

A REPORT BY  
THE 2018-2019 CONTRA COSTA COUNTY GRAND JURY  
725 Court Street  
Martinez, California 94553

Report 1907

# Stormwater Trash Reduction

Are We Doing All That We Can?

APPROVED BY THE GRAND JURY

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ACCEPTED FOR FILING

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ANITA SANTOS  
JUDGE OF THE SUPERIOR COURT

Contra Costa County Grand Jury Report 1907

**Stormwater Trash Reduction**

Are We Doing All That We Can?

**TO: Contra Costa County Board of Supervisors;  
City/Town Councils of: Antioch, Brentwood, Clayton, Concord,  
Danville, El Cerrito, Hercules, Lafayette, Martinez, Moraga,  
Oakley, Orinda, Pinole, Pittsburg, Pleasant Hill, Richmond,  
San Pablo, San Ramon, Walnut Creek**

**SUMMARY**

What is being done about the discarded paper, plastics, and other unwanted junk that ends up along our local streets, freeways, and public areas? This trash is polluting our local creeks, rivers, the San Francisco Bay, and the ocean itself. Is anything being done to fix this regional problem that has global implications? What more can we do as citizens, cities, and Contra Costa County (the County) to help keep our waterways clean?

The federal Clean Water Act, as amended by the Water Quality Act of 1987, requires permits for stormwater discharges from municipal systems to prevent stormwater from washing harmful pollutants into waterways. Under the Clean Water Act, these discharges are considered to be significant contributors of pollutants to waters of the United States. Discharges from stormwater systems operated by the County and each of its 19 cities and towns are also subject to the requirements of the Clean Water Act.

The Clean Water Act is enforced locally by the San Francisco Regional Water Quality Control Board (Water Board) through a Municipal Regional Stormwater Permit (Permit), issued in 2015. This Permit requires Contra Costa County and its cities and towns, along with other cities and the counties of Alameda, San Mateo, and Santa Clara, to reduce trash discharged from their storm sewers. Under the Permit, cities, towns, and counties are required to reduce their trash discharged by storm sewers by 80% from 2009 base levels by July 1, 2019. Cities and counties are required to prepare detailed

annual reports that document their trash abatement performance.

Cities, towns, and the County get credit toward their percent trash reduction by reducing the amount of trash discharged from their storm sewer systems. They accomplish this primarily by installing and maintaining trash capture devices which separate trash from entering a stormwater system and waterways. They can also take steps to control trash at its source by limiting businesses from providing plastic straws, plastic bags, and/or Styrofoam cups, bowls, plates, takeout containers, and serving trays. For these source control programs, there is a maximum of 10% credit available under the Permit.

The California Department of Transportation (Caltrans) also owns, operates, and maintains significant storm sewer systems within the County. Under a separate permit, Caltrans is also required to implement control measures in all of its high-trash-generating areas. These include freeways and ramps in high density residential, commercial, and industrial areas. The Water Board recently issued an enforcement order against Caltrans to increase its trash cleanup efforts on Bay Area highways, or face heavy fines.

This report examines how the County, its cities, and towns are performing with regard to the Permit's trash reduction goals. Our investigation revealed that most of the cities and towns in the County are on target to achieve the 80% trash reduction goal.

The cities of Hercules and Pinole are underperforming toward achieving this 80% goal. The Grand Jury recommends that the cities of Hercules and Pinole consider taking steps to improve performance to comply with required trash reduction goals by installing trash capture devices and instituting source control programs.

The Grand Jury also recommends that cities, towns, and the County consider publishing annual reports in summary form, citing accomplishments and challenges, including the costs and funds needed to comply with the Permit requirements. One solution is to prevent the generation of pollution at its source. This includes limiting the use of Styrofoam cups, bowls, plates, and takeout containers.

Cities, towns, and the County should consider identifying additional revenue sources to fully fund Permit requirements in order to comply with the Permit and avoid potential liability.

