



Long-Term Trash Load Reduction Plan and Assessment Strategy



Submitted by:

City of Los Altos

One North San Antonio Road

Los Altos, CA 94022

In compliance with Provisions C.10.c of Order R2-2009-0074

February 1, 2014

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**CITY OF LOS ALTOS
LONG-TERM TRASH LOAD REDUCTION PLAN AND
ASSESSMENT STRATEGY**

CERTIFICATION STATEMENT

"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 gather and evaluate 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."

Signature by Duly Authorized Representative:



Jim Gustafson
Public Works Director

February 1, 2014

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APPENDIX A. STAFF REPORT TO CITY COUNCIL ADOPTING LONG-TERM PLAN

ABBREVIATIONS

BASMAA	Bay Area Stormwater Management Agencies Association
BID	Business Improvement District
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CASQA	California Stormwater Quality Association
CDS	Continuous Deflection Separator
CEQA	California Environmental Quality Act
CY	Cubic Yards
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
GIS	Geographic Information System
MRP	Municipal Regional Stormwater NPDES Permit
MS4	Municipal Separate Storm Sewer System
NGO	Non-Governmental Organization
NPDES	National Pollutant Discharge Elimination System
Q	Flow
SFRWQCB	San Francisco Regional Water Quality Control Board
SWRCB	State Water Resource Control Board
TMDL	Total Maximum Daily Load
USEPA	United States Environmental Protection Agency
Water Board	San Francisco Regional Water Quality Control Board
WDR	Waste Discharge Requirements

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1.0 PREFACE

This Long-Term Trash Load Reduction Plan and Assessment Strategy (Long-Term Plan) is submitted in compliance with provision C.10.c of the Municipal Regional Stormwater NPDES Permit (MRP) for Phase I communities in the San Francisco Bay (Order R2-2009-0074). The Long-Term Plan was developed using a regionally consistent outline and guidance developed by the Bay Area Stormwater Management Agencies Association (BASMAA) and reviewed by San Francisco Bay Regional Water Quality Control Board staff. The Long-Term Plan is consistent with the Long-Term Trash Load Reduction Framework developed in collaboration with Water Board staff. Its content is based on the City of Los Altos' current understanding of trash problems within its jurisdiction and the effectiveness of control measures designed to reduce trash impacts associated with Municipal Separate Storm Sewer (MS4) discharges. This Long-Term Plan is intended to be iterative and may be modified in the future based on information gained through the implementation of trash control measures. The City of Los Altos therefore reserves the right to revise or amend this Long-Term Plan at its discretion. If significant revisions or amendments are made by the City, a revised Long-Term Plan will be submitted to the Water Board through the City's annual reporting process.

2.0 EXECUTIVE SUMMARY

Highlights of the City of Los Altos' Implemented Control Measures in the Long-Term Plan

The City of Los Altos has implemented several control measures that are detailed in the Long-Term Plan, the following list provides highlights of these implemented control measures.

- **Installed a Full-Capture Treatment Device:** A Full-Capture Treatment Device (FCTD) was installed in October 2012 on View Street in the Downtown area. The total area treated by the CDS is 75 acres (the commercial areas in downtown and areas adjacent and part of South San Antonio Road.) The City was only required to treat 30% of the retail/commercial area (20 acres) with the full capture device. However, the CDS unit significantly exceeds this requirement and performs full capture of 41 acres and it partially captures an additional 34 acres. Therefore, the City of Los Altos exceeded the MRP requirements with regard to the treatment area.
- **Adopted a Reusable Bag Ordinance:** A Reusable Bag Ordinance was unanimously adopted by the City of Los Altos Council on March 12, 2013, with an effective date of July 4, 2013. Additionally, on March 26, 2013, the City Council approved \$10,000 for implementation of an Outreach Plan for educating the public about the reusable ban ordinance. The Reusable Bag ordinance prohibits retail establishments from providing plastic, single use carry-out bags to customers. The Outreach Plan included providing free reusable bags to residents, educational mailings to residents and businesses, development and placement newspaper outreach/education, information flyers provided at Farmers Market, coordination with the waste/recycling hauler to produce an educational bill insert, merchant information forums, and the development of a web page.
- **Activities to Reduce Trash from Uncovered Loads** The City of Los Altos enhanced implementation of this control measure and added new requirements in their franchise agreement with their hauler to reduce trash from uncovered loads. In March 2010, the City of Los Altos included requirements for their franchised trash/recycling hauler to

cover their loads or incur liquidated damages for non-compliance. The hauling company now has equipped all their waste and recycling trucks with mechanical covers to cover the loads while in transit.

- **Implemented Creek cleanups:** City staff and volunteers continue implementation of the annual creek cleanups at the City of Los Altos hot spot, on a portion of Stevens Creek.
- **Enhanced On-land Trash Pickup:** City staff continues to perform on-land trash pickups every day, Monday through Friday in the downtown area, in City parks and City facilities.
- **Enhanced Street Sweeping:** Street sweeping was enhanced and increased to two times per week in commercial areas. Additionally, during the fall and heavy leaf season, street sweeping service is doubled to four times per week in commercial areas. Street sweeping was enhanced and increased to one time per month in residential areas. Additionally, during the fall and heavy leaf season, street sweeping service is doubled to two times per month in residential areas.
- **Enhanced Storm Drain Inlet Maintenance:** The City's goal is to complete maintenance of each of the 1,350 storm drain inlets and maintain each inlet annually. It is the City staff's goal to clean and maintain all of the storm inlets in the City prior to the rainy season.

3.0 INTRODUCTION

3.1 Purpose of Long-Term Trash Reduction Plan

The Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit for Phase I communities in the San Francisco Bay (Order R2-2009-0074), also known as the Municipal Regional Permit (MRP), became effective on December 1, 2009. The MRP applies to 76 large, medium, and small municipalities (cities, towns, and counties) and flood control agencies in the San Francisco Bay Region, collectively referred to as Permittees. Provision C.10.c of the MRP requires Permittees to submit a *Long-Term Trash Load Reduction Plan* (Long-Term Plan) by February 1, 2014. Long-Term Plans must describe control measures that are currently being implemented, including the level of implementation, and additional control measures that will be implemented and/or increased level of implementation designed to attain a 70% trash load reduction by July 1, 2017, and no adverse impacts associated with trash discharged from the City's MS4 by July 1, 2022.

This Long-Term Plan is submitted by the City of Los Altos in compliance with MRP provision C.10.c. requirements. The goal of the Long-Term Plan is to solve trash problems in receiving waters by reducing the impacts associated with trash in discharges from the City of Los Altos' municipal separate storm sewer system (MS4) that are regulated by NPDES Permit requirements. The Long-Term Plan includes:

1. Descriptions of the current level of implementation of trash control measures, and the type and extent to which new or enhanced control measures will be implemented to achieve a target of no adverse impacts associated with trash discharged from the City's MS4 by July 1, 2022, with an interim milestone of 70% reduction by July 1, 2017;
2. A description of the *Trash Assessment Strategy* that will be used to assess progress towards trash reduction targets achieved as a result of control measure implementation; and,
3. Time schedules for implementing control measures and the assessment strategy.

The Long-Term Plan was developed using a regionally consistent outline and guidance developed by the Bay Area Stormwater Management Agencies Association (BASMAA) and reviewed by the San Francisco Bay Regional Water Quality Control Board (Water Board) staff. The Long-Term Plan is consistent with the Long-Term Trash Load Reduction Framework (see section 1.2.1) developed in collaboration with Water Board staff. Its content is based on the City of Los Altos' current understanding of trash problems within its jurisdiction and the effectiveness of control measures designed to reduce trash impacts associated with Municipal Separate Storm Sewer (MS4) discharges. The Long-Term Plan builds upon trash control measures implemented by the City prior to the adoption of the MRP and during the implementation of the Short-Term Trash Load Reduction Plan submitted to the Water Board on February 1, 2012.

The Long-Term Plan was reviewed and approved for submittal by the City of Los Altos' on January 28, 2014. The City of Los Altos' Staff Report is attached as Appendix A.

3.2 Background

3.2.1 Long-Term Trash Load Reduction Plan Framework

A workgroup of MRP Permittee, Bay Area countywide stormwater program staff and Water Board staff met between October 2012 and March 2013 to better define the process for developing and implementing Long-Term Plans, methods for assessing progress toward reduction goals, and tracking and reporting requirements associated with provision C.10. Through these discussions, an eight-step framework for developing and implementing Long-Term Plans was created by the workgroup (Figure 1).

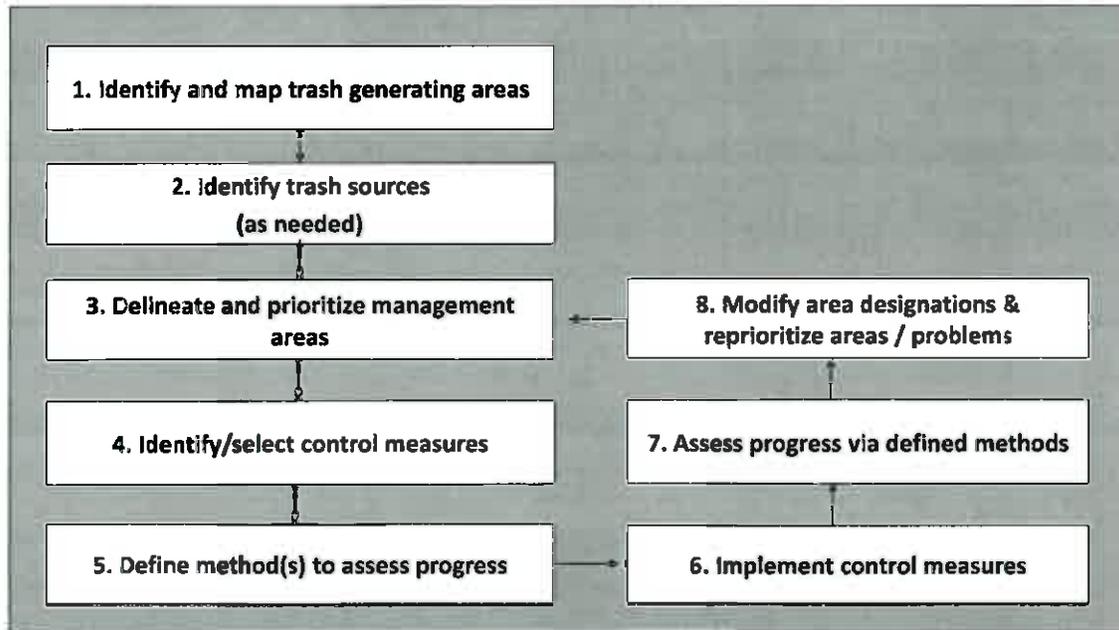


Figure 1. Eight-step framework for developing, implementing and refining Long-Term Trash Reduction Plans.

The workgroup agreed that as the first step in the framework, Permittees would identify very high, high, moderate, and low trash generating areas in their jurisdictional areas. Trash generation rates developed through the *BASMAA Baseline Trash Generation Rates Project* (as discussed below) were used as a starting point for differentiating and delineating land areas with varying levels of trash generation. Permittees would then use local knowledge and field and/or desktop assessments to confirm or refine the level of trash generation for specific areas within their jurisdiction. Each Permittee would then develop a map depicting trash generation categories within their jurisdiction.

As a next step, Permittees would then delineate and prioritize Trash Management Areas (TMAs) where specific control measures exist or are planned for implementation. TMAs delineated by Permittees are intended to serve as reporting units in the future. Reporting at the management area level provides the level of detail necessary to demonstrate implementation and progress towards trash reduction targets.

Once control measures are selected and implemented, Permittees will evaluate progress toward trash reduction targets using outcome-based assessment methods. As the results of the

progress assessments are available, Permittees may choose to reprioritize trash management areas and associated control measures designed to improve trash reduction within their jurisdictions.

