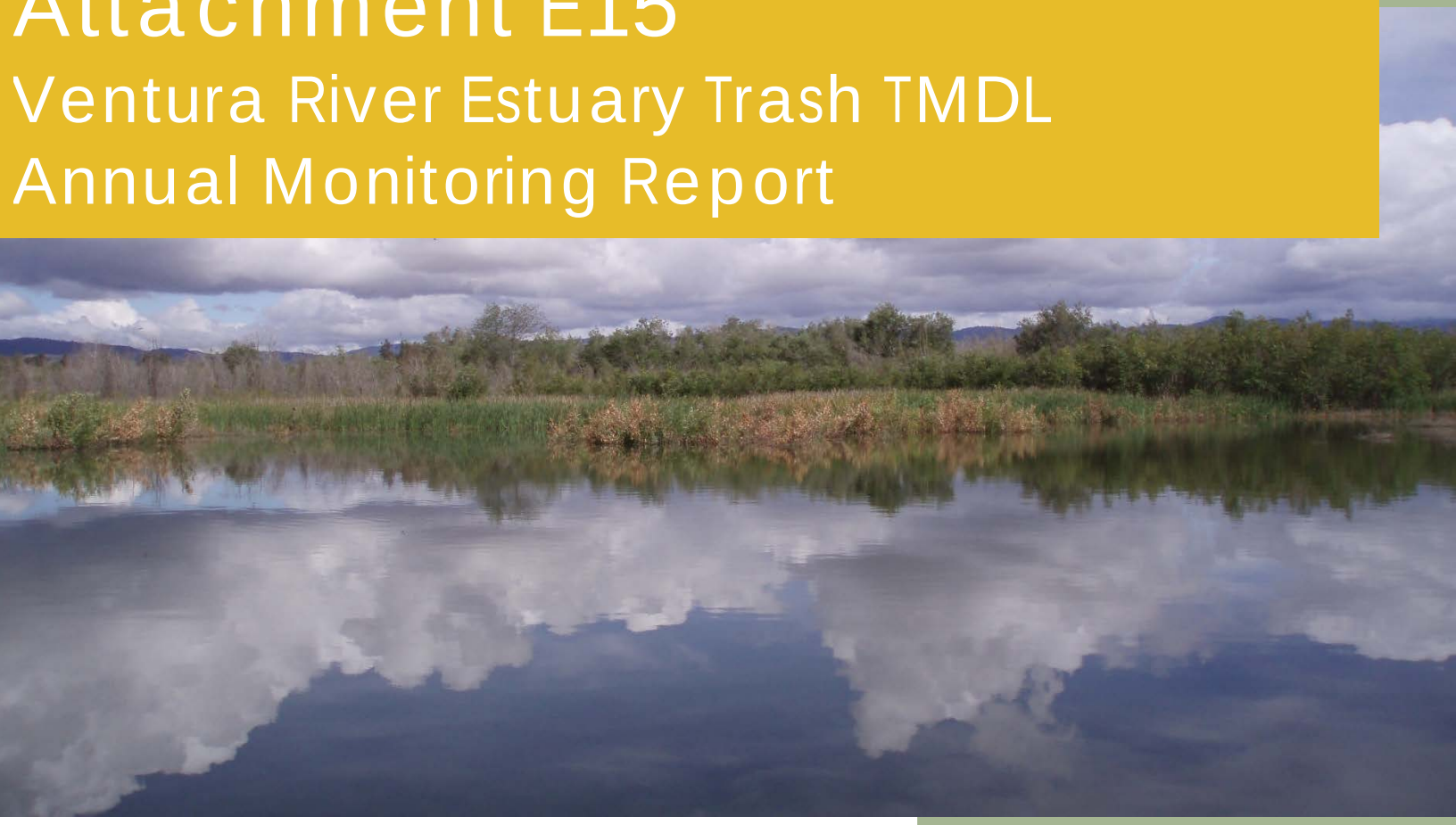
Ventura Countywide Stormwater Quality Management Program

2014-2015 Permit Year

Ventura Countywide Stormwater Quality Management Program Annual Report

Attachment E15

Ventura River Estuary Trash TMDL Annual Monitoring Report



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

720 Wilshire Boulevard, Suite 204
Santa Monica, CA 90401

310.394.1036
310.394.8959 fax

www.lwa.com

January 28, 2015

Renee Purdy
Los Angeles Regional Water Quality Control Board
320 W. 4th St., Suite 200
Los Angeles, CA 90013

Subject: Ventura River Estuary Trash TMDL Annual Monitoring Report

Dear Ms. Purdy,

Enclosed for your review and consideration is the Ventura River Estuary Trash TMDL Annual Monitoring Report for 2013-2014. This Annual Monitoring Report is being submitted per the requirements of the Ventura River Estuary Trash TMDL, Los Angeles Regional Water Quality Control Board Resolution No. R4-2007-008.

This document is being submitted on behalf of the following responsible parties: City of Ventura, County of Ventura, Ventura County Watershed Protection District, Ventura County Fairgrounds, California Department of Transportation, California Department of Parks and Recreation-Channel Coast District, and participants in the Ventura County Agricultural Irrigated Lands Group, which is a subdivision of the Farm Bureau of Ventura County.

During the 2013-2014 monitoring year, the responsible parties developed a revised TMRP to include a new MFAC/BMP Program that utilizes visual trash assessments and targeted clean ups of the parcels located within the Estuary, coupled with BMPs implemented in the Estuary and on the land areas adjacent to the Estuary. While developing the revised MFAC/BMP Program, the responsible parties implemented an interim MFAC/BMP Program and then implemented the revised MFAC/BMP Program once developed. The Annual Monitoring Report summarizes the results of the first year of the revised TMRP and MFAC/BMP Program.

If you have any comments or questions regarding the attached document, please contact me via email (ashlid@lwa.com) or by phone at (310) 394-1036.

Sincerely,

Ashli Desai
Vice President
Larry Walker Associates

cc: Jenny Newman, Los Angeles Regional Water Quality Control Board
Stefanie Hada, Los Angeles Regional Water Quality Control Board
Jeff Pratt, Ventura County Public Works Agency Director
Tully Clifford, Ventura County Watershed Protection District Director
Gerhardt Hubner, Ventura County Watershed Protection District
Ewelina Mutkowska, Ventura County Public Works Agency
Joe Yahner, City of Ventura
Nat Cox, California Department of Parks and Recreation-Channel Coast District
Rich Rozelle, California Department of Parks and Recreation-Channel Coast District
John Krist, Farm Bureau of Ventura County
Nancy Broschart, Farm Bureau of Ventura County
Maria Agustin, California Department of Transportation
Chien Pei Yu, California Department of Transportation
Barbara Cisneros, California Department of Transportation
Larry Weaverling, California Department of Transportation
Patrick Porteus, California Department of Transportation
Jai Thakur, California Department of Transportation
Ron Murphy, Ventura County Fairgrounds
Derek Poultney, Ventura Hillsides Conservancy
Dashiell Dunkell, Ventura Hillsides Conservancy

JANUARY 2015

Ventura River Estuary Trash TMDL 2013-2014 TMRP Annual Report

submitted to

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

on behalf of the

CITY OF VENTURA, COUNTY OF VENTURA, VENTURA COUNTY WATERSHED PROTECTION DISTRICT, PARTICIPANTS IN THE VENTURA COUNTY AGRICULTURAL IRRIGATED LANDS GROUP, CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE, CALIFORNIA DEPARTMENT OF STATE PARKS, AND CALIFORNIA DEPARTMENT OF TRANSPORTATION

LARRY WALKER ASSOCIATES

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Introduction

This Annual Report is being submitted to fulfill the compliance requirements of the Amendments to the Water Quality Control Plan – Los Angeles Region for the Ventura River Estuary Trash Total Maximum Daily Load (Trash TMDL), Resolution No. R4-2007-008 (effective March 6, 2008). The purpose of this report is to present the results of the monitoring efforts conducted in accordance with the Trash Monitoring Reporting Plan (TMRP) and Minimum Frequency Assessment Collection/Best Management Practice (MFAC/BMP) Program developed to meet the requirements of the Trash TMDL. In addition, **Appendix 1.** includes the Certification Report for the Full Capture Connector Pipe Screen Trash Excluders installed by the County of Ventura in County unincorporated areas to meet 100% full trash capture compliance for point sources.

The initial TMRP, which was approved in 2009 by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board), was revised in 2014 to more effectively target the disbandment of homeless encampments in the Ventura River Estuary (Estuary), which have been determined to be the primary source of trash in the TMDL compliance area. An Addendum No. 1 to the TMRP was submitted on April 30, 2014 and a revised Addendum was submitted on October 22, 2014 addressing comments from Regional Board staff. The TMRP and MFAC/BMP Program are designed to prioritize the use of resources to implement actions effective in reducing trash 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 MFAC/BMP Program. The responsible parties are still waiting for approval of the Addendum No. 1; however, Regional Board staff indicated the responsible parties should implement the revised TMRP program while awaiting approval.

In the responsible parties' TMRP revision request letter, dated October 9, 2013, the responsible parties stated additional time was needed to develop the details of the monitoring approach, particularly the most effective locations to implement the patrols and visual assessments. As such, the responsible parties proposed implementing an interim MFAC/BMP Program to begin in October 2013 while the responsible parties developed the revised MFAC/BMP Program and Regional Board staff reviewed and approved the revised MFAC/BMP Program. An interim MFAC/BMP Program was necessary to support development of some aspects of the monitoring approach, facilitate transition to a more effective clean-up and trash prevention program, and avoid the necessity of continuing to count pieces of trash while the responsible parties developed the detailed TMRP. The interim MFAC/BMP Program implemented by the responsible parties was as follows:

1. Conducted clean-up of all Estuary parcels within the TMDL compliance area by mid-November 2013 as the initial quarterly event.
2. Began initial patrols to determine the route(s) that will be used for visual assessments and identified the preferred routes by January 2014.
3. Formalized Memorandum of Agreement with Ventura Hillside Conservancy to organize and manage volunteer cleanup events and conduct trash monitoring activities.
4. Conducted regularly scheduled clean-up events in the Estuary beginning in March 2014, which were additional to the required collection events for the MFAC/BMP Program.

In addition, the responsible parties conducted several initial assessments in May and June 2014 and an initial collection event in May 2014 to test the applicability of the revised MFAC/BMP Program. The revised MFAC/BMP Program began in July 2014.

This Annual Report includes the following information from first-year monitoring conducted under the revised TMRP and MFAC/BMP Program:

- Monitoring Summary
- MFAC Events/BMP Implementation Summary
- MFAC/BMP Program Evaluation and Revision Recommendations

The efforts to implement the Trash TMDL are being completed on behalf of the responsible parties to the Trash TMDL as listed in **Table 1**. The efforts to implement the Trash TMDL requirements for nonpoint sources are focused within the Estuary and the parcels adjacent to the Estuary. **Table 2** presents the names of the parcels within the Estuary, which were grouped into four MFAC areas identified for the MFAC/BMP Program implementation. **Figure 1** shows the locations of the parcels within the Estuary. During this monitoring period, the cleanup and monitoring efforts were expanded to include the whole TMDL compliance area including areas that are not part of the eight parcels listed in **Table 2** and shown in **Figure 1** including the area under the Main Street Bridge, the area under the US 101 Bridge, and the area under the railroad bridge between MFAC Area 1 and MFAC Area 2. In addition, County of Ventura installed full trash capture devices within County unincorporated areas draining to the MS4 within the Trash TMDL Staff Report-defined Estuary Sub-watershed area.

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

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

1. Caltrans was not assigned a Load Allocation, yet it is participating in the MFAC/BMP Program to meet the Trash TMDL goals.
2. Ventura County Agricultural Irrigated Lands Group.

Table 2. Estuary Parcels by MFAC Area

	MFAC Area 1	MFAC Area 2	MFAC Area 3	MFAC Area 4
Parcel Owner	State of California Department of Parks and Recreation	State of California Department of Parks and Recreation	Ventura Beach RV Resort, Inc.	Wood-Claeyssens Foundation
	City of San Buenaventura	State of California Department of Parks and Recreation	Ventura Hillside Conservancy	Ventura County Watershed Protection District

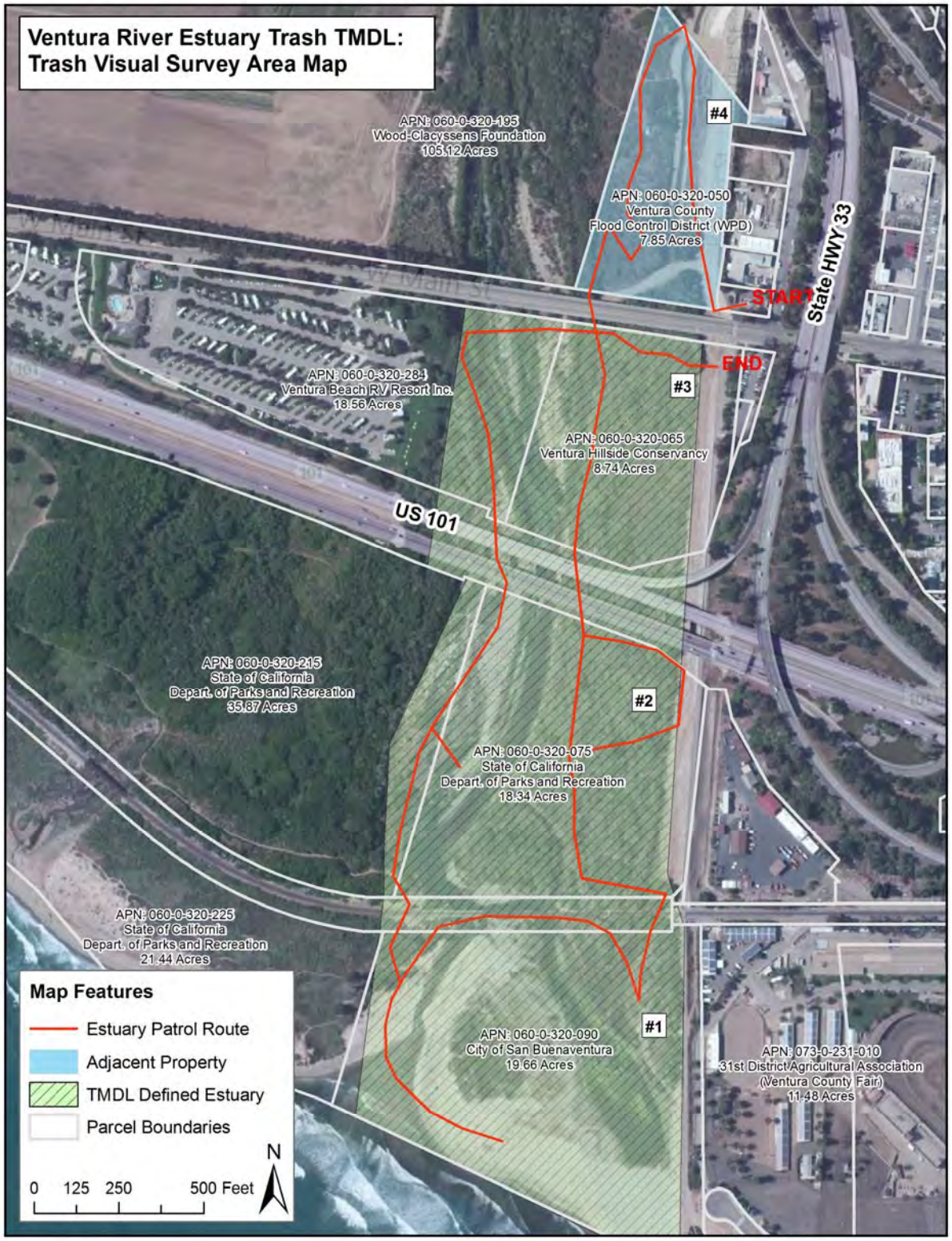

Figure 1. MFAC/BMP Program Monitoring Area and Assessment/Patrol Route

Monitoring Summary

ASSESSMENTS AND COLLECTION EVENTS

During the beginning of the monitoring year, the responsible parties developed the revised MFAC/BMP Program. Throughout the development period, the responsible parties implemented an interim MFAC/BMP Program, consisting of large-scale and small-scale clean-up events that did not follow an established MFAC protocol. As such, the responsible parties did not conduct any revised MFAC Events during the first two quarters of the monitoring year. Additionally, the responsible parties only conducted initial MFAC Events during the third quarter of the monitoring year to test the applicability of the revised MFAC/BMP Program. The responsible parties implemented the revised MFAC/BMP Program beginning in July 2014. Upon implementation of the revised MFAC/BMP Program, the responsible parties conducted regular visual trash assessment surveys along a pre-defined route in the Estuary on a rotating schedule each month to ensure the entire Estuary, as defined in the Trash TMDL, was covered on a quarterly basis. The assessment 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 Program. The assessment route is shown in **Figure 1**. The visual trash assessment surveys were conducted in accordance with the revised TMRP. However, the responsible parties conducted significantly more assessments than required in the revised TMRP, which is one assessment per quarter. This is due to this monitoring year being a transition year between the previous MFAC/BMP Program and the revised MFAC/BMP Program. Additional cleanups have been determined to be necessary to address legacy trash that has accumulated in the Estuary. After the legacy trash has been removed, the revised TMRP frequency will be implemented.

The responsible parties also conducted trash collection events beginning in July 2014 utilizing information from the monitoring program and from the assessments to determine the locations to focus trash collection efforts. The responsible parties only conducted collection events in MFAC Area 2 as this was the only area that required collection events based on the information gathered during the assessments.

In addition, the responsible parties conducted regularly scheduled patrols along the assessment route as shown in **Figure 1**. The patrols were conducted to eliminate existing homeless encampments and prevent the establishment of new homeless encampments and to assess trash levels, as homeless individuals and homeless encampments are the main nonpoint sources of trash for the Estuary. The responsible parties averaged up to two patrols per week in areas exhibiting large homeless populations and averaged up to two patrols per month in areas exhibiting small homeless populations. The responsible parties conducted 105 patrols beginning in January 2014.

A summary of the assessment dates, the collection event dates, and the patrol dates is presented in **Table 3**. **Appendix 2.** Assessment and Collection Worksheets contains the Trash Visual Survey Worksheets and the Collection Event Worksheets for all MFAC Events conducted during 2013-2014.

Table 3. Assessment, Collection, and Patrol Dates for October 2013-Septebmer 2014

	Apr	May	Jun	Jul	Aug	Sep
	Q3			Q4		
Assessment Dates[1]						
MFAC Area 1		5/4/14	6/13/14	7/30/14	8/1/14	9/15/14
MFAC Area 2		5/4/14	6/13/14	7/30/14	8/1/14	9/15/14
					8/8/14	
MFAC Area 3			6/13/14	7/28/14	8/1/14	9/15/14
				7/30/14	8/8/14	
					8/9/14	
					8/20/14	
MFAC Area 4				7/28/14	8/20/14	9/15/14
Collection Dates[2]						
MFAC Area 2		5/7/14			8/11/14	9/15/14
					8/16/14	9/20/14

Patrol Dates

1/3/14	2/11/14	3/14/14	4/11/14	5/10/14	6/17/14	7/21/14	8/6/14	8/20/14	9/5/14	9/29/14	10/14/14	10/26/14	11/12/14	11/31/14
1/9/14	2/19/14	3/20/14	4/14/14	5/15/14	6/24/14	7/23/14	8/8/14	8/21/14	9/6/14	10/2/14	10/15/14	10/29/14	11/14/14	12/4/14
1/13/14	2/28/14	3/28/14	4/19/14	5/23/14	6/29/14	7/25/14	8/8/14	8/22/14	9/10/14	10/5/14	10/17/14	10/31/14	11/17/14	12/6/14
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2/4/14	3/10/14	4/8/14	5/4/14	6/11/14	7/16/14	8/1/14	8/18/14	9/2/14	9/25/14	10/13/14	10/23/14	11/10/14	11/25/14	12/18/14

1. During the beginning of the monitoring year, the responsible parties developed the revised MFAC/BMP Program. Throughout the development period, the responsible parties implemented an interim MFAC/BMP Program, consisting of large-scale and small-scale clean-up events that did not follow an established MFAC protocol. As such, the responsible parties did not conduct any MFAC Events during the first two quarters of the monitoring year. Additionally, the responsible parties only conducted initial MFAC Events during the third quarter of the monitoring year to test the applicability of the final MFAC/BMP Program. The responsible parties implemented the final MFAC/BMP Program beginning in July 2014.
2. The responsible parties only conducted collection events in MFAC Area 2 as this was the only area that required collection events based on the information gathered during the assessments.

ASSESSMENT FINDINGS

The goal of the MFAC/BMP Program is to ensure the parcels in the Estuary are at a Category 1 level of trash based on the information collected during Estuary visual assessments. The three Trash Assessment Categories of the MFAC/BMP Program are:

- 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 is 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."

