



## ecology and environment, inc.

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February 20, 2007

Attn: Augustine Anijelo, Raul Medina  
Los Angeles Regional Water Quality Control Board  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, CA 90013

Subject: Statewide General NPDES Permit for Utility Vaults  
Pollution Prevention Plan and Monitoring & Reporting Plan  
Waste Discharge Identification No. 4000U000094

On behalf of Sprint / United Management Company (Sprint) please find enclosed Sprint's renewal application for the general NPDES permit for discharges from utility vaults and underground structures to surface waters (California's Water Quality Order No. 2006-0008-DWQ and General Permit No. CAG990002). The enclosed permit application contains a Pollution Prevention Plan, a Notice of Intent (Appendix D), and a copy of representative maps.


Also, as required under the Monitoring and Reporting Program, Sprint will be conducting water sampling of five representative vaults within the Los Angeles Region during the next six months. The results from this sampling event will be submitted to the Los Angeles Regional Water Quality Control Board in its annual monitoring report.

If you have any questions concerning the enclosed documents, please contact either myself via email at: [alaforge@ene.com](mailto:alaforge@ene.com) or by telephone (503) 248-5600, or Mr. Paul Paxton with Sprint Environmental Health & Safety at: [paul.b.paxton@sprint.com](mailto:paul.b.paxton@sprint.com) or by telephone (760) 476-4449.

Sincerely,  
Ecology & Environment, Inc.

Ashley A. La Forge

enclosures



**Pollution Prevention Plan  
Statewide General NPDES Permit for  
Utility Vaults  
Los Angeles Region 4  
Water Quality Order  
No. 2006-0008-DWQ  
General Permit No. CAG990002  
WDID Nos. 4000U000094**

**February 2007**

**Prepared for:  
Sprint/United Management Company**

**Prepared by:  
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# Table of Contents

Section		Page
<b>1</b>	<b>Introduction .....</b>	<b>1-1</b>
	Overview and Purpose .....	1-1
	Pollution Prevention Team .....	1-2
<b>2</b>	<b>Discharge Provisions.....</b>	<b>2-1</b>
	Scheduled Discharges .....	2-1
	Unscheduled Discharges .....	2-2
	Reservoir Discharges .....	2-2
	Emergency Operation Discharges .....	2-2
<b>3</b>	<b>Description of Potential Pollutant Sources .....</b>	<b>3-1</b>
	Drainage Map .....	3-1
	Inventory of Exposed Materials.....	3-1
	Spills and Leaks .....	3-1
	Risk Identification and Summary of Potential Pollutant Sources.....	3-2
<b>4</b>	<b>Pollution Prevention Practices .....</b>	<b>4-1</b>
	Vault Sampling prior to Discharge .....	4-1
	Petroleum Sheen.....	4-1
	Sample Collection .....	4-1
	Sample Appearance.....	4-1
	Layers and/or Solids.....	4-1
	Top Layer with Gas/Chemical Odor .....	4-2
	Good Housekeeping & Preventative Maintenance.....	4-3
	Spill Prevention and Response Procedures.....	4-4
	Inspections .....	4-4
	Employee Training.....	4-4
	Record Keeping and Internal Reporting Procedures .....	4-5
	Sediment and Erosion Control.....	4-5
	Management of Runoff.....	4-6
	Comprehensive Site Compliance Evaluation .....	4-6
<b>5</b>	<b>Certification and Signature .....</b>	<b>5-1</b>

**Table of Contents (cont.)**

<b>Section</b>		<b>Page</b>
<b>6</b>	<b>Contact Information .....</b>	<b>6-1</b>
<b>7</b>	<b>References .....</b>	<b>7-1</b>
<b>A</b>	<b>Decision Flow Chart for Disposal of Waste in Vaults .....</b>	<b>7-2</b>
<b>B</b>	<b>Manhole Dewatering - Field Screening for Contaminants.....</b>	<b>7-3</b>
<b>C</b>	<b>Maps of Representative Dewatering Sites .....</b>	<b>7-4</b>
<b>D</b>	<b>Notice of Intent Form (NOI Form) .....</b>	<b>7-5</b>

## List of Abbreviations and Acronyms

BMP	Best Management Practice
CTR	California Toxics Rule
CWA	Clean Water Act
EH&S	[Sprint's] Environmental Health & Safety Department
EPA	[United States] Environmental Protection Agency
gpm	Gallons per minute
NPDES	National Pollutant Discharge Elimination System
PLAN	Pollution Prevention Plan
SIP	State [California] Implementation Plan
SWRCB	State [California] Water Resources Control Board
TPH-d	Total Petroleum Hydrocarbons as diesel fuel
TPH-g	Total Petroleum Hydrocarbons as gasoline
TPH-m	Total Petroleum Hydrocarbons as motor oil

# 1

## Introduction

### Overview and Purpose

The federal Water Pollution Control Act of 1972, currently known as the Clean Water Act (CWA), was amended to prohibit the discharge of pollutants to waters of the United States from any point source unless that discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. In 1989 the USEPA Region 9 granted the state of California the authority to issue general NPDES permits.

In order to regulate surface water discharges associated with the de-watering of utility vaults and underground structures, the California State Water Resources Control Board issues General NPDES Permits for Discharges From Utility Vaults and Underground Structures to Surface Waters (Order No.2006-0008-DWQ, NPDES no. CAG990002). Although the General Permit does not contain numeric effluent limitations for toxic pollutants, it does require all covered dischargers to implement pollutant prevention practices (similar to Best Management Practices [BMPs]) to ensure that the discharges will not cause a violation of water quality standards. The General Permit requires utility companies to prepare a storm water Pollution Prevention Plan (Plan), which contains the pollutant prevention practices and shall be implemented whenever there is a discharge. Dischargers are also required to implement a Monitoring and Reporting Program.

To ensure safety during the periodic maintenance of underground equipment, Sprint must dewater its vaults and underground structures. This sometimes results in short-term, intermittent discharges of storm water to surface waters of the State of California. The procedures outlined in this Plan have been developed to ensure that discharges from vaults and underground structures do not violate water quality objectives for receiving waters. The intent of this Plan is to assist Sprint staff in evaluating potential pollutant sources at dewatering sites and in selecting and implementing appropriate measures designed to prevent or control the discharge of pollutants.

This plan will be amended by Sprint whenever there is a change in construction, operation, or maintenance, or when such amendment would be necessary to ensure compliance with established standards and water quality criteria. The Pollu-

tion Prevention Plan will also be amended or revised in order to ensure continued compliance with water quality standards and the NPDES permit. Sprint will submit any amended Plans to the appropriate Regional Water Board.