3.2.2 BASMAA Generation Rates Project

Through approval of a BASMAA regional project in 2010, Permittees agreed to work collaboratively to develop a regionally consistent method to establish trash generation rates within their jurisdictions. The project, also known as the *BASMAA Trash Generation Rates Project* (Generation Rates Project) assisted Permittees in establishing the rates of trash generation and identifying very high, high, moderate, and low trash generating areas.

The term “trash generation” refers to the rate at which trash is produced or generated onto the surface of the watershed and is potentially available for transport via MS4s to receiving waters. Generation rates do not explicitly take into account existing control measures that intercept trash prior to transport. Generation rates are expressed as trash volume/acre/year and were established via the Generation Rates Project.

In contrast to trash generation, the term “trash loading” refers to the rate at which trash from MS4s enters receiving waters. Trash loading rates are also expressed as trash volume/acre/year and are equal to or less than trash generation rates because they account for the effects of control measures that intercept trash generated in an area before it is discharged to a receiving water. Trash loading rates are specific to particular areas because they are dependent upon the effectiveness of control measures implemented within an area. Figure 2 illustrates the difference between trash generation and loading.



Figure 2. Conceptual model of trash generation, interception and load.

Trash generation rates were estimated based on factors that significantly affect trash generation (i.e., land use and income). The method used to establish trash generation rates for each Permittee builds off “lessons learned” from previous trash loading studies conducted in urban areas (Allison and Chiew 1995; Allison et al. 1998; Armitage et al. 1998; Armitage and Rooseboom 2000; Lippner et al. 2001; Armitage 2003; Kim et al. 2004; County of Los Angeles 2002, 2004a, 2004b; Armitage 2007). The method is based on a conceptual model developed as an outgrowth of these studies (BASMAA 2011b).

Trash generation rates were developed through the quantification and characterization of trash captured in Water Board-recognized full-capture treatment devices installed in the San Francisco Bay area.

Table 1. San Francisco Bay Area trash generation rates by land use (gallons/acre/year).

Land Use	Low ^b	Best ^b	High ^b
Commercial & Services	0.7	6.2	17.3
Industrial	2.8	8.4	17.8
Residential ^a	0.3 - 30.2	0.5 - 87.1	1.0 - 257.0
Retail ^a	0.7 - 109.7	1.8 - 150.0	4.6 - 389.1
K-12 Schools	3	6.2	11.5
Urban Parks	0.5	5.0	11.4

^a For residential and retail land uses, trash generation rates are provided as a range that takes into account the correlation between rates and household median income.

^b For residential and retail land uses: Low = 5% confidence interval; Best = best fit regression line between generation rates and household median income; and, High = 95% confidence interval. For all other land use categories: High = 90th percentile; Best = mean generation rate; and, Low = 10th percentile.

3.2.3 Short-Term Trash Load Reduction Plan

In February 2012, the City of Los Altos developed a Short-Term Plan that described the current level of control measures implementation and identified the type and extent to which new or enhanced control measures would be implemented to attain a 40% trash load reduction from its MS4 by July 1, 2014. Since that time, the City of Los Altos has begun to implement its short-term plan. Control measures implemented to date via the short-term trash reduction plan are:

- **Full-Capture Treatment Device:** A Full-Capture Treatment Device (FCTD) was installed in October 2012 on View Street in the Downtown area. The total area treated by the CDS is 75 acres (the commercial areas in downtown and areas adjacent and part of South San Antonio Road.) The City was only required to treat 30% of the retail/commercial area (20 acres) with the FCTD. However, the FCTD significantly exceeds this requirement and performs full capture of 41 acres and it partially captures an additional 34 acres. Therefore, the City of Los Altos exceeded the MRP requirements with regard to the treatment area.
- **Reusable Bag Ordinance** A Reusable Bag Ordinance was unanimously adopted by the City of Los Altos Council on March 12, 2013, with an effective date of July 4, 2013. Additionally, on March 26, 2013, the City Council approved \$10,000 for an Outreach Plan for the purpose of educating the public about the reusable ban ordinance. The ordinance prohibits retail establishments from providing plastic, single use carry out bags to customers. The Outreach Plan included providing free reusable bags, educational mailings to residents and businesses, newspaper articles, information provided at Farmers Market, coordination with the waste/recycling hauler to produce an educational bill insert, commercial and residential meetings and workshops, and the development of a web page.
- **Polystyrene (EPS) Food Service Container-Ware Ordinance:** Staff went to Council with the Polystyrene (EPS) ban on December 10, 2013. City Council requested that staff research expanding the ban to additional venues, therefore the first reading was

introduced on January 14, 2014. The EPS ban ordinance was adopted at the January 28, 2014 City Council meeting with an effective date of July 4, 2014.

- **Creek cleanups:** Municipal staff and volunteers completed annual creek cleanups at the City of Los Altos' hot spot, on a portion of Stevens Creek.
- **On-land Trash Pickup:** Municipal staff continues to perform on-land trash pickups in the downtown area, city parks and city facilities.
- **Enhanced Street Sweeping:** Street sweeping is enhanced to two times per week in commercial areas, and doubled in the fall/heavy leaf season. Street sweeping is enhanced to two times per month in residential areas, and doubled in the fall/heavy leaf season.
- **Enhanced Storm Drain Inlet Maintenance:** The City's goal is to complete maintenance of each of the 1,350 storm drain inlets and maintain each inlet annually. It is the City staff's goal to clean and maintain all of the storm inlets in the City prior to the rainy season.

Control measures described in this Long-Term Plan build upon actions taken to-date via City of Los Altos' Short-Term Plan. A full description of control measures implemented via short and long-term plans is included in section 5.2. Outcomes associated with short-term plan implementation will be reported in the City of Los Altos' Fiscal Year 2013-14 Annual Report, scheduled for submittal to the Water Board by September 15, 2014.

3.3 Organization of Long-Term Plan

This Long-Term Plan is organized into the following sections:

- 3.0 Introduction;
- 4.0 Scope of the Trash Problem;
- 5.0 Trash Management Areas and Control Measures;
- 6.0 Progress Assessment Strategies; and
- 7.0 References

Section 4.0 is intended to provide a description of the extent and magnitude of the trash problem in the City of Los Altos. Control measures that will be implemented by City of Los Altos as a result of this Long-Term Plan are described in section 5.0. Section 6.0 describes the methods that will be used to assess progress toward trash reduction targets.

4.0 SCOPE OF THE TRASH PROBLEM

4.1 Characteristics of the City of Los Altos

Tree lined streets and a small village atmosphere characterizes Los Altos which is located in the heart of world famous Silicon Valley. Just 40 miles south of San Francisco, Los Altos is an upscale residential community served by seven small retail areas. The approximately seven square mile city is developed with small businesses, schools, libraries, and churches. According to the 2010 Census, it has a population of 28,976, with a population density of 4,466.8 people per square mile, and average household size of 2.61. Of the 28,976 who call the City of Los Altos home, 26.1% are under the age of 18, 3.5% are between 18 and 24, 18.2% are between 25 and 44, 32.3% are between 45 and 64, and 20.0% are 65 and older. The City had a median household income of \$127,000 based on the 2000 Census

Los Altos' climate is marine-influenced with an average summertime high temperature of 78°F and an average low of 57°F, dropping to an average winter nighttime low temperature of 41°F and an average high of 60°F. Mean annual precipitation ranges from 15 to 22 inches, with the majority of that precipitation falling from November through March. Precipitation occurs entirely as rainfall. Snowmelt is not a hydrologic process that significantly affects runoff in the City.

Precipitation that falls within the City of Los Altos generates stormwater runoff. This runoff is conveyed in a number of mostly manmade flood protection systems that discharge to the creeks. Most of these systems do not interact with one another, and potential improvements to one system should not impact the performance of other systems. The total land area within the city limits is roughly 6.3 square miles (approximately 4,000 acres). To create a rural aesthetic, many of the streets in Los Altos do not have traditional suburban curb and gutter lined streets. This layout provides some attenuation before runoff reaches a storm drain inlet.

In addition to storm drains, flood protection is provided to the City of Los Altos by four creeks (Hale, Stevens, Adobe, and Permanente) that convey storm-generated runoff north to the San Francisco Bay. Figure 3 shows these facilities.

The City of Los Altos is an established and largely developed community. Table 2 shows the current land uses based on the 2002 General Plan. A desirable balance of land uses currently exists and will be maintained in the further under the approved General Plan.

Table 2: General Plan Land use in the Los Altos Planning Area

Land Use	Net Acres In Planning Area	Percentage of Land In Planning Area
Single-Family Large Lot	429	11%
Single-Family Medium Lot	2598	67%
Single-Family Small Lot	83	2%
Low Density Multi-Family	34	1%
Medium Density Multi-Family	45	1%
Neighborhood Commercial	37	1%
Downtown Commercial	42	1%
Thoroughfare Commercial	59	2%
Public School Land	120	3%
Private School Land	34	1%
Public and Institutional		
Utilities	113	3%
Parking		
Parks	32	1%
Other Open Space	127	3%
Planned Community	93	3%
Total	3,846	100%

For the purpose of this Plan, the land uses within the City of Los Altos depicted in ABAG (2005) were used since it consolidated the land uses listed above to make the trash evaluation more manageable. ABAG's land uses are provided in Table 3. The City of Los Altos is primary comprised of 5 out of 6 land uses. These include commercial and services, residential, retail, K-12 Schools and urban parks.

Table 3: Percentages of the City of Los Altos' jurisdictional area¹ within land use classes identified by ABAG (2005)

Land Use Category	Jurisdictional Area (Acres)	% of Jurisdictional Area
Commercial and Services	212.7	5.2%
Residential	3,517.7	86.2%
Retail	91.1	2.2%
K-12 Schools	146.8	3.6%
Urban Parks	37.7	0.9%
Other	73.9	1.8%

4.2 Trash Sources and Pathways

Trash in San Francisco Bay Area creeks and shorelines originates from a variety of sources and is transported to receiving waters by a number of pathways (Figure 4). Of the four source categories, pedestrian litter includes trash sources from high traffic areas near businesses and schools, transitional areas where food/drinks are not permitted (e.g. bus stops), and from public or private special events with high volumes of people. Trash from vehicles occurs due to littering from automobiles and uncovered loads. Inadequate waste container management includes sources such as overflowing or uncovered containers and dumpsters as well as the dispersion of household and business-related trash and recycling materials before, during, and after collection. On-land illegal dumping of trash is the final source category.

Trash is transported to receiving waters through three main pathways: 1) Stormwater Conveyances; 2) Wind; and, 3) Direct Dumping. Stormwater or urban runoff conveyance systems (e.g., MS4s) consist of curbs/gutters, and pipes and channels that discharge to urban creeks and the San Francisco Bay shorelines. Wind can also blow trash directly into creeks or the Bay. Lastly, trash in receiving waters can also originate from direct dumping into urban creeks and shorelines.

This Long-term Plan and associated trash control measures described in Section 5.0 focus on reducing trash from one of the transport pathways illustrated in Figure 4. Specifically, the Long-term Plan is focused on reducing the impacts of discharges from MS4s to San Francisco Area receiving waters and the protection of associated beneficial uses.

¹ A Permittee's jurisdictional area is defined as the urban land area within a Permittee's boundary that is not subject to stormwater NPDES Permit requirements for traditional and non-traditional small MS4s (i.e. Phase II MS4s) or the California Department of Transportation, or owned and maintained by the State of California, the U.S. federal government or other municipal agency or special district (e.g., flood control district).

