



**CITY OF HERCULES**  
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February 3, 2014

Bruce H. Wolfe, Executive Officer  
California Regional Water Quality Control Board  
San Francisco Bay Region  
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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 City of Hercules, 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 assure 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 possibly of fine and imprisonment for knowing violations.

Very truly yours,

Phil Batchelor  
Interim City Manager

City of Hercules  
Trash Management Plan  
2014-2022



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

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

February 1, 2014

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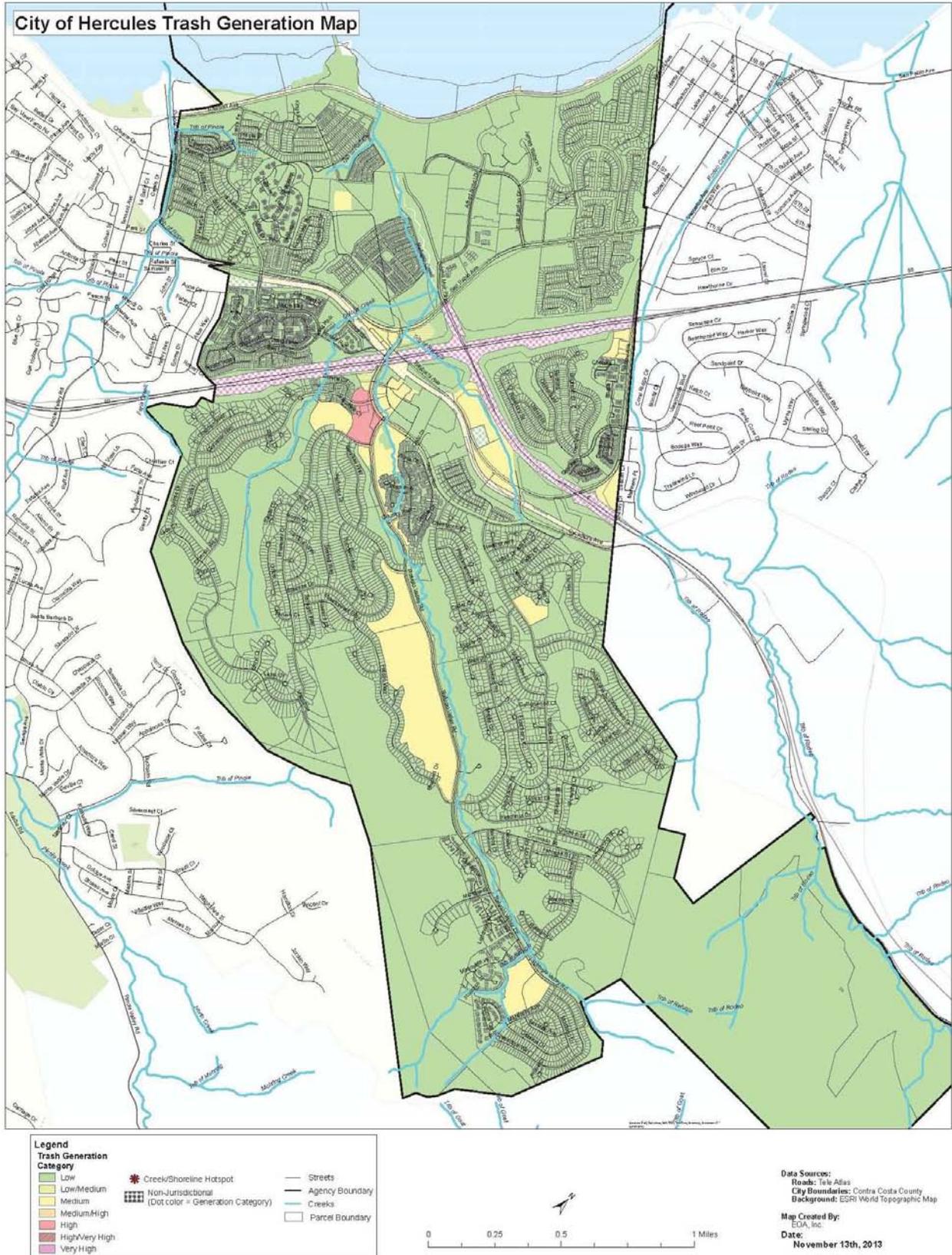
1-1 Trash Sources and Transport Pathways

