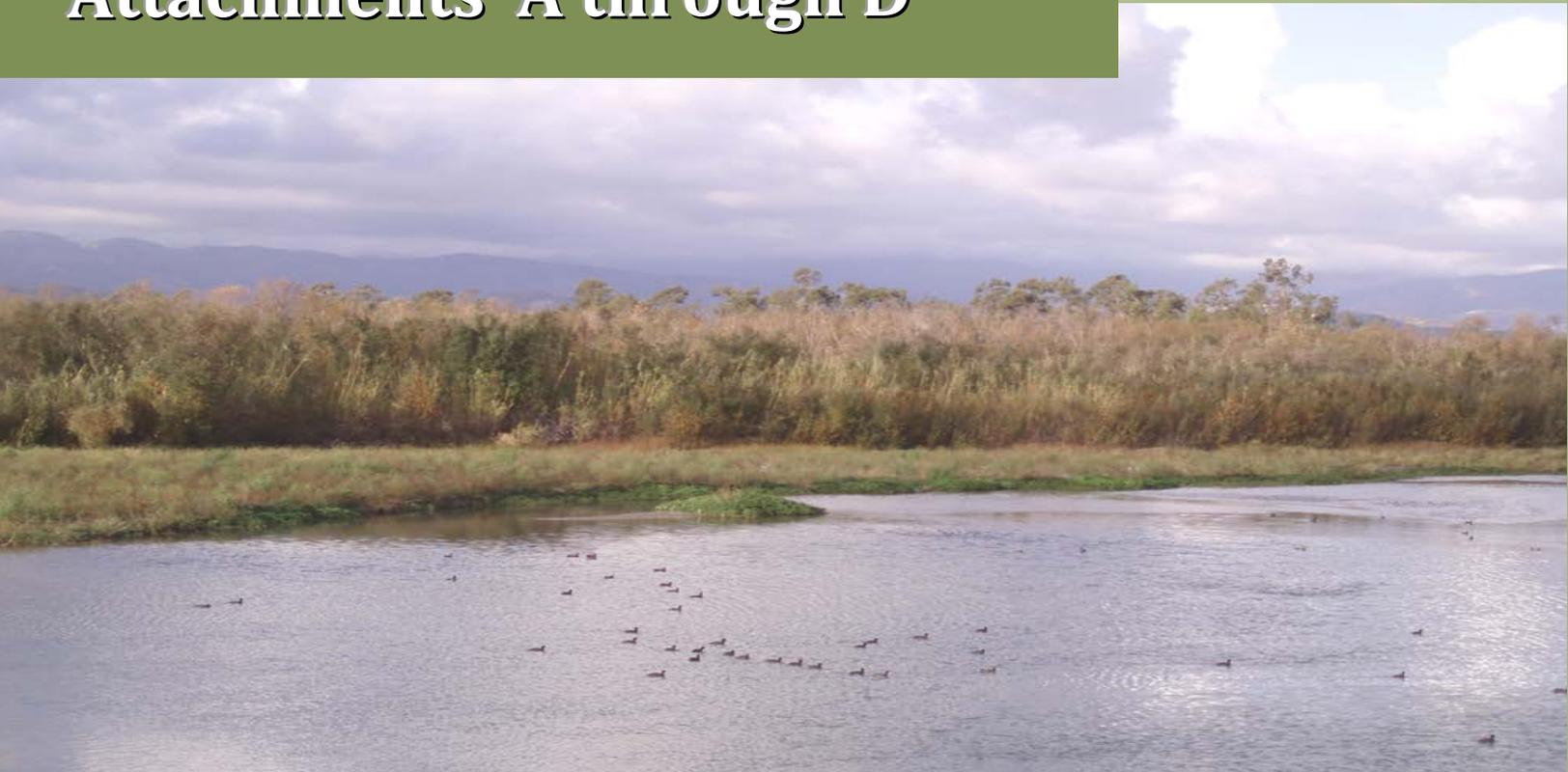




*Ventura Countywide  
Stormwater Quality  
Management Program*

**2011-2012  
Permit Year**

Ventura Countywide Stormwater Quality  
Management Program Annual Report  
**Attachments A through D**



**December 15, 2012**

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

## **Attachments**

---

Attachment A Commercial and Industrial Inspection Checklists

Attachment B Post Construction BMP Inspection Checklist

Attachment C Construction Inspection Checklist

Attachment D Illicit discharge Field Screening Protocol

# **Attachment A - Industrial/Commercial Inspection Checklist**

# Attachment A – Commercial Inspection Checklist



City of Camarillo – Public Works Dept. 805-383-5659

Work Order #: \_\_\_\_\_

## STORMWATER INSPECTION CHECKLIST FOR COMMERCIAL BUSINESSES

FOOD SERVICE,  AUTO-RELATED  LAUNDRY  NURSERY FACILITIES

INSPECTION TYPE:  1<sup>st</sup> Routine<sup>1</sup>  2<sup>nd</sup> Routine<sup>2</sup>  Complaint Response  Follow-up Visit  
 INSPECTION DATE: \_\_\_\_\_ TIME: \_\_\_\_\_  
 INSPECTOR NAME: \_\_\_\_\_ PHONE #: \_\_\_\_\_  
 FACILITY NAME: \_\_\_\_\_ FACILITY ADDRESS: \_\_\_\_\_  
 FACILITY CONTACT NAME: \_\_\_\_\_ PHONE #: \_\_\_\_\_  
**FACILITY CONTACT SIGNATURE (acknowledging receipt of insp.):** \_\_\_\_\_  
 FACILITY SIC/NAICS # \_\_\_\_\_ CATEGORY: \_\_\_\_\_  
 FACILITY IS LOCATED IN Calleguas Creek Watershed and discharges to Revolon Slough; Beardsley Wash; Conejo; Calleguas  
(Circle one Water body)

Does Facility discharge to MS4 that directly discharges to an ESA?  Yes  No If yes, is there an approved TMDL Implementation Plan?  Yes  No