There were multiple locations on the parcels within the four MFAC Areas that were assessed during the MFAC Events. These areas were located along the assessment route and in other areas of the Estuary identified through the patrols. Based on the trash conditions at the multiple assessed locations, the Ventura Hillside Conservancy determined the overall percentage of the MFAC Areas that were in each of the Trash Assessment Categories. **Table 4** presents a summary of the Trash Assessment Categories for MFAC Areas resulting from the assessments conducted during 2013-2014. **Appendix 2.** Assessment and Collection Worksheets contains the Trash Visual Survey Worksheets with all assessment locations for all MFAC Events conducted during 2013-2014.

Table 4. Percent of MFAC Area by Assessment Category[1]

Quarter 4				
Assessment Area	**Category 1**	**Category 2**	**Category 3**	**Notes**
MFAC Area 1	90%	5%	5%	
MFAC Area 2	75%	10%	15%	
MFAC Area 3	99%	1%	0%	
MFAC Area 4	99%	1%	0%	

1. During the beginning of the monitoring year, the responsible parties developed the revised MFAC/BMP Program. Throughout the development period, the responsible parties implemented an interim MFAC/BMP Program, consisting of large-scale and small-scale clean-up events that did not follow an established MFAC protocol. As such, the responsible parties did not conduct any MFAC Events during the first two quarters of the monitoring year. Additionally, the responsible parties only conducted initial MFAC Events during the third quarter of the monitoring year to test the applicability of the final MFAC/BMP

Program. No assessment data were collected during the third quarter MFAC Events. The responsible parties implemented the revised MFAC/BMP Program beginning in July 2014.

MFAC Events/BMP Implementation Summary

To ensure the parcels are all within Category 1, the MFAC/BMP Program is 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 are noted and any trash observed is collected during the visual survey. If no potential high trash generating areas are identified through the patrol of the parcel, the MFAC Event is not conducted. If potential high trash generating areas are identified by the patrols, then the MFAC Event focusing on those areas of the parcel that require clean-up.
2. Monitoring sites in Category 2 are 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 are 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 MFAC Events are targeted for more frequent patrols and/or more frequent clean-ups depending on the identified primary source of trash until the site reaches Category 1 for two (2) consecutive visual surveys.

This following section provides the results of the collection events and the results of the BMPs implemented related to reducing trash within the Estuary and from adjacent land areas.

MFAC COLLECTION EVENTS AND ADDITIONAL CLEAN-UP EVENTS

One facet of the MFAC/BMP Program is to clean up any trash found through the assessments. This is done to ensure zero pieces of trash are found after the assessment. **Table 5** presents the trash collected during the collection events during 2013-2014. **Appendix 2.** Assessment and Collection Worksheets contains the Collection Event Worksheets for all MFAC Events conducted during 2013-2014. Another facet of the MFAC/BMP Program is to conduct additional clean-ups in the Estuary if it is found that trash is accumulating in deleterious amounts between assessments. The responsible parties conducted 14 additional clean-ups in the Estuary to address high trash accumulation areas. One area addressed by a number of special clean-ups was the State Parks Parcel (MFAC Area 2), which had legacy trash located within its boundary from previous homeless encampments. The parcel was known to have legacy trash issues, and therefore, was targeted for additional clean-ups from the beginning of the 2013-2014 monitoring year. **Appendix 3.** Clean-Up Photos provides photos of the types of trash removed during collection events and additional clean-up events.

Table 5. Summary of Trash Collected during the MFAC Collection and Additional Clean-up Events

Date	MFAC Area 1	MFAC Area 2	MFAC Area 3	MFAC Area 4
1/7/14			3 bags/60 lbs	5 bags/100 lbs
1/18/14			20 bags/400 lbs	40 bags/500 lbs
1/20/14		1.5 40 CY dumpsters/12 tons	8 bags/160 lbs	
2/4/14		38 bags/780 lbs	5 bags/100 lbs	
2/15/14		15 bags/300 lbs	7 bags/140 lbs	
3/4/14			6 bags/120 lbs	4 bags/80 lbs
3/22/14			10 bags/200 lbs	2 bags/40 lbs
4/19/14		1 40 CY dumpster/8 tons		
5/7/14[1]		25 bags of trash		
5/17/14		1 6 CY dumpster/25 bags		
6/21/14		1 6 CY dumpster/30 bags		
7/19/14		150 bags/1.5 tons		
7/28/14	4.1 tons			
8/11/14[1]		1 bag of trash		
8/16/14[1]		5 bags/100 lbs		
9/15/14[1]		2 bags of trash		
9/20/14[1]		1 20 CY dumpster/52 bags		

1. MFAC Collection Event
lbs=pounds
CY=cubic yard

BMP IMPLEMENTATION

This section describes the BMPs implemented by the responsible parties within the Estuary and on land areas adjacent to the Estuary.

City of Ventura Litter Management Program BMPs

- Street Sweeping
    - Residential Streets swept at least once a month.
    - Commercial Streets swept 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 clean-up following events.
  - Collection of trash from 18 public trash receptacles located within the watershed two or three times per week 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 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 Estuary that is adjacent to the City limits.
  - Litter laws that prohibit the accumulation of trash on private property are enforced by the City Code Enforcement 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 Clean-Up Events
  - The City will initiate clean-up events, as necessary, in response to observed elevated trash levels.
- City-Sponsored Clean-Up Events
  - The City sponsors various clean-up events throughout the City that may include one or more of the following events during any given year: Martin Luther King

Day; Earth Day Beach Clean-Up; Coastal Clean-Up Day; Backyard Collective; and Ventura Charter School Trash-a-thon.

- The City sponsored Westside Clean-Up (June 7, 2014) provided free disposal of solid waste from any west side (adjacent to the Ventura River) Ventura residents. Residents brought solid waste to a centralized location where it was sorted for recycling or disposal.
- An additional clean-up event conducted by the City in the Estuary occurred on July 28, 2014 (underneath the rail road bridge).

- Work Plan to Eliminate Homeless Encampments (Safe and Clean Program)
  - The Ventura City Council initiated the development of a work plan in September 2012 to eliminate encampments in the 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

- Installation of Full Capture Catch Basin Trash Excluders – Installation of certified Stormtek Full Capture Catch Basin Trash Excluder Devices to achieve 100% reduction of trash from Baseline WLA, for all Ventura County Unincorporated areas draining to the County's MS4 within the Ventura River Estuary subwatershed.
- 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 – All 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 upstream of the Estuary, to ensure that trash originating from the park does not enter the river and deposit in the Estuary. 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® and other forms of social media.
- 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 approximately twice per month and is mechanically swept approximately 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:

- Caltrans 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 Caltrans's Adopt-a-Highway Program, as described below.
- Caltrans 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.
- Caltrans uses venues such as public schools, community-sponsored clean-up events, Bring Your Child to Work Day, and Earth Day to educate the public about the importance of excluding pollutants from stormwater.
- Caltrans'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 Caltrans'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, Caltrans relies on Sections 23112, 23113, 23114, and 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

- Designated Public Use Areas

- Trash and recycling containers are installed at all visitor activity areas and maintained at least once per week to remove litter and to verify that containers are functioning properly.
- 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.
- It is routine and standard operating procedure for maintenance personnel and volunteer camp hosts to hand harvest (pogie) trash that is loose on park grounds each day after restrooms have been cleaned.
- It is routine and standard operating procedure for beach lifeguards to hand harvest trash (pogie) that is loose on the beach or in the water each day when there are no swimmers in the water or it is safe to do so.

- Undeveloped Areas
  - Litter and debris are periodically collected from State Park's backcountry lands, water courses and roadways. Maintenance supervisors inspect park roads in their assigned sections for the accumulation of litter.
  - Signs may be installed where litter concentration is repetitive and at known illegal dumping locations.
  - Catch basins are inspected and cleaned at least once per year. During storm season, all drainage facilities are inspected and cleaned as necessary.
- Volunteer Events and Public Outreach
  - State Parks sponsors various Earth Day and Coastal Clean-Up Day events throughout the district. The department will initiate clean-up events, as necessary, in response to observed elevated trash levels.
  - Routine and random river bottom patrols are conducted by law enforcement at a minimum of once per week to discourage establishment of illegal camp sites.
  - 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.
- Construction Project and Special Events
  - A plan for the proper management of trash and litter is required when obtaining a permit for staging public events on State Parks property. This plan requires adequate facilities for trash collection and disposal.
  - When executing permits to outside contractors, State Parks insists in its contract language, and then conducts, construction facility/site inspections to ensure that proper pollution prevention BMPs are being activated.

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 are assessed a fee, based on acreage farmed, to further reinforce through a fiscal measure that trash in the watershed needs addressing.
- Plastics Recycling – Community Recycling & Resource Recovery, Inc. and local farmers are collaborating to recycle 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 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 clean-ups

MFAC/BMP Program Evaluation and Revision Recommendations

The TMRP states the responsible parties will: "Evaluate effectiveness of BMPs and recommended changes to TMRP Addendum No. 1 and MFAC/BMP Program, as necessary." Under the previous MFAC/BMP Program and TMRP, the following steps were used to assess MFAC/ BMP Program effectiveness:

1. A review of BMP implementation, including identification of BMPs, location of BMPs, and time frame (*e.g.*, when an activity was implemented or installed); and
2. A comparison of monitoring results between monitoring locations and between events before and after BMP implementation.
3. Comprehensive review and assessment of MFAC/BMP Program

Given the broad nature of most of the BMPs implemented (*e.g.*, education programs, ordinances, street sweeping), the highly variable amounts of trash collected, and the relatively short time frame that full capture devices were installed, the responsible parties could not identify trends in the monitoring data that could be used to determine effectiveness of individual BMPs implemented. Based on the results of the previous evaluation and the structure of the new MFAC/BMP Program, the responsible parties utilized an approach based on the visual assessments.

The responsible parties utilized parcel rankings by Category as a means to assess effectiveness of the MFAC/BMP Program. That is, if there was an overall trend of parcels starting out and remaining in Category 1, or parcels moving from Category 2 or Category 3 to Category 1, then no modifications to the MFAC/BMP Program are needed. Conversely, if there was an overall trend of parcels moving from Category 1 to Category 2 or Category 3 over the course of the implementation year, then modifications to the MFAC/BMP Program would be considered.

2013-14 is the first year of the revised TMRP and modified MFAC/BMP Program implementation. A large amount of legacy trash existed in the Ventura River Estuary and the bulk of the effort (including many additional clean-up events) during this monitoring year has gone towards cleaning up the legacy trash. While most of the parcels have been cleaned and legacy trash removed, the State Parks Parcel (MFAC Area 2) still contains legacy trash. This is due to a population of homeless individuals that are not receptive to relocating from the area, even after multiple citations from local law enforcement. It is anticipated that this parcel will be fully cleaned by spring 2015. Once the legacy trash is removed, the revised TMRP and MFAC/BMP Program will begin to be implemented at the frequency outlined in the TMRP (without the additional clean-ups).

As a result, the responsible parties are not conducting an assessment of the program or proposing any revisions to the MFAC/BMP Program during this annual report. The focus on removing legacy trash in the Estuary during the monitoring year does not allow for development of an assessment of the baseline MFAC/BMP Program this year. Once the legacy trash is removed and the MFAC/BMP Program has been implemented without the legacy trash, the responsible parties will have a clearer understanding of the effectiveness of the baseline MFAC/BMP Program. However, through the initial implementation of the revised MFAC/BMP Program, it is clear that the revised MFAC/BMP Program is a better use of resources and much more effective at removing trash from the Estuary compared to the previous MFAC/BMP Program. The responsible parties will provide any revisions that were made or will be made to the MFAC/BMP Program, in the second-year Annual Report, which will be submitted in January 2016.

Appendix 1. County of Ventura Full Capture Connector Pipe Screen Trash Excluder Certification Report

VENTURA RIVER ESTUARY TRASH TMDL
FULL CAPTURE CONNECTOR PIPE SCREEN TRASH EXCLUDER
CERTIFICATION REPORT

100% Full Trash Capture Compliance within
County Unincorporated Areas in Ventura River Estuary Subwatershed

Prepared By:

Ventura County Public Works Agency

800 S. Victoria Avenue

Ventura, CA 93009-1600

January 2015

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Appendix

Background

The purpose of this report is to document the installation and certification of 16 adequately sized and maintained semi-circular connector pipe screen (CPS) 100% full capture trash excluders for all Ventura County Unincorporated (County) areas draining to the County's MS4 within the Ventura River Estuary subwatershed as part of the Point Source requirements of the Ventura River Estuary Trash TMDL (Los Angeles Regional Water Quality Control Board Resolution No. R4-2007-008).

The Los Angeles Regional Water Quality Control Board (LARWQCB) adopted the definition of "full capture system" for the Ballona Creek Trash Total Maximum Daily Load (TMDL) per Resolution No. 04-023 on March 4, 2004. This definition is considered applicable for all receiving waters in the Los Angeles Region identified as being impaired for trash. The definition is as follows:

"A full capture system is any single device or series of devices that traps all particles retained by a 5 mm mesh screen and has a design treatment capacity of not less than the peak flow rate (Q) resulting from a one-year, one-hour, storm in the subdrainage area. Rational equation is used to compute the peak flow rate: Q = C x I x A, where Q = design flow rate (cubic feet per second, cfs); C = runoff coefficient (dimensionless); I = design rainfall intensity (inches per hour, as determined per the rainfall isohyetal map), and A = subdrainage area (acres)."

On August 1, 2007 the Los Angeles County Division of Public Works (LACDPW) received full capture certification from the LARWQCB for semi-circular connector pipe screens that were the basis of the submitted technical report "Connector Pipe Screen Design, Full Capture TMDL Compliance, Screen and Bypass Sizing Requirements (LACDPW Technical Report)," dated April 2007. Following the guidelines of the technical report, the County of Ventura hired a contractor to design, manufacture and install these types of devices in multiple watersheds, including the Ventura River watershed, in order to claim full capture credit towards the Trash TMDL requirements. The StormTek brand CPS devices are identified by name as being certified for 100% trash capture on page 2 in the LACDPW Technical Report.

In Fall 2014, 15 County owned and maintained catch basins were retrofitted with Stormtek CPS devices with 5 mm mesh screen designed to provide 100% capture of trash within their respective drainage areas. One catch basin location (Device ID 1-015) has 2 CPS devices installed side by side due to the large size of the outlet reinforced concrete box (RCB). All devices were installed on the downstream connector pipe at strategic locations within the Ventura River Estuary subwatershed to ensure 100% full trash capture from areas draining to the County's MS4.

Potential Point Sources and Responsible Jurisdiction

The Ventura River Estuary Trash TMDL Staff Report defines the estuary as "north-southerly between the Pacific Ocean and Main Street Bridge in the City of San Buenaventura, easterly adjacent to Seaside Wilderness Park where Ventura County Fairground is and which frequently hosts events and allows direct access to the estuary area, westerly next to Ventura Beach RV park between Main Street and Highway 101, and Emma Wood State Park under oversight of California Department of Parks and Recreation. **Figure 1** depicts the general extent of the estuary as well as the parcels covering and surrounding the estuary and the applicable owner.

Figure 1 – General Extent of the Ventura River Estuary and Related Parcels

The Ventura River Estuary subwatershed is defined as "… northerly to the confluence with Weldon Canyon, easterly and westerly encompassing tributaries to the Ventura River and their surroundings, and partial City of Ventura where the storm drains discharging to the Ventura River" in the Trash Total Maximum Daily Load for the Ventura River Estuary – Final Staff Report dated July 11, 2007.

As the Minimum Frequency of Assessment and Collection (MFAC) Program for the Ventura River Estuary Trash TMDL was designed to address both point and non-point source trash and evaluate sources coming from upstream of the Estuary, the current MFAC Program includes areas outside of the estuary and areas not required by the TMDL.

The County's MS4 storm drain network that is within the Ventura River Estuary subwatershed was analyzed to identify the catch basin locations requiring CPS installations. The locations of the installations represent 100% trash capture for all County MS4 drainage areas within the subwatershed area. **Figure 2** shows an overview of the County's MS4 within the Ventura River Estuary subwatershed with the locations of the installed CPS devices in relation to the Ventura River Estuary area.

FIGURE 2
Overview of Installed CPS Locations and Ventura River Estuary

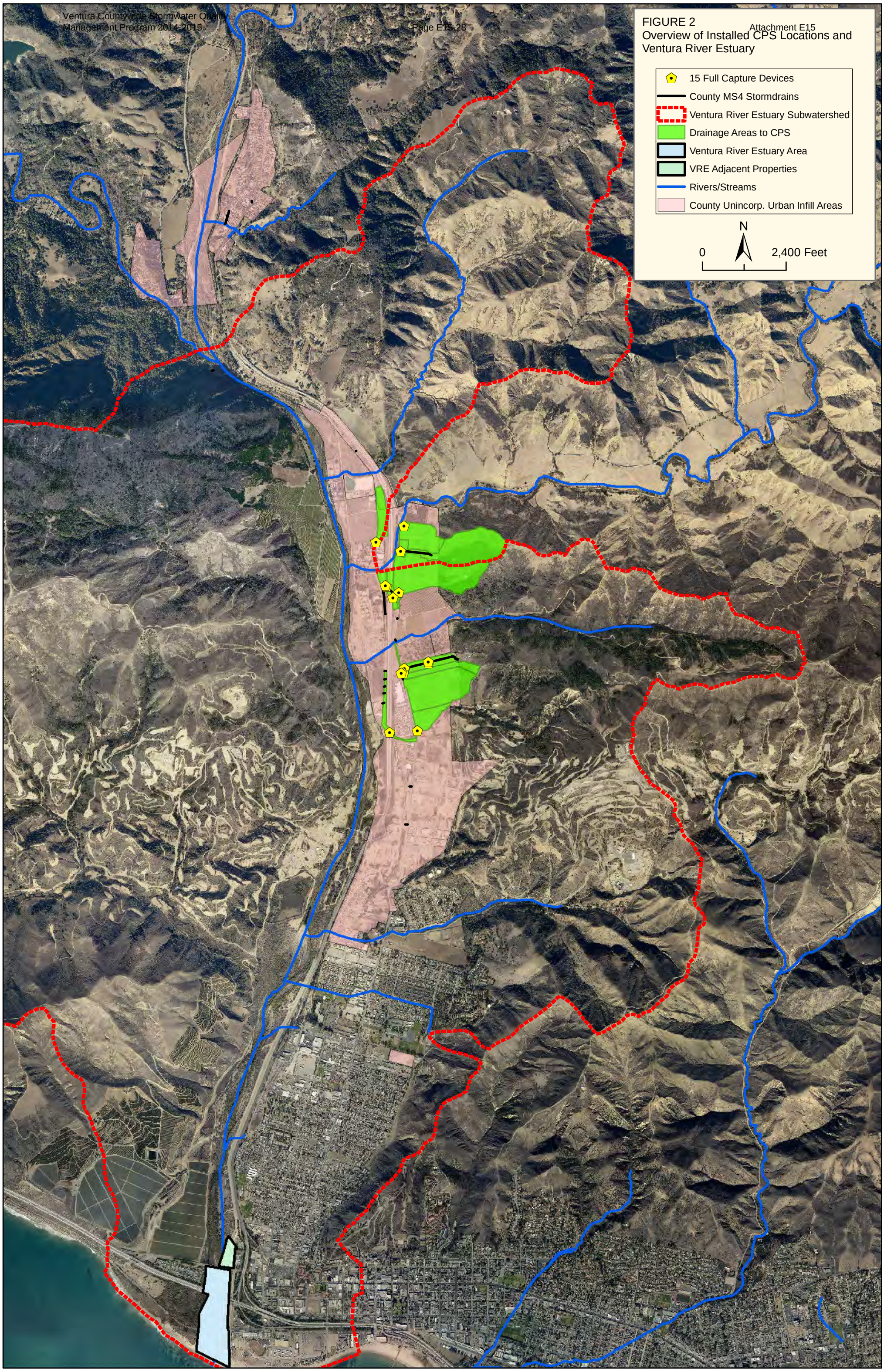


Figure 2 – Overview of Installed CPS Locations and Ventura River Estuary

CPS Device Trash Excluder Locations

Figures 3 and 4 show detailed maps of the County MS4 and the installed CPS devices with their drainage areas. **Appendix A** contains more detailed maps of each retrofitted catch basin and their drainage areas. **Appendix B** contains photos of before and after installation for each of the locations using their unique device identification number.