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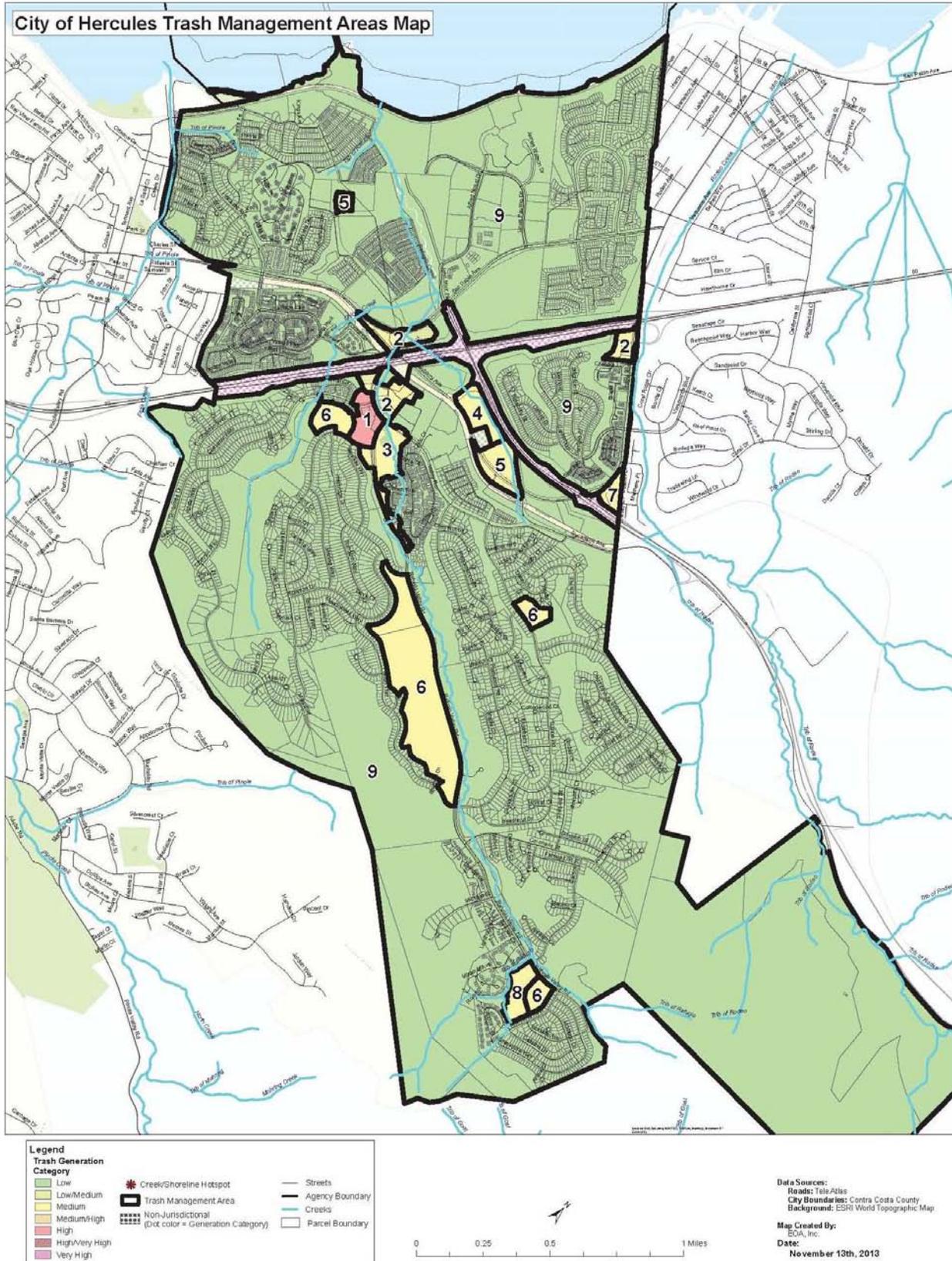
- 2-1 2010 Census Data
- 2-2 2005 Land Uses (ABAG)
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## Attachment

