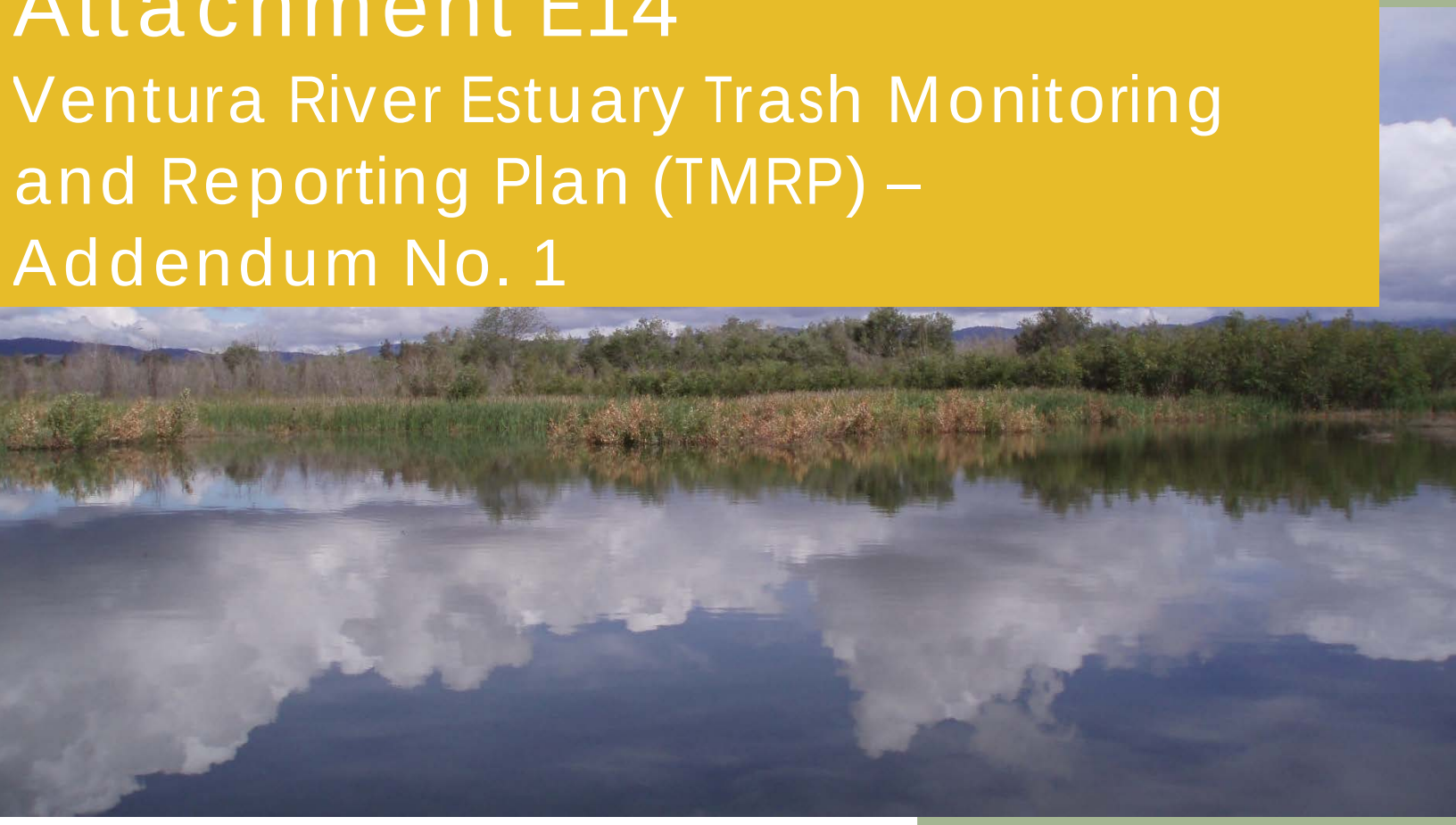
Ventura Countywide Stormwater Quality Management Program

2014-2015 Permit Year

Ventura Countywide Stormwater Quality Management Program Annual Report

Attachment E14

Ventura River Estuary Trash Monitoring and Reporting Plan (TMRP) – Addendum No. 1



Camarillo
County of Ventura
Fillmore
Moorpark
Ojai
Oxnard
Port Hueneme
Santa Paula
Simi Valley
Thousand Oaks
Ventura
Ventura County Watershed Protection District

December 14, 2015

OCTOBER 22, 2014

Ventura River Estuary Trash Monitoring and Reporting Plan (TMRP) – Addendum No. 1

submitted to

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

on behalf of the

CITY OF VENTURA, VENTURA COUNTY, VENTURA COUNTY WATERSHED PROTECTION DISTRICT, CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE, CALIFORNIA DEPARTMENT OF TRANSPORTATION, CALIFORNIA DEPARTMENT OF PARKS AND RECREATION, AND PARTICIPANTS IN VCAILG

LARRY WALKER ASSOCIATES

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Executive Summary

The Responsible Parties to the Ventura River Estuary Trash TMDL have revised the Trash Monitoring and Reporting Plan (TMRP) used to evaluate trash accumulation and cleanup in the Venture River Estuary (Estuary) after receiving approval to do so by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) in October 2013. The Responsible Parties requested permission to revise the TMRP because the original TMPR had demonstrated that a different monitoring approach was necessary to effectively utilize resources and target high priority trash areas in the Estuary as defined in the TMDL (below Main Street). The revised TMRP is structured to more effectively target the disbandment of homeless encampments in the Estuary, which have been determined to be the primary nonpoint source cause of trash accumulation in the area. The revised TMRP and Minimum Frequency of Assessment and Collection/Best Management Practice (MFAC/BMP) Program are designed to prioritize the use of resources to implement actions that have been determined to be effective in reducing trash and the homeless population in the Estuary, while still providing a monitoring approach that will allow for an evaluation of the effectiveness of the MFAC/BMP Program and support identification of any needed adjustments to the Program.

The major changes to the original TMRP include a streamlined assessment of homeless encampments and trash accumulation in the Estuary through quarterly visual surveys of the parcels within the TMDL-defined Estuary and one adjacent, upstream parcel. A patrol route through these parcels has been established that allows for a broader assessment of homeless encampments and trash accumulation throughout the Estuary. The streamlined trash visual surveys use a "level of trash" approach modeled after the Surface Water Ambient Monitoring Program Rapid Trash Assessment Protocol to categorize trash accumulation on a scale from 1 to 3, with Level 1 representing a site that is visually clean and free of trash. Quarterly MFAC (cleanup) events are used to bring areas in the Estuary categorized as Level 2 trash accumulation or greater to a Level 1 status. The MFAC/BMP Program has been expanded to include in-Estuary BMPs that feature regular Estuary patrols and cleanup events that augment the quarterly visual surveys and cleanups performed by the Program. Additionally, the Responsible Parties will conduct regular cleanups or employ additional BMPs in Estuary-adjacent parcels not covered by the quarterly visual surveys and MFAC events.

The Responsible Parties will prepare annual reports that provide a summary of the BMPs employed by the Program, trash visual survey summaries, a description of strategies for TMDL compliance as necessary, and an evaluation of the effectiveness of BMPs and recommended changes to the TMRP and MFAC/BMP Program, as necessary.