The plan will be housed at:

Sprint/United Management Company  
Environmental Health & Safety  
Mailstop KSOPHM0516-5B822  
6480 Sprint Parkway  
Overland Park, KS 66251  
Office: (760) 476-4449  
PCS: (949) 278-9582  
Fax: (760) 476-4500  
<mailto:paul.b.paxton@sprint.com>

## **Pollution Prevention Team**

Sprint's Pollution Prevention Team consists of the Environmental Health and Safety Group (EHS), as well as all personnel working with vaults and underground structures. This group is headed by Eric Allgaier, EHS Manager. The group is responsible for developing, maintaining, revising, and implementing this plan.

# 2

## Discharge Provisions

Sprint must dewater the subsurface vaults and underground structures to protect equipment or for safety reasons prior to performing repair, maintenance, and/or installation of equipment. The water is either manually pumped from the vaults or automatically discharged when equipped with automatic sump pumps. The volume of discharge from each vault varies and may range from a few gallons to a few thousand gallons depending on the size of the vault and the time of year. The duration of the discharge may vary from a few minutes to several hours depending on the amount of water in the vault and the size of the pump being used. Typical pumping rates range from 5 to 20 gallons per minute (gpm), but could be as high as 60 gpm. Whenever there is a discharge of 50,000 gallons or more to a municipal separate storm sewer system (MS4), Sprint will contact the appropriate local agency with jurisdiction over the MS4 within 24 hours.

Automatic sump pumps are used in some vaults and underground structures where equipment is vulnerable to water damage. These vaults primarily discharge water that has entered through groundwater infiltration or seepage through vault walls. For most cases, this water is clean and is automatically discharged to the area around the vault.

Manual pumping of certain vaults and underground structures is done whenever they must be entered to conduct repair or maintenance work. Under normal operations, materials and equipment in the vaults and underground structures are not likely to contaminate water. Because the vaults and structures are not watertight, they can collect water, primarily from surface runoff during storm events. This water is, in most cases, clean but may contain traces of petroleum products (oil, gasoline, etc.), oil and grease, organic matter, mud, silt, pesticides, and other pollutants (e.g., metals), primarily from automobiles.

### Scheduled Discharges

Sprint does not regularly schedule discharges from underground structures. If a scheduled discharge were to occur, the practices as outlined in this plan would be implemented.



## **Unscheduled Discharges**

The majority of discharges from underground vaults and structures are unscheduled. Water accumulates in these structures over time and are dewatered as necessary for maintenance or equipment repair, either manually or automatically. The frequency of discharge is dependent on the rate and volume of water entering the site. In most cases, these structures need to be dewatered before field work can occur.

Unscheduled discharges would be controlled utilizing the practices described in this plan. Prior to discharging waters, field technicians use on-site water testing procedures to determine if the water can be discharged in compliance with the NPDES permit and this Plan. Only waters which pass this test will be discharged.

## **Reservoir Discharges**

Sprint does not discharge into reservoirs, so this section is not applicable.

## **Emergency Operation Discharges**

Emergency operation discharges will be handled in accordance with the procedures outlined in this plan, with the exception of an imminent threat to life or significant property damage. Field personnel may deviate from protocols as outlined in this plan, if necessary for the protection of life or public safety.

# 3

## Description of Potential Pollutant Sources

### Drainage Map

Drainage maps showing the essential features of Sprint's distribution system are included in Appendix C.

### Inventory of Exposed Materials

Some utility vaults and structures that Sprint manages may contain electrical equipment. This equipment could contain mineral oil or other insulating oils. Utility equipment are routinely inspected and maintained to prevent leaks. Much of the equipment is monitored remotely, so that any malfunctions can be addressed quickly by trained personnel.

Small amounts of contaminants can enter vaults and structures through cracks including: traces of petroleum products (oil, gasoline, etc.), oil and grease, organic matter, mud, silt, pesticides, and other pollutants (e.g., metals) primarily from automobiles.

Most vault water is found to be free of substantial pollutants and is not treated prior to discharge. If significant or hazardous contaminants are detected during on-site water testing prior to dewatering, prearranged licensed contractors are available to pump out, transport, and properly dispose of the contaminated water.

### Spills and Leaks

Sprint has had no spills or leaks in association with the dewatering of vaults/manholes or other underground structures within the past 3 years.

## **Risk Identification and Summary of Potential Pollutant Sources**

The electrical equipment contained within vaults could contain mineral or other insulating oils. As the equipment is routinely maintained and monitored, the risk of contaminating discharge water is small.

Since the vaults are not air-tight, contaminants can enter from outside sources. External contaminants include: traces of petroleum products (oil, gasoline), oil and grease, organic matter, mud, silt, pesticides, and other pollutants (e.g., metals). The risk of pollutants from automobiles is greater in urban areas, whereas the risk of pesticides or biological contaminants is greater in agricultural areas.

Typically, discharge waters are free from significant contaminants. Accidental spills or leaks by outside parties (illegal dumping, traffic accidents) are possible, though infrequent and their risk is low.

# 4

## Pollution Prevention Practices

### **Vault Sampling prior to Discharge**

Using the Flow Chart in Appendix A, the field technician will conduct the following sampling procedure. Additional sampling procedures can be found in the Attached “Manhole Dewatering – Field Screening for Contaminants” (Appendix B).

### **Petroleum Sheen**

Prior to collecting a water sample, first observe the surface of the water in the vault, if possible, and determine the presence or absence of petroleum sheen. If present, remove sheen using absorbent pads. Store used pads in appropriate container and dispose of as hazardous material.

### **Sample Collection**

Using a clear water bailer, lower the bailer into the water until the top few inches of the bailer are not submerged. The bailer should be lowered and raised slowly to keep from agitating or spilling any of the water samples.

### **Sample Appearance**

Observe the contents of the bailer in full light to determine whether the sample is clear, has liquid or solid layers, or is non-transparent or opaque. If the water in the bailer is clear with no odor, layers, or solids, the vault may be pumped to the storm drain or ground.

If the water has an odor, but is otherwise clear with no layers or solids, take additional samples at various depths in the vault and inspect for layers/solids. If no layers or solids are detected in any of the samples, the vault can be pumped to the storm drain or ground.

### **Layers and/or Solids**

Observe the contents of the bailer in full light to determine the existence of a liquid layer(s) or sludge/solids at the bottom of the bailer.

If there is a bottom layer of liquid, distinct from the water, and no solids, decant the water back into the vault and observe whether the layer has an odor. If this layer has a solvent or chemical odor, the contents of the vault will be removed by

#### 4. *Pollution Prevention Practices*

vacuum truck for disposal at an approved, licensed hazardous waste facility. Otherwise, the vault can be pumped to the storm drain or to the ground.

If the water is clear but there is more than 1/8 inch of solids on the bottom, further testing will be conducted to determine whether the solids are mud or oil/petroleum sludge as follows:

- Carefully pour approximately half of the water from the bailer back into the vault, maintaining as much of the sludge as possible.
- Replace the water poured out with clean water.
- Gently shake the contents of the bailer and observe the sample. Mud will readily mix with the water and the sludge at the bottom will appear lighter. Oil/petroleum sludge will not mix readily with the water and the appearance of the sludge will not change significantly.