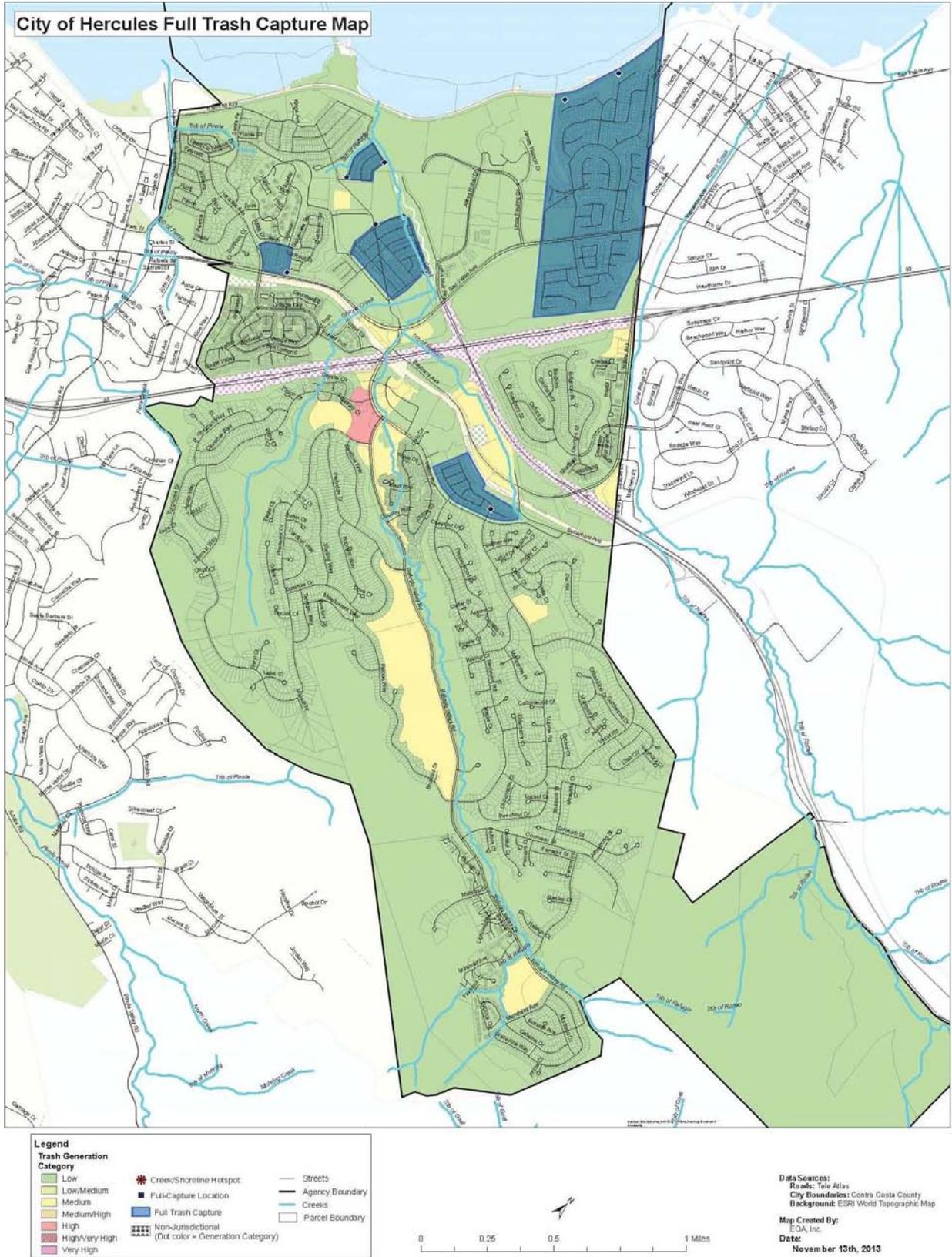
Map of Hercules showing Trash Generation Rates



