



Contra Costa County  
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D e p a r t m e n t

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January 30, 2014

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San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

Ms. Pamela Creedon, Executive Officer  
California Regional Water Quality Control Board  
Central Valley Region  
11020 Sun Center Drive, #200  
Rancho Cordova, CA 95670-6114

Dear Mr. Wolfe and Ms. Creedon:

Enclosed is the February 2014 Long-Term Trash Load Reduction Plan for the unincorporated areas of Contra Costa County, which is required by and in accordance with Provision C.10.c in National Pollutant Discharge Elimination System (NPDES) Permit Number CAS612008 issued by the San Francisco Bay Regional Water Quality Control Board and/or by Provision C.10.c in NPDES Permit Number CA0083313 issued by the Central Valley Regional Water Quality Control Board.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Cece Sellgren  
Stormwater Manager  
Contra Costa County Watershed Program

CS:cw  
G:\fdct\NPDES\C.10 Trash Reduction\Trash Reduction Planning\Long Term Plan\Certification Letter for Long Term Plans.docx  
Enclosures

cc: J. Bueren, Public Works Director  
S. Kowalewski, Deputy Public Works Director  
M. Carlson, Flood Control

*"Accredited by the American Public Works Association"*

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## Cece Sellgren

---

**From:** Bowyer, Dale@Waterboards <Dale.Bowyer@waterboards.ca.gov>  
**Sent:** Tuesday, November 12, 2013 12:19 PM  
**To:** Cece Sellgren; Mumley, Thomas@Waterboards  
**Subject:** RE: Long Term Trash Reduction Plan for Contra Costa County

**Follow Up Flag:** FollowUp  
**Flag Status:** Flagged

Cece,  
I cannot absolve you of the permit requirement to submit a plan on time, certainly not with a hallway conversation. I agreed that you are taking what can be a more productive approach overall, and may take longer than Feb. 1. That can be part of the plan you submit on Feb. 1. The more actual actions you can commit to early in the process, the more likely additional time will appear to be good planning and not foot-dragging. I expect all the plans to include language about adaptive management, and pieces of the overall approach which will take a while to plan and organize in certain Trash Management Areas.

Bottom line, you have to submit a Long-Term Trash Management Plan by Feb. 1, with some real commitments, some of them probably consistent with what you will be doing to meet the June 2014 40% reduction. It would certainly be reasonable to include other schedules and plans, as definite as possible, describing other implementation efforts that require enough preparation, buy in from locals and approvals that they are not ready by Feb. 1, 2014. Definite schedules and deliverable dates will make these components easier for us to accept also. Let me know if this is clear or if you would like to discuss further.

As much definite up-front as possible, including real commitments to immediate implementation of some significant actions, followed by detailed scheduled, mile-posted (is that a word) planning is what I am trying to describe.

---

**From:** Cece Sellgren [<mailto:csell@pw.cccounty.us>]  
**Sent:** Thursday, November 07, 2013 5:25 PM  
**To:** Bowyer, Dale@Waterboards  
**Subject:** Long Term Trash Reduction Plan for Contra Costa County

Dale – This email is to confirm in writing our conversation last week at the State of the Estuary Conference regarding the difficulties of Contra Costa County (County) to complete the Long Term Trash Reduction Plan by the Feb 1, 2014 deadline. As you may recall, I explained that the County has 17 unincorporated communities and I intend to develop community based plans for them that are approved by local committees and eventually the County Board of Supervisors prior to submittal to the Regional Board. You agreed that the County has a more complex social landscape and authorized me to submit an outline of the overall plan, progress made to date on it, and a schedule of completion for milestones and the entire Long Term Trash Reduction Plan on 2/1/14 without penalty, as long as the County continued to meet the schedule.

If this is your recollection of the conversation and still agree to the terms, please reply indicating this. If your recollection is different or you want to add or clarify the terms, please say under what conditions the County may submit the fully completed and Board of Supervisors approved Long Term Trash Reduction Plan after the 2/1/14 deadline. I just want to make sure we are on the same page before I move forward with these assumptions.

Cece Sellgren  
Stormwater Manager  
County Watershed Program

# **Unincorporated Contra Costa County Trash Management Plan 2014 - 2022**

DRAFT

Submitted to the California Regional Water Quality Control Board for  
the San Francisco Bay Region

February 1, 2014

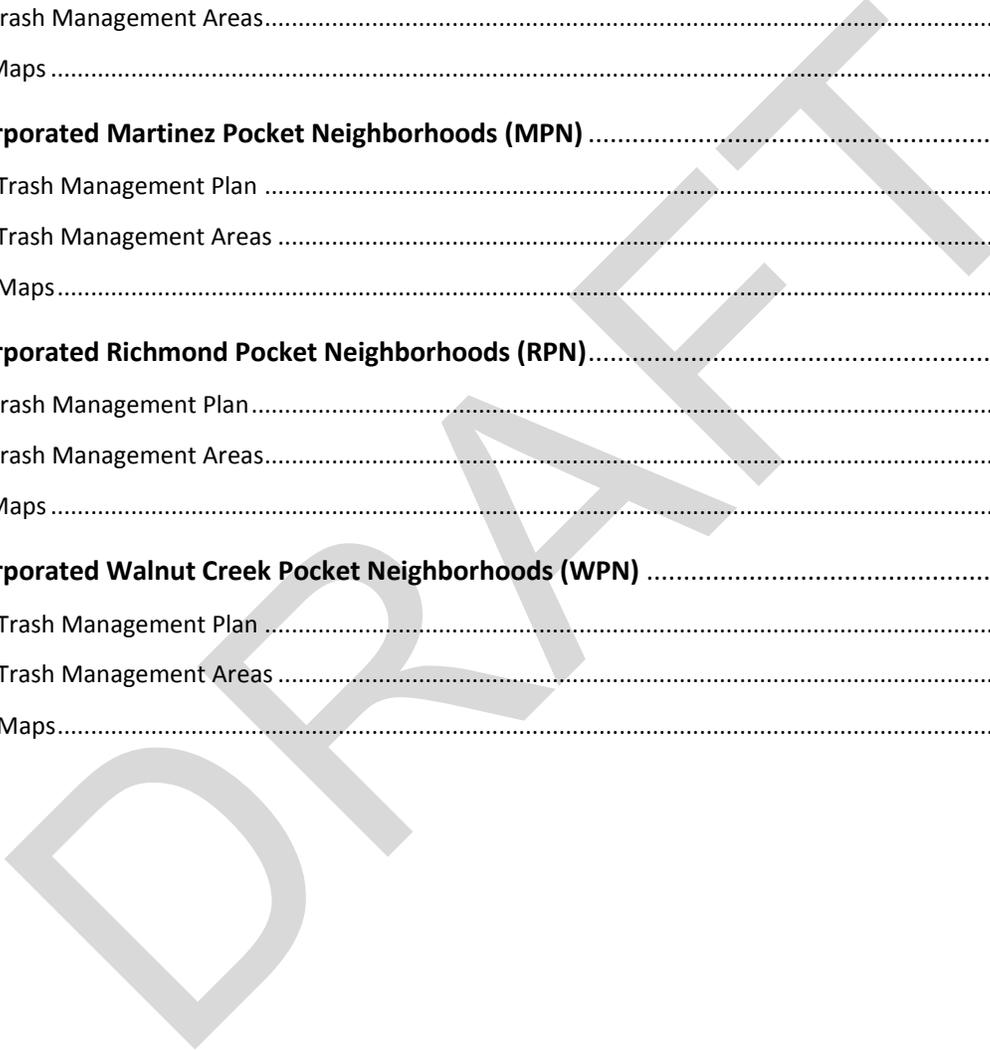
in compliance with Provision C.10 of the Municipal Regional  
Stormwater Permit

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**Unincorporated  
Contra Costa County  
Summary Trash Management Plan  
2014 - 2022**

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region

February 1, 2014

in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

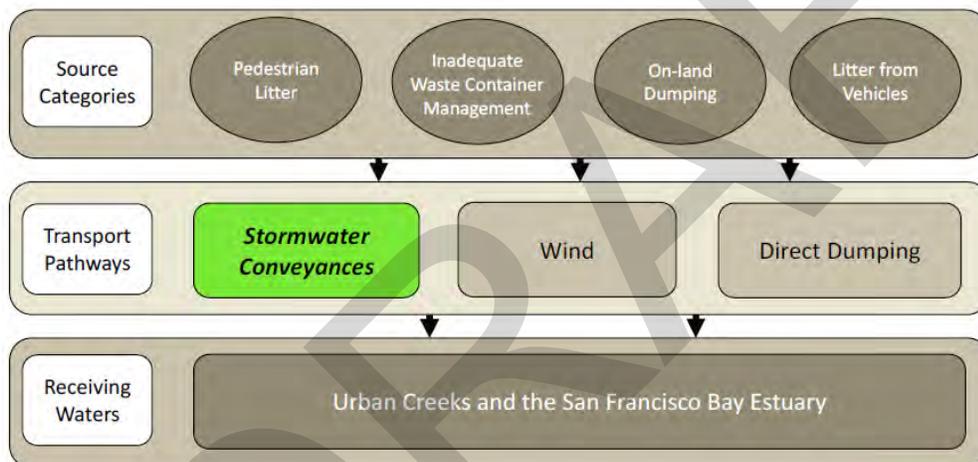
Contra Costa municipalities have prepared Long-Term Trash Reduction Plans (Plans) in compliance with Provision C.10.c. of the Municipal Regional Stormwater Permit<sup>1</sup> (MRP). Each municipal plan describes control measures and best management practices (BMPs) designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022.

### A. Trash Sources, Pathways, and Loadings

**Figure 1** illustrates sources and pathways of trash that enters the region’s creeks and San Francisco Bay. Trash has multiple sources—all of which are episodic and widely dispersed.

In Figure 1, *Stormwater Conveyances* is highlighted because *only this pathway* is subject to MRP trash-reduction requirements. In reality, the other pathways are equally significant, depending on time and location. In practical terms, the pathways are intertwined. For example, on-land clean-ups reduce trash entering storm drains and also reduce wind-blown trash. When visible trash is reduced, litter and dumping from all sources tends to become less frequent and severe.

Figure 1. Trash sources and transport pathways.



Municipalities must balance their commitment to MRP compliance with their commitment to preserving and enhancing local environmental quality and quality of life for their residents. That is, municipalities seek to reduce trash on local streets and roads, and to reduce the *total* amount of trash in their creeks and on their shorelines—in addition to fulfilling the Water Board’s mandate to eliminate trash that flows through storm drains.

For these reasons, Contra Costa municipalities address trash holistically and comprehensively, integrating a variety of strategies, and uses a variety of methods to assess the success of those strategies.

### B. Background for this Plan

MRP Provision C.10 requires the Permittees to reduce trash loads from their storm drains by 40% by 2014, 70% by 2017, and 100% by 2022.

<sup>1</sup> Order R2-2009-0074, issued by the California Regional Water Quality Control Board for the San Francisco Bay Region, became effective on December 1, 2009 and applies to 76 cities, towns, counties, and flood control districts.

Provision C.10.a.ii. required each Permittee to determine a baseline trash load and a method for tracking reductions in trash loads. Working collectively through the Bay Area Stormwater Management Agencies Association (BASMAA)—and in close collaboration with Water Board staff—the Permittees developed methods, including a calculator, for tracking loads and load reductions.

The Permittees used these methods to develop Short-Term Trash Load Reduction Plans by February 1, 2012, and are implementing those plans through July 1, 2014 to achieve the 40% reduction. Progress has been documented in the Permittees' 2012 and 2013 Annual Reports.

Following their review of the Short-Term Plans, Water Board staff requested Permittees to change the methods used to evaluate trash load reductions. Working collectively through BASMAA—and again in close collaboration with Water Board staff—the Permittees developed the framework and planning tools to be used in the Permittees Long-Term Plans.

### **C. Framework for Long-Term Trash Management**

The following 8-step framework was developed<sup>2</sup>:

1. Identify high, medium, and low trash generation areas, based on land use and other geographic data, local knowledge, and field verification.
2. Attempt to identify sources in high and medium trash generation areas to assist in focusing control measures.
3. Prioritize areas and problems/types.
4. Identify options (tools) for dealing with prioritized areas/problems.
5. Define success/goals and measurement type.
6. Select and implement tools.
7. Evaluate success.
8. Modify as needed.

Steps 5 and 7 of this framework acknowledge fundamental challenges presented by Provision C.10—how to define and evaluate success.

### **D. Identifying High-Trash Areas**

To implement the first step of the framework—to identify high, medium, and low trash-generation areas—the Permittees collectively, through BASMAA, developed and calibrated a predictive model of trash generation.<sup>3</sup> Model variables are designated land use and 2010 median household income; the model was calibrated based on trash collected in full-trash-capture devices (BASMAA, 2012a, BASMAA, 2012b).

The Permittees applied the model as follows: The model was used to generate a preliminary map designating very high, high, moderate, and low trash generation areas. Local municipal staff reviewed the preliminary map and identified areas that had incorrect designations based on local knowledge of actual land uses and of trash generation rates (CCCWP, 2013). Specific methods used to verify local trash generation rates are documented in Section 2 below and may include queries of municipal staff or members of the public, reviews of municipal operations data, viewing areas using Google Maps and Street View, application of BASMAA's On-Land Visual Trash Assessment Protocol (BASMAA, 2013), or other methods.

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<sup>2</sup> The framework was developed in a November 1, 2012 meeting at Water Board staff offices and was refined in subsequent meetings with Water Board staff.

<sup>3</sup> "Generation" is understood to be the volume of trash potentially available to be transported from the urban watershed (per acre, per year) into the storm drains in the absence of any control measures and BMPs.

### **E. Trash Management Strategy**

Municipalities delineated Trash Management Areas (TMAs) within their jurisdictions. TMA boundaries are based on land uses, drainage areas, management areas, and/or geographic considerations, and are drawn to facilitate focused and efficient efforts to reduce trash in areas with very high, high, and medium trash generation rates. The rationale for delineating TMAs in the specific municipality, an overview of the municipality's trash management approach, and a description of activities that apply throughout the municipality (including hot spot cleanups, jurisdiction-wide policies, and jurisdiction-wide public outreach) is in Section 3.

Section 4 consists of individual summary plans for each municipal TMA. Each TMA plan describes the key TMA characteristics, summarizes control measures, and describes methods for evaluating effectiveness of efforts within the TMA.

### **F. Assessing Effectiveness**

Each TMA summary plan includes methods to evaluate effectiveness. As indicated in the framework, the primary purpose of these evaluations is to facilitate continuous improvement of control measures within the TMA. Continuous improvement requires TMA-specific interpretation of results, including consideration of factors that may have contributed to success, or lack of success, at that locale during the evaluation period. Evaluations of effectiveness and adjustments to the TMA summary plans will be included in each annual report.

A secondary purpose of the evaluation methods is to contribute evidence toward an annual general evaluation of progress toward MRP goals. Such an evaluation will be based on weight-of-evidence, using the results from TMA-level evaluations of the effectiveness of specific actions within the TMA, and of the total of TMA-level actions, during the reporting period. A jurisdiction-wide assessment of progress will be compiled by combining this TMA-level evidence with the results of hot spot cleanups, visual assessments of creeks and shorelines, and observations by local residents and cleanup participants. As additional outcome-based assessment methods are devised and pilot tested—regionally and statewide—information derived from these methods will be incorporated into annual progress assessments.

## **2. County of Contra Costa Trash Management Overview**

### **A. Characteristics Affecting Trash Generation and Management**

**The Long Term Trash Reduction Plan presented in this document represents a draft plan.** Because of the size and complexity of unincorporated Contra Costa County, the County Watershed Program requested and received permission to submit the Long Term Trash Reduction Plan due February 1, 2014 as a draft plan. Please see the attached email conversation between Cece Sellgren, Stormwater Manager for Contra Costa County, and Dale Bowyer, of the San Francisco Bay Regional Water Quality Control Board.

Contra Costa County Watershed Program's trash planning strategy is to develop community specific plans for most unincorporated communities (the drafts of which are included in this submittal). In many cases the trash reduction plan is combined for adjacent or proximate communities. The vast rural area of the County also has a combined trash reduction plan. The community trash reduction plans (Community Trash Plans) submitted in this plan will be shared with County staff from many Departments, members of the Board of Supervisors and their staff, and members of each community for their input. At the same time, the County Watershed Program has initiated a cost analysis of the proposed trash reduction measures outlined in this plan. The County Watershed Program will engage County staff and community

members to refine the trash reduction plans to outline a realistic path, **within developed budgets**, towards meeting the trash goals and requirements outlined by the San Francisco Bay Regional Water Quality Control Board. These Community Plans will be approved by community Municipal Advisory Councils (where they exist), the Transportation, Water, and Infrastructure Committee (a committee of the County Board of Supervisors) and, finally, the Contra Costa County Board of Supervisors. **The outreach, planning, and approval process to complete the Unincorporated Contra Costa County Final Long Term Trash Reduction Plan will likely take one year to complete.**

The Long Term Trash Plan will focus initially on the five most trash challenged communities within unincorporated Contra Costa County communities: North Richmond, the Richmond Pocket Neighborhoods, El Sobrante, Rodeo, and Bay Point, as well as those rural roads with the most severe illegal dumping and litter problems. The initial goal within these communities and road facilities is to reduce the trash load rate to medium (yellow on the trash load maps) by July 1, 2017.

Lessons learned in the initial implementation within trash challenged communities and County roads will inform efforts for those communities dominated by lower trash loads. Trash reduction efforts will begin in earnest in FY 17/18 in these cleaner communities with the goal of achieving “no visual impact” from trash by 2022. For the trash challenged communities, the County will assess success of earlier efforts to reduce trash loads, and implement new and/or additional measures to achieve “no net visual impact” by 2022.

Demographic data for unincorporated Contra Costa County is presented in Table 2-1. Demographic data for communities with specific Community Trash Plans will be discussed within their plan.

<b>Table 2-1. 2010 Census Data</b>	
<b>Population</b>	<b>1,049,025</b>
<b>Under 18</b>	<b>24.9</b>
<b>18-24</b>	<b>8.3</b>
<b>25-44</b>	<b>26.5</b>
<b>45-64</b>	<b>27.9</b>
<b>65 and older</b>	<b>12.4</b>
<b>Median household income</b>	<b>\$78,187</b>

Residents within the unincorporated communities of Contra Costa County have a wide range of incomes, from \$36,515 on Bethel Island in the north eastern part of the County to \$241,250 in the south west part of the County.

Table 2-2 presents summarizes land uses within unincorporated Contra Costa County.

<b>Table 2-2. 2005 Land Uses (ABAG)</b>		
<b>Land Use Category</b>	<b>Jurisdictional Area</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	<b>786</b>	<b>0.44</b>
<b>Industrial</b>	<b>4,107</b>	<b>2.29</b>
<b>Residential</b>	<b>19,079</b>	<b>10.66</b>
<b>Retail</b>	<b>204</b>	<b>0.11</b>
<b>K-12 Schools</b>	<b>184</b>	<b>0.10</b>
<b>Urban Parks</b>	<b>211</b>	<b>0.12</b>
<b>Other</b>	<b>15,4453</b>	<b>86.28</b>

Unincorporated Contra Costa County (County) is made up of 34 Census Designated Places, as well as other smaller communities. For purposes of the Long Term Trash Reduction Plan, County Watershed Program staff has combined several adjacent and proximate Census Designated Place communities into larger community planning areas. The County’s Long Term Trash Reduction Plan is broken into chapters to discuss these communities. Each chapter will address trash on a community basis. In addition to the community chapters, this plan will also include a chapter for the vast rural areas of unincorporated Contra Costa County. Those areas not addressed in community plans are discussed in the Rural Areas Plan.

The Long Term Trash Management Plan will not address non-jurisdictional properties owned by regional special districts (like East Bay Regional Park District), State of California (like Mt Diablo Park and state and interstate freeways), the federal government (like Port Chicago Military Ocean Terminal), and utilities (like East Bay Municipal Utility District). The vast array of properties owned by linear utilities and railroads that cross through throughout County are non-jurisdictional as well.

**B. Drainage System and Water Resources Affected by Trash**

Portions of almost every Contra Costa County watershed lie within unincorporated County. The County’s drainage system is dominated by three land forms: Mt Diablo in the center of the County, coastal hills in the western part of the County, and coastal hills in the northern part of the County. The Contra Costa County Watershed Atlas (2003) delineates 16 drainages. There are unincorporated areas in all 16 drainages. The community trash plans will describe drainage patterns associated with their communities.

**C. Trash Problems and Priorities**

EOA, Inc. under contract to BASMAA prepared draft trash load maps for each municipality subject to the NPDES trash requirement (C.10). EOA also prepared a trash load assessment protocol to verify the produced maps. This protocol used ocular estimates of trash load based on sample pictures and verbal descriptions of the four trash load rate categories. The County used EOA’s trash load assessment protocol to verify the draft trash load maps. Staff from the County Watershed Program trained themselves on the visual assessment protocol. Most of the 17 unincorporated communities discussed in the County’s plan were field verified on foot or in a slow moving car at the parcel level. Many of the County roads through rural areas (rural roads) or connecting cities and/or communities (expressways) were also field verified via a slow moving car. Most rural areas, especially ranchland, farms, and open space were not verified in

the field. Use of Google Maps was largely ineffective for rural areas, due to the lack of the “street view” feature in these areas. The field verification process took four staff members working full time for ten weeks to complete. Additional time was needed to make corrections of the maps in the geographical information system (GIS) database. All GIS corrections to the base map made by EOA were completed by County Public Works Dept staff. EOA provided the non-jurisdictional GIS layer.

County Watershed Program staff also coordinated with other County staff, particularly the Maintenance Division of the Public Works Department in regards to trash load verification. But due to the time constraints and work load, staff did not conduct significant outreach with other County Departments or with citizen groups to verify the trash load maps. County coordination and community outreach will be conducted after submittal of the Long Term Trash Reduction Plan to refine it.

The County delineated four trash load categories: low (0-5 gallons/acre/year), moderate (5-10 gallons/acre/year), high (10-50 gallons/acre/year), and very high (50-150 gallons/acre/year) as established by EOA. Ultimately the County combined the high and very high categories into one category – high. The reason behind combining the two was due to the high frequency in which parcels coded with one of the two trash loads occurred next to each other, often mingling; and trash reduction strategies developed for parcels with the same land use for both high and very high trash load levels are essentially the same. Table 2-3 summarizes the trash load by land use, while Table 2-4 summarizes the trash load by community.

**Table 2-3 summarizes trash generation by land use for all of unincorporated Contra Costa County:**

<b>Table 2-3. Trash Generation Category by Land Use</b>								
<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>Very High</b>	<b>119</b>	<b>9</b>	<b>0</b>	<b>45</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>57</b>
<b>High</b>	<b>1,717</b>	<b>35</b>	<b>38</b>	<b>655</b>	<b>111</b>	<b>5</b>	<b>2</b>	<b>871</b>
<b>Medium</b>	<b>3,707</b>	<b>523</b>	<b>1082</b>	<b>1593</b>	<b>139</b>	<b>72</b>	<b>167</b>	<b>131</b>
<b>Low</b>	<b>174,865</b>	<b>433</b>	<b>3599</b>	<b>17261</b>	<b>28</b>	<b>107</b>	<b>42</b>	<b>153395</b>

Table 2-4 summarizes the trash generation categories for each community discussed in the Unincorporated Contra Costa County Trash Management Plan.

<b>Table 2-4. Trash Generation Category by Community</b>					
<b>Unincorporated Community</b>	<b>Jurisdictional Area (Acres)</b>	<b>Trash Generation Category</b>			
		<b>Very High</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
Alamo/Diablo/Blackhawk	12,410	0	0	159	12,251
Bay Point	2,842	12	346	616	1,868
Bethel Island	3,516	1	3	145	3,368
Byron	4,085	13	13	55	4,004
Clyde	83	0	0	4	79
Crockett/Port Costa	2,089	0	155	148	1,786
Discovery Bay	5,532	0	3	43	5,485
El Sobrante	1,698	0	93	319	1,287
Kensington	555	0	2	5	548
Knightsen	3,140	0	6	9	3,126
North Richmond	744	18	186	377	163
Rodeo	3,412	33	34	343	3,002
Rural Areas	132,964	40	593	538	131,792
Unincorporated Antioch Neighborhoods	622	0	20	197	405
Unincorporated Concord Neighborhoods	189	0	0	6	183
Unincorporated Martinez Pocket Communities	2,856	1	18	312	2,525
Unincorporated Richmond Neighborhoods	1,261	0	245	373	643
Unincorporated Walnut Creek Neighborhoods	2,407	0	0	58	2,349
<b>Grand Total</b>	<b>180,407</b>	<b>118</b>	<b>1,717</b>	<b>3,707</b>	<b>174,854</b>

North Richmond, the Richmond Pocket Neighborhoods, Rodeo, El Sobrante, and Bay Point are the most trash challenged communities within Contra Costa County. **These neighborhoods, plus County roads with high trash loads, will be the primary focus of early trash reduction efforts from 2014 through 2017.** Lessons learned from these early efforts will inform County staff on how to implement the Trash Reduction Plans for the remainder of the unincorporated communities and rural areas.

### 3. Contra Costa County Trash Management Strategy

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

Each Community Trash Management Plan will discuss demographic and land use data, evaluate sources and routes of trash generation and transmission, and demarcate Trash Management Areas (TMA's). Trash Management Areas are based upon the land use (as defined by the Contra Costa County General Plan, 2005) and the trash load generated. However the exact delineation of TMA's is customized for each community.

Each community Trash Management Plan will outline demographic and land use data, evaluate sources and routes of trash generation and transmission, and demarcate Trash Management Areas (TMA's). To facilitate cohesion of TMA's and trash reduction strategies across the different County communities, County Watershed Program staff developed a table to outline trash management strategies within each community plan. In theory each cell represents the suite of trash reduction actions taken for a single TMA. When a TMA includes parcels with the same land use, but mixed trash loads, the trash reduction strategies for the higher trash load is used. If the TMA includes more than one land use, then trash reduction actions from both land uses are used on all properties within the TMA. Unfortunately, due to the unique characteristics of each community, TMA numbers do not match across communities. For example TMA 1 in Bay Point does not discuss the same land uses and trash loads as TMA 1 in Knightsen. In some cases trash reduction activities are unavailable in certain areas of communities. For example, the community of Byron has very few roads with a curb and gutter so street sweeping is not an option. In reality each community's set of TMA's reflects conditions unique to that community

**Table 3.1 - Control Measures by Trash Load Level Recommended for Land Uses**

Land Use <sup>1</sup>	Low (Green)	Medium (Yellow)	High (Red/Purple)
	<b>Residential [Single Family]</b>	Street Sweeping, Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education	Enhanced Street Sweeping <sup>2</sup> Product Ban (Styrofoam/ Plastic Bags), Community Outreach/Education
<b>Multi-Unit Residential</b>	Street Sweeping, Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education	Enhanced Street Sweeping, Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, Trash Bin Management	1) Street Sweeping, Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, Trash Bin Management, and Full Trash Capture Devices, or 2) Enhanced Street Sweeping, Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, Trash Bin Management And "Love Your Block"

Land Use <sup>1</sup>			
	Low (Green)	Medium (Yellow)	High (Red/Purple)
<b>Commercial</b>	Street Sweeping, Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, Code Enforcement, Trash Bin Management	Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, Code Enforcement, Trash Bin Management, <b>Enhanced Street Sweeping</b>	1) Street Sweeping, Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, Code Enforcement, Trash Bin Management, And <b>Full Trash Capture Devices</b> , or 2) Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, Code Enforcement, Enhanced Street Sweeping, Trash Bin Management, <b>(Enhanced Storm Drain Inlet Management Or Partial Trash Capture Devices)</b>
<b>Rural Roads &amp; Trails<sup>3</sup></b>	Product Ban (Styrofoam/Plastic Bags),	Product Ban (Styrofoam/Plastic Bags), <b>Covered Load Enforcement</b>	Product Ban (Styrofoam/Plastic Bags), Covered Load Enforcement, <b>On-Land Trash Cleanups</b> , Covered Load Enforcement, Anti littering and Illegal Dumping Enforcement <b>(e.g. flash cameras)</b>
<b>Industrial</b>	Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, Code Enforcement, Street Sweeping	Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, Code Enforcement, <b>Enhanced Street Sweeping, and Covered Load Enforcement</b>	1) Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, Enhanced Street Sweeping, Covered Load Enforcement, And <b>Full Trash Capture Devices</b> , or 2) Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, Enhanced Street Sweeping, Covered Load Enforcement, and <b>Trash Bin Management</b>
<b>Open Land<sup>4</sup></b>	Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education	Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, <b>On-Land Trash Cleanups, Creek, Channel, Shoreline Cleanups,</b>	Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, On-Land Trash Cleanups, Covered Load Enforcement, Creek, Channel, Shoreline Covered Load Enforcement Anups <sup>7</sup> , <b>Code Enforcement Aide</b>
<b>Institutional<sup>5</sup></b>	Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education	Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, <b>Creek, Channel, Shoreline Cleanups, Code Enforcement, and Trash Bin Management</b>	1) Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, Creek, Channel, Shoreline Cleanups, Covered Load Enforcement, Code Enforcement and <b>Full Trash Capture Devices</b> , Or 2) Product Ban (Styrofoam/Plastic Bags), Community Outreach/Education, Creek, Channel, Shoreline Cleanups, Covered Load Enforcement, Code Enforcement Trash Bin Management, And <b>On-Land Trash Cleanups, Covered Load Enforcement</b>

**Legend:**

1. "Land Use" is according to Contra Costa County General Plan (2005) designations.
2. **Yellow highlighted** trash management strategies represent new or increased trash management strategies relative to those of the lower trash load with the same land use
3. *Rural Roads and Trails* refers to those with trash loads greater than surrounding land uses.

4. *Open Land* refer to rural residential and agricultural land, and regional open space (jurisdictional); Federal and State Lands and East Bay Regional Park District lands are non-jurisdictional
5. *Institutional* land uses refer to schools, colleges, churches, hospitals, nursing homes, and urban parks.

**A. Delineation of Trash Management Areas**

County Watershed Program staff generated land use maps with the trash load overlaid over it through hatching. High and Very high trash loads were combined. This allowed staff to approach demarcation of TMAs by land use and trash load. In cases where trash load was mixed, TMAs were developed that encompassed two or more trash loads. In these situations, the set of trash management strategies used for the TMA was based upon the highest trash load. In situations where one or two parcels had a higher trash load than all other parcels within the TMA, the lower trash load was used. In cases where land uses were mixed, TMAs were developed that encompassed multiple land uses. In these situations the trash management strategies for each land use was combined. Where one or two parcels had a different land use than the other parcels in a proposed TMA, the dominant land use was used. Where trash loads and land uses were both combined, the trash management strategy for the TMA reflected a combination of those for each land use for the highest trash load. Efforts were made to prevent small, isolated pockets of TMAs. Efforts were made to keep the number of TMAs between 4 and 8 per community, depending upon size of the community and complexity of land uses. In some areas specific trash management strategies could not be implemented (for example, street sweeping where there is no curb or gutter on the road) within a TMA. In these cases that trash reduction strategy was removed from the suite of actions. Finally community specific knowledge was used in some communities to refine the suite of trash reduction strategies in specific TMAs.

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each of the 17 communities (Community Trash Plans) are presented in subsequent sections of this trash reduction plan. Within each Community Trash Plan, Trash Management Areas are delineated, control measures are outlined and discussed, detailed implementation plans are presented, and methods of assessing the effectiveness of control measures are discussed.

**C. Creek and Shoreline Cleanups**

**Table 3-2. Creek and Shoreline Cleanups**

Location	Description	Cleanup Frequency			
		Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Location 1</b>	EBRPD-Lone Tree – Coastal Cleanup		X	X	X
<b>Location 2</b>	EBRPD-Bay Point – Coastal Cleanup		X	X	X
<b>Location 3</b>	EBRPD-Ecley Pier – Coastal Cleanup		X	X	X
<b>Location 4</b>	EBRPD-Point Pinole – Coastal Cleanup		X	X	X
<b>Location 5</b>	EBRPD – Mtz Shoreline – Coastal Cleanup		X	X	X
<b>Location 6</b>	Brentwood at Creekside – Coastal Cleanup		X	X	X
<b>Location 7</b>	Rodeo creek at 4th st. – Coastal Cleanup		X	X	X
<b>Location 8</b>	Pittsburg at River View Park – Coastal Cleanup		X	X	X

<b>Location 9</b>	Orinda Creeks - – Coastal Cleanup		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 10</b>	Alhambra Valley – via Friends of Alhambra Creek		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 11</b>	Kellogg Creek d/s of SR 4 – via Friends of Marsh Creek		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 12</b>	San Pablo Creek near the El Sobrante Library – via SPAWNERS		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 13</b>	Willow Creek between Hanlon Dr and Willow Pass Rd		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 14</b>	Grayson Creek u/s of Center Ave, Pacheco – Trash Hot Spot Monitoring Site		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 15</b>	Rodeo Creek d/s of 7 <sup>th</sup> Ave, Rodeo – Trash6Hot Spot Monitoring Site		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 16</b>	Wildcat Creek, at Verde School?, North Richmond - Trash Hot Spot Monitoring Site		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 17</b>	San Pablo Cr u/s of the El Sobrante Library, El Sobrante - Trash Hot Spot Monitoring Site		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 18</b>	Marsh Creel u/s of Delta Rd, unincorporated Brentwood/Oakley - Trash Hot Spot Monitoring Site		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 19</b>	Riverside Ditch, Bay Point - Trash Hot Spot Monitoring Site		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 20</b>	San Pablo Creek u/s of 3 <sup>rd</sup> St, North Richmond - Trash Hot Spot Monitoring Site		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 21</b>	Any others? Disco Bay, Delta Islands, via FoMC?		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 22</b>	Bollinger Creek at various locations high within the watershed along Bollinger Canyon Rd		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 23</b>	Mt. Diablo Creek u/s of Kirker Pass Rd and its immediate tributaries.		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 24</b>	Mt. Diablo Creek u/s of Bailey Rd		<b>X</b>	<b>X</b>	<b>X</b>

The County Watershed Program currently funds a competitive grant program that distributes \$80,000 per year to “Friends of Creek” groups, watershed coordinators, and other non-profit organizations throughout the County to provide a variety of stormwater services. Since 2010 the groups have conducted dozens of in-stream cleanups within their watersheds. Many of these events are within unincorporated Contra Costa County. Table 3-2 reflects many of these sites. **This list is likely incomplete.**

The County contracts with the Watershed Project to coordinate the County-wide efforts for the Coastal Clean-up day. These sites are located in both cities and unincorporated areas. Those Coastal Cleanup sites that are at least partially within unincorporated Contra Costa County are listed. In 2013 23 sites were cleaned-up throughout Contra Costa County, 13 of which were located in unincorporated areas. The County will continue to coordinate this event through a contractor for the foreseeable future.

Contra Costa County has five trash “hot spot” monitoring sites in unincorporated County. The Contra Costa County Flood Control and Water Conservation District, which is also staffed by the County

Watershed Program, has an additional six sites. Three of these are also located in unincorporated County. This creates a total of nine sites which can be used for in stream monitoring to determine effectiveness of trash reduction strategies in a community. The location of the “hot spot” monitoring sites will be evaluated in terms of how well they will be in assessing trash reduction strategies upstream. Monitoring at some sites may be discontinued (if the next NPDES Permit does not require continuation of “hot spot” monitoring at the same site). Additional in-stream trash monitoring sites may be established as well.

#### **D. Trash Reduction Policies**

Contra Costa County committed in the Short Term Trash Reduction Plan to enact an ordinance to prohibit the free distribution of single use plastic bags and polystyrene foam food and beverage containers. Members of the Board of Supervisors wanted these ordinances to be able to spread easily into adjacent cities in order to create economic parity across the County. Unfortunately there was insufficient desire by most cities to pursue these ordinances at that time. At the same time information conveyed by several southern California cities indicated that a County-wide approach would be politically difficult and costly. The County chose to postpone the development of these ordinances to the Long Term Plan.

For the Long Term Plan, the County proposes to implement the single use plastic bag ordinance developed by the West County Integrated Waste Authority (AKA RecycleMore) within its jurisdiction (North Richmond, the Richmond Pocket Neighborhoods, and El Sobrante) by July 1, 2014. The County will adopt the foam polystyrene food container ordinance, currently in development by RecycleMore, within six months of its approval by the Board of Directors.

The County will pursue a single use plastic bag ordinance by July 1, 2017 and a foam polystyrene food and beverage container ordinance by July 1, 2022 for the remainder of the unincorporated areas of the County, and enact it by July 1, 2017. This ordinance will be based on RecycleMore’s ordinance, so as to achieve consistency within unincorporated communities. It is not known at this time if other cities will join the effort.

#### **E. Public Education, Outreach, and Community Involvement**

Through the CCCWP, the Permittees conducted a “Litter Travels, But It Can Stop with You” multi-year campaign beginning in FY 2009-2010. The multi-media campaign was designed to educate Contra Costa’s citizens about the impacts of trash and litter in the County’s waterways and how they can help address this problem and included TV spots, billboards, posters at BART stations, placards on transit buses, print ads and updates to the CCCWP website. Other outreach included more than 10,000 letters to County residents, contact with youth sports leagues, outreach to the 17 school districts in the County, and distribution of flyers to students in 5 of those districts. Pre and post-campaign surveys were conducted.

The County has not fully developed the education and outreach campaign that will accompany all trash reduction strategies. The County may continue with the “Litter Travels” campaign individually or with other Contra Costa cities through the Contra Costa Clean Water Program. The County may buy into BASMAA’s “Be the Street” campaign either individually or with other cities to target youth and young adults.

In some of the most trash challenged neighborhoods the County will implement a program developed by the City of Richmond called “Love Your Block.” This program will combine targeted outreach to specific residential neighborhoods on a block by block basis to clean up existing trash and instill a sense of pride and ownership of the neighborhood. The County proposes to coordinate County Maintenance workers, trash hauler franchises, County code enforcement officers, local non-profits, and other County staff to clean-up parcels and streets in some of the most trash challenged neighborhoods. The County will send each notification in advance announcing the cleanup opportunity. On the day of the clean-up the County

will arrange for large dumpsters and recycle bins to be placed in a central location. Volunteers from the community will assist residents in removing items no longer wanted into the appropriate bin, conduct weed abatement as requested and help residents to clean-up trash on their property, common areas, and road right of way. A neighborhood BBQ will help create a positive atmosphere and encourage participation.

Subsequent to the cleanup, Code Enforcement officers will regularly patrol the cleaned up neighborhood and engage residents in maintaining a generally clean and trash free environment. Where needed enforcement of County codes will be implemented. Richmond's staff have indicated that a relatively trash free neighborhood can be maintained two to three months after the initial clean-up. Subsequent clean-up events are less intense and establish a normative trash free state in that neighborhood.

The County proposes to implement Love Your Block in selected neighborhoods in North Richmond, Richmond pocket neighborhoods, and Bay Point starting in 2014.

The County plans to join with other cities to meet with local school districts to educate and reach out to students. There are 14 different school districts within Contra Costa County, and all have students from unincorporated areas. These meetings will attempt to encourage the schools to not only keep their own properties free of trash, but also make efforts to reduce trash in the areas surrounding them (the halo effect). These meetings will also explore opportunities to incorporate trash issues into the existing curriculum and school activities. In some schools, especially those within trash challenged communities, the County and/or cities within the district may offer to help pay for additional academic programs to enhance existing curricula. Coalitions with cities, choice of educational curricula, and agreements made with school districts will take years to fully implement throughout the County. The County Watershed Program will focus on school districts serving students from trash challenged communities for implementation prior to July 1, 2017. Agreements with the remainder of the school districts will be implemented by 2022.

In addition, Contra Costa County participates in a number of other education and outreach activities through the Contra Costa Clean Water Program.

Through the CCCWP, Permittees also support the work of the California Product Stewardship Council (CPSC) and the Green Business Program. Both of these organizations address trash through source reduction and waste management. CPSC's mission is to promote Extended Producer Responsibility (EPR), which is based on shifting California's product waste management system from one focused on government funded and ratepayer financed waste diversion to one that relies on producer responsibility in order to reduce public costs and drive improvements in product design that promote environmental sustainability. The CPSC's position is that the producers should have the primary responsibility to establish, fund, and manage end of life systems for their products. CPSC has advocated for EPR legislation affecting a wide-range of products including pharmaceuticals, batteries, paint, sharps, and mattresses.

The Green Business Program, of which CCCWP is the largest contributing Partner in Contra Costa County, is designed to publicly recognize private businesses and public agencies that take extra steps, beyond baseline compliance with environmental regulations, to prevent pollution and save resources (e.g., conserve water and energy, reduce waste through reuse and recycling, prevent stormwater pollution through good housekeeping practices, etc.). To date, 530 businesses have been certified as Green Businesses in Contra Costa County. Currently, 334 businesses are certified including a large number of auto repair shops, landscapers, waste haulers, printers, grocery and hardware stores, solar panel installers, and home remodelers. Numerous public agencies have also been certified. Municipal stormwater and

Publicly Owned Treatment Works (POTW) inspectors assist the Green Business program by encouraging potential Green Business candidates. CCCWP staff serves on the Green Business Program's "Partners Committee" and actively engages in development of the Green Business checklist (i.e., the stormwater pollution prevention section that each business needs to complete before becoming certified as a green business). Some of the more relevant actions that businesses have undertaken to become certified or recertified that also reduce trash loads include the following: commit to reduce waste in a minimum of five ways, maintain parking areas free of litter, keep dumpsters covered when not in use, ensure tarps for covering loads are in good condition and used correctly, and purchase a minimum of three recycled-content products.

To address trash from illegal dumping, the CCCWP operates a 1-800-No-Dumping hotline. The hotline is used by both businesses and the public to report potentially illegal dumping activities. All hotline calls are referred to the appropriate municipality for follow-up and, if necessary, enforcement. Calls have been logged since FY 2004-2005. Calls to the hotline are combined with calls that come directly to municipalities and Contra Costa County Hazardous Materials (Hazmat) Division and are tracked and documented annually in the municipal annual reports.

The CCCWP will continue to identify new partners and areas of outreach for source reduction and measures to reduce trash in the environment. CCCWP is currently in contact with California Department of Transportation (Office of Stormwater Program Development) and hopes to identify trash load reduction projects in Contra Costa County that would be financially and strategically feasible for all involved parties. CCCWP has also made contact with the California Highway Patrol, Contra Costa County Solid Waste Authority, and a number of transfer stations to potentially develop additional outreach materials to reduce litter from uncovered loads.

#### **F. Jurisdiction-wide Progress Assessment and Continuous Improvement**

The primary method for determining the effectiveness of trash reduction strategies implemented within a trash management area will be the use of BASMAA's On-Land Visual Trash Assessment Protocol (BASMAA, 2013). This method will be used on a limited basis to verify that specific on-the ground trash reduction strategies are effective and to measure the trash load rate subsequent to the implementation of the trash reduction strategy to determine the interval needed to achieve the desired level of trash within the area. In most cases the desired level will be "no visual impact" or green on the trash load maps. But for more trash challenged communities, the initial goal will be to reduce the trash load to "medium" or yellow on the trash load maps. Once a neighborhood or community has reduced their trash load to medium, the County will explore what trash reduction strategies will be required to achieve "no visual impact."

The County will likely establish transects within representative areas of the community to sample the community's different land uses and trash loads. The number of transects per community will be developed at a later date. The number and location will be developed based upon the trash load complexity of the community's land uses and trash loads. At each transect County staff, contractors, or trained volunteers will implement the BASMAA 2013 protocol and fill out data sheets, enter the data into geo-rectified databases for analysis. The frequency of sampling will be at least once per year. In areas of active trash reduction activities (for example, Love Your Block locations), sampling frequency may be as high as weekly. This data will help inform the effectiveness and cost effectiveness of trash reduction strategies.

The County will also utilize some existing and future trash hot spot creek monitoring locations. These sites will be strategically placed to measure the effectiveness of specific trash management strategies. Others will be designed to measure long term trends. The level of effort required to implement trash hot

spot creek monitoring will limit the number of locations. The number and specific locations will be developed over the next year.

#### **4. Community Specific Trash Management Plans**

##### **A. TMA-Specific Plans**

17 community specific trash management plans, plus a trash management plan for the unincorporated rural areas are attached.

#### **5. References**

BASMAA 2012a. Bay Area Stormwater Management Agencies Association. Trash Generation Rates for San Francisco Bay Area MS4s (Draft Final). Presentation to the BASMAA Trash Committee, August 2012. Prepared by EOA, Inc.

BASMAA 2012b. Baseline Trash Generation Rates, Preliminary Calibration of Modeled Results, Presentation to BASMAA Trash Committee, September, 2012. Prepared by EOA, Inc.

BASMAA 2013a. Visual On-Land Trash Assessment Protocol for Stormwater, Version 1.0 (Draft). April 30, 2013. Prepared by EOA, Inc.

CCCWP, 2013. Contra Costa Clean Water Program. Long-Term Trash Load Reduction Plan Development—Trash Generation Map Refinements. Technical Memorandum, May 20, 2013. Prepared by EOA, Inc.

DRAFT

**Alamo, Diablo, and Blackhawk  
Trash Management Plan  
2014-2022**

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

See Section 1 of the County-wide introduction chapter for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra Costa County's long term trash plan.

## 2. Communities of Alamo, Diablo, and Blackhawk Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Alamo, Diablo, and Blackhawk are prosperous bedroom suburbs within south central Contra Costa County, nestled into the western foothills of Mount Diablo. None of these communities has significant sources of trash generation, nor do they have anything greater than medium-trash load levels in their pockets of institutional and commercial land uses. Trash sources tend to be associated with incidental littering.

Demographic data from the 2010 census is presented in Table 2-1.

Category	Value
<b>Population</b>	6560
<b>Under 18</b>	6560
<b>18-24</b>	1316
<b>25-44</b>	3841
<b>45-64</b>	10240
<b>65 and older</b>	4424
<b>Median household income*</b>	<b>\$154,075</b>

\* This represents the average of the median income of the 4 census-designated areas that represent this community.

Table 2-2 presents summarizes land uses within Alamo, Diablo, and Blackhawk in unincorporated Contra Costa County:

Land Use Category	Jurisdictional Area	% of Jurisdictional Area
<b>Commercial and Services</b>	114.82	0.9%
<b>Industrial</b>	27.39	0.2%
<b>Residential</b>	5871.78	47.3%
<b>Retail</b>	29.64	0.2%
<b>K-12 Schools</b>	85.53	0.7%
<b>Urban Parks</b>	17.49	0.1%
<b>Other</b>	6263.17	50.5%

**B. Drainage System and Water Resources Affected by Trash**

Alamo, Diablo, and Blackhawk are within the San Ramon Creek Watershed which, in turn, flows into Walnut Creek. Alamo is crossed by several unnamed branches of San Ramon Creek that pass through it from the western side of the watershed, while Diablo has a two unnamed branches that flow through it from the eastern side. Blackhawk is crossed by several branches of Green Valley Creek and by Sycamore Creek. About 75% of the creek channels are natural and the remainder of them are concrete-lined.