Overview

The purpose of this document is to revise and update the Trash Monitoring and Reporting Plan (TMRP), including the Minimum Frequency of Assessment and Collection/Best Management Practice (MFAC/BMP) Program, for the Ventura River Estuary (Estuary) Trash TMDL (Trash TMDL) approved by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) on January 28, 2009. This update is necessary to improve the effectiveness of the Program to more effectively assess trash levels in the Estuary, target actions towards reducing trash quantities, identify high priority trash areas in the Estuary, and better utilize available resources.

Five of the seven Responsible Parties are assigned both point and nonpoint source responsibilities in the Trash TMDL (see **Table 1**). As a result, the original TMRP was developed to cover both point and nonpoint sources of trash and included a proposal for both point and nonpoint sources to comply with the Trash TMDL through a MFAC/BMP Program. Through the initial monitoring carried out by the Responsible Parties, it was determined that the primary source of trash to the Estuary was nonpoint sources (particularly, homeless encampments), and as a result, the trash monitoring results were highly variable and independent of BMPs implemented by the point source Responsible Parties.

Based on these findings, the point source Responsible Parties decided to shift from compliance with the Trash TMDL through the MFAC/BMP Program to compliance through progressive implementation of full capture devices. Given that the point sources are in compliance with the Trash TMDL through the installation of full capture devices, the TMRP monitoring approach is adjusted to focus specifically on nonpoint sources. The current TMRP and MFAC/BMP Program are designed to prioritize the use of resources to implement actions that have been determined to be effective in reducing trash and the homeless population in the Estuary, while still providing a monitoring approach that will allow for an evaluation of the effectiveness of the MFAC/BMP Program and support identification of any needed adjustments to the Program.

This TMRP Addendum No. 1 is written with the intent that all Responsible Parties, as identified in **Table 1**, will jointly participate. A Memorandum of Agreement (MOA) has been prepared that documents the verbal agreement made between all Responsible Parties to jointly satisfy the TMRP and MFAC/BMP Program.

If one or more Responsible Parties chooses to absolve itself from the MOA after submittal of this TMRP, those parties will be removed as a participating Responsible Party within this TMRP Addendum No. 1. At the time of withdrawal, the non-participating Responsible Party shall:

1. Provide a Notice of Termination to the Regional Board and all other participating Responsible Parties;
2. Comply with all Trash TMDL requirements using their own resources;
3. Report directly to the Regional Board for their share of compliance with this Trash TMDL; and
4. Clean and maintain its own parcel.

Table 1: Responsible Parties Participating in this TMRP and MFAC/BMP Program.

Responsible Party	Point Source (PS)[1]	Nonpoint Source (NPS)
City of Ventura	X	X
County of Ventura	X	X
Ventura County Watershed Protection District	X	X
California Department of Food and Agriculture	X	X
Caltrans	X	X[3]
California Department of Parks and Recreation	(2)	X
Participants in VCAILG[4]	(2)	X

1. These Responsible Parties are complying with the point source requirements through installation of certified trash full capture devices on all conveyances discharging to the Ventura River Estuary.
2. These Responsible Parties are not listed as point sources in the Trash TMDL.
3. Caltrans was not given a nonpoint source Load Allocation (LA) in the Trash TMDL and, therefore, is not subject to MFAC requirements.
4. Ventura County Agricultural Irrigated Lands Group.

This TMPR Addendum No. 1 is being submitted on behalf of the Trash TMDL Responsible Parties shown in **Table 1**. **Table 2** summarizes the responsibilities of point and nonpoint sources related to the TMRP Addendum No. 1. As stated above, the Responsible Parties assigned point source responsibilities have chosen to meet the requirements of the Trash TMDL through installation of full capture devices on all conveyances discharging to the Estuary. Responsible Parties may choose to no longer participate in this group TMRP and MFAC/BMP Program at any time, and may choose to individually meet their responsibilities under the Trash TMDL. To ensure that this plan allows for that flexibility, but still ensures that the participating Responsible Parties meet their Trash TMDL requirements, a structure has been developed to assign responsibilities for carrying out the TMRP and MFAC/BMP Program elements in this plan.

If any of the Responsible Parties decides to leave the group, the remaining Responsible Parties will identify the parcel(s) that will no longer be addressed by the group as a result of the entity/entities no longer participating. The group will then notify the Regional Board of the MFAC/BMP Program responsibilities that are not being covered by the group and are now considered to be the responsibility of the non-group member(s). As long as the Responsible Party is participating in the cost-sharing for trash assessment and cleanup, then it will be considered to be in compliance with the Trash TMDL requirements and this plan.

The Trash TMDL requires the following elements to be included in the TMRP and MFAC/BMP Program:

- Collection and disposal of trash at the minimum frequency and sites prescribed in the Basin Plan Amendment (BPA)
- Implementation of a suite of BMPs based on current trash management practices
- Trash Monitoring and Reporting Program
- Health and Safety Plan

Table 2: TMRP Responsibilities.

Implementation Item	Point Source	Nonpoint Source
Trash Monitoring and Reporting Plan	n/a	Perform visual surveys of specified monitoring locations
Minimum Frequency of Assessment and Collection	n/a	Perform trash assessment (visual surveys) and collection at specified frequencies
Best Management Practices	n/a	In-Estuary: Perform regular patrols and trash cleanups as needed Adjacent Lands: Implement variety of trash-reducing BMPs
Reporting Program	Provide full capture device installation report	Provide summary of BMPs Provide trash visual survey summary Describe strategy for TMDL compliance Evaluate effectiveness of BMPs and recommended changes to the TMRP Addendum No. 1 and MFAC/BMP Program, as necessary

The revised TMRP and MFAC/BMP Program modifies the sites and minimum frequency prescribed in the Basin Plan Amendment to better reflect conditions in the Estuary and allow better evaluation of the effectiveness of the proposed BMP program.

This document proposes the following structure for meeting the TMRP responsibilities listed in **Table 2**:

1. Conduct TMRP to identify potential high trash generation areas
2. Prioritize potential high trash generation areas for BMP implementation
3. Conduct MFAC at locations and frequencies to satisfy the requirements prescribed in the TMDL
4. Implement In-Estuary and adjacent lands BMPs
5. Prepare annual monitoring reports that provide the following:
    a. Discussion of the results obtained from the most recent monitoring year and the effectiveness of the MFAC/BMP Program
    b. Plan for implementing BMPs for nonpoint sources
    c. Progress toward implementation of full capture devices at 100% of point source conveyances discharging to the Estuary (required by 2016)
    d. Evaluation of the effectiveness and need for continued implementation of the In-Estuary and adjacent lands BMPs included in the MFAC/BMP Program
    e. Proposed revisions to the TMRP and MFAC/BMP Program, as necessary, based on information collected during the most recent monitoring year

Approach

This section provides an overview of the approach to conducting the monitoring, implementing the MFAC/BMP Program and evaluating the effectiveness of the MFAC/BMP Program to meet the TMDL requirements. Details for implementing the monitoring and MFAC/BMP Program are provided in the remainder of the document along with a summary of the reporting program.

MONITORING APPROACH

For the revised TMRP, a monitoring approach was developed that is consistent with the new MFAC/BMP Program and provides information that can readily be used to evaluate the MFAC/BMP Program and implement modifications to the program, if necessary. The monitoring approach chosen for addressing the TMRP requirements was to develop a consistent trash monitoring protocol ("visual survey") and use it throughout the Estuary at varying site locations and monitoring frequencies to answer specific trash assessment questions with the intent of generating reproducible results that can be compared over time.