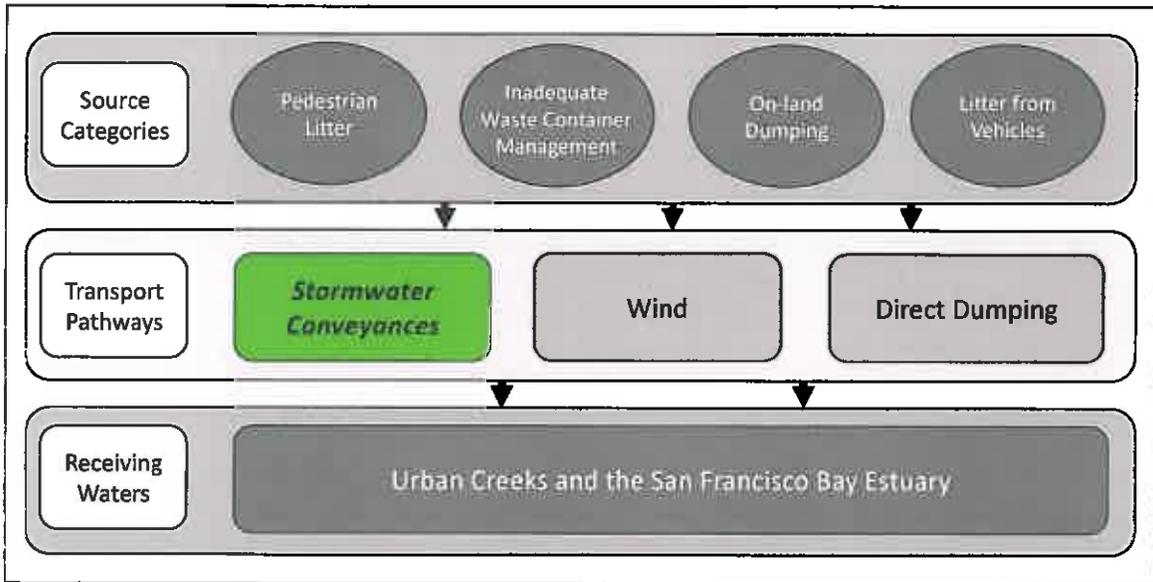


Figure 4. Trash sources categories and transport pathways to urban creeks

4.3 Trash Generating Areas

4.3.1 Generation Categories and Designation of Areas

The process and methods used to identify the level of trash generation within the City of Los Altos are described in this section and illustrated in Figure 5.

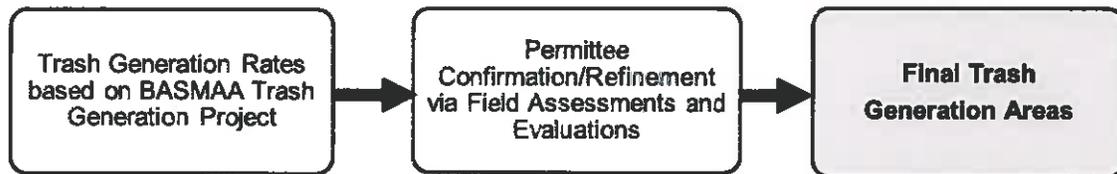


Figure 5. Trash sources categories and transport pathways to urban creeks.

As a first step, trash generation rates developed through *the BASMAA Trash Generation Rates Project* were applied to parcels within the City of Los Altos based on current land uses and 2010 household median incomes. A Draft Trash Generation Map was created as a result of this application. The draft map served as a starting point for the City of Los Altos to identify trash generating levels. Levels of trash generation are depicted on the map using four trash generation rate (gallons/acre/year) categories that are symbolized by four different colors illustrated in Table 4.

Table 4. Trash generation categories and associated generation rates (gallons/acre/year).

Category	Very High	High	Moderate	Low
Generation Rate (gallons/acre/year)	> 50	10-50	5-10	< 5

The City of Los Altos then reviewed and refined the draft trash generation map to ensure that trash generation categories were correctly assigned to parcels or groups of parcels. City staff refined maps using the following process:

1. Based upon our knowledge of trash generation and problem areas within the City, staff identified areas on the draft map that potentially had incorrect trash generation category designations.
2. Trash generation category designations initially assigned to areas identified in step #1 were then assessed and confirmed/refined by the City using the methods listed below.

a. On-Land Visual Assessments

To assist Permittees with developing their trash generation maps, BASMAA developed a *Draft On-land Visual Trash Assessment Protocol (Draft Protocol)*. The Draft Protocol entails walking a street segment and visually observing the level of trash present on the roadway, curb and gutter, sidewalk, and other areas adjacent to the street that could potentially contribute trash to the MS4. Based on the level of trash observed, each segment (i.e., assessment area) was placed into one of four on-land assessment condition categories that are summarized in Table 5. Using the Draft Protocol the City assessed a total of seven (7) areas to assist in conducting/refining trash generating area designations.

Table 5. Definitions of on-land trash assessment condition categories.

On-land Assessment Condition Category	Summary Definition
A (Low)	Effectively no trash is observed in the assessment area.
B (Moderate)	Predominantly free of trash except for a few pieces that are easily observed.
C (High)	Trash is widely/evenly distributed and/or small accumulations are visible on the street, sidewalks, or inlets.
D (Very High)	Trash is continuously seen throughout the assessment area, with large piles and a strong impression of lack of concern for litter in the area.

3. Based on assessments conducted to confirm/refine trash generation category designations, the City created a final trash generation map that depicts the most current understanding of trash generation within the City of Los Altos. The City documented this process by tracking the information collected through the assessments and subsequent

refinements to the Draft Trash Generation Map. The City of Los Altos' Final Trash Generation Map is included as Figure 6.

4. The City of Los Altos staff continued visual assessments of its seven TMAs using the *Tracking Sheet for Confirmation of Trash Generation Rate Categories and Trash Sources* during the months of July 2013 and November 2013. During the visual assessments staff noted the trash condition category, took photographs, identified trash sources where feasible, and made additional comments on the tracking sheet.

4.3.2 Summary of Trash Generating Areas and Sources

Summary statistics for land use and trash generation categories generated through the mapping and assessment process are presented in Table 6.

Table 6. Percentage of jurisdictional area in Los Altos assigned to each trash generation category.

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	13.6	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
Medium	100.0	65.5%	1.0%	0.5%	32.3%	0.0%	0.8%	0.0%
Low	3,966.2	3.7%	0.0%	88.7%	1.1%	3.7%	0.9%	1.9%

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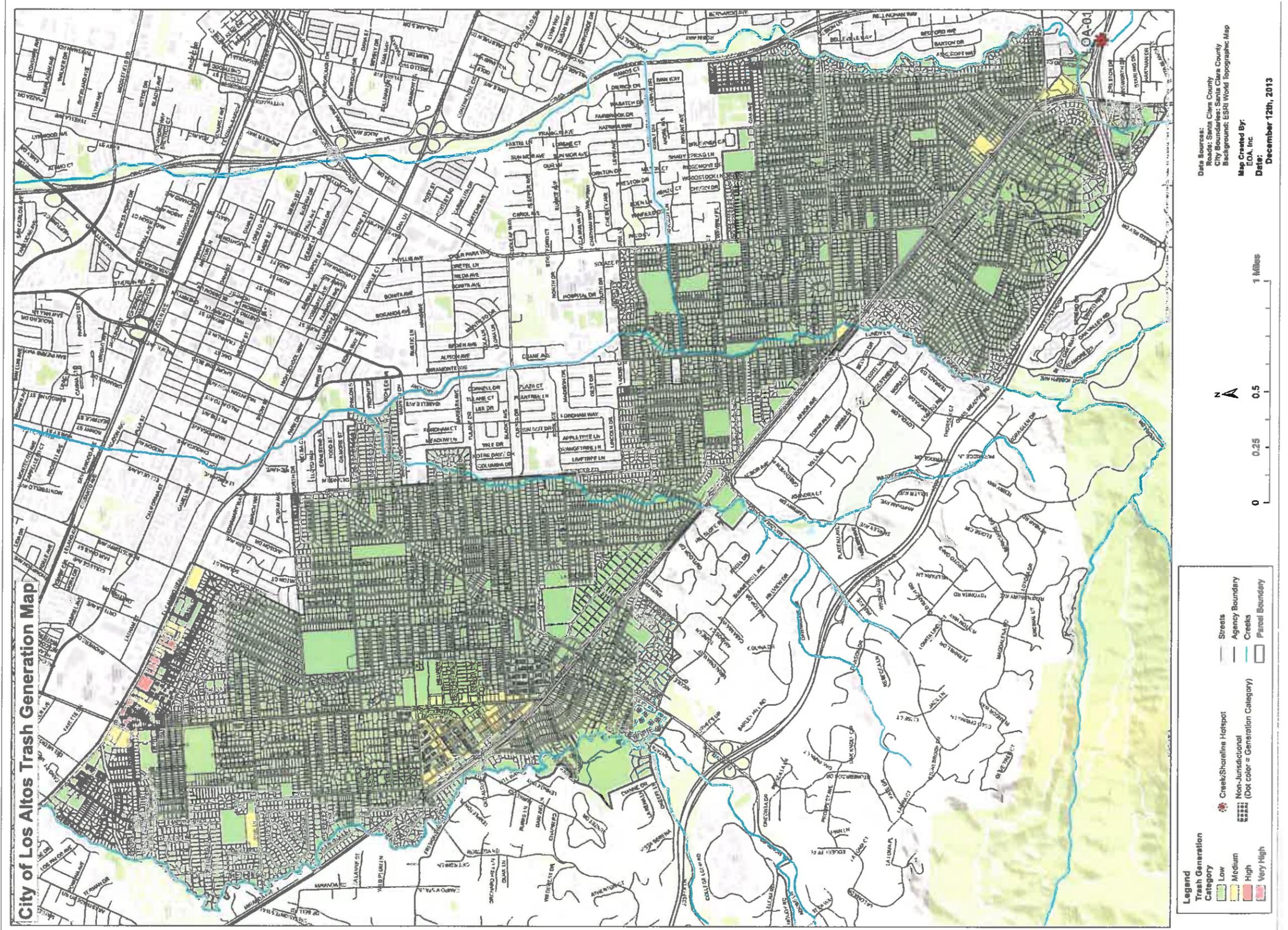


Figure 6. Final Trash Generation Map for the City of Los Altos

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5.0 TRASH MANAGEMENT AREAS AND CONTROL MEASURES

This section describes the control measures that the City of Los Altos has or plans to implement to solve trash problems and achieve a target of no adverse impacts associated with trash discharged from the City's MS4 by July 1, 2022. The selection of control measures described in this section is based on the City of Los Altos' current understanding of trash problems within the City and the effectiveness of control measures designed to reduce trash impacts associated with MS4 discharges. Information on the effectiveness of some trash control measures is currently lacking and therefore in the absence of this information, the City based its selection of control measures on existing effectiveness information, experience in implementing trash controls and knowledge of trash problems, and costs of implementation. As knowledge is gained through the implementation of these control measures, the City may choose to refine their trash control strategy described in this section. If significant revisions or amendments are made, a revised Long-Term Plan will be submitted to the Water Board through the City of Los Altos' annual reporting process.