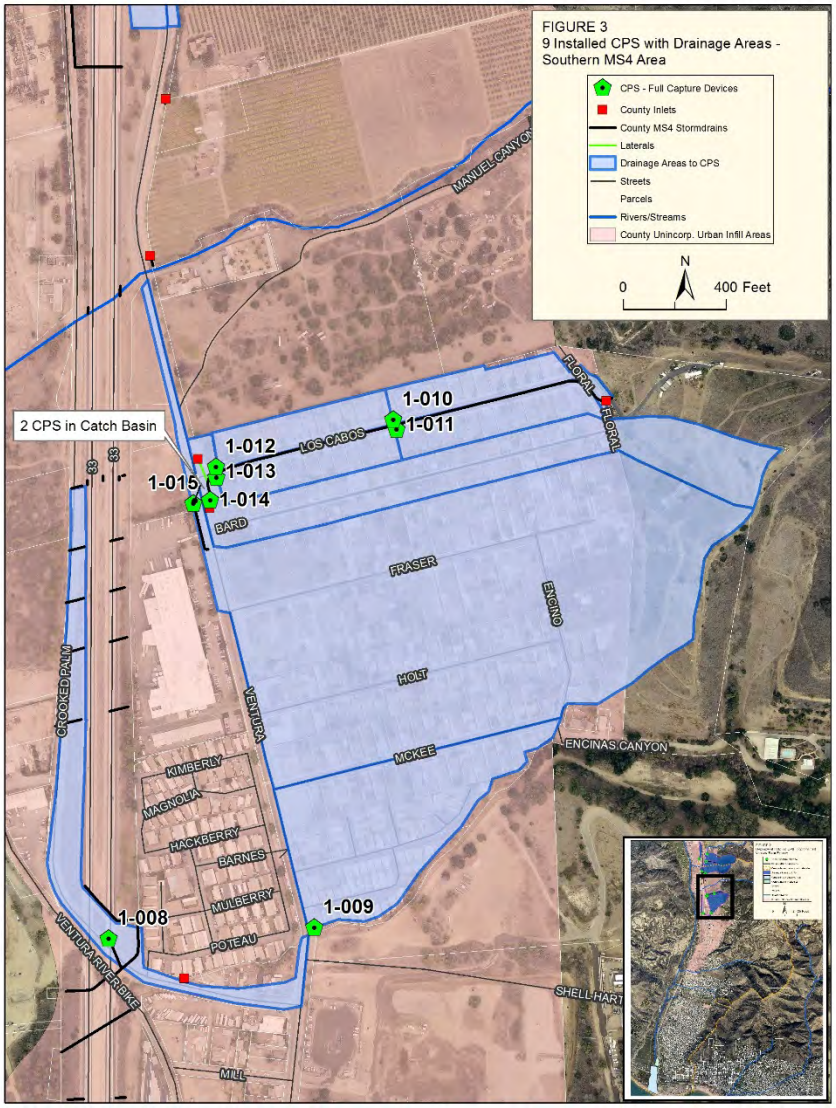


Figure 3 – Nine Installed CPS with Drainage Areas – Southern MS4 Area

It should be noted that Device ID 1-015 contains 2 CPS installed within the same catch basin. Due to the larger size of the downstream connector reinforced concrete box (7'W X 3'H), the 2 CPS devices were installed side by side to allow for full capture at this site.

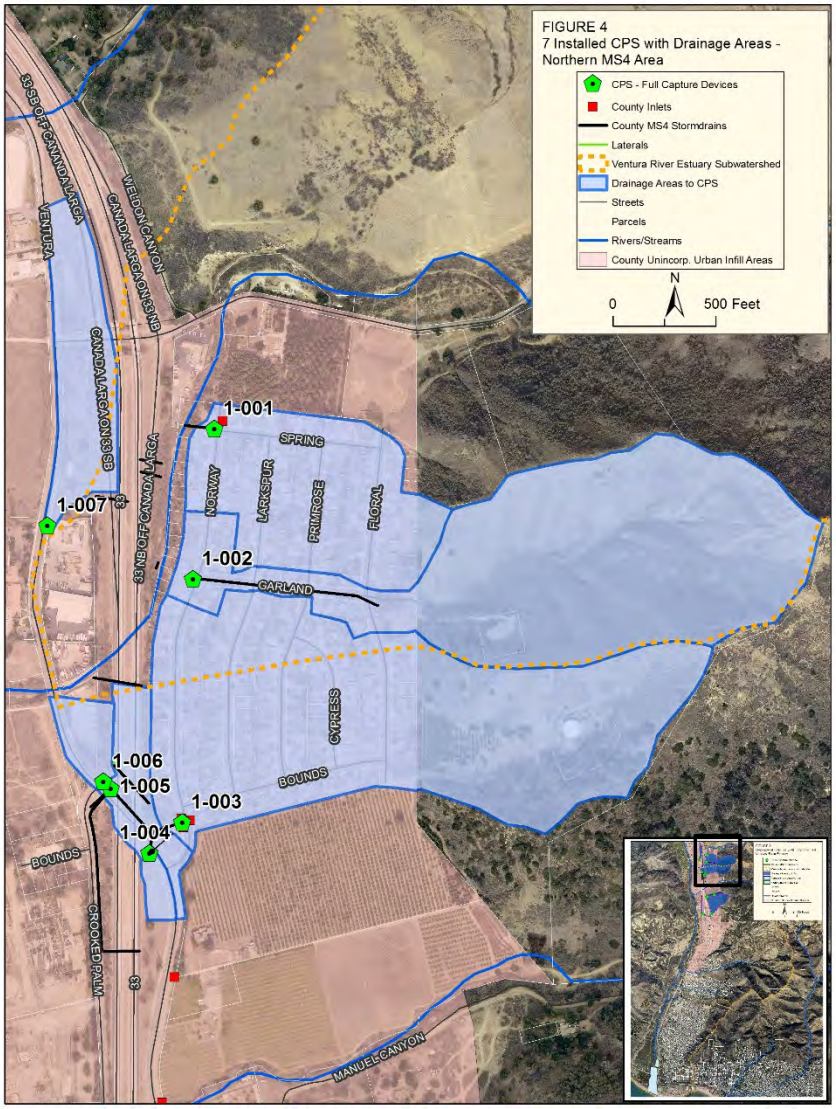


Figure 4 - Seven Installed CPS with Drainage Areas – Northern MS4 Area

Each of the CPS devices will be inspected and maintained in accordance with the operation and maintenance procedures described in detail in the document 'Ventura County - Full Capture Connector Pipe Screen Trash Excluders – Operations and Maintenance Plan' (O&M Plan) and summarized later in this report.

Design Hydrology

Since the majority of Ventura County drainage facilities are designed for a 10-yr design storm frequency (Q_{10}), the calculations in this report for the sizing of the CPS devices are for a catch basin designed with a 10-year storm frequency. The 10-year flow is also used to analyze the downstream connector pipe design capacity frequency.

Due to a lack of historical hydrology studies for this area of the Ventura River Watershed, unit flow calculations provided by the Ventura County Watershed Protection District (VCWPD), Hydrology Section

were used for the 10-yr design flows in this analysis. The unit flows were calculated for Ventura County Rainfall Zone K, Average % Impervious = 23%, Time of Concentration (Tc) = 10 minutes and Hydrologic Soil Type = 4. Based on these parameters the average 10-yr I (in/hr) = 2.52 and the average C coefficient = 0.750 results in a Q_{10} (cfs/ac) = 1.89. It is important to note that the C coefficients listed in the Ventura County Technical Guidance Manual for Stormwater Quality Controls, 2011 (TGM) are different than the C coefficients used in the District's design storm hydrology method. This is mainly because at the 10-yr and longer storm levels the assumption is that the soils are saturated so the C coefficients are higher. At the 1- and 2-yr storm level, the soils are not fully saturated and so the C coefficients typically are lower. As described below, in calculating the $Q_{1\text{-}1}$, the TGM method of calculating C coefficients was used.

In order to calculate the peak flow resulting from a one-year, one-hour, storm ($Q_{1\text{-}1}$) for the installed CPS devices, first a rain gage analysis was performed to come up with the 1-yr, 1-hr rainfall intensity to be used in the Rational Equation to compute the peak flow rate Q = C x I x A. The following summarizes the steps taken to calculate the 1-yr, 1-hr rainfall intensity:

- Obtained the short duration frequency results from the Ventura County Watershed Protection District (District) Pearson III frequency analyses of the gage data for Gage # 167 – Hall Canyon starting in 1956
- Recorded the annual 1-hr mean, standard deviation, and station and regional skew value for the gage
- Assumed the 1-yr storm, although undefined for the annual maximum series, can be represented by the storm with a recurrence interval of 1.01 years (probability of exceedance of 0.99)
- This assumption is consistent with the Los Angeles County Department of Public Works (LACDPW) in responding to this request from the Regional Board for their jurisdiction
- Looked up the Pearson III frequency factors associated with the regional and station skews
- The above information was used to calculate the 1.01 yr 1-hr rain depth for the gage and the skew combination
- For the Hall Canyon Gage # 167, the 1-yr, 1-hr result is approximately 0.40 inches

The above results were checked and verified following the procedure below:

- Most catch basins in Ventura County are designed to accept the runoff from a 10-yr storm. Most areas of the County, including the Ventura River watershed area where the full capture devices were installed, use the K Zone rainfall hyetograph as defined in the Ventura County Design Hydrology Manual (2010)
- The 10-yr K Zone rainfall used in the Ventura County Modified Rational Method Program (VCRat) has a maximum 1-hr intensity of 1.2 in./hr.
- The short term rain data from Gage # 167 have a 1-hr, 1-yr/10-yr ratio of 0.191
- Applying this ration to the K Zone data shows a 1-yr, 1-hr estimate of approximately 0.20 in.
- This result shows that the 10-yr K Zone intensity commonly used in the design of catch basins is much higher than the Regional Boards requirement. Therefore, most, if not all, catch basins should be able to accept the 1-yr, 1-hr flow with correctly sized trash excluder openings with sufficient area.
- The 1-yr, 1-hr estimate using the K Zone data is smaller than the analysis results from the gage data; therefore the gage results used for sizing of the openings are considered conservative.

The drainage area was delineated for each catch basin with a CPS device installed. See **Figures 3 & 4** – Installed CPS Devices and Drainage Areas. This area represents the A in acres used in the Rational Equation Q = CIA. The dimensionless C, or runoff coefficient, used in the sizing calculations was

calculated based on the average weighted runoff coefficient for the drainage areas to each of the catch basins using Equation 2.13 from the TGM:

$$C = 0.95*imp + C_p (1-imp)$$

Where:

C = runoff coefficient (equals 0.95 for impervious surfaces)

Imp = impervious fraction of watershed

C_p = pervious runoff coefficient, determined based on soil type

GIS weighted overlay analysis was done for each drainage area to determine the average weighted soil number used in determining the C_p value used in the above equation and for calculating the Imp for each subdrainage area.

Table 1 shows the calculated Q_{10} and $Q_{1\text{-}1}$ at each of the CPS device locations using the methods described above.

Table 1 – Hydrology Peak Flow Rates and Parameters

Device ID	Percent Impervious	C coefficient	1-yr/1-hr Intensity (in/hr)	Drainage Area (ac)	$Q_{1\text{-}1}$ (cfs)	Q_{10} (cfs)
1-001	0.65	0.653	0.40	18.59	4.85	35.1
1-002	0.30	0.355	0.40	43.57	6.19	82.4
1-003	0.47	0.500	0.40	49.35	9.86	93.3
1-004	0.54	0.536	0.40	0.94	0.20	1.8
1-005	0.75	0.725	0.40	4.39	1.27	8.3
1-006	0.38	0.392	0.40	2.26	0.35	4.3
1-007	0.38	0.423	0.40	9.14	1.55	17.3
1-008	0.80	0.770	0.40	5.42	1.67	10.2
1-009	0.70	0.680	0.40	9.46	2.57	17.9
1-010	0.78	0.752	0.40	2.36	0.71	4.5
1-011	0.78	0.752	0.40	2.54	0.76	4.8
1-012	0.78	0.752	0.40	2.27	0.68	4.3
1-013	0.78	0.752	0.40	2.32	0.70	4.4
1-014	0.50	0.500	0.40	9.70	1.94	18.3
1-015	0.45	0.455	0.40	39.93	7.27	75.5

The licensed StormTek contractor, Estrada Engineering, sized the screens, their diameter and the vertical opening around the perimeter at the top of the screen for each device according to the recommended calculations and dimensions as shown in the LACDPW Technical Report. Each unit was custom designed and constructed for the catch basin based on its dimensions, outflow pipe and modeled flow rates. **Table 2** lists the catch basin dimensions, installed CPS dimensions, and the LACDPW Technical Report minimum sizes and design screen capacities.

Hydraulic Analysis

Catch Basin Flows

A conservative estimate of catch basin flows based on curb openings widths must be determined in order to calculate the Q_{1-1}. The bypass structure must also be able to pass the maximum catch basin flow in order to provide proper flood protection. The LACDPW Technical Report was used for guidance in this analysis. The table in the Appendix of the LACDPW Technical Report was used to define the minimum screen capacity and minimum screen surface area for each catch basin. The catch basins were categorized as either 1) CB 300 – Standard Catch Basin, 2) CB 301 Side Inlet with Grate Catch Basin, or 3) CB 303 Standard Grating Catch Basin. By using the table, the catch basin type and their dimensions as well as the installed CPS device dimensions, the minimum screen capacity (cfs) and minimum screen surface area (sq in) were compared to the installed device capacity and surface area. **Table 2** lists these values and dimensions.

Table 2 – Catch Basin/CPS Dimensions & Minimum Recommended Screen Size/Capacity

	Catch Basin Dimensions					Installed Insert Dimensions						LADPW Tech. Report Information				Calculated Flows
ID No.	CB Type	Depth (in)	Width (in)	Length (ft)	Outlet Dia (in)	Type	Screen Ht (in)	Dia (in)	Rad (in)	Screen Length (ft)	Screen Surface Area (sq in)	Min. Screen Height (in)*	Min. Screen Length (ft)*	Min. Screen Surface Area (sq in)	Min. Screen Capacity (cfs)*	Q1-1 (cfs)
1-001	300	70	30	6	24	S	40	36	18	4.8	2261	42	2.1	1058.4	4.9	4.85
1-002	300	47	26	6	28	S	40	36	18	4.8	2261	24	2.9	835.2	3.8	6.19
1-003	301	36	38	5	24	S	30	30	15	3.9	1413	18	3.3	712.8	3.3	9.86
1-004	301	40	36	5	24	S	32	31	15.5	4.1	1557	18	3.3	712.8	3.3	0.20
1-005	300	58	42	4	36	S	30	36	18	4.8	1696	30	1.1	396	1.8	1.27
1-006	300	34	34	7	24	S	30	30	15	3.9	1413	18	2.9	626.4	2.9	0.35
1-007	300	48	48	4	22	S	26	30	15	3.9	1225	24	1.5	432	2	1.55
1-008	301	34	48	5	24	S	30	30	15	3.9	1413	18	3.3	712.8	3.3	1.67
1-009	300	42	38	15	12	S	30	20	10	2.6	942	18	3.8	820.8	3.8	2.57
1-010	300	34	32	5	20	S	28	20	10	2.6	879	18	1.5	324	1.5	0.71
1-011	300	46	40	7	20	S	28	20	10	2.6	879	24	2.9	835.2	3.8	0.76
1-012	300	36	40	15	20	S	28	26	13	3.4	1143	18	3.1	669.6	3.1	0.68
1-013	300	36	38	5	20	S	28	20	10	2.6	879	18	1.5	324	1.5	0.70
1-014	300	46	32	6	32	S	30	36	18	4.8	1696	24	2.9	835.2	2.9	1.94
1-015	300	60	90	6	90	S	50	38	19	5.0	2983	30	2.1	756	3.5	7.27
	300	60	90	6	90	S	50	38	19	5.0	2983	30	2.1	756	3.5	
* Screen capacity and recommended screen dimensions from LADPW Tech. Report, 2007																
** Due to size of outlet RCB (7'W X 3'H) 2 CPS Devices were installed side by side																

As noted in the LACDPW Technical Report some combinations of V-depths, connector pipe sizes and catch basin dimensions made installation of standard sized CPS devices impossible. For Device ID's 1-002 and 1-003, the calculated Q_{1-1} is greater than minimum Q_{1-1} shown in the LACDPW Technical Report for a catch basin with similar V-depths and lengths. The total area and therefore treatment capacity of the screen is still adequate at these locations as can be seen in the comparison of the installed Screen Surface Area to the Minimum Screen Surface area from the LACDPW Technical Report. As shown in **Table 2**, all of the installed devices meet the performance criteria for full capture certification.

Connecting Pipe Flows

As stated in the August 3, 2004 LARWQCB Technical Memorandum – Procedures and Requirements for Certification of a Best Management Practice for Trash Control as a Full Capture System (Memo), the pipes carrying the flows from the subdrainage area should be able to handle peak flows. Full flow

capacities using Manning's Equation were calculated for all connector pipes immediately downstream of the installed full capture devices. **Table 3** lists the estimated full flow capacities for each location.

Table 3 – Connector Pipe Full Flow Capacities

Device ID	Diameter (ft.)	Slope	'N'-Value	Full Flow Capacity	Calculated Q10
1-001	2.00	0.0940	0.022	44.0	35.1
1-002	2.25	0.0769	0.015	80.0	82.4
1-003	2.50	0.0370	0.012	91.9	93.3
1-004	2.00	0.0100	0.012	26.3	1.8
1-005	3.50	0.0340	0.012	216.1	8.3
1-006	2.00	0.0088	0.012	24.7	4.3
1-007	1.50	0.0500	0.012	27.4	17.3
1-008	2.00	0.0171	0.012	34.5	10.2
1-009	2.50	0.0300	0.012	82.7	17.9
1-010	1.50	0.1193	0.012	42.3	4.5
1-011	1.50	0.2211	0.012	57.5	4.8
1-012	1.50	0.0278	0.012	20.4	4.3
1-013	1.50	0.0435	0.012	25.5	4.4
1-014	2.50	0.0107	0.012	49.4	18.3
1-015	5.00 (Circular Equivalent)	0.0400	0.015	485.3	75.5

The pipes carrying the flows from the subdrainage areas are able to adequately convey the calculated peak flows for the 10-year design storm.

On the basis of the above information, the County of Ventura CPS installations within the Ventura River Estuary watershed meet the definition of full capture system and are certified as a full capture system under the following conditions:

1. End-of-Pipe Configuration: The installed devices have an end-of-pipe configuration and do not rely on diversion weirs
2. Adequate Pipe Sizing: The pipes carrying the flows from the subdrainage area are able to handle the calculated peak flows.
3. Regular Inspections: The trash capture screen inserts will be visually inspected before and after rain events to allow for cleaning for optimal performance.
4. Regular Maintenance: The trash capture screen inserts will be adequately maintained and cleaned to ensure full capture during the design storm.

Inspections and Maintenance Procedures

To aid in the inspection and maintenance of the CPS devices, the County created the O&M Plan which includes comprehensive information on all aspects of inspection and maintenance of the CPS devices. Included in the O&M Plan are location maps with unique identification numbers, inspection procedures and frequency, equipment needed, maintenance procedures, emergency flood response and documentation submittal details. Because the CPS devices are recently installed, the O&M Plan is

subject to minor revisions over time. This chapter represents a summary of the inspection and maintenance procedures outlined in the document.

The maps and CPS device information in the O&M Plan are associated through unique CPS device numbers given to each installed full capture trash excluder. The first part of the identification number is a single number before the hyphen representing the Flood Control District Zone the device is located within. The second part is a three digit number representing a unique number for each device installed within that Flood Control District Zone numbered sequentially based on date of installation. For example, 1-001 represents the first device installed in Zone 1.

Each catch basin retrofitted with a CPS device has been identified in the field by a thermoplastic medallion (similar to **Figure 5**). The medallion has been positioned on the top of curb directly above the location of the CPS device within the catch basin. This was done for easy identification in emergency situations as the device location often differs between catch basins.

Figure 5 - Example of CPS Device Medallion

All CPS devices will be inspected a minimum of three times per fiscal year (July 1 through June 30). Each of the primary inspections must be separated by at least 30 calendar days.

Primary Inspections

- One (1) before the wet season (by October 1)
- One (1) during the wet season (October 1 – April 15), and
- One (1) after the wet season (after April 15)

Emergency Inspections

- Immediate response when flooding has been reported

All inspections and maintenance performed will be recorded on the form provided in **Appendix C** in accordance the maintenance procedures outlined herein. All inspections and maintenance will be completed by a two-person crew equipped with the proper tools and items as described in the O&M Plan.

It is anticipated that all trash excluders, even within the same flood control district zone, may be inspected by different crews. Therefore, each zone will identify one contact person that will be responsible for collecting and submitting all inspection reports to the Surface Water Quality Section (SWQS).

Each submittal will be completed within a week of inspection. All device inspections will be submitted together in one package. It is too difficult to keep track of all inspections if they are sent in by multiple sources at different times, by different methods.

It is anticipated that the emergency flood response inspections will be submitted the following day. Coordination with Ventura County Transportation Department - Maintenance group on inspection report submittal scheduling is ongoing as of January 2015.

Submittals will be scanned to PDF format and submitted to the SWQS via email. Incomplete inspection forms will not be accepted. Therefore, all pertinent information must be completed and the form signed and dated by the inspector accordingly.

The SWQS will collect all inspection forms and record all data within a spreadsheet for TMDL reporting requirements. Additionally, the SWQS will coordinate required repairs identified on the inspection forms with the CPS devices with the contractor that manufactured and installed them as they are under warranty.