Alamo is the only community among the three with a storm water drainage network. Diablo and Blackhawk have no curb and gutter system and instead have swales and roadside ditches that lead to Sycamore or Green Valley Creek to accommodate storm drainage.

**C. Trash Problems and Priorities**

Alamo, Diablo, and Blackhawk have negligible trash problems due to their community demographics and predominant land use: single-family residential. Alamo has monthly street sweeping, while Blackhawk has private litter abatement crews who maintain their commercial district, Blackhawk Plaza.

Table 2-3 summarizes trash generation by land use:

<b>Table 2-3. Trash Generation Category by Land Use</b>								
<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>High/Very High</b>	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00
<b>Medium</b>	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00
<b>Low</b>	159.04	68.37%	0.69%	0.00%	17.05%	7.40%	6.49%	159.04

**3. Alamo, Diablo, and Blackhawk Trash Management Strategy**

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The strategies discussed below are based on strategies developed for areas in unincorporated Contra Costa County. The strategies are determined based on the trash load, the land use, and the sources generating the trash.

**A. Delineation of Trash Management Areas**

Trash Management Areas (TMAs) were determined, based on their trash management loads and their associated land use(s). For Alamo, Diablo, and Blackhawk, the TMA code is ADB. There are two TMAs for Alamo, Diablo, and Blackhawk, ADB-1 and ADB-2, whose characteristics are summarized in Table 3.1 below, and are described in Section 4.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
ADB-1	12,230.34	0.00%	0.00%	0.05%	99.95%
ADB-2	179.47	0.00%	0.00%	85.17%	14.83%

- **ADB-1** - Medium trash level areas, mostly in the unincorporated communities of Alamo and Diablo. Composed of small, discontinuous units of institutional and commercial land uses.
- **ADB-2** – Low trash-load portion of this community, mostly designated as Residential, with a few Multi-unit Residential parcels

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

Alamo, Diablo, and Blackhawk are unincorporated communities in south-central Contra Costa County. They are largely composed of open space and single family residential uses, along with small commercial, institutional, and multi-family residential areas, and rural roads. In terms of trash generation, Alamo, Diablo, and Blackhawk have few issues. They have small, discontiguous areas generating a medium amount of trash, with a great majority of the planning area generating low levels of trash. The trash management areas are broken down according to those generating high, medium or low levels of trash by their land use. In general, commercial and institutional areas have been grouped together and those having medium trash levels are ADB-1 and single family and multi-family residences have been grouped together and are associated with ADB-2.

**C. Trash Reduction Policies**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of Contra Costa County’s status and implementation of product bans including plastic bags and polystyrene for the unincorporated portions of the county.

**D. Public Education, Outreach, and Community Involvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of the Contra Costa County’s public education, outreach, and public involvement for the unincorporated portions of the county.

Public education and outreach activities would be community-specific and community-based in orientation. In Alamo outreach, education and community involvement efforts would be two-fold: 1) partnering with the Alamo Municipal Advisory Council to craft a community specific outreach program; 2) conducting PTA and classroom presentation(s) at the Rancho Romero Elementary School; and/or with the Alamo Women’s Club, the oldest community service and philanthropic club in Alamo, to foster development of a litter abatement team. In Diablo the equivalent education, outreach and community involvement would be accomplished through presentations and enlistment of a litter abatement team through the Green Valley Elementary School.

**E. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of how unincorporated Contra County will assess, evaluate, and reduce trash levels. For a delineation of the trash control measure program proposed for Alamo, Diablo, and Blackhawk, see their specific Trash Management Area Tables below. These tables lay out the specific trash control measures and the corresponding evaluation or monitoring methods to track program effectiveness for these communities.

#### 4. Trash Management Area Plans

Alamo, Diablo, and Blackhawk have a total of two trash management areas, ADB-1 and ADB-2, that are described below.

DRAFT

## Alamo, Diablo and Blackhawk Long-Term Trash Reduction Plan

# ADB-1

ADB-1 is comprised of: 1) medium-trash load levels; and 2) a scattered set of Institutional and commercial land use designations throughout the two of the three unincorporated communities.

### Key Characteristics of ADB-1

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
12,230.34	0.00%	0.00%	0.05%	99.95%	Institutional	Resident/Pedestrian-generated litter

ADB-1 represents medium trash level areas, mostly in the unincorporated communities of Alamo and Diablo and is composed of small, discontinuous units of institutional and commercial land uses.

### Summary of Control Measures and Implementation Schedule for ADB-1

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue regular monthly street sweeping where there is curb and gutter without parking restrictions (Alamo)	X	X	X	X
<b>Community Outreach</b>	Enhance existing public information campaigns to provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping. Partner with the Alamo, Municipal Advisory Council, Alamo Women's Club, and with local elementary schools to implement a community outreach program on the importance of trash reduction			X	X
<b>Improved Trash Bins/Container Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions			X	X
<b>Product Bans</b>	Seek passage of and implement Countywide Plastic Bag and Styrofoam Ban Ordinances				X
<b>Code Enforcement/Ordinances</b>	County will work to better enforce trash-related Contra Costa County ordinances/codes			X	X

## Evaluation of Program Effectiveness for ADB-1

<b>Control Measure</b>	<b>Evaluation Method</b>
<b>Street Sweeping</b>	Visually assess the before and after sweeping conditions of streets using the BASMAA protocol.
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Improved Trash Bins/Container Management</b>	Monitor capacity (mostly empty, half-full, full, overflowing) of bins at pick-up. Monitor incidences of number of times trash is outside of containers, with goal of decreasing trend towards zero.
<b>Product Bans</b>	Survey store compliance in cooperation with municipal MRP partners. Track volume of product in creeks, trash capture devices, and found during on-land cleanups.
<b>Code Enforcement/Ordinances</b>	Track violations

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## Alamo, Diablo and Blackhawk Trash Reduction Plan

## ADB-2

## Key Characteristics of ADB-2

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
179.47	0.00%	0.00%	85.17%	14.83%	Residential and Multi-unit Residential	Resident/Pedestrian-generated litter

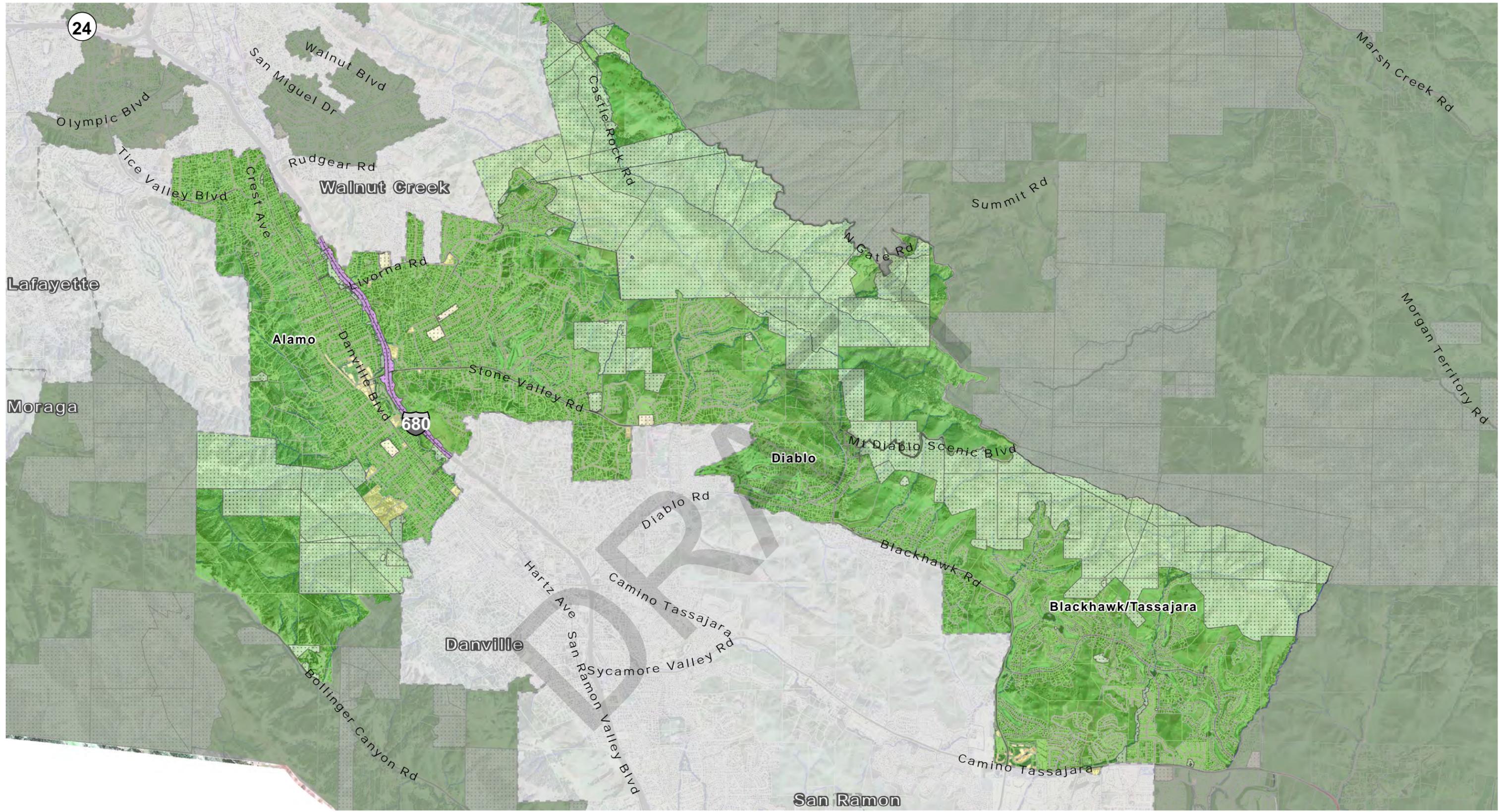
ADB-2 comprises the low trash-load portion of this community, the vast majority of which is designated as Residential, with a few Multi-unit Residential parcels.

## Summary of Control Measures and Implementation Schedule for ADB-2

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Community Outreach	Implement public information campaign to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.				X
Product Bans	Implement plastic bag ban and styrofoam food container ordinances Countywide			X	X

## Evaluation of Program Effectiveness for ADB-2

Control Measure	Evaluation Method Details
Community Outreach	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
Product Bans	Survey store compliance in cooperation with municipal MRP partners. Track volume of product in creeks, trash capture devices, and found during on-land cleanups.



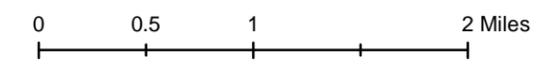
## Contra Costa County Trash Rates for the Communities of Alamo/Diablo/Blackhawk

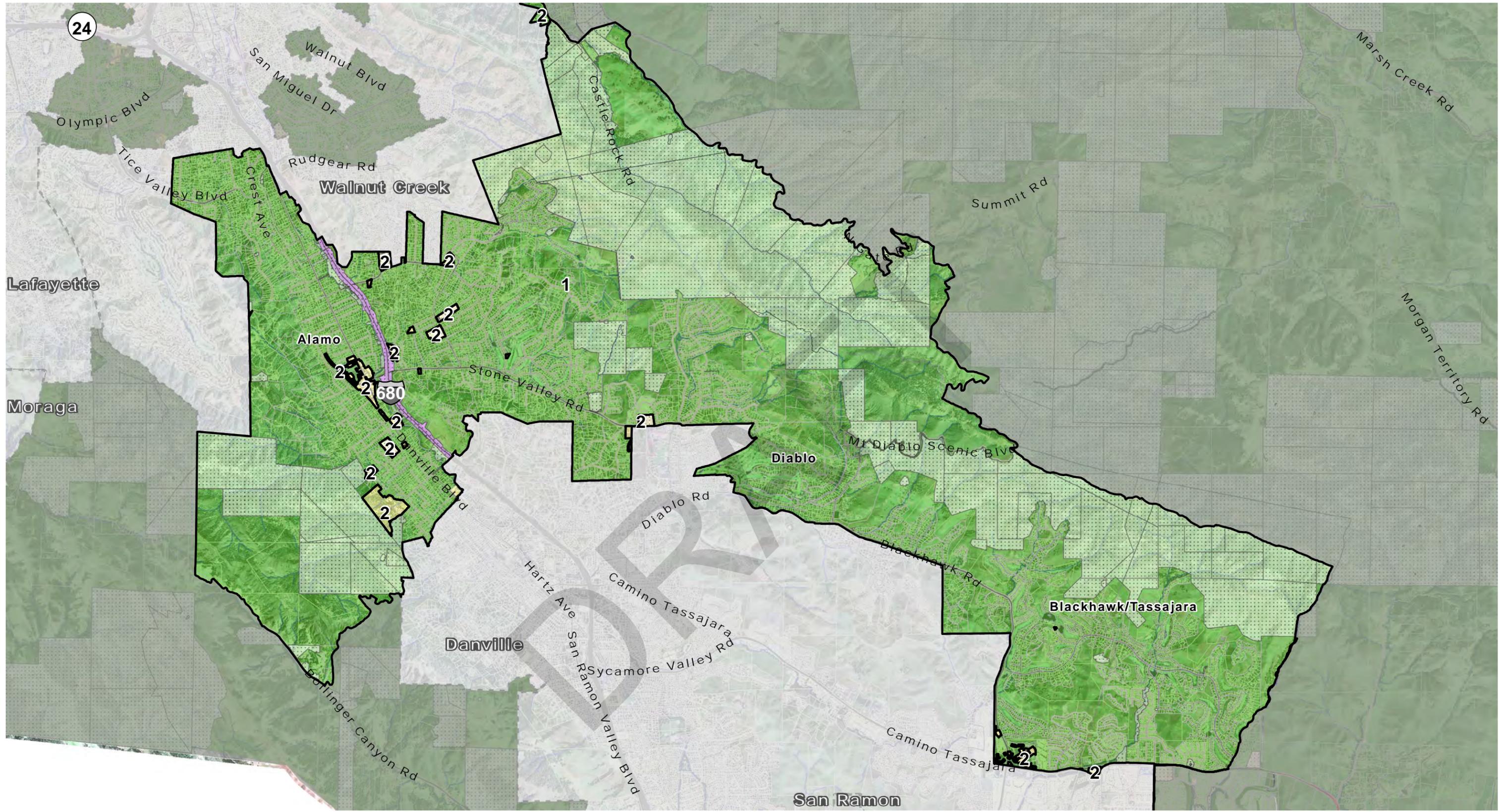
<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		City	

1 inch = 4,500 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





**Contra Costa County  
Draft Trash Plan for the  
Communities of  
Alamo/Diablo/Blackhawk**

<b>Trash Rate</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium	Trash Management Areas	City	

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014

1 inch = 4,500 feet

**Bay Point**  
**Trash Management Plan**  
**2014-2022**

DRAFT

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

Bay Point is a community in Eastern Contra Costa County. It has industrial, commercial, institutional, residential areas, and rural roads. In terms of trash generation, Bay Point is one of the County's priorities. It includes several areas generating a high amount of trash, several areas generating a medium amount of trash and other areas generating low amounts of trash.

See Section 1 of the county-wide Trash Management Plan for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra Costa County's long term trash plan.

## 2. Bay Point Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Demographic data from the 2010 census is presented in Table 2-1.

**Table 2-1. 2010 Census Data**

<b>Population (# people)</b>	21,349
<b>Under 18</b>	6,502
<b>18-24</b>	2,341
<b>25-44</b>	6,441
<b>45-64</b>	4,680
<b>65 and older</b>	1,385
<b>Median household income</b>	\$49,583

Table 2-2 presents summarizes land uses within Bay Point in unincorporated Contra Costa County

**Table 2-2. 2005 Land Uses (ABAG)**

<b>Land Use Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	74.27	2.6%
<b>Industrial</b>	146.69	5.2%
<b>Residential</b>	1,083.64	38.1%
<b>Retail</b>	38.04	1.3%
<b>K-12 Schools</b>	12.26	0.4%
<b>Urban Parks</b>	9.89	0.3%
<b>Other</b>	1,477.41	52.0%

## B. Drainage System and Water Resources Affected by Trash

Bay Point has several unnamed creeks that flow into the tidal area adjacent to the confluences of the Sacramento River and Suisun Bay. Towards the east side of Bay Point, stormwater flows to Willow Creek which is primarily in a culvert except for a two block area near Hanlon Way where the stream is daylighted. On the west side of Bay Point, there is creek that is aboveground for a couple of blocks. That daylighted creek is known as “Riverside Ditch”. Many roads do not have curb, gutter and storm drains. Some have road-side ditches.

## C. Trash Problems and Priorities

Bay Point has areas that generate high, medium, and low amounts of trash. The first priority will be to focus on areas with high amounts of trash and to work with the community to implement control measures to reduce the trash load. Land uses in these areas include industrial, commercial, institutional, residential, and some rural roads. The control measures that will be implemented as appropriate include full trash capture devices, enhanced street sweeping, trash bin management, community outreach, code enforcement and product bans. The second priority will be to focus on areas generating a medium amount of trash and to implement appropriate control measures to reduce trash. More specifics on which control measures will be implemented in each trash management area are discussed in Section 4.

See Section 2 of the county-wide Trash Management Plan for more details on the visual trash assessment protocol Contra Costa County used to determine trash loads, the County’s priorities, and the process of implementing various control measures in the unincorporated portions of the county.

Table 2-3 summarizes trash generation by land use:

<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>Very High</b>	12.13	0.00%	0.00%	17.73%	56.32%	0.00%	0.00%	25.95%
<b>High</b>	345.89	1.30%	0.43%	72.32%	8.07%	0.92%	0.02%	16.94%
<b>Medium</b>	615.82	4.36%	16.85%	73.01%	0.53%	1.47%	1.60%	2.18%
<b>Low</b>	1,868.36	2.30%	2.22%	20.43%	0.00%	0.00%	0.00%	75.05%

## 2. Bay Point Trash Management Strategy

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The County’s priority for Bay Point will be to focus on the areas generating high amounts of trash. In Bay Point, these areas are primarily located along and around a commercial corridor or along isolated roads where illegal dumping takes place. The land uses in these high trash load areas are commercial and

some residential. Some areas in the commercial districts have full trash capture devices. The main roads through the commercial corridors are swept weekly. Evora Road and Port Chicago Highway are main commercial roads that are swept weekly in the commercial corridors and where they pass next to residential areas. Other control measures to be implemented include: parking enforcement during street sweeping in areas with high trash loads where there are curbs and gutters, working with property owners/managers to better manage trash bins, coordinating with appropriate agencies to enforce appropriate codes, continuing public outreach efforts, and implementing product bans.

For areas with a medium amount of trash, the County will work to reduce the trash load by enhancing street sweeping, including adding no parking with enforcement restrictions during street sweeping, finding ways to improve trash bin management as appropriate, and continuing public outreach. The County will reassess the trash loads and make changes as appropriate to address problems that arise. Specifics on each trash management area are provided in section 4 below.

**A. Delineation of Trash Management Areas**

Trash Management Areas were determined based on their trash management loads and their associated land use.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
<b>BPT-1</b>	102.84	6.62%	63.41%	7.83%	22.15%
<b>BPT-2</b>	253.01	1.66%	92.59%	2.39%	3.37%
<b>BPT-3</b>	85.67	1.17%	48.11%	13.47%	37.24%
<b>BPT-4</b>	141.28	0.00%	0.65%	96.97%	2.38%
<b>BPT-5</b>	456.70	0.01%	0.15%	98.12%	1.72%
<b>BPT-6</b>	494.55	0.00%	0.27%	0.52%	99.21%
<b>BPT-7</b>	1,308.14	0.01%	0.17%	0.19%	99.63%

- BPT-1 includes commercial areas generating high amounts of trash.
- BPT-2 includes residential areas generating high amounts of trash.
- BPT-3 includes roads generating high amounts of trash.
- BPT-4 includes industrial, commercial, and industrial areas generating medium amounts of trash.
- BPT-5 includes residential areas generating medium amounts of trash.
- BPT-6 includes commercial and institutional areas generating low amounts of trash.
- BPT-7 includes residential areas generating low amounts of trash.

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

**C. Creek and Shoreline Cleanups**

**Table 3-2. Creek and Shoreline Cleanups**

Location	Description	Cleanup Frequency			
		Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Location 1</b>	EBRPD-Bay Point – Coastal Cleanup		<b>X</b>	<b>X</b>	<b>X</b>
<b>Location 2</b>	Willow Creek D/S of Hanlon Way		<b>X</b>	<b>TBD</b>	<b>TBD</b>

Contra Costa County documents and tracks the creek and shoreline cleanups conducted. The frequency varies depending on the organization conducting the cleanup. The locations may change based on the trash loads, access to locations, and relevance of trash levels with respect to the location of receiving water. Contra Costa County updates this information in the County’s Annual Report. Other on-land cleanups are conducted and recorded depending on need and resources. Those are discussed in Section 3 of this plan under control measures.

**D. Trash Reduction Policies**

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of Contra Costa County’s status and implementation of product bans including plastic bags and foam polystyrene food and beverage containers for the unincorporated portions of the County.

**E. Public Education, Outreach, and Community Involvement**

Through the CCCWP, the Permittees conducted a “Litter Travels, But It Can Stop with You” multi-year campaign beginning in FY 2009-2010. The multi-media campaign was designed to educate Contra Costa’s citizens about the impacts of trash and litter in the County’s waterways and how they can help address this problem and included TV spots, billboards, posters at BART stations, placards on transit buses, print ads and updates to the CCCWP website. Other outreach included more than 10,000 letters to County residents, contact with youth sports leagues, outreach to the 17 school districts in the County, and distribution of flyers to students in 5 of those districts. Pre and post-campaign surveys were conducted.

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of the Contra Costa County’s public education, outreach, and public involvement for the unincorporated portions of the county.

Public outreach in Bay Point will include working with the Bay Point Chamber of Commerce and other appropriate service clubs, organizations, or schools interested in coordinating with Contra Costa County to help trash management strategies in Bay Point.

#### **F. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of how unincorporated Contra County will assess, evaluate and reduce trash levels. For specific assessments to control measures proposed in Bay Point, see Bay Point's specific Trash Management Area Tables below. The tables lay out the Control Measures and the corresponding evaluations of Program Effectiveness.

### **4. Trash Management Area Plans**

#### **G. TMA-Specific Plans**

The trash management areas detailed below are broken down by areas generating high, medium or low levels of trash by their land use. In general, commercial, industrial, and institutional areas have been grouped together and single family and multi-family residences have been grouped together. Rural roads in Bay Point are locations where trash is regularly illegally dumped so those areas have their own trash management area. Bay Point has a total of eight trash management areas:

BPT-1 includes commercial areas generating high amounts of trash;

BPT-2 includes residential areas generating high amounts of trash;

BPT-3 includes roads generating high amounts of trash;

BPT-4 includes industrial, commercial, and industrial areas generating medium amounts of trash;

BPT-5 includes residential areas generating medium amounts of trash;

BPT-6 includes commercial and institutional areas generating low amounts of trash;

BPT-7 includes residential areas generating low amounts of trash.

**Bay Point Long-Term Trash Reduction Plan**

The Bay Point Trash Management Area 1 (BPT-1) consists of areas generating high trash loads. It includes commercial and industrial areas where similar control measure strategies will be implemented. These areas are located along primary roadways.

**Key Characteristics of Trash Management Area BPT-1**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
102.84	6.62%	63.41%	7.83%	22.15%	Commercial	Litter, Trash Bin Overflow

**Summary of Control Measures and Implementation Schedule for Trash Management Area BPT-1**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Full/Partial Capture Treatment Devices</b>	Full and partial capture treatment devices were installed in Spring 2013 along Port Chicago Highway and Willow Pass Road.		X	X	X
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter, a few primary roads are swept weekly.	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances/codes.			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

Full Trash Capture Devices (FTCD) were installed after conducting a safety analysis of storm drain inlets. Part of BPT-1 drains to an FTCD. Control measures will be chosen as appropriate for the parcels without FTCDs.

## Evaluation of Program Effectiveness for Trash Management Area BPT-1

Control Measure	Evaluation Method Details
<b>Full/Partial Capture Treatment Devices</b>	Document amount of trash and debris removed and review over time. Communicate with maintenance to understand challenges when maintaining or cleaning out systems.
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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**Bay Point Long-Term Trash Reduction Plan**

The Bay Point Trash Management Area 2 (BPT-2) consists of areas generating high trash loads. It includes residential areas where similar control measure strategies will be implemented.

**Key Characteristics of Trash Management Area BPT-2**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
253.01	1.66%	92.59%	2.39%	3.37%	Residential	Litter, Trash Bin Overflow

**Summary of Control Measures and Implementation Schedule for Trash Management Area BPT-2**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Full/Partial Capture Treatment Devices</b>	Full and partial capture treatment devices were installed in Spring 2013 along Port Chicago Highway and Willow Pass Road.		X	X	X
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>On-land Trash Cleanups</b>	Trash picked up along near Willow Creek.		X	X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

Full Trash Capture Devices (FTCD) were installed after conducting a safety analysis of storm drain inlets. Part of BPT-2 drains to an FTCD. Control measures will be chosen as appropriate for the parcels without FTCDs.

Community Outreach for some targeted location may include a more intensive program of “Love Your Block” to address specific site locations. This will be based on county funds and priorities.

## Evaluation of Program Effectiveness for Trash Management Area BPT-2

Control Measure	Evaluation Method Details
<b>Full/Partial Capture Treatment Devices</b>	Document amount of trash and debris removed and review over time. Communicate with maintenance to understand challenges when maintaining or cleaning out systems.
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>On-land Trash Cleanup</b>	Observe areas, measure, and photographically document amount of trash removed over time at various times to determine how quickly trash is regenerated at specific locations.
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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## Bay Point Long-Term Trash Reduction Plan

The Bay Point Trash Management Area 3 (BPT-3) consists of areas generating high trash loads. It includes roads and trails where similar control measure strategies will be implemented. These areas are located along primary rural roads.

### Key Characteristics of Trash Management Area BPT-3

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
85.67	1.17%	48.11%	13.47%	37.24%	Rural Roads and Trails	Litter/Illegal Dumping

### Summary of Control Measures and Implementation Schedule for Trash Management Area BPT-3

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>On-land Trash Cleanups</b>	High trash generating areas are cleaned regularly by contractor and/or community volunteer stewardship group. Frequency of cleanups to be determined by monitoring.		X	X	X
<b>Anti-littering and Illegal Dumping Enforcement</b>	Motion-sensor activated flash cameras have been installed and monitored. Enforcement opportunities are pursued when possible by investigating materials dumped.		X	X	X
<b>Activities to Reduce Trash from Uncovered Loads</b>	Coordinate with proper entities to enforce uncovered load ordinances.			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

These roads do not have regular street sweeping. Many areas do not have a curb and gutter system. We will assess area to determine when and where trash is generated and find alternative control measures to address appropriately. County will coordinate with property owners of the Bel Air Trail to develop a collective plan to remove trash via on-land cleanups.

### Evaluation of Program Effectiveness for Trash Management Area BPT-3

Control Measure	Evaluation Method Details
<b>On-land Trash Cleanup</b>	Observe areas and measure amount of trash removed at various locations at various times to determine how quickly trash is regenerated in specific locations
<b>Anti-littering and Illegal Dumping Enforcement</b>	Flash cameras monitored for illegal dumping
<b>Activities to Reduce Trash from Uncovered Loads</b>	Track Violations
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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**Bay Point Long-Term Trash Reduction Plan**

The Bay Point Trash Management Area 4 (BPT-4) consists of areas generating medium trash loads. It includes industrial, commercial, and institutional areas where similar control measure strategies will be implemented. Many are located along primary roadways.

**Key Characteristics of Trash Management Area BPT-4**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
141.28	0.00%	0.65%	96.97%	2.38%	Industrial, Commercial, and Institutional	Litter, Trash Bin Overflow

**Summary of Control Measures and Implementation Schedule for Trash Management Area BPT-4**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Full/Partial Capture Treatment Devices</b>	Full and partial capture treatment devices were installed in Spring 2013 along Port Chicago Highway and Willow Pass Road.		X	X	X
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances/codes.			X	X
<b>On-land Trash Cleanups</b>	High trash generating areas are cleaned regularly along roadsides by contractor or community volunteer groups – depends on need, budget, and availability.		X	X	X
<b>Anti-littering and Illegal Dumping Enforcement</b>	Flash cameras installed and monitored.		X	X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X

<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			<b>X</b>	<b>X</b>
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Full Trash Capture Devices (FTCD) were installed after conducting a safety analysis of storm drain inlets. Part of BPT-4 drains to an FTCD. Control measures will be chosen as appropriate for the parcels without FTCDs.

<b>Evaluation of Program Effectiveness for Trash Management Area BPT-4</b>	
<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Full/Partial Capture Treatment Devices</b>	Document amount of trash and debris removed and review over time. Communicate with maintenance to understand challenges when maintaining or cleaning out systems.
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>On-land Trash Cleanup</b>	Observe areas, measure, and photographically document amount of trash removed over time at various times to determine how quickly trash is regenerated at specific locations.
<b>Anti-littering and Illegal Dumping Enforcement</b>	Flash cameras used to monitor illegal dumping.
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

**Bay Point Long-Term Trash Reduction Plan**

The Bay Point Trash Management Area 5 (BPT-5) consists of areas generating medium trash loads. It includes residential areas where similar control measure strategies will be implemented.

**Key Characteristics of Trash Management Area BPT-5**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
456.70	0.01%	0.15%	98.12%	1.72%	Residential	Litter, Trash Bin Overflow

**Summary of Control Measures and Implementation Schedule for Trash Management Area BPT-5**

Control Measure	Control Measure Details	Pre- MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Full/Partial Capture Treatment Devices</b>	Full and partial capture treatment devices were installed in Spring 2013 along Port Chicago Highway and Willow Pass Road.		X	X	X
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

Full Trash Capture Devices (FTCD) were installed after conducting a safety analysis of storm drain inlets. Part of BPT-5 drains to an FTCD. Control measures will be chosen as appropriate for the parcels without FTCDs.

## Evaluation of Program Effectiveness for Trash Management Area BPT-5

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Full/Partial Capture Treatment Devices</b>	Document amount of trash and debris removed and review over time. Communicate with maintenance to understand challenges when maintaining or cleaning out systems.
<b>Street Sweeping</b>	Visually assess before and after conditions
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

DRAFT

**Bay Point Long-Term Trash Reduction Plan**

The Bay Point Trash Management Area 6 (BPT-6) consists of areas generating low trash loads. It includes industrial and commercial areas where similar control measure strategies will be implemented. These areas are located along primary roadways.

**Key Characteristics of Trash Management Area BPT-6**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
494.55	0.00%	0.27%	0.52%	99.21%	Industrial and Commercial	Litter

**Summary of Control Measures and Implementation Schedule for Trash Management Area BPT-6**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Full/Partial Capture Treatment Devices</b>	Full and partial capture treatment devices were installed in Spring 2013 along Port Chicago Highway and Willow Pass Road.		X	X	X
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners to maintain cleanliness at and around the dumpsters.			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances/codes.			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

Full Trash Capture Devices (FTCD) were installed after conducting a safety analysis of storm drain inlets. Part of BPT-2 drains to an FTCD. Control measures will be chosen as appropriate for the parcels without FTCDs.

## Evaluation of Program Effectiveness for Trash Management Area BPT-6

Control Measure	Evaluation Method Details
<b>Full/Partial Capture Treatment Devices</b>	Document amount of trash and debris removed and review over time. Communicate with maintenance to understand challenges when maintaining or cleaning out systems.
<b>Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

DRAFT

## Bay Point Long-Term Trash Reduction Plan

The Bay Point Trash Management Area 7 (BPT-7) consists of areas generating low trash loads. It includes residential areas where similar control measure strategies will be implemented. These areas are located along primary roadways.

### Key Characteristics of Trash Management Area BPT-7

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
1,308.14	0.01%	0.17%	0.19%	99.63%	Residential	Litter

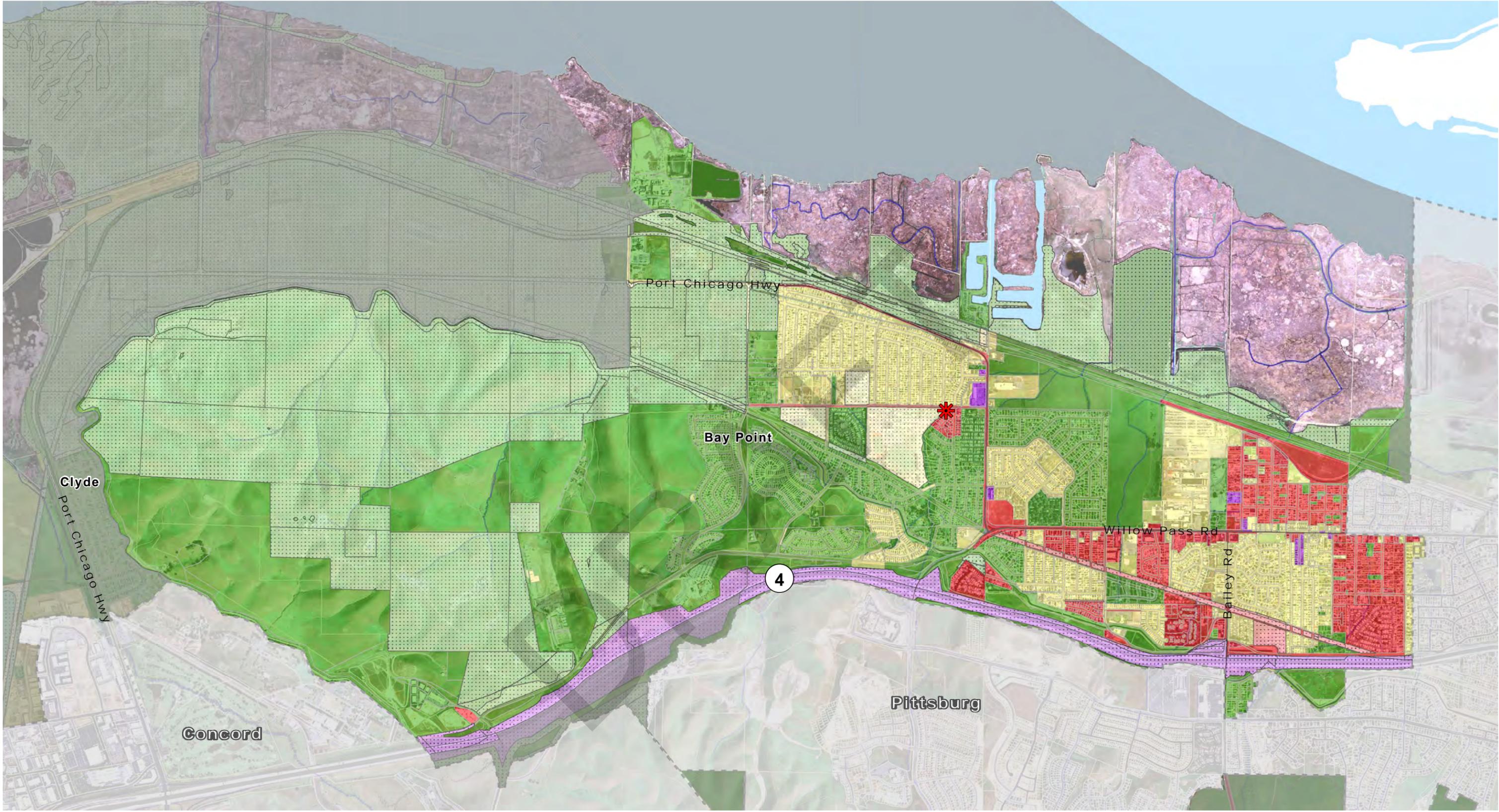
### Summary of Control Measures and Implementation Schedule for Trash Management Area BPT-7

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X	X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

Full Trash Capture Devices (FTCD) were installed after conducting a safety analysis of storm drain inlets. Part of BPT-2 drains to an FTCD. Control measures will be chosen as appropriate for the parcels without FTCDs.

### Evaluation of Program Effectiveness for Trash Management Area BPT-7

Control Measure	Evaluation Method Details
<b>Full/Partial Capture Treatment Devices</b>	Document amount of trash and debris removed and review over time. Communicate with maintenance to understand challenges when maintaining or cleaning out systems.
<b>Street Sweeping</b>	Visually assess before and after conditions
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups



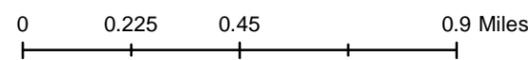
## Contra Costa County Trash Rates for the Community of Bay Point

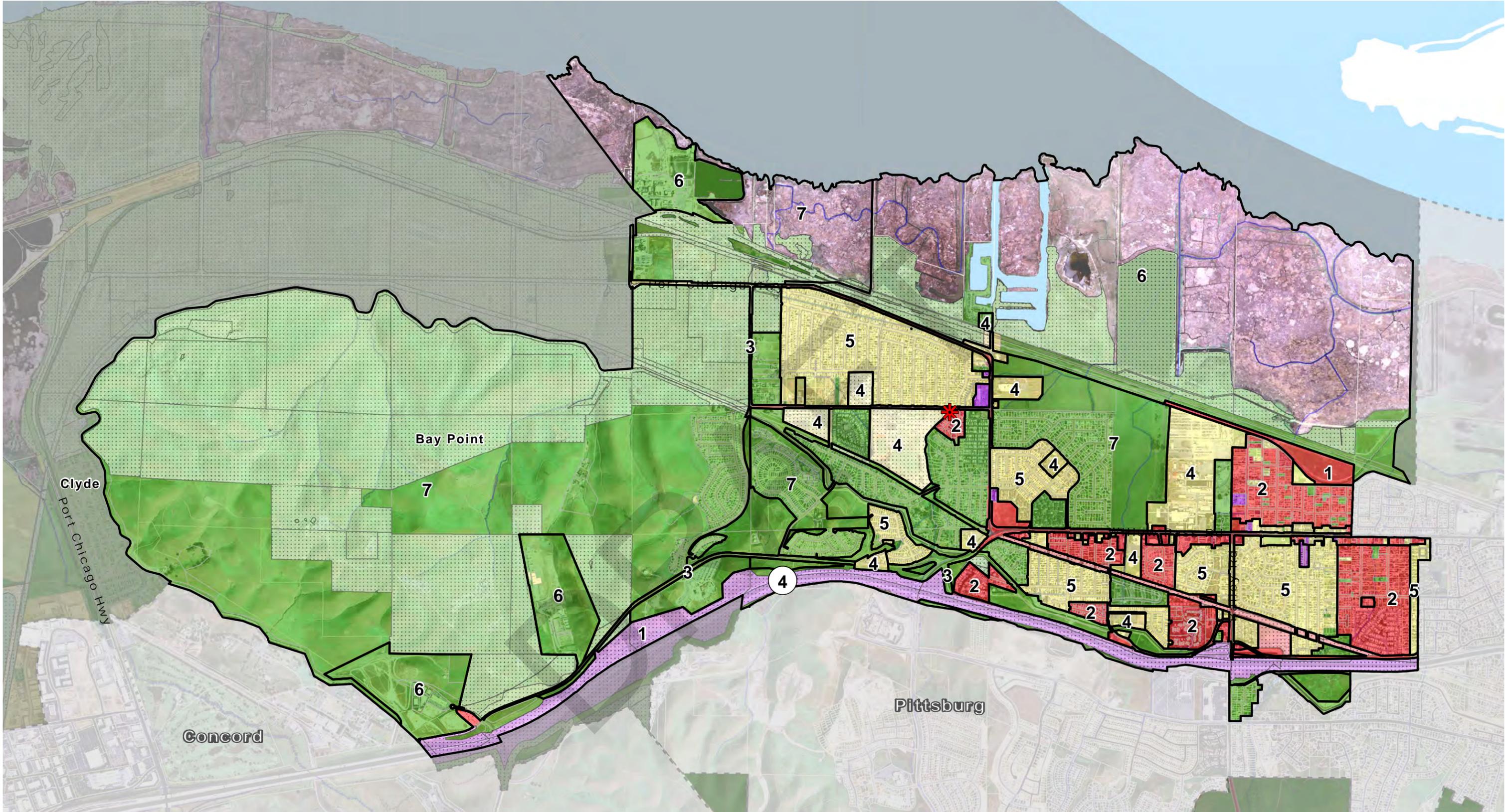
<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		City	

1 inch = 2,000 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





# Contra Costa County Draft Trash Plan for the Community of Bay Point

**Trash Rate**  
 Low  
 Medium

High  
 Very High

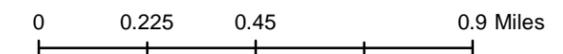
Non-Jurisdictional  
 Parcels  
 Trash Management Areas

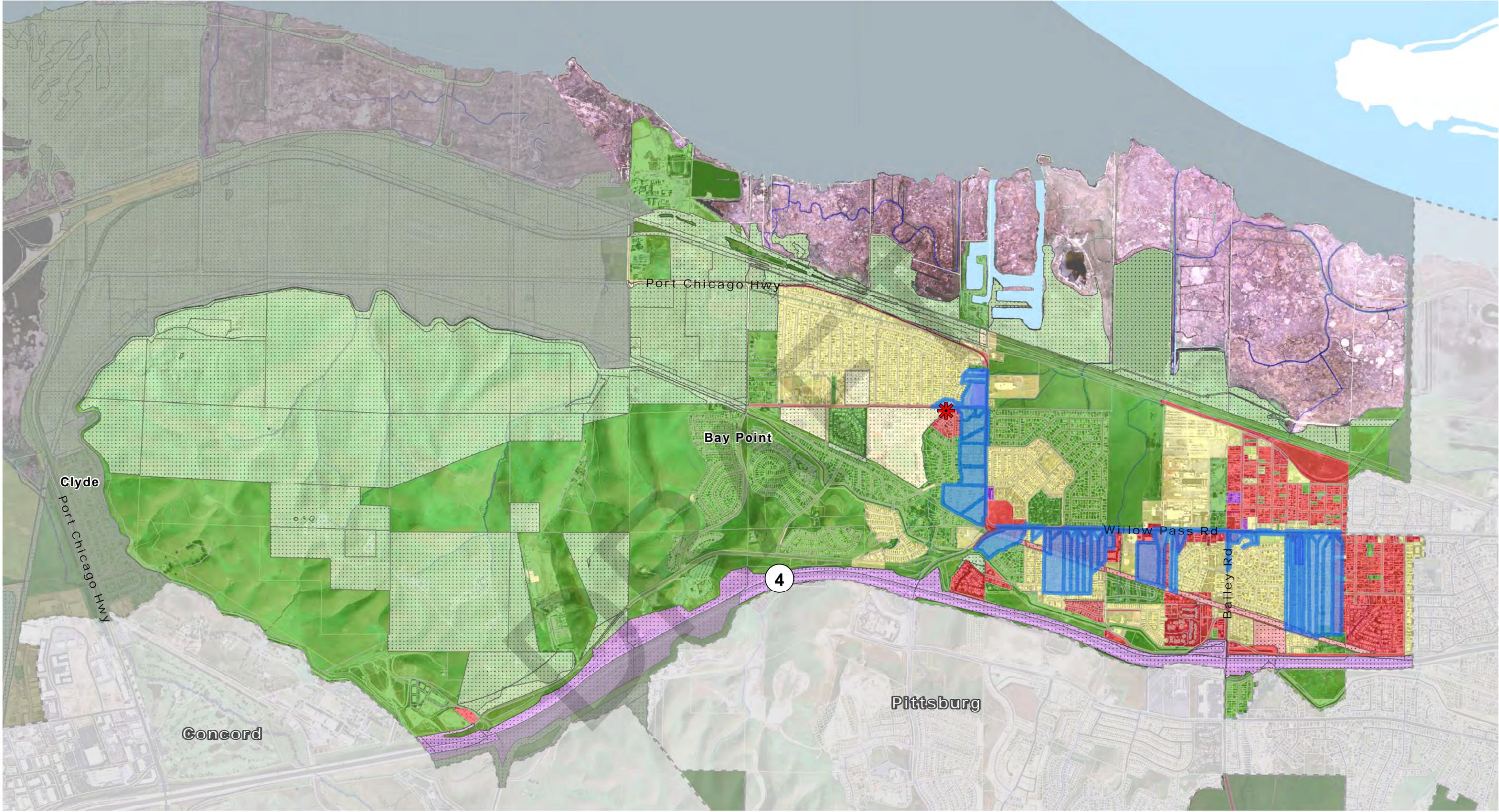
Creeks  
 City  
\* Trash Hot Spots

1 inch = 2,000 feet

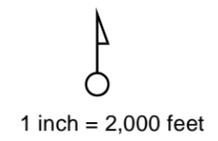
Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
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 Date: February 13, 2014



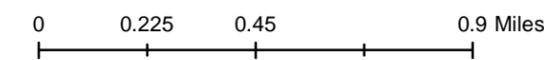


## Contra Costa County Full Trash Capture for the Community of Bay Point



Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014



**Bethel Island**  
**Trash Management Plan**  
**2014-2022**

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

Bethel Island is a community in East Contra Costa County. It has commercial, agricultural/ranch lands and residential areas. In terms of trash generation, it has a small area generating a high amount of trash, some areas generating a medium amount of trash and some areas generating low amounts of trash.

See Section 1 of the county-wide Trash Management Plan for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra Costa County's long term trash plan.

## 2. Bethel Island Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Demographic data from the 2010 census is presented in Table 2-1.

**Table 2-1. 2010 Census Data**

<b>Population (# people)</b>	2,137
<b>Under 18</b>	260
<b>18-24</b>	132
<b>25-44</b>	326
<b>45-64</b>	845
<b>65 and older</b>	574
<b>Median household income</b>	\$ 36,515

Table 2-2 presents summarizes land uses within Bethel Island in unincorporated Contra Costa County

**Table 2-2. 2005 Land Uses (ABAG)**

<b>Land Use Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	119.33	3.4%
<b>Industrial</b>	12.43	0.4%
<b>Residential</b>	429.59	12.2%
<b>Retail</b>	8.38	0.2%
<b>K-12 Schools</b>	0.00	0.0%
<b>Urban Parks</b>	0.99	0.0%
<b>Other</b>	2,945.69	83.8%

## B. Drainage System and Water Resources Affected by Trash

Bethel Island is an island in the Sacramento-San Joaquin Delta (Delta). Any drainage from Bethel Island drains to the Delta. Many of the roads do not have curb, gutter, or storm drains but road-side ditches.