	BMP #	Inspection Criteria	Yes	No <sup>3</sup>	N/A
1	SC-10	<b>Unauthorized Non-stormwater discharges.</b> Are controls being implemented to eliminate non-stormwater discharges?			
2	SC-11	<b>Accidental Spills/Leaks.</b> Is the facility effectively preventing and responding to spills and leaks?			
3	SC-20	<b>Vehicle/Equipment Fueling.</b> Are effective fueling source control devices and practices being implemented?			
4	SC-21	<b>Vehicle/Equipment Cleaning.</b> Are effective equipment/vehicle cleaning practices and appropriate wash water management practices being implemented?			
5	SC-22	<b>Vehicle/Equipment Repair.</b> Are effective vehicle/equipment repair practices and source control devices being implemented?			
6	SC-30	<b>Outdoor Loading/Unloading.</b> Are effective outdoor loading/unloading practices being implemented?			
7	SC-31	<b>Outdoor Liquid Storage.</b> Are effective outdoor liquid storage source controls and practices being implemented?			
8	SC-32	<b>Outdoor Equipment Operations.</b> Are effective outdoor equipment source control devices and practices being implemented?			
9	SC-33	<b>Outdoor Storage of Raw Materials.</b> Are effective source control practices being implemented and appropriate structural devices being used and maintained?			
10	SC-34	<b>Storage and Handling of Solid Waste.</b> Are effective solid waste storage/handling practices and control measures being implemented?			
11		<b>Grease Trap/Clarifier Info.</b> Is Grease Trap/Clarifier being properly maintained? Size of Trap/Clarifier _____ Last Svc. Date: _____			
12	By Municipality	<b>Waste/Hazardous Materials Storage, Handling &amp; Disposal.</b> Are effective storage, handling and disposal procedures for hazardous materials being implemented?			
13	SC-41	<b>Building and Grounds Maintenance.</b> Are effective facility maintenance practices being implemented?			
14	SC-43	<b>Parking/Storage Area Maintenance.</b> Are effective parking/storage area designs and housekeeping/maintenance practices being implemented?			
15	SC-44	<b>Storm Water Conveyance System Maintenance Practices.</b> Are proper conveyance system operation and maintenance protocols being implemented?			
16		<b>Post Construction Treatment Device.</b> If facility has treatment device, is it being properly maintained? Device Type: _____			

<sup>1</sup> 1<sup>st</sup> Routine inspection is due by 7/8/2012; <sup>2</sup> 2<sup>nd</sup> Routine inspection is due not earlier than 6 months after the 1<sup>st</sup> insp. and not later than 7/8/2015

<sup>3</sup> Note Violation/Correction Needed in Comments Section

### ENFORCEMENT ACTION TAKEN

Verbal Warning	Cease & Desist Order Issued
Notice of Noncompliance (1 <sup>ST</sup> written notice via City Storm Water Mgr. ltr.)	Referred to LA Regional Water Board
Administrative Compliance Order Issued (2 <sup>nd</sup> written notice via City PW Dir. ltr.)	Legal Action Initiated

FOLLOW-UP INSPECTION NECESSARY?  YES  NO

OUTREACH MATERIAL GIVEN TO FACILITY: \_\_\_\_\_  
(List type of material (Business brochure, BMP fact sheet #)

**COMMENTS:** (Identify # violated above, type of violation and suggested corrective action needed.)

---



---



---



---

White – Storm Water File

Yellow – Storm Water Inspector

Pink – Facility Copy

10-2010

# Attachment A - Industrial Inspection Checklist



SID # \_\_\_\_\_

City of Ventura Environmental and Water Resources Division – Environmental Services  
**STORMWATER INSPECTION CHECKLIST FOR INDUSTRIAL FACILITIES**

INSPECTION TYPE:  1<sup>st</sup> Routine<sup>1</sup>  2<sup>nd</sup> Routine<sup>2</sup>  2<sup>nd</sup> Routine-No Exp. Fac.<sup>3</sup>  Complaint Response  Follow-up Visit

INSPECTION DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

INSPECTOR NAME: \_\_\_\_\_ PHONE #: \_\_\_\_\_

FACILITY NAME: \_\_\_\_\_

FACILITY ADDRESS: \_\_\_\_\_

FACILITY CONTACT NAME: \_\_\_\_\_ PHONE #: \_\_\_\_\_

FACILITY CONTACT SIGNATURE (acknowledging receipt of insp.): \_\_\_\_\_

FACILITY SIC/NAICS # \_\_\_\_\_ CATEGORY: \_\_\_\_\_

FACILITY IS LOCATED In: Ventura River, Misc. Coastal, Lower Santa Clara River, Watershed (Circle one Water Body)

Does Facility discharge to MS4 that directly discharges to an ESA?  Yes  No If yes, is there an approved TMDL Implementation Plan?  Yes  No

State Industrial NPDES Permit Information			Yes	No <sup>4</sup>	N/A
Does facility have coverage/WDID # under State Industrial Permit?					
WDID # _____					
If facility has coverage/WDID # under State Industrial Permit, does facility have SWPPP on site?					
If facility's SIC code is identified in Category 10 of Attachment 1 to the Industrial Permit, does facility have any industrial materials, equipment or activities that are exposed to stormwater? (Category 10 includes: SICs 20,21,22,23,2434,25,265,267,27,283,285,30,31 (except 311),323,34 (except 3441),35,36,37(except 373),38,39 or 4221-4225)					
If a Category 10 SIC facility and no exposure, did facility file a Notice of Non-Applicability with the LARWQCB? Date filed: _____ LARWQCB Approval Letter Received: (if yes, attach copy to inspection form)					
BMP #		BMP Inspection Criteria	Yes	No <sup>4</sup>	N/A
1	SC-10	<b>Unauthorized Non-stormwater discharges.</b> Are controls being implemented to eliminate non-stormwater discharges?			
2	SC-11	<b>Accidental Spills/Leaks.</b> Is the facility effectively preventing and responding to spills and leaks?			
3	SC-20	<b>Vehicle/Equipment Fueling.</b> Are effective fueling source control devices and practices being implemented?			
4	SC-21	<b>Vehicle/Equipment Cleaning.</b> Are effective equipment/vehicle cleaning practices and appropriate wash water management practices being implemented?			
5	SC-22	<b>Vehicle/Equipment Repair.</b> Are effective vehicle/equipment repair practices and source control devices being implemented?			
6	SC-30	<b>Outdoor Loading/Unloading.</b> Are effective outdoor loading/unloading practices being implemented?			
7	SC-31	<b>Outdoor Liquid Storage.</b> Are effective outdoor liquid storage source controls and practices being implemented?			
8	SC-32	<b>Outdoor Equipment Operations.</b> Are effective outdoor equipment source control devices and practices being implemented?			
9	SC-33	<b>Outdoor Storage of Raw Materials.</b> Are effective source control practices being implemented and appropriate structural devices being used and maintained?			
10	SC-34	<b>Storage and Handling of Solid Waste.</b> Are effective solid waste storage/handling practices and control measures being implemented?			
11		<b>Grease Trap Info.</b> Is Grease Trap being properly maintained? Size of Trap _____ Last Svc. Date: _____			
12	By Municipality	<b>Waste/Hazardous Materials Storage, Handling &amp; Disposal.</b> Are effective storage, handling and disposal procedures for hazardous materials being implemented?			
13	SC-41	<b>Building and Grounds Maintenance.</b> Are effective facility maintenance practices being implemented?			
14	SC-43	<b>Parking/Storage Area Maintenance.</b> Are effective parking/storage area designs and housekeeping/maintenance practices being implemented?			
15	SC-44	<b>Storm Water Conveyance System Maintenance Practices.</b> Are proper conveyance system operation and maintenance protocols being implemented?			
16		<b>Appendix D Fact Sheets.</b> If applicable, is facility applying requirements on these fact sheets?			
17		<b>Post Construction Treatment Device.</b> If facility has treatment device, is it being properly maintained? Device Type: _____			