## **METHODOLOGY**

In the course of its investigation, the Grand Jury:

- Examined how the County and its cities and towns are performing with regard to their trash reduction mandates
- Explored how Permit compliance information is communicated to the citizens and elected officials in Contra Costa County

- Interviewed staff from: Contra Costa Clean Water Program, Contra Costa County Public Works, and selected cities
- Interviewed representatives from an environmental Non-governmental Organization, and the Water Board
- Reviewed stormwater permits, reports, and documents
- Reviewed information available on the Contra Costa Clean Water Program website ([www.cccleanwater.org](http://www.cccleanwater.org))
- Reviewed media reports

## **BACKGROUND**

### **Federal and State Stormwater Regulations**

The 1972 Federal Water Pollution Control Act (the Clean Water Act) regulates water quality standards for all public and private wastewater discharges into waterways. These water quality standards are set using National Pollutant Discharge Elimination System (NPDES) permits which regulate waste discharges into waters of the United States. In 1987, the Clean Water Act was amended and expanded to include stormwater discharges from municipal-owned/operated storm drains. In 1990, NPDES stormwater permit application requirements for municipal stormwater discharges were established by the U.S. Environmental Protection Agency.

In California, the federal NPDES permit program is administered and enforced by the State Water Resources Control Board through nine Regional Water Quality Control Boards. These water boards issue permits to prevent stormwater from washing harmful pollutants into waterways. Permits are updated and reissued approximately every five years. The first county-wide stormwater permits were issued in the early 1990s.

### **Contra Costa Clean Water Program**

In 1991, in response to the expanded Federal and State stormwater regulations, the County, its cities, and towns established the Contra Costa Clean Water Program (CCCWP). Its purpose is to provide a uniform approach to address Water Board permit requirements and implement activities jointly carried out by the cities, towns, and the County.

The CCCWP comprises Contra Costa County, 19 cities and towns, and the Contra Costa County Flood Control and Water Conservation District. These are:

- Contra Costa County Flood Control and Water Conservation District
- Clayton
- Hercules
- Orinda
- Pleasant Hill
- San Ramon
- Town of Moraga
- Oakley
- Concord
- Lafayette
- Pinole
- Richmond
- Walnut Creek
- Antioch
- Contra Costa County unincorporated areas
- El Cerrito
- Martinez
- Pittsburg
- San Pablo
- Town of Danville
- Brentwood

## Current Stormwater Permit

According to the Water Board, stormwater is a significant source of certain pollutants that cause or contribute to water quality pollution in the region. To address this problem the Water Board issued county-wide municipal stormwater permits in the early 1990s.

In 2015, the Water Board re-issued these county-wide municipal stormwater permits as one Municipal Regional Stormwater NPDES Permit (Permit) to regulate stormwater discharges from municipalities and local agencies in Alameda, central and western Contra Costa, San Mateo, and Santa Clara counties, and the cities of Fairfield, Suisun City, and Vallejo. In February, 2019, the cities of Antioch, Brentwood, and Oakley and the eastern portion of Contra Costa County were formally added to the Permit.

Under the Permit, cities, towns, and counties are required to prohibit the discharge of materials other than stormwater into storm drain systems and watercourses. Each city, town, and county is individually responsible for complying with the Permit requirements to meet their pollution reduction goals. The Permit allows cities, towns, and counties to collaborate in designing, developing, and implementing new solutions to reduce stormwater pollution.

The Permit includes stormwater management regulations for the following: trash reduction, new real estate development and redevelopment, illicit discharge, and public information and outreach. The Permit also regulates stormwater from industrial and commercial sites, construction sites, pesticides, mercury, PCB's, and copper.

According to the Water Board, the sources of trash include discharges from the storm drain system, windblown trash, and other discharges such as direct dumping and homeless encampments. This trash washes into San Francisco Bay and the ocean, where it becomes part of a global problem. It is unsightly, can cause storm drain blockage, decreases property values, and impacts recreational use and wildlife habitat in waterways. Trash such as plastic bags may harm wildlife through entanglement or ingestion. Trash may also contain hazardous materials such as heavy metals, toxic chemicals, oil and grease products, and other pollutants that are unhealthy and harmful to people and the environment.

Failure to comply with the discharge requirements constitutes a violation of the

California Water Code and the Clean Water Act. If there is a violation, the Water Board may impose fines and other civil liabilities. The Water Board may also refer violators to the State Attorney General who can seek civil monetary penalties and injunctive relief, or take other appropriate enforcement actions.