If it is determined that the solids are mud, most cities and counties will allow the vault to be pumped into the storm drain or on the ground. However, some cities and counties do not allow such a discharge, in which case, the local Public Works Department is to be consulted.

If it is determined that the solids are oil/petroleum sludge, the contents of the vault will be removed by vacuum truck for disposal at an approved, licensed hazardous waste facility. If the sample has a sewage odor, the contents of the vault will be pumped out by a local septic tank pumping/cleaning firm. Once emptied, the vault will be washed down using mild pressure washer equipment with biodegradable soap and disinfectants.

##### **Top Layer with Gas/Chemical Odor**

If there is a top layer of liquid, distinct from the water, and no solids, observe whether the layer has an odor. If this layer has a solvent or chemical odor, the contents of the vault will be removed by vacuum truck for disposal at an approved, licensed hazardous waste facility.

##### **Non-Transparent (Opaque)**

If the sample is not clear or is opaque (i.e., cloudy, milky, or dark in color), the sample will be set aside for approximately 10 minutes to allow particles in the water to settle out or entrained air bubbles to escape. If the water is clear, or has begun to clear, after the settling period, the vault can be pumped to the storm sewer or ground. However, if the water remains opaque and has a strong chemical, petroleum, or pesticide odor, laboratory testing may be necessary to determine how the water is to be handled. Laboratory samples will be collected in accordance with established protocols and submitted to a State of California certified laboratory to be analyzed for the following, at a minimum:

#### 4. Pollution Prevention Practices

- Oil and Grease using EPA Method 1664
- Total Petroleum Hydrocarbons as gasoline, diesel fuel, and motor oil (TPH-g, -d, and -m, respectively) using EPA Method 8015 Modified
- Metals (copper, lead, and zinc) using EPA Method 200.7
- pH using EPA Method 150.1

#### **Biohazards**

Technicians should be cautious for the presence of biohazards in the vault such as hypodermic needles and razor blades. Extreme care should be exercised to prevent being punctured or cut by these objects.

#### **Good Housekeeping & Preventative Maintenance**

Sprint has policies in place which address inspections, equipment testing and preventative maintenance. The vaults and other sub-surface structures are kept clean and free from known contaminants. The sites are periodically checked during maintenance for any defects (deposits, leaks, cracks, etc.) and equipment is monitored to prevent malfunctions, including the leakage of lubricating oils (if present).

Prior to initiating sampling procedures, the field technician is required to prepare the site in accordance with standard Sprint policy and practices, including work zone safety. Prior to sample collection, the technician is required to set up all safety equipment and don all necessary personal protective equipment including, but not limited to, safety glasses, safety shoes, gloves, high visibility traffic warning vest, etc. Prior to removing the vault lid, the atmosphere in the vault shall be tested. Once the lid is removed, the atmosphere is to be retested at different depths in the vault and the vault shall be purged. Once purging is completed, a water sample can then be collected using a rope and clean bailer.

Prior to entrance into the vault by a technician, the atmosphere must be tested, the vault must be purged, continuous ventilation must be provided, and the atmosphere must be continuously monitored as long as the technician remains in the vault. If the technician encounters any circumstance(s) for which they are unsure, they should consult the various references outlined in the Sprint Utility Manhole Water fact sheet and the Utility Manhole Entry for Telecommunications Work prepared by the Sprint Environmental, Health & Safety Department (EH&S). Additionally, the technician may contact their supervisor, or EH&S, directly for assistance.

## **Spill Prevention and Response Procedures**

Hazardous materials are not stored within Sprint's vaults or structures. Some electrical equipment contained within vaults may contain mineral or insulating oils.

Prior to any manual discharge, the vault or structure is inspected to ensure the equipment is functioning properly. Any malfunction found in any equipment or in the integrity of the vault itself is quickly addressed by qualified service personnel. It is Sprint's highest priority to maintain its equipment in proper functioning order.

In addition, waters are inspected prior to discharge to determine if they contain contaminants. Contaminated water will not be discharged. If an unexpected spill were to enter into a vault or structure, the appropriate agencies would be immediately notified and the release would be addressed either by a qualified contractor or a Sprint crew. Sprint service trucks are equipped with spill response equipment and additional supplies are available at Sprint facilities.

Any hazardous materials would be contained and transported to an appropriate disposal facility by qualified personnel.

## **Inspections**

Sprint field personnel must inspect the integrity of vaults and structures to ensure they are in good working order and functioning properly. Any damage is documented and repaired as soon as possible.

Prior to manually pumping out a vault or subsurface structure, the field technician, or subcontractor, will conduct a visual inspection of the water in the vault to determine the presence of any obvious signs of contamination (e.g., a sheen on top of the water, cloudiness, presence of physical objects, etc.). Field technicians are instructed to contact their supervisor if the water fails preliminary screening. Only water that has passed the screening process will be discharged. If the water fails screening, prearranged licensed contractors are available to pump out, transport, and properly dispose of the contaminated water. It is the field technicians' responsibility to strictly adhere to the approved inspection procedures for dewatering of vaults and structures.

## **Employee Training**

Sprint field crews are fully trained before performing work in vaults and other sub-terrain structures. Their training includes Sprints operating and safety procedures, spill management procedures, as well as the procedures described in this plan and related documents. Crews also receive annual training for SPCC plans and spill response, in addition to on-going safety trainings.

## **Record Keeping and Internal Reporting Procedures**

Sprint maintains procedures for record keeping and internal reporting. All inspections and maintenance activities are fully documented and retained. Such records include the date and time the inspection was performed, the name of the inspector, and the items inspected. If problems are noted, the corrective action required and the date the action was taken are also documented. A sample log form used by Sprint field crews can be found in Exhibit B in the attached “Manhole Dewatering – Field Screening for Contaminants” in Appendix B.

Any incident or non-compliance with this plan would be reported orally to the appropriate regional water board within 24 hours. A written submission would also be provided within 5 days of the time the discharger became aware of the incident. The written submission would contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

Sprint will report any oil spill into receiving waters to the National Response Center at (800) 424-8802 as soon as the spill is discovered (24/hours a day). The appropriate local agencies and personnel will be contacted to assist with clean-up. Incidents will be fully documented including: patterns of time in occurrence, mode of dumping, responsible parties, date and time of incident, weather conditions, duration and cause of spill/leak/discharge, response procedures, resulting environmental problems and persons notified.

Monitoring sample results are reported in the annual report for each region. If monitoring occurs more frequently than required by this plan, the monitoring results will be used in the calculations and reporting of the data submitted in the annual report.

The pollution prevention plan and related documents are available to Sprint crews.

## **Sediment and Erosion Control**

The sites Sprint manages under this Plan are not in high risk areas for significant soil erosion.