<sup>1</sup>1<sup>st</sup> Routine insp. due 5/7/2012. <sup>2</sup>2<sup>nd</sup> Routine insp. for facilities with exposure due not earlier than 6 months after the 1<sup>st</sup> insp. & not later than 5/7/2015. <sup>3</sup>2<sup>nd</sup> routine insp. yearly at min. of 20% of facilities determined not to have exposure (Non Applicability Letter on File)

<sup>4</sup>Note violation/correction needed in comments section

**ENFORCEMENT ACTION TAKEN**

Verbal Warning/Written Notice of Correction (1st written notice via City SW Insp.)	Cease & Desist Order Issued
Notice of Violation (2nd written notice via City Storm Water Insp.)	Referred to LA Regional Water Board
Administrative Compliance Order Issued (3rd written notice via City PW Dir. ltr.)	Legal Action Initiated

FOLLOW-UP INSPECTION NECESSARY? YES \_\_\_\_\_ NO \_\_\_\_\_

OUTREACH MATERIAL GIVEN TO FACILITY: \_\_\_\_\_  
(List type of material (Business brochure, BMP fact sheet #)

**COMMENTS:** (Identify # violated above, type of violation and suggested corrective action needed.)

(Use addition sheet for comments)

Stormwater Quality Program (805) 207-6371

White – Storm Water File

Yellow – Storm Water Inspector

Pink – Facility Copy

IND 04-08-2010 A

## **Attachment B - Post Construction BMP Inspection Checklist**

**Attachment B - Post Construction BMP Checklist**



**CITY OF CAMARILLO – PUBLIC WORKS DEPT. (805-383-5659)  
STORM WATER POST-CONSTRUCTION TREATMENT DEVICE  
INSPECTION CHECKLIST**

3/12/2010

Type of Device: \_\_\_\_\_ Location of Device: \_\_\_\_\_

Date of Inspection: \_\_\_\_\_ Inspector: \_\_\_\_\_

Photos Taken:  Yes  No Quantity: \_\_\_\_\_

Property Manager/Designee: \_\_\_\_\_ Company: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

**Service Information:**

**Grassy swale/biofilter/grass strip, catch basin filter, clarifiers, pervious concrete, etc.**

- Needs removal of litter and debris \_\_\_\_\_
- Needs to be swept \_\_\_\_\_
- Removal of accumulated sediment \_\_\_\_\_
- Reseed and/or apply mulch to damaged grass areas \_\_\_\_\_
- Other repairs/maintenance necessary: \_\_\_\_\_
- \_\_\_\_\_
- No Maintenance is needed at this time

**Detention Basins**

- Needs removal of litter and debris from banks and basin \_\_\_\_\_
- Repair erosion to banks and bottom \_\_\_\_\_
- Clean/repair inlet riprap and pilot channels \_\_\_\_\_
- Clean/repair outlet to prevent clogging \_\_\_\_\_
- Sediment accumulation of 25% or more of original depth (should be cleaned) \_\_\_\_\_
- Perimeter fencing needs repair \_\_\_\_\_
- Apply Mosquito abatement procedure \_\_\_\_\_
- Other repairs/maintenance necessary: \_\_\_\_\_
- \_\_\_\_\_
- No Maintenance is needed at this time

Additional Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Outreach Material Given to Facility: \_\_\_\_\_

Is follow-up inspection needed?

- Yes  No

\_\_\_\_\_  
*Inspector Signature*

\_\_\_\_\_  
*Date*

## **Attachment C - Construction Inspection Checklist**

---

Attachment C - Construction Inspection Checklist



**CITY OF CAMARILLO – PUBLIC WORKS DEPT. (805-383-5659)**  
**STORM WATER INSPECTION CHECKLIST**  
**FOR CONSTRUCTION ACTIVITIES**

10/6/09

Work Order: \_\_\_\_\_

Project Name: \_\_\_\_\_ Project #: \_\_\_\_\_

Project Location: \_\_\_\_\_ Grading Permit #: \_\_\_\_\_

Date/Time: \_\_\_\_\_ Quantity of Rainfall: \_\_\_\_\_

**Contractor Information:**

Contact Rep.: \_\_\_\_\_ Company Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_

**INSPECTION TYPE:**  Wet Season  Dry Season  Routine  Follow-Up  Pre-storm  During-storm  Post-storm  Final

**CONSTRUCTION PHASE:**  Grading & Land Dev  Streets & Utilities  Vertical Construction  Final Landscaping

**CONSTRUCTION REQUIREMENTS:**

Is SWPPP/SWPCP on site:  Yes  No Is Notice of Intent WDID on site:  Yes  No  N/A WDID #: \_\_\_\_\_