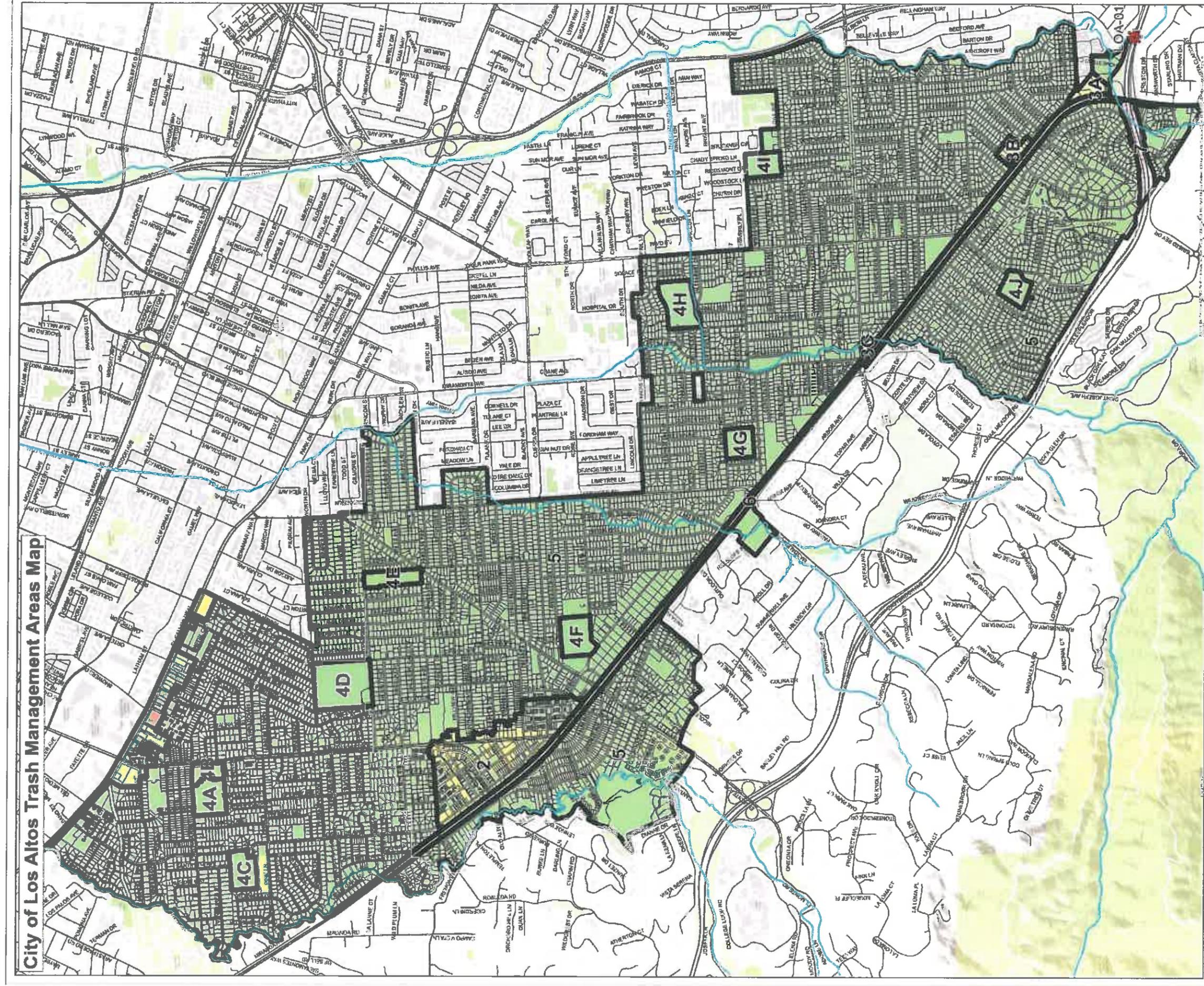
5.1 Management Area Delineation and Prioritization

Consistent with the long-term plan framework, the City of Los Altos delineated and prioritized trash management areas (TMAs) based on the geographical distribution of trash generating areas, types of trash sources, and current or planned control measure locations. TMAs are intended to form the management units by which trash control measure implementation can be tracked and assessed for progress towards trash reduction targets. Once delineated, TMAs were prioritized for control measure implementation. The City of Los Altos' primary management areas were selected based on the spatial distribution of trash generating areas and the location of specific existing or planned management actions within City's jurisdiction. The City of Los Altos prioritized the installation of the FCTD, adoption of a reusable ban ordinance, the EPS ordinance, and ongoing public education and outreach for its TMAs.

The City of Los Altos staff reviewed the delineation and prioritization of the TMAs. Staff completed assessments and noted that several areas such as fire stations and churches should be converted to green areas. Also, staff added a hatched area for the TMAs of Foothill Expressway and State Highway 280 to indicate that these TMA's are under the jurisdiction of the County and Caltrans, respectively. Staff used the map dated June 25, 2013 to refine the modeled trash generation categories within the City. During the field visits and visual assessments, staff noted that the private schools and the City parks should be changed from yellow to green. In addition, staff assessed that some commercial areas were verified to be in the green category, instead of yellow. However, some of the yellow and red categories in this commercial area remained the same category. The green areas in TMA 4 and TMA 5 will not be assessed by the Program at this time because these areas are low trash generation areas. The City's efforts and the Program's efforts will be focused on TMA 1, TMA 2 and TMA 3. A map depicting the City's TMAs is included as Figure 7. All jurisdictional areas within the city are included within a TMA. The amount of jurisdictional land area and associated trash condition categories for each TMA are included in Table 7.

Table 7. Jurisdictional area and percentage of each Trash Management Area (TMA) comprised of trash generation categories

TMA	Jurisdictional Area (Acres)	Trash Generation Rate			
		Very High	High	Medium	Low
1	54.3	0.0%	25.0%	70.5%	4.5%
2	103.7	0.0%	0.0%	39.4%	60.6%
3A	7.0	0.0%	0.0%	100.0%	0.0%
3B	6.7	0.0%	0.0%	100.0%	0.0%
3C	1.8	0.0%	0.0%	100.0%	0.0%
4A	13.8	0.0%	0.0%	0.0%	100.0%
4B	6.3	0.0%	0.0%	0.0%	100.0%
4C	11.5	0.0%	0.0%	0.0%	100.0%
4D	32.0	0.0%	0.0%	0.0%	100.0%
4E	10.3	0.0%	0.0%	0.0%	100.0%
4F	14.6	0.0%	0.0%	0.0%	100.0%
4G	10.0	0.0%	0.0%	0.0%	100.0%
4H	17.7	0.0%	0.0%	0.0%	100.0%
4I	10.2	0.0%	0.0%	0.0%	100.0%
4J	9.3	0.0%	0.0%	0.0%	100.0%
5	3,770.8	0.0%	0.0%	0.0%	100.0%



Legend

Low	Creek/Shoreline Hotspot	Streets
Medium	Agency Boundary	Creeks
High	Non-Jurisdictional	Parcel Boundary
Very High	Generation Category	

Data Sources:
Roads: Santa Clara County
City Boundaries: Santa Clara County
Background: ESRI World Topographic Map
Map Created By:
EOA, Inc.
Date:
December 12th, 2013



Figure 7. Trash Management Area Map for the City of Los Altos.

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5.2 Current and Planned Trash Control Measures

The City of Los Altos staff developed current and planned trash control measures using a regionally consistent approach and guidance provided by participation in the Bay Area Stormwater Management Agencies Association (BASMAA) and the SCVURPPP. The control measures are consistent with the Long-Term Trash Load Reduction Framework developed in collaboration with Water Board staff. The measures are based on the City of Los Altos current understanding of trash problems within the City, and the effectiveness of control measures designed to reduce trash impacts associated with Municipal Separate Storm Sewer (MS4) discharges. The City of Los Altos' control measures for its seven TMAs build upon actions completed to date and consistent with the City's Baseline Trash Load and Short-Term Trash Load Reduction Plan. The City selected these control measures because they are best management practices (BMPs) and appropriate for the City's unique conditions to reduce trash load reductions in the seven TMAs. The City has implemented several successful control measures and programs. For example, the City installed a Full-Capture Treatment Device (FCTD) with a total treatment area of 75 acres. This control measures greatly exceeded the requirements of the MRP. Through staff's assessments and delineations of the seven TMAs, the City will continue to focus efforts primarily on TMAs one through three to ensure the trash reduction goals are met. The other TMAs have been assessed as green because the control measures continue to be successful in trash reduction, or, the TMA are not in the City's jurisdiction. The City believes the trash control measures described will result in no adverse impacts associated with the trash discharged from the City's MS4.

A summary of The City of Los Altos' current and planned trash control measures are as follows:

- Reusable Bag Ordinance
- Polystyrene (EPS) Food Serviceware Ban Ordinance
- Full Capture Treatment Device
- Public Education and Outreach Programs
- Activities to Reduce Trash from Uncovered Loads
- Anti-littering and illegal dumping enforcement activities
- Improved Trash Bin/Container Management Activities
- On-land Trash Pick up (City and or Volunteer)
- Enhanced Street Sweeping
- Partial Capture Treatment Devices
- Enhance Storm Drain Inlet Maintenance
- Creek/Channel/Shoreline Cleanups (City and or Volunteer)

5.2.1 Jurisdiction-wide Control Measures

The City of Los Altos actively participates in regional programs including the Bay Area Stormwater Management Agencies Association (BASMAA) and other organizations to effectively reduce trash. The City's approach to reducing trash is to implement control measures that are consistent with the Long-Term Trash Load Reduction Framework developed in collaboration with Water Board staff. The measures are based on the City of Los Altos current understanding of trash problems within its jurisdiction and the effectiveness of control measures designed to reduce trash impacts associated with Municipal Separate Storm Sewer (MS4) discharges. The City uses best management practices (BMPs) that are appropriate for the City's

unique conditions to reduce trash load reductions. The City has implemented several successful control measures and programs. For example, the City installed a Full-Capture Treatment Device (FCTD) with a total treatment area of 75 acres. This control measures greatly exceeded the requirements of the MRP.

The jurisdiction-wide control measures are listed in this following section.

Public Education and Outreach Programs

- **Actions initiated prior to MRP effective date (December 2009)**

Public Education and Outreach was limited prior to December 2009.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City of Los Altos participates in several regional programs to effectively complete public education and outreach. The following list provides a list of jurisdictions-wide public education and outreach programs:

- ❖ The City actively participates in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). The SCVURPPP conducts media campaigns advertising anti-littering promotion and education in television, transit, radio and other media.
- ❖ The City of Los Altos participates in the Palo Alto Regional Water Quality Control Plan program to conduct waste reduction and anti-littering to schools in City of Los Altos.
- ❖ The City of Los Altos participates in the BASMAA Regional Media Relations Project called the Youth Outreach Campaign to raise awareness about litter and stormwater pollution issues. Partnerships with schools increase public awareness and engage youth in reducing trash. Additionally, a campaign that is used for educating youth regarding anti-littering called BeTheStreet has been initiated and expanded using social media such as Facebook to continue to educate youth on anti-littering.
- ❖ All public schools in Los Altos have recycling programs.
- ❖ Recently, the Los Altos High School was awarded a Green Star Award for Outstanding School of 2012 at the 2012 Bay Area Schools Environmental Conference.
- ❖ Through the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) the county-wide ZunZun Program continues anti-littering education and outreach to elementary schools
- ❖ Staff participates in a regional zero litter initiative (ZLI) and collaborates with the hauler in multi-jurisdictional program.
- ❖ Los Altos Green Town, a volunteer group known works actively with the City's Environmental Commission to complete public education.
- ❖ The City of Los Altos participated in the BASMAA Be the Street anti-littering campaign.

- **Actions planned for future implementation between July 2014 and July 2022**

The City of Los Altos will continue to participate in the public education programs listed in this section.

Reusable Bag Ordinance

- **Actions initiated prior to MRP effective date (December 2009)**

A Reusable Bag Ordinance was not in place prior to the MRP effective date (December 2009).

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

A Reusable Bag Ordinance was unanimously adopted by the City of Los Altos Council on March 12, 2013, with an effective date of July 4, 2013. Additionally, on March 26, 2013, the City Council approved \$10,000 for an Outreach Plan for the purpose of educating the public about the reusable bag ordinance. The ordinance prohibits retail establishments from providing plastic, single use carry out bags to customers. On or before December 31, 2014, retail establishments may only make recycled content paper bags or reusable bags available to customers if the retail establishment charges a minimum of ten cents (\$0.10) per bag. The Outreach Plan included providing free reusable bags, educational mailings to residents and businesses, newspaper articles, information provided at Farmers Market, coordination with the waste/recycling hauler to produce an educational bill insert, commercial and residential meetings and workshops, and the development of a web page.