Conclusion and Summary

As shown in this report, the County of Ventura CPS retrofits within the Ventura River Estuary subwatershed meet the definition of full capture system and are certified as a full capture system by trapping all particles retained by a 5-mm mesh screen, and having a treatment capacity exceeding the peak flow rate resulting from a 1-yr, 1-hr storm in the subdrainage area. In addition, the following requirements are met:

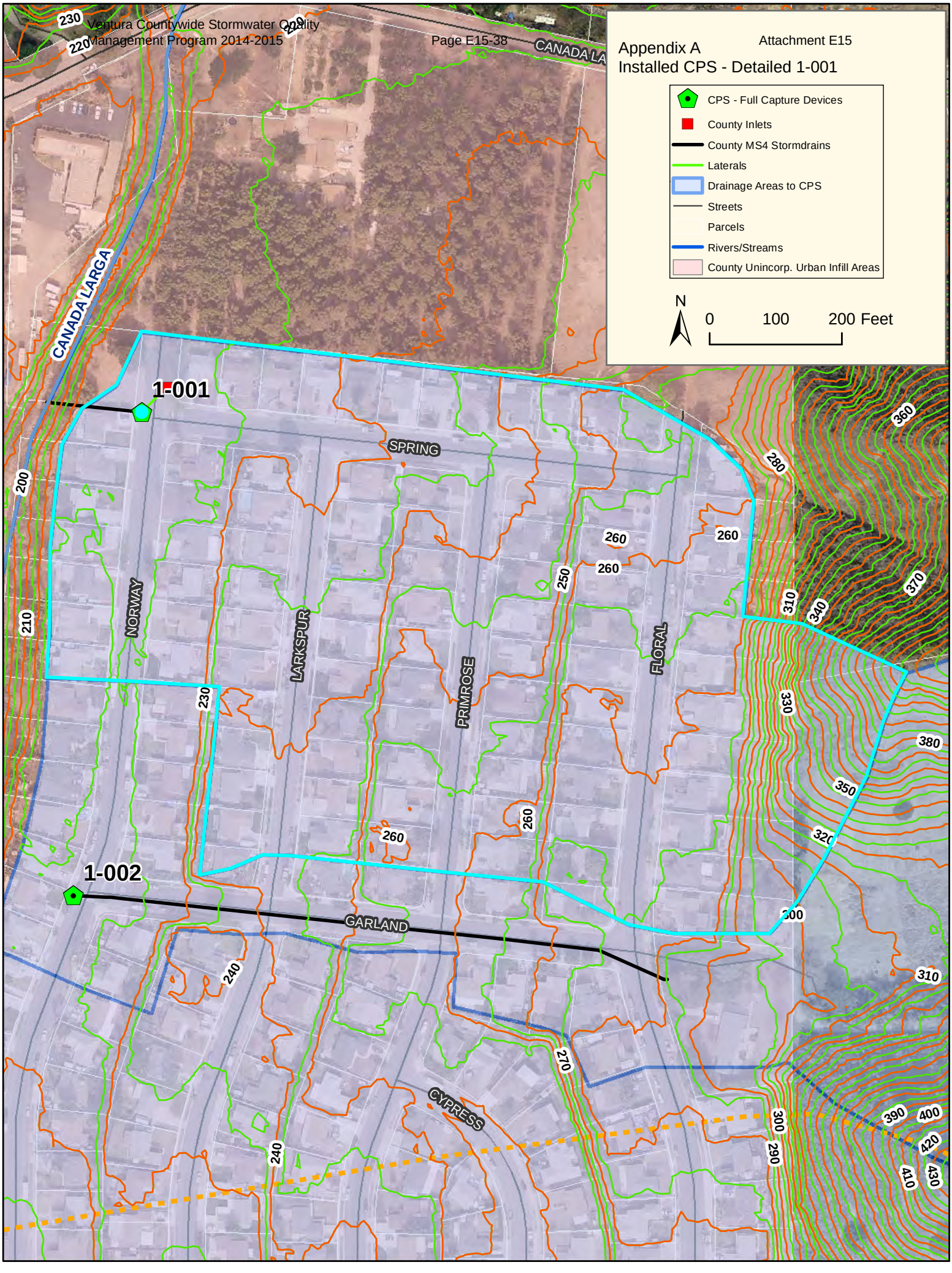
1. End-of-Pipe Configuration: The installed devices have an end-of-pipe configuration and do not rely on diversion weirs;
2. Adequate Pipe Sizing: The pipes carry the flows from the subdrainage area are able to hand peak flows; and
3. Regular Inspections and Maintenance: The full capture system will be regularly inspected and serviced to continually maintain adequate flow through capacity.

The County area within the Ventura River Estuary subwatershed that drains to County MS4 system has been treated by the installations of the CPS devices. This report serves as a determination that the vertical Connector Pipe Screens (as described and identified in this Report), when installed and maintained in appropriately sized catch basins, completely satisfy the full capture definition of the Ventura River Estuary Trash TMDL for County Unincorporated areas. It is understood that the County will have an on-going obligation to demonstrate that the installation of these devices are appropriately sized and meets the intent of this program. Likewise, the County is responsible for on-going maintenance to ensure the systems perform to design specifications.

APPENDIX A

DETAILED MAPS AND DRAINAGE AREAS

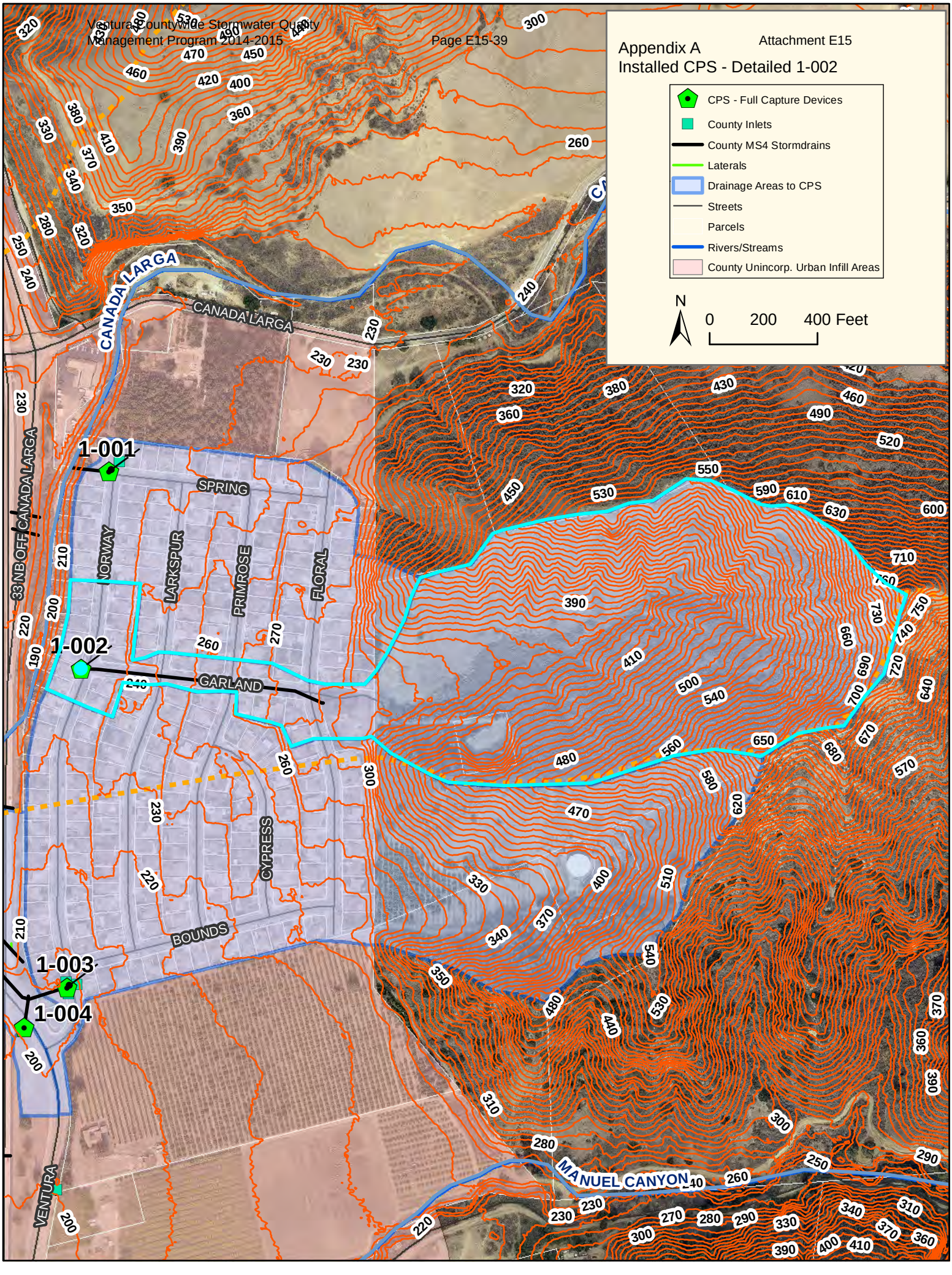
Appendix A
Installed CPS - Detailed 1-001



Attachment E15

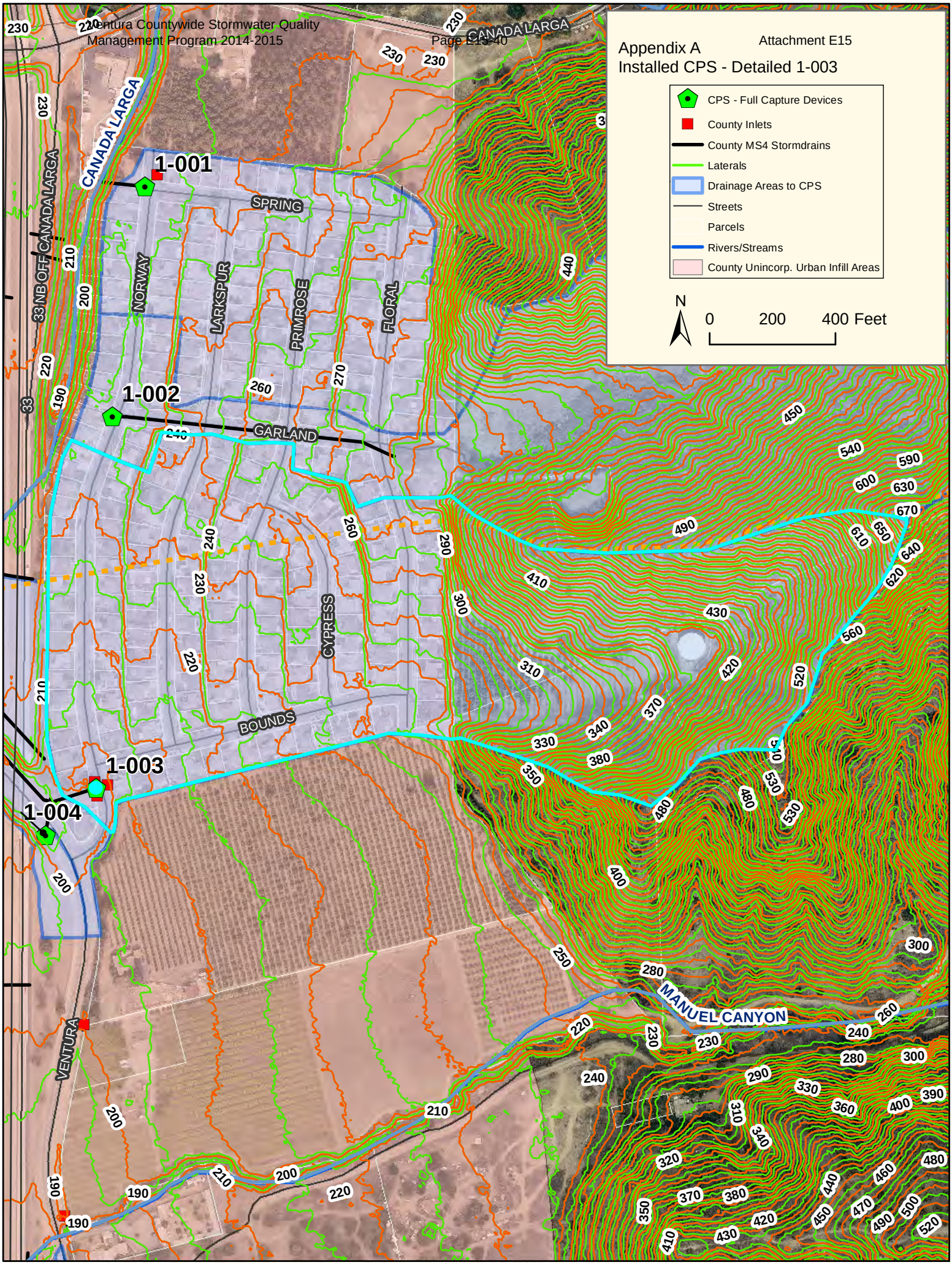
Appendix A

Installed CPS - Detailed 1-002



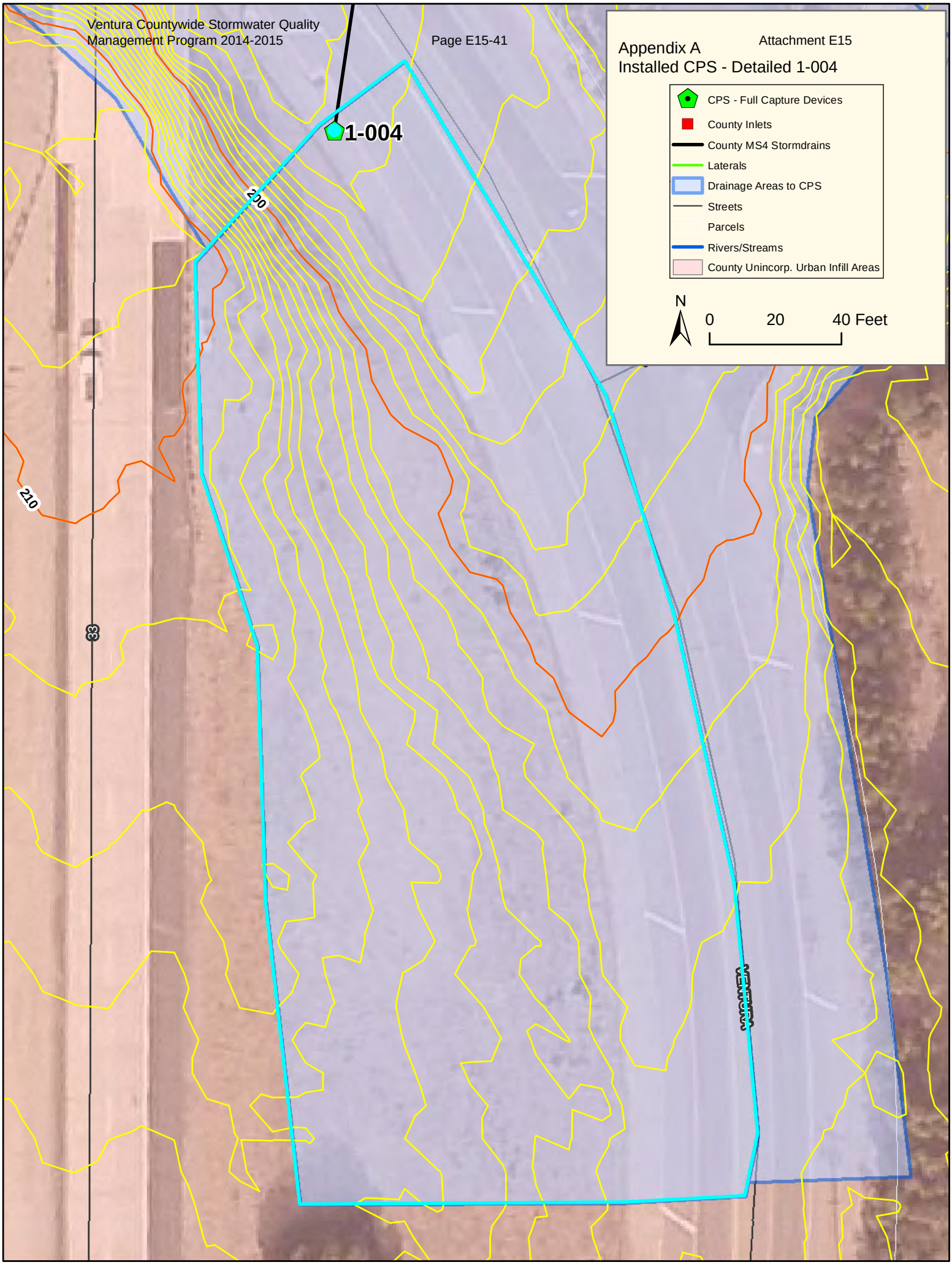
Attachment E15

Appendix A
Installed CPS - Detailed 1-003



Attachment E15

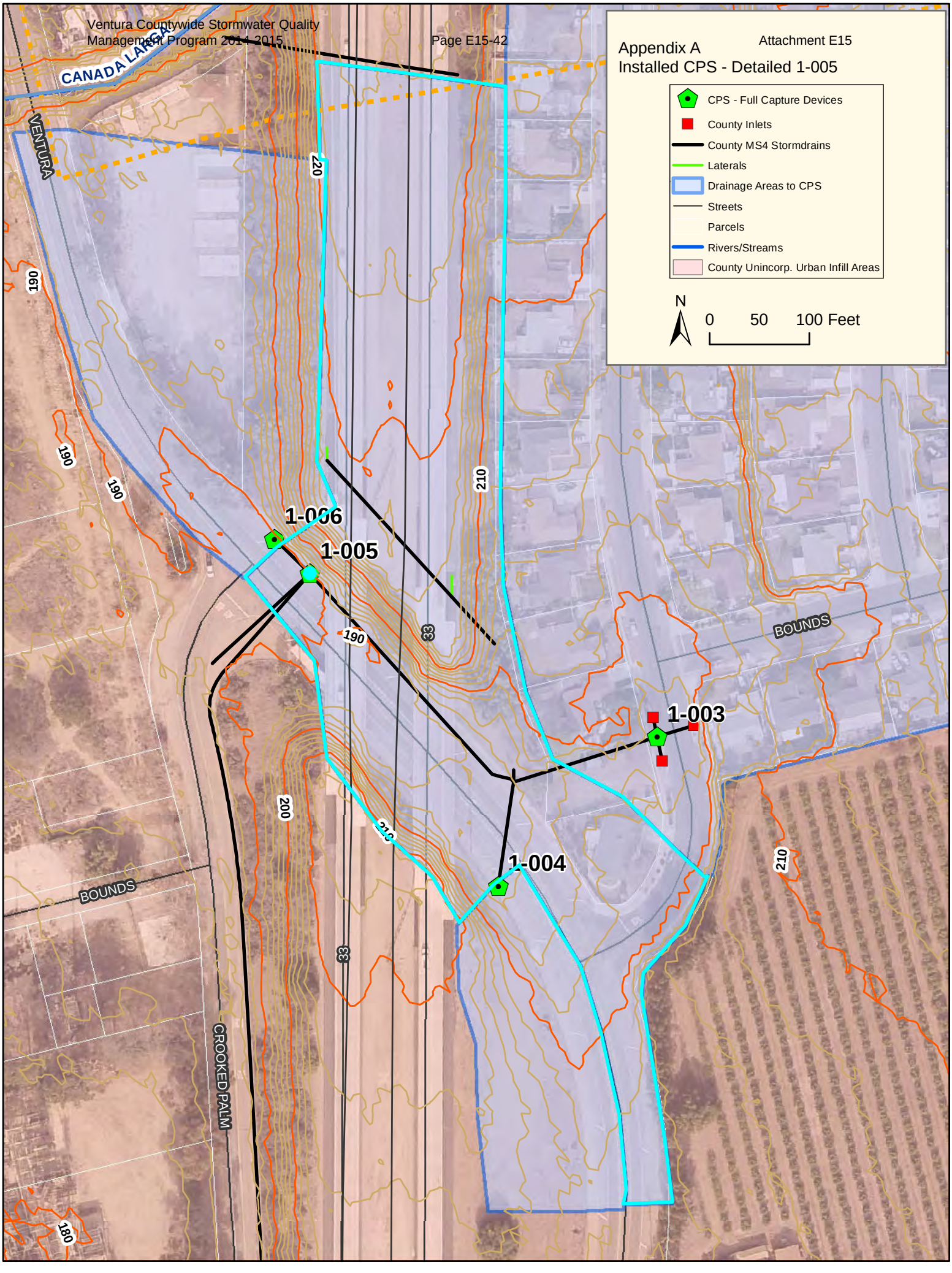
Appendix A
Installed CPS - Detailed 1-004