Field technicians employ sediment and erosion control techniques to minimize the risk of sediment entering discharge water. Such measures include pumping from the top to the bottom to minimize disturbance of any sediment which may have accumulating in the vault or structure.



#### **4. Pollution Prevention Practices**

During inspection prior to dewatering, if the water is clear but there is more than 1/8 inch of solids on the bottom, further testing is conducted to determine whether the solids are mud or oil/petroleum sludge. If it is determined that the solids are mud, most cities and counties will allow the vault to be pumped into the storm drain or onto the ground. However, some cities and counties do not allow such a discharge, in which case, the local Public Works Department is to be consulted. If it is determined that the solids are oil/petroleum sludge, the contents of the vault will be removed by vacuum truck for disposal at an approved, licensed hazardous waste facility. If the sample has a sewage odor, the contents of the vault will be pumped out by a local septic tank pumping/cleaning firm. Once emptied, the vault will be washed down using mild pressure washer equipment with biodegradable soap and disinfectants.

All solids removed from liquid waste will be disposed of in a manner that is consistent with Title 27, of the CCR and approved by the appropriate Regional Water Board's Executive Office.

#### **Management of Runoff**

Traditional storm water management practices are appropriate to divert, infiltrate, reuse, or otherwise manage runoff in a manner that reduces pollutants in discharges from the sites.

#### **Comprehensive Site Compliance Evaluation**

Qualified personnel will conduct compliance evaluations upon each discharge event. The evaluations will include a visual inspection of evidence of pollution or the potential for pollutants entering into receiving water(s); evaluate the effectiveness of pollution prevention measures and determine whether they are being properly implemented in accordance with this Plan or whether additional control measures are needed; and ensure that structural wastewater management measures, sediment and erosion control measures and other PPPs identified in the Plan are operating correctly. The evaluation also includes the visual inspection of all equipment, including spill response equipment.

Based on the results of the comprehensive site evaluation, Sprint shall revise, as appropriate, the potential pollutants identified and PPPs described in this Plan within 2 weeks and shall immediately implement any Plan revisions.

Site Compliance Evaluation reports will be retained by Sprint for 3 years. The report will summarize the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the Plan and any additional actions taken. The report will also certify conformance with this Plan and general permit or identify any incidents of noncompliance. The report will be signed in accordance with signatory requirements of the NPDES permit.

# 5

## Certification and Signature

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted it, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the criteria of eligibility and the development and implementation of Pollution Prevention Practices, if required, will be complied with.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

*Michael J. Ashen*

*Director Risk Mgmt Services & Environmental Health & Safety*

*2/15/67*

# 6

## Contact Information

Primary Contact: Paul Paxton  
6480 Sprint Pkwy.  
Overland Park, KS 66215  
(760) 476-4449

Secondary Contact: Brian Wiedower  
6480 Sprint Pkwy.  
Overland Park, KS 66215  
(913) 315-8631

# 7

## References

For additional information, the technician should refer to the following Sprint documents.

Sprint Practices:

Personal Protective Equipment #010-100-007.

[http://nsl/practice/010/100\\_007/prac.htm](http://nsl/practice/010/100_007/prac.htm)

Confined Space Entry #010-100-012.

[http://nsl.corp.sprint.com/practice/010/100\\_012/prac.htm](http://nsl.corp.sprint.com/practice/010/100_012/prac.htm)

Sprint's Spill Prevention and Control Procedures #010-100-017.

[http://nsl/practice/010/100\\_017/prac.htm](http://nsl/practice/010/100_017/prac.htm)

Hazard Communication #010-100-019. [http://nsl/practice/010/100\\_019/prac.htm](http://nsl/practice/010/100_019/prac.htm)

Hazardous Material Transportation #010-100-021.

[http://nsl/practice/010/100\\_021/prac.htm](http://nsl/practice/010/100_021/prac.htm)

Eye Protection #SPP-002-002-008.

[http://ppld.corp.sprint.com/ehs/library/practices/LDD/ldd-eye\\_prot\\_prac.pdf](http://ppld.corp.sprint.com/ehs/library/practices/LDD/ldd-eye_prot_prac.pdf)

Hazardous Materials Handling and Reporting #SPP-002-002-011.

[http://ppld.corp.sprint.com/ehs/library/practices/GMG/Haz\\_Mat\\_Hand\\_and\\_Repo\\_r.pdf](http://ppld.corp.sprint.com/ehs/library/practices/GMG/Haz_Mat_Hand_and_Repo_r.pdf)

Blood Borne Pathogens.

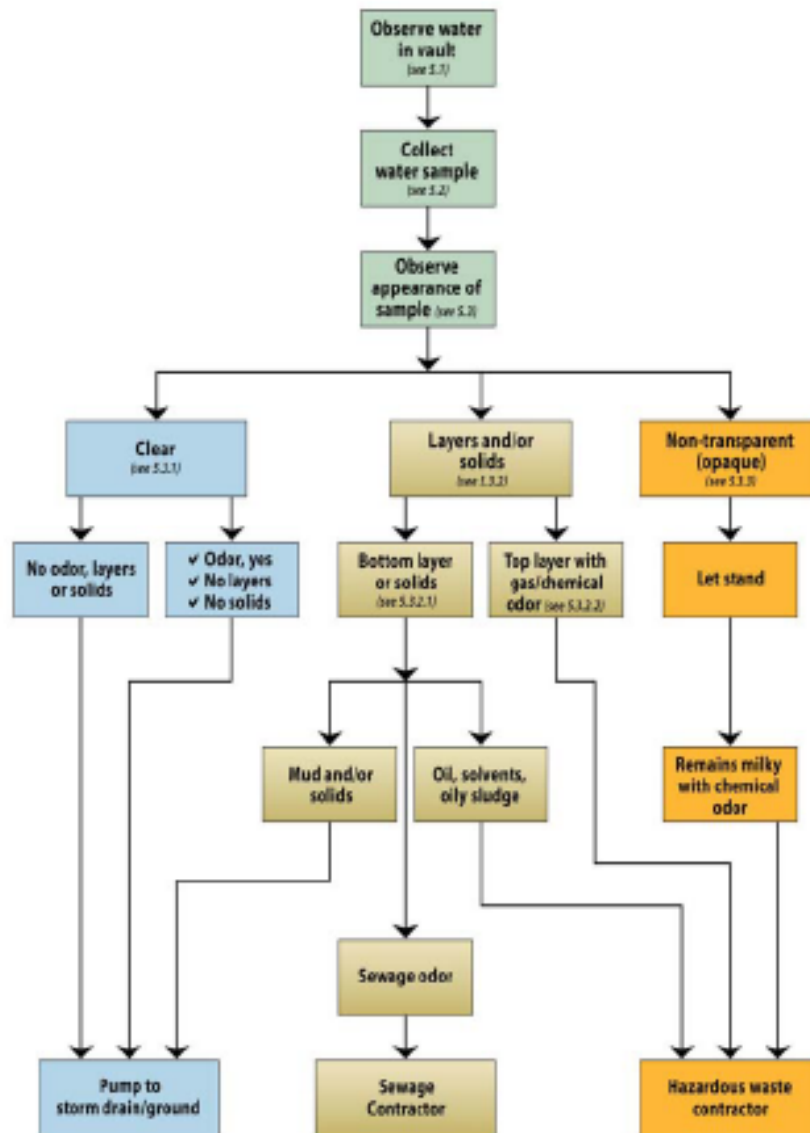
[http://ppld.corp.sprint.com/ehs/library/practices/Bloodborne\\_Pathogens.pdf](http://ppld.corp.sprint.com/ehs/library/practices/Bloodborne_Pathogens.pdf)