The monitoring approach that has been selected for the revised TMRP is a streamlined visual survey of trash levels along a patrol route that extends throughout the Estuary. The patrol route was designed to include historic in-Estuary TMRP monitoring locations in addition to other areas on all parcels of the Estuary to reflect the new MFAC/BMP approach. The visual survey uses a component of the Surface Water Ambient Monitoring Program Rapid Trash Assessment Protocol (SWAMP Protocol) and visual assessment approaches being utilized by the City of Ventura, the Santa Clara Valley Urban Runoff Pollution Prevention Program in the San Francisco Bay Area, and a number of cities and municipalities throughout the country.

The visual survey utilizes a three-point scoring system based on the "Level of Trash" scoring category discussed in the SWAMP Protocol to estimate the presence of litter in a specific area. Individuals performing the visual surveys will be trained on how to properly conduct these assessments to ensure consistency across multiple entities performing such surveys. The trained scorers will score each assessed area by rating the amount of litter observed, using the following categories:

- Category 1 – Represents the SWAMP Category "Optimal"
- Category 2 – Represents the SWAMP Category "Suboptimal"
- Category 3 – Represents the SWAMP Category "Poor"

The definition of Category 1 is:

> "On first glance, no trash visible. Little or no trash (<10 pieces) evident when streambed and stream banks are closely examined for litter and debris, for instance by looking under leaves."

The definition of Category 2 is:

> "On first glance, low to medium levels of trash are evident (10 – 100 pieces). Stream, bank surfaces, and riparian zone contain some litter and debris. Possible evidence of site being used by people: scattered cans, bottles, food wrappers, blankets, clothing."

The definition of Category 3 is:

> "Trash distracts the eye on first glance. Stream, bank surfaces, and immediate riparian zone contain substantial levels of litter and debris (>100 pieces). Evidence of site being used frequently by people: many cans, bottles, and food wrappers, blankets, clothing."

Monitoring events using the visual survey will be conducted prior to each MFAC event for a given parcel in the Estuary. The surveys will be conducted along the pre-defined patrol route and consistent with the existing Health and Safety Plan. The trash survey results will be used to evaluate the accumulation of trash between MFAC events and to determine which areas to target for subsequent MFAC events or additional cleanups.

MFAC/BMP PROGRAM APPROACH

The revised MFAC/BMP Program is designed to target the identified primary source of trash in the Estuary, homeless encampments. The Program was developed based on conversations with the Ventura Hillsides Conservancy on actions that it has taken that have proven effective in reducing the presence and accumulation of trash on its Estuary parcel. The goal of the MFAC/BMP Program is to ensure that the parcels in the Estuary are at a Category 1 level of trash as defined in the previous section based on visual survey information collected during Estuary patrols.

The revised MFAC/BMP Program includes the following elements:

1. **Conduct quarterly visual surveys and trash collection events for all parcels in the Estuary**

   MFAC collection events will likely be conducted on a rotating schedule with a different parcel(s) selected for trash removal each month to ensure that the entire Estuary, as defined in the Trash TMDL, is covered on a quarterly basis. The collection event will utilize information from the monitoring program and the patrols (see item 2) to determine the locations where trash collection efforts should be focused for the event.

2. **Conduct regular patrols of Estuary parcels to identify and prevent homeless encampments and characterize trash accumulation**

   The Ventura Hillsides Conservancy (VHC) has found that the disbandment of existing homeless encampments and the prevention of the establishment of new encampments is an effective method to reduce trash accumulation in the Estuary produced by such encampments. Based on VHC experience, regular patrols of Estuary parcels during which visual surveys are conducted act to effectively eliminate existing and prevent the establishment of new homeless encampments. Information gathered during patrols will be used to (1) identify locations in the Estuary that require homeless encampment disbandment and trash cleanup, and (2) inform the Program as to the level and frequency of trash cleanup needed to keep the Estuary at a Category 1 level of trash.

3. **Conduct regular cleanups or employ additional BMPs in Estuary-adjacent parcels**

   These actions will be performed to reduce the amount of trash entering the Estuary from the areas adjacent to the Estuary.

MFAC/BMP PROGRAM ASSESSMENT APPROACH

The visual survey results collected while walking the patrol route will be used to evaluate the effectiveness of the MFAC/BMP Program and modify the program as needed to reflect increasing or decreasing observed trash levels. As stated above, the goal of the MFAC/BMP Program is for all areas of the Estuary to be maintained in Category 1 based on visual survey information collected during Estuary patrols. To achieve this, the MFAC/BMP Program will be continuously evaluated and modified using the following adaptive management approach:

1. Estuary parcels in Category 1 for the monitoring event conducted prior to a scheduled MFAC event will be noted and any trash observed will be collected during the visual survey. If no potential high trash generating areas are identified through the patrol of the parcel, the MFAC event will not be conducted. If potential high trash generating areas are identified by the patrols, then the MFAC event will focus on those areas of the parcel that require cleanup.

2. Monitoring sites in Category 2 will be evaluated to determine if additional BMPs are needed to reduce the accumulation of trash between monitoring events (i.e., visual surveys). The types of trash, likely sources, and observed trends in trash amounts will be considered in determining if modifications to the MFAC/BMP Program are necessary to move these sites to Category 1.

3. Monitoring sites in Category 3 for two (2) consecutive quarterly monitoring events will be targeted for more frequent patrols and/or more frequent cleanups depending on the identified primary source of trash until the site reaches Category 1 for two (2) consecutive visual surveys.

Monitoring Program

MONITORING AREA

The extent of monitoring for the MFAC/BMP Program is defined as the area between the "… the sandy beach area between the estuary and the ocean and along the bike path…" upstream to U.S. Highway 101. The extent of monitoring to fulfill the Trash TMDL requirements for the TMRP shall incorporate the area defined for the MFAC/BMP Program, as well as two additional parcels upstream of U.S. Highway 101. The nearest upstream parcel is located in the Estuary just north of U.S. Highway 101 and is owned by the Ventura Hillsides Conservancy. The second upstream parcel falls under the jurisdiction of the Ventura County Watershed Protection District, and is defined as an adjacent property. **Figure 1** shows the proposed patrol route covering the Trash TMDL-defined monitoring area of the MFAC/BMP Program and two additional parcels north of U.S. Highway 101.