## **Preventing Trash at its Source**

A key element in any trash reduction program is to stop pollution before it harms the environment. Programs that prevent trash at its source (commonly referred to as "source control") include banning businesses from providing plastic bags, plastic straws, and Styrofoam cups, bowls, plates, and takeout containers.

Plastic bags are not biodegradable and take hundreds of years to decompose. This results in plastics littering the environment, degrading creeks and waterways, and adversely effecting wildlife. When bags decompose, toxins are released into the soil and water, harming land and marine wildlife. Plastic straws are hazardous to the environment because they settle in the landfills, clog storm drains, and collect in the ocean. Styrofoam is a plastic commonly found in packing and food packaging. It is rarely reused, is an abundant form of litter hazardous to land and marine life and can take 500 years to decompose.

On November 8, 2016, California voters approved Proposition 67 which bans the use of carry-out plastic bags that once were given at grocery stores and food marts. They now offer customers the option to purchase either recycled paper or reusable plastic bags. As an example, the City of San Jose implemented a successful source control program. Its 2011 plastic bag ban resulted in a litter reduction of approximately 89% in the storm drain system, 60% in the creeks and rivers, and 59% in city streets and neighborhoods. A state law (AB1884) limiting full-service restaurants in the state from handing out single-use plastic straws became effective on January 1, 2019.

## **DISCUSSION**

This report focuses on the trash reduction requirement of the Permit. The report examines how the County, cities, and towns are performing regarding reducing trash in creeks and waterways. It also explores how information can be better communicated to citizens in the County.

### **Trash Reduction Requirements**

Cities, towns, and the County are required to implement trash control actions in accordance with procedures and the schedule outlined in the Permit.

The trash reduction schedule in the Permit requires that each city, town, and the County reduce trash from their 2009 baseline levels, using requirements and accounting

procedures contained in the Permit. The trash reduction goals and schedule are as follows:

- 70% by July 1, 2017
- 80% by July 1, 2019
- 100% by July 1, 2022

The cities of Antioch, Oakley, Brentwood, and the eastern unincorporated areas of the County were added to the Permit in February, 2019. They have a modified goal to reduce trash by 70% from their 2016 baseline trash levels by December 31, 2019.

Cities, towns, and the County receive credit toward their trash reduction goal by reducing the amount of trash discharged from their storm sewer systems. They accomplish this by installing and maintaining trash capture devices which prevent trash from entering stormwater systems and waterways. The percent reduction in trash is calculated by applying a formula that compares current levels with 2009 baseline amounts.

Cities, towns, and the County can take additional steps to control trash at its source by limiting businesses from providing Styrofoam cups, bowls, plates, takeout containers, and serving trays. For these source control programs there is a maximum of 10% credit toward the trash reduction goal available in the Permit.

As explained below, some cities and towns have already instituted source control programs, which they expect will reduce the amount of trash released into the environment. Most have also implemented trash management actions, such as increased street sweeping; land, creek and shoreline cleanups; and homeless encampment cleanups.

Table 1 illustrates:

- The percent reduction in trash, from 2009 baseline levels, that each city, town, and the County unincorporated areas achieved in Fiscal Year (FY) 2017-18
- The number of trash capture devices installed
- Cities that have implemented a source control program

**Table 1  
FY 2017-18 Trash Reduction Achieved**

<b>City/Town/County</b>	<b>FY 2017-18 Total % Trash Reduction</b>	<b>Full Trash Capture Devices Installed</b>	<b>Source Control Programs</b>
<b>Antioch</b>	NA	1	NA
<b>Brentwood</b>	83.3 %	91	No
<b>Clayton</b>	99.5%	195	No
<b>Concord</b>	83.0%	451	No
<b>Danville</b>	100.0%	74	Yes
<b>El Cerrito</b>	84.5%	122	Yes
<b>Hercules</b>	69.0%	41	Yes
<b>Lafayette</b>	91.7%	38	No
<b>Martinez</b>	91.2%	118	Yes
<b>Moraga</b>	82.0%	121	No
<b>Oakley</b>	67.0%	68	No
<b>Orinda</b>	85.6%	5	No
<b>Pinole</b>	31.0%	113	Yes
<b>Pittsburg</b>	83.4%	127	Yes
<b>Pleasant Hill</b>	78.0%	123	Yes
<b>Richmond</b>	83.4%	170	Yes
<b>San Pablo</b>	87.7%	128	Yes
<b>San Ramon</b>	100.0%	81	No
<b>Walnut Creek</b>	95.9%	202	Yes
<b>County unincorporated areas</b>	75.0%	286	pending