# A

## Decision Flow Chart for Disposal of Waste in Vaults

# Decision Flow Chart

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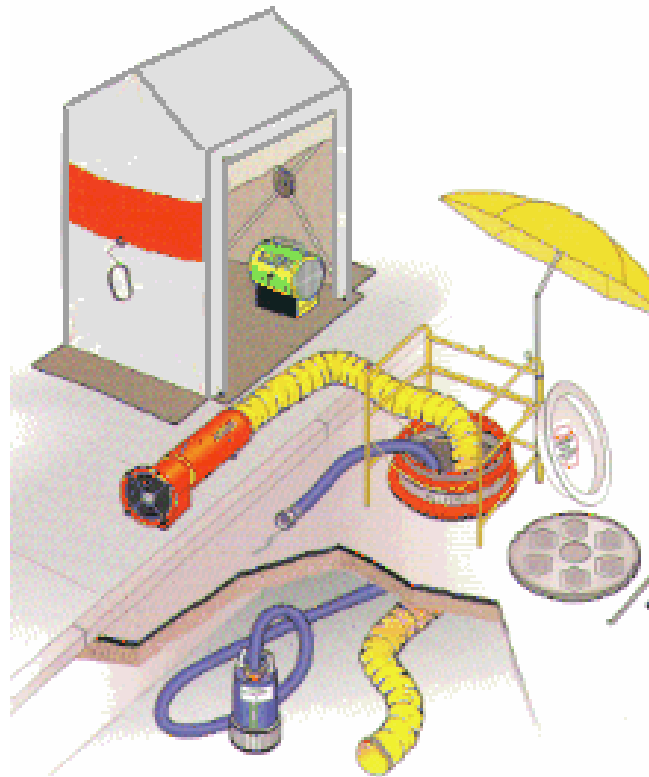


# B

## **Manhole Dewatering – Field Screening for Contaminants**

# Manhole Dewatering

## Field Screening for Contaminants





# Program Overview

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This program will guide you through proper sampling and field screening techniques in order to determine if accumulated manhole water has been impacted by contaminants and can be lawfully discharged according to the Pollution Prevention Plan. The following topics will be discussed:

- Requirements of California's National Pollution Discharge Elimination System (NPDES) Permit
- Work site setup
- Sample collection
- Field screening (visual and odor)
- Recordkeeping

# Terminology

---

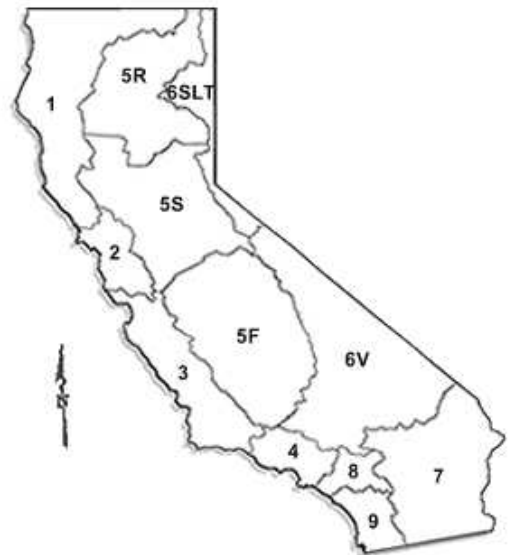
- **NPDES** = National Pollution Discharge Elimination System
- **SWRCB** = State Water Quality Control Board
- **RWQCB** = Regional Water Quality Control Board
- **PPP** = Pollution Prevention Plan

# Regulatory Review

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California State Water Resource Control Board (SWRCB) issued Water Quality Order – ***General Permit for Discharges from Utility Vaults and Underground Structures to Surface Waters.***

- Permit allows short-term, intermittent discharge of pollutants from utility vaults and underground structures to waters of the U.S.
- Sprint applied for and receive a permit from SWRCB that covers each of the nine Regional Water Quality Control Boards.



Map of Regional Water Control Boards

# California's NPDES Permit for Utility Vaults

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Sprint has obtained a permit (NPDES General Permit No. CAG990002) from the California State Water Resources Control Board (SWRCB) to discharge certain water from utility vaults.

As part of the permit, Sprint must comply with the associated Pollution Prevention Plan (Appendix A) by appropriately sampling water from utility vaults before discharging to storm drains. Following the procedures in this document will help you comply with the Pollution Prevention Plan.

# Goals/Objectives

---

Knowing when to discharge water to storm drains



or

when to dispose of water as a hazardous material



# Goals/Objectives

---

- Evaluate water for contaminants and determine if water may be discharged to storm drains or requires removal by hazardous materials contractors.
- Reduce costs by discharging to storm drain, when possible
- Meet requirements of discharge permit.
- Adhere to Pollution Prevention Plan to ensure compliance.
- Avoid violations and fines.

# Discharge Requirements

---

Prior to discharging any water, the discharger must evaluate the water condition. The water to be discharged shall not:

- exceed Federal water quality criteria
- cause acute or chronic toxicity in receiving water
- cause conditions of nuisance.

**\* Violations may result with a \$25,000 fine and/or 1 year in jail.**

Following the procedures in this document will ensure that only clean water will be discharged.



# Equipment Needs

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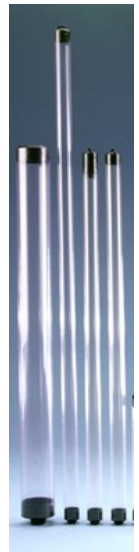
- Manhole guard and ring
- Blower and hose
- Multi-gas detector
- Manhole cover lifter
- Water pump and hose
- Latex gloves
- Clean, clear disposable bailer
- String
- Petroleum absorbent pads
- Decision flow chart and instructions (2 pages) (Exhibit A)
- Discharge logbook or form (Exhibit B)



Manhole guard, ring blower/hose



Water pump & hose



Clear bailers



# Work Site Setup

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- If warranted, set up DOT (Department of Transportation) work zone.
- Using your multi-gas meter, test the atmosphere in the vault either through a hole in the manhole cover or by propping open the manhole cover. Vaults can accumulate combustible vapors and have toxic and/or oxygen deficient atmospheres.
- Once determined that it is safe to remove the manhole cover, put up the guard rail and ring.
- Using the multi-gas meter test the atmosphere in the vault at various depths.
- Begin field screening process of accumulated water in the manhole and ventilate vault.