Attachment E15

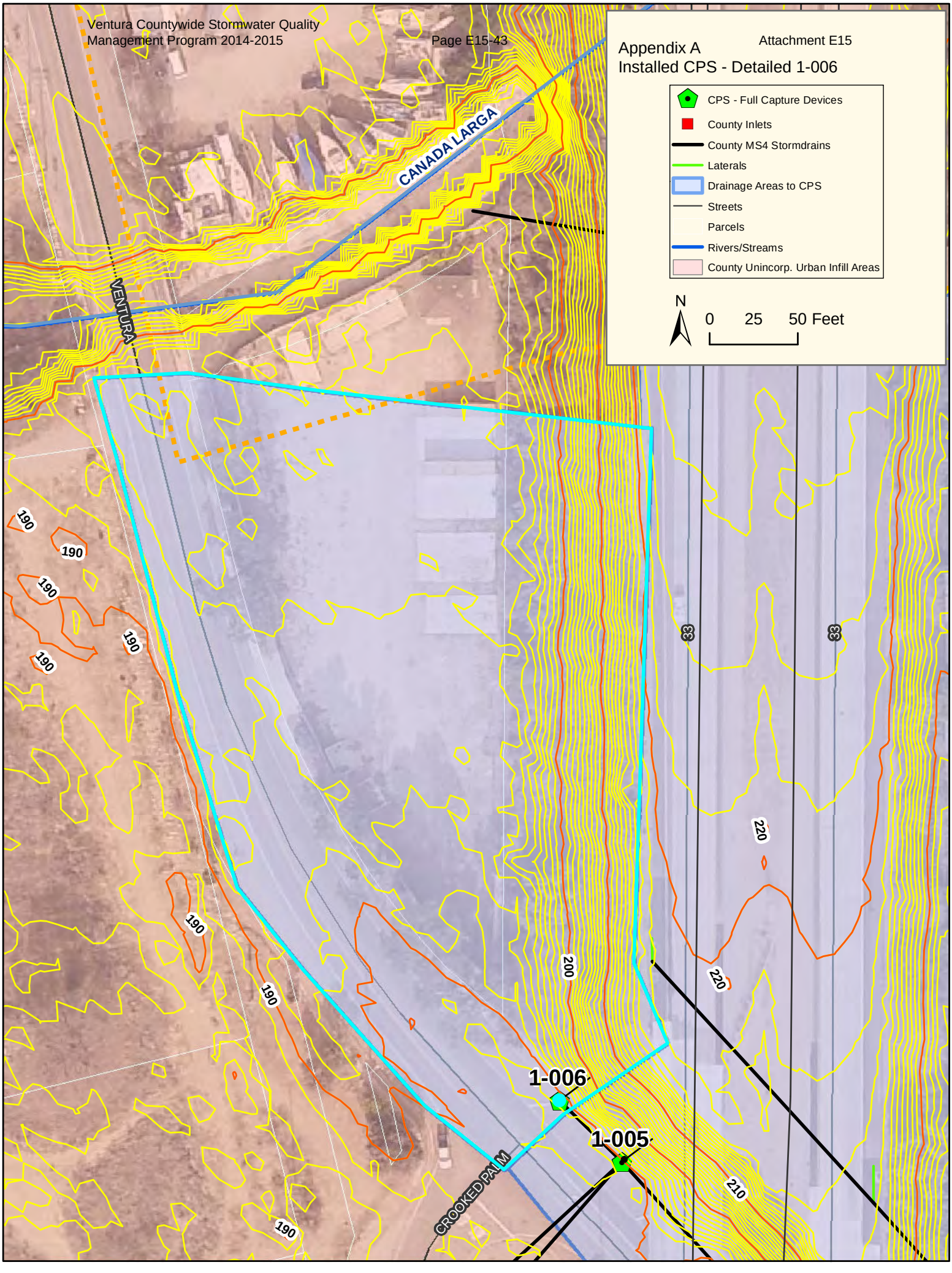
Appendix A

Installed CPS - Detailed 1-005



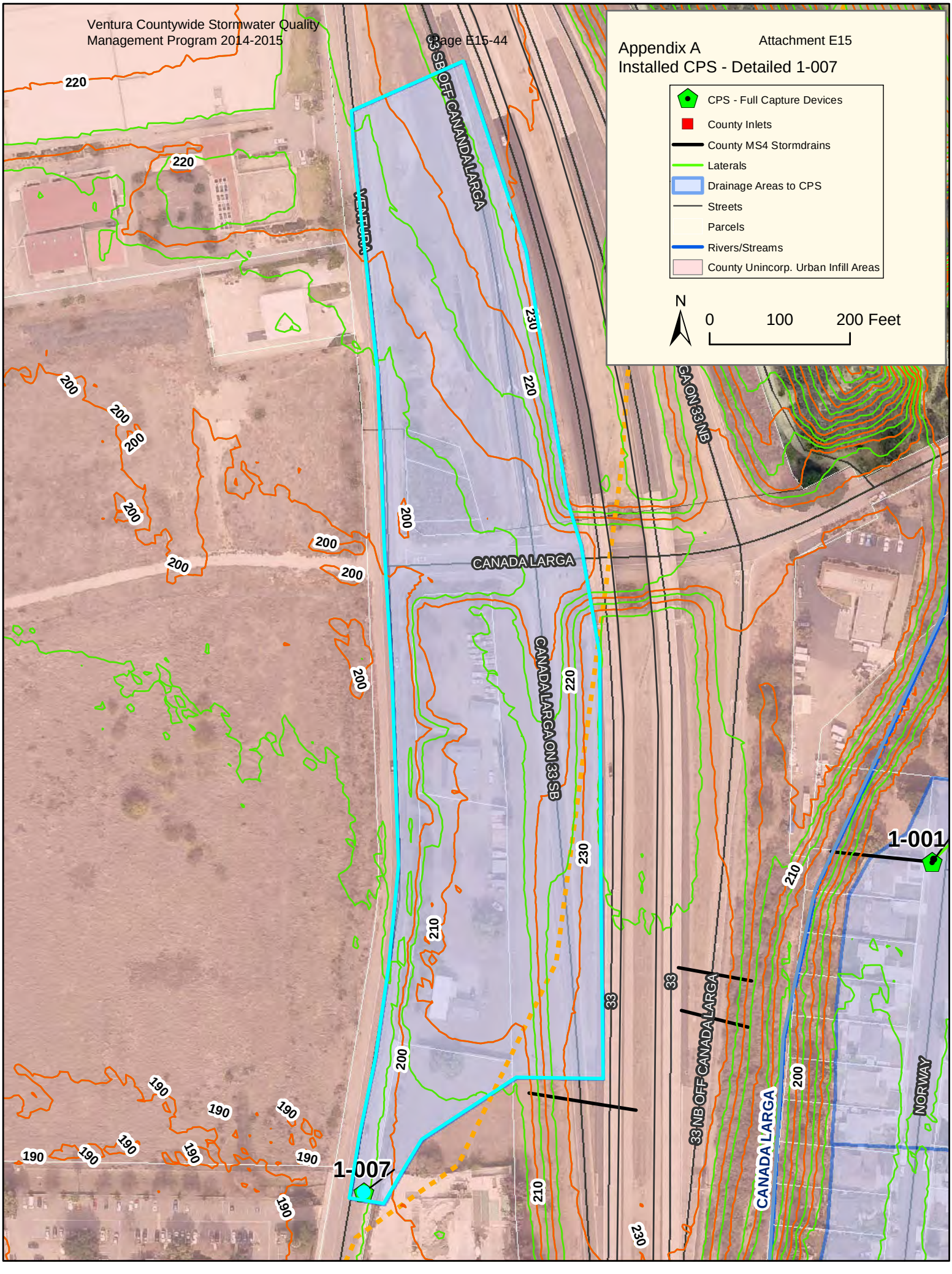
Attachment E15

Appendix A
Installed CPS - Detailed 1-006



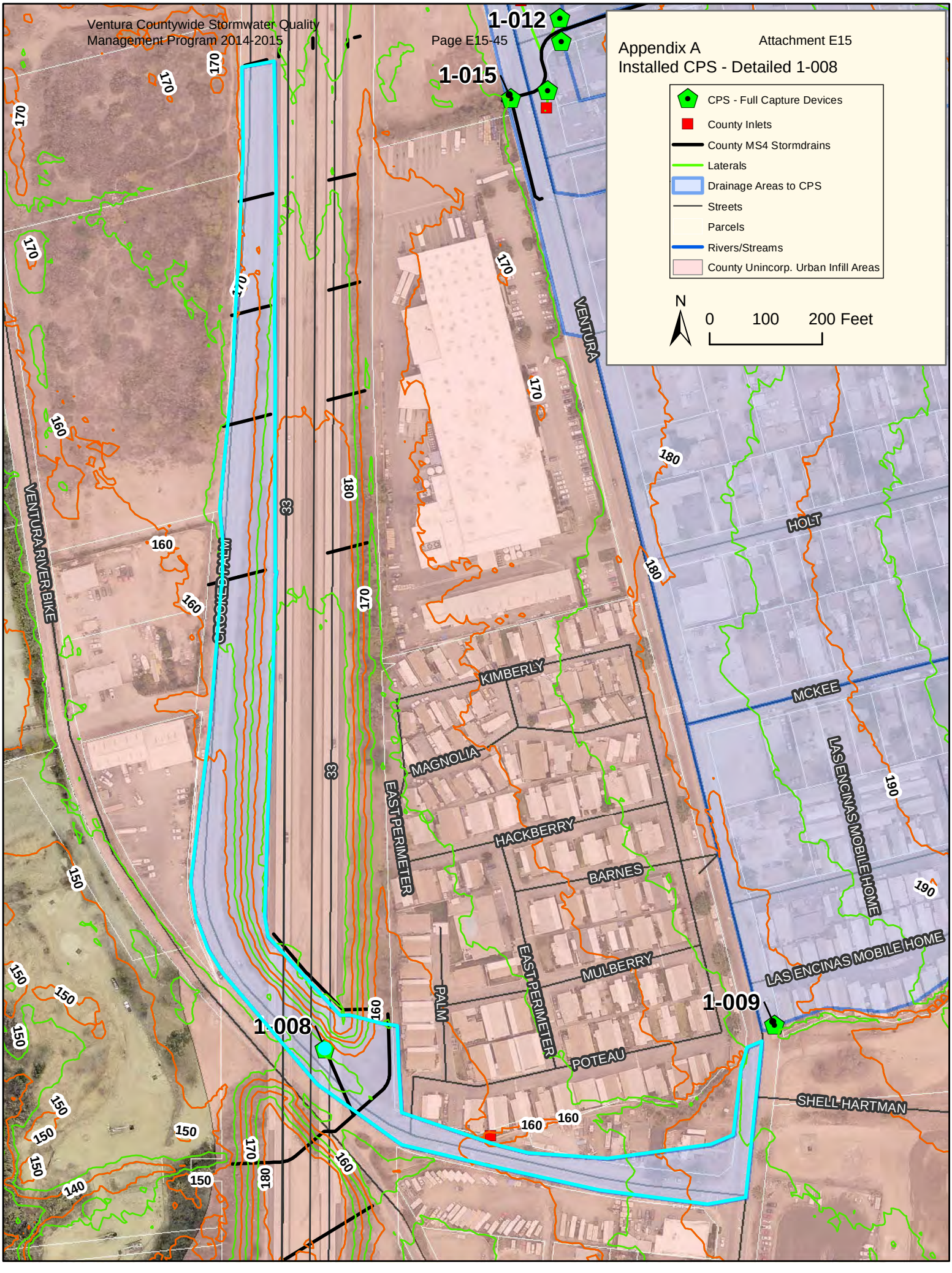
Attachment E15

Appendix A
Installed CPS - Detailed 1-007



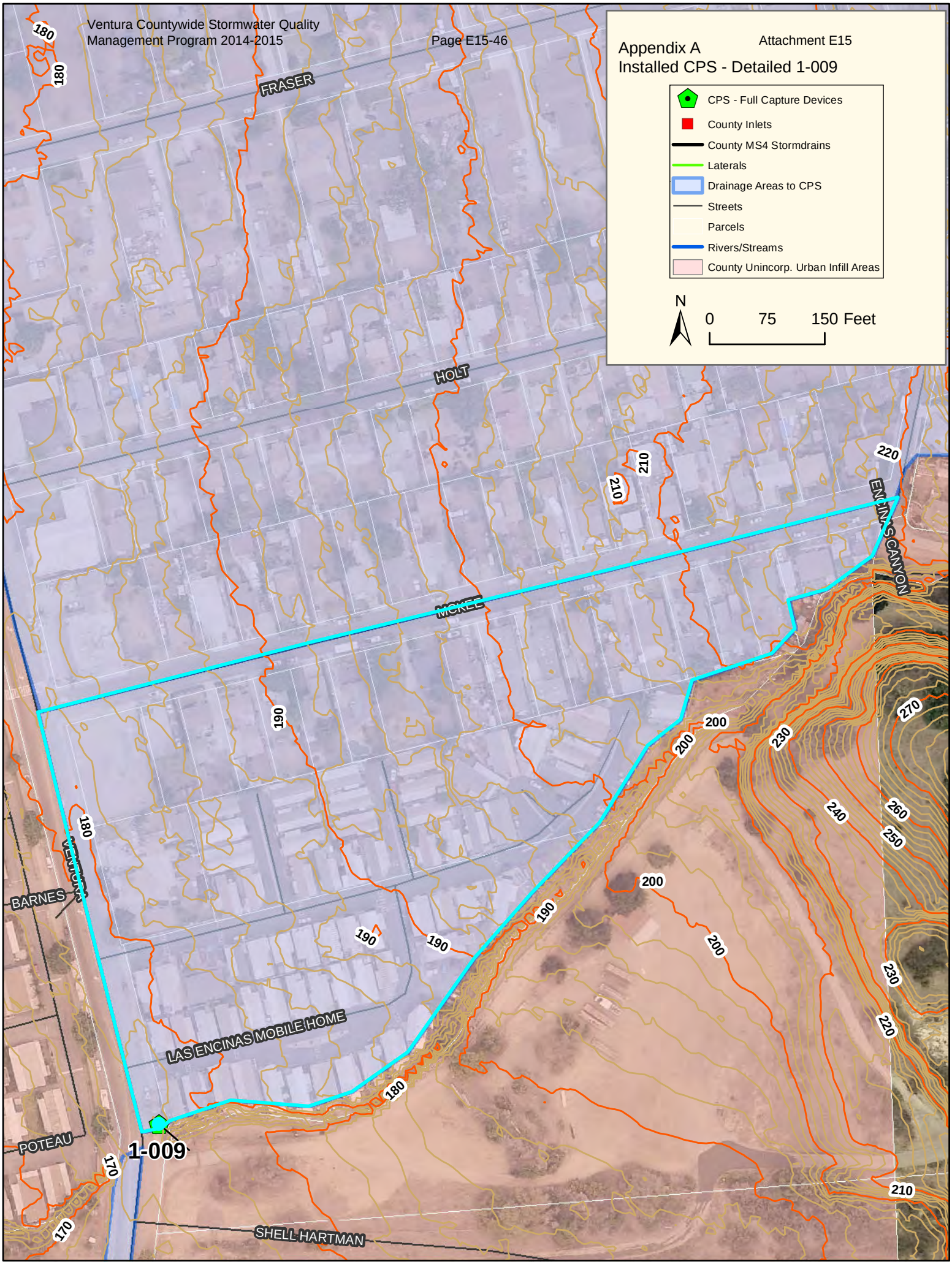
Attachment E15

Appendix A
Installed CPS - Detailed 1-008

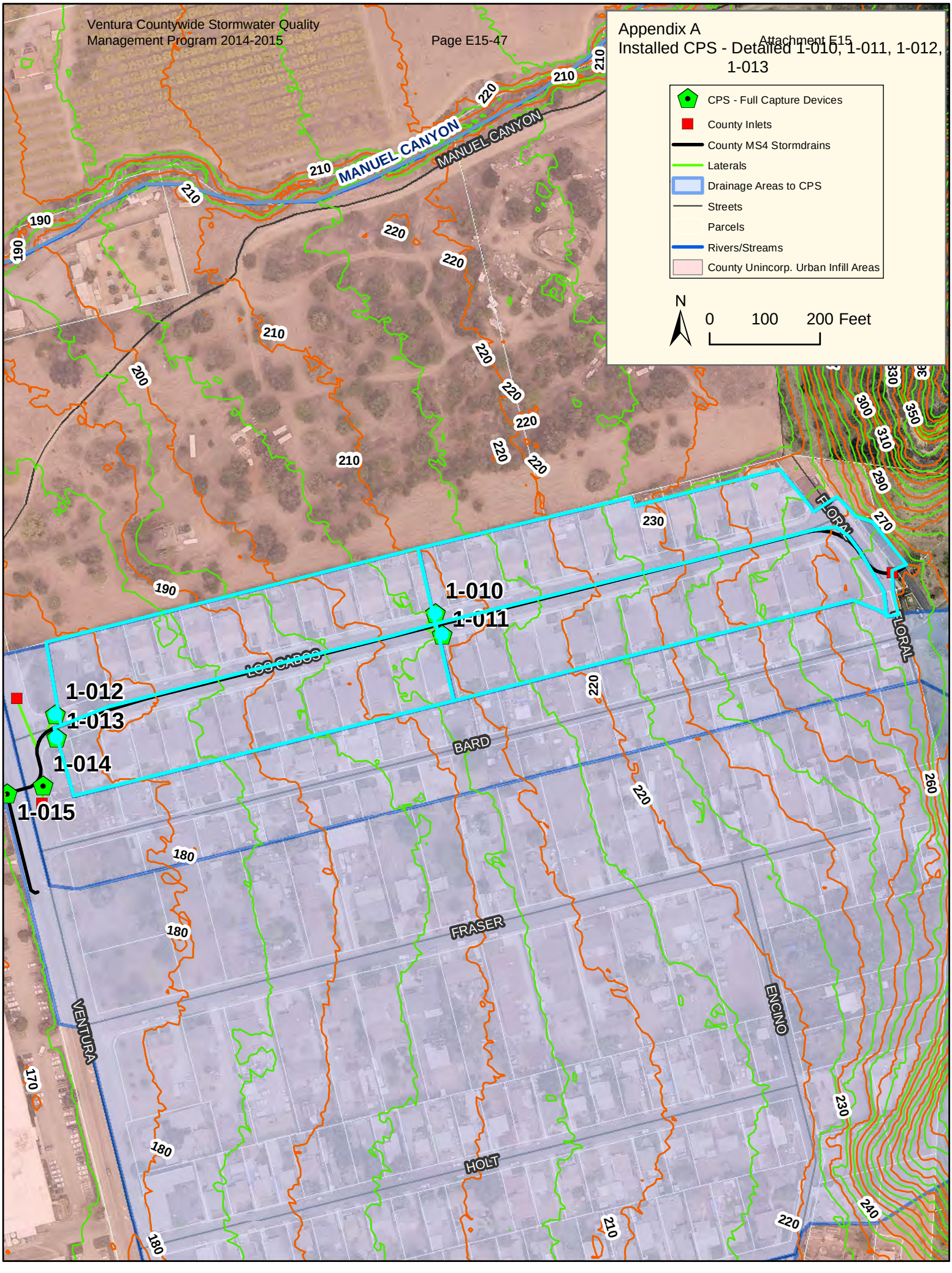


Attachment E15

Appendix A
Installed CPS - Detailed 1-009

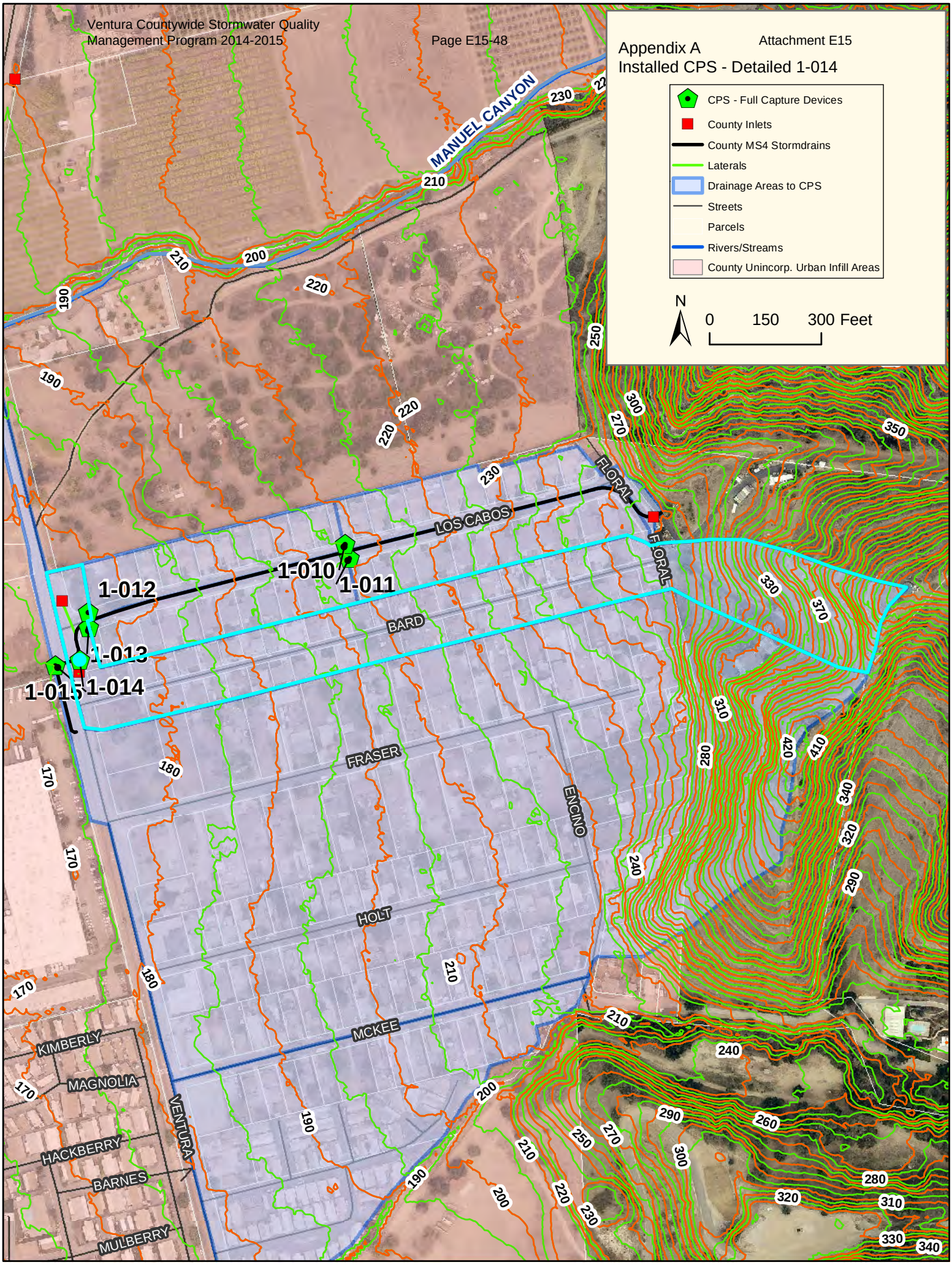


Appendix A
Installed CPS - Detailed 1-010, 1-011, 1-012, 1-013



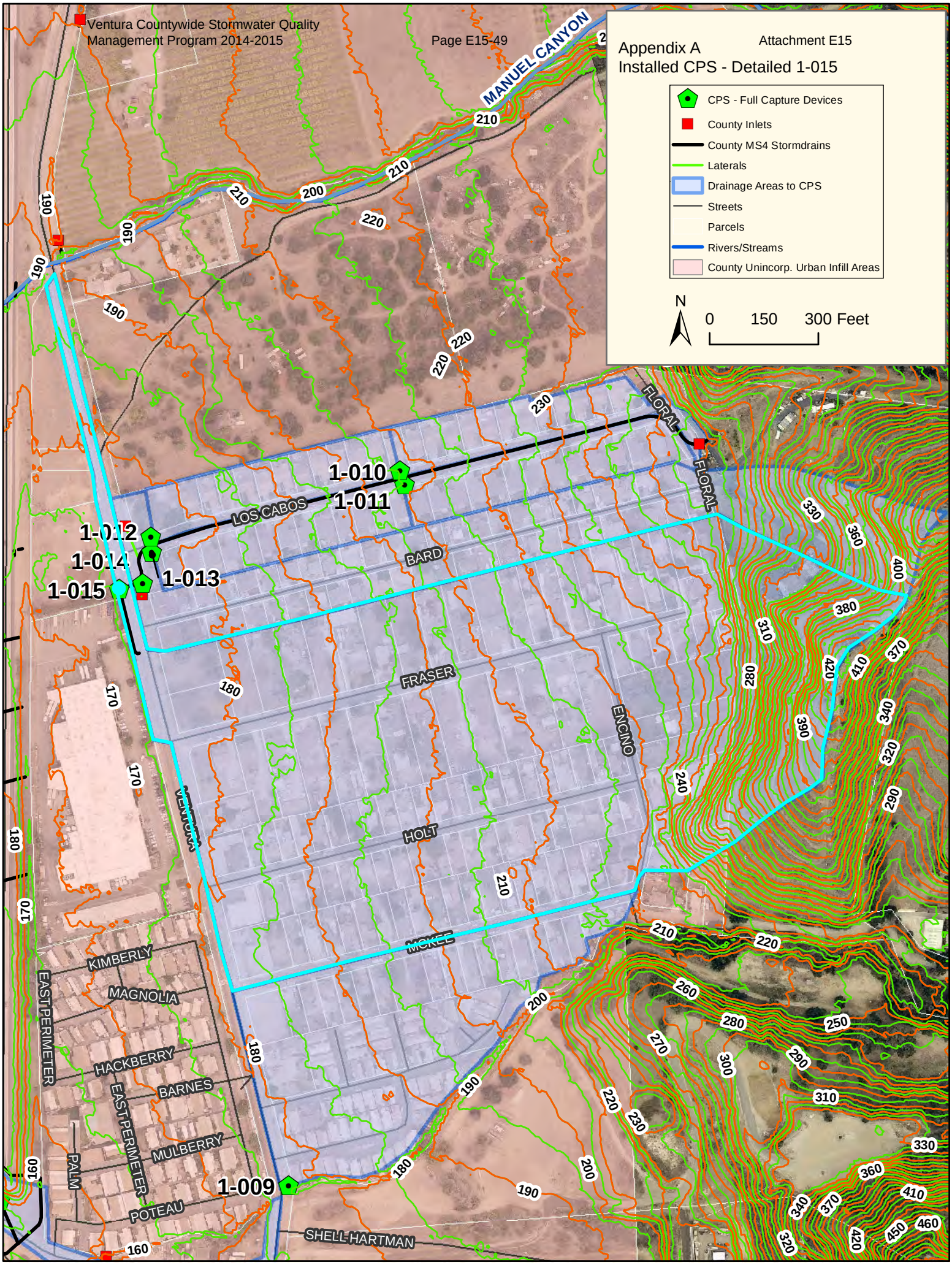
Attachment E15

Appendix A
Installed CPS - Detailed 1-014



Attachment E15

Appendix A
Installed CPS - Detailed 1-015



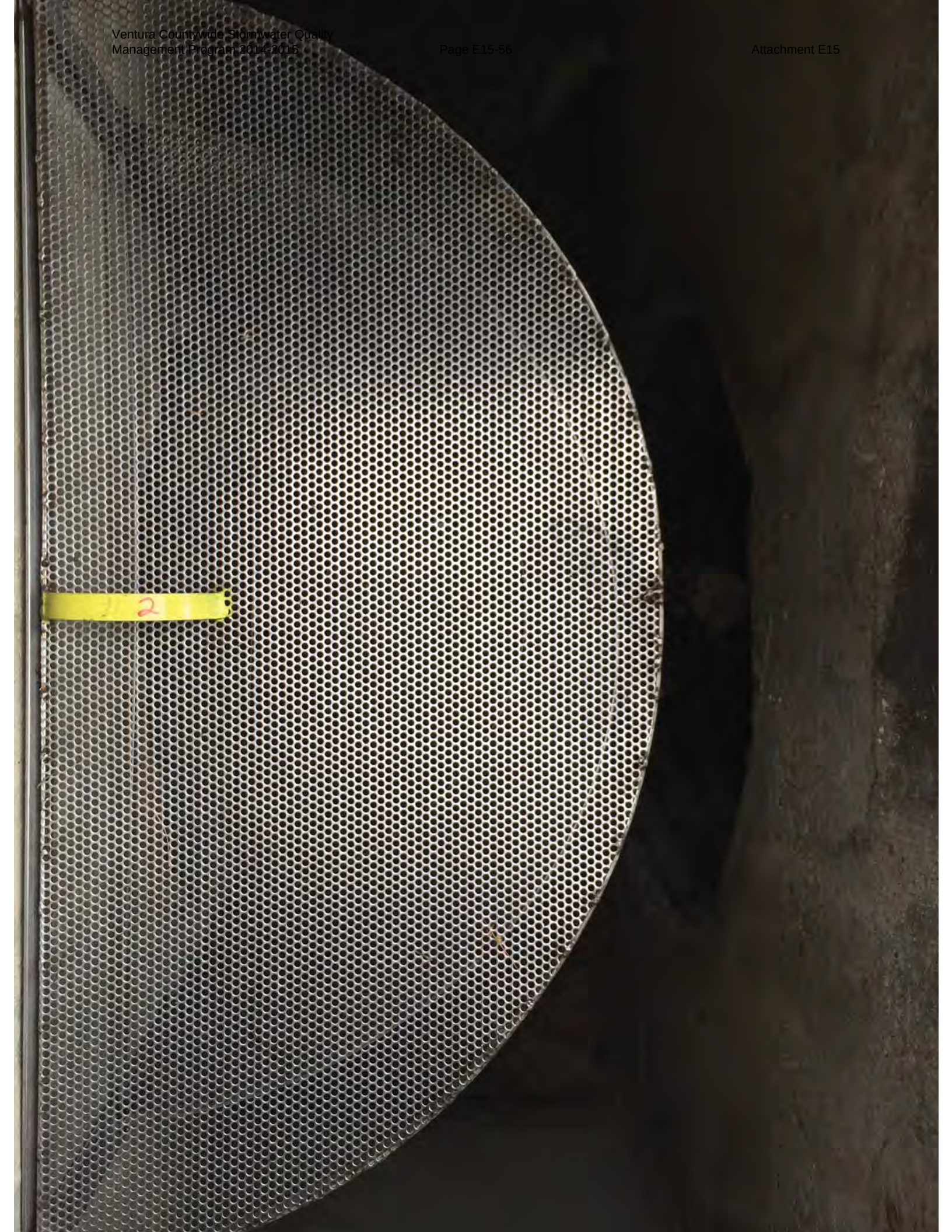
APPENDIX B

INSTALLATION PHOTOS (BEFORE & AFTER)

DEVICE ID 1-001

DEVICE ID 1-002


HT#16410
#2


2

DEVICE ID 1-003

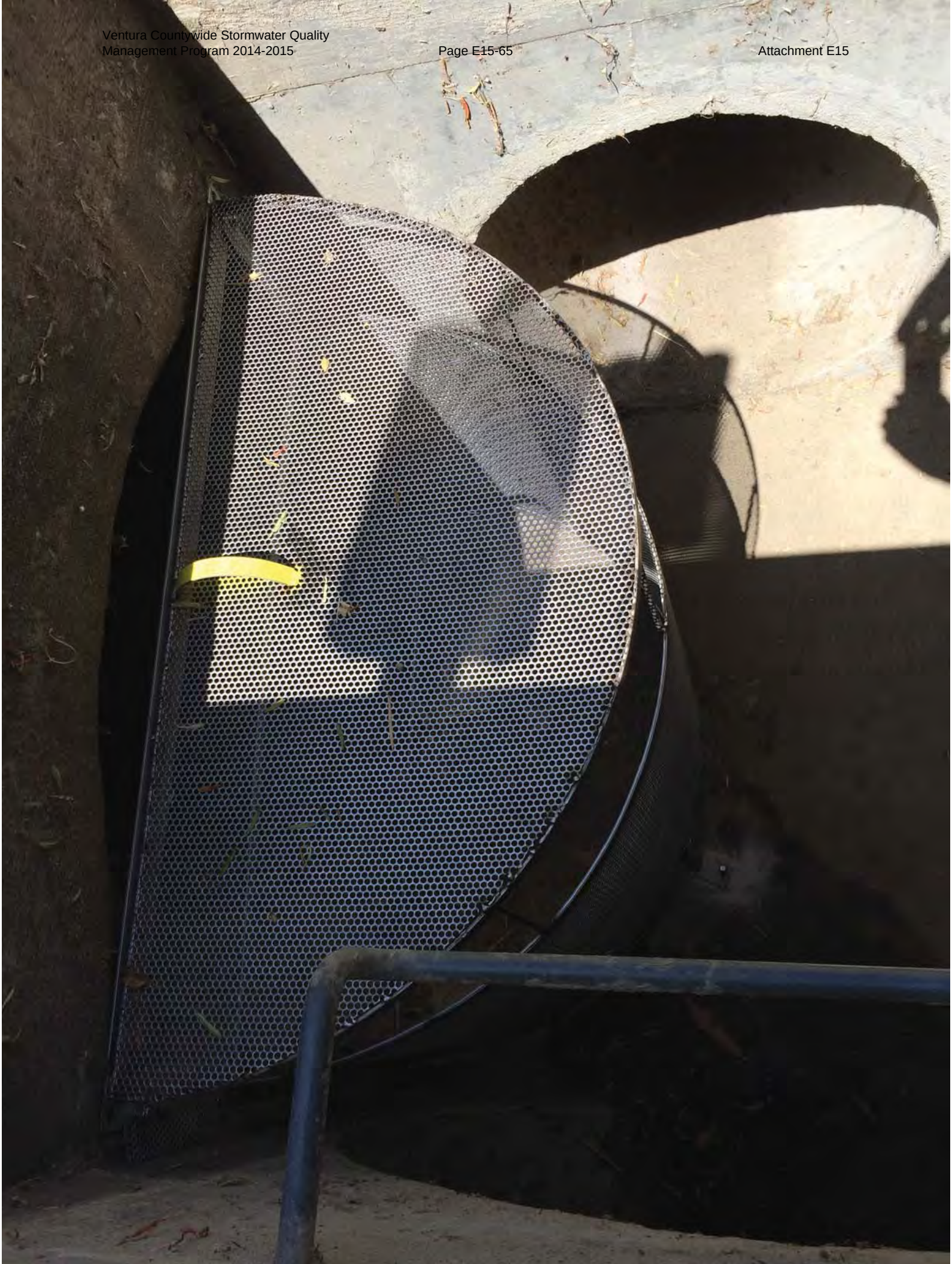
25 22

DEVICE ID 1-004


#4


4

DEVICE ID 1-005



DEVICE ID 1-006

DEVICE ID 1-007

DEVICE ID 1-008


#16
#16

DEVICE ID 1-009

DEVICE ID 1-010

DEVICE ID 1-011


21

DEVICE ID 1-012

DEVICE ID 1-013

DEVICE ID 1-014

DEVICE ID 1-015


2014 10 30


13

APPENDIX C

INSPECTION FORM

CHECKLIST FOR INSPECTION AND MAINTENANCE
FULL CAPTURE CONNECTOR PIPE SCREEN (CPS) TRASH EXCLUDERS

Date: _____ CPS Device #: _____

Time: _____ Inspector: _____

Inspection Type: ☐ Primary (3 per year required)
☐ Emergency (response due to flooding)

STEP 1: EXTERIOR CHECK

Exterior Comments: _____

Yes	No	
		1. Has all trash and debris been removed from curb/grate inlet?

STEP 2: INTERIOR CHECK

Interior Comments: _____

Yes	No	
		2. Has all debris been removed from the device screen?
		3. Is material retained by device above the maintenance height?

STEP 3: MAINTENANCE *(only required if #3 above was "Yes")*

Estimated % of debris based on visual observation (must add up to 100%)					
	Sediment		Vegetation Debris		Trash

Total combined debris removed from catch basin			
	# of trash bags filled		Total weight of debris (lbs)

Maintenance Comments: _____

_____ _____
Inspector Signature Inspection Date

Appendix 2. Assessment and Collection Worksheets

Ventura Hillsides Conservancy

P.O. Box 1284 Ventura, California 93002
www.venturahillsides.org 805-643-8044

July 19, 2014

Ewelina Mutkowska
Stormwater Program Manager
County of Ventura Public Works Agency
800 South Victoria Avenue
Ventura, CA 93009-1600

Re: TMRP Invoice #1 -- for work period March 1 to June 30, 2014

1. The PARTIES agree that the scope of work will be reviewed and approved by the VRE Trash TMDL Responsible PARTIES and it will include the following tasks:

   A. Routine monitoring and patrol within VRE area and adjacent property as defined in Exhibit 1 at least once a month.

      1. **We averaged 2 patrols per week covering an expanded Area #3 (which covers the area between just north of the Main St. bridge and just south of the 101 bridge).**
      2. **We averaged 2 patrols per month covering areas #2, 3, 4.**
      3. **Once a month we patrolled the whole VRE area (#1, 2, 3, 4)**

   B. Coordination and supervision of volunteer clean-ups within VRE area as defined in Exhibit 1 to occur at least once a quarter.

      1. **We coordinated and supervised volunteer clean-ups on the following days:**

         March 4 (regularly scheduled 1st Tuesday/mo)
         March 9 (environmental students from Orange County)
         March 16 (environmental students from Orange County)
         March 22 (regularly scheduled 3rd Saturday/mo)
         April 1 (regular 1st Tuesday/mo)
         April 19 (regular 3rd Saturday/mo) (Cub & Boy Scouts)
         May 6 (regular 1st Tuesday/mo)
         May 17 (regular 3rd Saturday/mo)
         June 3 (regular 1st Tuesday/mo)
         June 21 (regular 3rd Saturday/mo)
         July 7 (regular 1st Tuesday/mo)
         July 19 (regular 3rd Saturday/mo)

C. Quarterly trash assessment events in accordance with the revised Ventura River Estuary Trash Monitoring and Reporting Plan, (expected to be approved by RWQCB in April 2014).

1. **We conducted two quarterly trash assessments (May 4 and June 16) as recorded on the attached Trash Visual Survey Worksheets and Trash Visual Survey Maps and photo pages below:**