- **Actions planned for future implementation between July 2014 and July 2022**

The City of Los Altos requires that on or before December 31 2014, retail establishments may only make recycled content paper bags or reusable bags available to customers if the retail establishment charges a minimum of ten cents (\$0.10) per bag. Additionally, after January 1, 2015, retail establishments may only make recycled content paper bags or reusable bags available to customers if the retail establishment charges a minimum of twenty-five cents (\$0.25) per bag. Enforcement of the reusable bag ordinance will continue by the City's code enforcement officer. Additionally, ongoing outreach and education will continue by the City and its hauler.

Polystyrene (EPS) Food Service ware Ban Ordinance

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), the City of Los Altos had not adopted an ordinance to ban EPS.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

An EPS Food Service ware Ban Ordinance was considered by the City of Los Altos Council on December 10, 2013. Council requested additional information to expand the ban and requested staff return to council with this information on January 14, 2014. The EPS ban ordinance was adopted at the January 28, 2014 City Council meeting with an effective date of July 4, 2014.

- **Actions planned for future implementation between July 2014 and July 2022**

Enforcement of the EPS ordinance will be completed by the City's code enforcement officer. Outreach and education will be completed by the City and its hauler.

5.2.2 Trash Management Area #1 El Camino Real

This Trash Management Area (TMA) is the top priority area and is comprised of a thoroughfare with a commercial area with trash sources from bus stops and uncovered loads. The City of Los Altos' approach to reducing trash includes enhanced street sweeping activities to reduce trash from uncovered loads, and improved trash bin/container management activities. The City has an existing maintenance agreement with CalTrans to complete street sweeping and the City will coordinate with CalTrans on the maintenance agreement.

Enhanced Street Sweeping

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), street sweeping was completed two times per month.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City has an existing maintenance agreement with CalTrans to complete street sweeping.

- **Actions planned for future implementation between July 2014 and July 2022**

The City will coordinate with Caltrans regarding the maintenance agreement. Staff will complete assessments and consider changes as necessary.

Activities to Reduce Trash from Uncovered Loads

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), the City of Los Altos had not adopted an ordinance or other control measures to reduce trash from vehicles with uncovered loads.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City of Los Altos enhanced implementation of this control measure and added new requirements in their franchise agreement with their hauler to reduce trash from

uncovered loads. In March 2010, the City of Los Altos included requirements for their franchised trash/recycling hauler to cover their loads, or incur liquidated damages for non-compliance. The hauling company now has equipped all their waste and recycling trucks with mechanical covers to cover the loads while in transit.

- **Actions planned for future implementation between July 2014 and July 2022**

Staff will conduct visual assessments in this TMA and continue to meet with the garbage and recycling hauler to discuss methods to reduce trash from bins, and trucks that are hauling garbage and recyclables as necessary.

Enhanced Storm Drain Inlet Maintenance

- **Actions initiated prior to MRP effective date (December 2009)**

Limited storm drain inlet maintenance took place prior to the MRP effective date (December 2009).

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City's goal is to complete maintenance of each of the 1,350 storm drain inlets and maintain each inlet annually. It is the City staff's goal to clean and maintain all of the storm inlets in the City prior to the rainy season.

- **Actions planned for future implementation between July 2014 and July 2022**

The City of Los Altos will continue the enhanced inlet maintenance.

Improved Trash Bin/Container Management Activities

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), the City of Los Altos had not included control measures to improve trash bin/container management activities.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City enhanced implementation of this control measure with a coordinated effort with the garbage hauler in 2010 to identify businesses that have inadequate trash/recycling service which results in trash that falls, or is left outside the containers. A recent example of this control measure implementation occurred when staff met with the hauler and the property manager on December 9, 2013 to discuss ways to improve trash left on the ground at a location on El Camino Real. The result was a decision to correct the issue by switching out a large container for two smaller ones to enable easier access to closing the bin lids (and reduce trash falling or blowing out of the container).

- **Actions planned for future implementation between July 2014 and July 2022**

Staff will conduct visual assessments in this TMA and continue to meet with their garbage and recycling hauler to discuss methods to improve bin container management as necessary.

Anti-littering and Illegal Dumping Enforcement Activities

- **Actions initiated prior to MRP effective date (December 2009)**

Activities for anti-littering were limited prior to the MRP effective date (December 2009).

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City has sent warning letters to commercial establishments. City staff will continue to work with their hauler to reduce overflowing containers that can encourage illegal dumping.

- **Actions planned for future implementation between July 2014 and July 2022**

The City will conduct visual assessments in this TMA to consider if additional methods to reduce litter and illegal dumping are necessary.

On-land Trash Cleanups

- **Actions initiated prior to MRP effective date (December 2009)**

Minimal on-land trash cleanups occurred prior to the MRP effective date (December 2009).

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

City staff conducts on-land cleanups in the Downtown area every day, Monday through Friday.

- **Actions planned for future implementation between July 2014 and July 2022**

City staff will continue to conduct on-land cleanups Monday through Friday and assess if additional actions are necessary.

5.2.3 Trash Management Area #2 Downtown/South San Antonio Road

This Trash Management Area (TMA) is the second priority area and is comprised of the downtown/commercial area with trash sources from uncovered loads. The City of Los Altos' approach to reducing trash includes installation of a full-capture treatment device, activities to reduce trash from uncovered loads, improved trash bin/container management activities, enhanced street sweeping, public outreach and education as described below.

Installation of a Full-Capture Treatment Device

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), the City of Los Altos had not installed a Full-Capture Treatment Device (FCTD).

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

A Full-Capture Treatment Device (FCTD) was installed in this TMA on View Street between Edith and Mt. Hamilton Avenues in October 2012. The CDs model number is S5640-20 & Bypass Vault 451066-01 & 02. The total area by the FCTD is 75 acres (Commercial areas in Downtown and areas adjacent and part of South San Antonio Road.) The City was only required to treat 30% of the retail/commercial area (20 acres) with the FCTD. However, the FCTD performs full capture of 41 acres and it partially captures an additional 34 acres. Therefore, the City of Los Altos significantly exceeded the MRP requirements with regard to the treatment area.

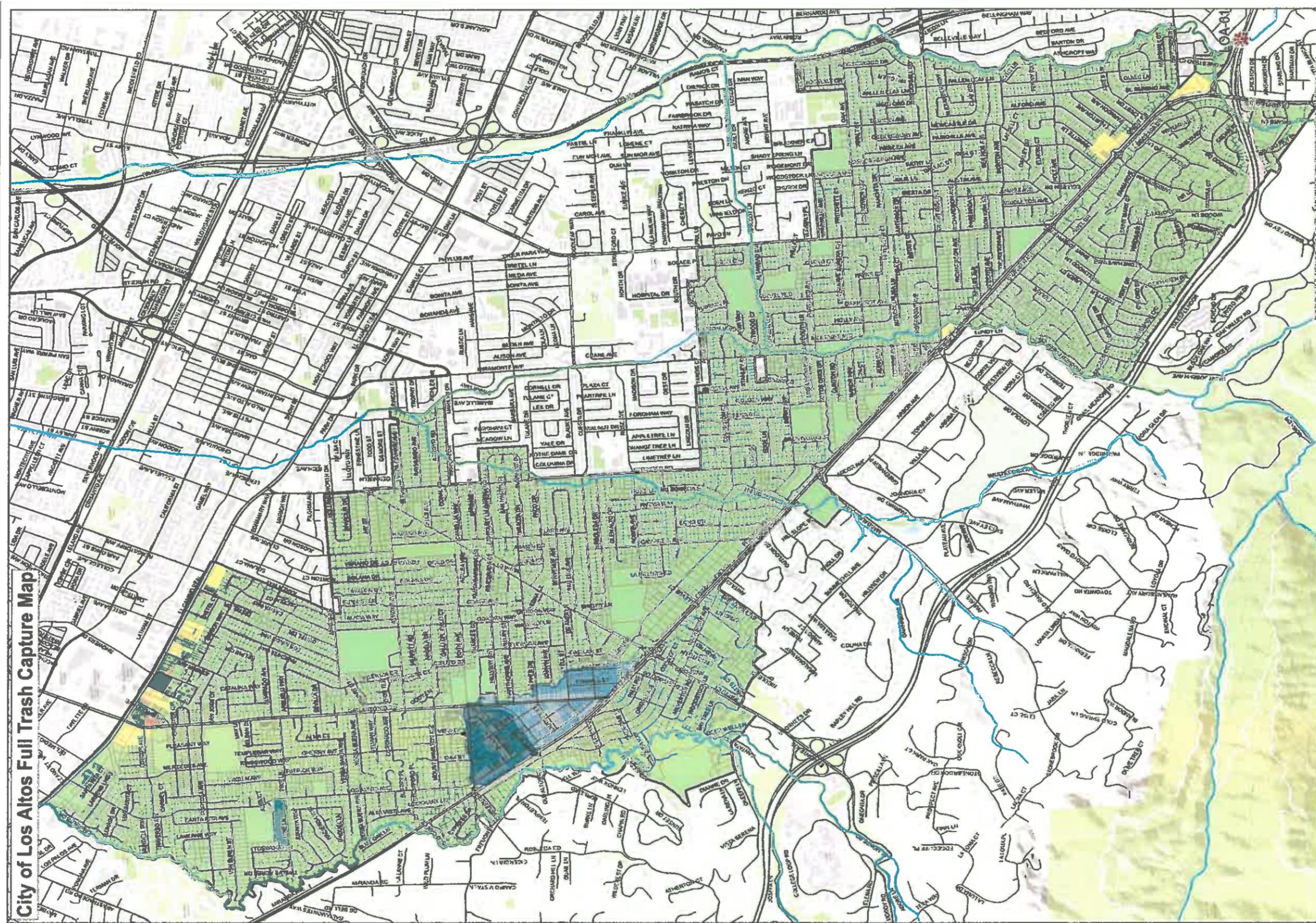
The following is summary of the maintenance activities conducted for the FCTD:

- ✓ The City has not experienced any issues regarding vandalism, flooding or device failure.
- ✓ After installation, the CDS' first inspection and cleaning was in June 2013 when staff removed 115.5 cubic feet of sediment, leaves and plastic bottles.
- ✓ To date, the sediment and debris has been extracted during the June and October 2013 inspections. City staff does not see the need to clean the CDS unit during the other months to extract sediment or debris, but will keep inspecting the unit monthly.

- **Actions planned for future implementation between July 2014 and July 2022**

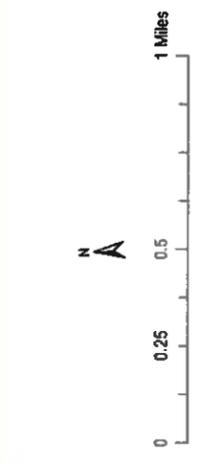
Staff will continue to inspect the FCTD monthly to maximize its effectiveness in reducing trash.

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City of Los Altos Full Trash Capture Map

Data Sources:
 Streets: Santa Clara County
 Roads: Santa Clara County
 City Boundary: Santa Clara County
 Background: ESRI World Topographic Map
 Map Created By:
 EOK, Inc
 Date:
 December 12th, 2013



Legend

Creek/Shoreline Hotspot	Streets
Full-Capture Location	Agency Boundary
Partial Trash Capture	Creeks
Full Trash Capture	Parcel Boundary
Low	Non-Jurisdictional (Dot color = Generation Category)
Medium	
High	
Very High	

Figure 8. Trash Full Capture Device Map for the City of Los Altos.

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Enhanced Street Sweeping

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), street sweeping was completed two times per month.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

Street sweeping was enhanced and increased to two times per week in this TMA. Additionally, during the fall and heavy leaf season, street sweeping service is doubled to four times per week in this TMA.

- **Actions planned for future implementation between July 2014 and July 2022**

Enhance street sweeping will continue to be completed two times per week in this TMA. Street sweeping service will continue to be doubled to four times per week during the fall and heavy leaf season. Staff will conduct assessments to determine the need for additional sweeping services.