## C. Trash Problems and Priorities

Bethel Island has a couple small areas that generate a high amount of trash, areas that generate a medium amount of trash, and other areas that generate low amounts of trash. The first priority will be to focus on the small area that generates a high amount of trash and to work with the community to implement control measures to reduce the trash load. The land use in this area includes commercial areas. The control measures that will be implemented as appropriate include trash bin management, community outreach, code enforcement, and product bans. The second priority will be to focus on areas generating a medium amount of trash and to implement appropriate control measures to reduce trash. More specifics on which control measures will be implemented in each trash management area are discussed in Section 4.

See Section 2 of the county-wide Trash Management Plan for more details on the visual trash assessment protocol Contra Costa County used to determine trash loads, the county's priorities, and the process of implementing various control measures in the unincorporated portions of the county.

Table 2-3 summarizes trash generation by land use:

<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>Very High</b>	0.57	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
<b>High</b>	2.98	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
<b>Medium</b>	144.95	27.44%	1.77%	57.21%	5.03%	0.00%	0.68%	7.86%
<b>Low</b>	3,367.89	2.36%	0.29%	10.20%	0.02%	0.00%	0.00%	87.13%

## 2. Bethel Island Trash Management Strategy

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The strategy to reduce trash in Bethel Island is to further assess where and how trash is being generated and implement effective control measures. The County's priority for Bethel Island will be to focus on the small area generating a high amount of trash. The land use in this area is commercial. The County will work with property owners/managers to better manage trash bins, coordinate with appropriate agencies to enforce appropriate codes, continue public outreach efforts, and implement product bans as appropriate. Specifics on each trash management area are provided in section 4 below.

**A. Delineation of Trash Management Areas**

Trash Management Areas were determined based on their trash management loads and their associated land use.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
BIS-1	2.98	0.00%	100.00%	0.00%	0.00%
BIS-2	57.49	0.99%	0.00%	88.81%	10.20%
BIS-3	82.67	0.00%	0.00%	93.35%	6.65%
BIS-4	2,971.70	0.00%	0.00%	0.28%	99.72%
BIS-5	401.55	0.00%	0.00%	2.13%	97.87%

- BIS-1 includes a small commercial area generating a high amount of trash.
- BIS-2 includes commercial areas generating medium amounts of trash.
- BIS-3 includes residential areas generating medium amounts of trash.
- BIS-4 includes commercial areas and open areas generating low amounts of trash.
- BIS-5 includes residential areas generating low amounts of trash.

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 3.

**C. Creek and Shoreline Cleanups**

**Table 3-2. Creek and Shoreline Cleanups**

Location	Description	Cleanup Frequency			
		Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Location 1	There are no creek shoreline clean-ups in Bethel Island				

Shoreline cleanups have not been organized in Bethel Island. When creek cleanups do take place, they are documented and tracked. The frequency varies depending on the organization conducting the cleanup. The locations may change based on the trash loads, access to locations, and relevance of trash levels with respect to the location of receiving water. Contra Costa County updates this information in the County’s Annual Report. Other on-land cleanups are conducted and recorded depending on need and resources. Those are discussed in Section 3 of this plan under control measures.

#### **D. Trash Reduction Policies**

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of Contra Costa County's status and implementation of product bans including plastic bags and foam polystyrene food and beverage containers for the unincorporated portions of the County.

#### **E. Public Education, Outreach, and Community Involvement**

Through the CCCWP, the Permittees conducted a "Litter Travels, But It Can Stop with You" multi-year campaign beginning in FY 2009-2010. The multi-media campaign was designed to educate Contra Costa's citizens about the impacts of trash and litter in the County's waterways and how they can help address this problem and included TV spots, billboards, posters at BART stations, placards on transit buses, print ads and updates to the CCCWP website. Other outreach included more than 10,000 letters to County residents, contact with youth sports leagues, outreach to the 17 school districts in the County, and distribution of flyers to students in 5 of those districts. Pre and post-campaign surveys were conducted.

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of the Contra Costa County's public education, outreach, and public involvement for the unincorporated portions of the County.

Public outreach in Bethel Island will include working with the property owners/managers and other appropriate service clubs or organizations interested in coordinating with us to help trash management strategies in Bethel Island.

#### **F. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 2 of the county-wide Trash Management Area for a comprehensive discussion of how unincorporated Contra County will assess, evaluate and reduce trash levels. For specific assessments to control measures proposed in Bethel Island, see Bethel Island's specific Trash Management Area Tables below. The tables lay out the Control Measures and the corresponding evaluations of program effectiveness.

### **3. Trash Management Area Plans**

#### **A. TMA-Specific Plans**

Below, the trash management areas are broken down by areas generating high, medium or low levels of trash by their land use. In general, commercial and industrial have been grouped together, single family and multi-family residences have been grouped together. Bethel Island has a total of five trash management areas:

BIS-1 includes a small commercial area generating a high amount of trash;

BIS-2 includes commercial areas generating medium amounts of trash;

BIS-3 includes residential areas generating medium amounts of trash;

BIS-4 includes commercial areas and open areas generating low amounts of trash;

BIS-5 includes residential areas generating low amounts of trash.

## Bethel Island Point Long-Term Trash Reduction Plan

The Bethel Island Trash Management Area 1 (BIS-1) consists of areas generating high trash loads. It includes commercial areas where similar control measures will be implemented.

### Key Characteristics of Trash Management Area BIS-1

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
2.98	0.00%	100.00%	0.00%	0.00%	Commercial	Litter, Trash Bin Overflow

### Summary of Control Measures and Implementation Schedule for Trash Management Area BIS-1

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, work with property owners and/or managers to manage trash containers and surroundings to maintain clean conditions			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

This area with a high trash generation rate is limited to two specific small areas. Bethel Island does not have regular street sweeping and many areas do not have a curb and gutter system. Contra Costa County will further assess area to determine when and where trash is generated and find alternative control measures to reduce trash.

### Evaluation of Program Effectiveness for Trash Management Area BIS-1

Control Measure	Evaluation Method Details
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

## Bethel Island Point Long-Term Trash Reduction Plan

The Bethel Island Trash Management Area 2 (BIS-2) consists of areas generating medium trash loads. It includes commercial areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area BIS-2

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
57.49	0.99%	0.00%	88.81%	10.20%	Commercial	Litter, Trash Bin Overflow

### Summary of Control Measures and Implementation Schedule for Trash Management Area BIS-2

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

### Evaluation of Program Effectiveness for Trash Management Area BIS-2

Control Measure	Evaluation Method Details
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores; volume of product in creeks, trash capture devices, and on-land cleanups

## Bethel Island Point Long-Term Trash Reduction Plan

The Bethel Island Trash Management Area 3 (BIS-3) consists of areas generating medium trash loads. It includes residential areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area BIS-3

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
82.67	0.00%	0.00%	93.35%	6.65%	Residential	Litter, Trash Bin Overflow

### Summary of Control Measures and Implementation Schedule for Trash Management Area BIS-3

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Improved Trash Bins/Container Management</b>	Particularly in multi-residential areas where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

### Evaluation of Program Effectiveness for Trash Management Area BIS-3

Control Measure	Evaluation Method Details
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

## Bethel Island Point Long-Term Trash Reduction Plan

The Bethel Island Trash Management Area 4 (BIS-4) consists of areas generating low trash loads. It includes commercial areas with marinas and ranches where appropriate control measure strategies will be implemented.

### Key Characteristics of Trash Management Area BIS-4

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
2,971.70	0.00%	0.00%	0.28%	99.72%	Commercial – Marinas and Ranch/Agriculture land	Litter/Boater-Generated litter

### Summary of Control Measures and Implementation Schedule for Trash Management Area BIS-4

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

### Evaluation of Program Effectiveness for Trash Management Area BIS-4

Control Measure	Evaluation Method Details
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

## Bethel Island Point Long-Term Trash Reduction Plan

The Bethel Island Trash Management Area 5 (BIS-5) consists of areas generating low trash loads. It includes residential areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area BIS-5

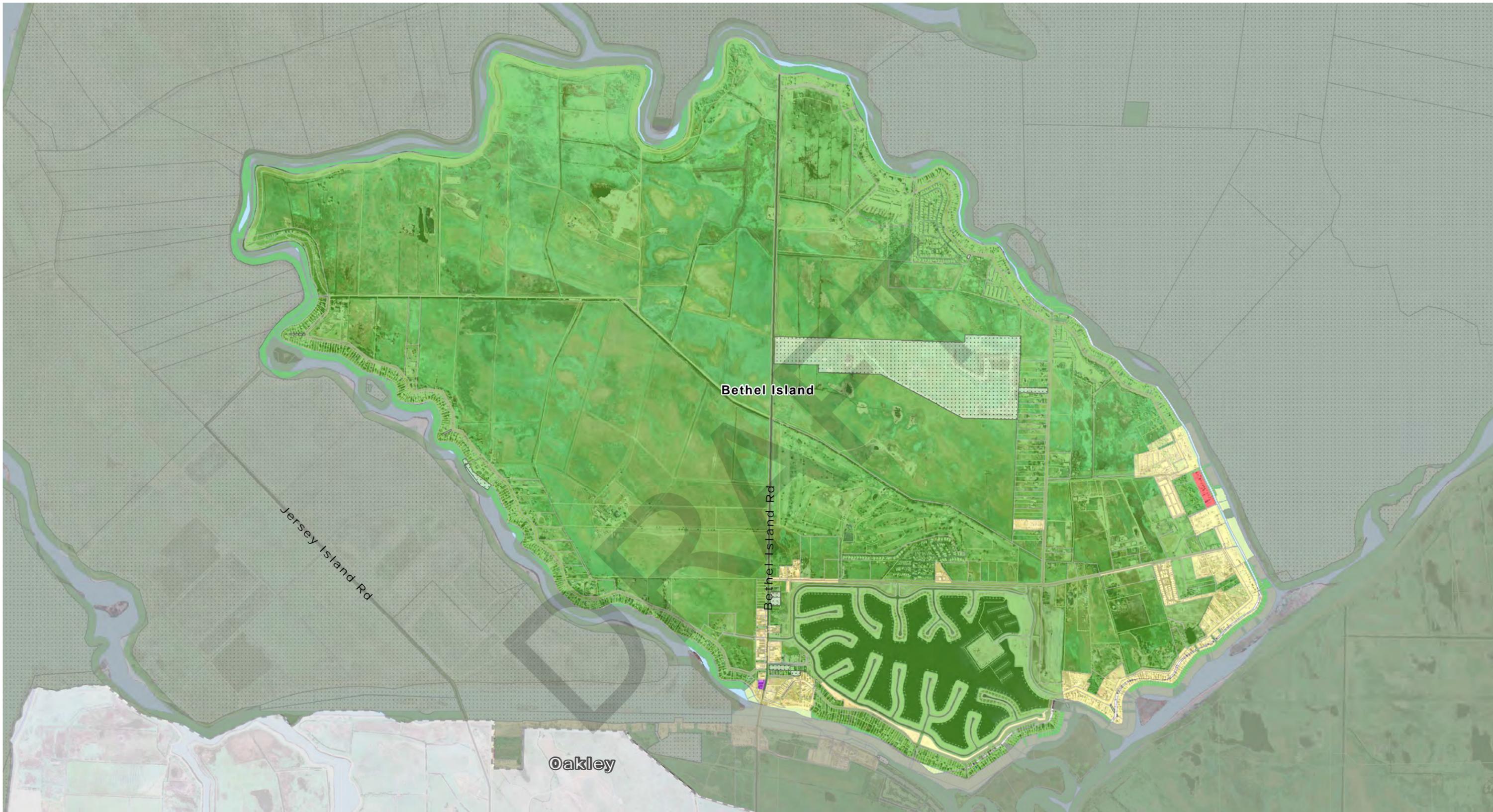
Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
401.55	0.00%	0.00%	2.13%	97.87%	Residential	Litter

### Summary of Control Measures and Implementation Schedule for Trash Management Area BIS-5

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

### Evaluation of Program Effectiveness for Trash Management Area BIS-5

Control Measure	Evaluation Method Details
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups



**Contra Costa County  
Trash Rates for the  
Community of  
Bethel Island**

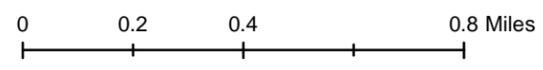


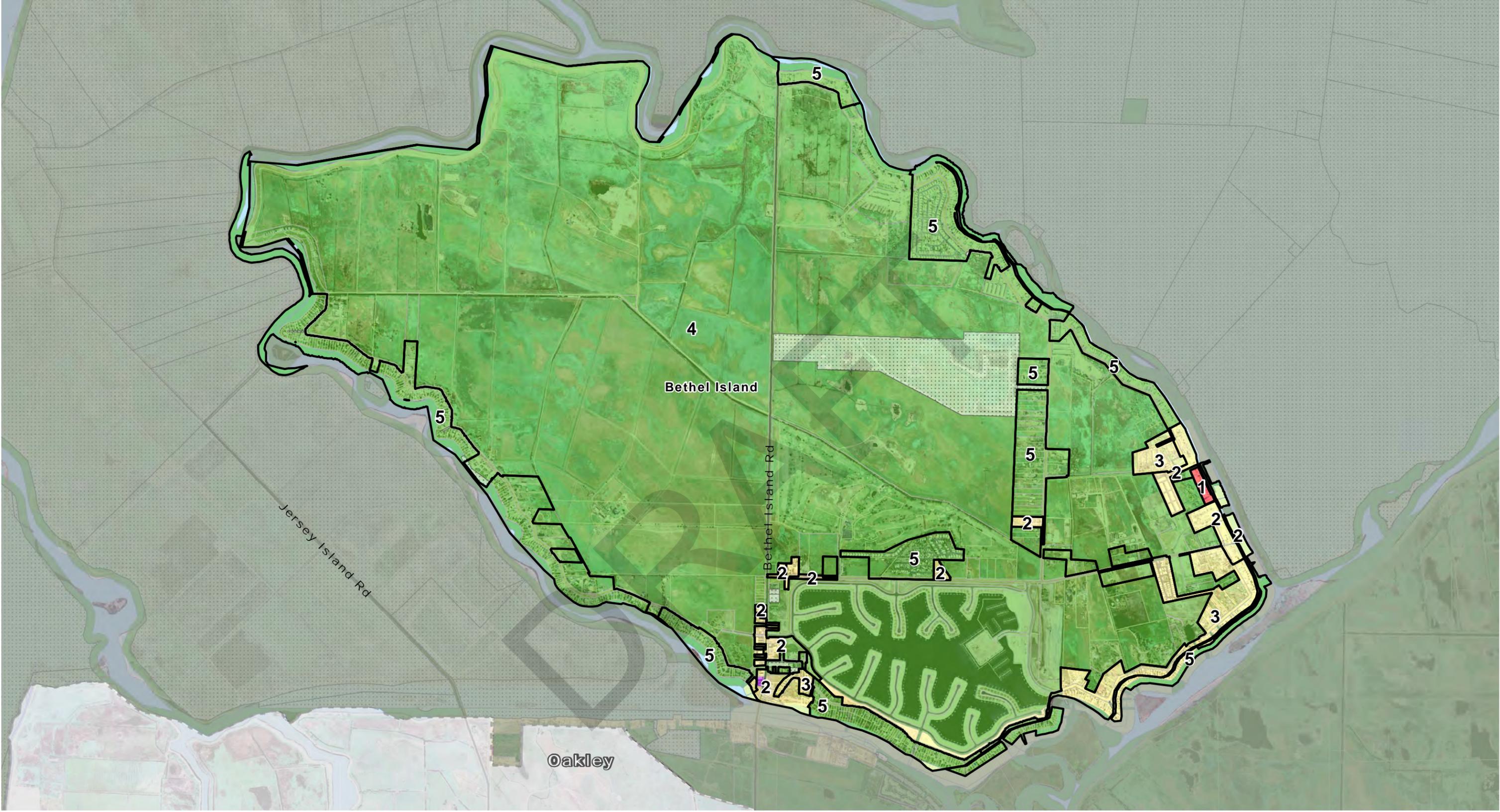
<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		City	

1 inch = 1,750 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
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 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





**Contra Costa County  
Draft Trash Plan for the  
Community of  
Bethel Island**

<b>Trash Rate</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		Trash Management Areas	City

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014

1 inch = 1,750 feet

0 0.2 0.4 0.8 Miles

**Byron**  
**Trash Management Plan**  
**2014-2022**

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

See Section 1 of the County-wide introduction chapter for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra Costa County’s long term trash plan.

## 2. Town of Byron Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Byron is a rural unincorporated community in far eastern Contra Costa County, south of the City of Brentwood and close to the San Joaquin River Delta (Delta). It is largely composed of agricultural land uses, along with small commercial, institutional, multi-family residential areas, and rural roads. This small community has no significant sources of trash generation. The vast majority of it has low trash load levels, with small pockets of high and medium-trash load levels amid its Commercial and Institutional land uses that are located beside Byron Highway. Trash sources tend to be associated with incidental littering.

Demographic data from the 2010 census is presented in Table 2-1.

**Table 2-1. 2010 Census Data**

<b>Population</b>	<b>2137</b>
<b>Under 18</b>	260
<b>18-24</b>	132
<b>25-44</b>	326
<b>45-64</b>	845
<b>65 and older</b>	574
<b>Median household income</b>	\$68,810

Table 2-2 presents summarizes land uses within Byron in unincorporated Contra Costa County:

**Table 2-2. 2005 Land Uses (ABAG)**

<b>Land Use Category</b>	<b>Jurisdictional Area</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	74.27	2.6%
<b>Industrial</b>	146.69	5.2%
<b>Residential</b>	1083.64	38.1%
<b>Retail</b>	38.04	1.3%
<b>K-12 Schools</b>	12.26	0.4%
<b>Urban Parks</b>	9.89	0.3%
<b>Other</b>	1477.41	52.0%

### B. Drainage System and Water Resources Affected by Trash

Byron is at the base of the Brushy Creek Watershed where it historically met the Delta. Upstream of the community is Frisk Creek, which is an annual creek with natural, unlined channels. There are no storm drains, as the community generally lacks curb and gutter system, apart from a one block segment in its downtown area) and instead drains waters by way of swales and roadside ditches.

### C. Trash Problems and Priorities

Byron has relatively minor trash problems due its rural character and its predominant land use of single-family residential housing. Given its rural nature and absence of a curb and gutter system, Byron is not part of the County's street sweeping program.

Table 2-3 summarizes trash generation by land use:

Table 2-3. Trash Generation Category by Land Use								
Trash Generation Category	Jurisdictional Area (Acres)	Commercial and Services	Industrial	Residential	Retail	K-12 Schools	Urban Parks	Other
High/Very High	12.83	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Medium	13.17	0.53%	13.68%	8.12%	1.97%	0.00%	0.00%	75.70%
Low	55.05	15.34%	55.32%	0.00%	4.44%	0.00%	0.00%	24.90%

## 3. Byron Trash Management Strategy

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The strategies discussed below are based on strategies developed for areas in unincorporated Contra Costa County. The strategies are determined based on the trash load, the land use, and the sources generating the trash.

### A. Delineation of Trash Management Areas

Trash Management Areas (TMAs) were determined based on their trash management loads and their associated land use(s). For Byron, the TMA code is BYR. There are two TMAs for Byron, BYR-1 and BYR-2, whose characteristics are summarized in Table 3.1 below, and are described in Section 4.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
BYR-1	43.48	0.00%	5.00%	95.00%	0.00%
BYR-2	4,041.92	0.00%	0.00%	0.34%	99.66%

- **BYR-1** - Commercial and Institutional land use-designations with a mixture of high and medium-trash load.
- **BYR-2** – The majority of this TMA is designated as Residential, with pockets of Multi-unit Residential with low trash-load.

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

**C. Trash Reduction Policies**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of Contra Costa County’s status and implementation of product bans including plastic bags, polystyrene, and plastic bottles for the unincorporated portions of the county.

**D. Public Education, Outreach, and Community Involvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of the Contra Costa County’s public education, outreach, and public involvement for the unincorporated portions of the county.

Develop public education and outreach activities. For Byron outreach, education and community involvement would consist of coordinating with the Byron School District to foster development of a litter abatement team through the Excelsior Middle School.

**E. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of how unincorporated Contra County will assess, evaluate and reduce trash levels. For specific assessments to control measures proposed in Byron, see Byron’s specific Trash Management Area Tables below. The tables lay out the Control Measures and the corresponding evaluations of Program Effectiveness.

**4. Trash Management Area Plans**

In general, commercial and institutional areas have been grouped together and single family and multi-family residences have been grouped together. The higher trash loads tend to be found along Byron Highway (State Route 4). Byron has a total of two trash management areas, BYR-1 and BYR-2, that are described below.

BYR-1 is comprised of: 1) a mixture of high and medium-trash load levels; and 2) Commercial and Institutional land use-designations.

**Key Characteristics of BYR-1**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
43.48	0.00%	5.00%	95.00%	0.00%	Commercial and Institutional	Resident/Pedestrian-generated litter

BYR-1 has the highest trash levels within the unincorporated community of Byron and is in its commercial core.

**Summary of Control Measures and Implementation Schedule for BYR-1**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Community Outreach</b>	Enhance public information campaigns in coordination with the Byron Municipal Advisory Council and Excelsior Middle School to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.				<b>X</b>
<b>Improved Trash Bins/Container Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.				<b>X</b>
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances			<b>X</b>	<b>X</b>
<b>Code Enforcement/Ordinances</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.				<b>X</b>

## Evaluation of Program Effectiveness for BYR-1

Control Measure	Evaluation Method Details
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Improved Trash Bins/Container Management</b>	Monitor capacity (below capacity, at capacity, or beyond capacity/overflowing) of bins at pick-up. Monitor incidences of number of times trash is outside of containers, with goal of decreasing trend towards zero.
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups
<b>Code Enforcement/Ordinances</b>	Using the BASMAA protocol, track trash load(s) after conducting education/outreach efforts, notices of violations, and follow-up.

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## Byron Long-Term Trash Reduction Plan

TRASH MANAGEMENT AREA

**BYR-2**

BYR-2 comprises the low trash-load portion of this community, the majority of which is designated as Residential, with pockets of Multi-unit Residential.

### Key Characteristics of BYR-2

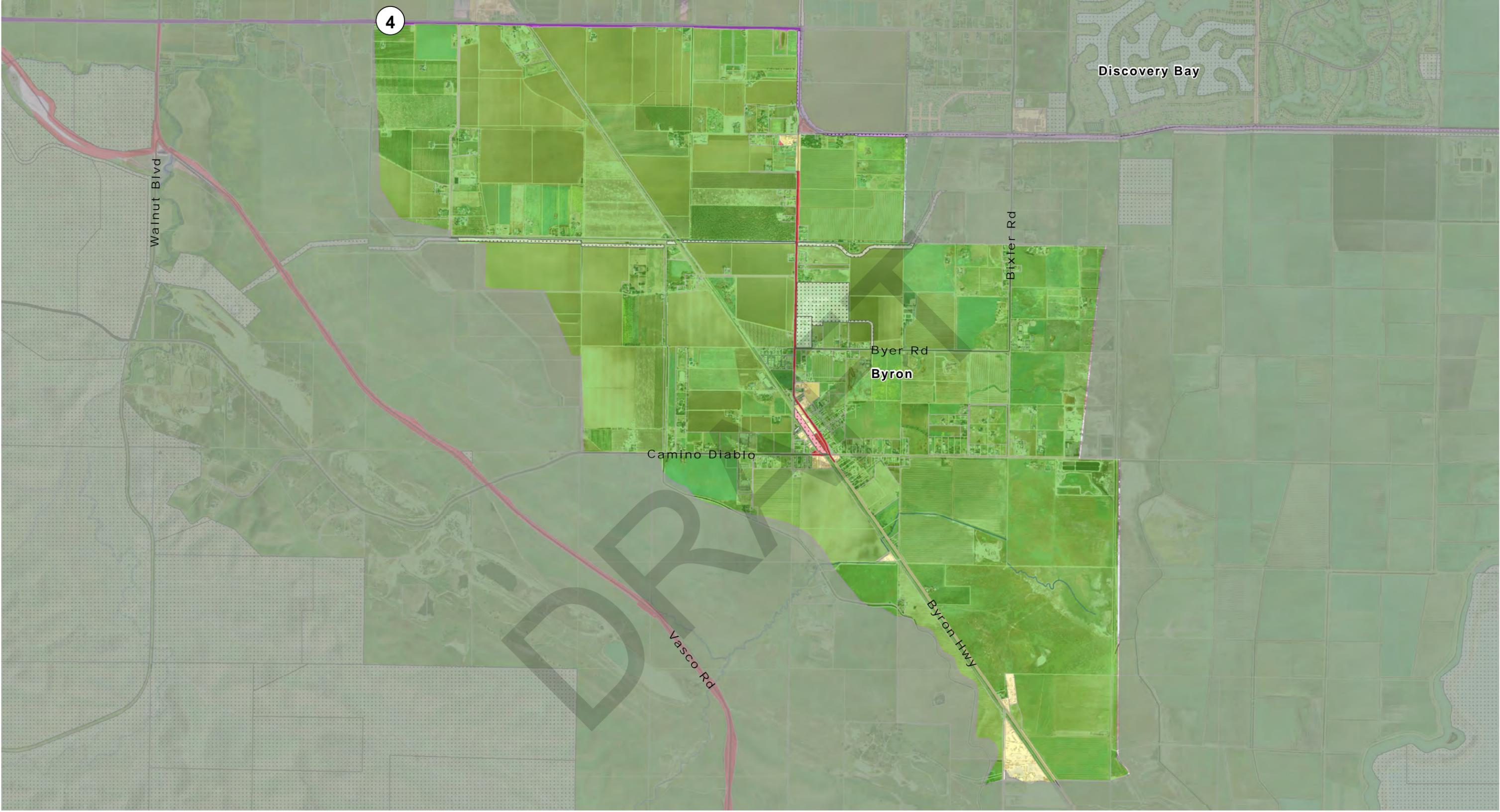
Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
4,041.92	0.00%	0.00%	0.34%	99.66%	Residential and Multi-unit Residential	Resident/Pedestrian-generated litter

### Summary of Control Measures and Implementation Schedule for BYR-2

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Community Outreach	Enhance public information campaigns to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.		X	X	X
Product Bans	Implement plastic bag and styrofoam food container ordinances			X	X

### Evaluation of Program Effectiveness for BYR-2

Control Measure	Evaluation Method Details
Community Outreach	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
Product Bans	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.



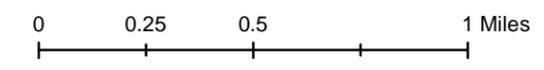
## Contra Costa County Trash Rates for the Community of Byron

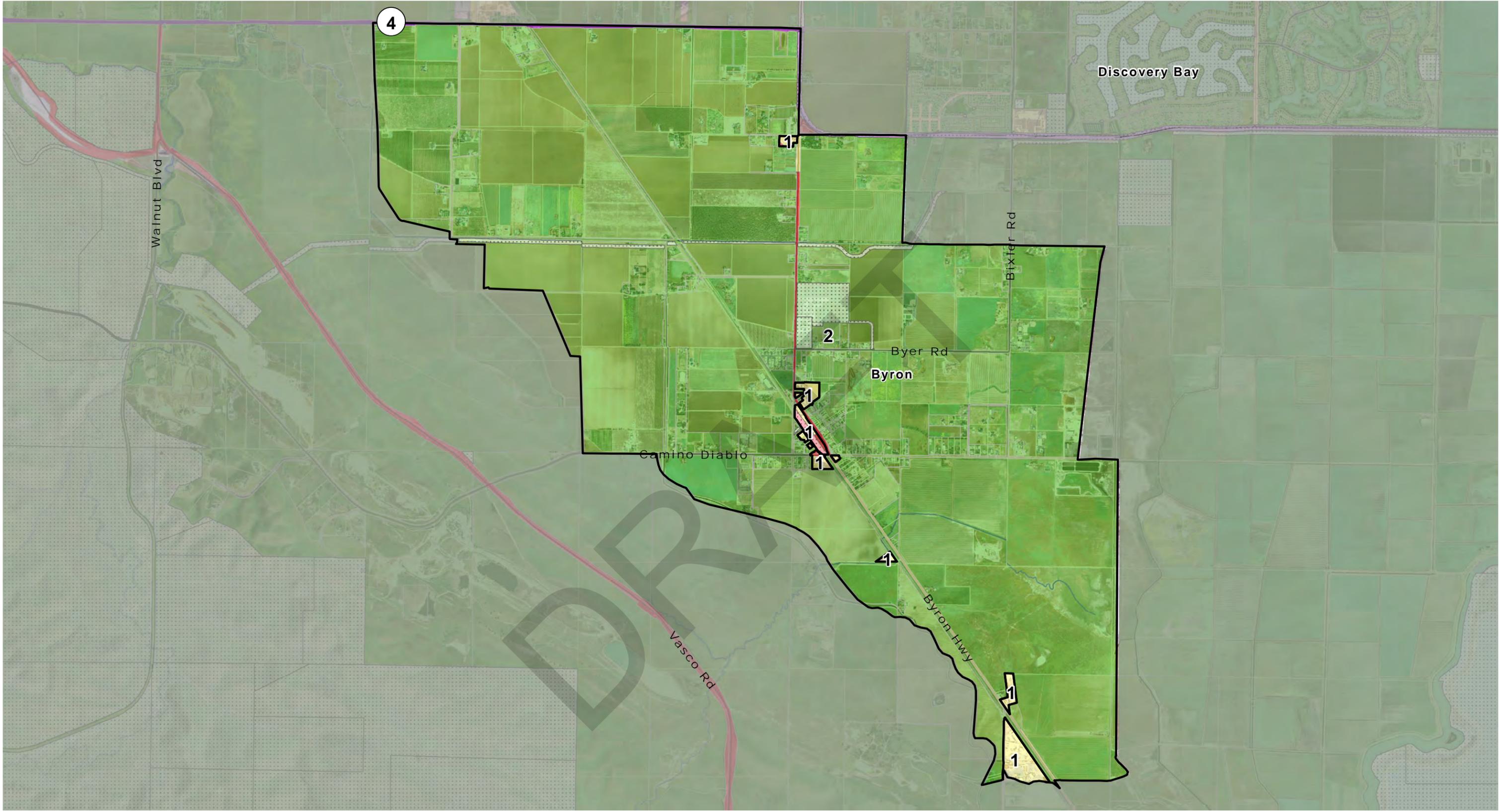
<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		City	

1 inch = 2,250 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
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 Land Use Codes: Contra Costa County, August 2008

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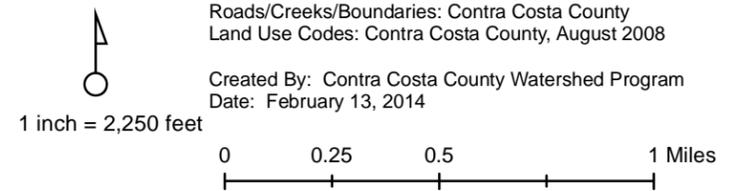


**Contra Costa County  
Draft Trash Plan for the  
Community of  
Byron**

<b>Trash Rate</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		Trash Management Areas	City

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014



**Clyde**  
**Trash Management Plan**  
**2014-2022**

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

Clyde is a community in Central Contra Costa County. It has industrial, commercial, and residential areas. In terms of trash generation, it has a small area generating a medium amount of trash and areas generating low amounts of trash.

See Section 1 of the county-wide Trash Management Plan for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra Costa County's long term trash plan.

## 2. Clyde Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Demographic data from the 2010 census is presented in Table 2-1.

**Table 2-1. 2010 Census Data**

<b>Population (# people)</b>	678
<b>Under 18</b>	151
<b>18-24</b>	65
<b>25-44</b>	175
<b>45-64</b>	234
<b>65 and older</b>	53
<b>Median household income</b>	\$ 96,447

Table 2-2 presents summarizes land uses within Clyde in unincorporated Contra Costa County

**Table 2-2. 2005 Land Uses (ABAG)**

<b>Land Use Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	0.65	0.8%
<b>Industrial</b>	3.42	4.1%
<b>Residential</b>	63.70	76.8%
<b>Retail</b>	0.00	0.0%
<b>K-12 Schools</b>	0.00	0.0%
<b>Urban Parks</b>	0.00	0.0%
<b>Other</b>	15.21	18.3%

## B. Drainage System and Water Resources Affected by Trash

Clyde is in the Mt. Diablo Watershed which begins at Mt. Diablo and continues northeast to Suisun Bay. Stormwater from Clyde flows to Mt. Diablo Creek. Clyde has curbs and gutters that direct stormwater to the storm sewer system in some parts of town, other areas have road-side ditches.

## C. Trash Problems and Priorities

Clyde has a small commercial area that generates a medium amount of trash, and areas that generate low amounts of trash. The priority in Clyde will be to focus on the small area that generates a medium amount of trash and to work with the property owner/manager to implement control measures to reduce the trash load. More specifics on which control measures will be implemented in each trash management area are discussed in Section 4.

See Section 1 of the county-wide Trash Management Plan for more details on the visual trash assessment protocol Contra Costa County used to determine trash loads, the county's priorities, and the process of implementing various control measures in the unincorporated portions of the county.

Table 2-3 summarizes trash generation by land use:

<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>Very High</b>	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>High</b>	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Medium</b>	4.00	0.00%	85.50%	0.00%	0.00%	0.00%	0.00%	14.50%
<b>Low</b>	78.98	0.82%	0.00%	80.66%	0.00%	0.00%	0.00%	18.52%

## 2. Clyde Trash Management Strategy

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The strategies discussed below are based on strategies developed for areas in unincorporated Contra Costa County. The strategies are determined based on the trash load, the land use, and the sources generating the trash.

The strategy to reduce trash in Clyde is to work with the property owner/manager of the commercial facility generating a moderate amount of trash to implement measures to reduce the amount of trash generated at the site. Specifics on each trash management area are provided in section 4 below.

**A. Delineation of Trash Management Areas**

Trash Management Areas were determined based on their trash management loads and their associated land use.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
CLD-1	4.00	0.00%	0.00%	100.00%	0.00%
CLD-2	1.87	0.00%	0.00%	0.00%	100.00%
CLD-3	77.10	0.00%	0.00%	0.00%	100.00%

- CLD-1 includes a commercial area generating a medium amount of trash
- CLD-2 includes an industrial and a commercial area generating low amounts of trash.
- CLD-3 includes residential areas and a trail generating low amounts of trash.

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

**C. Creek and Shoreline Cleanups**

**Table 3-2. Creek and Shoreline Cleanups**

Location	Description	Cleanup Frequency			
		Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Location 1	There are no creek shoreline cleanups in Clyde				

Creek cleanups have not been organized in Clyde.

**D. Trash Reduction Policies**

See Section 1 of the county-wide Trash Management Plan for a comprehensive discussion of Contra Costa County’s status and implementation of product bans including plastic bags and foam polystyrene food and beverage containers for the unincorporated portions of the County.

#### **E. Public Education, Outreach, and Community Involvement**

Through the CCCWP, the Permittees conducted a “Litter Travels, But It Can Stop with You” multi-year campaign beginning in FY 2009-2010. The multi-media campaign was designed to educate Contra Costa’s citizens about the impacts of trash and litter in the County’s waterways and how they can help address this problem and included TV spots, billboards, posters at BART stations, placards on transit buses, print ads and updates to the CCCWP website. Other outreach included more than 10,000 letters to County residents, contact with youth sports leagues, outreach to the 17 school districts in the County, and distribution of flyers to students in 5 of those districts. Pre and post-campaign surveys were conducted.

See Section 1 of the county-wide Trash Management Plan for a comprehensive discussion of the Contra Costa County’s public education, outreach, and public involvement for the unincorporated portions of the county.

Public outreach in Clyde will include working with the commercial facility generating a medium amount of trash.

#### **F. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 1 of the county-wide Trash Management Plan for a comprehensive discussion of how unincorporated Contra County will assess, evaluate and reduce trash levels. For specific assessments to control measures proposed in Clyde, see Clyde’s specific Trash Management Area Tables below. The tables lay out the Control Measures and the corresponding evaluations of Program Effectiveness.

### **3. Trash Management Area Plans**

#### **A. TMA-Specific Plans**

The trash management areas described below are broken down by areas generating medium or low levels of trash by their land use. In general, commercial and industrial have been grouped together, single family and multi-family residences have been grouped together. Clyde has a total of three trash management areas:

CLD-1 includes a commercial area generating a medium amount of trash;

CLD-2 includes an industrial and a commercial area generating low amounts of trash;

CLD-3 includes residential areas and a trail generating low amounts of trash.

**Clyde Long-Term Trash Reduction Plan**

The Clyde Trash Management Area 1 (CLD-1) consists of areas generating medium trash loads. It includes industrial areas where similar control measure strategies will be implemented.

**Key Characteristics of Trash Management Area CLD-1**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
4.00	0.00%	0.00%	100.00%	0.00%	Industrial	Litter, Trash Bin Overflow

**Summary of Control Measures and Implementation Schedule for Trash Management Area CLD-1**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval)			X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

## Evaluation of Program Effectiveness for Trash Management Area CLD-1

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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## Clyde Point Long-Term Trash Reduction Plan

The Clyde Trash Management Area 2 (CLD-2) consists of areas generating low trash loads. It includes commercial and industrial areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area CLD-2

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
1.87	0.00%	0.00%	0.00%	100.00%	Industrial and Commercial	Litter

### Summary of Control Measures and Implementation Schedule for Trash Management Area CLD-2

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter	X	X	X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

## Evaluation of Program Effectiveness for Trash Management Area CLD-2

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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**Clyde Long-Term Trash Reduction Plan**

The Clyde Trash Management Area 3 (CLD-3) consists of areas generating low trash loads. It includes residential areas where similar control measure strategies will be implemented.

**Key Characteristics of Trash Management Area CLD-3**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
77.10	0.00%	0.00%	0.00%	100.00%	Residential	Litter

**Summary of Control Measures and Implementation Schedule for Trash Management Area CLD-3**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter	X	X	X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

**Evaluation of Program Effectiveness for Trash Management Area CLD-3**

Control Measure	Evaluation Method Details
<b>Street Sweeping</b>	Visually assess before and after conditions
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups



**Contra Costa County  
Trash Rates for the  
Community of  
Clyde**

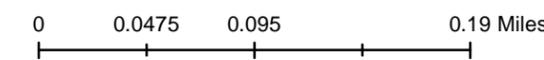


<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		City	

1 inch = 425 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

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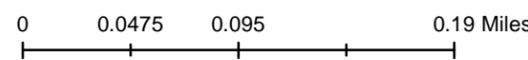
**Contra Costa County  
Draft Trash Plan for the  
Community of  
Clyde**

<b>Trash Rate</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium	Trash Management Areas	City	

1 inch = 425 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014



**Crockett and Port Costa  
Trash Management Plan  
2014-2022**

DRAFT

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

Crockett and Port Costa are communities in western Contra Costa County. They have industrial, commercial, institutional, residential and open space areas. In terms of trash generation, they have a very small area generating high trash, some areas generating a medium amount of trash and areas generating low amounts of trash.

See Section 1 of the county-wide Trash Management Plan for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra County's long term trash plan.

## 2. Crockett and Port Costa Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Demographic data from the 2010 census is presented in Table 2-1.

**Table 2-1. 2010 Census Data**

<b>Population (# people)</b>	3,284
<b>Under 18</b>	480
<b>18-24</b>	227
<b>25-44</b>	863
<b>45-64</b>	1,211
<b>65 and older</b>	503
<b>Median household income</b>	\$82,511*

\* This represents the average of the median household incomes as designated by the census for Crockett and Port Costa.

Table 2-2 summarizes land uses within Crockett and Port Costa in unincorporated Contra Costa County

**Table 2-2. 2005 Land Uses (ABAG)**

<b>Land Use Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	9.20	0.4%
<b>Industrial</b>	67.36	3.2%
<b>Residential</b>	287.26	13.7%
<b>Retail</b>	10.14	0.5%
<b>K-12 Schools</b>	9.24	0.4%
<b>Urban Parks</b>	0.97	0.0%
<b>Other</b>	1,705.26	81.6%

## B. Drainage System and Water Resources Affected by Trash

Crockett and Port Costa are in the Carquinez Watershed. Edwards Creek and Elkhorn Creek begin in the Regional Parks and open land areas southeast of Crockett. Stormwater from those areas flows through Crockett and into the Carquinez Strait. Bull Valley Creek also begins in Regional Parks and flows through Port Costa and into the Carquinez Strait.

## C. Trash Problems and Priorities

Crockett and Port Costa have a small area that generates a high amount of trash, an area that generates a medium amount of trash, and other areas that generate low amounts of trash. The first priority will be to focus on the small area that generates a high amount of trash and to work with the community to implement control measures to reduce the trash load. Land uses in these areas include commercial and residential. The control measures that will be implemented as appropriate include enhanced street sweeping, trash bin management, community outreach, code enforcement and product bans. The second priority will be to focus on areas generating a medium amount of trash and to implement appropriate control measures to reduce trash. More specifics on which control measures will be implemented in each trash management area are discussed in Section 4.

See Section 2 of the county-wide Trash Management Plan for more details on Contra Costa County's visual trash assessment protocol and priorities as well as the process of implementing various control measures in the unincorporated portions of the county.

Table 2-3 summarizes trash generation by land use:

<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>Very High</b>	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>High</b>	154.69	0.00%	0.00%	0.89%	1.97%	0.00%	0.00%	97.14%
<b>Medium</b>	148.40	6.03%	24.41%	39.00%	2.86%	6.23%	0.63%	20.85%
<b>Low</b>	1,786.33	0.01%	1.74%	12.76%	0.16%	0.00%	0.00%	85.32%

## 2. Crockett and Port Costa Trash Management Strategy

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The strategies discussed below are based on strategies developed for areas in unincorporated Contra Costa County. The strategies are determined based on the trash load, the land use, and the sources generating the trash.

The strategy to reduce trash in Crockett and Port Costa is to further assess where and how trash is being generated and implement effective control measures. The County's priority for Crockett and Port Costa

will be to focus on the small area generating a high amount of trash. The land uses in this area include commercial and residential areas. The County will implement parking enforcement during street sweeping in areas with high trash loads, work with property owners/managers to better manage trash bins, coordinate with appropriate agencies to enforce appropriate codes, continue public outreach efforts, and implement product bans as appropriate. Specifics on each trash management area are provided in section 4 below.

**A. Delineation of Trash Management Areas**

Trash Management Areas were determined based on their trash management loads and their associated land use.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category (%)			
		Very High	High	Medium	Low
CPC-1	4.34	0.00%	96.63%	3.37%	0.00%
CPC-2	59.19	0.00%	0.39%	95.74%	3.87%
CPC-3	84.98	0.00%	0.00%	74.18%	25.82%
CPC-4	194.97	0.00%	0.00%	0.33%	99.67%
CPC-5	243.04	0.00%	0.00%	0.56%	99.44%
CPC-6	1,326.35	0.00%	0.00%	0.02%	99.98%
CPC-7	150.23	0.00%	100.00%	0.00%	0.00%
CPC-8	24.82	0.00%	0.00%	100.00%	0.00%

- CPC-1 includes a small commercial and residential area generating a high amount of trash.
- CPC-2 includes commercial and institutional areas generating medium amounts of trash.
- CPC-3 includes residential areas generating medium amounts of trash
- CPC-4 includes commercial and institutional areas generating low amounts of trash.
- CPC-5 includes residential areas generating low amounts of trash.
- CPC-6 includes open spaces generating low amounts of trash.
- CPC-7 includes roads generating high amounts of trash.
- CPC-8 includes roads generating medium amounts of trash.

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

**C. Creek and Shoreline Cleanups**

**Table 3-2. Creek and Shoreline Cleanups**

Location	Description	Cleanup Frequency			
		Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Location 1</b>	There are no creek shoreline cleanups in Crockett or Port Costa				

Creek cleanups have not been organized in Crockett or Port Costa. When creek cleanups do take place, they are documented and tracked. The frequency varies depending on the organization conducting the cleanup. The locations may change based on the trash loads, access to locations, and relevance of trash levels with respect to the location of receiving water. Contra Costa County updates this information in its Annual Report. Other on-land cleanups are conducted and recorded depending on need and resources. Those are discussed in Section 4 of this plan under control measures.

**D. Trash Reduction Policies**

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of Contra Costa County’s status and implementation of product bans including plastic bags and foam polystyrene food and beverage containers for the unincorporated portions of the County.

**E. Public Education, Outreach, and Community Involvement**

Through the CCCWP, the Permittees conducted a “Litter Travels, But It Can Stop with You” multi-year campaign beginning in FY 2009-2010. The multi-media campaign was designed to educate Contra Costa’s citizens about the impacts of trash and litter in the County’s waterways and how they can help address this problem and included TV spots, billboards, posters at BART stations, placards on transit buses, print ads and updates to the CCCWP website. Other outreach included more than 10,000 letters to County residents, contact with youth sports leagues, outreach to the 17 school districts in the County, and distribution of flyers to students in 5 of those districts. Pre and post-campaign surveys were conducted.

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of the Contra Costa County’s public education, outreach, and public involvement for the unincorporated portions of the county.

Public outreach in Crockett and Port Costa will include working with the Crockett and Port Costa Chamber of Commerce and other appropriate service clubs, schools interested in coordinating with Contra Costa County to help trash management strategies in Crockett and Port Costa.

**F. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of how unincorporated Contra County will assess, evaluate and reduce trash levels. For specific assessments to control measures proposed in Crockett and Port Costa, see Crockett and Port Costa’s specific Trash

Management Area Tables below. The tables lay out the Control Measures and the corresponding evaluations of Program Effectiveness.

### 3. Trash Management Area Plans

#### A. TMA-Specific Plans

The trash management areas described below are broken down by areas generating high, medium or low levels of trash by their land use. In general, commercial, industrial, and institutional have been grouped together, single family and multi-family residences have been grouped together, as have roads generating significant quantities of trash. Crockett and Port Costa have a total of eight trash management areas: CPC-1 includes a small commercial and residential area generating a high amount of trash; CPC-2 includes commercial and institutional areas generating medium amounts of trash; CPC-3 includes residential areas generating medium amounts of trash; CPC-4 includes commercial and institutional areas generating low amounts of trash; CPC-5 includes commercial and institutional areas generating low amounts of trash; CPC-6 includes open spaces generating low amounts of trash; CPC-7 includes roads generating high amounts of trash; CPC-8 includes roads generating high amounts of trash.