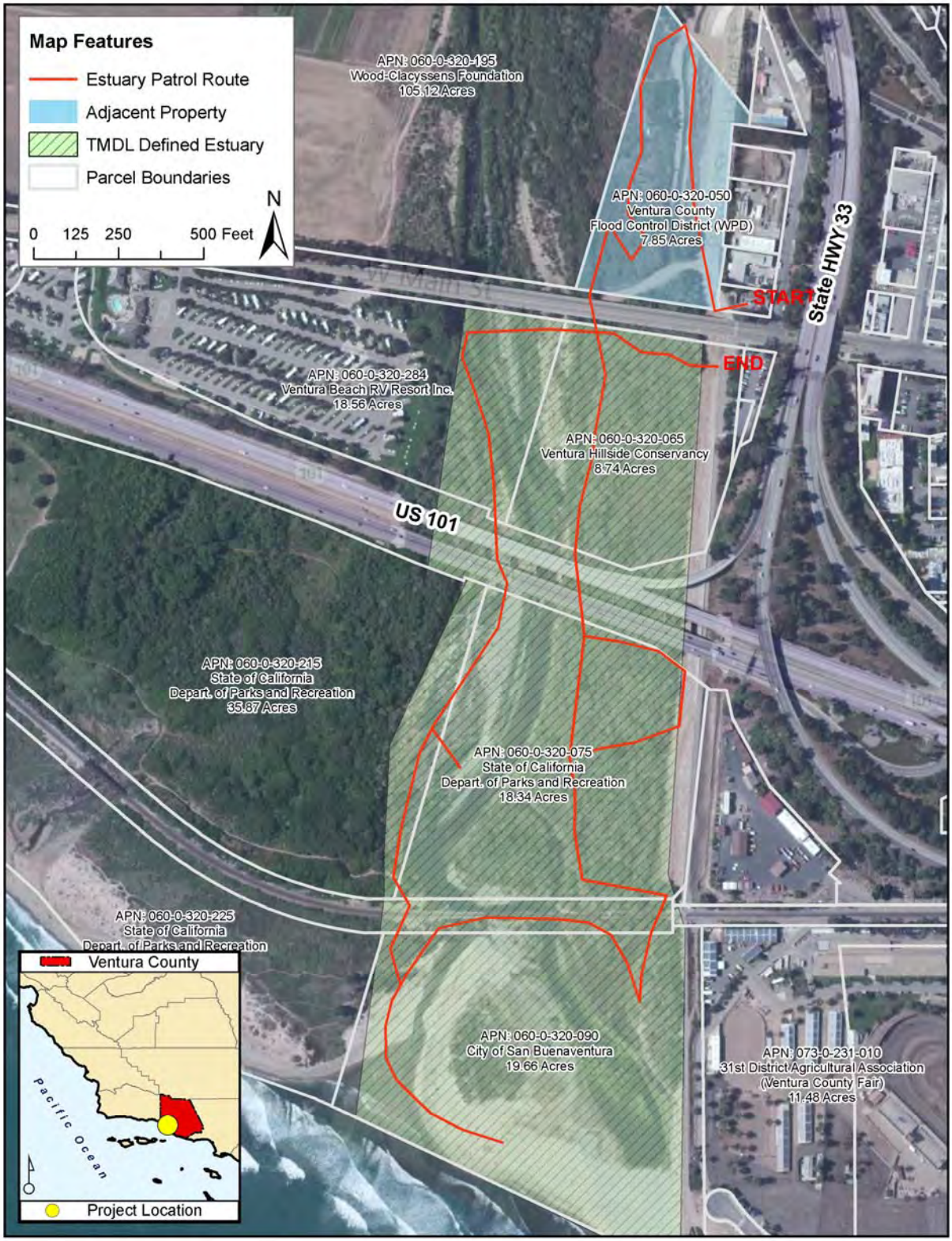


Figure 1: TMRP and MFAC/BMP Program Monitoring Area and Patrol Route.

MONITORING FREQUENCY

Visual surveys will be conducted along the patrol route shown in **Figure 1** prior to each MFAC event. The initial proposed MFAC frequency is quarterly. As described in the Trash TMDL, the minimum frequency is the interval that prevents trash from accumulating in deleterious amounts in between collections. If the MFAC frequency for a particular parcel is modified based on the MFAC/BMP Program evaluation approach, the monitoring frequency for that parcel will be adjusted to match its MFAC event frequency.

MONITORING PROTOCOLS

Monitoring events should only be conducted during full daylight hours under safe weather conditions. The weather forecast should be checked immediately prior to each monitoring event. Precipitation events within the watershed can cause water to rise rapidly and create unsafe conditions. If at any time during a monitoring event field personnel feel that site conditions are unsafe for any reason, then the event should be abandoned and the project manager notified of the event cancellation.

Event Preparation

Prior to mobilization for each monitoring event, field personnel should prepare the equipment necessary to conduct the visual survey performed during the monitoring event. Required equipment is listed in **Table 3**. Additionally, any necessary permits or permissions required for access to the channel will be obtained prior to the monitoring event.

Table 3: Trash Visual Survey Monitoring Event Equipment Checklist.

Required Trash Visual Survey Items	
☐ First Aid Kit	☐ GPS Unit
☐ Cellular Telephone	☐ Hip Boots
☐ This Plan	☐ Work Gloves
☐ Trash Visual Survey Worksheets	☐ Tape Measure
☐ Clipboard	☐ Maps and Aerial Photos
☐ Notebook	☐ Digital Camera
☐ Pens/Pencils	☐ Poison Oak Protective Lotion/Calamine Lotion

Monitoring Event Visual Surveys

Visual surveys of trash along the Estuary patrol route will use the level of trash scoring categories (Category 1 – 3) described above. Observations made at each site will be recorded on a **trash visual survey worksheet** (see Appendix A).

Visual Survey Approach

Visual surveys will be conducted by walking along the patrol route and performing the following tasks as they relate to assessment and documentation of accumulated trash:

1. Begin visual search for trash at the northern or eastern terminus of the patrol route on the parcel (depending on the longitudinal orientation of the patrol route). Start the survey by

taking a picture that focuses on the first 5 m of the pathway. Slowly scan 180 degrees from side-to-side while walking the pathway through the area.

2. Walk the pathway slowly enough to allow the visual scanning of the ground, looking in/beneath vegetation, as applicable. The width of the side-to-side scan will vary by location in the Estuary, but will typically range from 5 to 10 m (thick vegetation could limit the width of visual scans at some locations from 1 to 2 m).
3. Assess the level of trash observed in terms of Category 1 – 3 while proceeding down the patrol route pathway.
4. Take sequential photographs of the area being surveyed every 5 m **if trash is observed**, focusing on the next 5 m of the pathway. Additional photographs should be taken, as necessary, to document excessive accumulations of trash. Photographs do not need to be taken along the patrol route at 5 m intervals if trash is not observed.
5. At the point at which trash is no longer observed along the patrol route, determine the overall level of trash observed for the area just surveyed and note this on the trash visual survey worksheet. Complete the worksheet for the area as necessary.

MFAC Events

The quarterly MFAC events will be designed to collect trash from all accessible areas of a given estuary parcel. The trash collection will be prioritized according to any areas identified through the patrols as potential high trash generating areas.

MFAC EVENT PREPARATION

Prior to mobilization for MFAC events, field personnel should prepare the equipment necessary to conduct the trash collection. Required equipment is listed in **Table 4**. Additionally, any necessary permits or permissions required for access to the channel will be obtained prior to the cleanup event.

Table 4: Trash Cleanup Event Equipment Checklist.

Required Trash Cleanup Items	
☐ First Aid Kit	☐ Hip Boots
☐ Cellular Telephone	☐ Large Trash Bags (Glad Lawn & Leaf Bags: 33" x 41" x 1.1 mil (39 gallon)
☐ This Plan	☐ Work Gloves
☐ MFAC Event Worksheets	☐ Trash Grabber
☐ Clipboard	☐ Metal Kitchen Tongs
☐ Notebook	☐ Tape Measure
☐ Pens/Pencils	☐ Maps and Aerial Photos
☐ GPS Unit	☐ Digital Camera
☐ Sharps Container	☐ Poison Oak Protective Lotion/Calamine Lotion

MFAC EVENT APPROACH

During each MFAC event, fields crews of two or more trained people will walk through the accessible portions of the parcel, ensuring that all identified potential high trash generating areas are visited, picking up every piece of trash found. Picking up all trash items will allow the location to be revisited and re-assessed for accumulation and usage patterns. All visible trash should be collected, or accounted for if too large to collect.