Enhanced Storm Drain Inlet Maintenance

- **Actions initiated prior to MRP effective date (December 2009)**

Limited storm drain inlet maintenance took place prior to the MRP effective date (December 2009).

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City's goal is to complete maintenance of each of the 1,350 storm drain inlets and maintain each inlet annually. It is the City staff's goal to clean and maintain all of the storm inlets in the City prior to the rainy season.

- **Actions planned for future implementation between July 2014 and July 2022**

The City of Los Altos will continue the enhanced storm drain inlet maintenance.

Activities to Reduce Trash from Uncovered Loads

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), the City of Los Altos had not adopted an ordinance or other control measures to reduce trash from vehicles with uncovered loads.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City of Los Altos enhanced implementation of this control measure and added new requirements in their franchise agreement with their hauler to reduce trash from uncovered loads. In March 2010, the City of Los Altos included requirements for their franchised trash/recycling hauler to cover their loads or incur liquidated damages for non-compliance. The hauling company now has equipped all their waste and recycling trucks with mechanical covers to cover the loads while in transit.

- **Actions planned for future implementation between July 2014 and July 2022**

Staff will conduct visual assessments and meet with their garbage and recycling hauler to discuss methods to reduce trash from bins as necessary.

Improved Trash Bin/Container Management Activities

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), the City of Los Altos had not included control measures to improve trash bin/container management activities.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City of Los Altos enhanced implementation of this control measure by implementing a coordinated effort with their garbage/recycling hauler to identify businesses that have inadequate trash or recycling service which could result in trash that falls, or is left outside the trash containers. For example, City staff met with their hauler and a property manager on December 9, 2013 to discuss methods to improve trash problems in this TMA area, specifically on a property on El Camino Real. The result was a decision to correct the issue by switching out a large container for two smaller ones to enable easier access to closing the bin lids (and reduce trash falling or blowing out of the container).

- **Actions planned for future implementation between July 2014 and July 2022**

Staff will conduct visual assessments and meet with the garbage and recycling hauler to discuss methods to reduce trash from this TMA as necessary.

5.2.4 Trash Management Area #3 Commercial 3A-3C

This Trash Management Area (TMA) is third priority area and is comprised of a commercial area with trash sources from overflowing or uncovered trash containers, uncovered loads and other sources. The City of Los Altos' approach to reducing trash includes implementation of activities to reduce trash from uncovered loads, improved trash bin/container management activities, enhanced street sweeping, public outreach and education and other control measures as described below.

Enhanced Street Sweeping

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), street sweeping was completed by the City with one street sweeper truck that would break down frequently.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

Street sweeping was contracted out, enhanced, and increased to two times per week in this TMA and other commercial areas. Additionally, during the fall and heavy leaf season, street sweeping service is doubled to four times per week in this TMA and other commercial areas.

- **Actions planned for future implementation between July 2014 and July 2022**

Enhance street sweeping will continue to be completed two times per week in this TMA. Street sweeping service will continue to be doubled to four times per week during the fall and heavy leaf season. Staff will conduct visual assessment and evaluate the need for additional sweeping services.

Activities to Reduce Trash from Uncovered Loads

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), the City of Los Altos had not adopted an ordinance or other control measures to reduce trash from vehicles with uncovered loads.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City of Los Altos enhanced implementation of this control measure and added new requirements in their franchise agreement with their hauler to reduce trash from uncovered loads. In March 2010, the City of Los Altos included requirements for their franchised trash/recycling hauler to cover their loads or incur liquidated damages for non-compliance. The hauling company now has equipped all their waste and recycling trucks with mechanical covers to cover the loads while in transit.

- **Actions planned for future implementation between July 2014 and July 2022**

Staff will conduct visual assessments in this TMA and continue to meet with the garbage and recycling hauler to reduce trash from uncovered loads as necessary.

Enhanced Storm Drain Inlet Maintenance

- **Actions initiated prior to MRP effective date (December 2009)**

Limited storm drain inlet maintenance took place prior to the MRP effective date (December 2009).

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City's goal is to complete maintenance of each of the 1,350 storm drain inlets and maintain each inlet annually. It is the City staff's goal to clean and maintain all of the storm inlets in the City prior to the rainy season.

- **Actions planned for future implementation between July 2014 and July 2022**

The City of Los Altos will continue the enhanced inlet maintenance.

Improved Trash Bin/Container Management Activities

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), the City of Los Altos had not included control measures to improve trash bin/container management activities.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City of Los Altos enhanced implementation of this control measure by a implementing a coordinated effort with their garbage/recycling hauler to identify businesses that have inadequate trash or recycling service which could result in trash that falls, or is left outside the trash containers.

- **Actions planned for future implementation between July 2014 and July 2022**

Staff will conduct assessments and meet with the garbage hauler to discuss methods to reduce trash from this TMA as necessary.

5.2.5 Trash Management Area #4 Public Schools

This Trash Management Area (TMA) is outside the jurisdiction of the City because these are public schools. The TMA is managed by the Los Altos School District. City staff completed visual assessments of the public schools on November 25, 2013 and this TMA was designated and modified from yellow to green.

5.2.6 Trash Management Area #5 Green Areas not included in other TMAs

This Trash Management Area (TMA) is the fifth priority area and is comprised of green areas with low trash sources from litter and illegal dumping. This TMA is designated as a green area and no additional control measures are planned. The City's approach to reducing trash includes on land trash clean-ups, activities to reduce trash from uncovered loads, improved trash

bin/container management activities, enhanced street sweeping, public outreach and education as described below.

On-land Trash Cleanups

- **Actions initiated prior to MRP effective date (December 2009)**

On-land Trash Cleanups occurred on a limited basis prior to the MRP effective date (December 2009).

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

Stevens Creek is the City's hotspot and Clean ups occur on a portion of Stevens Creek once per year. The most recent Cleanup occurred on January 29, 2013 where 0.927 cubic yards of trash were removed. The dominant types of trash were plastic bags, plastic and glass bottles, spray paint cans, EPS, sport balls, wood debris, furniture and scrap metal.

- **Actions planned for future implementation between July 2014 and July 2022**

Trash cleanup will occur by city staff. Staff will use assessments to determine if additional measures are necessary.

Enhanced Street Sweeping

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), street sweeping was completed by the City with one street sweeper truck that would break down frequently.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

Street sweeping was enhanced and increased to one time per month in this TMA and other residential areas. Additionally, during the fall and heavy leaf season, street sweeping service is doubled to two times per month in this TMA.

- **Actions planned for future implementation between July 2014 and July 2022**

Enhance street sweeping will continue to be completed one time per month in this TMA. Street sweeping service will continue to be doubled to two times per month during the fall and heavy leaf season. Staff will use assessments to determine if additional sweeping services as necessary.

Activities to Reduce Trash from Uncovered Loads

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), the City of Los Altos had not adopted an ordinance or other control measures to reduce trash from vehicles with uncovered loads.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City of Los Altos enhanced implementation of this control measure and added new requirements in their franchise agreement with their hauler to reduce trash from uncovered loads. In March 2010, the City of Los Altos included requirements for their franchised trash/recycling hauler to cover their loads or incur liquidated damages for non-compliance. The hauling company now has equipped all their waste and recycling trucks with mechanical covers to cover the loads while in transit.

- **Actions planned for future implementation between July 2014 and July 2022**

Staff will conduct assessments and meet with the garbage hauler to discuss methods to reduce trash from bins as necessary.

Improved Trash Bin/Container Management Activities

- **Actions initiated prior to MRP effective date (December 2009)**

Prior to the MRP effective date (December 2009), the City of Los Altos had not included control measures to improve trash bin/container management activities.

- **Actions initiated after the MRP effective date (December 2009) and implemented prior to July 1, 2014**

The City of Los Altos enhanced implementation of this control measure by a implementing a coordinated effort with their garbage/recycling hauler to identify businesses that have inadequate trash or recycling service which could result in trash that falls, or is left outside the trash containers.

- **Actions planned for future implementation between July 2014 and July 2022**

Staff will conduct assessments and meet with the garbage hauler to discuss methods to reduce trash from this TMA as necessary.

5.2.7 Trash Management Area #6 Foothill Expressway

This Trash Management Area (TMA) is not in the City's jurisdiction. This TMA is in the County's jurisdiction and is therefore their responsibility. This TMA is comprised of an expressway with low trash sources from moving vehicles. The City will collaborate with the County by identifying specific areas that need the County's attention to reduce trash in this TMA. Please see the County's LTTRP for their control measures for this TMA.

5.2.8 Trash Management Area #7 Highway 280

This Trash Management Area (TMA) is not within the City's jurisdiction. This TMA is the jurisdiction of Caltrans and is therefore the responsibility of Caltrans. The City will collaborate with Caltrans. This TMA is comprised of Highway 280 corridor with trash sources from overflowing or uncovered trash containers.

5.2.9 Creek and Shoreline Hot Spots Cleanups

The following provides the City of Los Altos details regarding Creek Hot Spot Cleanups:

- There were no planned clean ups for the portion of Steven's Creek in the City prior to the MRP.
- The City of Los Altos completes annual creek clean ups at a portion of Stevens Creek and the dominant source of trash is litter.
- The amount of trash removed in FY 2012-13 was 0.927 cubic yards, for FY 2011-12 it was 0.746 cubic yards, and in FY 2010-11, it was 1.891 cubic yards.

5.3 Control Measure Implementation Schedule

The following Table 8 provides the detailed time schedule for control measure implementation.

The City of Los Altos' Long-Term Plan's control measures that are currently being implemented, or will be implemented will achieve the 70% trash load reduction target by July 1, 2017, and no adverse impacts associated with trash discharged from the City's MS4 by July 1, 2022.

Table 8. City of Los Altos trash control measure implementation schedule.

Trash Management Area and Control Measures	Pre-MRP	Short-Term						Long-Term									
		FY 2009-2010	FY 2010-2011	FY 2011-2012	FY 2012-2013	FY 2013-2014 ^a	FY 2014-2015	FY 2015-2016	FY 2016-2017 ^b	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022 ^c			
Jurisdiction-wide Control Measures																	
Public Education and Outreach Programs		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X
Reusable Bag Ordinance					X	X	X	X	X	X	X	X	X	X	X	X	X
EPS Ban Ordinance						X	X	X	X	X	X	X	X	X	X	X	X
TMA #1 El Camino Real																	
Enhanced street sweeping				X	X	X	X	X	X	X	X	X	X	X	X	X	X
Activities to reduce trash from uncovered loads				X	X	X	X	X	X	X	X	X	X	X	X	X	X
Improved bin/container management activities					X	X	X	X	X	X	X	X	X	X	X	X	X
Anti-littering/illegal dumping enforcement activities				X	X	X	X	X	X	X	X	X	X	X	X	X	X
Enhanced storm drain inlet maintenance					X	X	X	X	X	X	X	X	X	X	X	X	X
TMA #2 Downtown/South San Antonio Road																	
Installation of Full Capture Treatment Device		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X
Enhanced street sweeping				X	X	X	X	X	X	X	X	X	X	X	X	X	X
On-land trash cleanups					X	X	X	X	X	X	X	X	X	X	X	X	X
Activities to reduce trash from uncovered loads				X	X	X	X	X	X	X	X	X	X	X	X	X	X
Improved bin/container management activities				X	X	X	X	X	X	X	X	X	X	X	X	X	X
Enhanced storm drain inlet maintenance					X	X	X	X	X	X	X	X	X	X	X	X	X

Trash Management Area and Control Measures	Pre-MRP	Short-Term					Long-Term										
		FY 2009-2010	FY 2010-2011	FY 2011-2012	FY 2012-2013	FY 2013-2014 ^a	FY 2014-2015	FY 2015-2016	FY 2016-2017 ^b	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022 ^c			
TMA #3 Commercial Areas 3A-3C																	
Enhanced street sweeping			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Activities to reduce trash from uncovered loads			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Improved bin/container management activities			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Enhanced storm drain inlet maintenance																	
TMA #4 Public Schools (Not in City's jurisdiction)																	
TMA #5 Green Areas not in other TMAs																	
Enhanced street sweeping			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Activities to reduce trash from uncovered loads			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Improved bin/container management activities																	
Enhanced storm drain inlet maintenance																	
TMA #6 Foothill Expy (not in City's jurisdiction)																	
TMA #7 Highway 280 (not in City's jurisdiction)																	

^a July 1, 2014 40% trash reduction target

^b July 1, 2014 70% trash reduction target

^c July 1, 2022 no adverse impacts associated with trash discharged from the City's MS4

6.0 PROGRESS ASSESSMENT STRATEGY

Provision C.10.a.ii of the MRP requires Permittees to develop and implement a trash load reduction tracking method that will be used to account for trash load reduction actions and to demonstrate progress and attainment of trash load reduction targets. Early into the MRP, Permittees decided to work collaboratively to develop a trash load reduction tracking method through the Bay Area Stormwater Management Agencies Association (BASMAA). Permittees, Water Board staff and other stakeholders assisted in developing Version 1.0 of the tracking method. On behalf of all MRP Permittees, the Bay Area Stormwater Management Agencies Association (BASMAA) submitted Version 1.0 to the Water Board on February 1, 2012.