Source: CCCWP Website <https://www.cccleanwater.org/resources/reports>

NA: data not available

Note: Antioch, Oakley, Brentwood and the eastern unincorporated areas of the County are required to achieve a trash reduction goal of 70% by December 31, 2019. All others are required to achieve a trash reduction goal of 80% by July 1, 2019.

Brentwood, Clayton, Concord, Danville, El Cerrito, Lafayette, Martinez, Moraga, Orinda, Pittsburg, Richmond, San Pablo, San Ramon, and Walnut Creek indicate that they have already reached their July 1, 2019 trash reduction goal of 80% from 2009 levels.

The cities of Hercules, Oakley, and Pinole report achieving less than 70% trash reduction in their latest annual reports. In June, 2018, Hercules and Pinole were issued Cease and Desist Orders by the Water Board requiring them to improve their

performance in meeting the required trash reduction goals. The Orders set deadlines for implementing trash controls that will bring the cities into compliance with the 80% trash load reduction relative to 2009 baseline conditions, by July 1, 2019.

## **Source Control Programs**

One way for the County, cities, and towns to help achieve their trash reduction goals is to focus on source control programs. These programs can reduce the amount of litter that enters the stormwater system.

Danville, Pittsburg, Pleasant Hill, Richmond, San Pablo, and Walnut Creek implemented ordinances banning single-use plastic bags prior to the ban becoming law in California.

Ten cities also have established ordinances banning Styrofoam food packaging. They are: Concord, El Cerrito, Hercules, Lafayette, Martinez, Pinole, Pittsburg, Richmond, San Pablo, and Walnut Creek. The County is proposing an ordinance to ban Styrofoam container use by companies selling food and beverages, private care facilities, and County establishments in the unincorporated areas.

Brentwood, Clayton, Concord, Lafayette, Moraga, Oakley, Orinda, and San Ramon have not reported source control programs as part of their trash reduction goals.

## **Trash Reduction along Caltrans Freeways and Ramps**

Caltrans owns, operates, and maintains freeways and ramps within the County. In a separate permit issued by the State Water Resources Control Board in 2012, and amended in 2014 and 2015, Caltrans is required to implement control measures in all high trash generating areas. These areas include freeways and ramps in high density residential, commercial, and industrial areas in Contra Costa County.

Caltrans is a state agency outside the Grand Jury's jurisdiction. However, it acknowledges that its freeways and ramps are collectors of trash and debris. Caltrans developed a work plan in 2016 to "ensure maximum environmental benefit while also achieving mobility and safety benefits to the traveling public." (Caltrans, Trash Load Reduction Workplan for the San Francisco Bay Region, 2016). In the County, the Workplan indicated that high trash level stretches include portions of Highways 4 and 24, and Interstate 80.

Table 2 shows the ramps with high trash levels:

**Table 2  
Highway Ramps with High Trash Levels**

Highway	Ramps
HWY4	Loveridge Rd, Railroad Ave., Morello Ave., McEwen Ave., and Willow Ave.
I-80	Cutting Blvd, Potrero Ave., Carlson Blvd, Central Ave., Appian Way, Richmond Parkway, San Pablo Dam Road, San Pablo Ave., MacDonald Ave., and Buchanan St.
I-580	Regatta Blvd., Bayview Ave., and Central Ave.
I-680	Willow Pass Road

On November 7, 2018, a letter urging the Water Board to take enforcement action against Caltrans was signed by two Contra Costa County Supervisors, elected officials from the cities of Antioch, El Cerrito, and Richmond, and over 60 elected officials from Alameda, San Mateo, and Santa Clara counties. The letter urged the Water Board to order Caltrans to:

- Install trash capture devices in “very high” and “high” trash generation areas wherever feasible;
- Increase frequency of trash removal; and
- Collaborate with municipalities and local agencies to implement these solutions.