# Initial Observation

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## Measurements

- Determine the internal dimensions of vault in feet.  
(L x W x D)
- Measure depth of water in vault.
- Determine volume of water –  
 $L \times W \times \text{Water Depth} \times 7.48$
- Record water volume on log (Exhibit B).



## Initial Water Appearance

- Don a pair of latex gloves.
- Observe water surface inside the vault and note conditions.
- If oil sheen is present, place absorbent pads/socks on the water surface to remove oil sheen.
- Place used pads/socks in approved container and dispose of pads/socks as hazardous material.
- Observe for presence of biohazards (e.g., syringes, sewage, medical waste, grease etc).



# Sample Collection

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1. Tie a string to a clean clear bailer.
2. Lower bailer into water with the top few inches of the bailer remaining above the water surface. Keep the bailer upright; do not let the bailer lay flat on the water. By maintaining the bailer upright your sample will show if there are any stratifications (liquid/liquid, liquid/solid) in the sample.
3. Slowly raise bailer to prevent spilling or agitating sample.
4. Observe contents of bailer in full light – analyze for clarity, odor and presence of layers.



# Sample Screening

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## Clear Sample



- If sample is clear with no odor, layers, or solids – discharge to storm drain.
- If odor present, collect samples from various depths and inspect for layers/solids.
- If no layers/solids in subsequent samples – discharge to storm drain.

# Sample Screening

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## Bottom Liquid Layer

- If sample contains a bottom liquid layer (distinct layer from water), decant top water portion back into vault.
- Observe whether bottom layer has odor.
- If layer has petroleum/solvent/chemical odor, empty vault using approved hazardous materials contractor. Contact the Environmental Health & Safety Department for assistance.
- If layer has no odor – discharge to storm drain.



# Sample Screening

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## Bottom Solids

- If sample contains more than 1/8 inch of solids on the bottom, pour out ~ 1/2 of water and replace with clean water.
- Gently shake contents of bailer and observe sample – mud will readily mix and will appear lighter; oil/petroleum sludge will not readily mix and appearance will not change.
- If solids are determined to be mud, obtain permission from local Public Works Department to discharge.
- If solids are determined to be oil/petroleum sludge, empty vault using approved hazardous materials contractor. Contact the Environmental Health & Safety Department for assistance.
- If solids have sewage odor, empty vault using approved sewage contractor; wash down vault walls with biodegradable soap and disinfectants.



# Sample Screening

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## Top Liquid Layer

- Observe whether layer has odor.
- If layer has an odor of any petroleum/solvent/chemicals, empty vault using approved hazardous materials contractor.  
Contact the Environmental Health & Safety Department for assistance.
- If layer has no odor – discharge to storm drain.



# Sample Screening

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## Non-Transparent (Opaque)

- If sample is not clear (i.e., cloudy, milky, or dark in color) set aside for ~10 minutes.
- If sample begins to become clear – discharge to storm drain.
- If sample remains opaque and has chemical/petroleum/pesticide odor, send sample to laboratory to determine cause and handle appropriately. Contact the Environmental Health & Safety Department for assistance.





# Records

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The discharger is required to retain records including all monitoring information and copies of all reports required by this General Permit for five years unless directed otherwise by a RWQCB. Forward all records to the Environmental Health & Safety Department.

At a minimum, records should contain:

- Name and contact information for person or company sampling and/or discharging water
- Date, time and location of the vault
- Volume of water inside of vault
- Method of water sampling and observation
- Observations (sheen, odor, layers, solids, etc.)
- Amount of water discharged and location of storm drain

The log form (Exhibit B), should be used to record the information.

# Summary & Conclusions

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- Check the water in the vault before discharging to storm drains (i.e. sheen, odor, layers, or solids).
- ONLY discharge **clean** water to storm drains.
- Complying with these discharge requirements is required by law.
- Contact the Environmental Health & Safety Department for assistance with any part of this program.

# Additional Resources

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## Equipment Vendors

### *Clear Disposable Bailers*

Environ-Equipment

888-274-8929

[Enviro-Equipment](#)

Ams-Inc

800-635-7330

[AMS Inc.](#)

### *Absorbents*

New Pig

800-468-4647

[PIG® industrial absorbent](#)

Lab Safety

800-356-0783

[Lab Safety Supply](#)

## University of Excellence Courses

Confined Space & Gas Detectors UE 04295

Confined Space Entry UE 13392

First Aid & CPR UE 00271

Bloodborne Pathogens UE 13389

## Environmental Health & Safety Resources

Confined Space Booklet smartworks A-MS34-0037

Confined Space Video smartworks A-MS34-0038

Utility Manhole Entry For Telecommunications Fact Sheet

[Fact Sheet](#)

For additional questions contact the Environmental Health & Safety Department

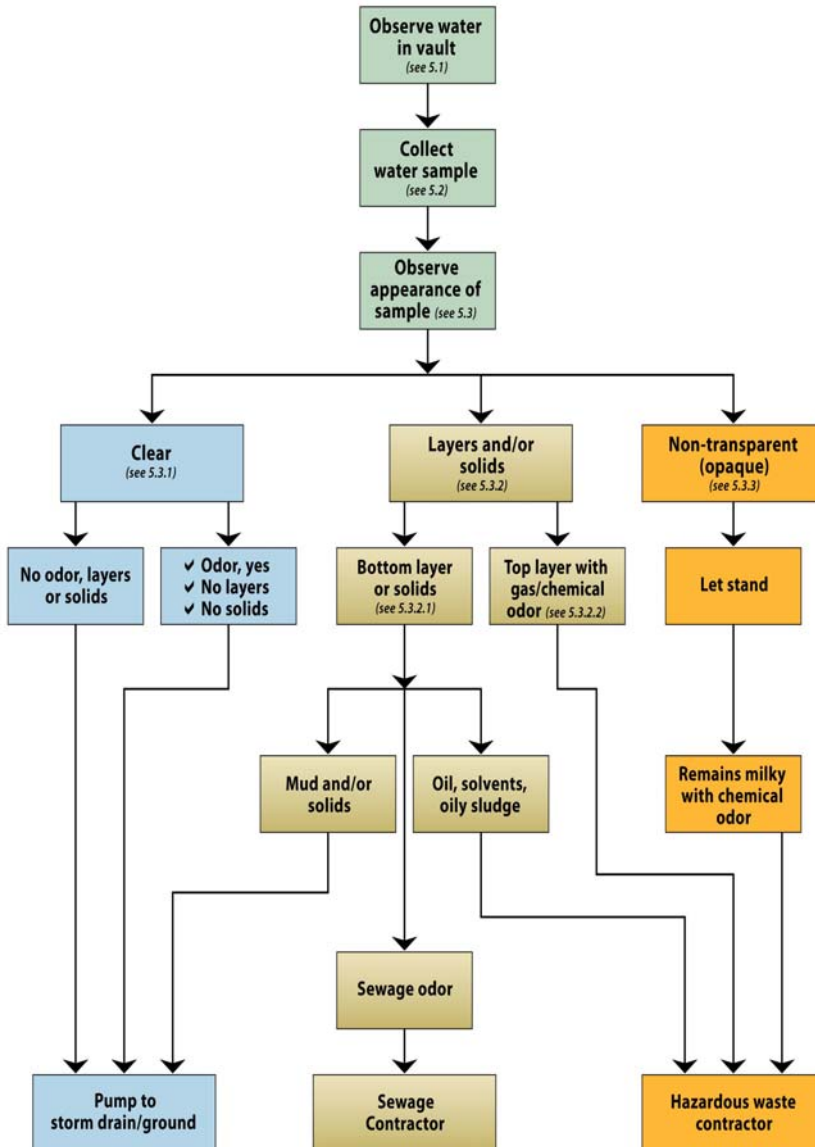
[EHS Representatives](#)