To avoid injury while picking up trash, field crew should always wear gloves and avoid touching trash with unprotected hands

A trash grabber, metal kitchen tongs, or a similar tool should be used to help pick up trash. It is important to look under bushes, logs, and other vegetation to see if trash has accumulated underneath these objects. The ground and substrate should be inspected to ensure that small items such as cigarette butts and pieces of broken glass or Styrofoam are picked up. All collected trash shall be placed in 39-gallon trash bags. To the extent possible, the trash bags should be filled to approximately ¾ full so that they all represent approximately the same volume of trash.

Items which are too heavy to be lifted or are embedded in the streambed or substrate (referred to as *Legacy Trash*), will be noted on the **MFAC event worksheet** (see Appendix B) and documented with digital photographs and GPS coordinates. Legacy trash items will need to be removed by qualified individuals (possibly with heavy equipment) and the field crew shall not try to remove these items themselves. Information on who to contact to remove such items is listed in the contact sheet, and after the MFAC event the contractor will immediately contact the program manager to notify the appropriate individuals to address such legacy trash items.

Prior to deployment, the field crew shall be informed or trained as to what hazardous materials are, may potentially be, and how to safely remove these items. If a potentially hazardous item is found during a cleanup event, the crew will be advised not to touch or move the item, but shall inform the lead field technician. If the lead field technician determines that the item cannot be safely removed, the location of the item will be documented, along with photographs and GPS coordinates taken. The appropriate authorities will be contacted immediately for removal of the hazardous item(s), if proper training or collection materials are not available to the field crew.

Hazardous material identification and removal is further defined in the Health and Safety Plan along with a detailed list of items that are considered “hazardous” and banned from disposal in the trash. More information can be found on the website of the California Integrated Waste Management Board: www.ciwmb.ca.gov/hhw/info/.

MFAC EVENT WORKSHEET COMPLETION

During the collection event, one field crew member should fill out a MFAC event worksheet to document observations about the location, trash collected, and the MFAC event. The field crew must record the total time for the collection event, including start time and end time. Observations regarding the condition of the location, potential sources contributing to the trash collected, and other observations should be recorded in the appropriate spaces on the MFAC event worksheet. It is important to complete the worksheets before leaving the site while details of the event are still fresh in the minds of the field crew.

The lead field technician will be responsible for certifying that the cleaned area is free of any visible trash upon completion of the cleanup event; noting any hazardous materials or legacy trash items not removed, as necessary. Additionally, the number of trash bags collected at the location must be recorded on the MFAC event worksheet. In the event that a dumpster is used to accommodate the removal of large volumes of trash, the size of the container and its percent fill will be recorded.

POST-MFAC EVENT ACTIVITIES

At the completion of each MFAC event, all collected trash will be taken to a landfill or recycling facility for appropriate disposal. Prior to disposal at the facility, all trash will be weighed and a receipt obtained from the facility that documents the cost of trash disposal and the weight of the trash. The weight of trash should be recorded on the MFAC event worksheet.

The contracted entity performing the cleanup should make all attempts to recycle the materials collected during the event, time permitting. The recycling of materials is not a requirement of the Trash TMDL or the TMRP and MFAC/BMP Program and is at the discretion of the contractor. If items are too large to remove or are deemed hazardous or "Legacy Trash", the contractor shall immediately contact the program manger to initiate removal of these items.

Special Circumstances for Safety Considerations

Within the Ventura River Estuary there are several potentially hazardous factors that exist. One of these is the potential to encounter homeless individuals that are known to occupy the area. The other factors include the extensive poison oak and *Arundo donax* (giant reed or giant cane) that dominate the estuary. These special circumstances are discussed below in more detail.

HOMELESS INDIVIDUALS AND PROPERTY

There is the potential for encounters and/or interactions with homeless individuals in the course of trash surveys and collection activities. There exists the possibility of unknowingly collecting items which may be deemed the property of a homeless individual, and thus creating the potential for an altercation with said individual. During any collection or monitoring event, field staff are required to use discretion in all interactions with individuals in the field (this is standard for any encounter with an individual, homeless or not) and should conduct themselves in a professional and courteous manner. If at any time field staff feel uncomfortable or in danger, activities must immediately cease and all staff must return to a safe location. In the event this type of encounter takes place, field staff need to record the extent of a trash survey or cleanup effort that took place prior to the work stoppage, and note on the appropriate field sheets the end point location and time of the particular effort. If any situation escalates to a perceived dangerous level, field staff must immediately leave the area and contact the appropriate authorities.

In the event that trash items appear to be property of a homeless individual, field staff should consider these items as "Legacy Trash" and follow procedures outlined in the Hazardous Materials and Legacy Trash section of the Health and Safety Plan when encountering them. Care must be taken when collecting pertinent data, and as previously stated, if at any time during data collection field staff feel threatened or in danger, they must cease all activities and move to a more secure location.

ARUNDO AND POISON OAK

Arundo donax, a non-native grass, is dominating parts of the Estuary and making it extremely difficult to enter the area. *Arundo* can grow up to 10 m in length with leaves ranging from 30 – 60 cm wide. Due to the size and density of this vegetation, trash will not be collected within the growth. However, trash shall be collected on all sides of the *Arundo*, if possible.

One more potential hazard in the Estuary is Poison Oak *(Toxicodendron diversilobum)*. There are substantial amounts of Poison Oak growing in the Estuary and it should be avoided if at all possible. Trash seen in the Poison Oak will not be required to be collected, but it should be noted and photographed. Field staff will be advised to put on Poison Oak protective lotion (or calamine lotion) before entering the Estuary where the shrub is growing. Field staff should also be aware that even when Poison Oak is dead, the oil in the plant can remain active for up to five years.

Best Management Practices

Included in this section are descriptions of the current trash management procedures or Best Management Practices (BMPs) for nonpoint sources that have been put in place by the City of Ventura, County of Ventura, Ventura County Watershed Protection District, California Department of Food and Agriculture, Caltrans, California Department of Parks and Recreation, and Participants in VCAILG. BMPs for nonpoint sources are broadly characterized as those that are implemented in-Estuary or those that are implemented on lands adjacent to the Estuary. The purpose of the former is to reduce/remove trash accumulation in the Estuary, and the purpose of the latter is to reduce/remove trash in lands adjacent to the Estuary that have potential to be transported to the Estuary. These BMPs, implemented by the Responsible Parties and/or their contractors in their respective jurisdictions, represent the MFAC/BMP Program for the Responsible Parties covered by this TMRP.

IN-ESTUARY BMPS

Estuary Patrols

The Responsible Parties have contracted with the Ventura Hillsides Conservancy to implement patrols of the Estuary to provide visual surveys of the homeless encampments and the trash produced by these encampments and others who use the area. Residents of these illegal encampments produce copious amounts of trash that litter the Estuary.

As a means to judiciously use Program resources to implement actions that have been determined to be effective in reducing trash in the Estuary, the Responsible Parties have chosen to fund patrols of the Estuary that serve to collect information through visual surveys on the locations of homeless encampments and trash accumulation. The reconnaissance information collected during Estuary patrols will be used to target and prioritize efforts to identify, inform, and prioritize homeless encampment disbandment and trash cleanup in the Estuary.

Patrols of the Estuary will follow the patrol route shown in **Figure 1**. Patrols will be made at least twice per month, will include all parcels, and will canvas the majority of the Estuary as safety permits. The patrols will include visual surveys of all areas of the Estuary visible from the patrol route shown in **Figure 1**. The entire patrol route will be covered during each visit, unless unsafe conditions exist (as discussed in Special Circumstances for Safety Consideration). If a portion or all

of the patrol route is determined to be unsafe, the unsafe area will be avoided, the conditions causing the area to be avoided will be documented, and the appropriate authorities contacted, if necessary.