According to the Water Board, Caltrans has identified portions of its highways and ramps “that generate significant amounts of trash but has not identified an acceptable schedule for timely implementation of trash controls to meet [p]ermit” requirements. (Water Board, Cease and Desist Order No. R2-2019-0007). In February, 2019, the Water Board ordered Caltrans to install devices to capture roadway debris or otherwise clean up all 8,820 acres of land under its jurisdiction in the Bay Area identified as “significant trash generating areas” by 2026. Failure to comply with the directive could result in fines of up to \$25,000 a day.

### **Trash from Homeless Encampments**

Waste from homeless encampments close to creeks present an environmental hazard. The Contra Costa County Coordinated Outreach and Engagement Team (CORE) collects and removes over 6,000 pounds of trash each month at homeless sites. CORE regularly visits homeless encampments to identify needs of the homeless. CORE encourages the homeless to clean up after themselves by providing trash bags.

## Permit Compliance Costs

Stormwater permit compliance activities in most Contra Costa County cities, towns, and the County are funded by a Stormwater Utility Assessment (SUA) authorized in 1993. Rates range from \$25 to \$45 a year for single-family homes. In FY 2017-18 the revenues collected countywide totaled \$15.1 million. These funds are used to support the Permit compliance activities undertaken by each of the cities, towns, the County, and CCCWP.

The cities of Richmond and Brentwood do not have a stormwater utility assessment. Their stormwater pollution prevention activities are funded from other revenue sources, and the cities' general funds.

The authority to raise taxes or assessment fees to pay for governmental services, including stormwater related activities, is limited by voter initiatives such as Proposition 13 and Proposition 218. Stormwater assessment rates have maximum limits, established by each city, town, and the County in 1993. They all reached their maximum rates by FY 2009-10. Since then, cities, towns, and the County have been supplementing their SUA revenues with funding from other sources, including their general funds.

The County is responsible for complying with the Permit provisions only in the unincorporated areas. The County estimates its compliance costs to be \$5 million per year. Of that amount, \$2.2 million per year is budgeted for trash reduction related activities.

The County receives about \$3.8 million per year in SUA revenue, road, and flood control funding. The County estimates that it will need an additional \$1.2 million per year to meet all the Permit requirements.

Revenue shortfalls may prevent the County from meeting its stormwater trash reduction goals. Failure to comply with the Permit would leave the County liable for substantial fines from the Water Board. In order to achieve a trash reduction goal of 100%, the County may need to consider seeking additional sources of funding.

Both the CCCWP and the Contra Costa Local Agency Formation Commission (LAFCO) report that unfunded federal and state mandated stormwater permit compliance programs are a challenge for cities, towns, and the County. In its 2019 Municipal Service Review, LAFCO reports, “[s]tormwater control requirements mandated by regional and state agencies are increasing the cost of treating stormwater without providing compensating new revenue sources.” To address this funding shortfall, the Grand Jury recommends that cities, towns, and the County consider undertaking efforts to identify additional funding sources to fully fund Permit requirements in order to comply with the Permit and avoid potential liability.

## Public Awareness

The required Annual Reports provide a detailed breakdown of performance toward complying with all the Permit provisions by the CCCWP, each city, town, and the County. The CCCWP 2017-18 Annual Report documenting permit compliance activities it conducted during the year totals 564 pages. Each city, town, and the County also prepared a similar report documenting its permit compliance performance. These reports each range in length from 58 to 177 pages. They are filled with forms and tables supplied by the Water Board, which document accomplishments for the year. No narrative summary is provided identifying accomplishments, challenges, costs, and funds needed to fully comply with the Permit. The Grand Jury recommends that to enable the public to understand these issues, CCCWP, each city, town, and the County should consider providing a narrative summary of their efforts to achieve Permit requirements.