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## Crockett and Port Costa Long-Term Trash Reduction Plan

The Crockett and Port Costa Trash Management Area 1 (CPC-1) consist of areas generating high trash loads. It includes industrial areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area CPC-1

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
4.34	0.00%	96.63%	3.37%	0.00%	Commercial and Residential	Litter, Trash Bin Overflow

### Summary of Control Measures and Implementation Schedule for Trash Management Area CPC-1

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval)			X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions			X	X
<b>Enhanced Storm Drain Inlet Maintenance</b>	Assess the storm drain inlet maintenance frequency and increase frequency as appropriate.			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances/codes			X	X
<b>Community Outreach</b>	Enhance public information campaigns. Provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

## Evaluation of Program Effectiveness for Trash Management Area CPC-1

Control Measure	Evaluation Method Details
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Enhanced Storm Drain Inlet Maintenance</b>	Track clean out frequency and trash level in neighborhood and inlet and adjust clean out frequency as appropriate
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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## Crockett and Port Costa Long-Term Trash Reduction Plan

The Crockett and Port Costa Trash Management Area 2 (CPC-2) consists of areas generating medium trash loads. It includes industrial, commercial, and institutional areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area CPC-2

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
59.19	0.00%	0.39%	95.74%	3.87%	Commercial, Industrial, Institutional	Litter, Trash Bin Overflow

### Summary of Control Measures and Implementation Schedule for Trash Management Area CPC-2

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval)			X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances/codes			X	X
<b>Community Outreach</b>	Enhance public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

## Evaluation of Program Effectiveness for Trash Management Area CPC-2

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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## Crockett and Port Costa Long-Term Trash Reduction Plan

The Crockett and Port Costa Trash Management Area 3 (CPC-3) consists of areas generating moderate trash loads. It includes residential areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area CPC-3

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
84.98	0.00%	0.00%	74.18%	25.82%	Residential	Litter, Trash Bin Overflow

### Summary of Control Measures and Implementation Schedule for Trash Management Area CPC-3

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval)			X	X
<b>Improved Trash Bins/Container Management</b>	Particularly for multi-family residential areas where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions			X	X
<b>Community Outreach</b>	Enhance public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

## Evaluation of Program Effectiveness for Trash Management Area CPC-3

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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## Crockett and Port Costa Long-Term Trash Reduction Plan

The Crockett and Port Costa Trash Management Area 4 (CPC-4) consists of areas generating low trash loads. It includes industrial, commercial, and institutional areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area CPC-4

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
194.97	0.00%	0.00%	0.33%	99.67%	Commercial, Industrial, Institutional	Litter

### Summary of Control Measures and Implementation Schedule for Trash Management Area CPC-4

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter	X	X	X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances/codes			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

## Evaluation of Program Effectiveness for Trash Management Area CPC-4

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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## Crockett and Port Costa Long-Term Trash Reduction Plan

The Crockett and Port Costa Trash Management Area 5 (CPC-5) consists of areas generating low trash loads. It includes residential areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area CPC-5

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
243.04	0.00%	0.00%	0.56%	99.44%	Residential	Litter

### Summary of Control Measures and Implementation Schedule for Trash Management Area CPC-5

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter	X	X	X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

### Evaluation of Program Effectiveness for Trash Management Area CPC-5

Control Measure	Evaluation Method Details
<b>Street Sweeping</b>	Visually assess before and after conditions
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

## Crockett and Port Costa Long-Term Trash Reduction Plan

The Crockett and Port Costa Trash Management Area 6 (CPC-6) consists of areas generating low trash loads. It includes open land where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area CPC-6

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
1,326.35	0.00%	0.00%	0.02%	99.98%	Open Land	Litter

### Summary of Control Measures and Implementation Schedule for Trash Management Area CPC-6

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

### Evaluation of Program Effectiveness for Trash Management Area CPC-6

Control Measure	Evaluation Method Details
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

**Crockett and Port Costa Long-Term Trash Reduction Plan**

The Crockett and Port Costa Trash Management Area 7 (CPC-7) consists of an area generating a high trash load. It includes a rural road where trash control measure strategies will be implemented.

**Key Characteristics of Trash Management Area CPC-7**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
150.23	0.00%	100.00%	0.00%	0.00%	Roads	Road-generated litter/Illegal Dumping

**Summary of Control Measures and Implementation Schedule for Trash Management Area CPC-7**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval)			X	X
<b>On-land Trash Cleanups</b>	High trash generating areas are cleaned regularly by contractor and/or community volunteer stewardship group. Frequency of cleanups to be determined by monitoring.		X	X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping	X	X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

## Evaluation of Program Effectiveness for Trash Management Area CPC-7

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>On-land Trash Cleanup</b>	Observe areas and measure amount of trash removed at various locations at various times to determine how quickly trash is regenerated in specific locations
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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## Crockett and Port Costa Long-Term Trash Reduction Plan

The Crockett and Port Costa Trash Management Area 8 (CPC-8) consists of an area generating a medium trash load. It includes a rural road where trash control measure strategies will be implemented.

### Key Characteristics of Trash Management Area CPC-8

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
24.82	0.00%	0.00%	100.00%	0.00%	Road	Road-generated litter/Illegal Dumping

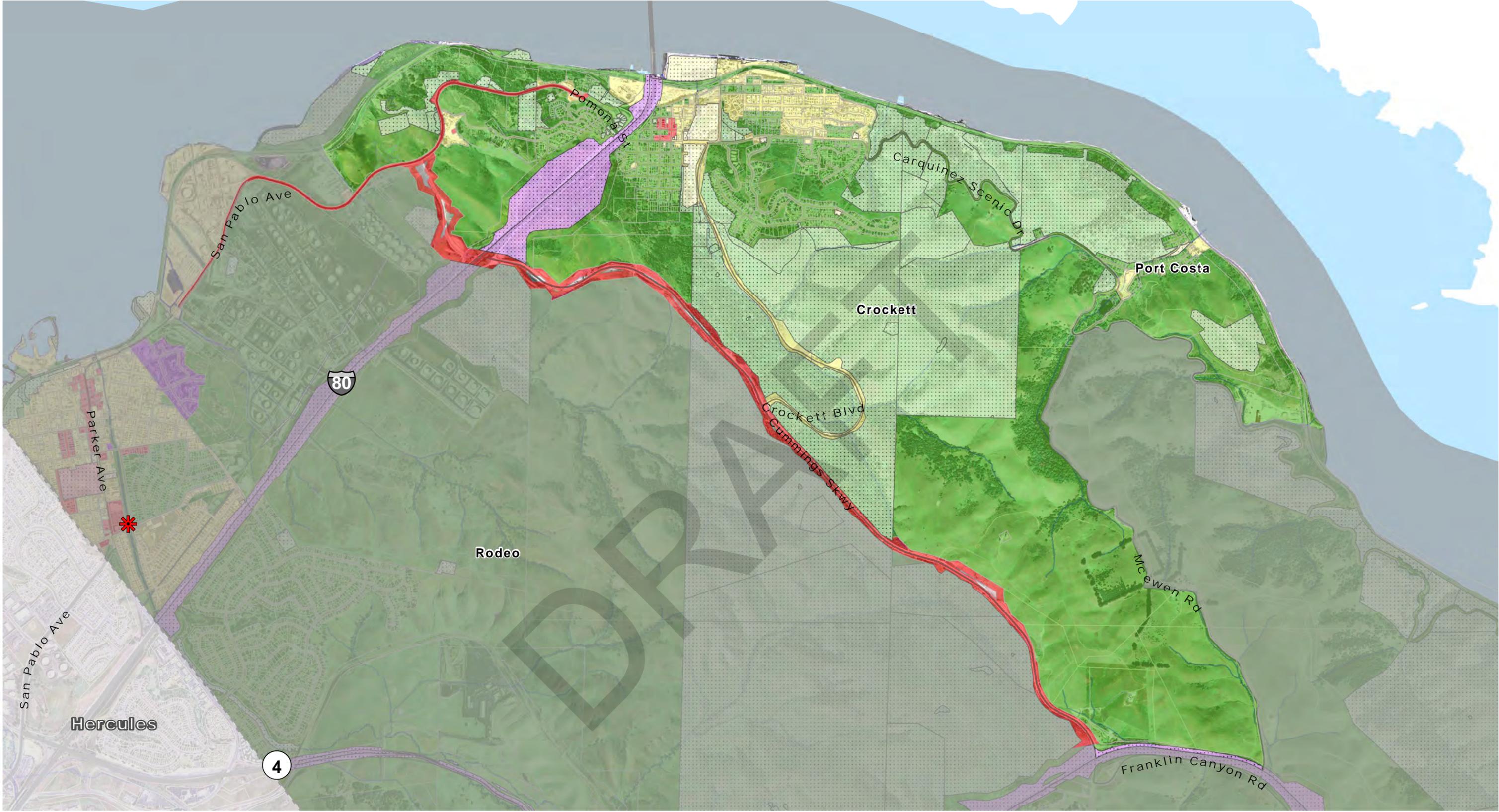
### Summary of Control Measures and Implementation Schedule for Trash Management Area CPC-8

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval)			X	X
<b>On-land Trash Cleanups</b>	High trash generating areas are cleaned regularly by contractor and/or community volunteer stewardship group. Frequency of cleanups to be determined by monitoring.		X	X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping	X	X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

## Evaluation of Program Effectiveness for Trash Management Area CPC-8

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>On-land Trash Cleanup</b>	Observe areas and measure amount of trash removed at various locations at various times to determine how quickly trash is regenerated in specific locations
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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**Contra Costa County  
Trash Rates for the  
Communities of  
Crockett/Port Costa**

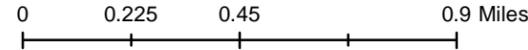


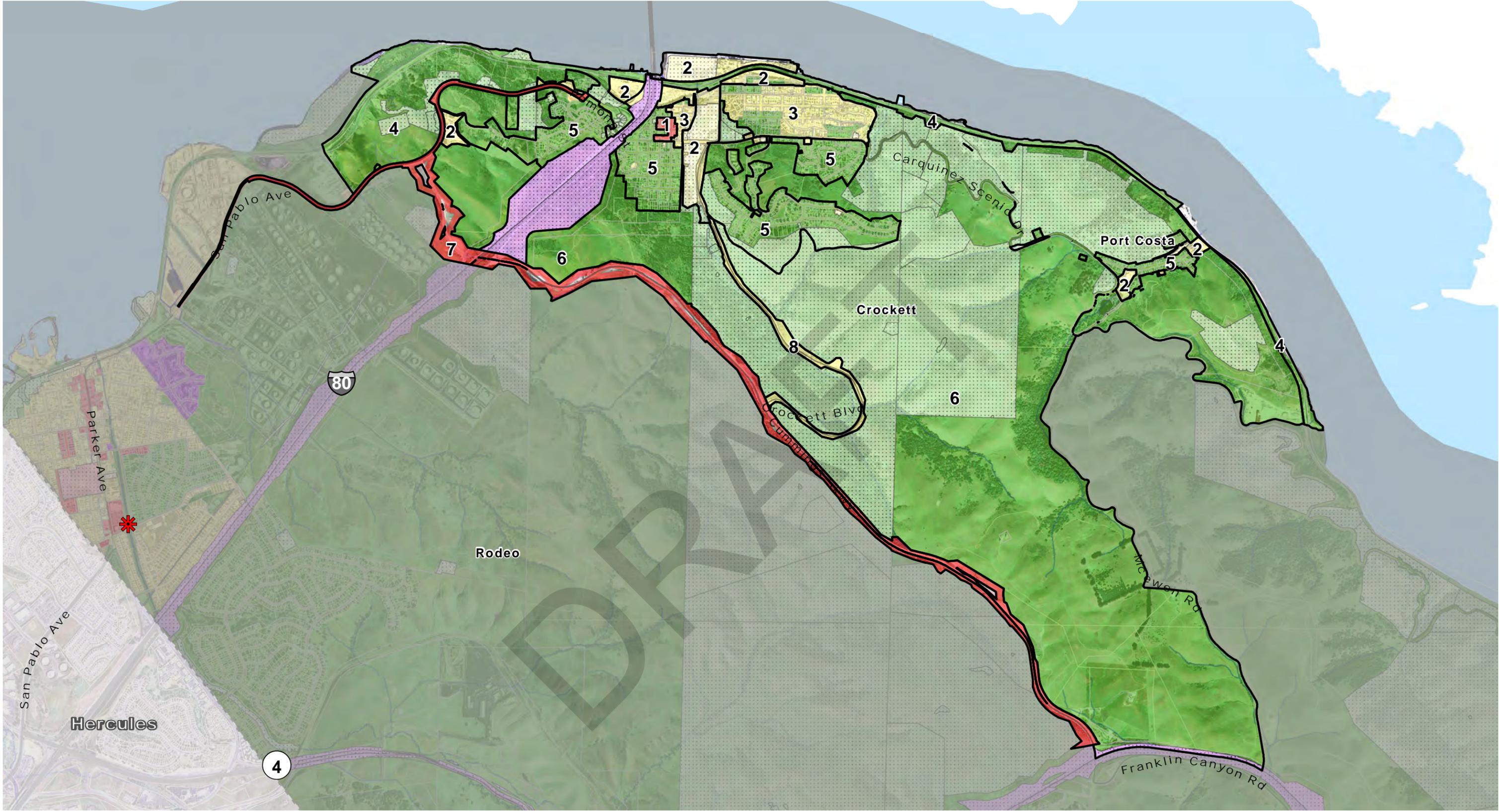
<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		City	

1 inch = 2,000 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





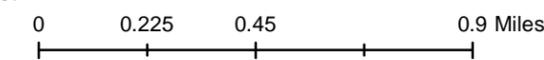
**Contra Costa County  
Draft Trash Plan for the  
Communities of  
Crockett/Port Costa**

<b>Trash Rate</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		Trash Management Areas	City

1 inch = 2,000 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014



**Discovery Bay  
Trash Management Plan  
2014-2022**

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

See Section 1 of the County-wide introduction chapter for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra Costa County’s long term trash plan.

## 2. Town of Discovery Bay Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Discovery Bay is a recreational boating-oriented, unincorporated residential community in far eastern Contra Costa County, east of the City of Brentwood and on the San Joaquin River Delta (Delta). This community has one significant source of trash generation in a portion of its central commercial district. The great majority of Discovery Bay has low trash load levels, with pockets of high and medium-trash load levels present in its Commercial and Institutional land uses that are located beside Discovery Bay Boulevard. Trash sources tend to be associated with trash bin management and with incidental littering.

Demographic data from the 2010 census is presented in Table 2-1.

Category	Value
<b>Population</b>	<b>2137</b>
<b>Under 18</b>	260
<b>18-24</b>	132
<b>25-44</b>	326
<b>45-64</b>	845
<b>65 and older</b>	574
<b>Median household income</b>	\$104,813

Table 2-2 presents summarizes land uses within Discovery Bay in unincorporated Contra Costa County:

Land Use Category	Jurisdictional Area	% of Jurisdictional Area
<b>Commercial and Services</b>	79.79	1.4%
<b>Industrial</b>	4.73	0.1%
<b>Residential</b>	1316.69	23.8%
<b>Retail</b>	33.13	0.6%
<b>K-12 Schools</b>	1.30	0.0%
<b>Urban Parks</b>	4.83	0.1%
<b>Other</b>	4091.13	74.0%

**B. Drainage System and Water Resources Affected by Trash**

Discovery Bay is located on the northwest corner of the San Joaquin Delta in former tidelands. The community has numerous artificial canals and channels to enable the residential docking of small craft. With its curb and gutter system, Discovery Bay has a storm drain network that feeds into the Delta.

**C. Trash Problems and Priorities**

Discovery Bay has relatively minor trash problems due its low-density character and its predominant land use of single-family residential housing. As previously noted, Discovery Bay has a curb and gutter system and is part of the County’s monthly street sweeping program.

Table 2-3 summarizes trash generation by land use:

<b>Table 2-3. Trash Generation Category by Land Use</b>								
<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>High/Very High</b>	0.47	9.69%	0.00%	39.58%	1.25%	0.00%	0.00%	49.48%
<b>Medium</b>	3.22	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Low</b>	42.60	18.89%	0.00%	30.26%	44.77%	2.62%	0.00%	3.47%

**3. Discovery Bay Trash Management Strategy**

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The strategies discussed below are based on strategies developed for areas in unincorporated Contra Costa County. The strategies are determined based on the trash load, the land use, and the sources generating the trash.

**A. Delineation of Trash Management Areas**

Trash Management Areas (TMAs) were determined based on their trash management loads and their associated land use(s). For Discovery Bay, the TMA code is DSB. There are two TMAs for Discovery Bay, DSB-1 and DSB-2, whose characteristics are summarized in Table 3.1 below, and are described in Section 4.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High/	Medium	Low
DSB-1	83.36	0.00%	3.86%	91.85%	00.29%
DSB-2	5,448.24	0.00%	0.00%	0.14%	99.86%

- **DSB-1** - Highest trash levels within Discovery Bay. In its commercial core, including the road leading into it, Discovery Bay Boulevard
- **DSB-2** - Low trash-load portion of this community, the majority of which is designated as Residential, with pockets of Multi-unit Residential

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Discovery Bay is an unincorporated community in the far eastern corner of Contra Costa County besides the San Joaquin Delta. It is largely composed of residential land uses situated on fingers of levees constructed around a network of boating channels, along with small commercial, institutional, and multi-family residential areas. In terms of trash generation, Discovery Bay has few issues. It has small areas generating a high amount of trash, several areas generating a medium amount of trash, with a great majority generating low levels of trash.

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

**C. Trash Reduction Policies**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of Contra Costa County’s status and implementation of product bans including plastic bags and polystyrene for the unincorporated portions of the county.

**D. Public Education, Outreach, and Community Involvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of the Contra Costa County’s public education, outreach, and public involvement for the unincorporated portions of the county.

For Discovery Bay outreach, education and community involvement efforts would take place through partnering with the Discovery Bay Municipal Advisory Council and the school district to craft a community specific outreach program.

**E. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of how unincorporated Contra County will assess, evaluate and reduce trash levels. For specific assessments to control measures proposed in Discovery Bay, see Discovery Bay’s specific Trash Management Area Tables below. The tables lay out the Control Measures and the corresponding evaluations of Program Effectiveness.

**4. Trash Management Area Plans**

The trash management areas in Discovery Bay are broken down by areas generating high, medium or low levels of trash by their land use. In general, commercial and institutional areas have been grouped together and single family and multi-family residences have been grouped together. Medium loads tend to be found along Discovery Bay Boulevard with medium and high load at the core commercial district. Discovery Bay has a total of two trash management areas, BYR-1 and BYR-2, that are described below.

## Discovery Bay Long-Term Trash Reduction Plan

## DSB-1

DSB-1 is comprised of: 1) a mixture of high and medium-trash load levels; and 2) Commercial and Institutional land use-designations.

Key Characteristics of DSB-1						
Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
83.36	0.00%	3.86%	91.85%	00.29%	Commercial and Institutional	Resident/Pedestrian-generated litter

DSB-1 has the highest trash levels within the unincorporated community of Discovery Bay and is in its commercial core, including the road leading into it, Discovery Bay Boulevard.

Summary of Control Measures and Implementation Schedule for DSB-1					
Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Community Outreach</b>	Enhance public information campaigns in coordination with the Discovery Bay Municipal Advisory Council to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.				<b>X</b>
<b>Improved Trash Bins/Container Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.				<b>X</b>
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances			<b>X</b>	<b>X</b>
<b>Code Enforcement/Ordinances</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.				<b>X</b>

## Evaluation of Program Effectiveness for DSB-1

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Improved Trash Bins/Container Management</b>	Monitor capacity (below capacity, at capacity, or beyond capacity/overflowing) of bins at pick-up. Monitor incidences of number of times trash is outside of containers, with goal of decreasing trend towards zero.
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.
<b>Code Enforcement</b>	Using the BASMAA protocol, track trash load(s) after conducting education/outreach efforts, notices of violations, and follow-up.

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## Discovery Bay Long-Term Trash Reduction Plan

## Key Characteristics of DSB-2

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
5,448.24	0.00%	0.00%	0.14%	99.86%	Residential and Multi-unit Residential	Resident/Pedestrian-generated litter

DSB-2 comprises the low trash-load portion of this community, the majority of which is designated as Residential, with pockets of Multi-unit Residential.

## Summary of Control Measures and Implementation Schedule for DSB-2

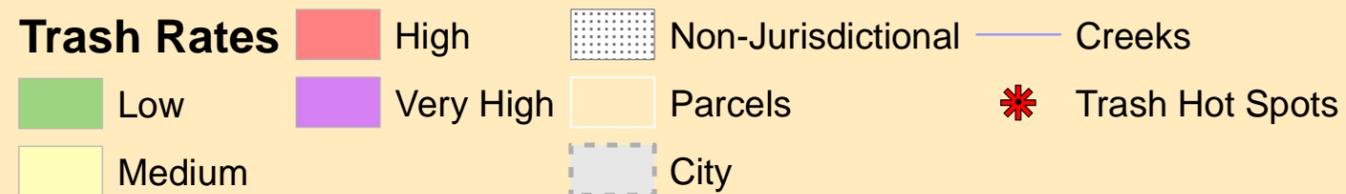
Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Community Outreach	Enhance public information campaigns to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.				X
Product Bans	Implement plastic bag and styrofoam food container ordinances			X	X

## Evaluation of Program Effectiveness for DSB-2

Control Measure	Evaluation Method Details
Community Outreach	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
Product Bans	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.



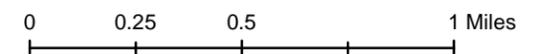
## Contra Costa County Trash Rates for the Community of Discovery Bay

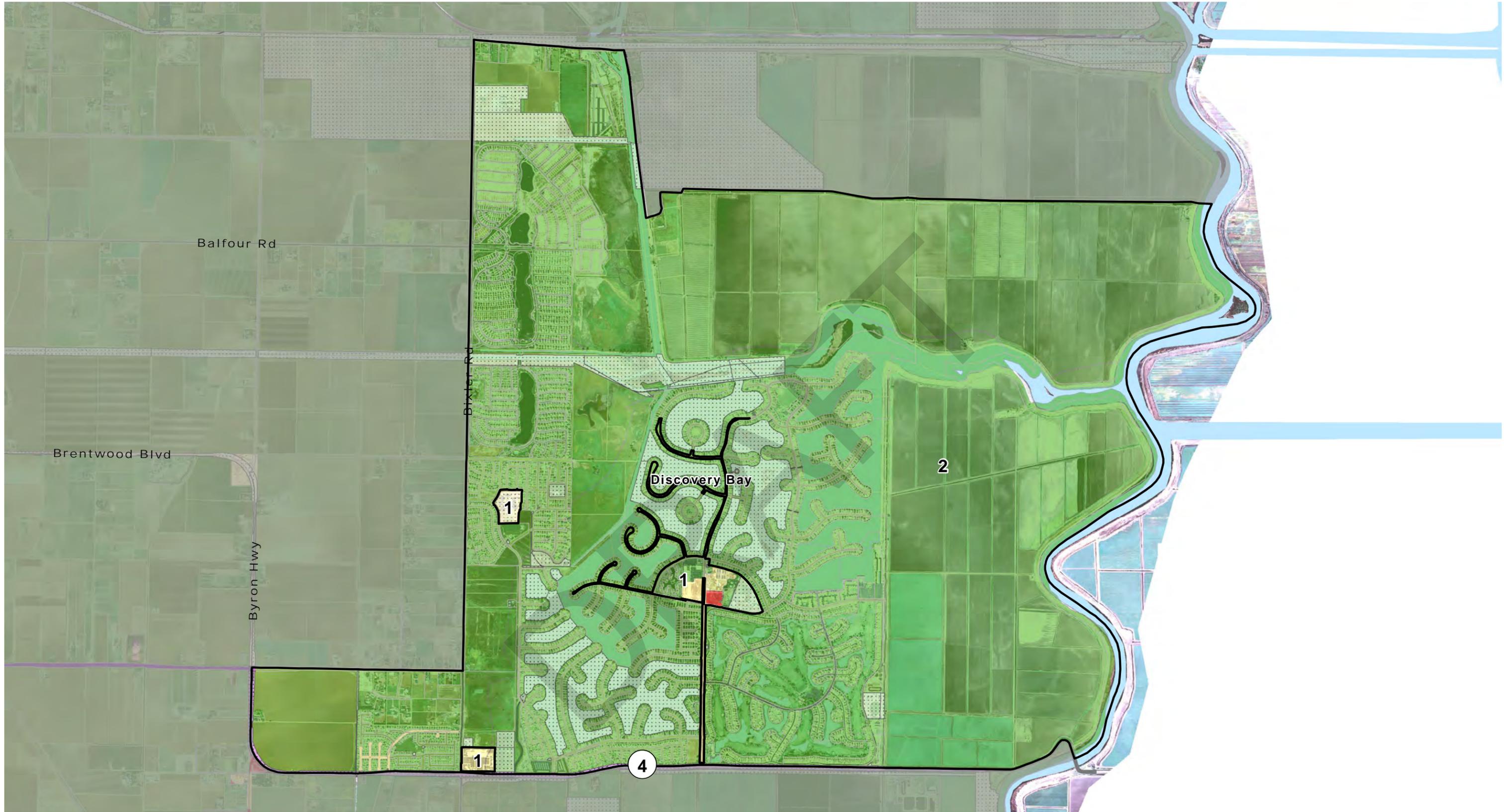


1 inch = 2,275 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





**Contra Costa County  
Draft Trash Plan for the  
Community of  
Discovery Bay**



Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014

1 inch = 2,275 feet

0 0.25 0.5 1 Miles

**El Sobrante  
Trash Management Plan  
2014-2022**

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

El Sobrante is a community in western Contra Costa County. It has commercial, institutional, residential areas, and open space areas. El Sobrante has some commercial corridors that generate high amounts of trash, several commercial, institutional, and residential areas that generate medium amounts of trash, and other residential and commercial areas generating low amounts of trash.

See Section 1 of the county-wide Trash Management Plan for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra Costa County's long term trash plan.

## 2. El Sobrante Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Demographic data from the 2010 census is presented in Table 2-1.

**Table 2-1. 2010 Census Data**

<b>Population (# people)</b>	12,669
<b>Under 18</b>	2,696
<b>18-24</b>	1,126
<b>25-44</b>	3,340
<b>45-64</b>	3,910
<b>65 and older</b>	1,597
<b>Median household income</b>	\$64,328

Table 2-2 presents summarizes land uses within El Sobrante in unincorporated Contra Costa County

**Table 2-2. 2005 Land Uses (ABAG)**

<b>Land Use Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	64.98	3.8%
<b>Industrial</b>	7.39	0.4%
<b>Residential</b>	1,304.04	76.8%
<b>Retail</b>	45.14	2.7%
<b>K-12 Schools</b>	11.62	0.7%
<b>Urban Parks</b>	0.00	0.0%
<b>Other</b>	265.26	15.6%

## B. Drainage System and Water Resources Affected by Trash

El Sobrante is in the San Pablo Creek Watershed. Stormwater flows to San Pablo Creek and Appian Creek, which is mostly underground, then flows to the San Pablo Bay.

## C. Trash Problems and Priorities

El Sobrante has areas that generate high, medium, and low amounts of trash. The first priority will be to focus on areas generating high amounts of trash and to work with the community to implement control measures to reduce the trash load. These land uses in these areas include commercial, industrial, institutional, a small amount of residential, and some main roadways. The general control measures that will be implemented as appropriate include full trash capture devices, enhanced street sweeping, trash bin management, community outreach, code enforcement and product bans. The second priority will be to focus on areas generating a medium amount of trash and to implement appropriate control measures to reduce trash. More specifics on which control measures will be implemented in each trash management area are discussed in Section 4.

See Section 2 of the county-wide Trash Management Plan for more details on the visual trash assessment protocol Contra Costa County used to determine trash loads, the county's priorities, and the process of implementing various control measures in the unincorporated portions of the county.

Table 2-3 summarizes trash generation by land use:

<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>Very High</b>	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>High</b>	92.83	10.90%	1.88%	37.72%	42.05%	0.36%	0.00%	7.09%
<b>Medium</b>	318.51	14.09%	1.69%	78.83%	1.51%	3.33%	0.00%	0.55%
<b>Low</b>	1,287.08	0.78%	0.02%	79.09%	0.10%	0.05%	0.00%	19.96%

## 3. El Sobrante Trash Management Strategy

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in the County's Annual Reports.

The County's priority for El Sobrante will be to focus on the areas generating high amounts of trash. In El Sobrante, the areas generating a high amount of trash are primarily located along and around a commercial corridor. The land uses include commercial, institutional, a few residential areas, and some roadways. Some areas have full trash capture devices. The County will implement parking enforcement during street sweeping in areas with high trash loads, work with property owners/managers to better

manage trash bins, coordinate with appropriate agencies to enforce appropriate codes, continue public outreach efforts, and implement product bans. Specifics on each trash management area are provided in section 4 below.

For areas with a medium amount of trash, the County will work to reduce the trash load by enhancing our street sweeping including adding no parking with enforcement restrictions during street sweeping, will find ways to improve trash bin management as appropriate and will continue public outreach. Contra Costa County will reassess the trash loads and make changes as appropriate to address problems that arise.

**D. Delineation of Trash Management Areas**

Trash Management Areas were determined based on their trash management loads and their associated land use.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
<b>ESB-1</b>	49.26	0.00%	88.81%	8.66%	2.53%
<b>ESB-2</b>	4.26	0.00%	88.33%	0.00%	11.67%
<b>ESB-3</b>	53.34	0.00%	0.00%	99.72%	0.28%
<b>ESB-4</b>	259.18	0.00%	0.00%	94.89%	5.11%
<b>ESB-5</b>	61.13	0.00%	73.90%	22.59%	3.50%
<b>ESB-6</b>	12.51	0.00%	0.00%	0.93%	99.07%
<b>ESB-7</b>	1,258.75	0.00%	0.01%	0.10%	99.89%

- ESB-1 includes commercial and institutional areas generating high amounts of trash.
- ESB-2 includes residential areas generating high amounts of trash.
- ESB-3 includes commercial and institutional areas generating medium amounts of trash.
- ESB-4 includes residential areas generating medium amounts of trash.
- ESB-5 includes roads generating high amounts of trash.
- ESB-6 includes commercial and institutional areas generating low amounts of trash.
- ESB-7 includes residential areas and a couple of open spaces generating low amounts of trash.

**E. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

**F. Creek and Shoreline Cleanups**

**Table 3-2. Creek and Shoreline Cleanups**

Location	Description	Cleanup Frequency			
		Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Location 1	San Pablo Creek u/s of the El Sobrante Library, El Sobrante		X		

Contra Costa County documents and tracks the creek and shoreline cleanups conducted. SPAWNERS, San Pablo Watershed Neighbors, Education, and Restoration Society, conducts the creek cleanups in El Sobrante. The locations may change based on the trash loads, access to locations, and relevance of trash levels with respect to the local creeks. Contra Costa County updates this information in the County’s Annual Report. Other on-land cleanups are conducted and recorded depending on need and resources. Those are discussed in Section 4 of this plan under control measures.

**G. Trash Reduction Policies**

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of Contra Costa County’s status and implementation of product bans including plastic bags and foam polystyrene food and beverage containers for the unincorporated portions of the County.

**H. Public Education, Outreach, and Community Involvement**

Through the CCCWP, the Permittees conducted a “Litter Travels, But It Can Stop with You” multi-year campaign beginning in FY 2009-2010. The multi-media campaign was designed to educate Contra Costa’s citizens about the impacts of trash and litter in the County’s waterways and how they can help address this problem and included TV spots, billboards, posters at BART stations, placards on transit buses, print ads and updates to the CCCWP website. Other outreach included more than 10,000 letters to County residents, contact with youth sports leagues, outreach to the 17 school districts in the County, and distribution of flyers to students in 5 of those districts. Pre and post-campaign surveys were conducted.

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of the Contra Costa County’s public education, outreach, and public involvement for the unincorporated portions of the county.

Public outreach in El Sobrante will include working with the El Sobrante Chamber of Commerce, SPAWNERS, an organization that is active in stream cleanups and other appropriate service clubs, schools interested in coordinating with Contra Costa County to help trash management strategies in El Sobrante.

#### **I. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of how unincorporated Contra County will assess, evaluate and reduce trash levels. For specific assessments to control measures proposed in El Sobrante, see El Sobrante's specific Trash Management Area Tables below. The tables lay out the Control Measures and the corresponding evaluations of program effectiveness.

### **4.Trash Management Area Plans**

#### **J. TMA-Specific Plans**

The trash management areas are broken down by areas generating high, medium or low levels of trash by their land use. In general, commercial and institutional areas have been grouped together, and single family and multi-family residences have been grouped together. El Sobrante has a total of seven trash management areas:

ESB-1 includes commercial and institutional areas generating high amounts of trash;

ESB-2 includes residential areas generating high amounts of trash;

ESB-3 includes commercial and institutional areas generating medium amounts of trash;

ESB-4 includes residential areas generating medium amounts of trash;

ESB-5 includes roads generating high amounts of trash;

ESB-6 includes commercial and institutional areas generating low amounts of trash;

ESB-7 includes residential areas and a couple of open spaces generating low amounts of trash.

## El Sobrante Long-Term Trash Reduction Plan

The El Sobrante Trash Management Area 1 (ESB-1) consists of areas generating high trash loads. It includes commercial and institutional areas where similar control measure strategies will be implemented and roadways generating high trash loads. The commercial and institutional areas are located along primary roadways.

### Key Characteristics of Trash Management Area ESB-1

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
49.26	0.00%	88.81%	8.66%	2.53%	Commercial, Institutional	Litter, Trash Bin Overflow

### Summary of Control Measures and Implementation Schedule for Trash Management Area ESB-1

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Full/Partial Trash Capture Devices (FTCD/PTCD)</b>	Full and partial capture treatment devices were installed in Spring 2013 along San Pablo Dam Road and Appian Way.		X	X	X
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Where FTCD is not implemented, implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances/codes.			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.		X	X	X

Full Trash Capture Devices (FTCD) were installed after conducting a safety analysis of storm drain inlets. Part of ESB-1 drains to an FTCD. Control measures will be chosen as appropriate for the parcels without FTCDs.

<b>Evaluation of Program Effectiveness for Trash Management Area ESB-1</b>	
<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Full/Partial Trash Capture Devices</b>	Document amount of trash and debris removed and review over time. Communicate with maintenance to understand challenges when maintaining or cleaning out systems.
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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## El Sobrante Long-Term Trash Reduction Plan

The El Sobrante Trash Management Area 2 (ESB-2) consists of areas generating high trash loads. It includes residential areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area ESB-2

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
4.26	0.00%	88.33%	0.00%	11.67%	Residential	Litter, Trash Bin Overflow

### Summary of Control Measures and Implementation Schedule for Trash Management Area ESB-2

Control Measure	Control Measure Details	Pre- MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.	X	X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.		X	X	X

### Evaluation of Program Effectiveness for Trash Management Area ESB-2

Control Measure	Evaluation Method Details
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

## El Sobrante Long-Term Trash Reduction Plan

The El Sobrante Trash Management Area 3 (ESB-3) consists of areas generating medium trash loads. It includes commercial and institutional areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area ESB-3

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
53.34	0.00%	0.00%	99.72%	0.28%	Commercial and Institutional	Litter, Trash Bin Overflow

### Summary of Control Measures and Implementation Schedule for Trash Management Area ESB-3

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Full/Partial Trash Capture Devices (FTCD/PTCD)</b>	Full and partial capture treatment devices were installed in Spring 2013 along San Pablo Dam Road and Appian Way.		X	X	X
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances/codes.			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.		X	X	X

Full Trash Capture Devices (FTCD) were installed after conducting a safety analysis of storm drain inlets. Part of ESB-3 drains to an FTCD. Control measures will be chosen as appropriate for the parcels without FTCDs.

## Evaluation of Program Effectiveness for Trash Management Area ESB-3

Control Measure	Evaluation Method Details
<b>Full/Partial Trash Capture Devices</b>	Document amount of trash and debris removed and review over time. Communicate with maintenance to understand challenges when maintaining or cleaning out systems.
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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## El Sobrante Long-Term Trash Reduction Plan

The El Sobrante Trash Management Area 4 (ESB-4) consists of areas generating medium trash loads. It includes residential areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area ESB-4

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
259.18	0.00%	0.00%	94.89%	5.11%	Residential	Litter, Trash Bin Overflow

### Summary of Control Measures and Implementation Schedule for Trash Management Area ESB-4

Control Measure	Control Measure Details	Pre- MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Full/Partial Trash Capture Devices (FTCD/PTCD)</b>	Full and partial capture treatment devices were installed in Spring 2013 along San Pablo Dam Road and Appian Way.		X	X	X
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.		X	X	X

Full Trash Capture Devices (FTCD) were installed after conducting a safety analysis of storm drain inlets. Part of ESB-4 drains to an FTCD. Control measures will be chosen as appropriate for the parcels without FTCDs.

## Evaluation of Program Effectiveness for Trash Management Area ESB-4

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Full/Partial Trash Capture Devices</b>	Document amount of trash and debris removed and review over time. Communicate with maintenance to understand challenges when maintaining or cleaning out systems.
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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## El Sobrante Long-Term Trash Reduction Plan

The El Sobrante Trash Management Area 5 (ESB-5) consists of areas generating high and medium trash loads. It includes primary roadways where much of the adjacent land use is generating less trash. Similar control measure strategies will be implemented along these roadways.

### Key Characteristics of Trash Management Area ESB-5

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
61.13	0.00%	73.90%	22.59%	3.50%	Road	Litter, Illegal Dumping

### Summary of Control Measures and Implementation Schedule for Trash Management Area ESB-5

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Full/Partial Trash Capture Devices (FTCD/PTCD)</b>	Full and partial capture treatment devices were installed in Spring 2013 along San Pablo Dam Road and Appian Way.		X	X	X
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Where FTCD is not implemented, implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>On-land Trash Cleanups</b>	High trash generating areas are cleaned regularly along roadsides by contractor or community volunteer groups – depends on need, budget, and availability.		X	X	X
<b>Anti-littering and Illegal Dumping Enforcement</b>	Flash cameras installed to discourage dumping.		X	X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.		X	X	X

Full Trash Capture Devices (FTCD) were installed after conducting a safety analysis of storm drain inlets. Part of ESB-5 drains to an FTCD. Control measures will be chosen as appropriate for the parcels without FTCDs.

## Evaluation of Program Effectiveness for Trash Management Area ESB-5

Control Measure	Evaluation Method Details
<b>Full/Partial Trash Capture Devices</b>	Document amount of trash and debris removed and review over time. Communicate with maintenance to understand challenges when maintaining or cleaning out systems.
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>On-land Trash Cleanup</b>	Observe areas, measure, and photographically document amount of trash removed over time at various times to determine how quickly trash is regenerated at specific locations.
<b>Anti-littering and Illegal Dumping Enforcement</b>	Flash cameras used to discourage illegal dumping.
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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## El Sobrante Long-Term Trash Reduction Plan

The El Sobrante Trash Management Area 6 (ESB-6) consists of areas generating low trash loads. It includes commercial and institutional areas where similar control measure strategies will be implemented. These areas are located along primary roadways.

### Key Characteristics of Trash Management Area ESB-6

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
12.51	0.00%	0.00%	0.93%	99.07%	Industrial, Commercial, Institutional areas	Litter

### Summary of Control Measures and Implementation Schedule for Trash Management Area ESB-6

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Full/Partial Trash Capture Devices (FTCD/PTCD)</b>	Full and partial capture treatment devices were installed in Spring 2013 along San Pablo Dam Road and Appian Way.		X	X	X
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners to maintain cleanliness at and around the dumpsters.			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances/codes.			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.		X	X	X

Full Trash Capture Devices (FTCD) were installed after conducting a safety analysis of storm drain inlets. Part of ESB-6 drains to an FTCD. Control measures will be chosen as appropriate for the parcels without FTCDs.

## Evaluation of Program Effectiveness for Trash Management Area ESB-6

Control Measure	Evaluation Method Details
<b>Full/Partial Trash Capture Devices</b>	Document amount of trash and debris removed and review over time. Communicate with maintenance to understand challenges when maintaining or cleaning out systems.
<b>Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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## El Sobrante Long-Term Trash Reduction Plan

The El Sobrante Trash Management Area 7 (ESB-7) consists of areas generating low trash loads. It includes residential and open space areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area ESB-7

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
1,258.75	0.00%	0.01%	0.10%	99.89%	Residential	Litter

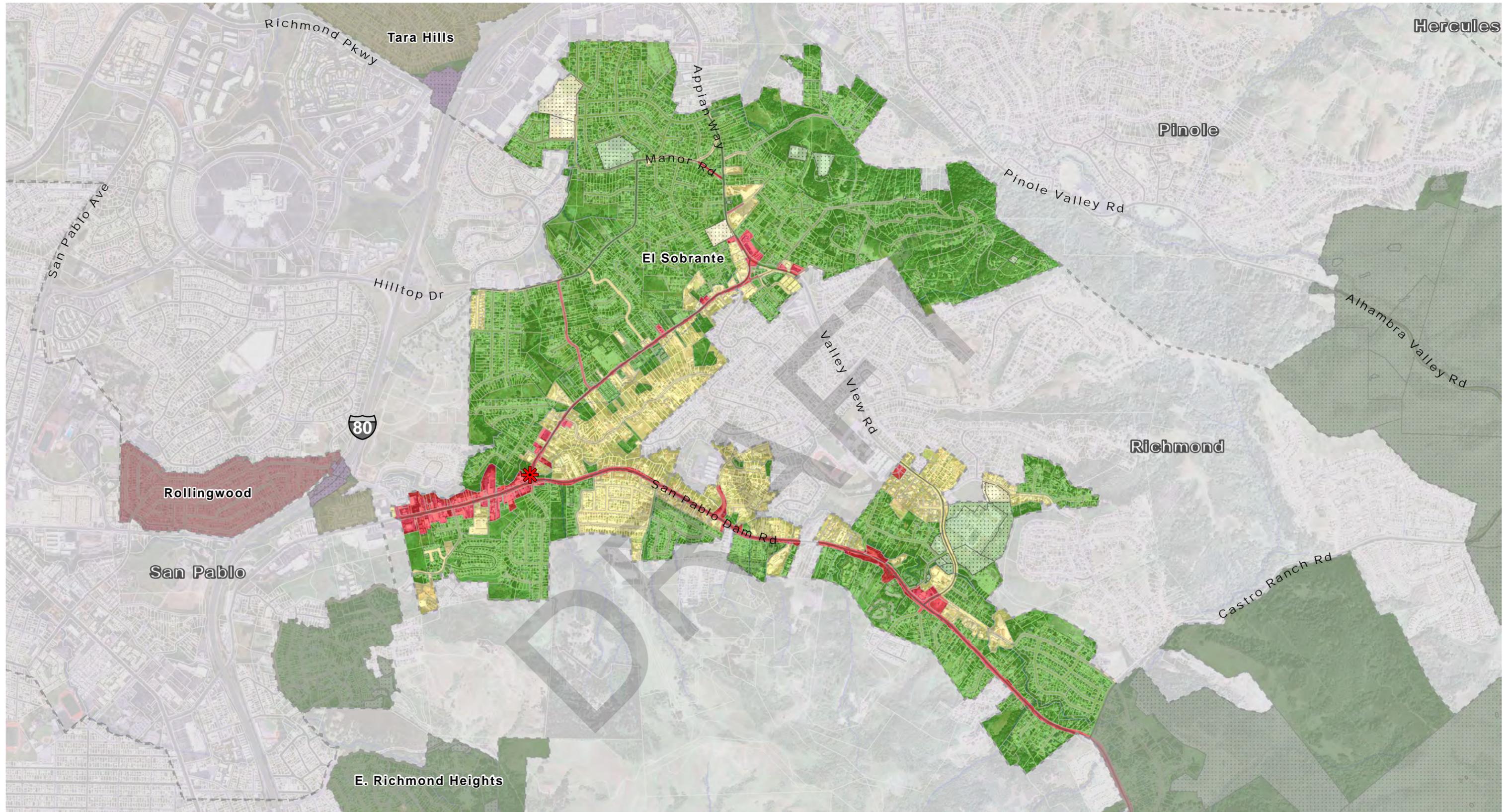
### Summary of Control Measures and Implementation Schedule for Trash Management Area ESB-7

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Full/Partial Trash Capture Devices (FTCD/PTCD)</b>	Full and partial capture treatment devices were installed in Spring 2013 along San Pablo Dam Road and Appian Way.		X	X	X
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.		X	X	X

Full Trash Capture Devices (FTCD) were installed after conducting a safety analysis of storm drain inlets. Part of ESB-7 drains to an FTCD. Control measures will be chosen as appropriate for the parcels without FTCDs.