**RISK DETERMINATION:** Sediment and Receiving Water Risk Level:  One  Two  Three

**DEWATERING ACTIVITIES:** Has a NPDES Permit been filed:  Yes  No If yes, is the Permit on site:  Yes  No

YES	NO	N/A	INSPECTION CRITERIA
			1. <b>SITE PLAN:</b> Does the site plan reflect the project site's condition(s)?
			2. <b>SLOPE EROSION MANAGEMENT:</b> Are slope erosion management BMP's in place per the SWPCP/SWPPP
			3. <b>SEDIMENT TRAPPING:</b> Are all sandbags, straw bales, and/or silt fences in place and are they functioning properly?
			4. <b>SEDIMENT BASINS:</b> If desilting or sediment basins are being used, are they functioning properly?
			5. <b>SEDIMENT MANAGEMENT AT DRAINAGE DISCHARGE POINTS:</b> Are the drainage discharge points reasonably free of any significant erosion or sediment transport?
			6. <b>SITE SEDIMENT MANAGEMENT:</b> Is sediment, debris, or mud contained within the site?
			7. <b>PUBLIC ROAD SEDIMENT MANAGEMENT:</b> Are ingress and egress locations to the construction area stabilized to prevent the tracking of construction materials offsite or onto impervious areas?
			8. <b>MATERIALS MANAGEMENT:</b> Are material handling and storage areas reasonably clean and free of spills, leaks, or any other harmful materials?
			9. <b>MATERIALS MAINTENANCE:</b> Are all materials properly covered/contained?
			10. <b>DESIGNATED MATERIAL STORAGE AREA:</b> Are all locations of temporary soil stockpiles or construction materials in approved areas?
			11. <b>VEHICLE &amp; EQUIPMENT MAINTENANCE:</b> Are all the equipment storage, cleaning, fueling, and maintenance areas reasonably clean and free of spills, leaks, or any other harmful materials?
			12. <b>PAINT, CONCRETE &amp; SAW CUTTING WASTE MANAGEMENT:</b> Are waste containment areas functioning properly?
			13. <b>BMP IMPLEMENTATION:</b> Has an effective combination of BMPs been selected for the project site?
			14. <b>BMP INSTALLATION &amp; MAINTENANCE:</b> Are the BMPs identified on the SWPCP/SWPPP, and/or installed in the proper location according to plan specifications?
			15. <b>POST-CONSTRUCTION BMPs:</b> Have post-construction BMPs been inspected prior to issuing the Certificate of Occupancy?
			16. <b>HIGH RISK SITES:</b> Has the project proponent's qualified SWPPP personnel inspected the site's BMPs during installation and weekly during the wet season (October-April)?
			17. <b>BMP LOG:</b> Is a log kept on site which indicates BMPs are being evaluated, maintained and/or modified in the event that they fail or are not appropriate?
			18. <b>ILLICIT DISCHARGE:</b> Is non-stormwater runoff leaving the site?
			19. <b>PUBLIC PROJECT (CIP) SWPPP/PCP:</b> Does the SWPPP/PCP have the required training and inspection records?

**Field Directive Issued:**  Yes  No

**Non-Compliance Issued:**  Yes  No

Verbal  Stop Work Order  Citation  
 Warning  Notice of Violation

**Notes/Comments:** \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Inspector \_\_\_\_\_

Phone Number \_\_\_\_\_

Contractor's Signature \_\_\_\_\_

*(Acknowledging receipt of Inspection Report)*

White – Storm Water File

Yellow – Storm Water Inspector

Pink – Site Copy

## **Attachment D - Illicit Discharge Field Screening Protocol**

---

## Attachment D Illicit discharge Field Screening Protocol

Draft 10-Mar-2010

### ILLICIT CONNECTIONS AND ILLICIT DISCHARGES (IC/IDS) ELIMINATION PROGRAM

#### FIELD SCREENING PROTOCOL

*PERMITTEE'S NAME*

#### 1.0 PURPOSE AND OBJECTIVES

This Field Screening Protocol was prepared by the *Permittee's Name*. The purpose of this Field Screening Protocol is to present *Permittee's Name's* approach and procedures to complete illicit connections and illicit discharges (IC/IDs) field screening requirements under the Los Angeles Regional Water Quality Control Board Order No. 09-0057, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS004002, Waste Discharge Requirements for the Stormwater (Wet Weather) and Non-Stormwater (Dry Weather) Discharges from the Municipal Separate Storm Sewer Systems (MS4) NPDES Permit (Permit) within the Ventura County Watershed Protection District, County of Ventura, and the Incorporated Cities therein. Implementation of the Ventura County MS4 Permit is directed by the Ventura Countywide Storm Water Quality Management Program formed by the Ventura County Watershed Protection District, County of Ventura, cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, San Buenaventura (Ventura), Santa Paula, Simi Valley, and Thousand Oaks.

#### 2.0 IC/ID ELIMINATION PROGRAM REQUIREMENTS

The following is taken verbatim from the Subpart 4.H. of the Ventura County MS4 Permit. Each Permittee shall implement an IC/IDs program to eliminate, document, track, and report IC/IDs to the storm drain system, as follows:

##### 1. *General*

- a) Implementation - Each Permittee shall implement an IC/ID Program. The IC/ID procedures shall be documented and made available for public review.
- b) Tracking - All Permittees shall, no later than May 7, 2012, map at a scale and in a format specified by the Principal Permittee all known connections to their storm drain system. **All Permittees shall map at a scale and in a format specified by the Principal Permittee incidents of illicit connections and discharges since January 2009 on their baseline maps, and shall transmit this information to the Principal Permittee no later than May 7, 2012.** Permittees shall use this information to identify priority areas for further investigation and elimination of IC/IDs.

## Attachment D Illicit discharge Field Screening Protocol

Draft 10-Mar-2010

### 2. Public Reporting

- a) Permittees shall establish and maintain a phone hotline and internet site to receive all reports of IC/ID complaints.
- b) Permittees shall document the location of the reported IC/ID and the actions undertaken in response to all IC/ID complaints.