Estuary patrols will provide the MFAC/BMP Program with frequent information regarding homeless encampments and trash accumulation throughout the Estuary that can be used to prioritize monitoring and cleanup events as a means to (1) bring an area of the Estuary to a Category 1 level, (2) implement BMPs that will facilitate the maintenance of the location at that level, and (3) identify potential high trash generating areas that should be targeted for cleanups or other BMPs. The person conducting the patrol will carry with them a trash bag for collecting individual, small pieces of trash encountered while walking the patrol route. This form of minor trash collection will support maintaining areas of low trash accumulation at a Category 1 status and represents the good environmental stewardship promoted by the TMRP and MFAC/BMP Program. Small amounts of trash collected during patrols will be disposed of in appropriate trash receptacles.

Trash Cleanups

In addition to the scheduled quarterly MFAC events, additional trash cleanups may be employed by the Responsible Parties as a BMP for targeted areas that are potential high trash generating locations. Information gathered during Estuary patrols will inform the Responsible Parties as to where trash cleanup and homeless encampment disbandment should be targeted as a means to meet the requirements of the Trash TMDL. The removal of trash produced by homeless encampments and others who use the area has occurred in the Estuary since the fall of 2008. The Responsible Parties have identified homeless encampment cleanups as a BMP useful for the reduction of trash in the Estuary. The patrols and trash cleanups are seen as BMPs to be employed by the Trash TMDL Responsible Parties, whereas homeless encampment disbandment is the responsibility of local law enforcement. The Responsible Parties and/or their contractors will work with local law enforcement and parcel owners to facilitate homeless encampment disbandment.

ADJACENT LANDS BMPS

Along with the two in-Estuary BMPs described above, the Responsible Parties have been implementing a variety of BMPs in their respective jurisdictions on lands adjacent to the Estuary as methods for reducing trash that potentially could be transported to the Estuary. A list of adjacent lands BMPs implemented by the Responsible Parties is provided in Appendix C.

Reporting Requirements

The Responsible Parties will prepare an annual monitoring report that provides information on the status of the TMRP Addendum No. 1 responsibilities (see **Table 2**) they are charged with carrying out under the Trash TMDL, along with an evaluation of the revised monitoring and revised MFAC/BMP Program and any recommended changes to the program necessary to meet the goals of the TMDL. Through the production of annual monitoring reports, nonpoint source Responsible Parties will inform the Regional Board of their trash surveys, trash collection, and BMP implementation efforts in the Estuary.

Appendix A – Trash Visual Survey Worksheet

Trash Visual Survey Worksheet

Parcel No.: _____ Survey Date: _____
Inspector: _____ Survey Start/ End Time: _____ / _____
Current Weather Condition: _____
Antecedent Weather Condition: _____

Level of Trash Observed:

Refer to Program Monitoring Area Map as necessary. Note any categorical variation in levels of trash observed in different areas of the parcel. If necessary, categorize these areas individually.

KEY: Category 1 (<10 pcs), **Category 2** (10-100 pcs), **Category 3** (>100 pcs)

Notes/ Parcel Area:	Category:	Reason(s) for Category Rating:

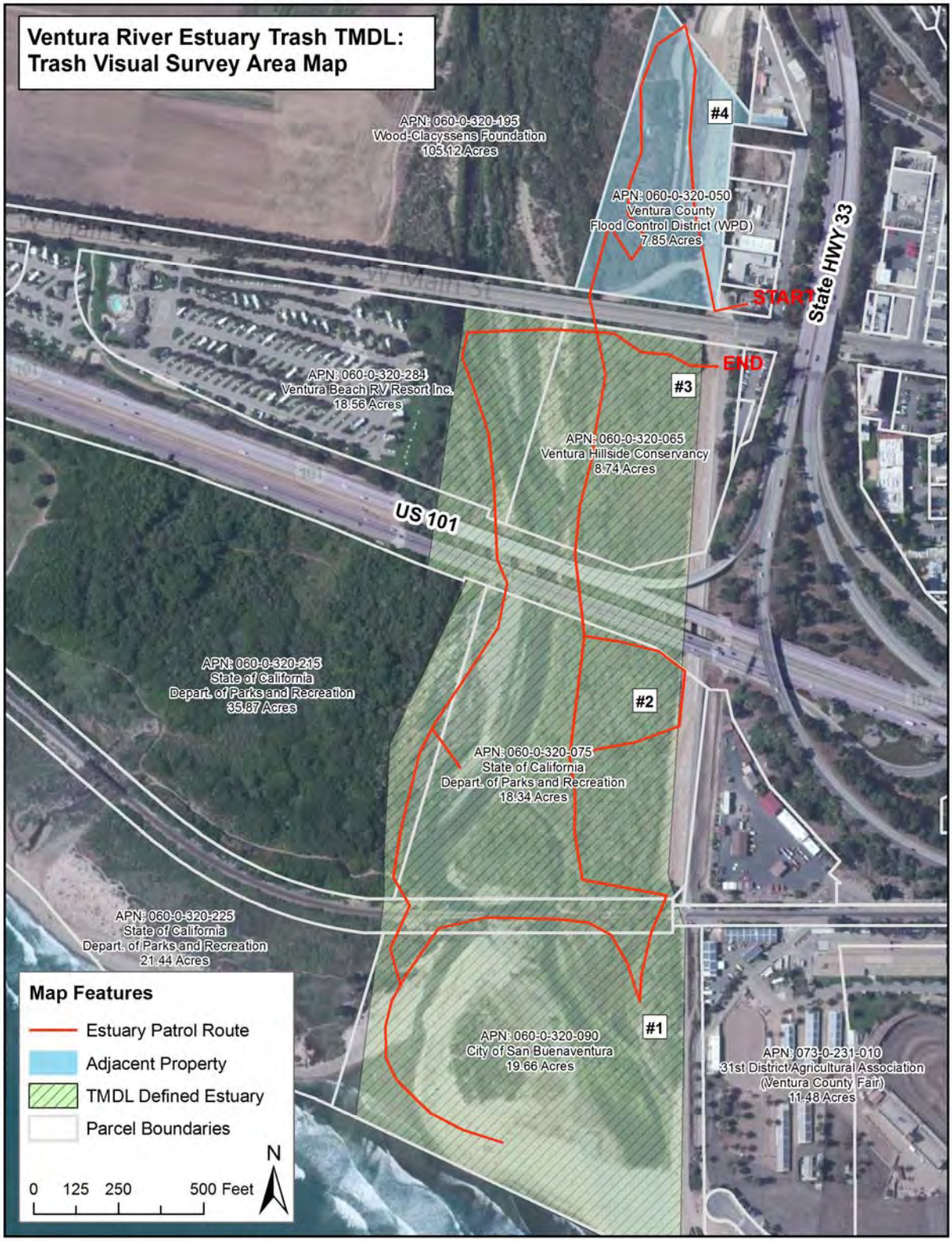
Types of Trash Observed (check all that apply):

Plastic/ Styrofoam	Paper Products/Biodegradable	Household Items
Landscape Materials	Aluminum/ Metal	Automotive
Toxic/ Hazardous Materials	Glass	Biohazardous
Personal Effects	Sports Equipment	Other