D. Quarterly trash assessment data and photo reporting to the VRE Trash TMDL Responsible PARTIES.

1. **We documented trash conditions and took representative photographs on May 4 and June 16 as recorded on the attached Trash Visual Survey Worksheets and Trash Visual Survey Maps and photo pages.**

E. Preparation of the Annual Report in accordance with the revised Ventura River Estuary Trash Monitoring and Reporting Plan, (expected to be approved by RWQCB in April 2014); the first report to be prepared by the Conservancy will be due January 2, 2015 for review and approval of the VRE Trash TMDL Responsible PARTIES.

1. **Annual report forthcoming in January 2015**

F. Volunteer Recruitment and Business Partner Outreach.

1. **Our Development and Volunteer Outreach Manager, Lee Sherman, recruited many volunteers at many outreach events and opportunities, including soliciting volunteers and coordinating clean-up events via social media. His time is documented on the attached budget spreadsheet.**

2. The annual budget for the Conservancy services to the VRE Trash TMDL Responsible PARTIES shall include sufficient hours to conduct the approved scope of work, mileage, and administration fee of not to exceed 10% (ten percent). The annual budget for this work shall be provided by the Conservancy on or before October 15th each year of this MOA duration and will be reviewed and approved by the VRE Trash TMDL Responsible PARTIES by December 31st each year of this MOA duration.

Thank you for the opportunity to conduct this work. At your earliest convenience, please remit **$5790.20** to:

Ventura Hillsides Conservancy
P.O. Box 1284
Ventura, CA 93002

Sincerely,

Derek Poultney
Conservation Manager

Proposed Annual Budget January 2014	Routine Monitoring & Patrol 2x/wk		Coordinate & Supervise Volunteer Clean-ups 2x/mo		Quarterly Trash Assessment & Reporting & TMDL Team Coordination		Volunteer Recruitment & Business Partner Outreach		Mileage x $0.565		Admin OVHD 10%	Totals
	hours	$	hours	$	hours	$	hours	$	miles			
Conservation Manager @ $50/hr	400	$20,000	120	$6,000	60	$3,000	40	$2,000	964	$544.66	$3,154.50	$34,699.16
Volunteer Manager @ $40/hr	125	$5,000	120	$4,800	12	$480	30	$1,200	330	$186.45	$1,166.60	$12,833.05
Equipment, supplies		$50		$1,000					20	$11.30	$108.10	$1,189.40
Total												**$48,721.61**

Invoice #1 for work performed 3-1-14 to 6-30-14	Routine Monitoring & Patrol 2x/wk		Coordinate & Supervise Volunteer Clean-ups 2x/mo		Quarterly Trash Assessment & Reporting & TMDL Team Coordination		Volunteer Recruitment & Business Partner Outreach		Mileage x $0.56		Admin OVHD 10%	Totals
	hours	$	hours	$	hours	$	hours	$	miles	$		
Conservation Manager @ $50/hr	9	$450.00	22.75	$1,137.50	26.5	$1,325.00			105.1	$58.86	$291.25	$3,262.61
Dvlpmt & Volunteer Manager @ $40/hr			4	$160.00			30.00	$1,200	7.5	$4.20	$136.00	$1,500.20
Conservation Assistant @ $25/hr	21	$525.00	10.25	$256.25	1	$25.00			202.5	$113.40	$80.63	$1,000.28
Equipment, supplies: $9.66 Pepper Spray & $14.99 Carwash		$24.65									$2.46	$27.11
Total												**$5,790.20**

Trash Visual Survey Worksheet

Parcel No.: 1 & 2 Survey Date: 5/04/14
Inspector: Dashell Dunkell Survey Start/ End Time: 5:45pm & 8:00pm
Current Weather Condition: Sunny, cool
Antecedent Weather Condition: sunny, hot

Level of Trash Observed:

Refer to Program Monitoring Area Map as necessary. Note any substantial 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** (10-50 pcs), **Category 3** (51-100 pcs), **Category 4** (>100 pcs)

Notes/ Parcel area:	Category:	Reason(s) for Category Rating:
(1-1) Scrub near beach	2	~30 plastic jugs / trash
(1-2) campsites at estuary S	4	~ 4 active campsites
(1-3) campsites at estuary E	4	~ 6+ active camps
(2-1) campsite N of trestle	4	1 Large campsite
(2-2) campsite on island	?	unknown camps, voices heard, dog seen
(2-3) abandoned campsites	4	3-4 abandoned camps
(2-4) campsite W of Estuary	3	small campsite
(2-5) spray painters / partyers	4	Lege amounts of trash / potential Haz-mat

Types of Trash Observed (check all that apply):

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

spray paint cans?

Notes: Plastic bottles / food waste, spray paint cans, clothing & personal effects most prevalent items found.