Map of Hercules Trash Management Areas



Map of Hercules Full Trash Capture Devices



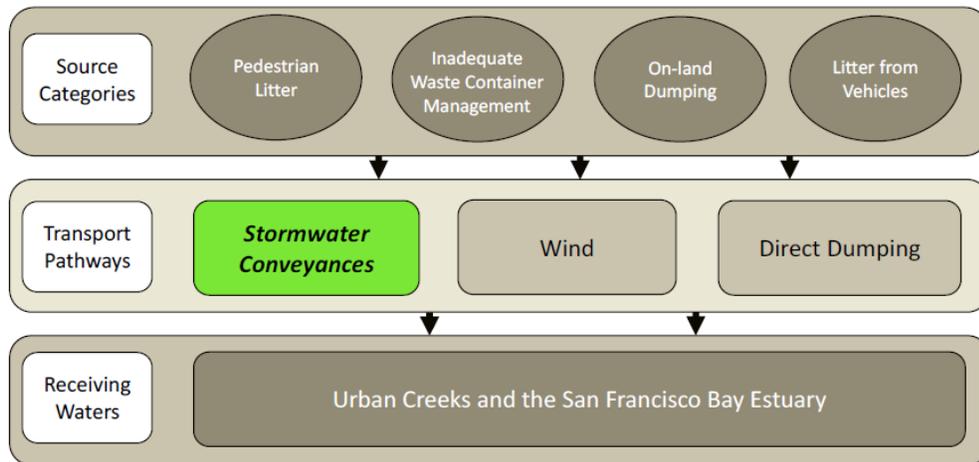
## 1. Introduction by the Contra Costa Clean Water Program (CCCWP)

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 with in 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. City of Hercules Trash Management Overview

### A. Characteristics Affecting Trash Generation and Management

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

Population	24,060
Under 18	22.8%
18-24	8.6%
25-44	27.1%
45-64	31.1%
65 and older	10.5%
Median household income	\$75,196

Table 2-2 presents summarizes land uses within the City of Hercules.

Land Use Category	Jurisdictional Area	% of Jurisdictional Area
Commercial and Services	91.8	2.3%
Industrial	116.2	2.9%
Residential	1,561.9	39.5%
Retail	53.8	1.4%
K-12 Schools	102.6	2.6%
Urban Parks	109.7	2.8%
Other	1,923.0	48.6%

I-80 and SR 4 are non-jurisdictional trash generators within the City of Hercules shown as very high trash generators on the Trash Generation Map. There are also four schools that are West Contra Costa County Unified School District’s jurisdiction, shown at TMA#6 on Trash Management Areas Map.

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

The City of Hercules drains to two creeks, Refugio Creek and Ohlone Creek, which are affected by trash. The entire shoreline to San Pablo Bay within the city limit is bordered by the Union Pacific Railroad with vehicular or pedestrian access.

**C. Trash Problems and Priorities**

CCC Clean Water Program and BASMAA developed a predictive model of trash generation based on designated land use and 2010 median household income, which was used to generate a preliminary trash generation map. Refinements were then made to the trash generation map by conducting On-Land Visual Assessments throughout the City. The refined trash generation map showed that about 95% of the City is within the low trash generating category. The map also showed that City’s main trash sources were from retail developments, schools and urban parks.

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	0.0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
High	11.5	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
Medium	188.3	6.7%	9.0%	2.8%	15.0%	52.0%	14.6%	0.0%
Low	3,752.5	2.1%	2.6%	41.5%	0.3%	0.0%	2.2%	51.2%

**3. City of Hercules 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.

In the effort to reduce trash discharged into our creeks, the City of Hercules plans to target the high trash generating areas through anti-littering notification/enforcement activities, enhanced storm drain inlet maintenance, enhanced street sweeping and other trash reduction activities within those areas. Visual assessment will be conducted on an annually basis to determine if addition trash reduction measures are needed. The City also plans to adopt and implement a citywide single bag use, polystyrene foam food service ware and uncovered loads policies.

**A. Delineation of Trash Management Areas**

Trash Management Areas were first identified by different Trash Generation Categories, and then segregated by Land Use and by trash management strategies. The areas that were designated as high trash generating areas were included in TMA#1. The areas that were designated as medium generating areas were separated into seven trash management areas based on the land use and possible trash management strategies. The remaining areas with the City that are designated as low generating areas were included in TMA#9.