The Trash Assessment Strategy (Strategy) described in this section is intended to serve as Version 2.0 of the trash tracking method and replace version 1.0 previously submitted to the Water Board. The Strategy is specific to Permittees participating in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), including the City of Los Altos. The City intends to implement the Strategy in phases and at multiple geographical scales (i.e., jurisdiction-wide and trash management area) in collaboration with SCVURPPP. Pilot implementation is scheduled for the near-term and as assessment methods are tested and refined, the Strategy will be adapted into a longer-term approach. The Strategy selected by the City is described in the following sections.

6.1 SCVURPPP Pilot Assessment Strategy

The following SCVURPPP Pilot Trash Assessment Strategy (SCVURPPP Pilot Strategy) was developed by SCVURPPP on behalf of the City and other Santa Clara Valley Permittees. The SCVURPPP Pilot Strategy will be implemented at a pilot scale on a countywide basis and includes measurements and observations in the City of Los Altos.

6.1.1 Management Questions

The SCVURPPP Pilot Strategy is intended to answer the following core management questions over time as trash control measures outlined in section 3.0 are implemented and refined:

- Are the MS4 trash load reduction targets being achieved?
- Are there trash problems in receiving waters (e.g. creeks and rivers)?
- If trash problems in receiving waters exist, what are the important sources and transport pathways?

The SCVURPPP Pilot Strategy, including indicators and methods, is summarized in this section and fully described in the SCVURPPP Pilot Trash Assessment Strategy, a compendium document submitted to the Water Board on February 1, 2014 on behalf of all SCVURPPP Permittees (SCVURPPP 2014).

6.1.2 Indicators of Progress and Success

The management questions listed in the previous section will be addressed by tracking information and collecting data needed to report on a set of key environmental indicators. Environmental indicators are simple measures that communicate what is happening in the environment. Since trash in the environment is very complex, indicators provide a more practical

and economical way to track the state of the environment than if we attempted to record every possible variable.

With regard to municipal stormwater trash management, indicators are intended to detect progress towards trash load reduction targets and solving trash problems. Ideally, indicators should be robust and able to detect progress that is attributable to multiple types of trash control measure implementation scenarios. Assessment results should also provide Permittees with an adequate level of confidence that trash load reductions from MS4s have occurred, while also assessing whether trash problems in receiving waters have been resolved. Indicators must also be cost effective, relatively easy to generate, and understandable to stakeholders.

Primary and secondary indicators that SCVURPPP Permittees will use to answer core management questions include:

Primary Indicators:

- 1-A Reduction in the level of trash present on-land and available to MS4s
- 1-B Effective full capture device operation and maintenance

Secondary Indicators:

- 2-A Successful levels of trash control measures implementation
- 2-B Reductions in the amount of trash in receiving waters

In selecting the indicators above, the City of Los Altos in collaboration with SCVURPPP and other SCVURPPP Permittees recognize that no one environmental indicator will provide the information necessary to effectively determine progress made in reducing trash discharged from MS4s and improvements in the level of trash in receiving waters. Multiple indicators were therefore selected.

The ultimate goal of municipal stormwater trash reduction strategies is to reduce the impacts of trash associated with MS4s on receiving waters. Indicators selected to assess progress towards this goal should ideally measure outcomes (e.g., reductions in trash discharged). The primary indicators selected by SCVURPPP are outcome-based and include those that are directly related to MS4 discharges. Secondary indicators are outcome or output-based and are intended to provide additional perspective on and evidence of, successful trash control measure implementation and improvements in receiving water condition with regard to trash.

As described in Section 2.2, trash is transported to receiving waters from pathways other than MS4s, which may confound our ability to observe MS4-associated reductions in creeks and shorelines. Due to this challenge of linking MS4 control measure implementation to receiving water conditions, the receiving water based indicator is currently considered a secondary indicator. Evaluations of data on the amount of trash in receiving waters that are conducted over time through the Pilot Assessment Strategy will assist the City in further determinations of the important sources and pathways causing problems in local creeks, rivers and shorelines.

6.1.3 Pilot Assessment Methods

This section briefly summarizes the preliminary assessment methods that the City of Los Altos will implement through the SCVURPPP Pilot Strategy to generate indicator information described in the previous section. Additional information on each method can be found in the

SCVURPPP Pilot Trash Assessment Strategy submitted to the Water Board by SCVURPPP on behalf of the City.

1-A. On-land Visual Assessments

As part of the Trash Generation Map assessment and refinement process (see Section 2.3.1), a draft on-land visual assessment method was developed to assist Permittees in confirming and refining trash generating area designations (i.e., very high, high, moderate and low trash generating categories). The draft on-land visual assessment method is intended to be a cost-effective tool and provide Permittees with a viable alternative to quantifying the level of trash discharged from MS4s. As part of BASMAA's *Tracking California's Trash* grant received from the State Water Resources Control Board (see Section 4.2), quantitative relationships between trash loading from MS4s and on-land visual assessment condition categories will be established. Condition categories defined in the draft on-land assessment protocol are listed in Table 9.

Table 9. Trash condition categories used in the draft on-land visual assessment protocol.

Trash Condition Category	Summary Definition
A (Low)	Effectively no trash is observed in the assessment area.
B (Moderate)	Predominantly free of trash except for a few pieces that are easily observed.
C (High)	Trash is widely/evenly distributed and/or small accumulations are visible on the street, sidewalks, or inlets.
D (Very High)	Trash is continuously seen throughout the assessment area, with large piles and a strong impression of lack of concern for litter in the area.

On-land visual assessments will be conducted in trash management areas within the City of Los Altos as part of the SCVURPPP Pilot Trash Assessment Strategy. On-land assessments are intended to establish initial conditions and detect improvements in the level of trash available to MS4s over time. More specifically, on-land visual assessment methods will be conducted in areas not treated by trash full capture devices in an attempt to evaluate reductions associated with other types of control measures. Assessment methods for areas treated by full capture devices are described in this next section.

Given that the on-land assessment method and associated protocol have not been fully tested and refined, initial assessments will occur at a pilot scale in the City and in parallel to the *Tracking California's Trash* project. The frequency of assessments and number of sites where assessments will occur during the pilot stage are more fully described in the SCVURPPP Pilot Trash Assessment Strategy (SCVURPPP 2014)

1-B. Full Capture Operation and Maintenance Verification

Consistent with the MRP, adequate inspection and maintenance of trash full capture devices is required to maintain full capture designation by the Water Board. The City of Los Altos is currently developing an operation and maintenance verification program (Trash O&M Verification Program), via SCVURPPP, to ensure that devices are inspected and maintained at a level that maintains this designation.

The SCVURPPP Trash O&M Verification Program will be modeled on the current O&M verification program for stormwater treatment controls implemented consistent with the Permit new and redevelopment requirements. Additional details regarding the Trash O&M Verification Program can be found in the SCVURPPP Pilot Trash Assessment Strategy (SCVURPPP 2014).

2-A. Control Measure Effectiveness Evaluations

In addition to on-land trash assessments and full capture operation and maintenance verification, the City will also conduct assessments of trash control measures implemented within their jurisdictional area. Assessment methods will be selected based on trash sources and the type of control measure being implemented. Control measure effectiveness evaluations are more fully described in the SCVURPPP Pilot Trash Assessment Strategy. The following are example assessment methods that may be used to demonstrate successful control measure implementation and progress towards trash reduction targets:

- Product-related Ordinances – Descriptions of outreach efforts, tracking and reporting compliance rates, or other metrics of control measure performance..
- Street Sweeping – Identification of sweeping frequency and the ability to sweep to the curb by primary TMA, including any enhancements that have been implemented; and any other metrics demonstrating the enhanced performance of street sweeping.
- Public/Private Trash Container Management – Descriptions of control measures implemented to prevent overflowing trash containers or promoting the more effective use of bins, including any new or enhancements to existing actions, and any metrics demonstrating the performance of the control measure.
- Public Outreach and Education – Description of outreach and education actions specific to trash reduction, including the number of events conducted, effectiveness measures, and results of pre and post implementation surveys or other metrics.
- On-land Cleanups and Enforcement – Description of on land clean up actions, and enhancements, identification of whether clean ups are permittee or volunteer led, or other metrics of performance.
- Storm Drain Inlet Maintenance – Description of maintenance level, enhancements to maintenance frequency, the number on inlets where enhanced maintenance is implemented, and other metrics to determine performance.
- Anti-littering and Illegal Dumping Prevention/Enforcement – Description of control measures to prevent littering and illegal dumping, including enhanced enforcement actions.
- Prevention of Uncovered Loads – Description of measures to prevent trash dispersion from uncovered loads and any new enhanced actions.

- Partial Capture Devices – Descriptions, numbers and types of devices implemented, maintenance frequencies by device or groups and other metrics to determine performance of partial capture devices.
- Other Control Measures – Descriptions of control measures implemented to prevent or intercept trash before discharge to receiving waters, and any metrics demonstrating performance of the control measure.

2-C. Receiving Water Condition Assessments

The ultimate goal of stormwater trash management in the Bay Area is to significantly reduce the amount of trash found in receiving waters. In the last decade, Santa Clara Valley Permittees and volunteers have collected data on the amounts of trash removed during cleanup events. More recently, Permittees have conducted trash assessments in creek and shoreline hotspots using standardized assessment methods. In an effort to answer the core management question *Have trash problems in receiving waters been resolved?*, the City of Los Altos plans to continue conducting receiving water condition assessments at trash hot spots a minimum of one time per year. Assessment will be conducted consistent with Permit hot spot cleanup and assessment requirements. Additional information on receiving water assessment methods can be found in the SCVURPPP Pilot Trash Assessment Strategy (SCVURPPP 2014).

6.2 BASMAA “Tracking California’s Trash” Project

The SCVURPPP Pilot Assessment Strategy described in the previous section recognizes that outcome-based trash assessment methods needed to assess progress toward trash reduction targets are not well established by the scientific community. In an effort to address these information gaps associated with trash assessment methods, the Bay Area Stormwater Management Agencies Association (BASMAA), in collaboration with SCVURPPP, the 5 Gyres Institute, San Francisco Estuary Partnership, the City of Los Angeles, and other stormwater programs in the Bay Area, developed the *Tracking California’s Trash* Project. The Project is funded through a Proposition 84 grant awarded to BASMAA by the State Water Resources Control Board (SWRCB) who recognized the need for standardized trash assessment methods that are robust and cost-effective.