# Exhibit A

## Decision Flow Chart and Instructions

# Decision Flow Chart

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## Vault Sampling Instructions

Using the Flow Chart, the field technician will conduct the following sampling procedure.

### **5.1 Petroleum Sheen**

Prior to collecting a water sample, first observe the surface of the water in the vault, if possible, and determine the presence or absence of a petroleum sheen. If present, remove sheen using absorbent pads. Store used pads in appropriate container and dispose of as hazardous material.

### **5.2 Sample Collection**

Using a clear water bailer, lower the bailer into the water until the top few inches of the bailer are not submerged. The bailer should be lowered and raised slowly to keep from agitating or spilling any of the water sample.

### **5.3 Sample Appearance**

Observe the contents of the bailer in full light to determine whether the sample is clear, has liquid or solid layers, or is non-transparent or opaque.

#### **5.3.1 Clear Sample**

- A. If the water in the bailer is clear with no odor, layers, or solids, the vault may be pumped to the storm drain or ground.
- B. If the water has an odor, but is otherwise clear with no layers or solids, take additional samples at various depths in the vault and inspect for layers/solids. If no layers or solids are detected in any of the samples, the vault can be pumped to the storm drain or ground.

#### **5.3.2 Layers and/or Solids**

Observe the contents of the bailer in full light to determine the existence of a liquid layer(s) or sludge/solids at the bottom of the bailer.

##### **5.3.2.1 Bottom Layer and/or Solids**

- A. If there is a bottom layer of liquid, distinct from the water, and no solids, decant the water back into the vault and observe the odor of the layer. If this layer has a solvent or chemical odor, the contents of the vault will be removed by vacuum truck for disposal at an approved, licensed hazardous waste facility. Otherwise, the vault can be pumped to the storm drain or to the ground.
- B. If the water is clear but there is more than 1/8 inch of solids on the bottom, further testing will be conducted to determine whether the solids are mud or oil/petroleum sludge as follows:
  - Carefully pour approximately half of the water from the bailer back into the vault, maintaining as much of the sludge as possible.
  - Replace the water poured out with clean water.
  - Gently shake the contents of the bailer and observe the sample. Mud will readily mix with the water and the sludge at the bottom will appear lighter.

Oil/petroleum sludge will not mix readily with the water and the appearance of the sludge will not change significantly.

- i. If it is determined that the solids are mud, most cities and counties will allow the vault to be pumped into the storm drain or on the ground. However, some cities and counties do not allow such a discharge, in which case, the local Public Works Department is to be consulted.
- ii. If it is determined that the solids are oil/petroleum sludge, the contents of the vault will be removed by vacuum truck for disposal at an approved, licensed hazardous waste facility.
- iii. If the sample has a sewage odor, the contents of the vault will be pumped out by a local septic tank pumping/cleaning firm. Once emptied, the vault will be washed down using mild pressure washer equipment with biodegradable soap and disinfectants.

#### **5.3.2.2 Top Layer with Gas/Chemical Odor**

If there is a top layer of liquid, distinct from the water, and no solids, observe the odor of the layer. If this layer has a solvent or chemical odor, the contents of the vault will be removed by vacuum truck for disposal at an approved, licensed hazardous waste facility.

#### **5.3.3 Non-Transparent (Opaque)**

If the sample is not clear or opaque (i.e., cloudy, milky, or dark in color), the sample will be set aside for approximately 10 minutes to allow particles in the water to settle out or entrained air bubbles to escape. If the water is clear, or has begun to clear, after the settling period, the vault can be pumped to the storm sewer or ground. However, if the water remains opaque and has a strong chemical, petroleum, or pesticide odor, laboratory testing may be necessary to determine how the water is to be handled. Laboratory samples will be collected in accordance with established protocols and submitted to a State of California certified laboratory to be analyzed for the following, at a minimum:

- Oil and Grease using EPA Method 1664
- Total Petroleum Hydrocarbons as gasoline, diesel fuel, and motor oil (TPH-g, -d, and -m, respectively) using EPA Method 8015 Modified
- Metals (copper, lead, and zinc) using EPA Method 200.7
- pH using EPA Method 150.1

#### **5.4 Biohazards**

Technicians should be cautious for the presence of biohazards in the vault such as hypodermic needles and razor blades. Extreme care should be exercised to prevent being punctured or cut by these objects.