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

TMA	Jurisdictional Area (Acres)	Trash Generation Category			
		Very High	High	Medium	Low
TMA 1	11.4	0.0%	100.0%	0.0%	0.0%
TMA 2	30.2	0.0%	0.0%	99.6%	0.0%
TMA 3	19.6	0.0%	0.0%	91.2%	8.80%
TMA 4	12.2	0.0%	0.0%	100.0%	0.0%
TMA 5	17.6	0.0%	0.0%	100.0%	0.0%
TMA 6	101.4	0.0%	0.0%	100.0%	0.0%
TMA 7	5.4	0.0%	0.0%	100.0%	0.0%
TMA 8	10.5	0.0%	0.0%	100.0%	0.0%
TMA 9	3,750.7	0.0%	0.0%	0.0%	100.0%

**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	Ohlone Creek at San Pablo Avenue Site ID# HER-01		X	X	X

The City conducts an annual “hot spot” clean up in along a section of Ohlone Creek adjacent San Pablo Avenue. The trash consists of paper, cans, bottles and plastic. The main trash sources come from moving vehicles along San Pablo Avenue and a shopping center.

#### D. Trash Reduction Policies

The City currently has an anti-littering and polystyrene use ordinance in place. Staff will review, improve (if needed) and implement these policies. The City plans to adopt a single-use bag and uncovered loads ordinance in 2014.

#### 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.

Additional public and outreach activities are also conducted by Recyclemore. The City also utilizes the Kids for the Bay Program. Program reaches third, fourth, fifth, and sixth graders, by increasing student’s awareness to the Watershed Action Program.

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

As TMA’s improved to a low trash generating category, the Trash Generation Map will be updated. If the TMA’s do not improve, additional trash reductions activities will be taken until the elimination or substantial reduction of the trash source has been reached.

The City will continue to perform our current on-land cleanup activities, storm drain inlet maintenance, creek cleanups, street sweeping and public education/outreach activities to keep the 95% of the City within the low trash generating category. Maintenance staff and landscape contractors will continuously observe the trash generation rates throughout the City. If there is an increase in trash generation within a specific area, a visual assessment will be conducted and an additional TMA will be added to the Trash Management Plan.

## 4. Trash Management Area Plans

### A. TMA-Specific Plans

TMA-specific plans for nine (9) 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.

TMA 1 includes two retail developments with a grocery, pharmacy, restaurants and other services. TMA 1 was assessed as high trash generating locations by on-land visual assessment method.

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		
11.4		100%			Retail	Convenient Stores and Restaurants

TMA#1 are two retail developments along Sycamore Avenue and Turquoise Drive. One site has Lucky’s, McDonalds, Subway, Wellsfargo and other services. The other site has a Rite Aid Store.

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

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Anti-Littering Notification and Enforcement	Property owners will be notified and required to increase current frequency of site cleanup or implement other trash reduction measures.			X	X
Enhanced Storm Drain Inlet Maintenance	Increase frequency of storm drain maintenance surrounding site 2x/annually.			X	X
Street Sweeping	Increased frequency from 2x/monthly to weekly surrounding the site.			X	X

Evaluation of Program Effectiveness for Trash Management Area 1

Control Measure	Evaluation Method	Evaluation Method Details
Anti-Littering Notification and Enforcement	On-land visual Assessment	Conduct On-land visual assessment annually and notify property owner of any deficiencies.
Enhanced Storm Drain Inlet Maintenance		
Street Sweeping		

If Anti-Littering Notification and Enforcement efforts do not reduce visual trash in the TMA, the City plans enhanced Storm Drain Inlet maintenance and Street Sweeping frequency surrounding the TMA.

TMA 2 includes five retail developments with convenient stores, restaurants, gas stations, liquor stores and other services. Assessed as medium trash generating locations by on-land visual assessment method, the overall sites were clean with small amount of trash at a few locations. The five retail developments are located in different areas of the City, but were categorized as medium trash generating areas and the same trash reduction control measures will be implemented.

Key Characteristics of Trash Management Area 2						
Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
30.2			100%		RETAIL	CONVENIENT STORES AND RESTURANTS

TMA 2 are five retail developments with convenient stories, restaurants, gas stations, liquor stores and other services.

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

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Anti-Littering Notification and Enforcement	Property owners will be notified and required to increase current frequency of site cleanup or implement other trash reduction measures.			X	X
Enhanced Storm Drain Inlet Maintenance	Increase frequency of storm drain maintenance surrounding site 2x/annually.			X	X
Street Sweeping	Increased frequency from 2x/monthly to weekly.			X	X

Evaluation of Program Effectiveness for Trash Management Area 2

Control Measure	Evaluation Method	Evaluation Method Details
On-land Trash Cleanups	On-land visual Assessment	Conduct On-land visual assessment annually and notify property owner of any deficiencies.
Enhanced Storm Drain Inlet Maintenance		
Street Sweeping		

If Anti-Littering Notification and Enforcement efforts do not reduce visual trash within the TMA, the City plans enhanced Storm Drain Inlet maintenance and Street Sweeping frequency surrounding the TMA.