### 3. Illicit Connections

- a) Screening for Illicit Connections
  - (1) Each Permittee shall submit to the Principal Permittee:
    - (A) A map at a scale and in a format specified by the Principal Permittee showing the location and length of underground pipes 18 inches and greater in diameter, and channels within their permitted area and operated by the Permittee in accordance with the following schedule:
      - (i) All channeled portions of the storm drain system no later than May 7, 2010.
      - (ii) All portions of the storm drain system consisting of storm drain pipes 36 inches in diameter or greater, no later than May 7, 2012. This provision is not meant to exclude Permittees from using equally effective alternative methods not listed in the manual.
      - (iii) All portions of the storm drain system consisting of storm drain pipes 18 inches in diameter or greater, no later than May 7, 2014.
    - (B) The status of suspected, confirmed, and terminated illicit connections.
  - (2) Permittees shall conduct field screening of their storm drain systems in accordance with screening procedures described in the ***Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments*** (2004)<sup>1</sup>. Permittees shall conduct field screening of their storm drain system that has not been previously screened and reported to the Regional Board, for illicit connections in accordance with the following schedule:
    - (A) All portions of the storm drain system consisting of storm drain pipes 36 inches in diameter or greater, no later than May 7, 2012.
    - (B) High priority areas identified during the mapping of illicit connections and discharges, no later than May 7, 2012.
    - (C) All portions of storm drain systems 50 years or older in age, no later than May 7, 2012.
  - (3) Each Permittee shall maintain a list containing all connections under investigation for possible illicit connection and their status.

<sup>1</sup> *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments*. The Center for Watershed Protection, P.O. Box 245, Ellicott City, MD 21043, October 2004. Chapter 13, 13.1, 13.2, 13.3, 13.4

## Attachment D Illicit discharge Field Screening Protocol

Draft 10-Mar-2010

### b) Response to Illicit Connections

#### (1) Investigation -

Each Permittee, upon discovery or upon receiving a report of a suspected illicit connection, shall complete an investigation within 21 days, to determine the following:

- (A) Source of the connection.
- (B) Nature and volume of discharge through the connection.
- (C) Responsible party for the connection.

#### (2) Termination -

Each Permittee, upon confirmation of an illicit storm drain connection, shall ensure the following:

- (A) Termination of the connection within 180 days of completion of the investigation, using formal enforcement authority to eliminate the illicit connection.

#### (3) Documentation -

Each Permittee shall keep records of all illicit connection investigations and the formal enforcement taken to eliminate all illicit connections.

## 4. *Illicit Discharges*

### (a) Investigation -

Each Permittee shall investigate an illicit/ illegal discharge during or immediately following containment and cleanup activities, and shall take appropriate enforcement action to eliminate the illegal discharge.

### (b) Abatement and Cleanup -

Each Permittee shall respond, within 1 business day of discovery or a report of a suspected illicit/ illegal discharge, with actions to abate, contain, and/or clean up all illegal discharges, including hazardous waste.

## DEFINITIONS

**Channel** - means an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two waterbodies.

**Illegal Discharge** - means any discharge to the municipal separate storm sewer (storm drain system) that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illegal discharge includes all non-storm water discharges not composed entirely of storm water except discharges pursuant to an NPDES permit, discharges that are identified in part 1, "Discharge Prohibitions" of this order, or discharges authorized by the Regional Water Board Executive Officer.

**Illicit Connection** - means any engineered conveyance that is connected to the storm drain system without a permit or municipal authorization. It also means any engineered conveyance through which

## Attachment D Illicit discharge Field Screening Protocol

Draft 10-Mar-2010

discharges of pollutants to the separate storm drainage systems, which are not composed entirely of storm water or are not authorized by an NPDES permit, may occur.

**Illicit Discharge** - means any discharge to a municipal separate storm sewer (storm drain system) that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit discharge includes all non-storm water discharges not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges that are identified in part 1, "Discharge Prohibitions" of this order, or authorized by the Regional Water Board Executive Officer.

**Illicit Disposal** - means any disposal, either intentionally or unintentionally, of material(s) or waste(s) that can pollute storm water.

**Open Channel** - means a storm drainage channel that is not a natural water course.

**Screening** - means using proactive methods to identify illicit connections through a continuously narrowing process. The methods may include: performing baseline monitoring of open channels, conducting special investigations using a prioritization approach, analyzing maintenance records for catch basin and storm drain cleaning and operation, and verifying all permitted connections into the storm drains. Special investigation techniques may include: dye testing, visual inspection, smoke testing, flow monitoring, infrared, aerial and thermal photography, and remote control camera operation.

### 3.0 INFRASTRUCTURE PROFILE

- *Briefly characterize storm drain system and sewers within the MS4 system (size, age, condition)*
- *Useful statistics to consider (number of storm drain outfalls, miles of storm drain pipe, total stream and channel miles, total areas serviced by storm drain, sewer, and septic tanks)*
- *Reference or include maps as appropriate*

### 4.0 LEGAL AUTHORITY

In accordance with Subpart 3.B of the Ventura County MS4 Permit, each Permittee shall possess the necessary legal authority to prohibit illicit connections and illicit discharges, and to remove illicit connections. To ensure uniform and consistent countywide approach and to provide a legal underpinning to the entire Ventura Countywide NPDES Stormwater Program, a Model Stormwater Quality Ordinance was developed, which was adopted subsequently by all Permittees with some minor jurisdiction-specific changes. The current Stormwater Quality Ordinance was adopted by *Permittee's Name* on *date*.

In addition, each Permittee has designated Authorized Inspector(s) responsible for enforcing the Ordinance. The Authorized Inspector(s) is the person designated to investigate compliance with, detect violations of and/or take actions pursuant to the Ordinance.

## Attachment D Illicit discharge Field Screening Protocol

Draft 10-Mar-2010

- *Provide reference to specific sections of the Permittee's Ordinances for IC/ID prohibition, elimination and enforcement actions,*
- *Determine if any permits are required to implement IC/ID Plan,*
- *Determine if effective inter-departmental coordination and cooperation currently occur*
- *Summarize enforcement capability or include enforcement plan if available*

### 5.0 MAPPING

As listed in the Section 2 of this Protocol, item a).(1).(A) in paragraph 3 "Illicit Connections", the Ventura County MS4 Permit contains specific mapping requirements including due dates for submittal of the required maps to the Principal Permittee. *Permittee's Name* is in the process of mapping all known connections within its jurisdiction.

- *Summarize current status of your mapping efforts*
- *Are maps of the storm drain system readily available?*
- *Determine system gaps that require mapping; describe how maps will be updated*
- *Determine if storm drain maps include coverage of sanitary and storm sewer networks*

### 6.0 STAFF ASSIGNED FOR FIELD SCREENING

The *Permittee's Name* selected the following staff to complete field and office assignments as a part of the IC/IDs field screening requirements presented in [Section 2](#) of this Protocol:

Name	Position	Organization	Phone Number	Responsibility

The staff selected for field and office assignments will have adequate training to follow this Field Screening Protocol and ensure compliance with the Ventura County MS4 Permit. The training will include basic field training, inspection, data collection, health and safety, and operation and calibration of field instruments.

