9

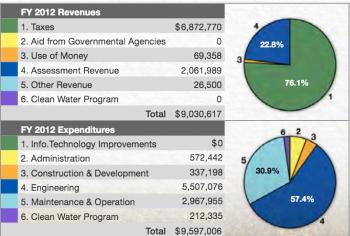
5. Maintenance & Operation

6. Clean Water Program



## Alameda Flood Control Zone 12





## FINANCIAL OVERVIEW—FISCAL YEARS 2010-2011 & 2011-2012

## Alameda Flood Control Zone 13

FY 2012 Expenditures

2. Administration

4. Engineering

1. Info.Technology Improvements

3. Construction & Development

5. Maintenance & Operation6. Clean Water Program

FY 2011 Revenues	
1. Taxes	\$660,723
2. Aid from Governmental Agencies	0
3. Use of Money	51,475
4. Assessment Revenue	0
5. Other Revenue	349
6. Clean Water Program	0
Total	\$712,547
FY 2011 Expenditures	
1. Info.Technology Improvements	\$0
2. Administration	22,192
3. Construction & Development	7,587
4. Engineering	756,095
5. Maintenance & Operation	113,237
6. Clean Water Program	32,156
Total	\$931,267
FY 2012 Revenues	
1. Taxes	\$703,616
2. Aid from Governmental Agencies	0
3. Use of Money	38,627
4. Assessment Revenue	0
5. Other Revenue	349
6. Clean Water Program	0
Total	\$742,592

\$0

19,585

892,706 99,855

28,472

Total \$1,040,618

0



A project to stabilize and restore the banks along a section of San Leandro Creek in Zone 13 is planned for the near future.

2 8

## Alameda County Flood Control & Water Conservation District

399 Elmhurst Street Hayward, CA 94544-1395 (510) 670-5480 www.acfloodcontrol.org

## **Emergency**

In case of emergency dial 911

## To Report Flooding of Major Creeks

In Alameda County (510) 670-5500 For sandbags in Hayward (510) 670-5500 For sandbags in Dublin (925) 803-7007

#### Services

To schedule building inspections (510) 670-5440
To report illegal dumping of trash in creeks (510) 670-5500

## Para Asistencia en Espanol

Por favor llame a Lupe Serrano (510) 670-5993 Escribanos a la direccion de correo electronica info@acpwa.org O vistenos al www.acfloodcontrol.org

## 如有須要中文通話

須要廣東話或國語翻譯, 請撥電話找程小麗小姐 (510) 670-5716 或 judy@acpwa.org 電聯請用 www.acfloodcontrol.org





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