Notes: _____

Est. No. of Follow-up Cleanup Events Needed (describe why): _____

Additional Notes: _____


Ventura River Estuary Trash TMDL:
Trash Visual Survey Area Map
APN: 060-0-320-195
Wood-Clacyssens Foundation
105.12 Acres
APN: 060-0-320-050
Ventura County
Flood Control District (WPD)
7.85 Acres
#4
START
END
State HWY 33
APN: 060-0-320-284
Ventura Beach RV Resort Inc.
18.56 Acres
#3
APN: 060-0-320-065
Ventura Hillside Conservancy
8.74 Acres
US 101
APN: 060-0-320-215
State of California
Depart. of Parks and Recreation
35.87 Acres
#2
APN: 060-0-320-075
State of California
Depart. of Parks and Recreation
18.34 Acres
APN: 060-0-320-225
State of California
Depart. of Parks and Recreation
21.44 Acres
#1
APN: 060-0-320-090
City of San Buenaventura
19.66 Acres
APN: 073-0-231-010
31st District Agricultural Association
(Ventura County Fair)
11.48 Acres
Map Features
Estuary Patrol Route
Adjacent Property
TMDL Defined Estuary
Parcel Boundaries
N
0 125 250 500 Feet

Appendix B – MFAC Event Worksheet

MFAC Event Worksheet

Parcel No.: _____ Event Date: _____
Specific Cleanup Location: _____ Event Start/ End Time: _____ / _____
Field Technician name(s): _____
Current Weather Condition: _____
Antecedent Weather Condition: _____

Types of Trash Observed (check all that apply):

Plastic/ Styrofoam	Paper Products/ Biodegradable	Household Items
Landscape Materials	Aluminum/ Metal	Automotive
Toxic/ Hazardous Materials	Glass	Biohazardous
Personal Effects	Sports Equipment	Other

Notes: _____

Potential Source(s) of Trash Collected: _____

Hazardous/ Legacy Trash Requiring Follow-up: _____

MFAC Event Actions for Follow-up: _____

Additional Notes: _____

Trash Collected:
No. of Trash Bags Filled: _____ Dumpster % Fill: _____ Dumpster Size (cubic yds): _____

Lead Field Technician Certification (sign/ print):
"Cleaned area is free of all visible trash." - _____

Appendix C – Adjacent Lands BMPs

Adjacent land nonpoint source BMPs implemented by the TMDL Responsible Parties.

City of Ventura Litter Management Program BMPs

- Street Sweeping
    - Residential Streets at least once a month
    - Commercial Streets two to four times per month
    - Information encouraging residents/businesses to move parked cars for sweeping
- Catch Basin Inlet-Cleaning and Placarding
    - City-maintained catch basin inlets are inspected and cleaned of trash and debris one to three times per year depending on the priority categorization of the catch basin
    - Information encouraging residents/businesses to report trash filled inlets
    - "Don't Dump – Drains to Oceans – Only Rain Down the Drain" stencils or placards placed on storm drain inlets
- Trash Collection in Public Areas
    - Trash and recycling containers are installed at all transit shelters and maintained at least once per week to remove litter and to verify that containers are functioning properly
    - Special event permit language requires additional trash and recycling containers to be set out during street fairs and art walks, along with litter cleanup following events
    - Collection of trash from 18 public trash receptacles located within the watershed two or three times per year depending on the locations of the receptacles
- Trash Collection and Bulky Item Pickup
    - Residents and businesses are provided with trash and recycling collection services
    - Residential customers are allowed to set out two "bulky items" for free collection once per year as part of their regular trash collection service
- Inspection, Planning and Enforcement Support
    - The City identifies and requires corrective measures for an litter or litter sources found during commercial, industrial, and construction site inspections
    - New development and redevelopment projects are required to install trash enclosures with doors and covers to reduce litter
    - The Ventura Police Department conducts periodic "enforcement sweeps" through the portion of the Ventura River Estuary that is adjacent to the City limits

  - Litter laws that prohibit the accumulation of trash on private property are enforced by the City and County Environmental Health Department. Private properties are required to remove all trash from their premises at least once every seven days

- Outreach
  - Litter prevention outreach is included in classroom presentations and stormwater pollution prevention advertisements/announcements
  - Several half-hour TV programs produced by the City encourage residents to prevent litter
- Partners in Progress
  - Citywide volunteer program with a mission to preserve Ventura's natural environment by minimizing litter in water bodies and coastal areas
- City-Initiated Cleanup Events
  - The City will initiate cleanup events, as necessary, in response to observed elevated trash levels.
- City-Sponsored Cleanup Events
  - The City sponsors various cleanup events throughout the City that may include one or more of the following events during any given year: Disney Give A Day, Get A Day; Earth Day Beach Cleanup; Coastal Cleanup Day; Backyard Collective; and Ventura Charter School Trash-a-thon
- Work Plan to Eliminate Homeless Encampments
  - The Ventura City Council initiated the development of a work plan in September 2012 to eliminate encampments in the Ventura River Estuary and to implement an on-going enforcement program. The work plan includes organizing stakeholder partners, conducting civil engagement, developing an action plan and corresponding follow-up steps, posting camps, conducting camp removal, and launching post-camp removal strategies.

County of Ventura and VCWPD Litter Management Program BMPs

- Catch Basin Cleaning – Catch basins are inspected at least once per year and cleaned when filled to 25% or more of the catch basin's capacity. During storm season, all drainage facilities are inspected and cleaned as necessary.
- Catch Basin Labeling – County catch basins are labeled with "Don't Pollute, Flows to Waterways"
- Open Channel Storm Drain Maintenance – All VCWPD owned and maintained channels are cleared, inspected, and cleaned as required at least once per year.
- Trash Management at Public Events – A plan for the proper management of trash and litter is required when obtaining a permit for staging public events. This plan requires adequate facilities for trash collection and disposal.

- Trash Collection in Public Areas – Trash receptacles have been placed within high trash generation areas. These devices are cleaned and maintained regularly to prevent trash overflow.
- Ventura County Ordinance No. 4142 – County ordinance (Section 6923 "Litter" and Section 6955 "Watercourse Protection") prohibit the disposal and accumulation of trash in public areas, private driveways, parking areas, streets, alleys, sidewalks, or components of the storm drain or any watercourse.
- Inspections – The County conducts commercial, industrial, and construction facility/site inspections to ensure proper pollution prevention BMPs are being applied and to educate employees on the importance of pollution prevention.
- Anti-Littering Signage – The County has installed anti-dumping and anti-littering signage at key locations including high trash generating areas, as well as at known illegal dumping locations.
- Foster Park Trash Management – The County manages Foster Park, which is situated along the Ventura River, to ensure that trash originating from the park does not enter the river. Management actions include:
    - Park host and rangers removing trash and enforcing litter ordinance
    - Increased enforcement and collection during high trash generating events (holidays)
    - Covered trash containers and frequent trash pick-up and removal
    - Continued evaluation of trash management practices to determine whether current practices are sufficient
    - Continued evaluation of existing litter-related signage to determine whether current signage is adequate
- Countywide Outreach – The County and VCWPD continue to participate in the Countywide Outreach Program retaining the services of The Agency, a professional advertisement group that designs and conducts countywide, bilingual outreach programs advocating proper trash disposal. The most recent addition to the outreach program is trash prevention and protection of stormwater quality education using Facebook®.
- Targeted Outreach – The County conducts targeted outreach to schools within the area covered by the Trash TMDL to educate students, staff, and faculty on the importance of pollution prevention specifically regarding trash.