TMA 3 is Refugio Park, which has picnic areas, parking lots, tennis courts, a linear pathway along Refugio Valley Road and Refugio Creek/Lake. The park is heavily used and daily litter pick is being conducted.

Key Characteristics of Trash Management Area 3

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
19.6			100%		Public Park	Pedestrian generated trash

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

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
On-land Trash Cleanups	Park and parking lot is cleaned by maintenance crews, work-alternatives and landscape maintenance contractors on a daily basis.	X	X	X	X
Improve Trash Bin/Container Management	Current trash bin locations will be assessed and additional trash bins will be installed where trash is more prominent.			X	X
Enhanced Storm Drain Inlet Maintenance	Increase frequency of storm drain maintenance surrounding site 2x/annually.			X	X
Street Sweeping	Increased frequency from 2x/monthly to weekly.			X	X

Evaluation of Program Effectiveness for Trash Management Area 3

Control Measure	Evaluation Method	Evaluation Method Details
On-land Trash Cleanups	On-land visual Assessment	Conduct On-land visual assessment annually.
Improve Trash Bin/Container Management	On-land visual Assessment	Conduct On-land visual assessment annually. Maintenance staff and contractors will continually assess if trash bins are being used and if more bins are needed.

If annual on-land visual assessment shows the proposed trash reduction measure are insufficient to reduce trash loads, additional measures will be considered.

TMA 4 is the Hercules Transit Center/Bart Parking Lot on Willow Avenue. TMA 4 was assessed as medium trash generating location by on-land visual assessment method. The site has a Low Impact Development (LID) facility collecting all the drainage for the site, but trash was still visible at a few locations.

Key Characteristics of Trash Management Area 4

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
12.2			100%		Transit Parking Lot with only Bus Services	Bus Stops – Pedestrian Litter

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

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
On-land Trash Cleanups	Increase current frequency of on-site cleanup.			X	X
Improve Trash Bins/ Container Management	Current trash bin locations will be assessed and additional trash bins will be installed where trash is more prominent.			X	X

The LID facility which collects all the drainage for the site is maintained regularly. The proposed control measure is to reduce visual trash on site.

Evaluation of Program Effectiveness for Trash Management Area 4

Control Measure	Evaluation Method	Evaluation Method Details
On-land Trash Cleanups	On-land visual Assessment	Conduct On-land visual assessment annually.
Improve Trash Bins/ Container Management	On-land visual Assessment	Conduct On-land visual assessment annually. Maintenance staff and contractors will continually assess if trash bins are being used and if more bins are needed.

If annual on-land visual assessment shows the proposed trash reduction measures are insufficient to reduce trash loads, additional measures will be considered.

TMA 5 includes two industrial sites and two corporation yards. Assessed as medium trash generating locations by on-land visual assessment method, the overall sites were clean with small amount of trash/debris at a few locations.

Key Characteristics of Trash Management Area 5

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
17.6			100%		Industrial/corporation yard	Debris

One of the corporation yards is owned by the Caltrans and the other is owned by the City of Hercules. The two industrial sites are privately owned.

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

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Anti-Littering Notification and Enforcement	Property owners will be notified and required to increase current frequency of site cleanup or implement other trash reduction measures.			X	X

Evaluation of Program Effectiveness for Trash Management Area 5

Control Measure	Evaluation Method	Evaluation Method Details
On-land Trash Cleanups	On-land visual Assessment	Conduct On-land visual assessment annually and notify property owner of any deficiencies.

If Anti-Littering Notification and Enforcement efforts do not reduce visual trash within the TMA, additional measures will be considered.

TMA 6 are four school sites within the City of Hercules that are owned and operated by the West Contra Costa Unified School District (WCCUSD).

Key Characteristics of Trash Management Area 6

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
101.4			100%		Schools	Pedestrian Litter

The area includes Hercules Middle/High School and three elementary schools, Ohlone Elementary, Lupine Hills Elementary and Hanna Ranch Elementary.