Est. No. of Follow-up Cleanup Events Needed (describe why): (1-1) half a cleanup session. (1-2) 2 to 3 cleanups, (1-3) 4 to 8 cleanups, biggest active camping area. (2-1) 1 cleanup, (2-2) unknown extent of campsites on island, estimated several large cleanups, (2-3) 2 cleanups. (2-4) 1 cleanup. (2-5) 1 to 2 cleanups under west 101 bridge.

Additional Notes: Several individuals were contacted at sites (1-1) and (2-1), as well as spray-painters under East edge of US-101 bridge. Guard dog and multiple voices heard/seen on "island".

Legend

els

N

Ventura Rive

Trash TMDL

Trash Visual Survey Worksheet

Parcel No.: 1, 2, 3
Inspector: Dashiell Dunkell
Survey Date: 6/13/14
Survey Start/ End Time: 10:00am 12:00pm
Current Weather Condition: Sunny, Hot
Antecedent Weather Condition: Sunny, Dry

Level of Trash Observed:

Refer to Program Monitoring Area Map as necessary. Note any substantial 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** (10-50 pcs), **Category 3** (51-100 pcs), **Category 4** (>100 pcs)

Notes/ Parcel area:	Category:	Reason(s) for Category Rating:
#1-1 → campsites E. Estuary	4	~6 active camps on city property
#1-2 → campsites S. Estuary	4	~3 active camps on beach
#1-3 → cypress grove	3	assorted trash piles
#2-1 → Camp near trestle	4	1 large campsite, heavily used
#2-2 → Island	?	No new refl/evidence of activity
#2-3 → Arundo thicket	4	2 large campsites, heavily used
#2-4 → willow / Arundo	4	1 medium campsite, active
#2-5 → Large cottonwoods	2	Temporary tent camp
101 Bridge	3	spray paint cans, asst. trash
Main St Bridge	1	plastic bags, beer cans

Types of Trash Observed (check all that apply):

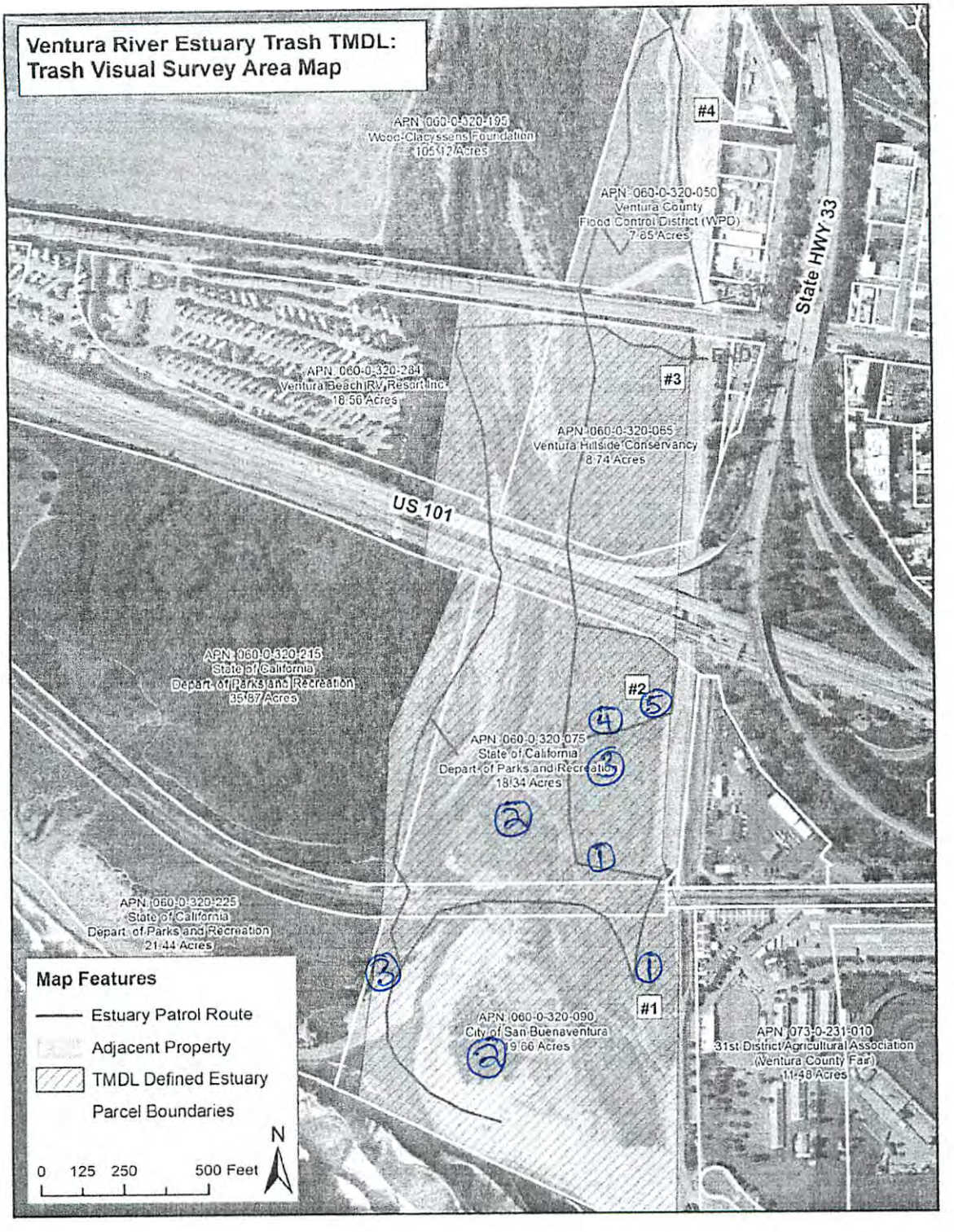
- ☑ Plastic/ Styrofoam
- ☐ Landscape Materials
- ☑ Toxic/ Hazardous Materials
- ☑ Personal Effects
- ☑ Paper Products/ Biodegradable
- ☑ Aluminum/ metal
- ☑ Glass
- ☐ Sports Equipment
- ☑ Household Items
- ☐ Automotive
- ☐ Biohazardous
- ☑ Other

Notes: Plastic bottles / food waste / clothes most common lots of spray paint cans seen floating in estuary and under bridge.

Est. No. of Follow-up Cleanup Events Needed (describe why): Parcel #2 → Approx 6 cleanups to clear the 4-5 camps remaining, and to cut Arundo. Parcel #1 → Approx 10-12 cleanups to clear the 8-10 active camps and extremely large amounts of trash.

Additional Notes: City property appears to be getting heavier use as state park property cleared of camps and Arundo.

DRAFT


Ventura River Estuary Trash TMDL:
Trash Visual Survey Area Map
APN 060-0-320-195
Wood-Claeyssens Foundation
105.12 Acres
APN 060-0-320-050
Ventura County
Flood Control District (VPD)
7.85 Acres
State HWY 33
APN 060-0-320-284
Ventura Beach RV Resort Inc
16.56 Acres
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
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
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
#1
#2
#3
#4
Map Features
Estuary Patrol Route
Adjacent Property
TMDL Defined Estuary
Parcel Boundaries
N
0 125 250 500 Feet

MFAC Event Worksheet

Parcel No.: State Parks 18.34 acres Event Date: 5/17/14
Specific Cleanup Location: Mid-parcel Event Start/ End Time: 9:00am / 11:45am
Field Technician name(s): Dashiell Dunkell, Derek Poultney
Current Weather Condition: Sunny, breezy, warm
Antecedent Weather Condition: Sunny, hot

Types of Trash Observed (check all that apply):

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

Notes: Majority of trash was plastic bags / food wrappers / drink containers. Also large amounts of clothing / personal effects. Found 3 syringes, multiple batteries, bike parts. Found 2 bicycles, 1 child's motorcycle, 4-wheeled cart, large rafts.

Potential Source(s) of Trash Collected: Abandoned homeless camps, bike thieves, graffiti writers.

Hazardous/ Legacy Trash Requiring Follow-up: None.

MFAC Event Actions for Follow-up: None.

Additional Notes: cleaned trash from approximately 3 large abandoned camps. Assisted by State Parks Rangers, we found 2 potentially stolen bicycles and 1 motorcycle. we also removed a raft that enabled access to the "island".

Trash Collected:
No. of Trash Bags Filled: 25 Dumpster % Fill: 100% Dumpster Size (cubic yds): 6

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

Representative Photos (3-1 to 6-30-2014):

Typical small camp & associated trash on State Park property we clean up same day or at next volunteer clean-up

Larger camp on City property (Area #1) we haven't gotten to yet

Random site that get cleaned up same day or during next volunteer cleanup

Ongoing spray can trash and dump sites under the bridges

Ojai Spring Carwash
11502 N. Ventura Ave
Ojai CA 93023
805-640-9923

INVOICE# 361167
Closed to Credit Card Purchase

DATE/TIME: 3/17/2014 10:07:14 AM
CASHIER: 100101
STATION: 01

Item Count: 6

1 MAINTIJA	$12.99
Subtotal	$12.99
GRAND TOTAL	$12.99
Credit	$12.99

+$2.00 TIP
14.99

Thank you for visiting!
Save this receipt. It is your claim ticket
If it rains within 24 hours we'll rewash
the exterior for free! (Redeemable within
24 hours after rain stops)

OJAI SPRING CAR WAS
11502 NORTH VENTURA AVE
OJAI, CA 93023
805-640-9923

Merchant ID: 8021424646
Term ID: 0075420008021424646000

Sale

xxxxxxxxxxx9332
DISCOVER Entry Method: Swiped

Total:. $ 12.99

03/17/14 10:07:09
Inv #: 000012 Appr Code: 017092
Approvd: Online

Customer Copy

THANK YOU FOR SHOPPING AT
MEINERS OAKS ACE HARDWARE
(805) 646-7234

like us at
facebook.com/meinersoakshardware

3/16/14 11:30AM KS 554 SALE

5032354	1 EA	8.99 EA	
PEPPER SPRAY .5OZ CANSTR			8.99
SUB-TOTAL:	8.99	TAX	.67
		TOTAL:	9.66
		BC AMT:	9.66

BK CARD#: XXXXXXXXXXXX9332
ID: 670120393799
AUTH: 01658B AMT: 9.66
Host reference #:332191 Bat#1141
SWIPED
CARD TYPE:DISCOVER EXPR: XXXX

==>> JRNL#D32191 <<==
CUST # *13193
ACE REWARDS ID # 19168260698

THANK YOU DEREK POULTNEY
FOR YOUR PATRONAGE

I agree to pay above total amount
according to card issuer agreement
(merchant agreement if credit voucher)
Acct: DEREK POULTNEY

Customer Copy

Ventura Hillsides Conservancy

P.O. Box 1284 Ventura, California 93002
www.venturahillsides.org 805-643-8044

October 29, 2014

Ewelina Mutkowska
Stormwater Program Manager
County of Ventura Public Works Agency
800 South Victoria Avenue
Ventura, CA 93009-1600

Re: TMRP Invoice #2 – Summary of work performed July 1 to September 30, 2014

1. The PARTIES agree that the scope of work will be reviewed and approved by the VRE Trash TMDL Responsible PARTIES and it will include the following tasks:

   A. Routine monitoring and patrol within VRE area and adjacent property as defined in Exhibit 1 at least once a month.

      1. **We averaged 2 patrols per week (sometimes 3 patrols per week during the busiest times during the County Fair) covering most of area #2 and all of Areas #3 & 4 (which covers the area between the railroad bridge and a quarter mile north of Main Street).**
      2. **We averaged 2 patrols per month covering areas 1, 2, 3, 4).**
      3. **In addition, we helped coordinate State Park officer "law enforcement sweeps" on August 20, September 18 and September 30.**

   B. Coordination and supervision of volunteer clean-ups within VRE area as defined in Exhibit 1 to occur at least once a quarter.

      1. **We coordinated and supervised 8 volunteer clean-ups, several CREW (Arundo-removal) workdays and herbicide treatments on the following days:**

         July 7 (monthly herbicide treatment on cut Arundo)

         July 19 (regularly scheduled 3rd Saturday/mo)

         August 11 (monthly herbicide treatment on cut Arundo)

         August 16 (regularly scheduled 3rd Saturday/mo)

         September 8 (1st Tuesday/mo moved back a week)

         September 9 (coordinated the CREW's first workday)

         September 15 (monthly herbicide treatment)

         September 20 (regularly scheduled 3rd Saturday/mo)

C. Quarterly trash assessment events in accordance with the revised Ventura River Estuary Trash Monitoring and Reporting Plan, (expected to be approved by RWQCB in April 2014).

1. **We conducted several trash assessments, including monthly assessments of the entire project area on July 28, 30; August 1, 8, 9, 11, 16, 20; andSeptember 5, 15, 20, as documented on the attached Trash Visual Survey Worksheets and Trash Visual Survey Maps:**

D. Quarterly trash assessment photo reporting to the VRE Trash TMDL Responsible PARTIES.

1. **We took representative photographs on May 4 and June 16 as shown on the attached photo pages.**

E. Preparation of the Annual Report in accordance with the revised Ventura River Estuary Trash Monitoring and Reporting Plan, (expected to be approved by RWQCB in April 2014); the first report to be prepared by the Conservancy will be due January 2, 2015 for review and approval of the VRE Trash TMDL Responsible PARTIES.

1. **Annual report forthcoming in January 2015**

F. Volunteer Recruitment and Business Partner Outreach.

1. **VHC staff spent a significant amount of time recruiting many volunteers at many outreach events and opportunities, including soliciting volunteers and coordinating clean-up events via social media.**

2. The annual budget for the Conservancy services to the VRE Trash TMDL Responsible PARTIES shall include sufficient hours to conduct the approved scope of work, mileage, and administration fee of not to exceed 10% (ten percent). The annual budget for this work shall be provided by the Conservancy on or before October 15th each year of this MOA duration and will be reviewed and approved by the VRE Trash TMDL Responsible PARTIES by December 31st each year of this MOA duration.

Thank you for the opportunity to conduct this work. At your earliest convenience, please remit **$13,911.85** to:

Ventura Hillsides Conservancy
P.O. Box 1284
Ventura, CA 93002

Sincerely,

Derek Poultney
Conservation Manager

Ventura Hillsides Conservancy

Invoice #2

Ventura River Estuary Trash TMDL Patrols, Monitoring, and Volunteer Clean-up # P6040508

Invoice date: 10-30-14

To: Ewelina Mutkowska, Watershed Protection District
800 S. Victoria Avenue
Ventura, CA 93009-1610
Email: ewelina.mutkowska@ventura.org

Subject: Ventura River Estuary Trash TMDL Patrols, Monitoring, and Volunteer Clean-up # P6040508

Reported inspection period: from 7 / 1 / 2014 to 9 / 30 / 2014

Invoice #2 for work performed 7-1-14 to 9-30-14	**Task 1 Routine Monitoring & Patrol 2x/wk**		**Task 2 Coordinate & Supervise Volunteer Clean-ups 2x/mo**		**Task 3 Quarterly Trash Assessment & Reporting & TMDL Team Coordination**		**Task 4 Volunteer Recruitment & Business Partner Outreach**		**Mileage x $0.56**		**Admin OVHD 10%**	**Totals**
	hours	$	hours	$	hours	$	hours	$	miles	$		
Conservation Manager @ $50/hr	20.25	$1,012.50	27	$1,350	33.75	$1,687.50	7.75	387.50	565	$316.36	$443.75	$5,197.61
Volunteer Manager @ $40/hr	45.5	$1,820	31	$1,240	17.75	$710	82	$3,280	247.5	$138.60	$705	$7,893.60
Equipment/supplies												
Contractors				$511 RCP herbicide application; $309.64 EJ Harrison service								$820.64
Total												**$13,911.85**

Attachment: Completed Inspection forms/Report

Resource Conservation Partners, Inc.

2500 Channel Drive, Suite A-2
Ventura, CA 93003

Invoice

Date	Invoice #
10/15/2014	1032

Bill To
Ventura Hillsides Conservancy Derek Poultney 3451 Foothill Road Suite 201 Ventura, CA 93003

P.O. No.	Terms	Project
	Due on receipt	On-Call T&M

Description	Qty	Rate	Amount
State Park Herbicide			
Herbicide	1	30.00	30.00
Labor	7.4	65.00	481.00

Total	$511.00
Payments/Credits	$0.00
Balance Due	$511.00

ACCOUNT # 5-[illegible] J. HARRISON [illegible] INC P.O. BC [illegible]009 VENTURA, CA 93007-4009

DATE	DESCRIPTION	AMOUNT
	VTA AVE & HWY 33 -	
9/17/14	9/17 DL.40YD"GW"7-9AM PLS CALL 1.00	
9/17/14	9/17 D/P 40YD"GW"AFTER 12PM PLS 1.00	168.48
9/17/14	WOOD LOADS ZONE 1 2.96 35.450	104.93
	FOR CUSTOMER SERVICE & BILLING CALL: (805)647-1414 EXT 7	
	THIS BILL IS DUE AND PAYABLE IN 10 DAYS	
	SUB TOTAL	273.41
	TOTAL TAXES AND FEES	36.23

CURRENT	30 DAYS	60 DAYS	90 DAYS	Please pay BALANCE DUE
309.64	.00	.00	.00	**309.64**

Office Hours: MONDAY thru FRIDAY 8:00 A.M. to 5:00 P.M.

MAKE CHECK PAYABLE TO:
E.J. HARRISON ROLLOFFS

Ventura Hillsides Conservancy 1873

E. J. Harrison & Sons, Inc. 10/17/2014

Dumpster 309.64

PAYMENT RECORD

Rabobank - Checking #450 309.64

Trash Visual Survey Worksheet

Parcel No.: 3 & 4 Survey Date: 7-28-14

Inspector: Derek Poultney Survey Start/ End Time: 10am / 11:30

Current Weather Condition: Clear, calm

Antecedent Weather Condition: clear, calm

Level of Trash Observed:

Refer to Program Monitoring Area Map as necessary. Note any substantial 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** (10-50 pcs), **Category 3** (51-100 pcs), **Category 4** (>100 pcs)

Notes/ Parcel area:	Category:	Reason(s) for Category Rating:
under Main St. bridge	2	3 areas of non-camp, day-use trash

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): just a few minutes necessary at the next cleanup to make these areas trash-free again

Additional Notes: Other than noted above, all of areas #3 and #4 are at the Category 1 (less than 10 pieces of trash).