### Evaluation of Program Effectiveness for Trash Management Area ESB-7

Control Measure	Evaluation Method Details
<b>Full/Partial Trash Capture Devices</b>	Document amount of trash and debris removed and review over time. Communicate with maintenance to understand challenges when maintaining or cleaning out systems.
<b>Street Sweeping</b>	Visually assess before and after conditions
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups



**Contra Costa County  
Trash Rates for the  
Community of  
El Sobrante**

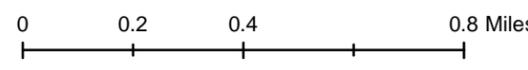


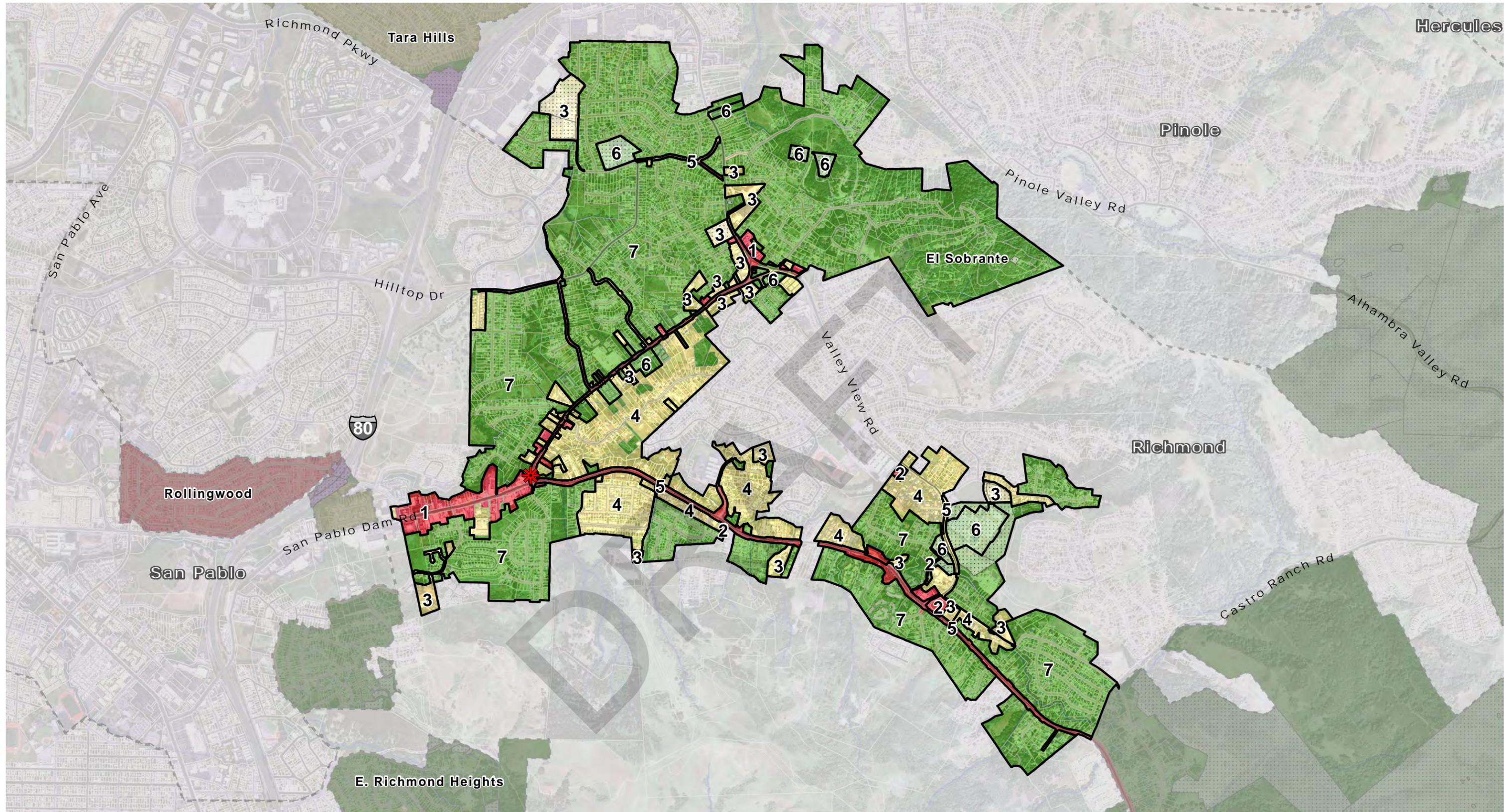
<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		City	

1 inch = 1,750 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





### Contra Costa County Draft Trash Plan for the Community of El Sobrante

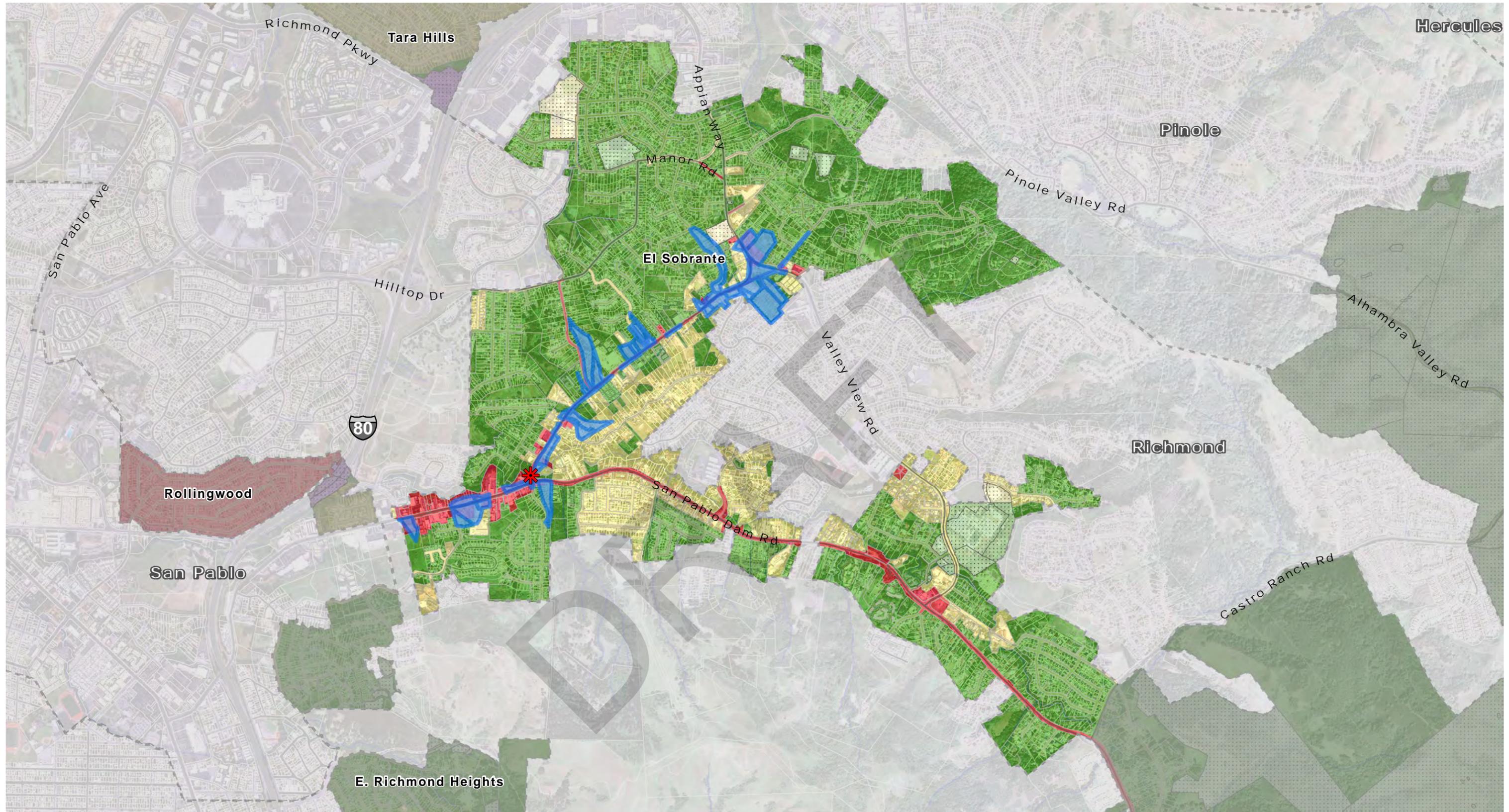
<b>Trash Rate</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium	Trash Management Areas	City	

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014

1 inch = 1,750 feet

0 0.2 0.4 0.8 Miles



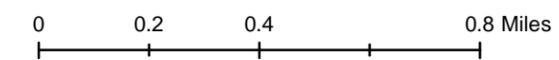
## Contra Costa County Full Trash Capture for the Community of El Sobrante

<b>Trash Rate</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium	Full Trash Capture	City	

1 inch = 1,750 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014



**Kensington**  
**Trash Management Plan**  
**2014-2022**

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

See Section 1 of the County-wide introduction chapter for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra Costa County's long term trash plan.

## 2. Kensington Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Kensington is an older, built-out community on the western side of Contra Costa County, astride the Berkeley Hills, north of Berkeley and east of El Cerrito. This small upper middle-class community has one significant source of trash generation within one of its two commercial districts. The great majority of it has low trash load levels, with pockets of high and medium-trash load levels, around Colusa Circle, the lower of the two commercial districts, and medium trash load levels that are in the Kensington business district along Arlington Avenue. Trash sources tend to be associated with incidental littering.

Demographic data from the 2010 census is presented in Table 2-1.

**Table 2-1. 2010 Census Data**

<b>Population</b>	<b>5077</b>
<b>Under 18</b>	936
<b>18-24</b>	165
<b>25-44</b>	1062
<b>45-64</b>	1788
<b>65 and older</b>	1126
<b>Median household income</b>	\$121,818

Table 2-2 presents summarizes land uses within Kensington in unincorporated Contra Costa County:

**Table 2-2. 2005 Land Uses (ABAG)**

<b>Land Use Category</b>	<b>Jurisdictional Area</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	15.54	2.8%
<b>Industrial</b>	3.55	0.6%
<b>Residential</b>	454.90	81.9%
<b>Retail</b>	4.55	0.8%
<b>K-12 Schools</b>	0.33	0.1%
<b>Urban Parks</b>	0.00	0.0%

<b>Other</b>	76.53	13.8%
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**B. Drainage System and Water Resources Affected by Trash**

Kensington lies almost entirely within the upper El Cerrito Creek Watershed, though a sliver on its eastern edge lies in the Wildcat Creek Watershed. Approximately 90% of the creek channel is natural, protected by a wooded canyon; the remainder is underground and part of the community’s stormwater drainage network.

**C. Trash Problems and Priorities**

Kensington has relatively minor trash problems due to its community demographics and predominant land use: single-family residential. Kensington has monthly street sweeping on about half of its streets.

Table 2-3 summarizes trash generation by land use:

<b>Table 2-3. Trash Generation Category by Land Use</b>								
<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>High/Very High</b>	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Medium</b>	2.02	8.75%	0.00%	0.00%	91.25%	0.00%	0.00%	0.00%
<b>Low</b>	5.48	22.48%	24.07%	0.00%	49.05%	4.40%	0.00%	0.00%

**3. Kensington Trash Management Strategy**

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The strategies discussed below are based on strategies developed for areas in unincorporated Contra Costa County. The strategies are determined based on the trash load, the land use, and the sources generating the trash.

**A. Delineation of Trash Management Areas**

Trash Management Areas (TMAs) were determined, based on their trash management loads and their associated land use(s). For Kensington, the TMA code is KEN. There are three TMAs for Kensington, KEN-1 through KEN-3, whose characteristics are summarized in Table 3.1 below, and are described in Section 4.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
<b>KEN-1</b>	3.59	0.00%	56.38%	43.58%	0.04%
<b>KEN-2</b>	2.76	0.00%	0.00%	99.92%	0.08%
<b>KEN-3</b>	549.05	0.00%	0.00%	0.21%	99.79%

- **KEN-1** consists of a neighborhood-oriented commercial district surrounding a traffic circle in the western (lower) section of the unincorporated community of Kensington with medium to high trash levels.
- **KEN-2** - Neighborhood-oriented retail area in upper Kensington on Arlington Avenue with medium-trash load levels and commercial land uses.
- **KEN-3** - Residential and Multi-unit Residential with low trash levels.

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

Kensington is largely composed of single family residential uses, along with small commercial, institutional, and multi-family residential areas. In terms of trash generation, Kensington has few issues. It has two small separate commercial areas, one generating a medium amount of trash and the other having medium and high trash loads. The great majority of the planning area generates low levels of trash. The trash management areas are defined according to those generating high, medium or low levels of trash by their land use. The two commercial and institutional areas have either medium to high trash levels (KEN-1), or medium trash levels (KEN-2), with the remainder being single family and multi-family residential uses that are associated with KEN-3.

**C. Trash Reduction Policies**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of Contra Costa County’s status and implementation of product bans including plastic bags, polystyrene, and plastic bottles for the unincorporated portions of the county.

**D. Public Education, Outreach, and Community Involvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of the Contra Costa County’s public education, outreach, and public involvement for the unincorporated portions of the county.

Public education and outreach activities would be community-specific and community-based in orientation. In Kensington outreach, education and community involvement efforts would be two-fold: 1) partnering with the Kensington Municipal Advisory Council to craft a community specific outreach program; and 2) coordinating with owners of businesses around Colusa Circle including Sunset View Cemetery that fronts on the circle to create a trash abatement team.

**E. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of how unincorporated Contra County will assess, evaluate, and reduce trash levels. For a delineation of the trash control measure program proposed for Kensington, see the specific Trash Management Area Tables below. These tables lay out the specific trash control measures and the corresponding evaluation or monitoring methods to track program effectiveness for this community.

**4. Trash Management Area Plans**

Kensington has three trash management areas, KEN-1, 2 and 3, that are described below.

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## Kensington Long-Term Trash Reduction Plan

TRASH MANAGEMENT AREA

**KEN-1**

The Kensington (KEN)-1 Trash Management Area (TMA) encompasses the retail area around the “Colusa Circle” and is characterized by: 1) high-trash load levels; and 2) commercial land use as the primary designation (and institutional as a secondary land use).

### Key Characteristics of KEN-1

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
3.59	0.00%	56.38%	43.58%	0.04%	Commercial; Institutional	Resident/Pedestrian-generated litter

KEN-1 consists of a neighborhood-oriented commercial district surrounding a traffic circle in the western (lower) section of the unincorporated community of Kensington.

### Summary of Control Measures and Implementation Schedule for KEN-1

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter	X	X	X	
<b>Enhanced Street Sweeping</b>	Implement Enhanced Street Sweeping with parking enforcement (no-parking during street sweeping interval) and if this is not successful, increase street sweeping frequency from monthly to bi-weekly.				X
<b>Community Outreach</b>	Enhance public information campaigns in coordination with the Kensington Municipal Advisory Council to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.				X
<b>Improved Trash Bins/Container Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.				X
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances			X	X
<b>Code Enforcement/Ordinances</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.				X

## Evaluation of Program Effectiveness for KEN-1

Control Measure	Evaluation Method Details
<b>Enhanced Street Sweeping</b>	Visually assess the before and after sweeping conditions of streets using the BASMAA protocol.
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Improved Trash Bins/Container Management</b>	Monitor capacity (below capacity, at capacity, or beyond capacity/overflowing) of bins at pick-up. Monitor incidences of number of times trash is outside of containers, with goal of decreasing trend towards zero.
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.
<b>Code Enforcement/ Ordinances</b>	Using the BASMAA protocol, track trash load(s) after conducting education/outreach efforts, notices of violations, and follow-up.

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## Kensington Long-Term Trash Reduction Plan

KEN-2 comprises a neighborhood-oriented retail area in upper Kensington on Arlington Avenue and is characterized by: 1) medium-trash load levels; and 2) commercial land uses.

### Key Characteristics of KEN-2

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
2.76	0.00%	0.00%	99.92%	0.08%	Commercial	Resident/Pedestrian-generated litter

### Summary of Control Measures and Implementation Schedule for KEN-2

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter	X	X	X	
<b>Enhanced Street Sweeping</b>	Implement Enhanced Street Sweeping with parking enforcement (no-parking during street sweeping interval) and if this is not successful, increase street sweeping frequency from monthly to bi-weekly.				X
<b>Community Outreach</b>	Enhance public information campaigns to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.				X
<b>Improved Trash Bins/Container Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions				X
<b>Code Enforcement/Ordinances</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.				X
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances.			X	X

## Evaluation of Program Effectiveness for KEN-2

Control Measure	Evaluation Method Details
<b>Enhanced Street Sweeping</b>	Visually assess the before and after sweeping conditions of streets using the BASMAA protocol.
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Improved Trash Bins/Container Management</b>	Monitor capacity (below capacity, at capacity, or beyond capacity/overflowing) of bins at pick-up. Monitor incidences of number of times trash is outside of containers, with goal of decreasing trend towards zero.
<b>Code Enforcement/Ordinances</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.

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## Kensington Long-Term Trash Reduction Plan

KEN-3 comprises the low trash-load portion of this community, the majority of which is designated as Residential and Multi-unit Residential.

### Key Characteristics of KEN-3

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
549.05	0.00%	0.00%	0.21%	99.79%	Residential and Multi-unit Residential	Resident/Pedestrian-generated litter

### Summary of Control Measures and Implementation Schedule for KEN-3

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue regular (monthly) streets sweeping where there is curb and gutter without parking restrictions.	X	X	X	X
<b>Community Outreach</b>	Enhance public information campaigns to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.				X
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances			X	X

### Evaluation of Program Effectiveness for KEN-3

Control Measure	Evaluation Method Details
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.



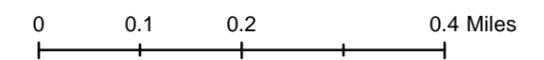
## Contra Costa County Trash Rates for the Community of Kensington



1 inch = 950 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





# Contra Costa County Draft Trash Plan for the Community of Kensington

<b>Trash Rate</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium	Trash Management Areas	City	

1 inch = 950 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014

**Knightsen**

**Trash Management Plan**

**2014-2022**

DRAFT

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

Knightsen is a small community in eastern Central Contra Costa County. It has commercial, residential, and agricultural areas. In terms of trash generation, it has one commercial parcel along a rural road that generates a high amount of trash, a commercial area comprising a few blocks that generates a medium amount of trash and a larger residential and agricultural area generating a low amount of trash.

See Section 1 of the county-wide Trash Management Plan for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra Costa County's long term trash plan.

## 2. Town of Knightsen Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Demographic data from the 2010 census is presented in Table 2-1.

**Table 2-1. 2010 Census Data**

<b>Population (# people)</b>	1,568
<b>Under 18</b>	383
<b>18-24</b>	138
<b>25-44</b>	328
<b>45-64</b>	508
<b>65 and older</b>	211
<b>Median household income</b>	\$ 62,083

Table 2-2 presents summarizes land uses within Knightsen in unincorporated Contra Costa County

**Table 2-2. 2005 Land Uses (ABAG)**

<b>Land Use Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	8.59	0.3%
<b>Industrial</b>	29.90	1.0%
<b>Residential</b>	293.95	9.4%
<b>Retail</b>	4.20	0.1%
<b>K-12 Schools</b>	0.00	0.0%
<b>Urban Parks</b>	0.00	0.0%
<b>Other</b>	2,803.20	89.3%

### B. Drainage System and Water Resources Affected by Trash

Knightsen is part of the Sacramento-San Joaquin Delta (Delta). Stormwater from Knightsen flows southeast into the Delta. With the exception of a three-block section of Knightsen Avenue, none of the roads have curb, gutter and storm drains. Most roads have road-side ditches.

### C. Trash Problems and Priorities

Knightsen has one parcel along a busy rural road that generates a high amount of trash, one three-block commercial district that generates a medium amount of trash, and the rest of the community which is residential and agriculture that generates a low trash amount of trash. The priority for Knightsen is to work with the property owner/manager of the parcel generating a high amount of trash to find ways to reduce the trash being generated at that property. The second priority will be to further assess the trash generation in the commercial area and implement measures to reduce the load from medium to low. More specifics are discussed in the section detailing strategies and the specific control measures for the trash management areas.

See Section 1 of the county-wide Trash Management Plan for more details regarding Contra Costa County's visual trash assessment protocol and priorities as well as the process of implementing various control measures in the unincorporated portions of the county.

Table 2-3 summarizes trash generation by land use:

Trash Generation Category	Jurisdictional Area (Acres)	Commercial and Services	Industrial	Residential	Retail	K-12 Schools	Urban Parks	Other
Very High	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
High	5.52	3.44%	17.04%	0.00%	71.96%	0.00%	0.00%	7.56%
Medium	8.71	95.20%	0.00%	0.00%	1.20%	0.00%	0.00%	3.61%
Low	3,125.61	0.00%	0.93%	9.40%	0.00%	0.00%	0.00%	89.66%

## 3. Knightsen Trash Management Strategy

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in the County's Annual Reports.

The strategies discussed below are based on strategies developed for areas in unincorporated Contra Costa County. The strategies are determined based on the trash load, the land use, and the sources generating the trash.

Knightsen is a very small community with one parcel generating a high amount of trash. The strategy to reduce trash in Knightsen is to discuss the problem with the property owner/manager of this parcel generating a high amount of trash and determine how trash can be better managed and reduced. The

commercial area with a medium amount of trash has street sweeping. Contra Costa County will work to reduce the trash load by enhancing street sweeping including adding no parking with enforcement restrictions during street sweeping; finding ways to improve trash bin management as appropriate; and continuing public outreach. The County will reassess the trash loads and make changes as appropriate to address problems that arise.

**A. Delineation of Trash Management Areas**

Trash Management Areas were determined based on their trash management loads and their associated land use.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
KNT-1	4.18	0.00%	100.00%	0.00%	0.00%
KNT-2	14.19	0.00%	9.41%	57.99%	32.60%
KNT-3	3,121.46	0.00%	0.00%	0.02%	99.98%

- KNT-1 is one commercial parcel along a rural road that generates a high amount of trash.
- KNT-2 is a commercial area comprising a few blocks that generates a medium amount of trash.
- KNT-3 is a larger residential and agricultural area generating a low amount of trash.

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

**C. Creek and Shoreline Cleanups**

**Table 3-2. Creek and Shoreline Cleanups**

Location	Description	Cleanup Frequency			
		Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Location 1	There are no creek shoreline cleanups in Knightsen, as there are no creeks or shorelines. (Road-side ditches are addressed in on-land cleanups) if applicable.				

Creek cleanups have not been organized in Knightsen

#### **D. Trash Reduction Policies**

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of Contra Costa County's status and implementation of product bans including plastic bags, polystyrene, and beverage containers for the unincorporated portions of the county.

#### **E. Public Education, Outreach, and Community Involvement**

Through the CCCWP, the Permittees conducted a "Litter Travels, But It Can Stop with You" multi-year campaign beginning in FY 2009-2010. The multi-media campaign was designed to educate Contra Costa's citizens about the impacts of trash and litter in the County's waterways and how they can help address this problem and included TV spots, billboards, posters at BART stations, placards on transit buses, print ads and updates to the CCCWP website. Other outreach included more than 10,000 letters to County residents, contact with youth sports leagues, outreach to the 17 school districts in the County, and distribution of flyers to students in 5 of those districts. Pre and post-campaign surveys were conducted.

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of the Contra Costa County's public education, outreach, and public involvement for the unincorporated portions of the county.

In Knightsen, the County work with the property owner/manager of the commercial parcel generating a high amount of trash to find ways to reduce the trash generated at this site.

#### **F. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of how unincorporated Contra County will assess, evaluate and reduce trash levels. For specific assessments to control measures proposed in Knightsen, see Knightsen's specific Trash Management Area Tables below. The tables lay out the Control Measures and the corresponding evaluations of Program Effectiveness.

## **4. Trash Management Area Plans**

### **A. TMA-Specific Plans**

Trash management areas (TMAs) are described in the sections and tables below. The TMAs are divided by their trash load level: high (high and very high are combined), medium, or low levels and their land use (e.g. commercial, industrial and institutional or residential). Each TMA has three associated tables that include: the amount of area in the jurisdiction with their associated trash load and sources; a summary of control measures to be implemented within the trash management area; and the evaluation methods proposed to assess the program effectiveness.

Knightsen has a total of three trash management areas:

KNT-1 is one commercial parcel that generates a high amount of trash;  
KNT-2 is a three-block commercial area that generates a medium amount of trash;  
KNT-3 is a larger residential and agricultural area generating a low amount of trash.

**Knightsen Long-Term Trash Reduction Plan**

The Knightsen Trash Management Area 1 (KNT-1) consists of an area generating a high trash load. It includes one commercial parcel located along a primary roadway.

**Key Characteristics of Trash Management Area KNT-1**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
4.18	0.00%	100.00%	0.00%	0.00%	Commercial	Litter, Trash Bin Overflow

**Summary of Control Measures and Implementation Schedule for Trash Management Area KNT-1**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances.			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping. Work with the property owner/manager to determine solutions to reduce the amount of trash generated at this location.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

This location in Knightsen consists of one parcel and does not have street sweeping. The County will assess the area to further verify how trash is generated and work with the property owner/manager to find alternative control measures as necessary to address appropriately.

**Evaluation of Program Effectiveness for Trash Management Area KNT-1**

Control Measure	Evaluation Method Details
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero.
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate.
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign.
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups.

**Knightsen Long-Term Trash Reduction Plan**

The Knightsen Trash Management Area 2 (KNT-2) consists of an area generating a medium trash load. It is a commercial area along the primary road in town.

**Key Characteristics of Trash Management Area KNT-2**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
14.19	0.00%	9.41%	57.99%	32.60%	Commercial	Litter, Trash Bin Overflow

**Summary of Control Measures and Implementation Schedule for Trash Management Area KNT-2**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Code Enforcement</b>	County will work with appropriate entities to better enforce trash-related Contra Costa County ordinances.			X	X
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

**Evaluation of Program Effectiveness for Trash Management Area KNT-2**

Control Measure	Evaluation Method Details
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

**Knightsen Long-Term Trash Reduction Plan**

The Knightsen Trash Management Area 3 (KNT-3) consists of areas generating low trash loads. It includes residential and agricultural areas where similar control measure strategies will be implemented.

**Key Characteristics of Trash Management Area KNT-3**

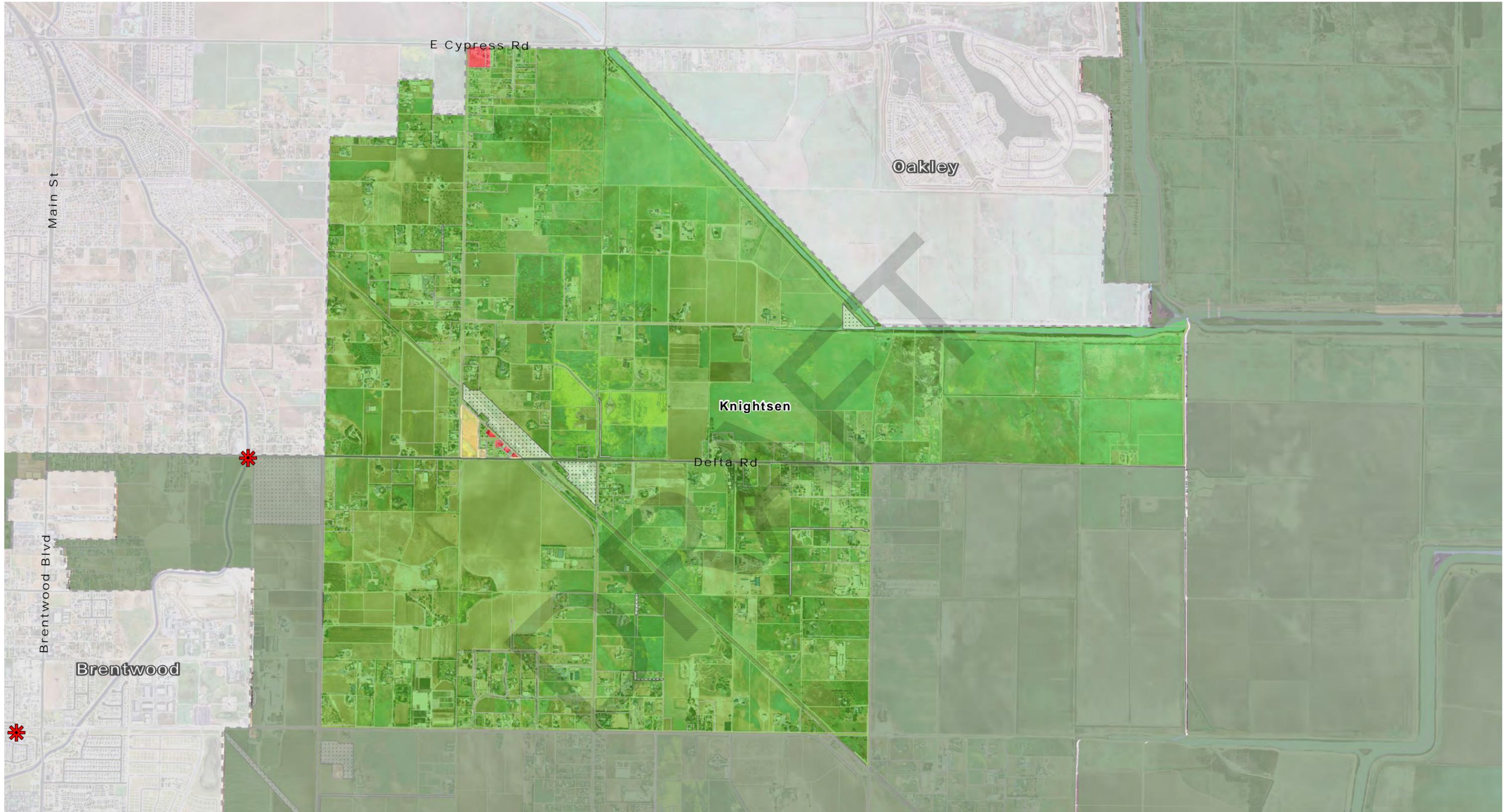
Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
3,121.46	0.00%	0.00%	0.02%	99.98%	Residential/Agricultural Land	Litter

**Summary of Control Measures and Implementation Schedule for Trash Management Area KNT-3**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Community Outreach</b>	Public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

**Evaluation of Program Effectiveness for Trash Management Area KNT-3**

Control Measure	Evaluation Method Details
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups



**Contra Costa County  
Trash Rates for the  
Community of  
Knightsen**

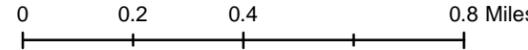


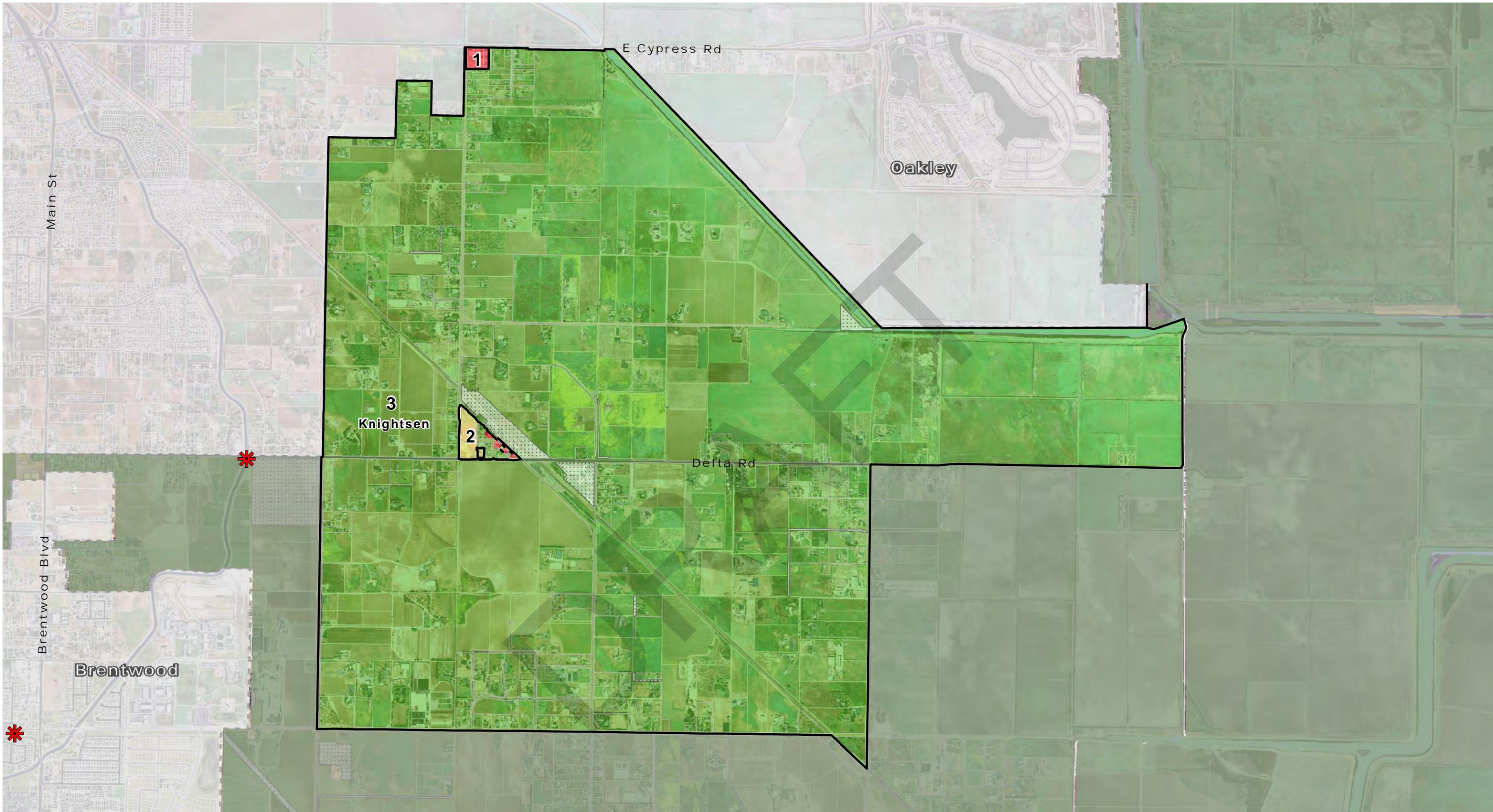
<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium	City		

1 inch = 1,750 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





## Contra Costa County Draft Trash Plan for the Community of Knightsen



Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014

1 inch = 1,750 feet

**North Richmond  
Trash Management Plan  
2014-2022**

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit.

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra Costa County's long term trash plan.

## 2. North Richmond Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

North Richmond is an unincorporated community bounded by San Pablo Bay and the City of Richmond on the western side of Contra Costa County that is among the County's most "trash challenged" communities. The heart of North Richmond is a built out, lower middle class and working class neighborhood which generally has high trash load issues, as do a few Industrial parcels and part of the communities road network. The community has among the County's greatest diversity of land uses, including both single family and multi-family residential, industrial, commercial, institutional, and open space. Trash sources tend to be associated with incidental littering, illegal dumping, uncovered loads (particularly for those vehicles going to the Golden Bear Transfer Station on the northwestern side of North Richmond), and poor trash bin management.

Demographic data from the 2010 census is presented in Table 2-1.

Category	Value
<b>Population</b>	<b>3717</b>
<b>Under 18</b>	1,152
<b>18-24</b>	456
<b>25-44</b>	1,187
<b>45-64</b>	712
<b>65 and older</b>	210
<b>Median household income</b>	\$36,875

Table 2-2 presents summarizes land uses within North Richmond in unincorporated Contra Costa County:

Land Use Category	Jurisdictional Area	% of Jurisdictional Area
<b>Commercial and Services</b>	46.35	6.2%
<b>Industrial</b>	332.06	44.6%
<b>Residential</b>	145.85	19.6%
<b>Retail</b>	3.42	0.5%
<b>K-12 Schools</b>	0.00	0.0%
<b>Urban Parks</b>	7.32	1.0%
<b>Other</b>	209.50	28.1%

### B. Drainage System and Water Resources Affected by Trash

North Richmond is bisected by lower Wildcat Creek and lower San Pablo Creek which run parallel and in proximity to one another. As this community is largely built on fill of the combined deltas of these two creeks, there have been frequent flooding issues in North Richmond. Both creeks have been substantially modified in North Richmond, with about 80% of their channels being earthen earthen-engineered and the remaining 20% being concrete “u-ditches.”

The residential portion of North Richmond has a storm water drainage network that feeds into the North Richmond Pump Station.

### C. Trash Problems and Priorities

North Richmond has significant trash problems due to its demographics. Most of the residential portion of North Richmond neighborhoods is swept twice a month.

Table 2-3 summarizes trash generation by land use:

<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>High/Very High</b>	18.08	46.82%	0.00%	53.18%	0.00%	0.00%	0.00%	0.00%
<b>Medium</b>	186.39	4.44%	14.64%	58.09%	1.01%	0.00%	0.61%	21.21%
<b>Low</b>	377.33	7.85%	80.77%	7.24%	0.41%	0.00%	1.64%	2.10%

## 3. North Richmond Trash Management Strategy

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The strategies discussed below are based on strategies developed for areas in unincorporated Contra Costa County. The strategies are determined based on the trash load, the land use, and the sources generating the trash.

### A. Delineation of Trash Management Areas

Trash Management Areas (TMAs) were determined, based on their trash management loads and their associated land use(s). For the North Richmond, the TMA code is NRM. There are four TMAs for North Richmond, NRM-1 to NRM-6, whose characteristics are summarized in Table 3.1 below, and are described in Section 4.

**Table 3-1. Trash Generation Category by Trash Management Area**

<b>TMA</b>	<b>Jurisdictional Area (Acres)</b>	<b>Trash Generation Category</b>			
		<b>Very High</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
<b>NRM-1</b>	144.26	12.53%	84.89%	2.53%	0.05%
<b>NRM-2</b>	44.91	0.00%	94.49%	5.51%	0.00%
<b>NRM-3</b>	48.40	0.00%	44.35%	55.22%	0.43%
<b>NRM-4</b>	325.49	0.00%	0.00%	96.93%	3.07%
<b>NRM-5</b>	153.57	0.00%	0.02%	0.72%	99.26%
<b>NRM-6</b>	27.87	0.00%	0.00%	100.00%	0.00%

- NRM-1 includes Residential and Multi-unit Residential, generating high trash loads
- NRM-2 includes roads, generating high trash loads
- NRM-3 includes industrial land use, generating high trash loads
- NRM-4 includes industrial land use generating medium trash loads
- NRM-5 includes primarily industrial with a minority of institutional land uses, generating low trash loads
- NRM-6 includes residential, generating moderate trash loads

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

North Richmond is an unincorporated and geographically isolated island surrounded by the City of Richmond. It includes an established if somewhat impoverished mixed use neighborhood, largely of single and multifamily residential uses, but with pockets of institutional and commercial uses. It is bounded by the Richmond Parkway to its west and Wildcat Creek to its north. North of Wildcat Creek, the land uses tend to be industrial or commercial in nature.

In terms of trash generation, North Richmond has three TMAs that represent “trash challenged” areas, while the other three have relatively minor issues. The trash management areas are broken down according to those generating high, medium, or low levels of trash by their land use. NRM-1 represents high trash loads that are present in the residential portion of North Richmond. NRM-2 is characterized by high trash rates associated with a portion of the community’s road network, while NRM-3 is an industrial use on Paar Boulevard. NRM-4 relates a primarily Industrial land use with medium trash rates, and NRM-5 constitutes Industrial designations that have low trash loading. NRM-6 is the portion of residential North Richmond that has moderate trash loading issues.

**C. Trash Reduction Policies**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of Contra Costa County’s status and implementation of product bans including plastic bags, polystyrene, and plastic bottles for the unincorporated portions of the county.

The County is coordinating the development and implementation of the North Richmond Trash Management Plan with the City of Richmond’s trash management plan in order to achieve greater overall efficiency and consistency of control and evaluation measures between the plans.

**D. Public Education, Outreach, and Community Involvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of the Contra Costa County’s public education, outreach, and public involvement for the unincorporated portions of the county.

The County will coordinate its public education and outreach activities for North Richmond with those of the City of Richmond in its trash management plan.

**E. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of how unincorporated Contra County will assess, evaluate, and reduce trash levels. For a delineation of the trash control measure program proposed for North Richmond, see their specific Trash Management Area Tables below. These tables lay out the specific trash control measures and the corresponding evaluation or monitoring methods to track program effectiveness for these communities.

**4. Trash Management Area Plans**

North Richmond has a total of six trash management areas, NRM-1 to NRM-6, that are described below.

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## North Richmond Long-Term Trash Reduction Plan

TRASH MANAGEMENT AREA

**NRM-1**

NRM-1 covers the heart of the North Richmond community and is characterized by: 1) high and very high-trash load levels; and 2) Residential and Multi-unit Residential land uses, along with several Institutional and Commercial parcels.

### Key Characteristics of NRM-1

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
144.26	12.53%	84.89%	2.53%	0.05%	Residential and Multi-unit Residential; Institutional	Resident/Pedestrian-generated litter

NRM-1 is the highest priority of the TMA's in North Richmond, as it has the highest trash levels within this community and has the greatest concentration of residents.

### Summary of Control Measures and Implementation Schedule for NRM-1

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Full Trash Capture Devices (FTCD)</b>	FTCD (Option 1) proposed for installation immediately adjacent to the North Richmond Pump Station.				<b>X</b>
<b>Enhanced Street Sweeping</b>	If Option 1, FTCD, isn't constructed, implement Enhanced Street Sweeping with parking enforcement (no-parking during street sweeping interval) and if this is not successful, increase street sweeping frequency.	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>Community Outreach</b>	Enhance existing public information campaigns to provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping. May partner with Kids for the Bay for a "Stormwater Academy" for field-based education at Verde Elementary pending an agreement with West Contra Costa County Unified School District; "Training and coordination with "Love Your Block" Volunteers.		<b>X</b>	<b>X</b>	<b>X</b>
<b>"Love Your Block"</b>	Neighborhood-based, trained resident volunteers to perform litter/trash removal.			<b>X</b>	<b>X</b>
<b>Improved Trash Bins/Container Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			<b>X</b>	<b>X</b>
<b>Creek, Channel, Shoreline Cleanups</b>	Coordinate with SPAWNERS and with Wildcat and San Pablo Creeks Watershed Council and other volunteers regarding annual cleanups on Wildcat and San Pablo Creeks, focusing especially on "hot spots" on these creeks.		<b>X</b>	<b>X</b>	<b>X</b>

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Product Bans</b>	Implement plastic bag ban and styrofoam food container ordinances for West County.		X	X	X

The County is seeking to implement a Full Trash Capture Device (FTCD) after 2017 as **Option 1** to address high trash levels in this community. While the County recognizes that the presence of an FTCD should be sufficient in and of itself to reduce high/very high trash levels in NRM-1 to low, other specific control measures are retained to support it, including street sweeping, product bans, and community outreach. If the County cannot or does not fund this approach, **Option 2** will be implemented and consists of product bans, and community outreach as in Option 1, but also includes enhanced street sweeping and “Love your Block.”

Evaluation of Program Effectiveness for NRM-1	
Control Measure	Evaluation Method Details
<b>Full/Partial Trash Capture Devices</b>	Track frequency of clean outs and volume collected; capacity at cleaning, percent debris.
<b>Enhanced Street Sweeping</b>	Visually assess before and after conditions.
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>“Love Your Block”</b>	Using the BASMAA protocol, track trash load(s) after conducting street cleanup efforts, cataloguing volume, weight and general type of litter collected.
<b>Improved Trash Bins/Container Management</b>	Monitor capacity (below capacity, at capacity, or beyond capacity/overflowing) of bins at pick-up. Monitor incidences of number of times trash is outside of containers, with goal of decreasing trend towards zero.
<b>Product Bans</b>	Survey store compliance in cooperation with municipal MRP partners. Track volume of product in creeks, trash capture devices, and found during on-land cleanups.
<b>Code Enforcement/Ordinances</b>	Using the BASMAA protocol, track trash load(s) after conducting education/outreach efforts, notices of violations, and follow-up.

## North Richmond Long-Term Trash Reduction Plan

TRASH MANAGEMENT AREA

**NRM-2**

NRM-2 constitutes a high trash load TMA, focused on selected roads in North Richmond, in particular, the Richmond Parkway, Brookside Drive, Pittsburg Avenue, and Parr Avenue.

### Key Characteristics of NRM-2

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
44.91	0.00%	94.49%	5.51%	0.00%	Roads	Poor Trash Bin Management, Illegal Dumping

### Summary of Control Measures and Implementation Schedule for NRM-2

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Enhanced Street Sweeping (X+)</b>	Implement Enhanced Street Sweeping on the Richmond Parkway with parking enforcement (no-parking during street sweeping interval); if this is not successful, increase street sweeping frequency, from monthly to bi-weekly.		X	X	X
<b>Covered Load Enforcement</b>	Coordinate with California Highway Patrol and/or with the City of Richmond to ticket truck drivers who fail to cover loads in their open beds (to the Golden Bear Transfer Station).			X	X
<b>On-land Trash Cleanups</b>	Pick up trash from the ground by County employees, contractors, and/or community volunteer stewardship groups. Frequency of cleanups to be determined by existing trash load and visual assessment.		X	X	X

### Evaluation of Program Effectiveness for NRM-2

Control Measure	Evaluation Method Details
<b>Enhanced Street Sweeping</b>	Visually assess the before and after sweeping conditions of streets using the BASMAA protocol.
<b>Covered Load Enforcement</b>	Track number of violations obtaining information from areas identified as receiving trash from uncovered loads
<b>On-Land Clean Ups</b>	Track location, frequency, and volume of cleanups. Survey level of participation, and/or solicit feedback from volunteers on overall condition of site. Track volunteer hours. Conduct trash load assessment before and after clean up. Repeat assessment on regular basis to note trash load rate and plan for next cleanup.
<b>Product Bans</b>	Survey store compliance in cooperation with municipal MRP partners. Track volume of product in creeks, trash capture devices, and found during on-land cleanups.

## North Richmond Long-Term Trash Reduction Plan

TRASH MANAGEMENT AREA

# NRM-3

NRM-3 is a TMA comprising three high trash load Industrial land uses, one unit of which is adjacent to Parr Boulevard and the other two are off of Brookside Drive.

### Key Characteristics of NRM-3

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
48.40	0.00%	44.35%	55.22%	0.43%	Industrial	Poor Trash Bin Management, Illegal Dumping

### Summary of Control Measures and Implementation Schedule for NRM-3

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Community Outreach</b>	Enhance existing public information campaigns to provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping. May partner with Kids for the Bay for a "Stormwater Academy" for field-based education at Verde Elementary pending an agreement with West Contra Costa County Unified School District; "Training and coordination with "Love Your Block" Volunteers.		X	X	X
<b>Covered Load Enforcement</b>	Coordinate with California Highway Patrol to ticket truck drivers who fail to cover loads in their open beds			X	X
<b>Product Bans</b>	Seek passage of and implement Plastic Bag and Styrofoam Ban Ordinances for West County		X	X	X

### Evaluation of Program Effectiveness for NRM-3

Control Measure	Evaluation Method Details
<b>Community Outreach</b>	If Public Outreach Campaign is conducted, include pre and post-surveys of campaign and actions taken as part of campaign
<b>Covered Load Enforcement</b>	Track number of violations obtaining information from areas identified as receiving trash from uncovered loads
<b>Product Bans</b>	Survey store compliance in cooperation with municipal MRP partners. Track volume of product in creeks, trash capture devices, and found during on-land cleanups.

## North Richmond Long-Term Trash Reduction Plan

# NRM-4

NRM-4 represents a medium trash load TMA, the great majority of which is designated as Industrial; one parcel has an Institutional land use; several of the parcels that are deemed NRM-4 are discontinuous.

### Key Characteristics of NRM-4

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
325.49	0.00%	0.00%	96.93%	3.07%	Industrial, with one Institutional parcel	Poor Trash Bin Management, Illegal Dumping

### Summary of Control Measures and Implementation Schedule for NRM-4

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Community Outreach</b>	Partnering with "Stormwater Academy" for field-based education; "Training and coordination with "Love Your Block Volunteers"		X	X	X
<b>Activities to Reduce Trash from Uncovered Loads</b>	Coordinate with California Highway Patrol to ticket truck drivers who fail to adequately cover loads in their open beds.			X	X
<b>Code Enforcement/Ordinances</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.			X	X
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances			X	X
<b>Creek, Channel, Shoreline Cleanups</b>	Coordinate with SPAWNERS and with Wildcat and San Pablo Creeks Watershed Council regarding semi-annual cleanups on Wildcat and San Pablo Creeks, focusing especially on "hot spots" on these creeks.	X	X	X	X

## Evaluation of Program Effectiveness for NRM-4

Control Measure	Evaluation Method Details
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Activities to Reduce Trash from Uncovered Loads</b>	Track number of violations obtaining information from areas identified as receiving trash from uncovered loads.
<b>Anti-littering and Illegal Dumping Enforcement</b>	Track number of enforcement cases; time to remove dumped items.
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.
<b>Code Enforcement</b>	Using the BASMAA protocol, track trash load(s) after conducting education/outreach efforts, notices of violations, and follow-up.