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

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Anti-Littering Notification and Enforcement	Meet with school district staff along with other Cities within the WCCUSD to discuss increase frequency of on-land trash cleanups and other trash reduction measures.			X	X
Improve Trash Bin/Container Management	Current trash bin locations will be assessed and additional trash bins will be installed where trash is more prominent along school frontage.			X	X
Enhanced Storm Drain Inlet Maintenance	Increase frequency of storm drain maintenance surrounding site 2x/annually.			X	X

Evaluation of Program Effectiveness for Trash Management Area 6

Control Measure	Evaluation Method	Evaluation Method Details
On-land Trash Cleanups	On-land visual Assessment	Conduct On-land visual assessment annually and notify WCCUSD of any deficiencies.
Improve Trash Bin/Container Management	On-land visual Assessment	Conduct On-land visual assessment annually. Maintenance staff and contractors will continually assess if trash bins are being used and if more bins are needed.

If Anti-Littering Notification and Enforcement and Improve Trash Bin Management efforts do not reduce visual trash within the TMA, the City plans enhanced Storm Drain Inlet maintenance frequency surrounding the TMA.

TMA 7 is for the Willow Glen Apartments. Assessed as medium trash generating location by on-land visual assessment method, the overall development was clean with small amount of trash at a few locations and surrounding trash bin enclosures.

Key Characteristics of Trash Management Area 7

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
5.4			100%		Multi-family	Pedestrian Litter and overflowing trash bins.

Willow Glen Apartments is a development along Willow Avenue adjacent to the freeway off-ramp from Hwy 4.

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

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
Anti-Littering Notification and Enforcement	Property owners will be notified and required to increase current frequency of site cleanup or implement other trash reduction measures.			X	X
Improve Trash Bin Management	Property owner to increase cleanup and maintenance of onsite trash enclosures.			X	X

Evaluation of Program Effectiveness for Trash Management Area 7

Control Measure	Evaluation Method	Evaluation Method Details
On-land Trash Cleanups	On-land visual Assessment	Conduct On-land visual assessment annually and notify property owner of any deficiencies.

If Anti-Littering Notification and Enforcement efforts do not reduce visual trash within the TMA, additional measures will be considered.

TMA 8 is Hanna Ranch Baseball and Soccer Fields. TMA 4 was assessed as medium trash generating location by on-land visual assessment method. The fields are heavily used and litter pick is being done by landscape maintenance contractors.

Key Characteristics of Trash Management Area 8

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
10.5			100%		Public Park	Sports events

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

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017
On-land Trash Cleanups	Park and parking lot is cleaned by maintenance crews, work-alternatives and landscape maintenance contractors.	X	X	X	X
Improve Trash Bin/Container Management	Current trash bin locations will be assessed and additional trash bins will be installed where trash is more prominent.			X	X

Evaluation of Program Effectiveness for Trash Management Area 8

Control Measure	Evaluation Method	Evaluation Method Details
On-land Trash Cleanups	On-land visual Assessment	Conduct On-land visual assessment annually.
Improve Trash Bin/Container Management	On-land visual Assessment	Conduct On-land visual assessment annually. Maintenance staff and contractors will continually assess if trash bins are being used and if more bins are needed.

If annual on-land visual assessment shows the proposed trash reduction measure are insufficient to reduce trash loads, additional measures will be considered.

TMA 9 is the remainder of the City that is not included in the TMA 1-8. TMA 9 is assessed as low trash generating locations by land use and confirmed by on-land visual assessment method.

Key Characteristics of Trash Management Area 9

Total Jurisdictional Area (Acres)	Percent in Trash Generation Category				Dominant Land Uses	Dominant Types and Sources of Trash
	Very High	High	Medium	Low		
3750.7				100%	Residential and open space	N/A

TMA 9 is majority residential neighborhoods and open space with some light industrials and commercial.

Summary of Control Measures and Implementation Schedule for Trash Management Area

Control Measure	Control Measure Details	Pre-MRP	12/2009 to 7/2014	7/2014 to 7/2017	After 7/2017

Evaluation of Program Effectiveness for Trash Management Area

Control Measure	Evaluation Method	Evaluation Method Details

City will continue to conduct its current trash management activities along with the adoption and implementation of the citywide policies to maintain the low trash generating category in TMA 9. Staff will continually maintain these areas and assess for any increase in trash generation to assure these area stay “Green.”