Trash Visual Survey Worksheet

Parcel No.: 1, 2, 3 Survey Date: 7-30-14

Inspector: Derek Poultney Survey Start/ End Time: 10:45 / 12:30

Current Weather Condition: Clear, calm

Antecedent Weather Condition: clear, calm

Level of Trash Observed:

Refer to Program Monitoring Area Map as necessary. Note any substantial 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** (10-50 pcs), **Category 3** (51-100 pcs), **Category 4** (>100 pcs)

Notes/ Parcel area:	Category:	Reason(s) for Category Rating:
under Main St. bridge	2	3 areas of non-camp, day-use trash
Area #3 just south of Main St. bridge	1	new minor area of day use trash
Area #2 right in middle of the property	2	new camp -- large red tent left voicemail for State Park Ranger to deal with it
Area #1 evidence of campers coming right back to the areas that were just cleaned two days ago -- left voicemail for the City to nip that in the bud so we can keep that area camp/trash-free.	3	

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): just a few minutes at each location at the next cleanup to make these areas trash-free again

Additional Notes: I disturbed a Bobcat's slumber in Area 3

Trash Visual Survey Worksheet

Parcel No.: _____ Survey Date: 8/1/14

Inspector: Dashiell Dunkell Survey Start/ End Time: 3:30 / 6:00

Current Weather Condition: Partial Sun / Fog

Antecedent Weather Condition: Sunny

Level of Trash Observed:

Refer to Program Monitoring Area Map as necessary. Note any substantial 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** (10-50 pcs), **Category 3** (51-100 pcs), **Category 4** (>100 pcs)

Notes/ Parcel area:	Category:	Reason(s) for Category Rating:
#3-1	2	remnants of trash pile under bridge
#3-2	3	trash pile ~~former camp~~ spray paint cans
#3-3	2	trash from RV Park
#2-1	2	remnants of trash pile under 101 bridge
#2-2	2	Bike thief den
#2-3	3	old campsite trash pile
#2-4	4	trash heap / campsite, near cottonwoods
#2-5	~~3~~ 3	campsite
#2-6	3	trash heap
#2-7	4	2 campsites + trash heap
#2-8	3	trash heap near river / campsite
#2-9	4	abandoned camp / trash heap

→ continued on reverse →

Types of Trash Observed (check all that apply):

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

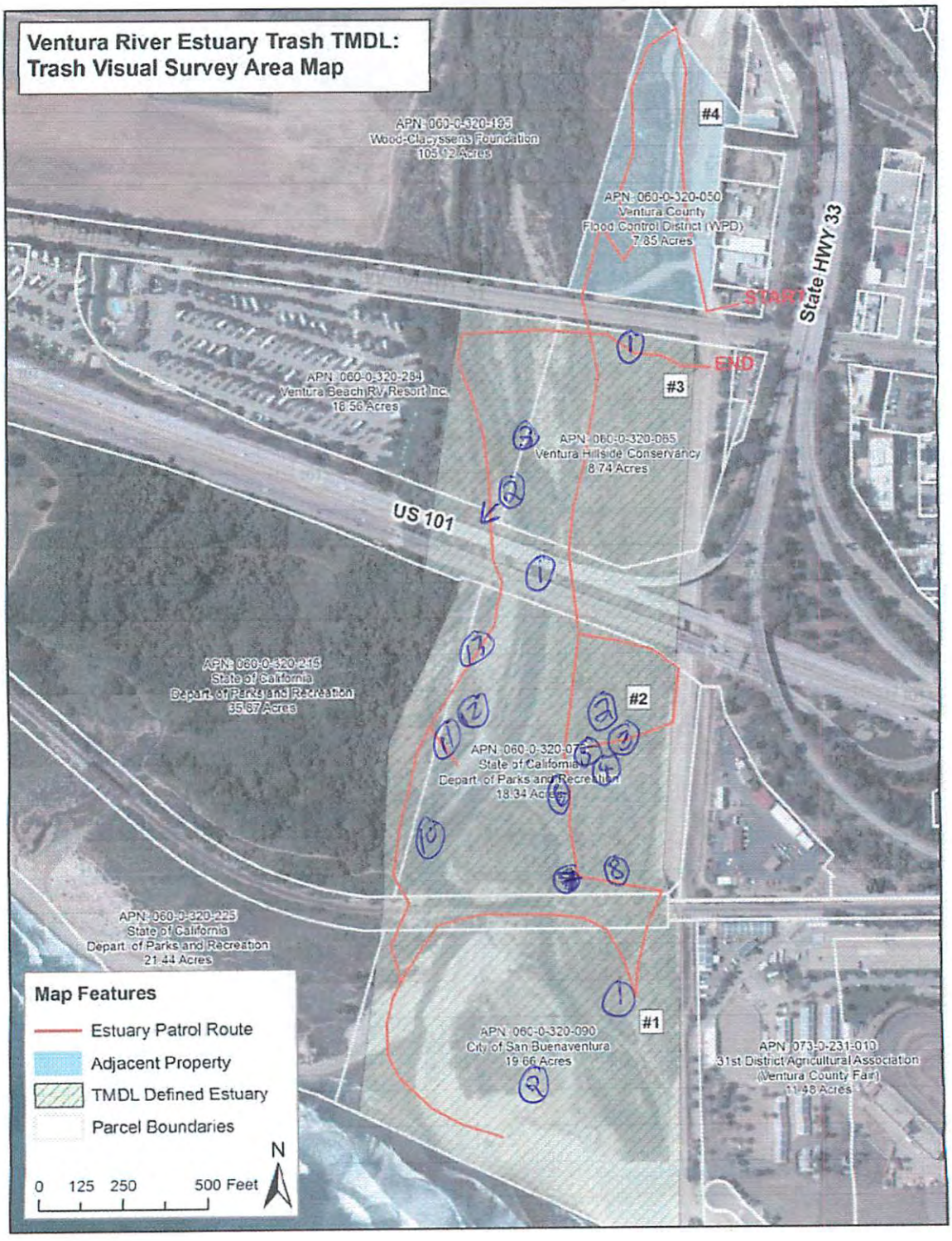
Notes: most common trash observed was plastic bags / food wrappers

Est. No. of Follow-up Cleanup Events Needed (describe why): Parcel #3 and 101 bridge: 1 cleanup, mostly under 101 bridge. Parcel #2: 10 cleanups, activity has increased recently with new camps being found. Parcel #1: 3 cleanups, mostly for ~3 camps on beach side of estuary

Additional Notes: City of Ventura Property (parcel #1) was recently cleared on troubled east edge, however activity appeared to be resuming in campsites, and southern edge of property was never cleared. Removal of nyporum and fan palms would help discourage illegal use and dumping.

notes/parcel area:	category:	reason:
#1-1	1	2 bikes + some trash
#1-2	4	2 camps + trash
#2-10	3	trash heap
#2-11	4	camp + trash heap
#2-12	4	camp + bike chop shop
#2-13	3	campsite

DRAFT


Ventura River Estuary Trash TMDL:
Trash Visual Survey Area Map
APN: 060-0-320-195
Wood-Claeyssens Foundation
105.12 Acres
APN: 060-0-320-050
Ventura County
Flood Control District (VPD)
7.85 Acres
#4
State HWY 33
START
END
#3
APN: 060-0-320-284
Ventura Beach RV Resort Inc
18.56 Acres
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
35.67 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
Map Features
Estuary Patrol Route
Adjacent Property
TMDL Defined Estuary
Parcel Boundaries
N
0 125 250 500 Feet
#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

Trash Visual Survey Worksheet

Parcel No.: 2 & 3
Survey Date: 8/8/14
Inspector: Dashiell Dunkell
Survey Start/ End Time: 4:15 / 5:45
Current Weather Condition: Partial Sun / Fog
Antecedent Weather Condition: sunny, dry

Level of Trash Observed:

Refer to Program Monitoring Area Map as necessary. Note any substantial 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** (10-50 pcs), **Category 3** (51-100 pcs), **Category 4** (>100 pcs)

Notes/ Parcel area:	Category:	Reason(s) for Category Rating:
Main St Bridge	2	Misc. trash & paint cans
Levee Road	2	misc trash
101 Bridge	3	Paint cans, camping remnants
parcel #2 - South of 101	2	Abandoned camp

Types of Trash Observed (check all that apply):

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

Notes: Illegal graffiti, and graffiti-related trash appears to be increasing

Est. No. of Follow-up Cleanup Events Needed (describe why): Trash surveyed should be cleaned up with 1 single cleanup event.

Additional Notes: Access to abandoned camps and trash piles on property #2 (State Parks) needs to be increased.

Trash Visual Survey Worksheet

Parcel No.: 3 Survey Date: 8/9

Inspector: Dashiell Dunkell Survey Start/ End Time: 2:00 / 3:00

Current Weather Condition: Sunny, warm

Antecedent Weather Condition: sunny / partial fog

Level of Trash Observed:

Refer to Program Monitoring Area Map as necessary. Note any substantial 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** (10-50 pcs), **Category 3** (51-100 pcs), **Category 4** (>100 pcs)

Notes/ Parcel area:	Category:	Reason(s) for Category Rating:
101 Bridge	3	Large amounts of trash

Types of Trash Observed (check all that apply):

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

Notes: leftover trash from campers, lots of spray paint cans

Est. No. of Follow-up Cleanup Events Needed (describe why): One (1) cleanup should be sufficient for cleaning under 101 Bridge.

Additional Notes: Arundo and willows have overgrown large areas under 101 Bridge, so trash access is difficult in some places.

Trash Visual Survey Worksheet

Parcel No.: 3(VHC), 4(VCWPD) Survey Date: 8/20/14

Inspector: Dashiell Dunkell Survey Start/ End Time: 4:45 / 5:45

Current Weather Condition: Sunny, Dry

Antecedent Weather Condition: Partly cloudy, Dry

Level of Trash Observed:

Refer to Program Monitoring Area Map as necessary. Note any substantial 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** (10-50 pcs), **Category 3** (51-100 pcs), **Category 4** (>100 pcs)

Notes/ Parcel area:	Category:	Reason(s) for Category Rating:
4 - drainage ditch	2	scattered trash
3/4 - Main St Bridge	2	Party remains
3 - 101 Bridge	3	Paint cans / trash

Types of Trash Observed (check all that apply):

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

Notes: Lots of new graffiti activity under 101 Bridge.

Est. No. of Follow-up Cleanup Events Needed (describe why): 1-2 events needed due to scattered nature of trash and difficulty of access in some areas under bridge.

Additional Notes: Bobcat seen on parcel #3.

Trash Visual Survey Worksheet

Parcel No.: All parcels
Survey Date: 9/5/14
Inspector: Dashiell Dunkell
Survey Start/ End Time: 11:00am 2:30pm
Current Weather Condition: partial sun/fog
Antecedent Weather Condition: sun

Level of Trash Observed:

Refer to Program Monitoring Area Map as necessary. Note any substantial 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** (10-50 pcs), **Category 3** (51-100 pcs), **Category 4** (>100 pcs)

Notes/ Parcel area:	Category:	Reason(s) for Category Rating:
4-1 scattered personal trash	2	food wrappers + personal effects
4-2 Trash under bridge	2	plastic trash + beer cans + paint cans
3-1 paint can + coffee cup	1	3 items of trash
3-2 plastic trash	1	scattered plastic left by floodwaters
3-3 temporary camp	2	personal effects + trash
2-1 101 bridge trash	4	many many paint cans + trash
2-2 abandoned camp	3	small campsite w/ trash
2-3 abandoned camp	4	lots of trash
2-4 abandoned camp	4	lots of trash
2-5 active camp	3	fairly contained
2-6 trash pile	4	lots of trash

Types of Trash Observed (check all that apply):

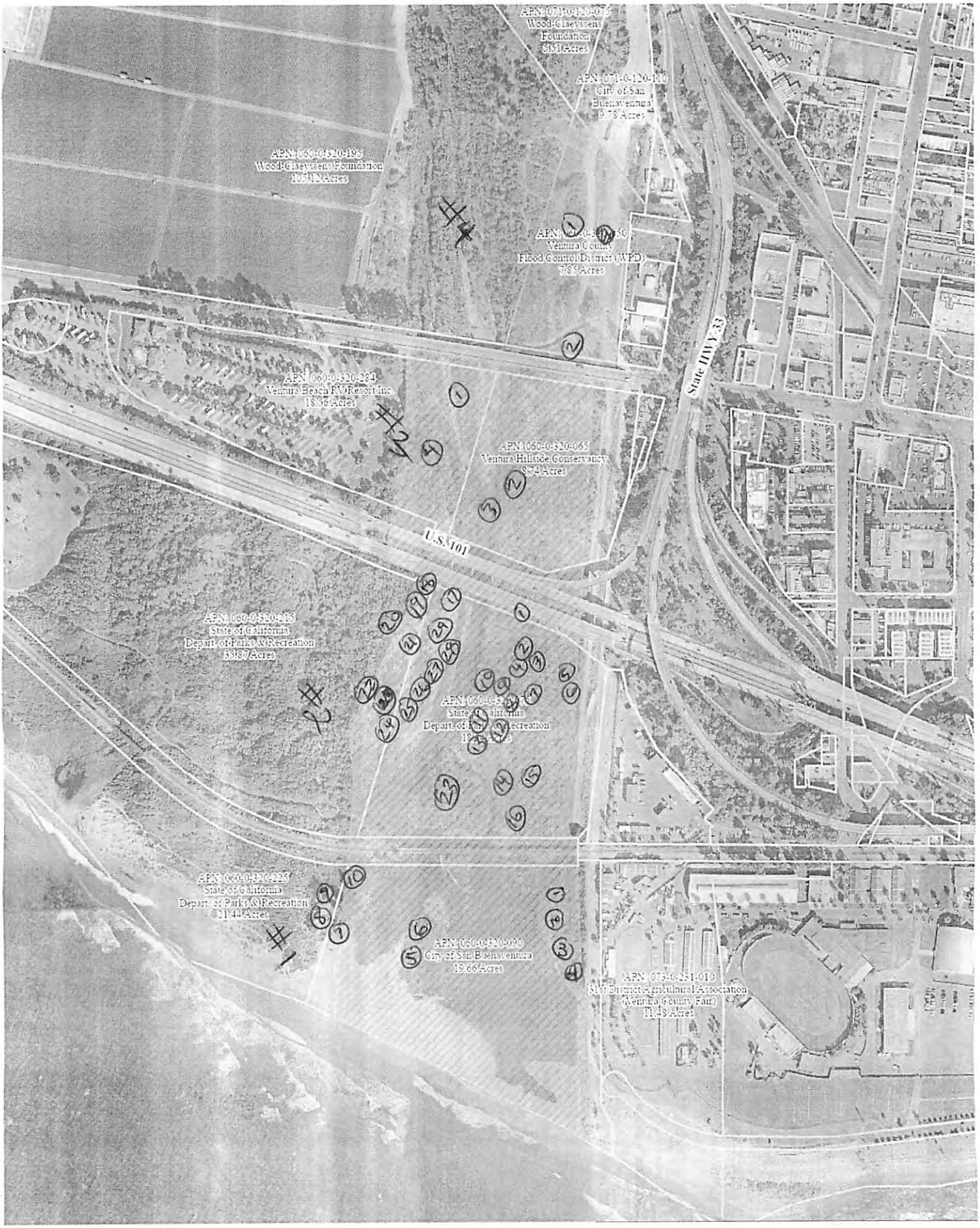
- ☑ Plastic/ Styrofoam
- ☐ Landscape Materials
- ☑ Toxic/ Hazardous Materials
- ☑ Personal Effects
- ☑ Paper Products/ Biodegradable
- ☑ Aluminum/ metal
- ☑ Glass
- ☐ Sports Equipment
- ☑ Household Items
- ☐ Automotive
- ☑ Biohazardous
- ☑ Other

Notes: Active camps and new trash sources appear to be concentrated on state parks property. 2-3 active camps were found on city property near beach as well.

Est. No. of Follow-up Cleanup Events Needed (describe why): 10-15 cleanups are likely needed due to large amounts of trash and difficulty of access to many areas.

Additional Notes: unfortunately there was evidence that new camps/trash sources had reappeared in areas previously cleared by volunteers and VHC staff. Arundo removal/stepped-up enforcement seem the logical steps to combat this problem

Notes/parcel area	Category	Reason for ranking
2-7 active camp	4	large active camp
2-8 abandoned camp	4	lots of trash
2-9 makeshift bathroom	2	lots of fecal matter/paper/trash
2-10 temporary camp	3	some trash
2-11 trash pile	2	small pile
2-12 trash pile	4	old large pile
2-13 trash pile	4	old medium pile
2-14 large trashed area	4+	large area w/ multiple camps
2-15 active camp	4	large camp
2-16 Large trashed area	4+	multiple trash piles/camps
2-17 Large camp site	4	large amounts of trash
1-1 trash pile	2	scattered trash
1-2 near estuary	2	more scattered trash
1-3 estuary near beach	3	abandoned camp trash
1-4 estuary near beach	4	camp site
1-5 on beach myoporum	4+	large camp full of trash
1-6 on beach in arundo	4	medium sized camp w/ trash
1-7 on beach west estuary	2	trash scattered
1-8 abandoned camp off beach	4	large trash pile
1-9 trash under cypress trees	3	scattered trash
1-10 trash under trestle	2	trash blowing into estuary
2-18 Trash under 101 bridge	3	lots of paint cans/plastic
2-19 trash under 101 bridge	4	large trash pile
2-20 active camp near 101 bridge	?	voices heard, not contacted
2-21 burned camp/trash	4	lots of trash, burned items
2-22 active camp site off trail	?	barricaded entry
2-23 island camps	?	2 individuals on raft. Seen
2-24 trash pile for barricaded camp	4+	multiple tents, 1 dog, voices heard
2-25 old trash pile	3	lots of trash, piles of feces
		~40-60 pieces


APN: 071-0-120-075
Wood-Claeyssens Foundation
5.51 Acres
APN: 071-0-120-140
City of San Buenaventura
9.78 Acres
APN: 060-0-520-195
Wood-Claeyssens Foundation
10.12 Acres
APN: 060-0-520-050
Ventura County
Flood Control District (VPD)
7.85 Acres
State HWY 33
APN: 060-0-520-284
Ventura Beach RV Resort Inc.
18.36 Acres
APN: 060-0-520-065
Ventura Hillside Conservancy
8.74 Acres
U.S. 101
APN: 060-0-520-215
State of California
Depart. of Parks & Recreation
55.87 Acres
APN: 060-0-520-225
State of California
Depart. of Parks & Recreation
21.44 Acres
APN: 060-0-520-090
City of San Buenaventura
19.66 Acres
APN: 073-0-231-010
51st District Agricultural Association
(Ventura County Fair)
71.48 Acres

MFAC Event Worksheet

Parcel No.: 2 (State Parks) Event Date: 6/11/14
Specific Cleanup Location: East of Estuary Event Start/ End Time: 9:30 / 12:30
Field Technician name(s): Dashiell Dunkell, Derek Paultney
Current Weather Condition: Partial sun/fog
Antecedent Weather Condition: Sunny

Types of Trash Observed (check all that apply):

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

Notes: Most of time was spent creating access points to current and abandoned campsites to facilitate future trash removal.

Potential Source(s) of Trash Collected: Illegal Campers/users of property

Hazardous/ Legacy Trash Requiring Follow-up: There are approximately 6-8 active or semi-active camps left on the eastern portion of State Parks property

MFAC Event Actions for Follow-up: Approximately 10 cleanups are needed for this portion of state parks, due to amount of trash and difficulty of access.

Additional Notes: One area previously cleared has had an illegal camper return. State Parks Rangers have been notified.

Trash Collected:
No. of Trash Bags Filled: 1 Dumpster % Fill: N/a Dumpster Size (cubic yds): N/a

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

MFAC Event Worksheet

Parcel No.: 2 (State Parks) Event Date: 8/16/14

Specific Cleanup Location: Next to levee road Event Start/ End Time: 9:00am/ 12:00pm

Field Technician name(s): Dashiell Dunkell, Derek Poultney

Current Weather Condition: Partly Cloudy

Antecedent Weather Condition: Sunny, warm

Types of Trash Observed (check all that apply):

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

Notes: continued process of clearing path to access abandoned and potentially active camps and dump sites. cleaned up trash in areas reached and scattered trash under 101 bridge.

Potential Source(s) of Trash Collected: Illegal campers and graffiti taggers.

Hazardous/ Legacy Trash Requiring Follow-up: None seen.

MFAC Event Actions for Follow-up: continue clearing access through Arundo to reach more campsites and dumping areas.

Additional Notes: Ranger or police presence may be needed to help with potentially active camps.

Trash Collected:

No. of Trash Bags Filled: 5 Dumpster % Fill: N/a Dumpster Size (cubic yds): N/a

Lead Field Technician Certification (sign/ print):

"Cleaned area is free of all visible trash." - D Dunkell / Dashiell Dunkell

MFAC Event Worksheet

Parcel No.: 2- State Parks Event Date: 9/15/14

Specific Cleanup Location: East of Estuary Event Start/ End Time: 9:30 /

Field Technician name(s): Dashiell Dunkell, Derek Poultney

Current Weather Condition: Sunny, hot

Antecedent Weather Condition: sunny, hot

Types of Trash Observed (check all that apply):

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

Notes: continued creating access through Arundo to areas on Eastern edge of estuary. Planned for following cleanup event. Picked up trash on levee road.

Potential Source(s) of Trash Collected: Illegal campers, litter from freeway and bike path

Hazardous/ Legacy Trash Requiring Follow-up: None

MFAC Event Actions for Follow-up: continue sweeping south of Hwy 101 bridge on east side of estuary.

Additional Notes: Several campers have returned to areas previously cleaned during MFAC events

Trash Collected:

No. of Trash Bags Filled: 2 Dumpster % Fill: N/A Dumpster Size (cubic yds): N/A

Lead Field Technician Certification (sign/ print):

"Cleaned area is free of all visible trash." - Dashiell Dunkell

MFAC Event Worksheet

Parcel No.: 2 - State Parks Event Date: 9/20/14

Specific Cleanup Location: East of Estuary Event Start/ End Time: 9:00am 12:00pm

Field Technician name(s): Dashiell Dunkell, Derek Poultney

Current Weather Condition: Foggy, warm

Antecedent Weather Condition: Sunny, dry

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: Coastal Cleanup Day in contunction with Friends of the Ventura River brought out 21 volunteers & 2 VHC staff to the MFAC event.

Potential Source(s) of Trash Collected: Illegal campers on state parks property.

Hazardous/ Legacy Trash Requiring Follow-up: None

MFAC Event Actions for Follow-up: Several active camps were found, next event would be well served to have Park Ranger / Law enforcement presence. continued Arundo removal needed as well.

Additional Notes: Access to camps and trash piles was greatly aided by previous Arundo removal.

Trash Collected:

No. of Trash Bags Filled: 52 Dumpster % Fill: 90% Dumpster Size (cubic yds): 20 yd^3

Lead Field Technician Certification (sign/ print):

"Cleaned area is free of all visible trash." - Dashiell Dunkell

8-20-14

8-20-14

9-5-14

9-5-14

9-5-14

9-9-14

9-17-14

9-17-14

9-17-14

9-20-14

9-20-14

9-30-14

9-30-14

9-30-14

9-30-14

9-30-14

Appendix 3. Clean-Up Photos

Figure 1. MFAC Area 1 – Before (L) and After (R) Clean-Up Photos

Figure 2. MFAC Area 2 – Before (L) and After (R) Clean-Up Photos

Figure 3. MFAC Area 3 – Before (L) and After (R) Clean-Up Photos

Figure 4. MFAC Area 4 – Before (L) and After (R) Clean-Up Photos

Figure 5. City of Ventura July, 2014 Clean-Up Event Typical Camp – Before (L) and After (R)

Figure 5. City of Ventura July, 2014 Clean-Up Event Amount of Trash Removed