California Department of Food and Agriculture BMPs

The California Department of Food and Agriculture implements trash control BMPs at the Ventura County Fairgrounds on a schedule that varies depending on the time of the year. When the Ventura County Fair is being held at the Fairgrounds, the following BMPs are implemented daily and on an as needed basis:

- Litter pickup in the main parking lot, the beach parking lot, and the overflow parking lot
- Litter pickup in the areas surrounding the event locations

- Emptying of trash cans
- Emptying of recycle bins
- Diversion of storm drains to the sanitary sewer during the Fair (July – August)

When the Ventura County Fair is not in progress at the Fairgrounds, the above BMPs are still implemented, but on a daily, weekly, and/or as needed basis depending on the specific BMP.

Caltrans Litter Management Program BMPs

- Ventura River Estuary – State Highway 33, between Post Mile 0.0 and 5.55, has litter removed about twice per month and is mechanically swept about once per month, as needed. This highway is also open to 'Adopt-A-Highway' groups and there are groups who currently have adoptions and perform litter removal twice per month.

Additional Trash Management Plans/BMPs in place for Caltrans:

- The Department currently uses a variety of methods to educate the public about the importance of managing stormwater. These are intended to change public behavior regarding the release of potential pollutants (e.g., litter, spilled loads, and oil leaks).
    - The outreach program consists of a variety of written materials, monthly and quarterly bulletins, websites, workshops, and the Department's Adopt-a-Highway Program, as described below.
- The Department installs "No Dumping" and "Litter Fine" signs at selected locations on highways and freeways. Stenciled warnings prohibiting discharges to drain inlets at state-owned park-and-ride lots, rest areas, vista points, and other areas with pedestrian traffic are also used to increase public awareness.
- Litter and debris removal activities include sweeping of shoulders, paved medians, etc., and litter removal along the roadsides.
- The Department uses venues such as public schools, community-sponsored cleanup events, Bring Your Child to Work Day, and Earth Day to educate the public about the importance of excluding pollutants from stormwater.
- The Department's Adopt-A-Highway program is an opportunity for volunteers to make a tangible contribution to community and roadside aesthetics, and acts as a way to inform the public about the stormwater problems related to illegal dumping of litter and debris. As part of this program, signs are posted along roadways acknowledging groups that have volunteered to plant wildflowers, trees and/or shrubs, collect litter, or remove graffiti from structures.
- In the metropolitan portions of Los Angeles, San Diego, Orange and Ventura Counties, storm drain inlets are inspected and cleaned annually prior to the rainy season. Those storm drain inlets that contain 12 inches or more of accumulated material will be cleaned.
- Litter and debris are periodically collected from the Department's rights-of-way and removed from drainage grates, trash racks, and ditch lines. Maintenance supervisors inspect highways in their assigned sections for the accumulation of litter. Signs may be installed where litter accumulation is a concern.

- "Don't Trash California" is a statewide Caltrans education and outreach trash reduction public program that has been conducted since 2005. The program uses public service announcements through various media such as television and radio broadcasts, billboards, newspapers, etc, and focuses on behavior changes. The program's surveys have shown changes in public perception on littering and results in reduced litter on the roadways.

In addition to local anti-litter ordinances, the Department relies on Sections 23112, 23113, 23114and 23115 of the Vehicle Code as legal authority to prevent spills, dumping or disposal of materials on the highways and freeways under its jurisdiction, as enforced by the California Highway Patrol.

- Section 23112 states:

No person shall throw or deposit, nor shall the registered owner or the driver, if such owner is not then present in the vehicle, aid or abet in the throwing or depositing upon any highway any bottle, can, garbage, glass, nail, offal, paper, wire, any substance likely to injure or damage traffic using the highway, or any noisome, nauseous, or offensive matter of any kind.

No person shall place, deposit, or dump, or cause to be placed, deposited, or dumped, any rocks, refuse, garbage, or dirt in or upon any highway, including any portion of the right-of-way thereof, without the consent of the state or local agency having jurisdiction over the highway.

- Section 23113 states:

Any person who drops, dumps, deposits, places or throws, or causes or permits to be dropped, dumped, deposited, placed or thrown, upon any highway or street any material described in Section 23112 or in subdivision (d) of Section 23114 shall immediately remove the material or cause the material to be removed.

If the person fails to comply with subdivision (a), the governmental agency responsible for the maintenance of the street or highway on which the material has been deposited may remove the material and collect, by civil action, if necessary, the actual cost of the removal operation in addition to any other damages authorized by law from the person made responsible under subdivision (a).

- Section 23114 states (in pertinent part):

No vehicle shall be driven or moved on any highway unless the vehicle is so constructed, covered, or loaded as to prevent any of its contents or load other than clear water or feathers from live birds from dropping, sifting, leaking, blowing, spilling, or otherwise escaping from the vehicle.

- Section 23115 of the Vehicle Code states (in pertinent part):

No vehicle loaded with garbage, swill, cans, bottles, waste papers, ashes, refuse, trash, or rubbish, or any other noisome, nauseous, or offensive matter, or anything being transported to a dump site for disposal shall be driven or moved upon any highway unless the load is totally covered in a manner which will prevent the load or any part of the load from spilling or falling from the vehicle.

California Department of Parks and Recreation (State Parks) BMPs

- State Parks utilizes one mixed use (refuse and recycling) container to collect and dispose of trash and debris (~20,000 lbs) from May through September. Camper outreach and education is implemented year-round, based on campground occupancy, and with extra efforts during the peak summer season to limit wind and wildlife trash dispersal. Additionally, river bottom patrols are conducted by law enforcement at a minimum of four times per week to discourage

establishment of illegal camp sites, and river bottom trash collection is performed on a year-round basis to remove trash associated with illegal camp sites.

VCAILG Litter Management Program BMPs

- Conditional Waiver – The *Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands within the Los Angeles Region* ("Conditional Waiver", Order No. R4-2005-0080) requires VCAILG to provide educational classes focused on improving water quality, including identifying trash as an impairment of water quality. VCAILG members are required to document the trash control BMPs for agricultural areas that they employ. VCAILG assists its members with the implementation of additional BMPs for trash control, as necessary, following the adaptive process identified in the group's Water Quality Management Plan (WQMP).
- Outreach – During VCAILG outreach activities, the Trash TMDL is highlighted and a connection made for the need to control trash in order to meet the requirements of the Trash TMDL. VCAILG's Management Practice Survey, used to determine the degree of implementation of BMPs and to provide targeted outreach, includes two questions regarding trash control.
- Trash TMDL Fee – VCAILG members having a nexus to the Trash TMDL are assessed a fee, based on acreage farmed, to further reinforce through a fiscal measure that trash problems in the watershed need to be addressed.
- Plastics Recycling – Community Recycling & Resource Recovery, Inc. and local farmers are collaborating to recycle the agricultural plastic used to cover strawberry beds and used in some vegetable fields during the growing season. Community Recycling & Resource Recovery, Inc. estimates that it collects approximately 70 percent of the agricultural plastic used in Ventura County. Collection and recycling of plastic is an effective method for reducing plastic trash from entering the Ventura River and the Ventura River Estuary.
- Example Trash Control BMPs Employed by Terry Farms, a VCAILG Member:
    - Roll-off trash cans on every ranch are emptied at least once per month
    - Recycle cans in place for the duration of the strawberry growing season: October through May
    - Employees are reminded during daily meetings to throw all trash they generate into an appropriate receptacle
    - Small trash cans provided to each crew are emptied daily into larger roll-off trash cans
    - Occasional *ad hoc* trash cleanups