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## North Richmond Long-Term Trash Reduction Plan

NRM-5 constitutes the low trash load portions of this community, the majority of which is designated as Industrial and a minority is identified as Institutional land uses; some of the NRM-5 designated areas are discontinuous.

### Key Characteristics of NRM-5

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
153.57	0.00%	0.02%	0.72%	99.26%	Industrial, with pockets of Institutional	Resident/Pedestrian-generated litter

### Summary of Control Measures and Implementation Schedule for NRM-5

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Community Outreach	Partnering with "Stormwater Academy" for field-based education; "Training and coordination with "Love Your Block Volunteers"		X	X	X
Product Bans	Seek passage of and implement Plastic Bag and Styrofoam Ban Ordinances for West County			X	X

### Evaluation of Program Effectiveness for NRM-5

Control Measure	Evaluation Method Details
Community Outreach	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
Product Bans	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.

## North Richmond Long-Term Trash Reduction Plan

TRASH MANAGEMENT AREA

# NRM-6

NRM-6 is adjacent to NRM-1 and is characterized by: 1) medium load levels; and 2) Residential land use.

### Key Characteristics of NRM-6

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
27.87	0.00%	0.00%	100.00%	0.00%	Residential	Resident/Pedestrian-generated litter

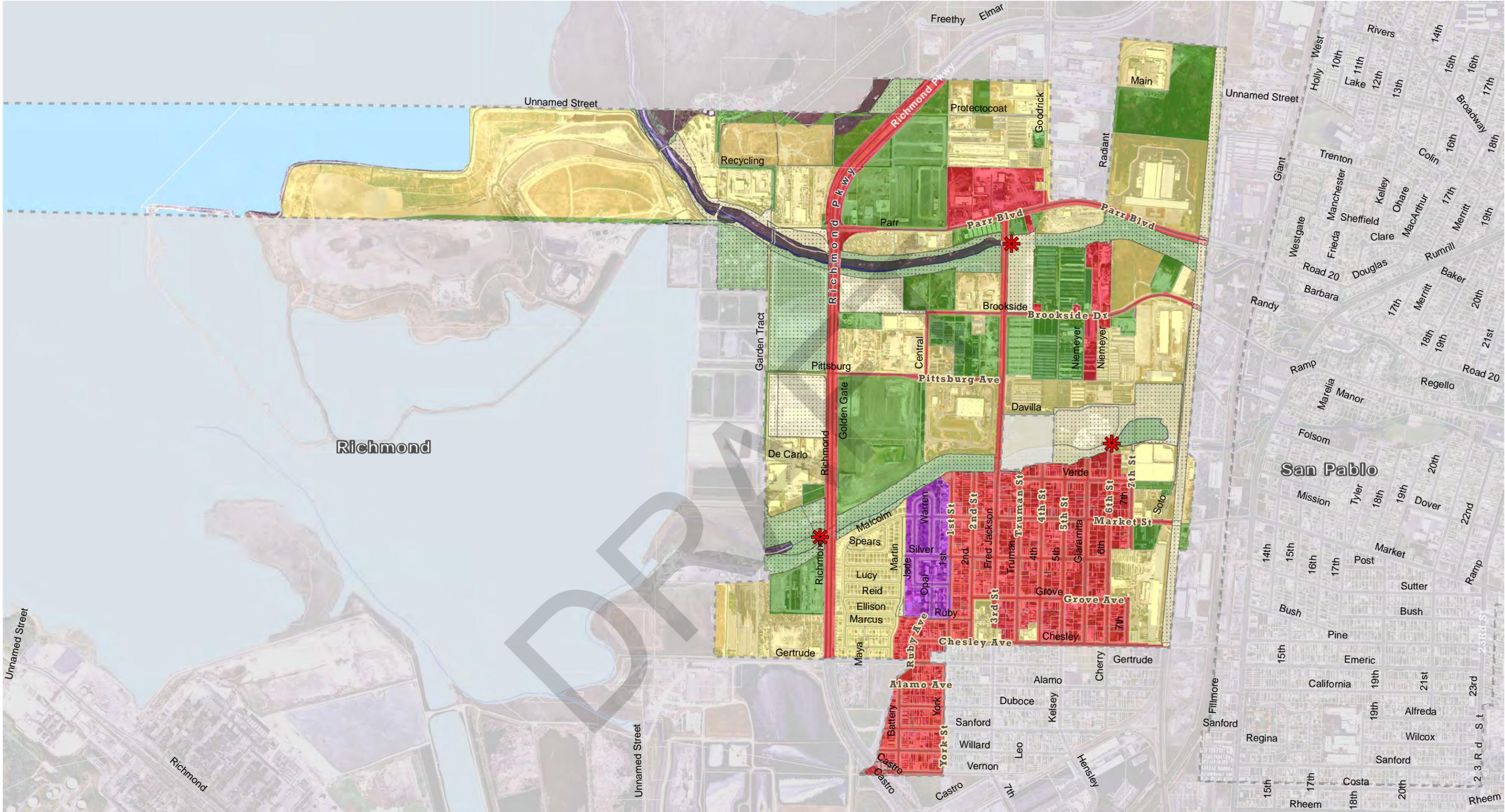
### Summary of Control Measures and Implementation Schedule for NRM-6

Control Measure	Control Measure Details	Pre- MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter, a few primary roads are swept weekly.	X	X		
<b>Enhanced Street Sweeping</b>	Implement Enhanced Street Sweeping with parking enforcement (no-parking during street sweeping interval) and if this is not successful, increase street sweeping frequency from monthly to bi-weekly.			X	X
<b>Community Outreach</b>	Enhance public information campaigns to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Code Enforcement/Ordinances</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.			X	X
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances.		X	X	X

## Evaluation of Program Effectiveness for NRM-6

Control Measure	Evaluation Method Details
<b>Enhanced Street Sweeping</b>	Visually assess the before and after sweeping conditions of streets using the BASMAA protocol.
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Code Enforcement/Ordinances</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.

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**Contra Costa County  
Trash Rates for the  
Community of  
North Richmond**

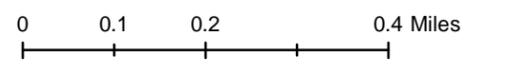


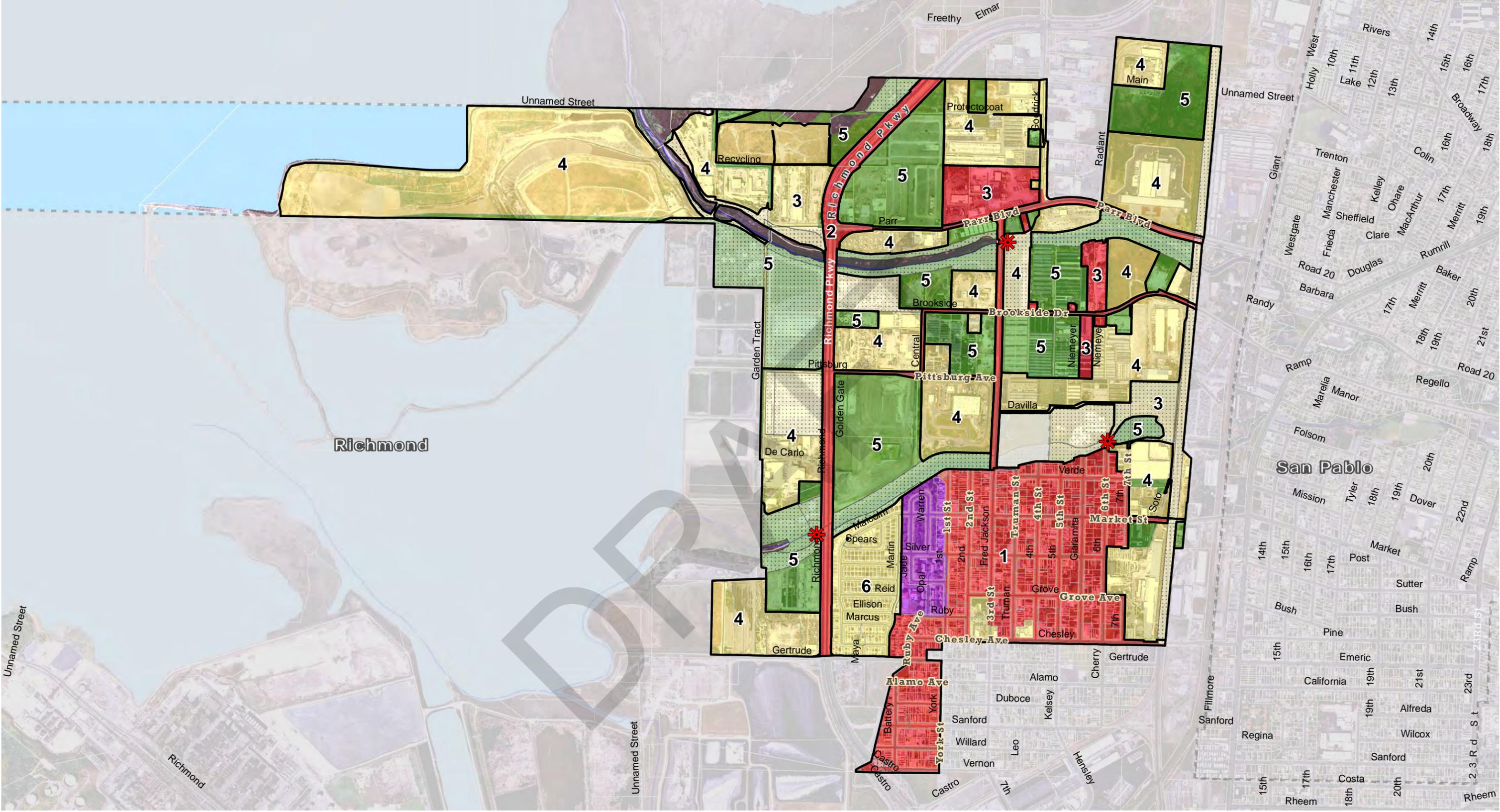
<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		City	

1 inch = 1,055 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





# Contra Costa County Draft Trash Plan for the Community of North Richmond

<b>Trash Rate</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		Trash Management Areas	City

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014

1 inch = 1,055 feet

**Rodeo**  
**Trash Management Plan**  
**2014-2022**

DRAFT

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

Rodeo is a community in western Contra Costa County. It has industrial, commercial, institutional, residential and open space areas. In terms of trash generation, Rodeo is mixed with some areas that generate a high amount of trash, while many other areas generate a medium or low amount of trash. The areas in Rodeo generating a high trash load include a Housing Authority area on the north side of town as well as commercial, institutional, and residential areas primarily along and near the major commercial corridors in Rodeo. The medium trash load areas include some commercial, industrial and residential locations between Highway 80 and San Pablo Bay. The low trash load areas include the residential area east of Highway 80 and a few pockets of commercial and residential areas west of Highway 80.

See Section 1 of the county-wide Trash Management Plan for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra County's long term trash plan.

## 2. Rodeo Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Demographic data from the 2010 census is presented in Table 2-1.

**Table 2-1. 2010 Census Data**

<b>Population (# people)</b>	8,679
<b>Under 18</b>	2,128
<b>18-24</b>	802
<b>25-44</b>	2,173
<b>45-64</b>	2,517
<b>65 and older</b>	1,059
<b>Median household income</b>	\$66,216

Table 2-2 summarizes land uses within the town of Rodeo in unincorporated Contra Costa County

**Table 2-2. 2005 Land Uses (ABAG)**

<b>Land Use Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	16.38	0.5%
<b>Industrial</b>	1,177.50	34.5%
<b>Residential</b>	599.42	17.6%
<b>Retail</b>	16.43	0.5%
<b>K-12 Schools</b>	12.41	0.4%
<b>Urban Parks</b>	3.24	0.1%
<b>Other</b>	1,586.65	46.5%

### B. Drainage System and Water Resources Affected by Trash

Rodeo is in the Rodeo Creek Watershed. Rodeo Creek flows through this community. Stormwater flows to Rodeo Creek then to San Pablo Bay. Rodeo has curbs and gutters that direct storm water to the storm sewer system.

### C. Trash Problems and Priorities

Rodeo has areas that generate high amounts of trash, medium amounts of trash, and low amounts of trash. The first priority will be to further assess the areas generating high amounts of trash and to work with the community to implement control measures to reduce the trash. More specifics are discussed in Sections 3 and 4 detailing strategies and the specific control measures for the trash management areas.

See Section 1 of the county-wide Trash Management Plan for more details on Contra Costa County’s visual trash assessment protocol and priorities as well as the process of implementing various control measures in the unincorporated portions of the county.

Table 2-3 summarizes trash generation by land use:

<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>Very High</b>	33.40	0.00%	0.00%	98.13%	1.69%	0.00%	0.00%	0.18%
<b>High</b>	34.14	4.43%	1.94%	31.96%	42.60%	1.77%	1.56%	15.73%
<b>Medium</b>	342.62	4.20%	28.26%	61.63%	0.39%	3.45%	0.79%	1.28%
<b>Low</b>	3,001.89	0.02%	35.98%	11.48%	0.00%	0.00%	0.00%	52.53%

## 3. Rodeo Trash Management Strategy

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The strategy to reduce trash in Rodeo is to further assess where and how trash is being generated and implement effective control measures. The County’s priority for Rodeo will be to focus on the areas generating high amounts of trash. In Rodeo, the areas generating a high amount of trash are primarily located along a commercial corridor and a Housing Authority Area. For the commercial area, the County will work to implement parking enforcement during street sweeping, and work with property owners/managers to better manage trash bins. Areas in Rodeo were evaluated for full trash capture devices (FTCDs). There is very little elevation change in the commercial areas generating a high trash load so FTCDs aren’t feasible. The County will further verify how trash is generated and find alternative control measures as necessary to address appropriately. The County is also looking into larger FTCDs and/or end-of-pipe devices.

For the residential area with a high trash load, Contra Costa County will meet with the Housing Authority to discuss the problem of trash management and find control measures to address the problems.

Community outreach for some specific locations may include a more intensive program of “Love Your Block” to address the specific site locations. This program will combine targeted outreach to specific residential neighborhoods on a block-by-block basis to clean up existing trash and instill a sense of pride and ownership of the neighborhood. For “Love Your Block” the County proposes to coordinate County Maintenance workers, trash hauler franchises, County Code Enforcement, local non-profits, and other County staff to clean-up parcels and streets in some of the most trash challenged neighborhoods. This will be based on county funds and priorities. More specifics on this program are discussed in the county-wide Trash Management Plan.

For areas with a medium amount of trash, Contra Costa County will work to reduce the trash load by enhancing street sweeping including adding no parking with enforcement restrictions during street sweeping, will find ways to improve trash bin management as appropriate and will continue public outreach. The County will reassess the trash loads and make changes as appropriate to address problems that arise.

#### D. Delineation of Trash Management Areas

Trash Management Areas were determined based on their trash management loads and their associated land use.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
ROD-1	52.41	1.60%	58.54%	32.88%	6.99%
ROD-2	36.75	88.61%	9.26%	0.00%	2.12%
ROD-3	111.77	0.00%	0.00%	98.88%	1.11%
ROD-4	224.79	0.00%	0.00%	92.88%	7.12%
ROD-5	499.10	0.00%	0.01%	0.30%	99.70%
ROD-6	386.53	0.00%	0.00%	0.10%	99.90%
ROD-7	2,100.65	0.00%	0.00%	0.20%	99.80%

- ROD-1 includes commercial and institutional areas generating high amounts of trash.
- ROD-2 includes residential areas generating high amounts of trash.
- ROD-3 includes industrial, commercial, and institutional areas generating medium amounts of trash.
- ROD-4 includes residential areas generating medium amounts of trash.
- ROD-5 includes industrial, commercial, and institutional areas generating low amounts of trash.
- ROD-6 includes residential areas generating low amounts of trash.
- ROD-7 includes open space areas generating low amounts of trash.

**E. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

Creek and Shoreline Cleanups

**Table 3-2. Creek and Shoreline Cleanups**

Location	Description	Cleanup Frequency			
		Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Location 1</b>	Rodeo Creek d/s of 7 <sup>th</sup> Ave, Rodeo		X		
<b>Location 2</b>	Rodeo Creek at 4th St. – Coastal Cleanup		X		

Two creek cleanups have occurred in Rodeo, one at 7<sup>th</sup> Street and one at 4<sup>th</sup> Street. The creek cleanups are documented and tracked. The frequency varies depending on the organization conducting the cleanup. The locations may change based on the trash loads, access to locations, and relevance of trash levels with respect to the location of receiving water. Contra Costa County updates this information in the County’s Annual Report. Other on-land cleanups are conducted and recorded depending on need and resources. Those are discussed in Section 4 of this plan under control measures.

**F. Trash Reduction Policies**

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of Contra Costa County’s status and implementation of product bans including plastic bags and foam polystyrene food and beverage containers for the unincorporated portions of the county.

**G. Public Education, Outreach, and Community Involvement**

Through the CCCWP, the Permittees conducted a “Litter Travels, But It Can Stop with You” multi-year campaign beginning in FY 2009-2010. The multi-media campaign was designed to educate Contra Costa’s citizens about the impacts of trash and litter in the County’s waterways and how they can help address this problem and included TV spots, billboards, posters at BART stations, placards on transit buses, print ads and updates to the CCCWP website. Other outreach included more than 10,000 letters to County residents, contact with youth sports leagues, outreach to the 17 school districts in the County, and distribution of flyers to students in 5 of those districts. Pre and post-campaign surveys were conducted.

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of the Contra Costa County’s public education, outreach, and public involvement for the unincorporated portions of the county.

Public outreach in Rodeo will include working with the Housing Authority, the Rodeo Chamber of Commerce and other appropriate service clubs, schools, or environmental organizations interested in coordinating with Contra Costa County to help implement trash management strategies in Rodeo.

#### **H. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 2 of the county-wide Trash Management Plan for a comprehensive discussion of how unincorporated Contra County will assess, evaluate and reduce trash levels. For specific assessments to control measures proposed in Rodeo, see Rodeo's specific Trash Management Area Tables below. The tables lay out the Control Measures and the corresponding evaluations of program effectiveness.

### **4. Trash Management Area Plans**

#### **A. TMA-Specific Plans**

Trash management areas (TMAs) are described in the sections and tables below. The TMAs are divided by their trash load level: high (high and very high are combined), medium, or low levels and their land use (e.g. commercial, industrial and institutional or residential). Each TMA has three associated tables that include: the amount of area in the jurisdiction with their associated trash load and sources; a summary of control measures to be implemented within the trash management area; and the evaluation methods proposed to assess the program effectiveness. Rodeo has a total of seven trash management areas:

ROD-1, includes commercial and institutional areas generating high amounts of trash;

ROD-2 includes residential areas generating high amounts of trash;

ROD-3, includes industrial, commercial, and institutional areas generating medium amounts of trash;

ROD-4 includes residential areas generating medium amounts of trash;

ROD-5 includes industrial, commercial, and institutional areas generating low amounts of trash;

ROD-6 includes residential areas generating low amounts of trash; and

ROD-7 includes open space areas generating low amounts of trash.

**Rodeo Long-Term Trash Reduction Plan**

The Rodeo Trash Management Area 1 (ROD-1) consists of areas generating high trash loads. It includes commercial and institutional areas where similar control measure strategies implemented. They are located along primary commercial corridors.

**Key Characteristics of Trash Management Area ROD-1**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
52.41	1.60%	58.54%	32.88%	6.99%	Commercial and Industrial	Litter, Trash Bin Overflow

**Summary of Control Measures and Implementation Schedule for Trash Management Area ROD-1**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Code Enforcement</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.			X	X
<b>Creek and Shoreline Cleanups</b>	Coordinate with community groups to conduct creek cleanups.		X		
<b>Community Outreach</b>	Enhance public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

## Evaluation of Program Effectiveness for Trash Management Area ROD-1

Control Measure	Evaluation Method Details
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess the before and after sweeping conditions of streets using the BASMAA protocol.
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>Creek and Shoreline Cleanups</b>	Track location, frequency, and volume of cleanups.
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign
<b>Product Bans</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.

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**Rodeo Long-Term Trash Reduction Plan**

The Rodeo Trash Management Area 2 (ROD-2) consists of a residential area generating a high trash load. It is a residential area where similar control measure strategies will be implemented.

**Key Characteristics of Trash Management Area ROD-2**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
36.75	88.61%	9.26%	0.00%	2.12%	Residential	Litter, Trash Bin Overflow

**Summary of Control Measures and Implementation Schedule for Trash Management Area ROD-2**

Control Measure	Control Measure Details	Pre- MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Community Outreach</b>	Enhance public information campaigns provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping. "Love your block" may be implemented for some specific blocks. This is a targeted, intensive clean-up effort that combines clean-up efforts and assistance with code enforcement.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

**Evaluation of Program Effectiveness for Trash Management Area ROD-2**

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess the before and after sweeping conditions of streets using the BASMAA protocol.
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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**Rodeo Long-Term Trash Reduction Plan**

The Rodeo Trash Management Area 3 (ROD-3) consists of areas generating medium trash loads. It includes commercial and industrial areas where similar control measure strategies will be implemented.

**Key Characteristics of Trash Management Area ROD-3**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
111.77	0.00%	0.00%	98.88%	1.11%	Commercial and Industrial	Litter, Trash Bin Overflow

**Summary of Control Measures and Implementation Schedule for Trash Management Area ROD-3**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Code Enforcement</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.			X	X
<b>Community Outreach</b>	Enhance public information campaigns to provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

**Evaluation of Program Effectiveness for Trash Management Area ROD-3**

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess the before and after sweeping conditions of streets using the BASMAA protocol.
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

DRAFT

**Rodeo Long-Term Trash Reduction Plan**

The Rodeo Area 4 (ROD-4) consists of areas generating medium trash loads. It includes residential areas where similar control measure strategies will be implemented.

**Key Characteristics of Trash Management Area ROD-4**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
224.79	0.00%	0.00%	92.88%	7.12%	Residential	Litter, Trash Bin Overflow

**Summary of Control Measures and Implementation Schedule for Trash Management Area ROD-4**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>Improved Trash Bins/Container Management</b>	Particularly for multi-family residential areas where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Creek and Shoreline Cleanups</b>	Coordinate with community groups to conduct creek cleanups.		X		
<b>Community Outreach</b>	Enhance public information campaigns to provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

## Evaluation of Program Effectiveness for Trash Management Area ROD-4

Control Measure	Evaluation Method Details
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess the before and after sweeping conditions of streets using the BASMAA protocol.
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Creek and Shoreline Cleanups</b>	Track location, frequency, and volume of cleanups.
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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**Rodeo Long-Term Trash Reduction Plan**

The Rodeo Trash Management Area 5 (ROD-5) consists of areas generating low trash loads. It includes industrial, commercial, and institutional areas where similar control measure strategies will be implemented.

**Key Characteristics of Trash Management Area ROD-5**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
499.10	0.00%	0.01%	0.30%	99.70%	Commercial, Industrial, Institutional	Litter

**Summary of Control Measures and Implementation Schedule for Trash Management Area ROD-5**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X	X	X
<b>Improved Trash Bins/Container Management</b>	Where trash around dumpster is a problem, will work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Code Enforcement</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.			X	X
<b>Community Outreach</b>	Enhance public information campaigns to provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

**Evaluation of Program Effectiveness for Trash Management Area ROD-5**

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Street Sweeping</b>	Visually assess the before and after sweeping conditions of streets using the BASMAA protocol.
<b>Improved Trash Bins/Container Management</b>	Monitor incidences of trash outside containers, with the goal of decreasing the trend towards zero
<b>Code Enforcement</b>	Track violations and reassess trash loads and control measures where appropriate
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

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## Rodeo Long-Term Trash Reduction Plan

The Rodeo Trash Management Area 6 (ROD-6) consists of areas generating low trash loads. It includes residential areas where similar control measure strategies will be implemented.

### Key Characteristics of Trash Management Area ROD-6

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
386.53	0.00%	0.00%	0.10%	99.90%	Residential	Litter

### Summary of Control Measures and Implementation Schedule for Trash Management Area ROD-6

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X	X	X
<b>Community Outreach</b>	Enhance public information campaigns to provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

### Evaluation of Program Effectiveness for Trash Management Area ROD-6

Control Measure	Evaluation Method Details
<b>Street Sweeping</b>	Visually assess the before and after sweeping conditions of streets using the BASMAA protocol.
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups

**Rodeo Long-Term Trash Reduction Plan**

The Rodeo Trash Management Area 7 (ROD-7) consists of areas generating low trash loads. It includes open land where similar control measure strategies will be implemented.

**Key Characteristics of Trash Management Area ROD-7**

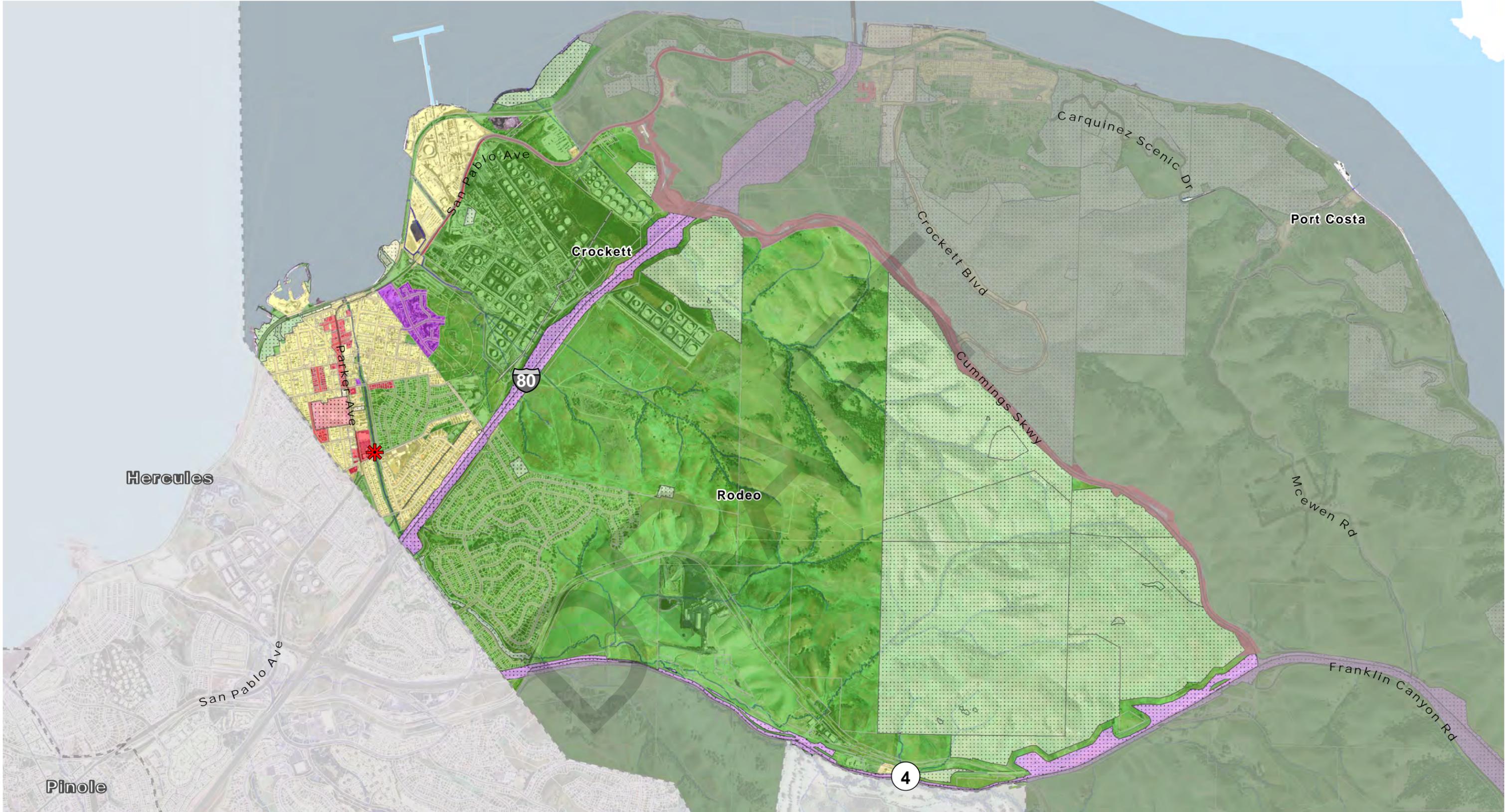
Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
2,100.65	0.00%	0.00%	0.20%	99.80%	Open Land	Litter

**Summary of Control Measures and Implementation Schedule for Trash Management Area ROD-7**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Community Outreach</b>	Enhance public information campaigns to provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. See the county-wide Trash Management Plan for details.			X	X

**Evaluation of Program Effectiveness for Trash Management Area ROD-7**

Control Measure	Evaluation Method Details
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Product Bans</b>	Track compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups.



**Contra Costa County  
Trash Rates for the  
Community of  
Rodeo**

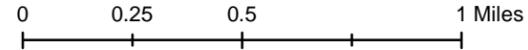


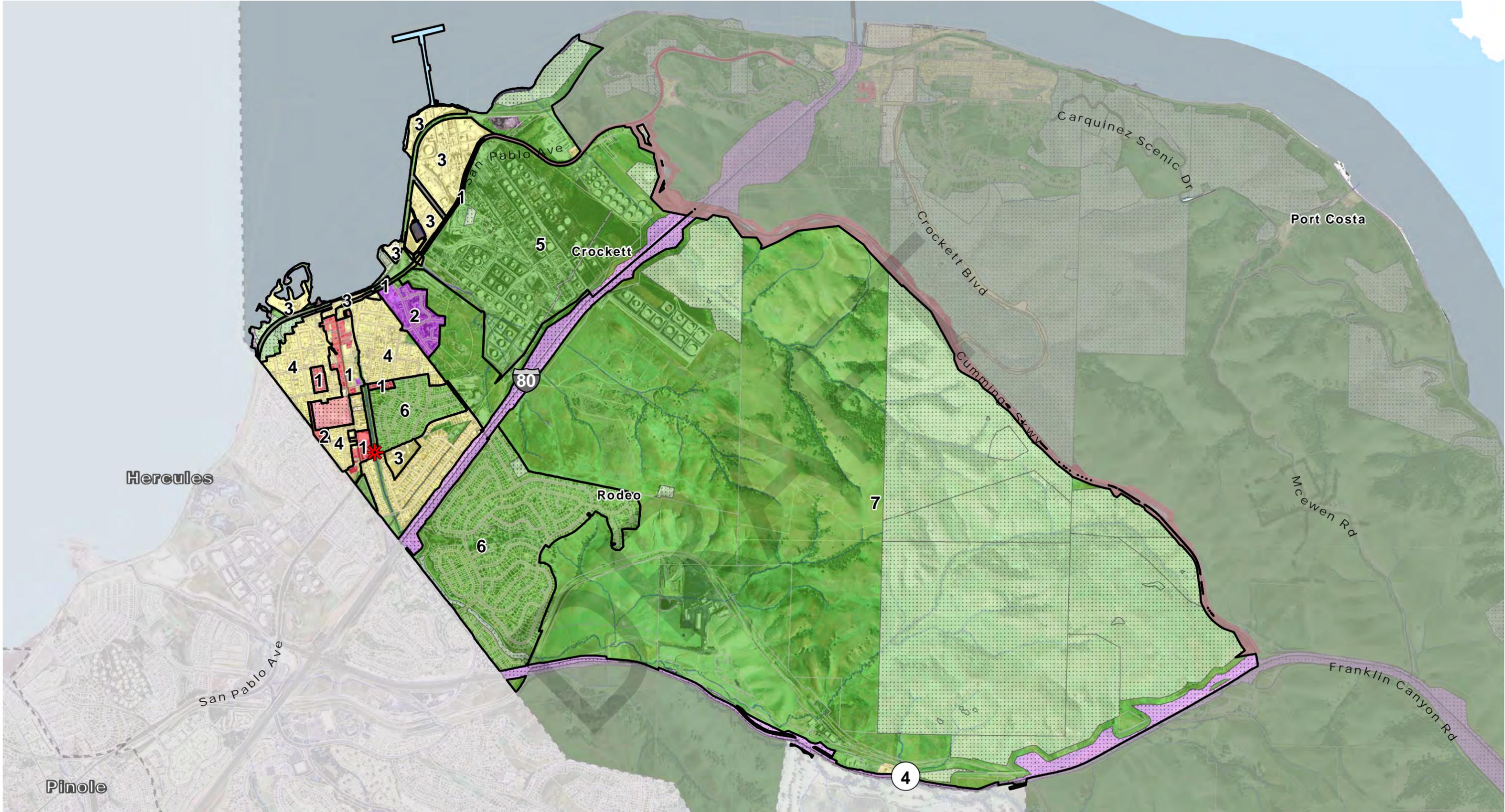
<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		City	

1 inch = 2,200 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





## Contra Costa County Draft Trash Plan for the Community of Rodeo



Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014

1 inch = 2,200 feet

**Rural Contra Costa County  
Trash Management Plan  
2014-2022**

DRAFT

Submitted to the  
California Regional Water Quality Control Board for the San Francisco Bay Region  
February 1, 2014  
in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

Contra Costa municipalities have prepared Long-Term Trash Reduction Plans (Plans) in compliance with Provision C.10.c. of the Municipal Regional Stormwater Permit<sup>1</sup> (MRP). Each municipal plan describes control measures and best management practices (BMPs) designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. In an effort to reduce the size of the Trash Management plans for each community, the contents of Section 1 are deleted. **Please see the Unincorporated Contra Costa County-wide Trash Management Plan for the Introduction Sections**

## 2. Rural Contra Costa County Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Rural Contra Costa County is the largest land area in Contra Costa County, but sustains only a small population. The Rural Contra Costa County Trash Management Plan area consists of five small Census Designated Places (Alhambra Valley, Camino Tassajara, Norris Canyon, North Gate, and Reliez Valley), other small communities that are not census designated places (Canyon, Morgan Territory, the Marsh Creek corridor) and the vast agricultural and ranch lands within the County..

A large portion of the rural areas are non-jurisdictional, lands managed by East Bay Regional Parks, CA State Parks, and East Bay Municipal Utilities District. Cattle ranching and rural residential land uses dominate the hills in rural areas in west and south County, while irrigated agriculture dominates in eastern County. All three areas are seeing an increase in residential and horse property developments.

Demographic data from the 2010 census is presented in Table 2-1.

**Table 2-1. 2010 Census Data**

<b>Population</b>	<b>17,740</b>
<b>Under 18</b>	<b>2,830</b>
<b>18-24</b>	<b>2,044</b>
<b>25-44</b>	<b>3,967</b>
<b>45-64</b>	<b>4,864</b>
<b>65 and older</b>	<b>4,035</b>
<b>Median household income</b>	<b>\$168,546*</b>

\* = Median income is the average of median household incomes of the different census tracts. It does not include any data outside of the urban limit line, where there is no income census data.

Table 2-2 presents summarizes land uses within Rural Contra Costa County.

**Table 2-2. 2005 Land Uses (ABAG)**

<b>Land Use Category</b>	<b>Jurisdictional Area</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	145.04	0.1%
<b>Industrial</b>	1937.68	1.5%
<b>Residential</b>	3290.21	2.5%
<b>Retail</b>	14.56	0.0%
<b>K-12 Schools</b>	30.86	0.0%
<b>Urban Parks</b>	149.92	0.1%
<b>Other</b>	127395.75	95.8%

<sup>1</sup> Order R2-2009-0074, issued by the California Regional Water Quality Control Board for the San Francisco Bay Region, became effective on December 1, 2009 and applies to 76 cities, towns, counties, and flood control districts.

### B. Drainage System and Water Resources Affected by Trash

The rural areas dominated by natural drainages. Drainage improvements are either privately constructed, or are restricted to stream crossings (culverts and bridges). In eastern Contra Costa County, roadside ditches were constructed to drain the grid network of roads. These ditches either drain into a nearby stream (Marsh Creek, Kellogg Creek, Brushy Creek) or into the Delta.

Almost none of the rural County roads have a storm drain network. Roadside ditches are the primary drainage mechanism. Occasional drainage inlets along rural roads discharge into nearby streams (which are often adjacent to the road). The majority of rural residential housing is near streams, as early footpaths and horse trails followed streams. These travel ways were eventually paved and houses were built along the roads.

### C. Trash Problems and Priorities

The primary trash challenge in the rural areas is illegal dumping along rural roads. Although the majority of items dumped on County roads are too large to enter into a nearby stream, an unknown portion contains litter that is capable of blowing or flowing into nearby streams. The majority of rural residents have trash service.

Table 2-3 summarizes trash generation by land use:

<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>Very High</b>	40.21	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
<b>High</b>	593.38	0.08%	0.00%	0.79%	0.45%	0.00%	0.00%	98.68%
<b>Medium</b>	538.02	11.80%	43.11%	13.24%	2.06%	1.91%	22.27%	5.61%
<b>Low</b>	131,792.39	0.06%	1.29%	2.44%	0.00%	0.02%	0.02%	96.17%

The high and very high trash load categories are dominated by rural roads, which experience a high level of illegal dumping.

## 3. Rural Contra Costa County Trash Management Strategy

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The vast majority of the rural areas are trash free (i.e. green on the trash load maps). To maintain the relative trash free environment, the County will pass an ordinance prohibiting the free distribution of single use plastic bags (by 2017) and foam polystyrene food and beverage containers (by 2022). The County will develop and implement either a County wide or a rural area targeted outreach campaign. Rural residents already maintain the property frontage in a trash free state.

#### A. Delineation of Trash Management Areas

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
TMA 1	132,164.12	0.03%	0.01%	0.30%	99.67%
TMA 2	583.90	0.00%	100.00%	0.00%	0.00%
TMA 3	215.99	0.00%	0.00%	67.74%	32.26%
TMA 4	132,164.12	0.03%	0.01%	0.30%	99.67%

- TMA 1 is the largest trash management area. It covers single family residential, multifamily residential, open lands, institutional properties, and County owned properties. The vast majority of the trash loads within this TMA are low.
- TMA 2 is rural roads. This is where the majority of the trash load for this area is generated. Roads have either a medium (yellow), high, or very high (both red) trash load.
- TMA 3 is County owned facilities with a medium trash load.
- TMA 4 is the few scattered commercial parcels, with either low or medium loads.

#### B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

#### C. Creek and Shoreline Cleanups

**Table 3-2. Creek and Shoreline Cleanups**

Location	Description	Cleanup Frequency			
		Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Location 1	Orinda Creeks - - Coastal Cleanup Day	X	X	X	X
Location 2	Alhambra Valley - via Friends of Alhambra Creek	X	X	X	X
Location 3	Bollinger Creek at various locations high within the watershed along Bollinger Canyon Rd	X	X	X	X

There are very few organized clean-ups in the rural areas of Contra Costa County. This is due in part to the relatively light population density and trash load. Other creek clean-ups are likely occurring by area residents and landowners, but are not reported to the County.

#### D. Trash Reduction Policies

Implementation of plastic bag and foam polystyrene ordinances will have an unknown impact in the rural areas. Please see the County-wide Trash Plan for details about these proposed ordinances.

#### E. Public Education, Outreach, and Community Involvement

Through the CCCWP, the Permittees conducted a “Litter Travels, But It Can Stop with You” multi-year campaign beginning in FY 2009-2010. The multi-media campaign was designed to educate Contra

Costa's citizens about the impacts of trash and litter in the County's waterways and how they can help address this problem and included TV spots, billboards, posters at BART stations, placards on transit buses, print ads and updates to the CCCWP website. Other outreach included more than 10,000 letters to County residents, contact with youth sports leagues, outreach to the 17 school districts in the County, and distribution of flyers to students in 5 of those districts. Pre and post-campaign surveys were conducted.

Due to the low population density and low trash load, it is unlikely the County will develop a rural area public outreach and education campaign for rural areas. Please see the County-wide Trash Plan for details about potential education and outreach campaigns.

#### **F. Jurisdiction-wide Progress Assessment and Continuous Improvement**

Rural roads will be the primary focus trash load monitoring and evaluation of trash reduction strategies. On-land cleanups will be the primary strategy. County staff will take a representative reach of roadway and use the BASMAA 2013 protocol to assess trash loads before and immediately after an on-land cleanup, and at regular intervals to better assess the trash load rate for the road. This information will assist in generating a roadside dumping cleanup interval for a given rural road.

### **4. Trash Management Area Plans**

#### **A. TMA-Specific Plans**

TMA-specific plans for rural areas of Contra Costa County are attached.

### **5. References**

BASMAA 2012a. Bay Area Stormwater Management Agencies Association. Trash Generation Rates for San Francisco Bay Area MS4s (Draft Final). Presentation to the BASMAA Trash Committee, August 2012. Prepared by EOA, Inc.

BASMAA 2012b. Baseline Trash Generation Rates, Preliminary Calibration of Modeled Results, Presentation to BASMAA Trash Committee, September, 2012. Prepared by EOA, Inc.

BASMAA 2013a. Visual On-Land Trash Assessment Protocol for Stormwater, Version 1.0 (Draft). April 30, 2013. Prepared by EOA, Inc.

CCCWP, 2013. Contra Costa Clean Water Program. Long-Term Trash Load Reduction Plan Development—Trash Generation Map Refinements. Technical Memorandum, May 20, 2013. Prepared by EOA, Inc.

**Rural Contra Costa County Long-Term Trash Reduction Plan**

Residential, institutional, open space, and government owned land uses within rural Contra Costa County.

**Key Characteristics of Trash Management Area [1]**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
<b>132,164.12</b>	0.03%	0.01%	0.30%	99.67%	Ranching, irrigated agriculture, residential	Windblown trash from other areas

TMA 1 represents the bulk of the rural areas, not otherwise discussed in the other community plans. It includes Single Family Residential, Multi-family Residential, Institutional, Government Owned, and Open Land land-uses. The vast majority of these areas have a low (e.g. green) trash load.

**Summary of Control Measures and Implementation Schedule for Trash Management Area RUR-1**

Control Measure	Control Measure Details	Pre- MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Product Bans</b>	Implement plastic bag and foam polystyrene food and beverage container ordinances. Please see The County-wide Trash management Plan for details.			<b>X</b>	<b>X</b>
<b>Community Outreach</b>	Enhance public information campaigns to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.		<b>X</b>		<b>?</b>

**Evaluation of Program Effectiveness for Trash Management Area RUR-1**

Control Measure	Evaluation Method Details
<b>Product Bans</b>	Track store compliance; track volume of trash found at Trash Hot Spot Monitoring Sites;
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.

**Rural Contra Costa County Long-Term Trash Reduction Plan**

TMA 2 - Roads within rural Contra Costa County.

**Key Characteristics of Trash Management Area RUR-2**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
583.90	0.00%	100.00%	0.00%	0.00%	County roads	Illegal dumping on rural roads

There are hundreds of miles of roads within rural Contra Costa County. With a few exceptions, none of the roads have curb and gutter. Due to their remote character and low levels of vehicular traffic, the County's rural roads are a frequent target of illegal dumping. **The 100% High trash generation category reflects only those roads where the County will initially focus their trash reduction measurements. Not all rural roads have a "high" trash category.**

**Summary of Control Measures and Implementation Schedule for Trash Management Area RUR-2**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>On-land Trash Cleanups</b>	Pick up trash from the ground by County employees, contractors, and/or community volunteer stewardship groups. Frequency of clean-ups to be determined by existing trash load and visual assessment. See below for more detail.	X	X	X	X
<b>Activities to Reduce Trash from Uncovered Loads</b>	Coordinate with California Highway Patrol to ticket truck drivers who fail to adequately cover loads in their open beds	X	X	X	X
<b>Anti-littering and Illegal Dumping Enforcement</b>	Motion sensor activated flash cameras may be installed and monitored. Enforcement opportunities will be pursued. Investigate paperwork found within trash in dumped items to pursue enforcement.		X	X	X
<b>Creek, Channel, Shoreline Cleanups</b>	Use County staff, contractors, and/or coordinate with <i>Friends of Creek groups or interested residents</i> to conduct cleanups on creeks in rural areas. See below for more detail.		X	X	X

**On-land trash clean-ups:** Contra Costa County Public Works Department has cleaned up illegal dumps along County roads for years. County Public Works maintenance staff note illegal dumps as part of their regular travels throughout the County. Local residents and concerned citizens also notify The Public Works Department of illegal dumps, through the 1800 NO DUMPING hot line. This information is kept in a log and once a month a Maintenance crew picks them up and cleans the site. This frequency of trash clean-ups will increase based upon monitoring of trash loads (see below). The initial goal will be to improve the most trash impacted roads to a medium (or yellow color code) trash load by July 2017. Subsequent efforts will be implemented to achieve a low (or green) trash load where feasible.

**Anti-littering and illegal dumping enforcement:** The County will also examine the contents of any bag containing receipts or any other identifying information. Any information obtained is given to the sheriff’s office and District Attorney for follow-up enforcement.

**Creek cleanups:** Creek cleanups are not often implemented in rural areas due to the low trash levels found in rural area streams. When they do, they tend to be initiated by concerned citizens, residents, or Friend of Creek groups and focus on removal of large debris. The County will continue to provide logistical support for these activities.

<b>Evaluation of Program Effectiveness for Trash Management Area RUR-2</b>	
<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>On-land Trash Cleanups</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.
<b>Activities to Reduce Trash from Uncovered Loads</b>	Track number of violations obtaining information from areas identified as receiving trash from uncovered loads
<b>Anti-littering and Illegal Dumping Enforcement</b>	Track number of enforcement cases, time to remove dumped items.
<b>Creek, Channel, Shoreline Cleanups</b>	Track weight and volume of smaller pieces of litter capable of blowing or flowing into local creeks.

**Rural Contra Costa County Long-Term Trash Reduction Plan**

TMA 3 for the rural areas of unincorporated Contra Costa County consists of a few government owned parcels, primarily local parks, and some commercial parcels. These parcels have a low to moderate trash load. They have not been field verified.

**Key Characteristics of Trash Management Area RUR-3**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
215.99	0.00%	0.00%	67.74%	32.26%	Institutional	Pedestrian-generated litter? Trash Bin Management?

This Trash Management Area consists of a few rural County maintained parcels and commercially zoned properties. These parcels were not field checked to verify the trash load generated by the computer model. Once County staff visits these sites, this TMA may be disbanded and merged into TMA 1.