The Project is intended to assist BASMAA member agencies in testing trash assessment and monitoring methods needed to evaluate trash levels in receiving waters, establish control measures that have an equivalent performance to trash full capture devices, and assess progress in trash reduction over time. The following sections provide brief descriptions of tasks that BASMAA will conduct via the three-year Project. Full descriptions of project scopes, deliverables, and outcomes will be developed as part of the task-specific Sampling and Analysis Plans required by the SWRCB during the beginning of the Project. The Project is currently underway and will continue through 2016.

6.2.1 Testing of Trash Monitoring Methods

BASMAA and the 5 Gyres Institute will evaluate the following two types of assessment methods as part of the Project:

- **Trash Flux Monitoring** – Trash flux monitoring is intended quantify the amount of trash flowing in receiving waters under varying hydrological conditions. Flux monitoring will be tested in up to four receiving water bodies in San Francisco Bay and/or the Los Angeles areas. Methods selected for evaluation and monitoring will be based on a literature review conducted during this task and through input from technical advisors and stakeholders. Monitoring is scheduled to begin in 2014 and will be completed in 2016.
- **On-land Visual Assessments** – As part of the Project, BASMAA will also conduct an evaluation of on-land visual assessment methods that are included in the SCVURPPP Pilot Assessment Strategy. The methods are designed to determine the level of trash on streets and public right-of-ways that may be transported to receiving waters via MS4s. BASMAA plans to conduct field work associated with the evaluation of on-land visual assessment at a number of sites throughout the region. To the extent practical, sites where the on-land methods evaluations take place will be coordinated with trash flux monitoring in receiving waters. On-land assessments will occur in areas that drain to trash full capture devices, and all sites will be assessed during wet and dry weather seasons in order to evaluate on-land methods during varying hydrologic conditions. Monitoring is scheduled to begin in 2014 and will be completed in 2016.

6.2.2 Full Capture Equivalent Studies

Through the implementation of BASMAA's *Tracking California's Trash* grant-funded project, a small set of "Full Capture Equivalent" projects will also be conducted in an attempt to demonstrate that specific combinations of control measures will reduce trash to a level equivalent to full capture devices. Initial BMP combinations include high-frequency street sweeping, and enhanced street sweeping with auto-retractable curb inlet screens. Other combinations will also be considered. Studies are scheduled to begin in 2014 and will be completed in 2016.

6.3 Long-Term Assessment Strategy

The City of Los Altos is committed to implementing standardized assessment methods post-2016 based on the lessons learned from pilot assessments and studies that will occur between 2014 and 2016. Assessment activities described in the previous sections will evaluate the utility of different assessment methods to demonstrate progress towards trash reduction targets and provide recommended approaches for long-term implementation. Lessons learned will be submitted to the Water Board with the FY 2015-2016 Annual Report and a revised Strategy will be developed and submitted, if necessary. The revised Strategy will include agreed upon assessment methods that will be used to demonstrate progress during the remaining term of trash reduction requirements. Reporting using the new/revised methods will begin with the FY 2016-17 Annual Report.

6.4 Implementation Schedule

The implementation schedule for the SCVURPPP Pilot Implementation Strategy, BASMAA's *Tracking California's Trash* project, and the Long-Term Assessment Strategy are included in Table 10. Load reduction reporting milestones are also denoted in the table. The schedule is

consistent with the need for near-term pilot assessment results to demonstrate progress toward short-term targets, while acknowledging the need for testing and evaluation of assessment methods and protocols prior to long-term implementation. For more detailed information on implementation timelines, refer to the SCVURPPP Pilot Trash Assessment Strategy (SCVURPPP 2014) and monitoring plans developed as part of BASMAA's Tracking California's Trash project.

Table 10. City of Los Altos trash progress assessment implementation schedule.

Trash Assessment Programs and Methods	Prior to FY 2013-14	Fiscal Year								
		2013-14 ^a	2014-15	2015-16	2016-17 ^b	2017-18	2018-19	2019-20	2020-21	2021-22 ^c
Pilot Trash Assessment Strategy (SCVURPPP)										
On-land Visual Assessments										
Initial (Baseline) Assessments	X									
Pilot Progress Assessments		X	X	X	X					
Full Capture Operation and Maintenance Verification	x	x	X	X	X					
Control Measure Effectiveness Evaluations	X	X	X	X	X					
Receiving Water Condition Assessments	X	X	X	X	X					
Tracking California's Trash Project (BASMAA)										
Testing of Trash Monitoring Methods										
Trash Flux Monitoring Protocol Testing			X	X	X					
On-land Visual Assessment Evaluations			X	X	X					
Full Capture Equivalent Studies			X	X	X					
Long-Term Trash Assessment Strategy (SCVURPPP)						X	X	X	X	X

^aJuly 1, 2014 40% trash reduction target

^bJuly 1, 2014 70% trash reduction target

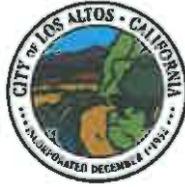
^cJuly 1, 2022 no adverse impacts associated with trash discharged from the City's MS4

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APPENDIX A

STAFF REPORT TO CITY COUNCIL ADOPTING LONG-TERM PLAN



DATE: January 28, 2014

AGENDA ITEM # 6

TO: City Council
FROM: Aida Fairman, Associate Civil Engineer
SUBJECT: Long-Term Trash Load Reduction Plan and Assessment Strategy

RECOMMENDATION:

- A. Accept the Long-Term Trash Load Reduction Plan and Assessment Strategy
 - B. Direct staff to submit the Long-Term Trash Load Reduction Plan and Assessment Strategy to the San Francisco Regional Water Quality Control Board
-

SUMMARY:

Estimated Fiscal Impact:

Amount: None

Budgeted: Not applicable

Public Hearing Notice: None

Previous Council Consideration: December 13, 2011 and January 10, 2012

CEQA Status: Categorically Exempt pursuant to CEQA Section 15061 (b) (3)

Attachment:

1. Long-Term Trash Load Reduction Plan and Assessment Strategy

BACKGROUND

In October 2009, the San Francisco Regional Water Quality Control Board issued a new regional National Pollutant Discharge Elimination System (NPDES) permit to the City of Los Altos and 76 other Bay Area entities for discharge of municipal stormwater to local creeks and San Francisco Bay. This Municipal Regional Permit (MRP) specifies programs and measures to be conducted by local agencies to minimize stormwater pollution over the next five years. One of these programs is the implementation of control measures and other actions by July 1, 2014 to reduce trash loads from municipal storm sewer systems by 40%. The City prepared a Short-Term Trash Load Reduction Plan as directed by City Council on January 10, 2012 and submitted it to the Water Board on February 1, 2012. The Short-Term Trash Load Reduction Plan indicated how the City was intending to achieve the 40% trash load reduction.

The Water Board has further indicated in the MRP they plan to increase this to 70% by 2017 and no adverse impacts associated with trash discharge from the Municipal Separate Storm Sewer (MS4) by 2022.

Under this trash program, the City of Los Altos must prepare a Long-Term Trash Load Reduction Plan and Assessment Strategy Plan and submit it to the Water Board by February 1, 2014.

DISCUSSION

The Long-Term Trash Load Reduction Plan and Assessment Strategy Plan describe control measures and best management practices. This includes trash reduction ordinances that are being implemented and the level of implementation and additional control measures and best management practices that will be implemented, and/or an increased level of implementation. All of which is designed to attain a 70% trash load reduction from its Municipal Separate Storm Sewer (MS4) by July 1, 2017, and no adverse impacts associated with trash discharge from MS4 by July 1, 2022.

The Long-Term Plan was developed using a regionally consistent outline and guidance developed by the Bay Area Stormwater Management Agencies Association (BASMAA) which was reviewed by San Francisco Bay Regional Water Quality Control Board staff. The Long-Term Plan is consistent with the Long-Term Trash Load Reduction Framework developed in collaboration with Water Board staff. Its content is based on the City of Los Altos' current understanding of trash problems within its jurisdiction and the effectiveness of control measures designed to reduce trash impacts associated with MS4 discharges.

The Long-Term Plan is intended to be iterative and may be modified in the future based on the information gained through the implementation of trash control measures. Therefore, the City of Los Altos reserves the right to revise or amend the Long-Term Plan at its discretion. If significant revisions or amendments are made by the City, a revised Long-Term Plan will be submitted to the Water Board through the City's annual reporting process.

January 28, 2014

Long-Term Trash Load Reduction Plan and Assessment Strategy

The City of Los Altos has implemented several control measures that are detailed in the Long-Term Plan. The following list provides highlights of these implemented control measures.

- **Installed a Full-Capture Treatment Device:** A Full-Capture Treatment Device (CDS unit) was installed in October 2012 on View Street north of the Downtown area. The total area treated by the CDS is 75 acres (the commercial areas in downtown and areas adjacent and part of South San Antonio Road.) The City was only required to treat 30% of the retail/commercial area (20 acres) with the full capture device. However, the CDS unit significantly exceeds this requirement and performs full capture of 41 acres and partially captures an additional 34 acres. Therefore, the City of Los Altos exceeded the MRP requirements with regard to the treatment area.
- **Adopted a Reusable Bag Ordinance:** A Reusable Bag Ordinance was unanimously adopted by the City of Los Altos Council on March 12, 2013, with an effective date of July 4, 2013. Additionally, on March 26, 2013, the City Council approved \$10,000 for implementation of an Outreach Plan for educating the public about the reusable ban ordinance. The Reusable Bag ordinance prohibits retail establishments from providing plastic, single use carry-out bags to customers. The Outreach Plan included providing free reusable bags to residents, educational mailings to residents and businesses, development and placement of newspaper outreach/education, information flyers provided at the Farmers' Market, coordination with the waste/recycling hauler to produce an educational bill insert, commercial and residential meetings and workshops, and the development of a web page on the City's website.
- **Activities to Reduce Trash from Uncovered Loads:** The City of Los Altos enhanced implementation of this control measure and added new requirements in their franchise agreement with their hauler to reduce trash from uncovered loads. In March 2010, the City of Los Altos included requirements for its franchised trash/recycling hauler to cover their loads or incur liquidated damages for non-compliance. The hauling company now has equipped all of its waste and recycling trucks with mechanical covers to cover the loads while in transit.
- **Implemented Creek cleanups:** City staff and volunteers continue implementation of the annual creek cleanups at the City of Los Altos hot spot, Stevens Creek.
- **Enhanced On-land Trash Pickup:** City staff continues to perform on-land trash pickups every day, Monday through Friday in the downtown area, City's parks and City's facilities.
- **Enhanced Street Sweeping:** Street sweeping was enhanced and increased to two times per week in commercial areas. Additionally, during the fall and heavy leaf season, street sweeping service is doubled to four times per week in commercial areas. Street sweeping was enhanced and increased to one time per month in

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residential areas. Additionally, during the fall and heavy leaf season, street sweeping service is doubled to two times per month in residential areas.

- **Enhanced Storm Drain Inlet Maintenance:** The City's goal is to complete maintenance of each of the 1,350 storm drain inlets annually. It is the City staff's goal to clean and maintain all of the storm inlets in the City prior to the rainy season.

The City Council will adopt a Polystyrene (EPS) Food Container-ware ban ordinance on January 28, 2014. Also, the City of Los Altos will continue to participate in several regional programs to effectively complete public education and outreach.

The City's control measures are currently effective in meeting trash reduction requirements in the low trash generation rate areas. Further needs will be assessed by the County-wide Program for the trash management areas with medium, high and very high trash generation rates in various jurisdictions, including the City of Los Altos. If significant changes to the Long-Term Trash Load Reduction Plan are required after the assessment in the trash management areas with medium, high and very high trash generation rates is completed by the County-wide Program, it may be necessary for the City Council to appropriate additional funds for that purpose.

FISCAL IMPACT

None

PUBLIC CONTACT

Posting of the meeting agenda serves as notice to the general public.