- *Determine staff needs to complete field work*
- *Determine staff needs to complete data analysis and reporting*

### 7.0 IC/ID TRACKING AND ELIMINATION CAPABILITY

In order to meet Ventura County MS4 Permit requirements presented in [Section 2](#) of this Protocol, the *Permittee's Name* selected the following individuals to support implementation of the IC/IDs Elimination Program:

## Attachment D Illicit discharge Field Screening Protocol

Draft 10-Mar-2010

Name	Position	Affiliation	Phone Number	Responsibility

The proposed staff and contractors are appropriately trained to respond to IC/IDs, spills, overflows, hazardous material emergencies that occur within *Permittee's Name's* jurisdiction. In the event that IC/IDs investigation and elimination involves more than one Permittee, the contact information presented in [Table 1](#) should be used for notification. Each involved Permittee will be notified as responsible parties are identified.

- *Define responsibilities of Agency(ies), assigned personnel, pre-approved contractors to respond to spills, overflows, hazardous material emergencies,*
- *Determine if personnel is properly equipped and trained to respond to illicit connection*
- *Define strategy for keeping information up-to-date*
- *Define strategy for sharing tracking information among Agencies involved*

### 8.0 FIELD INSTRUMENTS AND ANALYTICAL LABORATORY

The following field instruments are identified as required and available to complete IC/IDs requirements of the Ventura County MS4 Permit presented in [Section 2](#) of this Protocol:

Field Instrument	Parameters to be Measured	Technical Specifications	Calibration Information
		<a href="#">Exhibit A</a>	<a href="#">Exhibit A</a>

In the event that water sample is required for off-site laboratory analysis, *Permittee's Name* has an on-going contract with *Laboratory Name*. The laboratory contact name is \_\_\_\_\_ and he/she can be reached at \_\_\_\_\_. Sample collection details are provided in [Exhibit B](#). Results of lab analysis will be provided to \_\_\_\_\_ for data analysis and implementation as described in [Section 10](#).

- *Determine requirements for field instruments*
- *Provide calibration procedures and forms*
- *Provide contact and contract information for the analytical laboratory*
- *Provide a sample collection checklist and chain-of-custody forms*

### 9.0 EDUCATION AND OUTREACH

Public Education is an essential part of a municipal stormwater program because changing public behavior can create a real reduction in environmental pollution. When a community has a clear understanding of where the pollution comes from, how it can affect them and what they can do to stop

## Attachment D Illicit discharge Field Screening Protocol

**Table 1**  
Ventura County Illicit Discharge Response Contact List

Prepared on 15-Jan-10

Permittee	Dispatch	Primary Contact Name	Primary Contact Office Phone Number	Primary Contact Cell Phone Number	Alternate Contact Name	Alternate Contact Office Phone Number	Alternate Contact Cell Phone Number
Camatillo	(805) 388-5338	n/a	n/a	n/a	n/a	n/a	n/a
Fillmore	(805) 524-3701						
Moorpark	(805) 517-6257	Shaun Kroes	805-517-6257	n/a	Yugal K. Lall	805-617-6256	805-218-5861
Cjai	(805) 640-2560	Brian Meadows	805-646-5061 ext 114	805-797-1594	n/a	n/a	n/a
Oxnard	(805) 271-2220	Dispatch	(805) 271-2220	n/a	Mark Punford	(805) 271-2220	n/a
Port Hueneme	(805) 936-6507	Wastewater Div.	805 936-6561	n/a	n/a	n/a	n/a
Santa Paula	(805) 933-4212	Jon Turner	(805) 933-4212 ext 303	(805) 850-8562	Richard Jones	(805) 933-4212 ext 310	(805) 320-0497
Simi Valley	(805) 583-6400	Dispatch	805-583-6400	n/a	Ron Linton	805-583-6429	805-297-8110
Thousand Oaks	(805) 449-2400	PW Counter	805/449-2400	n/a	Bob Carson	805/449-2499	n/a
Ventura	(805) 667-6510	ID Hotline	805-667-6510	n/a	Karen Sedlacek	805-667-6517	805-207-6371
Ventura County	(805) 650-4064	Paul Tantet	(805) 662-6737	(805) 901-4763	Ewelina Mutkowska	(805) 645-1382	(805) 765-5068
Ventura County EHD - for sewage/wastewater discharges	(805) 654-2813	Dispatch	(805) 654-2813 After Hours On-call Emergency Response # (805) 320-6244		n/a	n/a	n/a
Ventura County EHD - for hazardous waste and materials	(805) 654-2813	Dispatch	(805) 654-2813	n/a	n/a	n/a	n/a
VC PWA Transportation Dispatch <a href="http://www.pwa.road@ventura.org">www.pwa.road@ventura.org</a>	(805) 672-2131	Road Maintenance Dispatch	(805) 672-2131	n/a	n/a	n/a	n/a
Ventura County WPD	(805) 650-4064	Greg Martinez	805-672-2102	805-340-1175	Karl Novak	805-672-2106	805-804-7792

## Attachment D Illicit discharge Field Screening Protocol

Draft 10-Mar-2010

it, they will be more likely to support the program, change their own practices, and help educate others.

The on-going countywide outreach campaign includes the following key elements:

- Watershed Awareness
- Public Awareness Surveys
- Identification of general and specific goals of the program
- Identification of target audiences and key messages for those audiences
- Development of program strategies and plan overview
- Pollution prevention program using a unified "brand name"
- Development of a watershed based outreach program
- Identification of opportunities to reach out to regulatory agencies
- Development of a model public education/public participation strategy for localization at the Permittee level
- Development and implementation of a school-aged children education outreach program
- Development and implementation of food facilities outreach program materials
- Development and implementation of automotive facilities outreach program materials
- Development and implementation of industrial facilities outreach program materials

The public outreach materials are available at [http://www.vcstormwater.org/programs\\_residential.html](http://www.vcstormwater.org/programs_residential.html)

*Permittee's Name* have established a hotline at (805) *XX-XXXX* for illicit discharge reporting that has enabled easy reporting and improved response hotline.