**Summary of Control Measures and Implementation Schedule for Trash Management Area RUR-3**

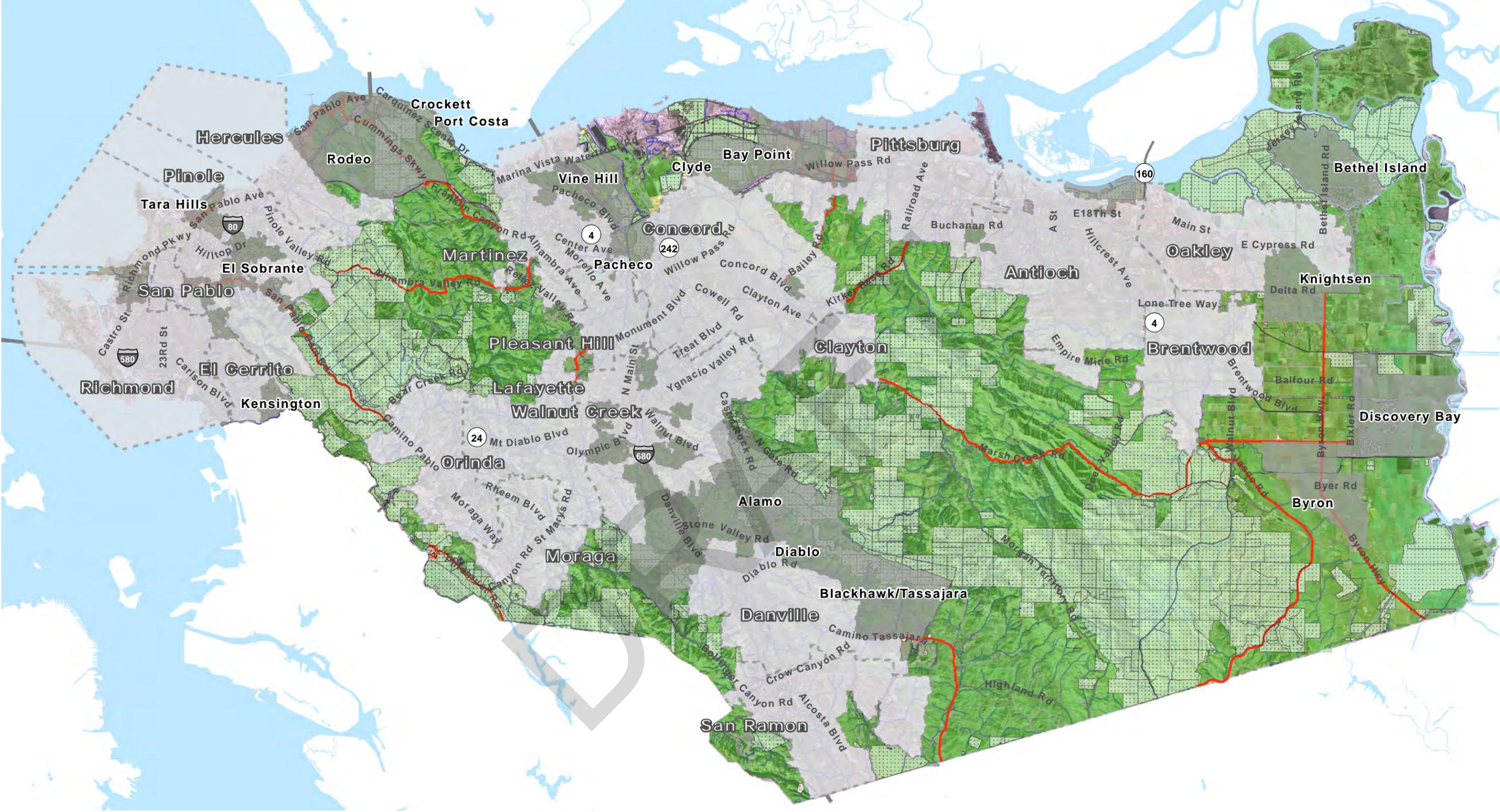
Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>On-land Trash Cleanups</b>	Pick up trash from the ground by County employees, contractors, and/or community volunteer stewardship groups. Frequency of cleanups to be determined by existing trash load and visual assessment.				<b>X</b>
<b>Improved Trash Bins/Container Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions				<b>X</b>
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances.			<b>X</b>	<b>X</b>
<b>Community Outreach</b>	Enhance public information campaigns to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.		<b>X</b>	<b>X</b>	<b>X</b>

County staff will rely primarily on community outreach and education and trash bin management to reduce trash levels at these parks and commercial parcels. Product bans affecting these areas will begin in 2017. If needed, volunteer trash cleanups may occur.

## Evaluation of Program Effectiveness for Trash Management Area RUR-3

Control Measure	Evaluation Method Details
<b>On-land Trash Cleanups</b>	Pick up trash from the ground by County employees, contractors, and/or community volunteer stewardship groups. Frequency of cleanups to be determined by existing trash load and visual assessment.
<b>Improved Trash Bins/Container Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances.
<b>Community Outreach</b>	Enhance public information campaigns to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.

DRAFT



# Contra Costa County Draft Trash Rates for Rural Communities

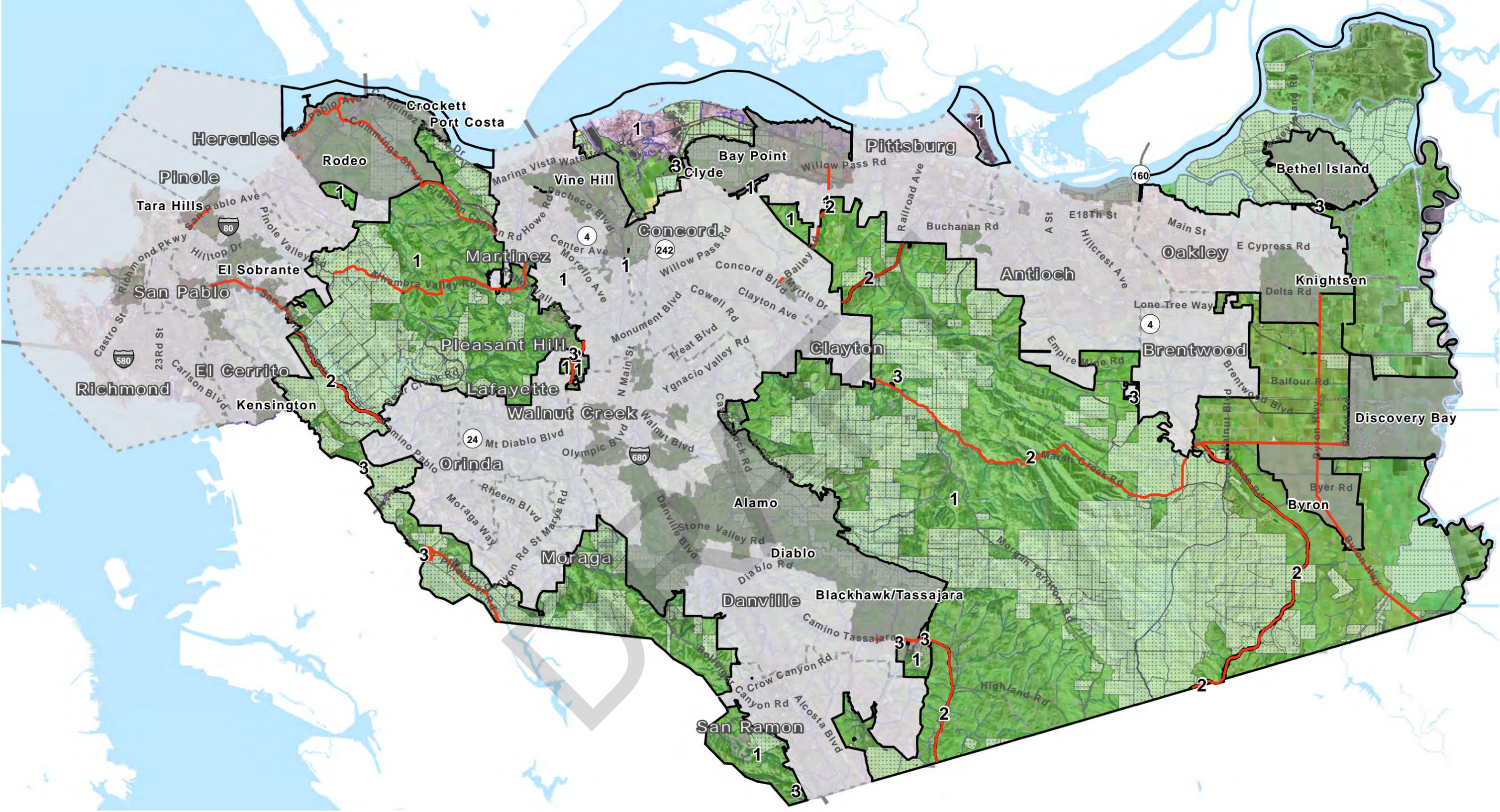
<b>Trash Rates</b>	<span style="display:inline-block; width:15px; height:15px; background-color:red; border:1px solid black;"></span> High	<span style="display:inline-block; width:15px; height:15px; border:1px dotted black;"></span> Non-Jurisdictional	<span style="display:inline-block; width:15px; height:15px; border:1px solid blue;"></span> Creeks
<span style="display:inline-block; width:15px; height:15px; background-color:lightgreen; border:1px solid black;"></span> Low	<span style="display:inline-block; width:15px; height:15px; background-color:purple; border:1px solid black;"></span> Very High	<span style="display:inline-block; width:15px; height:15px; border:1px dashed gray;"></span> City	<span style="display:inline-block; width:15px; height:15px; border-bottom:2px solid red;"></span> High Trash Roads
<span style="display:inline-block; width:15px; height:15px; background-color:yellow; border:1px solid black;"></span> Medium			

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014

1 inch = 3 miles

0 1.75 3.5 7 Miles



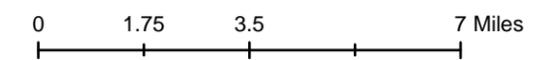
# Contra Costa County Draft Trash Plan for Rural Communities

<b>Trash Rate</b>	<span style="display:inline-block; width:15px; height:15px; background-color:red; border:1px solid black;"></span> High	<span style="display:inline-block; width:15px; height:15px; background-image: radial-gradient(circle, black 1px, transparent 0); background-size: 4px 4px;"></span> Non-Jurisdictional	<span style="display:inline-block; width:15px; height:15px; border:1px dashed black;"></span> City	<span style="display:inline-block; width:15px; height:15px; border:1px solid black;"></span> Trash Management Areas
<span style="display:inline-block; width:15px; height:15px; background-color:lightgreen; border:1px solid black;"></span> Low	<span style="display:inline-block; width:15px; height:15px; background-color:purple; border:1px solid black;"></span> Very High			<span style="display:inline-block; width:15px; height:15px; border-bottom:1px solid blue;"></span> Creeks
<span style="display:inline-block; width:15px; height:15px; background-color:yellow; border:1px solid black;"></span> Medium				<span style="display:inline-block; width:15px; height:15px; border-bottom:1px solid red;"></span> High Trash Roads

1 inch = 3 miles

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
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 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014



**Unincorporated Contra Costa County  
Antioch Pocket Neighborhoods  
Trash Management Plan  
2014-2022**

DRAFT

Submitted to the  
California Regional Water Quality Control Board for the San Francisco Bay Region  
February 1, 2014  
in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## Introduction by the Contra Costa Clean Water Program (CCCWP)

Contra Costa municipalities have prepared Long-Term Trash Reduction Plans (Plans) in compliance with Provision C.10.c. of the Municipal Regional Stormwater Permit<sup>1</sup> (MRP). Each municipal plan describes control measures and best management practices (BMPs) designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. In an effort to reduce the size of the Trash Management plans for each community, the contents of Section 1 are deleted. **Please see the Unincorporated Contra Costa County-wide Trash Management Plan for the Introduction Sections**

### 1. Antioch Pocket Neighborhoods Trash Management Overview

#### A. Characteristics Affecting Trash Generation and Management

There are three distinct unincorporated pockets within Antioch. The first is a mixed residential, commercial and industrial area along Wilbur Ave, west of the Antioch Bridge. This area is currently being annexed by the City of Antioch. The second is two parcels in southwest Antioch associated with refuse. One of the parcels is a capped Super Fund site. The other is a closed and capped municipal landfill. The third area is the County Fairgrounds, which are owned by a division of the State and are therefore non-jurisdictional. This area is not discussed in this plan.

Demographic data from the 2010 census is presented in Table 2-1.

**Table 2-1. 2010 Census Data**

<b>Population</b>	Unknown – Area is not a whole census tract, therefore this is no data
<b>Under 18</b>	Unknown
<b>18-24</b>	Unknown
<b>25-44</b>	Unknown
<b>45-64</b>	Unknown
<b>65 and older</b>	Unknown
<b>Median household income</b>	Unknown

Table 2-2 presents summarizes land uses within Antioch Pocket Neighborhood.

**Table 2-2. 2005 Land Uses (ABAG)**

<b>Land Use Category</b>	<b>Jurisdictional Area</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	145.04	0.1%
<b>Industrial</b>	1937.68	1.5%
<b>Residential</b>	3290.21	2.5%
<b>Retail</b>	14.56	0.0%

<sup>1</sup> Order R2-2009-0074, issued by the California Regional Water Quality Control Board for the San Francisco Bay Region, became effective on December 1, 2009 and applies to 76 cities, towns, counties, and flood control districts.

<b>K-12 Schools</b>	30.86	0.0%
<b>Urban Parks</b>	149.92	0.1%
<b>Other</b>	127395.75	95.8%

Demographic data is not available for the neighborhood west of the Antioch bridge because the area does not constitute a defined area with census data (i.e. census designated place). The capped toxic waste site and landfill do not support a population.

**B. Drainage System and Water Resources Affected by Trash**

The neighborhood west of the Antioch Bridge is adjacent to the San Joaquin River. The area is very flat and there are no storm drains. The residential neighborhood south of Wilbur Ave likely drains into East Antioch Creek, therefore the neighborhood drains via surface flow to the north, towards the river. The two closed trash and toxic waste sites are adjacent to a tributary of West Antioch Creek, which also flows past (and often floods) the fairgrounds.

**C. Trash Problems and Priorities**

Trash in this community comes from a variety of sources. The residential neighborhood south of Wilbur Ave generates trash. It is not clear if all residences subscribe to trash service. Wilbur Road also generates trash from litter discharged from vehicles. Illegal dumping occurs on a vacant strip adjacent to the Holy Cross Cemetery. The closed toxic waste site and landfill have low trash loads, but likely receive some trash from Sommersville Road, which is situated between the two properties.

Table 2-3 summarizes trash generation by land use:

<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>Very High</b>	0	0%	0%	0%	0%	0%	0%	0%
<b>High</b>	20	0%	14%	43%	10%	0%	0%	33%
<b>Medium</b>	197	25%	56%	18%	1%	0%	0%	0%
<b>Low</b>	405	0%	6%	6%	0%	0%	0%	88%

**2. Antioch Pocket Neighborhoods Trash Management Strategy**

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

County Watershed staff prepared the trash reduction plan and shared it with Phil Hoffmeister, Administrative Analyst for the City of Antioch and manager of the City’s stormwater program. Phil accepted the County’s approach, but reserves the right to change the plan once Antioch annexes portions

of this planning area. The County intends to coordinate with Antioch on trash reduction strategies. The County may contract with Antioch to implement some or all of the trash management strategies.

**A. Delineation of Trash Management Areas**

The Antioch Pocket Neighborhoods are delineated into four Trash Management Areas. TMA #1 comprises a mixed use area of single family and multi-family residential, a rock supply store, a Catholic cemetery, a small agricultural field, and two vacant lots. TMA #2 is the unincorporated section of Wilbur Road, the capped toxic waste site and the closed municipal landfill. TMA #3 is a discontinuous set of industrial parcels. TMA #4 is two marinas on the San Joaquin River immediately west of the Antioch Bridge.

<b>Table 3-1. Trash Generation Category by Trash Management Area</b>					
<b>TMA</b>	<b>Jurisdictional Area (Acres)</b>	<b>Trash Generation Category</b>			
		<b>Very High</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
<b>TMA 1</b>	205.52	0.00%	4.26%	33.48%	62.25%
<b>TMA 2</b>	281.90	0.00%	3.87%	0.00%	96.13%
<b>TMA 3</b>	36.06	0.00%	0.00%	99.60%	0.40%
<b>TMA 4</b>	98.85	0.00%	0.43%	93.21%	6.36%

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

TMA 1, a mixed use area with mostly moderate trash loads, will utilize product bans, community outreach, and code enforcement. TMA 2, a portion of Wilbur Avenue, will rely upon on-land cleanups, as there is no curb or gutter to allow street sweeping. TMA 3 addresses several industrial parcels with medium trash loads through product bans, code enforcement, and enforcement of uncovered loads. TMA 4 focuses on trash from two marinas through product bans, community outreach, trash bun management, and code enforcement. TMA 5 appears to be grass covered open space with low trash loads. They will rely upon product bans and community outreach developed by the City of Antioch. The City of Antioch is very engaged in trash issues on the County Fairgrounds site. Working with the State Fair District #19 Board, they conduct on land and in-stream trash cleanups on the fairgrounds site. They have integrated trash curriculum into the charter school located on the site.

**C. Creek and Shoreline Cleanups**

<b>Table 3-2. Creek and Shoreline Cleanups</b>					
<b>Location</b>	<b>Description</b>	<b>Cleanup Frequency</b>			
		<b>Pre-MRP</b>	<b>12/2009 to 7/2014</b>	<b>7/2014 to 7/2017</b>	<b>After 7/2017</b>
<b>Location 1</b>	West Antioch Creek at County Fairgrounds by City of Antioch		<b>X</b>	<b>?</b>	<b>?</b>

The City of Antioch organizes semi-regular cleanup events of West Antioch Creek on the County Fairgrounds.

#### **D. Trash Reduction Policies**

It is unlikely any product bans implemented by the County will have any effect on trash loads in this neighborhood. Product bans implemented by the City of Antioch should have a greater impact.

#### **E. Public Education, Outreach, and Community Involvement**

Through the CCCWP, the Permittees conducted a “Litter Travels, But It Can Stop with You” multi-year campaign beginning in FY 2009-2010. The multi-media campaign was designed to educate Contra Costa’s citizens about the impacts of trash and litter in the County’s waterways and how they can help address this problem and included TV spots, billboards, posters at BART stations, placards on transit buses, print ads and updates to the CCCWP website. Other outreach included more than 10,000 letters to County residents, contact with youth sports leagues, outreach to the 17 school districts in the County, and distribution of flyers to students in 5 of those districts. Pre and post-campaign surveys were conducted.

Although the unincorporated residents and businesses receive a watershed calendar each year, it is unlikely County outreach programs have much effect on this community. Antioch’s efforts are more likely to be successful. The County may contract with Antioch to conduct outreach and education activities until Antioch annexes the populated portions of this neighborhood.

#### **F. Jurisdiction-wide Progress Assessment and Continuous Improvement**

The County will conduct the trash load assessment verification protocol on at least three transects once a year to verify effectiveness of trash reduction strategies.

### **3. Trash Management Area Plans**

#### **A. TMA-Specific Plans**

TMA-specific plans for the unincorporated Antioch Pocket Neighborhood areas are attached.

### **4. References**

BASMAA 2012a. Bay Area Stormwater Management Agencies Association. Trash Generation Rates for San Francisco Bay Area MS4s (Draft Final). Presentation to the BASMAA Trash Committee, August 2012. Prepared by EOA, Inc.

BASMAA 2012b. Baseline Trash Generation Rates, Preliminary Calibration of Modeled Results, Presentation to BASMAA Trash Committee, September, 2012. Prepared by EOA, Inc.

BASMAA 2013a. Visual On-Land Trash Assessment Protocol for Stormwater, Version 1.0 (Draft). April 30, 2013. Prepared by EOA, Inc.

CCCWP, 2013. Contra Costa Clean Water Program. Long-Term Trash Load Reduction Plan Development—Trash Generation Map Refinements. Technical Memorandum, May 20, 2013. Prepared by EOA, Inc.

## Unincorporated Antioch Pocket Neighborhoods Long-Term Trash Reduction Plan

TRASH MANAGEMENT AREA  
**APN-1**

The Antioch Pocket Neighborhoods are a discontinuous set of unincorporated areas within the City of Antioch. TMA 1 is a mix of single family and multi-family residential, commercial, agricultural, and institutional land uses with a full range of trash loads.

### Key Characteristics of Trash Management Area APN-1

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
205.52	0.00%	4.26%	33.48%	62.25%	Residential	Residential generated litter, illegal dumping

### Summary of Control Measures and Implementation Schedule for Trash Management Area APN-1

Control Measure	Control Measure Details	Pre- MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances.				<b>X</b>
<b>Community Outreach</b>	Enhance public information campaigns to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.				<b>X</b>
<b>Code Enforcement</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.				<b>X</b>

### Evaluation of Program Effectiveness for Trash Management Area APN-1

Control Measure	Evaluation Method Details
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Code Enforcement</b>	Using the BASMAA protocol, track trash load(s) after conducting education/outreach efforts, notices of violations, and follow-up.

# Unincorporated Antioch Pocket Neighborhoods Long-Term Trash Reduction Plan

TRASH MANAGEMENT AREA  
**APN-2**

## Key Characteristics of Trash management Area APN 2

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
<b>281.90</b>	0.00%	3.87%	0.00%	96.13%	Road	Pedestrian and car generated- generated litter

TMA 2 consists of a section of unincorporated Wilbur Road, which experiences pedestrian and vehicular litter, and the closed toxic waste site and municipal land fill, which experiences vehicular and windblown litter.

## Summary of Control Measures and Implementation Schedule for Trash Management Area APN-2

Control Measure	Control Measure Details	Pre- MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>On-land Trash Cleanups</b>	[Areas to be cleaned; frequency; participants]				<b>X</b>

Because of its isolated nature it is difficult to enforce uncovered loads, along Wilbur Road. The lack of curb and gutter precludes the use of street sweeping. Therefore the only available trash reduction action available is on-land cleanups. The County will attempt to coordinate trash clean ups with the City of Antioch. The cleanup toxic waste site and municipal landfill will also have on-land cleanups.

## Evaluation of Program Effectiveness for Trash Management Area APN-2

Control Measure	Evaluation Method Details
<b>On-land trash cleanups</b>	Track location, frequency, and volume of cleanups. Survey level of participation, and/or solicit feedback from volunteers on overall condition of site. Track volunteer hours. Conduct trash load assessment before and after clean up. Repeat assessment on regular basis to note trash load rate and plan for next cleanup.

**Antioch Pocket Neighborhoods Long-Term Trash Reduction**

TMA 3 consists of all of the industrial parcels in this unincorporated pocket in Antioch. They all have low to moderate trash loads.

**Key Characteristics of Trash Management Area APN-3**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
36.06	0.00%	0.00%	99.60%	0.40%	Industrial	Wind blown, vehicular traffic

TMA 3 for the Antioch Pocket Neighborhoods consists of disconnected industrial facilities along the shoreline of the San Joaquin River. The facilities include a sheet rock plant, an autowrecker, and a rebar and cement factory.

**Summary of Control Measures and Implementation Schedule for Trash Management Area APN-3**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances.				<b>X</b>
<b>Community Outreach</b>	Enhance public information campaigns to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.				<b>X</b>
<b>Code Enforcement</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.				<b>X</b>

Product bans undertaken by Antioch will be more successful than County efforts. Code enforcement and community outreach may be contracted to Antioch.

**Evaluation of Program Effectiveness for Trash Management Area APN-3**

Control Measure	Evaluation Method Details
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Code Enforcement</b>	Using the BASMAA protocol, track trash load(s) after conducting education/outreach efforts, notices of violations, and follow-up.

**Antioch Pocket Neighborhood Long-Term Trash Reduction**

TMA 4 consists of two marina facilities located on the San Joaquin River immediately west of the Antioch Bridge.

**Key Characteristics of Trash Management Area APN-4**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
98.85	0.00%	0.43%	93.21%	6.36%	Commercial	Recreational trash, trash bin management, windblown trash

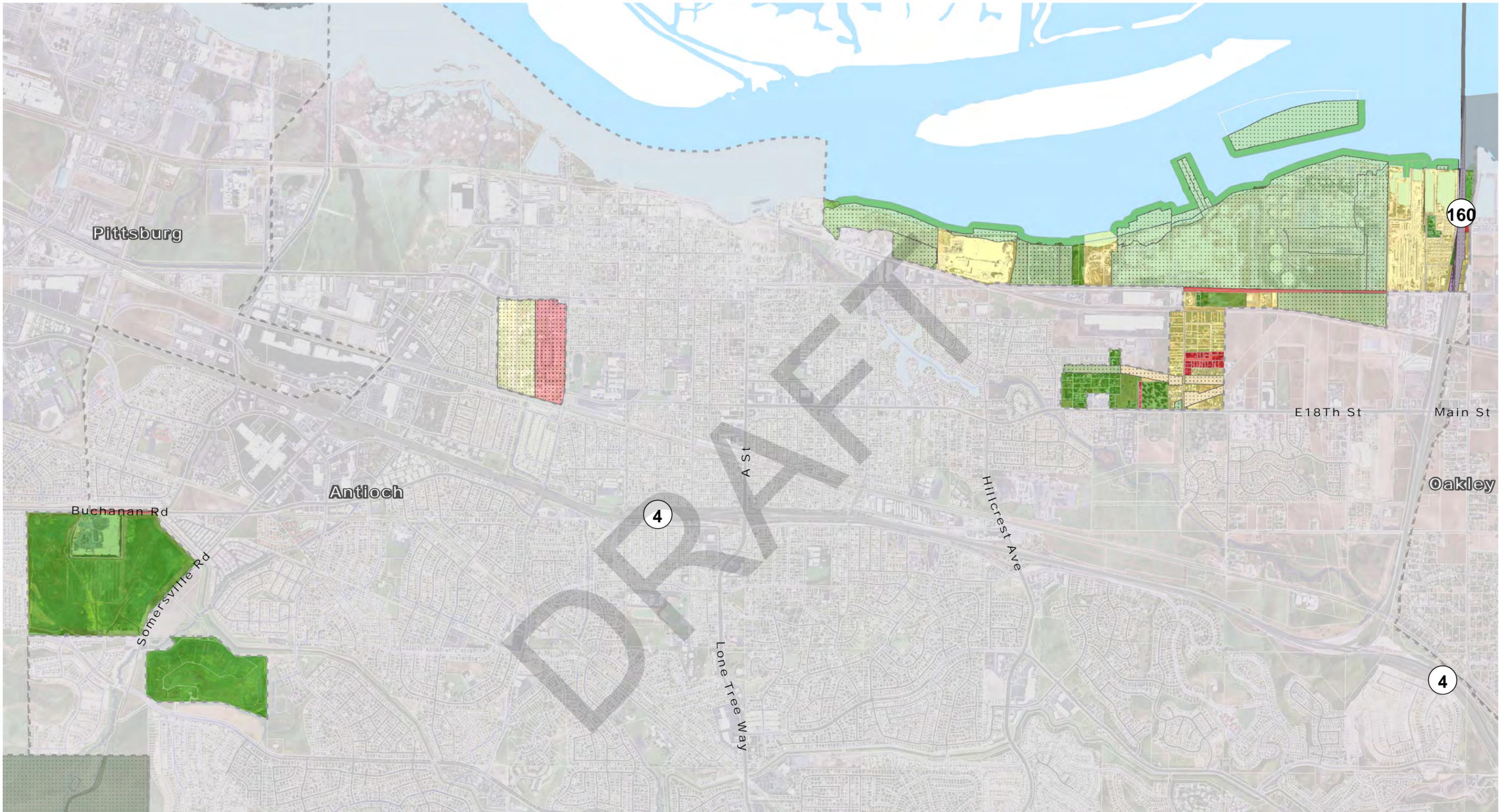
**Summary of Control Measures and Implementation Schedule for Trash Management Area APN-4**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.				<b>X</b>
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.				<b>X</b>
<b>Trash Bin Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions				<b>X</b>
<b>Code Enforcement</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.				<b>X</b>

**Evaluation of Program Effectiveness for Trash Management Area APN-4**

<b>Control Measure</b>	<b>Evaluation Method Details</b>
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Trash Bin Management</b>	Monitor capacity (below capacity, at capacity, or beyond capacity/overflowing) of bins at pick-up. Monitor incidences of number of times trash is outside of containers, with goal of decreasing trend towards zero.
<b>Code Enforcement</b>	Using the BASMAA protocol, track trash load(s) after conducting education/outreach efforts, notices of violations, and follow-up.

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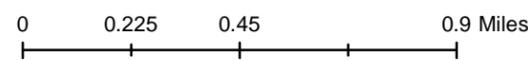
## Contra Costa County Trash Rates for the Unincorporated Antioch Pocket Neighborhoods

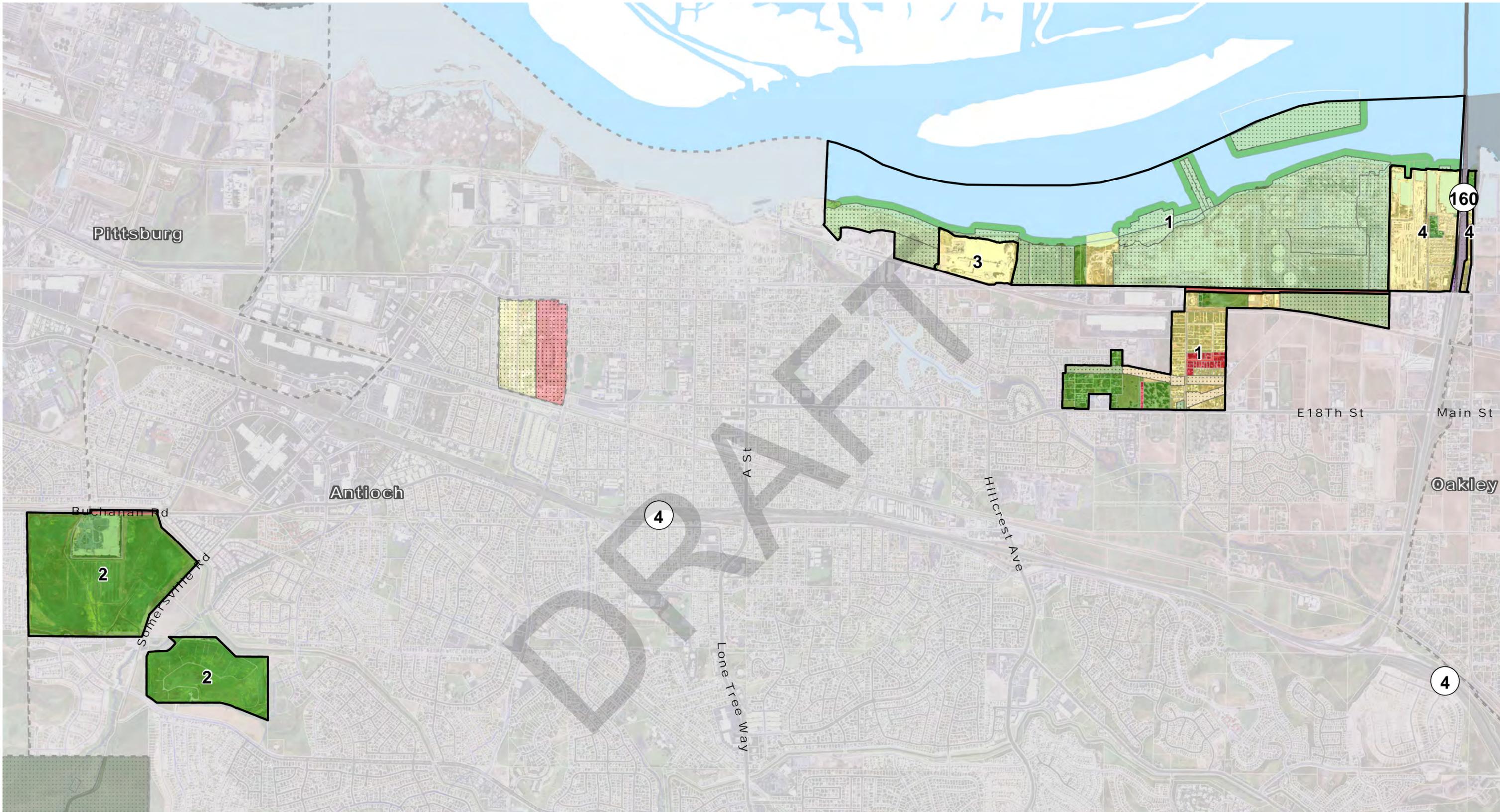
<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium	City		

1 inch = 2,000 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

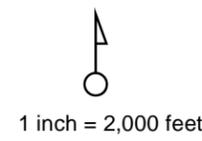
Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





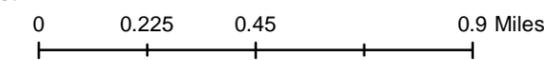
**Contra Costa County  
Draft Trash Plan for the  
Unincorporated  
Antioch Pocket  
Neighborhoods**

<b>Trash Rate</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium	Trash Management Areas	City	



Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
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 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014



**Unincorporated Contra Costa County  
Concord Pocket Neighborhood  
Trash Management Plan  
2014-2022**

DRAFT

Submitted to the  
California Regional Water Quality Control Board for the San Francisco Bay Region  
February 1, 2014  
in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

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## 2. Unincorporated Contra Costa County Concord Pocket Neighborhood Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

The Unincorporated Concord Pocket Neighborhood is a 4 block by 3 block area north of Concord Boulevard and east of Bailey Road within a largely residential area of Concord. It is overwhelmingly single family homes, has two religious affiliated parcels, and one horsed property. The trash load is low, with the exception of the church and Christian school.

**Table 2-1. 2010 Census Data**

Population	Unknown – Area is not a whole census tract, therefore this is no data
<b>Under 18</b>	<b>Unknown</b>
<b>18-24</b>	<b>Unknown</b>
<b>25-44</b>	<b>Unknown</b>
<b>45-64</b>	<b>Unknown</b>
<b>65 and older</b>	<b>Unknown</b>
<b>Median household income</b>	<b>Unknown</b>

Census data is not available for this neighborhood because it is smaller than the census track for this area, because this neighborhood is smaller than its Census Block.

Table 2-2 presents summarizes land uses within Unincorporated Concord Pocket Neighborhood

**Table 2-2. 2005 Land Uses (ABAG)**

Land Use Category	Jurisdictional Area	% of Jurisdictional Area
<b>Commercial and Services</b>	49.39	7.9%
<b>Industrial</b>	136.93	22.0%
<b>Residential</b>	67.19	10.8%
<b>Retail</b>	3.14	0.5%
<b>K-12 Schools</b>	0.00	0.0%
<b>Urban Parks</b>	0.00	0.0%
<b>Other</b>	365.68	58.8%

### B. Drainage System and Water Resources Affected by Trash

A small reach of Mt Diablo Creek and one of its tributaries flow through this neighborhood, although it appears straightened to accommodate development. The streets have no curb and gutter, therefore drainage is overland and along small roadside ditches into the streams.

<sup>1</sup> Order R2-2009-0074, issued by the California Regional Water Quality Control Board for the San Francisco Bay Region, became effective on December 1, 2009 and applies to 76 cities, towns, counties, and flood control districts.

### C. Trash Problems and Priorities

The Concord pocket neighborhood is a trash free residential community. One Christian school and a church are the only parcels with a medium trash load.

Table 2-3 summarizes trash generation by land use:

Trash Generation Category	Jurisdictional Area (Acres)	Commercial and Services	Industrial	Residential	Retail	K-12 Schools	Urban Parks	Other
<b>Very High</b>	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>High</b>	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Medium</b>	5.94	98.14%	0.00%	1.59%	0.00%	0.27%	0.00%	0.00%
<b>Low</b>	182.67	0.00%	0.00%	92.83%	0.00%	0.00%	0.00%	7.17%

### 3. Unincorporated Contra Costa County Concord Pocket Neighborhood Trash Management Strategy

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The County’s strategy to keep clean residential communities trash free employs product bans, community outreach, and street sweeping. The lack of curb and gutter precludes street sweeping. Any plastic bag and/or foam food container ordinance implemented in unincorporated areas will have little effect this community. Community outreach will be the primary mechanism to encourage this neighborhood to continue to keep their neighborhood trash free.

The church and church related school will have community outreach and inspections to ensure they have an appropriate sized trash bin and are maintaining the area effectively.

#### A. Delineation of Trash Management Areas

Two trash Management Areas (TMAs) were developed. One for the residential neighborhood and one for the two church affiliated institutions.

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
<b>TMA 1</b>	182.81	0.00%	0.00%	0.08%	99.92%
<b>TMA 2</b>	5.80	0.00%	0.00%	99.97%	0.03%

- CPN-1 within the Concord Pocket Neighborhood consists of the residential parcels
- CPN-2 includes two institutional properties with a medium trash load

#### B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

### C. Creek and Shoreline Cleanups

**Table 3-2. Creek and Shoreline Cleanups**

Location	Description	Cleanup Frequency			
		Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Location 1</b>	Mt. Diablo Creek in unincorporated pocket neighborhood	?	?	?	?

Mt Diablo Creek flows between private properties through this neighborhood. It is likely that property owners clean any trash found on their property. The County does not intend to organize a clean-up of this reach of Mt Diablo Creek, unless requested by the community.

### D. Trash Reduction Policies

It is unlikely any product ordinances implemented in unincorporated County will affect this neighborhood as residents are likely to shop in the commercial areas within Concord. County Watershed staff is not aware of any plans by Concord to implement product bans or other trash reduction policies.

### E. Public Education, Outreach, and Community Involvement

Through the CCCWP, the Permittees conducted a “Litter Travels, But It Can Stop with You” multi-year campaign beginning in FY 2009-2010. The multi-media campaign was designed to educate Contra Costa’s citizens about the impacts of trash and litter in the County’s waterways and how they can help address this problem and included TV spots, billboards, posters at BART stations, placards on transit buses, print ads and updates to the CCCWP website. Other outreach included more than 10,000 letters to County residents, contact with youth sports leagues, outreach to the 17 school districts in the County, and distribution of flyers to students in 5 of those districts. Pre and post-campaign surveys were conducted.

The County Watershed Program will send a letter and relevant brochures to the property owners encouraging care for their stream (for Creekside owners) and ways to minimize trash impacts. Concord has a program called Concord Cares. The County may contract with Concord to implement it within this neighborhood.

### F. Jurisdiction-wide Progress Assessment and Continuous Improvement

The County does not plan to assess effectiveness for this pocket neighborhood.

## 4. Trash Management Area Plans

### A. TMA-Specific Plans

TMA-specific plans for the Concord Pocket Neighborhood areas are attached.

## 5. References

BASMAA 2012a. Bay Area Stormwater Management Agencies Association. Trash Generation Rates for San Francisco Bay Area MS4s (Draft Final). Presentation to the BASMAA Trash Committee, August 2012. Prepared by EOA, Inc.

BASMAA 2012b. Baseline Trash Generation Rates, Preliminary Calibration of Modeled Results, Presentation to BASMAA Trash Committee, September, 2012. Prepared by EOA, Inc. BASMAA 2013a. Visual On-Land Trash Assessment Protocol for Stormwater, Version 1.0 (Draft). April 30, 2013. Prepared by EOA, Inc.

CCCWP, 2013. Contra Costa Clean Water Program. Long-Term Trash Load Reduction Plan Development—Trash Generation Map Refinements. Technical Memorandum, May 20, 2013. Prepared by EOA, Inc.

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## Concord Pocket Neighborhood Long-Term Trash Reduction Plan

TRASH MANAGEMENT AREA

# CPN-1

TMA#1 within the Concord Pocket Neighborhood consists of the residential parcels, mostly with low trash loads.

### Key Characteristics of Trash Management Area CPN-1

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
182.81	0.00%	0.00%	0.08%	99.92%	Residential	Pedestrian-generated litter, trash bin management

There is very little trash in this neighborhood

### Summary of Control Measures and Implementation Schedule for Trash Management Area CPN-1

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Community Outreach</b>	Send community brochures regarding creek care and trash reduction				<b>X</b>
<b>Creek, Channel, Shoreline Cleanups</b>	Homeowners to continue to conduct cleanups on Mt Diablo Creek within their neighborhood.	?	?	?	?

Control Measure	Evaluation Method
<b>Community Outreach</b>	No evaluation is planned
<b>Creek, Channel, Shoreline Cleanups</b>	No evaluation is planned unless the community requests assistance to organize a creek cleanup

## Concord Pocket Neighborhood Long-Term Trash Reduction Plan

CPN-2 for the Concord Pocket Neighborhood covers the two institutional properties, a church and a Christian school. They both have a medium trash load based on the GIS model. These sites were not field verified.

### Key Characteristics of Trash Management Area CPN-2

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
5.80	0.00%	0.00%	99.97%	0.03%	Institutional	Pedestrian-generated litter, trash bin management

### Summary of Control Measures and Implementation Schedule for Trash Management Area CPN-2

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Community Outreach					X
Trash Bin Management					X

### Evaluation of Program Effectiveness for Trash Management Area CPN-2

Control Measure	Evaluation Method
Community Outreach	No evaluation method will be implemented
Trash Bin Management	County staff will occasionally check the trash bin to see if they are being maintained in a trash free manner



# Contra Costa County Trash Rates for the Unincorporated Concord Pocket Neighborhoods

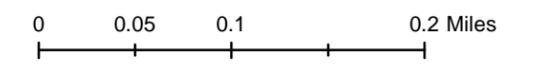
**Trash Rates**

 Low	 Very High	 Non-Jurisdictional	 Creeks
 Medium		 Parcels	 Trash Hot Spots
		 City	

  
1 inch = 500 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

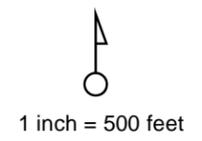
Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





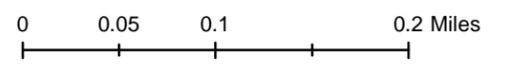
# Contra Costa County Draft Trash Plan for the Unincorporated Concord Pocket Neighborhoods

<b>Trash Rate</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium	Trash Management Areas	City	



Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014



**Martinez Pocket Neighborhoods  
Trash Management Plan  
2014-2022**

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit.

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra Costa County’s long term trash plan.

## 2. Martinez Pocket Neighborhoods Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

The Martinez Pocket Neighborhoods are three unincorporated areas within or immediately adjoining the City of Martinez, in north central Contra Costa County. They are known as Mountain View, Vine Hill, and Pacheco. These are built out, middle class and working class neighborhoods, which include several sources of high trash generation among their commercial land uses. The most “trash challenged” neighborhood is Pacheco, and specifically its commercial strip along Pacheco Boulevard. There is also a small light industrial pocket adjacent to the SR-4 and I-680 interchange. Vine Hill generally has low to moderate trash loading, except for a few commercial properties, again along Pacheco Boulevard. Mountain View is defined by low trash loads except for a couple retail uses on Pacheco that are deemed to have high trash rates. Trash sources tend to be associated with incidental littering, illegal dumping, and poor trash bin management.

Demographic data from the 2010 census is presented in Table 2-1.

Category	Value
<b>Population</b>	<b>9818</b>
<b>Under 18</b>	2093
<b>18-24</b>	862
<b>25-44</b>	2798
<b>45-64</b>	2964
<b>65 and older</b>	1101
<b>Median household income*</b>	<b>\$53,880</b>

\* This represents the average of the median income of the 3 census-designated areas that represent this community

Table 2-2 presents summarizes land uses within Martinez Pocket Neighborhoods in unincorporated Contra Costa County:

Land Use Category	Jurisdictional Area	% of Jurisdictional Area
<b>Commercial and Services</b>	93.22	3.3%
<b>Industrial</b>	791.61	27.7%
<b>Residential</b>	763.59	26.7%
<b>Retail</b>	53.62	1.9%
<b>K-12 Schools</b>	0.42	0.0%
<b>Urban Parks</b>	6.61	0.2%

<b>Other</b>	1146.91	40.2%
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**B. Drainage System and Water Resources Affected by Trash**

The Martinez Pocket Neighborhoods are divided between the Peyton Slough/Creek and Walnut Creek Watersheds. Mountain View borders the west side of upper Peyton Creek, while both Vine Hill and Pacheco are in the Walnut Creek Watershed, and they respectively border the tributaries of Vine Hill Creek and Grayson Creek.

All of these pocket neighborhoods have established storm water drainage networks that feed into one of the adjoining creeks.

**C. Trash Problems and Priorities**

Pacheco, and specifically Pacheco Boulevard, has the most significant trash loading issues of the three Martinez Pocket Neighborhoods due to its location adjacent the SR-4 and I-680 interchange, coupled with its strip commercial character, while the two others generally have low to moderate trash levels, except for a few high trash load parcels on Pacheco Boulevard.

All three of the neighborhoods have monthly street sweeping occurring on most of their streets.

Table 2-3 summarizes trash generation by land use:

<b>Table 2-3. Trash Generation Category by Land Use</b>								
<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>High/Very High</b>	1.11	0.00%	0.00%	25.70%	67.80%	0.00%	0.00%	6.50%
<b>Medium</b>	17.60	7.52%	1.29%	29.32%	51.54%	0.00%	0.00%	10.33%
<b>Low</b>	312.08	18.44%	48.08%	17.52%	13.41%	0.07%	2.12%	0.37%

**3. Martinez Pocket Neighborhoods Trash Management Strategy**

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The strategies discussed below are based on strategies developed for areas in unincorporated Contra Costa County. The strategies are determined based on the trash load, the land use, and the sources generating the trash.

**A. Delineation of Trash Management Areas**

Trash Management Areas (TMAs) were determined, based on their trash management loads and their associated land use(s). For the Martinez Pocket Neighborhoods, the TMA code is MPN. There are three TMAs for the Martinez Pocket Neighborhoods, MPN-1 to MPN-3, whose characteristics are summarized in Table 3.1 below and are described in Section 4.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High/	Medium	Low
MPN-1	18.32	4.10%	95.90%	0.00%	0.00%
MPN-2	290.17	0.00%	0.01%	97.91%	2.08%
MPN-3	2,547.50	0.01%	0.00%	1.10%	98.89%

- MPN-1 represents high trash loads that are present along Pacheco Boulevard, and which is commercial land use in nature.
- MPN-2 is characterized by medium trash rates on Residential and Commercial land uses that occur in portions of all three neighborhoods.
- MPN-3 relates to low trash loads that are also found across each of the neighborhood districts that are characteristically designated Residential and Commercial.

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

There are only scattered retail uses along Pacheco Boulevard that have high trash loads; the rest of the Martinez Pocket Neighborhoods have relatively minor issues. The trash management areas are broken down according to those generating high, medium, or low levels of trash by their land use. MPN-1 represents high trash loads that are present along Pacheco Boulevard, and which is commercial land use in nature. MPN-2 is characterized by medium trash rates on Residential and Commercial land uses that occur in portions of all three neighborhoods; MPN-3 relates to low trash loads that are also found across each of the neighborhood districts that are characteristically designated Residential and Commercial. The City of Martinez intends to install a Full Trash Capture Device, with a drainage area that includes a portion of Mountain View. The County intends to participate in the costs associated with this device.

**C. Trash Reduction Policies**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of Contra Costa County’s status and implementation of product bans including plastic bags, polystyrene, and plastic bottles for the unincorporated portions of the county.