## FINDINGS

- F1. The 2015 Municipal Regional Stormwater Permit requires most of the cities, towns, and the County to take action to reduce trash discharges by 80%, from 2009 baseline levels, by July 1, 2019
- F2. Antioch, Brentwood, Oakley, and the eastern portion of the County were added to the Permit in February, 2019 and have a requirement to reduce trash discharges by 70%, from their 2016 baseline trash levels, by December 31, 2019.
- F3. Using the formula prescribed in the Permit, Brentwood, Clayton, Concord, Danville, El Cerrito, Lafayette, Martinez, Moraga, Orinda, Pittsburg, Richmond, San Pablo, San Ramon, and Walnut Creek report that they have already reached their July 1, 2019 trash reduction goals.
- F4. In June, 2018, Hercules and Pinole were issued Cease and Desist Orders by the Water Board requiring them to improve their performance in meeting their trash reduction goals.
- F5. The County estimates that it will need an additional \$1.2 million per year to meet all the Permit requirements.
- F6. Both the CCCWP and LAFCO report that unfunded federal and state mandated stormwater permit compliance programs are a challenge for cities, towns, and the County.
- F7. Concord, El Cerrito, Hercules, Lafayette, Martinez, Pinole, Pittsburg, Richmond, San Pablo, and Walnut Creek have established ordinances banning Styrofoam food packaging in their communities.

- F8. Caltrans reports that highways and ramps along portions of Highways 4 and 24, Interstates 80, 580, and 680 in Antioch, El Cerrito, Richmond, and in the unincorporated areas of the County are high trash generation areas.
- F9. No narrative summary of the accomplishments, challenges, costs, and funds needed to fully comply with the Permit is provided in the required annual reports prepared by CCCWP, the County, and each city and town.

## **RECOMMENDATIONS**

- R1. The City Councils of Hercules and Pinole should each consider directing their city manager to implement trash controls to bring them into compliance with the 80% trash reduction goal by December 31, 2019.
- R2. The City/Town Councils of Antioch, Brentwood, Clayton, Danville, Moraga, Oakley, Orinda, Pleasant Hill, and San Ramon should consider limiting the use of Styrofoam containers in their communities by June 30, 2020.
- R3. The Board of Supervisors and all City/Town Councils should consider directing staff to provide a concise summary of their Annual Reports, citing their accomplishments, challenges, costs, and funds needed to fully comply with the Permit, by December 31, 2019.
- R4. The Board of Supervisors and all City/Town Councils should consider identifying additional revenue sources to fully fund Permit requirements in order to comply with the Permit and avoid potential liability, by June 30, 2020.

## REQUIRED RESPONSES

	<b>Findings</b>	<b>Recommendations</b>
Contra Costa County Board of Supervisors	F1, F2, F5, F6, F8, and F9	R3 and R4
City of Antioch	F2, F6, F8, and F9	R2, R3, and R4
City of Brentwood	F2, F3, F6, and F9	R2, R3, and R4
City of Clayton	F1, F3, F6, and F9	R2, R3, and R4
City of Concord	F1, F3, F6, F7, and F9	R3 and R4
Town of Danville	F1, F3, F6, and F9	R2, R3, and R4
City of El Cerrito	F1, F3, F6, F7, F8, and F9	R3 and R4
City of Hercules	F1, F4, F6, F7, and F9	R1, R3, and R4
City of Lafayette	F1, F3, F6, F7, and F9	R3 and R4
City of Martinez	F1, F3, F6, F7, and F9	R3 and R4
Town of Moraga	F1, F3, F6, and F9	R2, R3, and R4
City of Oakley	F2, F6, and F9	R2, R3, and R4
City of Orinda	F1, F3, F6, and F9	R2, R3, and R4
City of Pinole	F1, F4, F6, F7, and F9	R1, R3, and R4
City of Pittsburg	F1, F3, F6, F7, and F9	R3 and R4
City of Pleasant Hill	F1, F6, and F9	R2, R3, and R4
City of Richmond	F1, F3, F6, F7, F8, and F9	R3 and R4
City of San Pablo	F1, F3, F6, F7, and F9	R3 and R4
City of San Ramon	F1, F3, F6, and F9	R2, R3, and R4
City of Walnut Creek	F1, F3, F6, F7, and F9	R3 and R4

These responses must be provided in the format and by the date set forth in the cover letter that accompanies this report. An electronic copy of these responses in the form of a Word document should be sent by e-mail to [ctadmin@contracosta.courts.ca.gov](mailto:ctadmin@contracosta.courts.ca.gov) and a hard (paper) copy should be sent to:

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