- *Determine availability of*
  - *Hotline*
  - *Website to post outreach materials*
  - *Any community events to spread the message*
  - *Outreach materials*

## Attachment D Illicit discharge Field Screening Protocol

Draft 10-Mar-2010

### 10.0 IMPLEMENTATION PLAN

#### 10.1 General

*Permittee's Name* will complete field screening of its storm drain system **no later than May 7, 2012**. Based on Ventura County MS4 Permit requirements, the screening will include the following system portions that have not been previously screened for illicit connections:

- a) All portions of the storm drain system consisting of storm drain pipes 36 inches in diameter or greater;
- b) High priority areas identified during the mapping of illicit connections and discharges; and
- c) All portions of storm drain systems 50 years or older in age.

In addition, *Permittee's Name* continues responding to IC/IDs discovered during the industrial/commercial business inspections, its routine operation and maintenance activities, or as reported by the public.

#### 10.2 Desktop Assessment to Support Field Screening (Optional)

Desktop Assessment provides a prioritization approach for completing screening requirements within the *Permittee's Name's* jurisdiction. The EPA Guidance recommends Desktop Assessment for municipalities with 20 or more stream miles of the storm drain system required for ID/IC screening.

Desktop Assessment was used by *Permittee's Name* to define where to begin searching for IC/ID problems in *Permittee's Name's* community. It involved processing and analysis of available mapping data to quickly characterize and screen for IC/ID problems at the community and subwatershed scale. Key factors considered in the analysis included *water quality, land use, development age, sewer infrastructure, and outfall density*.

In accordance with *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments* (2004) the following 5 steps were applied:

##### Step 1: Delineate subwatersheds

*Permittee's Name* delineated the following subwatersheds *or other drainage units* within the community, refer to [Map X](#):

- 1)
  - *List defined subwatersheds or drainage units*

## Attachment D Illicit discharge Field Screening Protocol

Draft 10-Mar-2010

### Step 2: Compile mapping layers and subwatershed data

*Permittee's Name* compiled available maps (Section 5) and data for each drainage unit (e.g., land use, age, outfalls, infrastructure history).

- *Summarize results of the map analysis; include layered maps if available.*

### Step 3: Compute discharge screening factors (SF)

Out of 10 screening factors discussed in the EPA's Guidance Manual, *Permittee's Name* selected the following factors for the IC/ID problem analysis:

- Past Discharge Complaints and Reports
- Poor Dry Weather Water Quality
- Density of Generating Sites or Industrial NPDES Storm Water Permits
- Storm Water Outfall Density
- Age of Subwatershed Development
- Sewer Conversion
- Historic Combined Sewer Systems
- Presence of Older Industrial Operations
- Aging or Failing Sewer Infrastructure
- Density of Aging Septic Systems

The following are results of the SF analysis for *Permittee's Name's* community:

	SF 1	SF2	SF3	Raw IC/ID Problem Score	Normalized IC/ID Problem Score
<i>Subwatershed A</i>					
<i>Subwatershed B</i>					

#### Example

Basis for assigning scores (based on benchmarks) to assess IDP is as follows:

Past discharge complaints/reports: <5 = 1; 5-10 = 2; >10 = 3  
 Dry weather water quality: <25% = 1; 25-50% = 2; >50% = 3  
 Storm water outfall density: <10 = 1; 10-20 = 2; >20 = 3  
 Average age of development: <25 = 1; 25- 50 = 2; >50 = 3

- *Checked selected factors*
- *Complete table;*

### Step 4: Screening at the subwatershed and community level

Screen and rank illicit discharge potential at the subwatershed and community level

## Attachment D Illicit discharge Field Screening Protocol

### Draft 10-Mar-2010

The raw score values of the IC/ID potential problems were re-evaluated using SF data at the subwatershed and community level resulting in normalized scores listed above. Based on *Permittee's Name's* analysis, the following prioritization of the risk was determined:

- Highest risk at *Subwatershed X*
- Medium risk at *Subwatershed Y*
- Low risk at *Subwatershed Z*

### Step 5: Generate maps to support field investigations

Incorporating all the Desktop Assessment results, *Permittee's Name* determined that communities A and B have minimal IC/ID problems, C and D exhibit clustered IC/ID problems, and E and F are of severe IC/ID problems, refer to [Map\(s\)](#).

The desktop assessment completed by *Permittee's Name* is used to guide field screening by generating the following outcomes:

- 1) Screening problem catchments or subwatersheds,
- 2) Creation of GIS or other database system to track outfalls,
- 3) Gaining an overall assessment as to the severity of illicit discharge problems in the community, and
- 4) Generation of basic mapping for subsequent field work

### 10.3 Field Screening Methodology

The primary field screening tool recommended by the EPA IDDE Guidelines is the Outfall Reconnaissance Inventory (ORI), which is used to find IC/ID problems, develop a systematic outfall inventory, and map or verify existing maps of the MS4. The ORI is a stream walk designed to inventory and measure storm drain outfalls, and find and correct continuous and intermittent discharges and illicit connections.

During ORI walk, *Permittee's Name's* trained staff will use EPA's "Outfall Reconnaissance Inventory Field Sheets" provided in [Exhibit C](#) to record field information. These sheets will facilitate recording outfall locations and characteristics. Field crew will describe the following indicators for flowing and non-flowing outfalls as listed in the "Outfall Reconnaissance Inventory Field Sheets":

1. Odor (flowing outfalls only);
2. Color (flowing outfalls only);
3. Turbidity (flowing outfalls only);
4. Floatables (flowing outfalls only);
5. Outfall damage (both flowing and non-flowing outfalls);

## Attachment D Illicit discharge Field Screening Protocol

Draft 10-Mar-2010

6. Deposits/stains (both flowing and non-flowing outfalls);
7. Abnormal vegetation (both flowing and non-flowing outfalls);
8. Poor pool quality (both flowing and non-flowing outfalls), and
9. Pipe benthic/algal growth (both flowing and non-flowing outfalls).

*Permittee's Name* will compile ORI data including field information, GPS data, and photographs of outfall locations.

The ORI can discover obvious discharges that are indicated by flowing outfalls with very high turbidity, strong odors and colors, or an "off the chart" value on a simple field test strip. When obvious discharges are found and physical indicators are present, refer to [Figure 1 "Illicit Discharge Source Investigation Flow Chart"](#), field crews will initiate response within 1 business day. ORI crews may also encounter a discharge of hazardous materials or wastewater that should be immediately referred to the appropriate agency for cleanup, refer [Table 1 "Ventura County Illicit Discharge Response Contact List"](#).