Due to its location surrounded by the City of Martinez (City), the County will coordinate implementation of the Mountain View neighborhood component of Martinez Pocket Neighborhoods Trash Plan with the City. For example, most, if not all of the existing trash issues in Mountain View, will be addressed through the installation of a full trash capture device at the bottom of this neighborhood’s storm drainage area.

**D. Public Education, Outreach, and Community Involvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of the Contra Costa County’s public education, outreach, and public involvement for the unincorporated portions of the county.

The County will coordinate its public education and outreach activities for the Martinez Pocket Neighborhoods Trash Plan with those of the City of Martinez in its trash management plan, particularly for the Mountain View neighborhood.

**E. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of how unincorporated Contra County will assess, evaluate, and reduce trash levels. For a delineation of the trash control measure program proposed for the Martinez Pocket Neighborhoods, see their specific Trash Management Area Tables below. These tables lay out the specific trash control measures and the corresponding evaluation or monitoring methods to track program effectiveness for these communities.

**4. Trash Management Area Plans**

The Martinez Pocket Neighborhoods have a total of three trash management areas, MPN-1 to MPN-3, that are described below.

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## Martinez Pocket Neighborhoods Long-Term Trash Reduction Plan

## MPN-1

MPN-1 can be found in all three of the Martinez Pocket Neighborhoods: Pacheco, Mountain View, and Vine Hill, and specifically along Pacheco Boulevard. It is comprised of: 1) high trash load levels; and 2) a Commercial land use-designation.

## Key Characteristics of MPN-1

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
18.32	4.10%	95.90%	0.00%	0.00%	Commercial	Resident/Pedestrian-generated litter; uncovered loads from I-680; Illegal dumping; dumpster scavenging/lack of management

## Summary of Control Measures and Implementation Schedule for MPN-1

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Where FTCD is not implemented, implement enhanced street sweeping with parking enforcement (no parking during street sweeping interval).			X	X
<b>Full Trash Capture Devices (FTCD) and Partial Trash Capture Devices (PTCD)</b>	26 FTCDs were installed in 2013, including 18 along Pacheco Boulevard, and the remainder on cross streets including Buchanan, 1 <sup>st</sup> , 2 <sup>nd</sup> and Center Avenues; one PTCD was also installed on Pacheco Blvd..		X	X	X
<b>Community Outreach</b>	Partnering with "Friends of the Creeks" for field-based education in relation to cleanups and stewardship of Grayson Creek which bisects the community of Pacheco.		X	X	X
<b>Improved Trash Bins/Container Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.			X	X
<b>Creek, Channel, Shoreline Cleanups</b>	Use County staff, contractors, and coordinate with volunteers to conduct annual cleanups on Grayson Creek		X	X	X
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances			X	X

## Evaluation of Program Effectiveness for MPN-1

Control Measure	Evaluation Method Details
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Full Trash Capture Devices (FTCD)</b>	Track frequency of clean outs & volume collected; capacity at cleaning, percent debris. Monitor trash load rates after clean-up to determine subsequent frequency
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Improved Trash Bins/Container Management</b>	Monitor capacity (below capacity, at capacity, or beyond capacity/overflowing) of bins at pick-up. Monitor incidences of number of times trash is outside of containers, with goal of decreasing trend towards zero.
<b>Creek, Channel, Shoreline Cleanups</b>	Using the BASMAA protocol, track trash load(s) after conducting creek cleanup efforts, cataloguing volume, weight and type of litter collected.

## Martinez Pocket Neighborhoods Long-Term Trash Reduction Plan

TRASH MANAGEMENT AREA

# MPN-2

MPN-2 is a TMA primarily in Vine Hill and Pacheco neighborhood districts. It is defined by small and discontinuous units that are: 1) medium-trash load levels; and 2) largely Residential with some Commercial land use-designations.

### Key Characteristics of MPN-2

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
290.17	0.00%	0.01%	97.91%	2.08%	Residential and Commercial	Resident/Pedestrian-generated litter; poor trash bin management

### Summary of Control Measures and Implementation Schedule for MPN-2

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Implement Enhanced Street Sweeping with parking enforcement (no-parking during street sweeping interval) and if this is not successful, increase street sweeping frequency from monthly to bi-weekly			X	X
<b>Community Outreach</b>	Partnering with "Friends of Pleasant Hill Creeks" for field-based education in relation to cleanups and stewardship of Grayson Creek which bisects the community of Pacheco.		X	X	X
<b>Improved Trash Bins/Container Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.		X	X	X
<b>Code Enforcement/Ordinances</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.			X	X
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances.			X	X

## Evaluation of Program Effectiveness for MPN-2

Control Measure	Evaluation Method Details
<b>Street Sweeping/ Enhanced Street Sweeping</b>	Visually assess the before and after sweeping conditions of streets using the BASMAA protocol.
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Improved Trash Bins/Container Management</b>	Monitor capacity (below capacity, at capacity, or beyond capacity/overflowing) of bins at pick-up. Monitor incidences of number of times trash is outside of containers, with goal of decreasing trend towards zero.
<b>Code Enforcement</b>	Using the BASMAA protocol, track trash load(s) after conducting education/outreach efforts, notices of violations, and follow-up.
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.

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## Martinez Pocket Neighborhoods Long-Term Trash Reduction Plan

MPN-3 comprises the low trash load portions the Martinez Pocket Neighborhoods, the majority of which are designated as Residential and Multi-unit Residential, with a scattering of Commercial designations.

### Key Characteristics of MPN-3

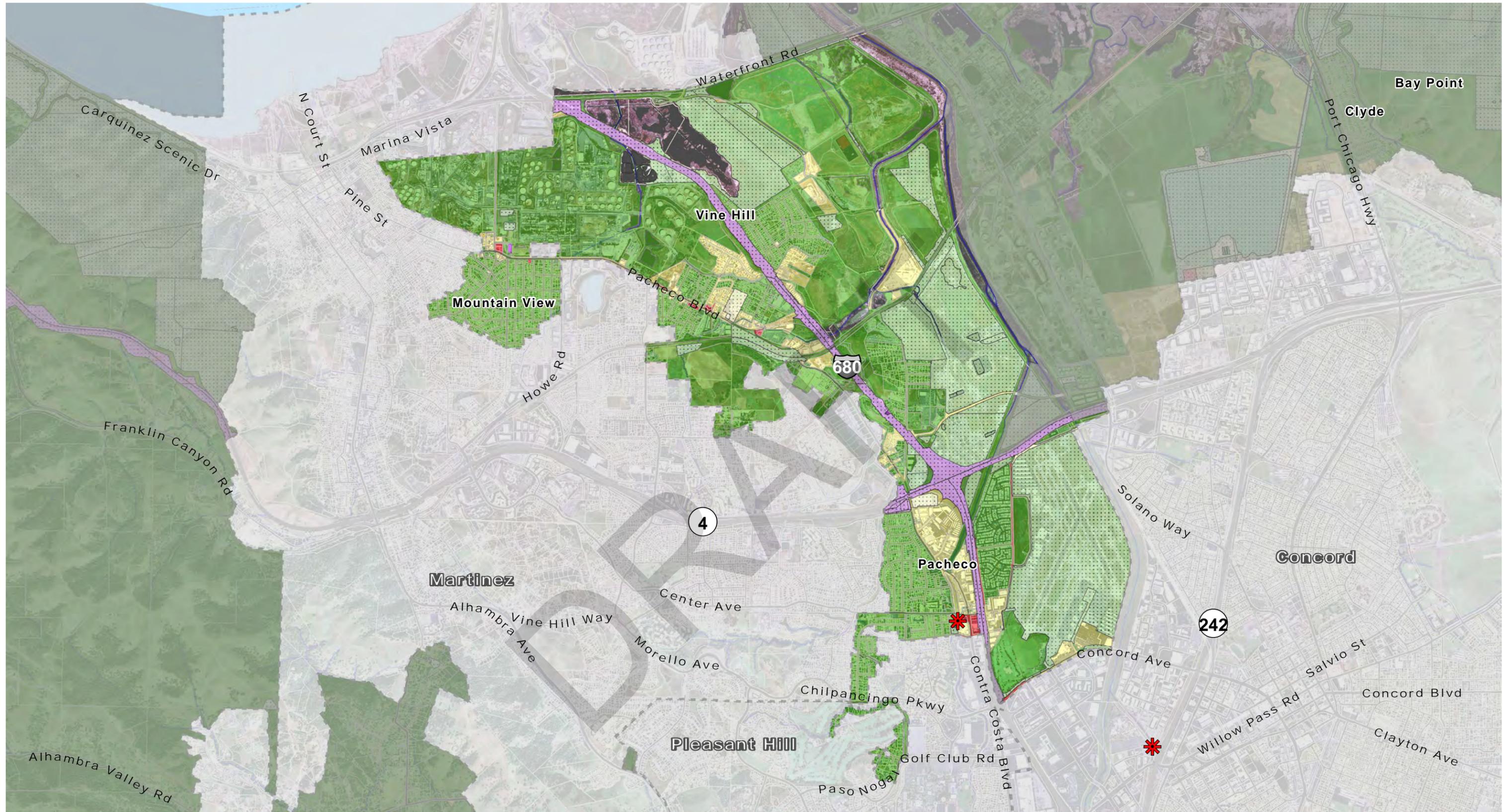
Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
2,547.50	0.01%	0.00%	1.10%	98.89%	Residential and Multi-unit Residential; Commercial	Resident/Pedestrian-generated litter

### Summary of Control Measures and Implementation Schedule for MPN-3

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Code Enforcement</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.			X	X
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances.			X	X
<b>Community Outreach</b>	Partnering with "Friends of Pleasant Hill Creeks" for field-based education in relation to cleanups and stewardship of Grayson Creek which bisects the community of Pacheco.		X	X	X

### Evaluation of Program Effectiveness for MPN-3

Control Measure	Evaluation Method Details
<b>Code Enforcement/Ordinances</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.
<b>Community Outreach</b>	Conduct pre and post surveys of campaign and actions taken as part of campaign



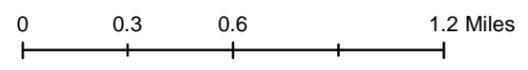
# Contra Costa County Trash Rates for the Unincorporated Martinez Pocket Neighborhoods

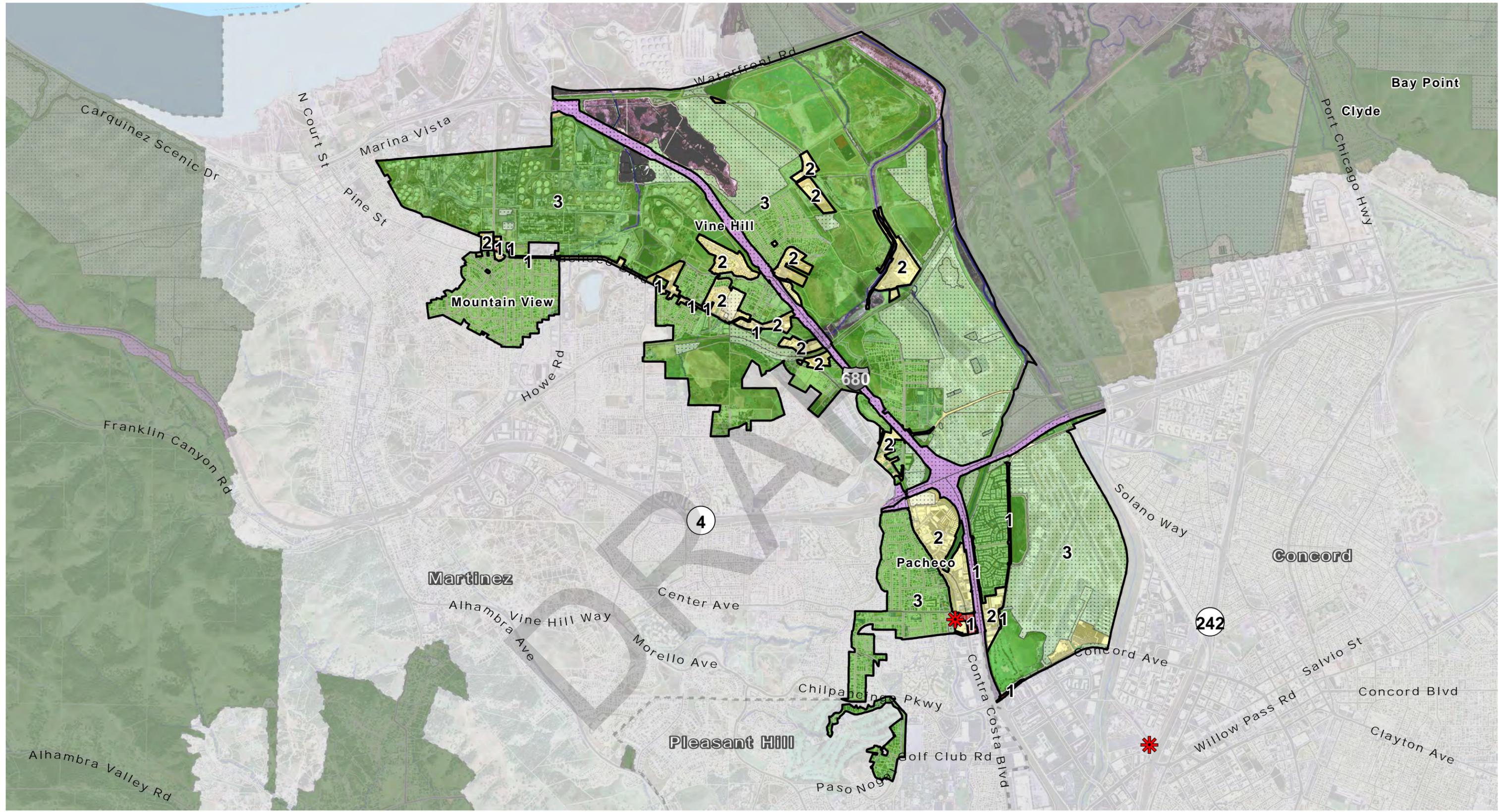
<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		City	

1 inch = 2,750 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





**Contra Costa County  
Draft Trash Plan for the  
Unincorporated  
Martinez Pocket  
Neighborhoods**

<b>Trash Rate</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium	Trash Management Areas	City	

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
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Created By: Contra Costa County Watershed Program  
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1 inch = 2,750 feet



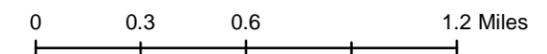
## Contra Costa County Full Trash Capture for the Unincorporated Martinez Pocket Neighborhoods



1 inch = 2,750 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014



**Richmond Pocket Neighborhoods  
Trash Management Plan  
2014-2022**

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit.

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra Costa County's long term trash plan.

## 2. Richmond Pocket Neighborhoods Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Richmond Pocket Neighborhoods are five unincorporated areas within or immediately adjoining the City of Richmond, on the western side of Contra Costa County. They are situated roughly in a band running from west to east, or from San Pablo Bay to the East Bay Hills and are respectively known as Bay View, Montalvin Manor, Tara Hills, Rollingwood, and East Richmond Hills. These are built out, middle class and working class neighborhoods, which include several sources of high trash generation among their residential and institutional land uses. The most "trash challenged" neighborhoods are Montalvin Manor and Rollingwood. Bay View, separated from Montalvin Manor by the BNSF Railroad and bounded on its bayside by the Union Pacific Railroad, has moderate trash loading. Tara Hills is divided roughly in half by low and medium trash rates, while East Richmond Heights, a fairly wooded neighborhood beside Wildcat Creek and Arlington Boulevard, has few trash issues. Trash sources tend to be associated with incidental littering, illegal dumping, and poor trash bin management.

Demographic data from the 2010 census is presented in Table 2-1.

**Table 2-1. 2010 Census Data**

<b>Population</b>	<b>16,005</b>
<b>Under 18</b>	3811
<b>18-24</b>	1564
<b>25-44</b>	4172
<b>45-64</b>	4360
<b>65 and older</b>	2098
<b>Median household income*</b>	<b>\$67,602</b>

\* This represents the average of the median income of the 5 census-designated areas that represent this community.

Table 2-2 presents summarizes land uses within Richmond Pocket Neighborhoods in unincorporated Contra Costa County:

<b>Table 2-2. 2005 Land Uses (ABAG)</b>		
<b>Land Use Category</b>	<b>Jurisdictional Area</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	21.86	1.7%
<b>Industrial</b>	1.62	0.1%
<b>Residential</b>	1122.65	89.0%
<b>Retail</b>	8.80	0.7%
<b>K-12 Schools</b>	3.65	0.3%
<b>Urban Parks</b>	2.89	0.2%
<b>Other</b>	99.62	7.9%

**B. Drainage System and Water Resources Affected by Trash**

Richmond Pocket Neighborhoods are divided between the Wildcat Creek and San Pablo Creek which run parallel and in proximity to one another. Of the five unincorporated communities, four are located in the San Pablo Creek Watershed, notably Bay View, Montalvin Manor, Tara Hills, and Rollingwood, while East Richmond Heights is within the Wildcat Creek Watershed. The earthen-engineered channels of Garrity Creek bisects Bayview/Montalvin Manor, as well as Tara Hills, while a natural channel of Rheem Creek borders the eastern side of Rollingwood. Wildcat Creek flows in a natural channel on the north side of East Richmond Heights.

All of these pocket neighborhoods have long established storm water drainage networks that feed into one of the streams.

**C. Trash Problems and Priorities**

Two of the five Richmond Pocket Neighborhoods have more significant trash problems due to their demographics, while two others have moderate trash levels. One, East Richmond Heights, has low trash levels.

All five of the neighborhoods have monthly street sweeping occurring on most of their streets.

Table 2-3 summarizes trash generation by land use:

<b>Table 2-3. Trash Generation Category by Land Use</b>								
<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>High/Very High</b>	0.00	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
<b>Medium</b>	244.58	2.05%	0.48%	92.73%	1.82%	0.26%	0.00%	2.65%
<b>Low</b>	373.25	3.58%	0.05%	90.18%	1.16%	0.81%	0.77%	3.46%

### 3. Richmond Pocket Neighborhoods Trash Management Strategy

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The strategies discussed below are based on strategies developed for areas in unincorporated Contra Costa County and are determined based on the trash load, the land use, and the sources generating the trash.

#### A. Delineation of Trash Management Areas

Trash Management Areas (TMAs) were determined, based on their trash management loads and their associated land use(s). For the Richmond Pocket Neighborhoods, the TMA code is RPN. There are four TMAs for Richmond Pocket Neighborhoods, RPN-1 to RPN-4, whose characteristics are summarized in Table 3.1 below, and are described in Section 4.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
RPN-1	241.86	0.00%	95.20%	3.54%	1.27%
RPN-2	355.53	0.00%	3.95%	95.35%	0.70%
RPN-3	649.62	0.00%	0.05%	1.79%	98.16%
RPN-4	14.06	0.00%	0.00%	100.00%	0.00%

- **RPN-1** represents high trash loads that are present in both Montalvin Manor and Rollingwood, which are primarily residential in nature.
- **RPN-2** is characterized by medium trash rates that occur in portions of Tara Hills and in Bayview.
- **RPN-3** characterizes the portions of Tara Hills and East Richmond Heights that have low trash rates.
- **RPN-4** is a set of discontinuous units of institutional uses, mostly schools and parks, found throughout the Richmond Pocket Neighborhoods that represent moderate trash loading issues.

#### B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

In terms of trash generation, two of the Richmond Pocket Neighborhoods, Montalvin Manor and Rollingwood, are trash challenged, while the other two have relatively minor issues. The trash management areas are broken down according to those generating high, medium, or low levels of trash by their land use. Trash Reduction Policies See Section 1 of the county-wide introduction chapter for a comprehensive discussion of Contra Costa County's status and implementation of product bans including plastic bags, polystyrene, and plastic bottles for the unincorporated portions of the county.

The County is coordinating the development and implementation of the Richmond Pocket Neighborhoods Trash Management Plan with the City of Richmond's trash management plan in order to achieve greater overall efficiency and consistency of control and evaluation measures between the plans. Richmond has already adopted a single use plastic bag ordinance developed by RecycleMore (the West County Integrated Waste Authority). Contra Costa County will adopt the same ordinance in 2014. Richmond already has a foam polystyrene food and beverage container ordinance. It is not known how compatible the ordinance being developed by Recyclemore will be with Richmond's. the County will adopt RecycleMore's ordinance once it is available, likely before 2017.

**C. Public Education, Outreach, and Community Involvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of the Contra Costa County's public education, outreach, and public involvement for the unincorporated portions of the county.

The County will coordinate its public education and outreach activities for North Richmond and the Richmond Pocket Neighborhoods with those of the City of Richmond in its trash management plan, particularly for the Rollingwood and East Richmond Heights neighborhoods.

**D. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of how unincorporated Contra County will assess, evaluate, and reduce trash levels. For a delineation of the trash control measure program proposed for Richmond Pocket Neighborhoods, see their specific Trash Management Area Tables below. These tables lay out the specific trash control measures and the corresponding evaluation or monitoring methods to track program effectiveness for these communities.

**4. Trash Management Area Plans**

Richmond Pocket Neighborhoods have a total of four trash management areas, RPN-1 to RPN-4, that are described below.

## Richmond Pocket Neighborhoods Long-Term Trash Reduction Plan

## RPN-1

RPN-1 is characterized by: 1) high trash load levels; and 2) Residential as the primary land uses within Montalvin Manor and Rollingwood.

Key Characteristics of RPN-1						
Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
241.86	0.00%	95.20%	3.54%	1.27%	Residential	Resident/Pedestrian-generated litter; poor trash bin management; illegal dumping; I-80 blown trash

RPN-1 is the highest priority of the TMA's in Richmond Pocket Neighborhoods and is comprised of two units, one in the community of Montalvin Manor and the other in Rollingwood.

Summary of Control Measures and Implementation Schedule for RPN-1						
Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017	
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X			
<b>Enhanced Street Sweeping</b>	If Option 1, FTCD, isn't constructed, implement Enhanced Street Sweeping with parking enforcement (no-parking during street sweeping interval) and if this is not successful, increase street sweeping frequency.			X	X	
<b>Community Outreach</b>	Partnering with "Stormwater Academy" for field-based education; "Training and coordination with "Love Your Block Volunteers"		X	X	X	
<b>"Love Your Block"</b>	Neighborhood-based, trained resident volunteers to perform litter/trash removal on monthly interval.			X	X	
<b>Anti-littering and Illegal Dumping Enforcement</b>	Maintain existing flash camera and recorded warning message in Montalvin Manor and Investigate appropriateness of installing additional flash camera(s) in Montalvin Manor and Rollingwood.	X	X	X	X	
<b>Improved Trash Bins/Container Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.		X	X	X	
<b>Product Bans</b>	Implement plastic bag ban and styrofoam food container ordinances for West County			X	X	

## Evaluation of Program Effectiveness for RPN-1

Control Measure	Evaluation Method Details
<b>Street sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>“Love Your Block”</b>	Using the BASMAA protocol, track trash load(s) after conducting street cleanup efforts, cataloguing volume, weight and general type of litter collected.
<b>Anti-littering and Illegal Dumping Enforcement</b>	Track number of enforcement cases, time to remove dumped items.
<b>Improved Trash Bins/Container Management</b>	Monitor capacity (below capacity, at capacity, or beyond capacity/overflowing) of bins at pick-up. Monitor incidences of number of times trash is outside of containers, with goal of decreasing trend towards zero.
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.

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RPN-2 is a medium trash-load TMA, which is largely composed of Residential land use in two of the communities present in the Richmond Pocket Neighborhoods, Tara Hills and Bay View. This TMA is composed of discontinuous units.

**Key Characteristics of RPN-2**

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
355.53	0.00%	3.95%	95.35%	0.70%	Residential	Resident/Pedestrian-generated litter.

**Summary of Control Measures and Implementation Schedule for RPN-2**

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X		
<b>Enhanced Street Sweeping</b>	Implement Enhanced Street Sweeping with parking enforcement (no-parking during street sweeping interval) and if this is not successful, increase street sweeping frequency from monthly to bi-weekly			X	X
<b>Community Outreach</b>	Partnering with “Stormwater Academy” for field-based education; “Training and coordination with “Love Your Block Volunteers.			X	X
<b>Product Bans</b>	Implement plastic bag ban and styrofoam food container ordinances for West County.			X	X

**Evaluation of Program Effectiveness for RPN-2**

Control Measure	Evaluation Method Details
<b>Street Sweeping/Enhanced Street Sweeping</b>	Visually assess before and after conditions.
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Product Bans</b>	Survey store compliance in cooperation with municipal MRP partners. Track volume of product in creeks, trash capture devices, and found during on-land cleanups.

## Richmond Pocket Neighborhoods Long-Term Trash Reduction Plan

RPN-3 comprises the low trash load portions of these unincorporated communities, notably in Tara Hills and East Richmond Heights, the majority of which are designated as Residential with a small area of Multi-unit Residential.

### Key Characteristics of RPN-3

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
649.62	0.00%	0.05%	1.79%	98.16%	Residential and Multi-unit Residential	Resident/Pedestrian-generated litter

### Summary of Control Measures and Implementation Schedule for RPN-3

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Street Sweeping</b>	Continue monthly street sweeping without parking restrictions where there is curb and gutter.	X	X	X	X
<b>Community Outreach</b>	Enhance existing public information campaigns to provide information to property owners and residents on impacts of and ways to reduce incidence of litter and illegal dumping.		X	X	X
<b>Product Bans</b>	Seek passage of and implement Plastic Bag and Styrofoam Ban Ordinances for West County			X	X

### Evaluation of Program Effectiveness for RPN-3

Control Measure	Evaluation Method Details
<b>Street Sweeping</b>	Visually assess before and after conditions
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Product Bans</b>	Survey store compliance in cooperation with municipal MRP partners. Track volume of product in creeks, trash capture devices, and found during on-land cleanups.

## Richmond Pocket Neighborhoods Long-Term Trash Reduction Plan

RPN-4 is a medium trash-load TMA, which are composed of Institutional uses, including Montalvin Park.

### Key Characteristics of RPN-4

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
14.06	0.00%	0.00%	100.00%	0.00%	Institutional	Resident/Pedestrian-generated litter; poor trash bin management; illegal dumping; I-80 blown trash

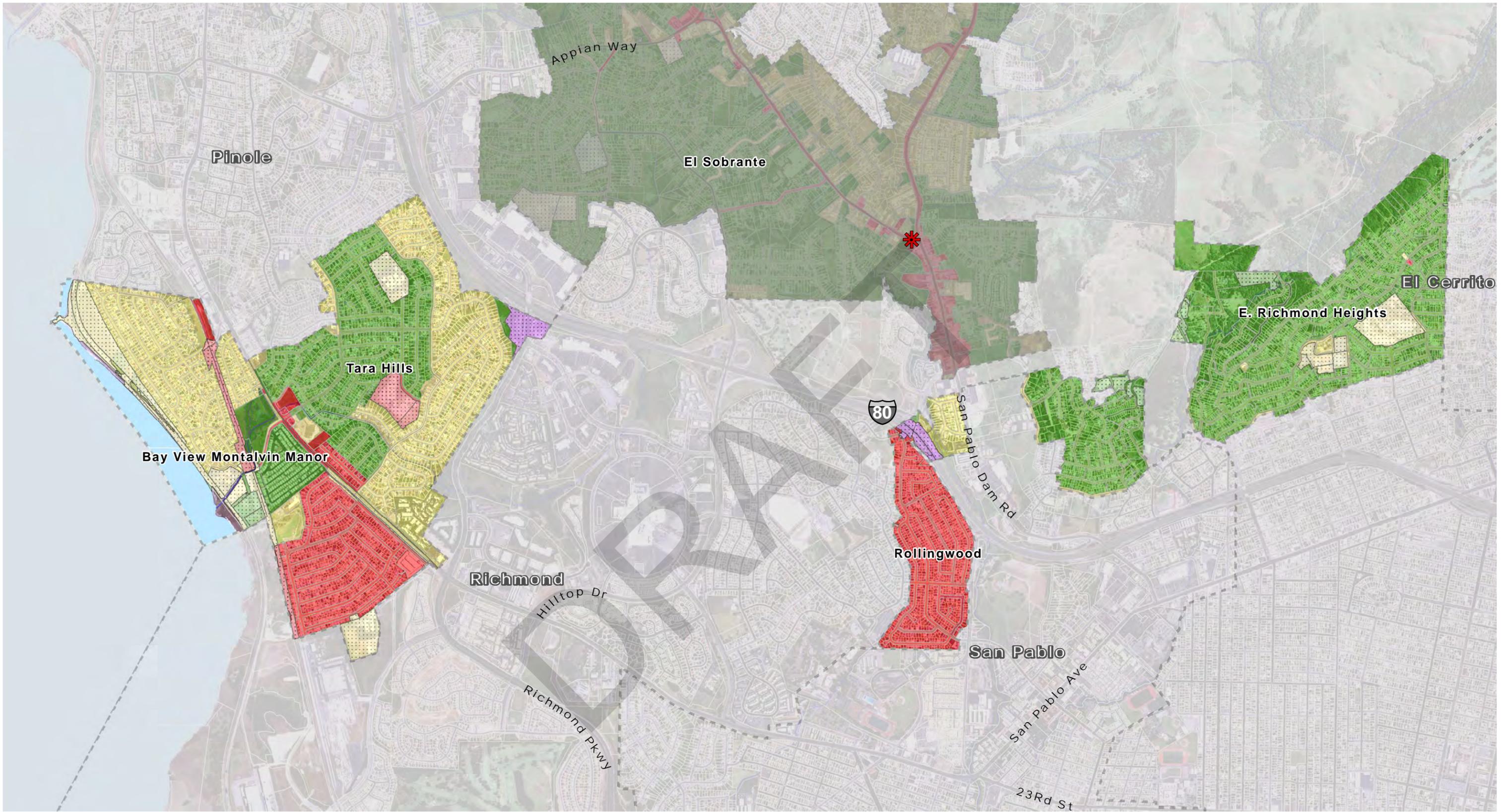
### Summary of Control Measures and Implementation Schedule for RPN-4

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Community Outreach</b>	Partnering with "Stormwater Academy" for field-based education; "Training and coordination with "Love Your Block Volunteers"		X	X	X
<b>Improved Trash Bins/Container Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.		X	X	X
<b>On-land Trash Cleanups</b>	Pick up trash from the ground by County employees, contractors, and/or community volunteer stewardship groups. Frequency of clean-ups to be determined by existing trash load and visual assessment.			X	X
<b>Product Bans</b>	Implement plastic bag ban and styrofoam food container ordinances for West County			X	X

## Evaluation of Program Effectiveness for RPN-4

Control Measure	Evaluation Method Details
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign
<b>Improved Trash Bins/Container Management</b>	Monitor capacity (below capacity, at capacity, or beyond capacity/overflowing) of bins at pick-up. Monitor incidences of number of times trash is outside of containers, with goal of decreasing trend towards zero.
<b>On-land Trash Cleanups</b>	Track location, frequency, and volume of clean-ups. Survey level of participation, and/or solicit feedback from volunteers on overall condition of site. Track volunteer hours. Conduct trash load assessment before and after clean up. Repeat assessment on regular basis to note trash load rate and plan for next clean-up.
<b>Improved Trash Bins/Container Management</b>	Monitor capacity (below capacity, at capacity, or beyond capacity/overflowing) of bins at pick-up. Monitor incidences of number of times trash is outside of containers, with goal of decreasing trend towards zero.
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.

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**Contra Costa County  
Trash Rates for the  
Unincorporated  
Richmond Pocket  
Neighborhoods**

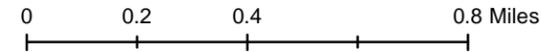


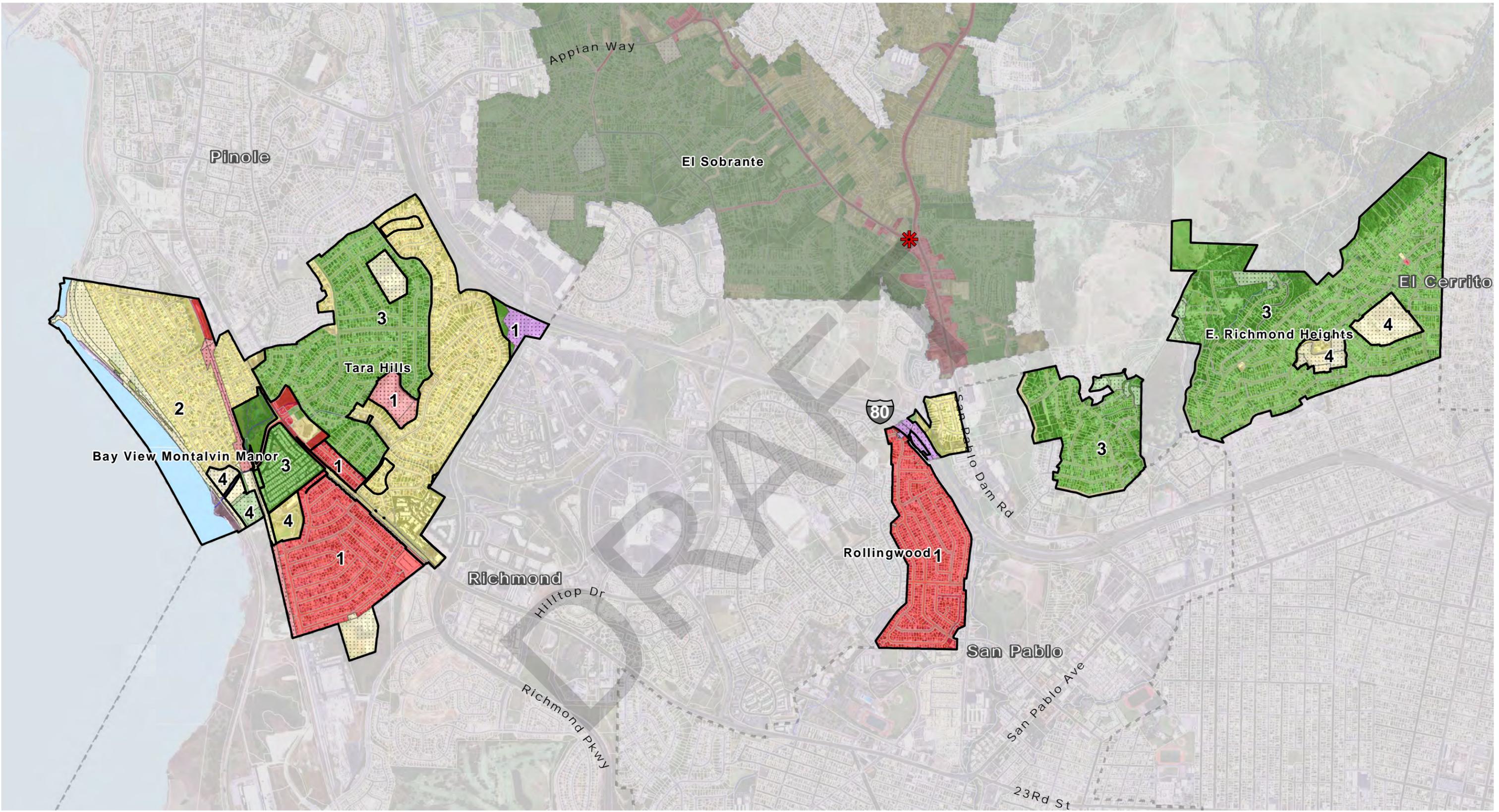
<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium		City	

1 inch = 1,750 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





## Contra Costa County Draft Trash Plan for the Unincorporated Richmond Pocket Neighborhoods

### Trash Rate



Low



Medium



High



Very High



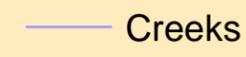
Non-Jurisdictional



Parcels



Trash Management Areas



Creeks



Trash Hot Spots

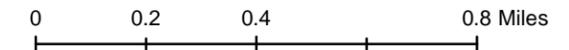


City

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014

1 inch = 1,750 feet



**Walnut Creek Pocket Neighborhoods  
Trash Management Plan  
2014-2022**

Submitted to the California Regional Water Quality Control Board for the San Francisco Bay Region February 1, 2014 in compliance with Provision C.10 of the Municipal Regional Stormwater Permit

## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

See Section 1 of the County-wide introduction chapter for a comprehensive discussion of the overall trash strategy and potential challenges for unincorporated Contra Costa County’s long term trash plan.

## 2. Walnut Creek Pocket Neighborhoods Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

Walnut Creek Pocket Neighborhoods are seven unincorporated “islands” within the City of Walnut Creek, situated in central Contra Costa County. Two of these are north of SR 24 and one, known as “Saranap,” is south of SR 24. The remaining four are located east of I-680. Three are clustered together on the east side of downtown Walnut Creek and are primarily single family Residential in nature, with several institutional parcels. The fourth is an area known as “Walden” and is primarily a commercial and mixed use district bisected by Treat Boulevard and North Civic Drive.

These are built out, upper middle-class neighborhoods, which include small and scattered moderate sources of trash generation within their commercial and/or institutional land uses. The great majority of these neighborhoods have low trash load levels; notable medium-trash load levels occur around the business districts of the two named neighborhoods, Saranap and Walden. Trash sources tend to be associated with incidental littering.

Demographic data from the 2010 census is presented in Table 2-1.

<b>Population</b>	<b>16,054</b>
<b>Under 18</b>	3162
<b>18-24</b>	1061
<b>25-44</b>	4921
<b>45-64</b>	4918
<b>65 and older</b>	1992
<b>Median household income*</b>	<b>\$126,465</b>

\* This represents the average of the median income of the 5 census-designated areas that represent this community.

Table 2-2 presents summarizes land uses within Walnut Creek Pocket Neighborhoods in unincorporated Contra Costa County:

<b>Land Use Category</b>	<b>Jurisdictional Area</b>	<b>% of Jurisdictional Area</b>
<b>Commercial and Services</b>	117.82	4.9%
<b>Industrial</b>	6.36	0.3%
<b>Residential</b>	2070.97	86.0%
<b>Retail</b>	8.05	0.3%
<b>K-12 Schools</b>	16.29	0.7%

<b>Urban Parks</b>	6.80	0.3%
<b>Other</b>	180.70	7.5%

**B. Drainage System and Water Resources Affected by Trash**

Walnut Creek Pocket Neighborhoods are within the Walnut Creek Watershed. Of the seven individual islands or pockets of unincorporated communities, three occur within the Las Trampas Creek branch and the remainder of them are within the main stem of Walnut Creek. Last Trampas Creek, San Ramon Creek, and Walnut Creek have been reengineered by the Contra Costa County Flood Control District to provide flood protection.

All of these pocket neighborhoods have long established storm water drainage networks that feed into Walnut Creek or Las Trampas Creek.

**C. Trash Problems and Priorities**

Walnut Creek Pocket Neighborhoods have relatively minor trash problems due to their upper middle-class demographics and predominant land use: single-family residential. They have monthly street sweeping on almost all of their streets.

Table 2-3 summarizes trash generation by land use:

<b>Table 2-3. Trash Generation Category by Land Use</b>								
<b>Trash Generation Category</b>	<b>Jurisdictional Area (Acres)</b>	<b>Commercial and Services</b>	<b>Industrial</b>	<b>Residential</b>	<b>Retail</b>	<b>K-12 Schools</b>	<b>Urban Parks</b>	<b>Other</b>
<b>High/Very High</b>	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Medium</b>	0.00	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
<b>Low</b>	58.40	59.35%	7.01%	2.97%	12.11%	7.41%	11.16%	0.00%

**3. Walnut Creek Pocket Neighborhoods Trash Management Strategy**

The following trash management strategy is designed to attain a 70% trash load reduction by July 1, 2017 and a 100% reduction by July 1, 2022. The strategy may be updated and revised in response to changing conditions, including the amounts and location of trash generation, effectiveness of management actions, and available resources. Updates will be documented in Annual Reports.

The strategies discussed below are based on strategies developed for areas in unincorporated Contra Costa County. The strategies are determined based on the trash load, the land use, and the sources generating the trash.

**A. Delineation of Trash Management Areas**

Trash Management Areas (TMAs) were determined, based on their trash management loads and their associated land use(s). For Walnut Creek Pocket Neighborhoods, the TMA code is WPN. There are two TMAs for Walnut Creek Pocket Neighborhoods, WPN-1 and WPN-2, whose characteristics are summarized in Table 3.1 below, and are described in Section 4.

**Table 3-1. Trash Generation Category by Trash Management Area**

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
WPN -1	49.07	0.00%	0.00%	99.97%	0.03%
WPN -2	2,357.92	0.00%	0.00%	0.40%	99.60%

- WPN-1 - Commercial and Multiple-unit Residential land use-designations, with medium-trash load levels.
- WPN-2 - Residential, with a few Multi-unit Residential and Institutional parcels, with low-trash load levels.

**B. Area-Specific Control Measures, Implementation Schedules, and Effectiveness Assessment**

Long-Term Trash Reduction Plans for each Trash Management Area, including control measures, detailed implementation plans, and methods of assessing the effectiveness of control measures are in Section 4.

In terms of trash generation, Walnut Creek Pocket Neighborhoods have relatively minor issues. They include small, discontinuous commercial areas generating a medium amount of trash, with a great majority of the planning area generating low levels of trash. The trash management areas are broken down according to those generating high, medium or low levels of trash by their land use. In general, commercial and institutional land use areas have been grouped together and those having medium trash levels are referred to as WPN-1 and single family and multi-family residences have been grouped together and are associated with WPN-2. The County will implement the trash management plan for this community in 2017.

**C. Trash Reduction Policies**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of Contra Costa County’s status and implementation of product bans including plastic bags and polystyrene for the unincorporated portions of the county.

The County is coordinating the development and implementation of the Walnut Creek Pocket Neighborhoods Trash Management Plan with the City of Walnut Creek’s trash management plan in order to achieve greater overall efficiency and consistency of control and evaluation measures between the plans.

**D. Public Education, Outreach, and Community Involvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of the Contra Costa County’s public education, outreach, and public involvement for the unincorporated portions of the county.

Public education and outreach activities will defer to those of the City of Walnut Creek (City) in its trash management plan; City and County staff will coordinate their implementation. In particular, the County and City will coordinate creek clean-up efforts involving volunteer organizations in relation to illegal dumping in the Walnut Creek channel.

**E. Jurisdiction-wide Progress Assessment and Continuous Improvement**

See Section 1 of the county-wide introduction chapter for a comprehensive discussion of how unincorporated Contra Costa County will assess, evaluate, and reduce trash levels. For a delineation of the trash control measure program proposed for Walnut Creek Pocket Neighborhoods, see their specific Trash Management Area Tables below. These tables lay out the specific trash control measures and the corresponding evaluation or monitoring methods to track program effectiveness for these communities.

#### 4. Trash Management Area Plans

Walnut Creek Pocket Neighborhoods have a total of two trash management areas, WPN-1 and WPN-2, that are described below.

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## Walnut Creek Pocket Neighborhoods Long-Term Trash Reduction Plan

## WPN-1

Walnut Creek Pocket Neighborhoods (WPN)-1 is comprised of: 1) medium-trash load levels; and 2) a scattered set of Commercial and Multiple-unit Residential land use-designations, largely clustered in the districts known as Saranap and Walden. This TMA has a number of small and discontinuous units.

## Key Characteristics of WPN-1

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
49.07	0.00%	0.00%	99.97%	0.03%	Commercial and Multiple-unit Residential	Resident/Pedestrian-generated litter

WPN-1 has medium trash levels in the unincorporated areas of Walnut Creek called Walden and Saranap. They are composed of small, discontinuous units.

## Summary of Control Measures and Implementation Schedule for WPN-1

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
<b>Community Outreach</b>	Coordinate with the City of Walnut Creek public information campaigns to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.				<b>X</b>
<b>Improved Trash Bins/Container Management</b>	Where trash bin management has been problematic and/or where dumpster scavenging results in scattered litter, work with property owners and/or managers to manage trash containers and their surroundings so as to maintain clean conditions.				<b>X</b>
<b>Product Bans</b>	Implement plastic bag and styrofoam food container ordinances			<b>X</b>	<b>X</b>
<b>Code Enforcement/Ordinances</b>	County will work with property owners/managers to better enforce trash-related Contra Costa County ordinances/codes.				<b>X</b>

## Evaluation of Program Effectiveness for WPN-1

Control Measure	Evaluation Method Details
<b>Community Outreach</b>	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
<b>Improved Trash Bins/Container Management</b>	Monitor capacity (below capacity, at capacity, or beyond capacity/overflowing) of bins at pick-up. Monitor incidences of number of times trash is outside of containers, with goal of decreasing trend towards zero.
<b>Product Bans</b>	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.
<b>Code Enforcement</b>	Using the BASMAA protocol, track trash load(s) after conducting education/outreach efforts, notices of violations, and follow-up.

DRAFT

## Walnut Creek Pocket Neighborhoods Long-Term Trash Reduction Plan

WPN-2 comprises the low trash-load portion of this community, the vast majority of which is designated as Residential, with a few Multi-unit Residential and Institutional parcels.

Key Characteristics of WPN-2						
Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
2,357.92	0.00%	0.00%	0.40%	99.60%	Institutional, Residential and Multi-unit Residential	Resident/Pedestrian-generated litter

Summary of Control Measures and Implementation Schedule for WPN-2					
Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Community Outreach	Enhance public information campaigns to provide information to property owners and residents on impacts of trash and ways to reduce incidence of litter and illegal dumping.		X	X	X
Product Bans	Implement plastic bag and styrofoam food container ordinances			X	X

Evaluation of Program Effectiveness for WPN-2	
Control Measure	Evaluation Method Details
Community Outreach	Report on actions taken to decrease illegal dumping/litter to local community, schools and community. If public outreach campaign is undertaken, Conduct pre and post –surveys of campaign and actions taken as part of campaign.
Product Bans	Conduct surveys to assess compliance of stores. Track volume of product in creeks, trash capture devices, and found during on-land cleanups, etc.



# Contra Costa County Trash Rates for the Unincorporated Walnut Creek Pocket Neighborhoods

<b>Trash Rates</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium	City		

1 inch = 2,550 feet

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014





# Contra Costa County Draft Trash Plan for the Unincorporated Walnut Creek Pocket Neighborhoods

<b>Trash Rate</b>	High	Non-Jurisdictional	Creeks
Low	Very High	Parcels	Trash Hot Spots
Medium	Trash Management Areas	City	

Sources:  
 Trash Rates: EOA May 2013  
 Updated Trash Rates: Contra Costa County August 2013  
 Hot Spots: Contra Costa County August 2013  
 Roads/Creeks/Boundaries: Contra Costa County  
 Land Use Codes: Contra Costa County, August 2008

Created By: Contra Costa County Watershed Program  
 Date: February 13, 2014

1 inch = 2,550 feet

0 0.275 0.55 1.1 Miles