In order to complete investigation of the IC/ID source, *Permittee's Name* will select appropriate investigative method from the following methods recommended in the US EPA Guidance Manual:

- Storm Drain Network Investigation (refer to subsection 10.3.1);
- Drainage Area Investigation (refer to subsection 10.3.2);
- On-site investigations (refer to subsection 10.3.3); and
- Septic system investigations (refer to subsection 10.3.4).

Detailed descriptions of the methods are provided in Chapter 13 of the *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments* (2004).

IC/ID discovery, investigation, and response will be documented using forms provided in [Exhibit C](#). Appropriate information will be provided to Regional Water Quality Control Board in the Annual Report. In addition, per Permit requirements, *Permittee's Name* will map incidents of illicit connections and discharges since January 2009 on its baseline maps and transmit this information to the Principal Permittee no later than May 7, 2012.

### 10.3.1 Storm Drain Network Investigation

Field crews will strategically inspect manholes within the storm drain network system to measure chemical or physical indicators that can isolate discharges to a specific segment of the network. Once the pipe segment is identified, on-site investigations will be used to find the specific discharge or improper connection.

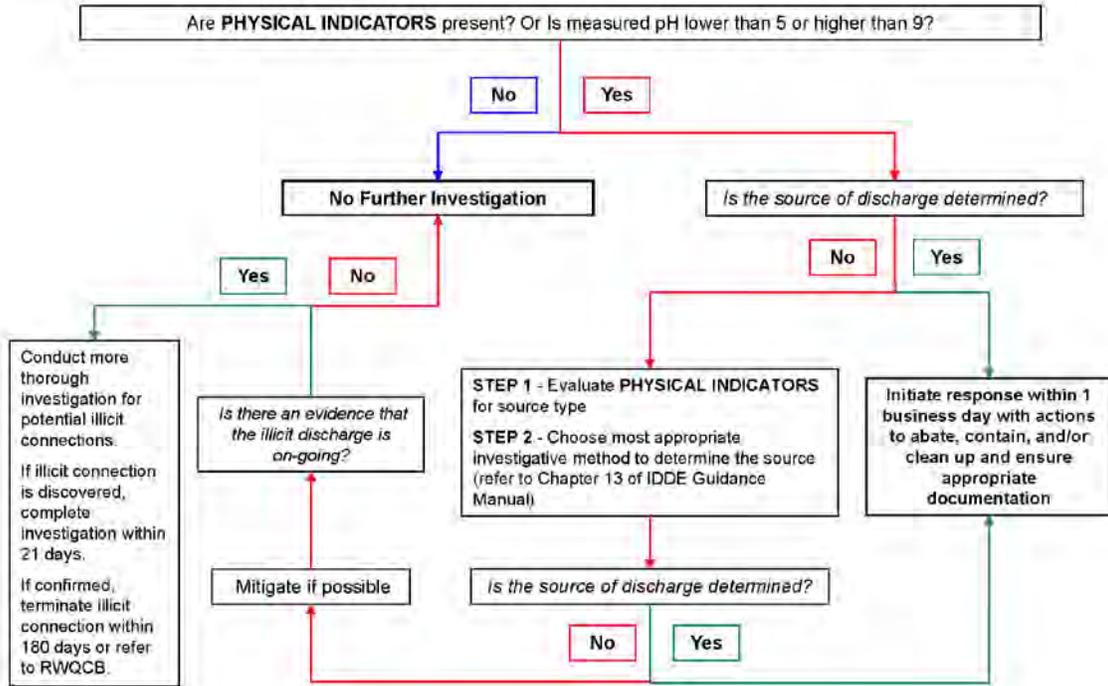
This method involves progressive visual inspections and/or sampling at manholes in the storm drain network to narrow the discharge to an isolated pipe segment between two manholes. When conducting a storm drain network investigation, field crews need to decide where and how to proceed with visual inspections and/or sampling in the network.

# Attachment D Illicit discharge Field Screening Protocol

Figure 1 Illicit Discharge Source Investigation Flow Chart

STEP 1 – Complete Outfall Reconnaissance Inventory Field Sheet

STEP 2 – Notify other Permittees if observed discharge is present in their facilities



## Attachment D Illicit discharge Field Screening Protocol

Draft 10-Mar-2010

The field crew should decide how to attack the pipe network that contributes to a problem outfall. Three options can be used:

- 1) Crews can work progressively up the trunk from the outfall and test manholes along the way.
- 2) Crews can split the trunk into equal segments and test manholes at strategic junctions in the storm drain system.
- 3) Crews can work progressively down from the upper parts of the storm drain network toward the problem outfall.

### 10.3.2 Drainage Area Investigation

This method relies on an analysis of land use or other characteristics of the drainage area that is producing the illicit discharge. The investigation can be as simple as a "windshield" survey of the drainage area or a more complex mapping analysis of the storm drain network and potential generating sites. Drainage area investigations work best when prior indicator monitoring reveals strong clues as to the likely generating site producing the discharge.

### 10.3.3 On-site Investigation (Optional)

On-site methods are used to trace the source of an illicit discharge in a pipe segment, and may involve dye, video or smoke testing within isolated segments of the storm drain network. While each approach can determine the actual source of a discharge, each needs to be applied under the right conditions and test limitations discussed in details in Chapter 13 of the *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments* (2004). It should be noted that on-site investigations are not particularly effective in finding *indirect* discharges to the storm drain network.

### 10.3.4 Septic System Investigation (Optional)

Low-density residential watersheds may require special investigation methods if they are not served by sanitary sewers and/ or storm water is conveyed in ditches or swales. The major illicit discharges found in low-density development are failing septic systems and illegal dumping. Homeowner surveys, surface inspections and infrared photography have all been effectively used to find failing septic systems in low-density watersheds.

## 10.4 Health and Safety Considerations

The field crew (2 staff at minimum) will be trained to raise awareness of many hazardous circumstances that they may confront when conducting field screening of the storm drain system. These health and safety guidelines can only be effective, however, if they are considered, discussed, and applied with a large dose of prudent judgment.

Communication is also a major component. When doubts and concerns arise, field crew will discuss the matter with a supervisor. Furthermore, always err on the side of safety when assessing risk. If there is any doubt whether task can be safely performed, ask the crew leader/supervisor for further instructions and help. Protecting personal safety is more important than completing a risky task – SAFETY FIRST!