**Contact Environmental Health & Safety department for assistance with hazardous materials disposals or pump outs.**

**Exhibit B**

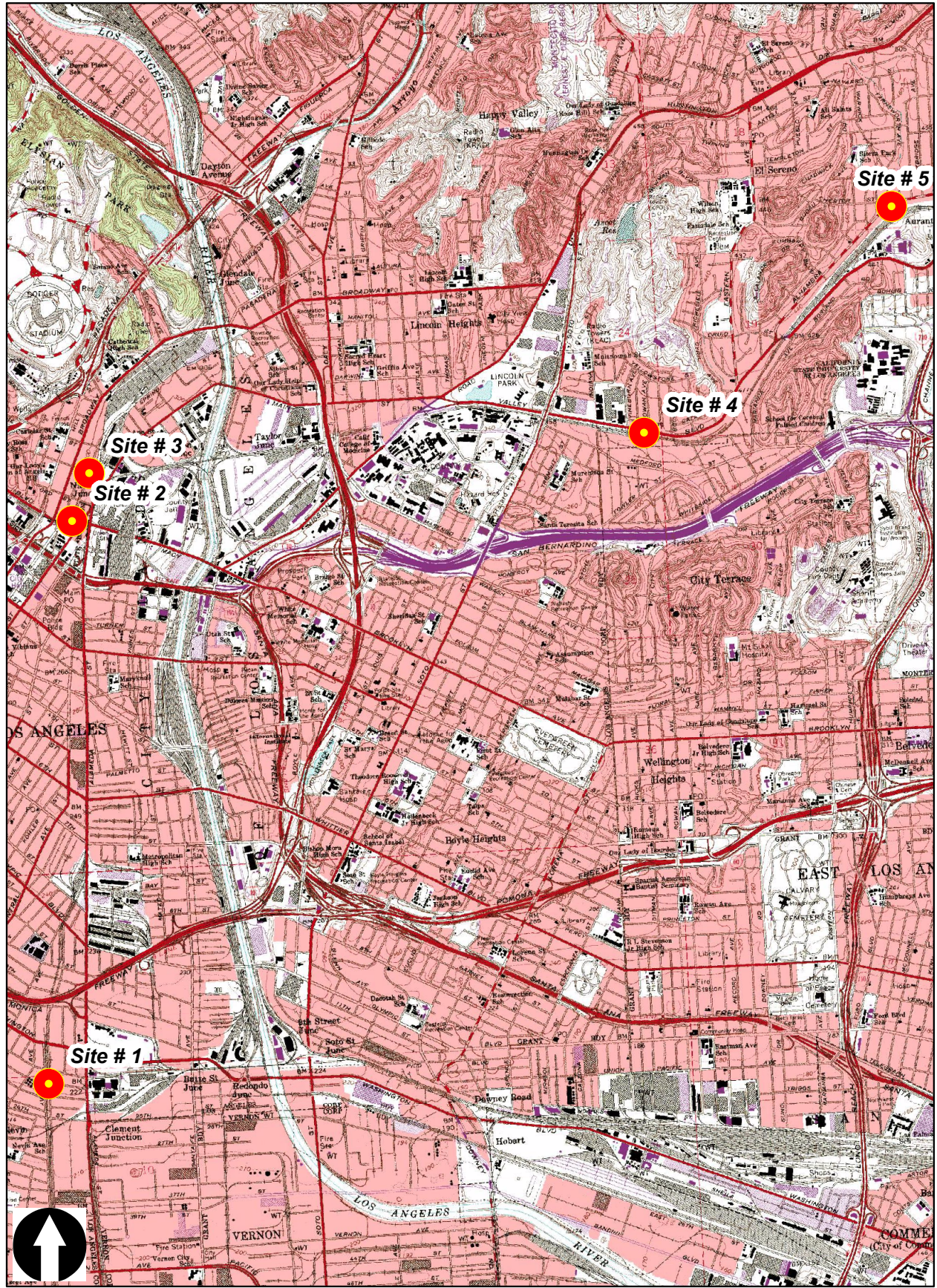
**Log Form**





# C

## **Maps of Representative Dewatering Sites**



**Figure 2 Sampling Sites for NPDES  
Annual Monitoring Report - Region 4**

# D

## **Notice of Intent Form (NOI Form)**

**ATTACHMENT B – NOTICE OF INTENT FORM**

**NOTICE OF INTENT (NOI)  
 WATER QUALITY ORDER NO. 2006-0008-DWQ  
 STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
 PERMIT FOR DISCHARGES FROM UTILITY VAULTS AND UNDERGROUND STRUCTURES TO  
 SURFACE WATERS OF THE UNITED STATES  
 GENERAL PERMIT NO. CAG990002**

**I. NOTICE OF INTENT STATUS (See Instructions)**

MARK ONLY ONE ITEM	1. <input type="checkbox"/> New Discharger	2. <input checked="" type="checkbox"/> Change of Information – WDI# # 4000U000094
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**II. OWNER/OPERATOR** (If additional owners/operators are involved, provide the information in a supplemental page.)

A. Name Sprint / United Management Company		Owner/Operator Type (Check One) 1. <input type="checkbox"/> City    2. <input type="checkbox"/> County    3. <input type="checkbox"/> State 4. <input type="checkbox"/> Gov. Combo    5. <input checked="" type="checkbox"/> Private		
B. Mailing Address 6480 Sprint Parkway, M/S 5B822				
C. City Overland Park		D. County Johnson	E. State KS	F. Zip Code 66251
G. Contact Person Steve Bryant		H. Title EHS Project Specialist		I. Phone (913) 315-8624

**ADDITIONAL OWNERS** \_\_\_\_\_

**III. BILLING ADDRESS** (Enter information only if different from above)

Send to: <input checked="" type="checkbox"/> Owner/Operator <input type="checkbox"/> Other	A. Name		B. Title	
	C. Mailing Address			
D. City		E. County		F. State
				G. Zip Code

**IV. RECEIVING WATER INFORMATION**

A. Receiving water(s): Storm water drain or land	B. Describe the types of receiving waters affected: streams, bays, estuaries, & ocean
C. Regional Water Quality Control Board(s) where discharge sites are located List all regions where discharge of wastewater is proposed, i.e. Region(s) 1, 2, 3, 4, 5, 6, 7, 8, and/or 9: ALL	

**V. LAND DISPOSAL/RECLAMATION**

The State Water Resources Control Board's water rights authority encourages the disposal of wastewater on land or re-use of wastewater where practical. You must evaluate and rule out this alternative prior to any discharge to surface water under this Order.

Is land disposal/reclamation feasible?     Yes     No

If Yes, you should contact the Regional Water Board. This Order does not apply if there is no discharge to surface waters. If No, explain: Some sites located in urban areas where land disposal is not feasible.

**VI. VERIFICATION**

Have you contacted the appropriate Regional Water Board or verified in the appropriate Basin Plan that the proposed discharge will not violate prohibitions or orders of that Regional Water Board? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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**VII. TYPE (Check All That Apply)**

<input type="checkbox"/> Electric	<input type="checkbox"/> Natural Gas	<input type="checkbox"/> Telephone	<input checked="" type="checkbox"/> Other: Telecommunications
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**VIII. POLLUTION PREVENTION PRACTICES PLAN INFORMATION**

A. Company Name Sprint / United Management Company			B. Contact Person Paul Paxton	
C. Street Address Where PLAN is Located 6480 Sprint Parkway, M/S KSOPHM0516-5B822			D. Title of Contact Person EHS Specialist	
E. City Overland Park	F. County Johnson	G. State KS	H. Zip Code 66251	I. Phone (760) 476-4449

**IX. DESCRIPTION OF DISCHARGE**

Describe the discharge(s) proposed. List any potential pollutants in the discharge. Attach additional sheets if needed.  
Waters discharged from vaults and other underground structures, which pass the bailer test and other requirements, will be pumped onto land or into storm water drains. Discharged water may contain small amounts of dirt/mud, or minor concentrations of oils or petroleum hydrocarbons from automobiles.

**X. VICINITY MAP AND FEE**

A. Have you included vicinity map(s) with this submittal? Separate vicinity maps must be submitted for each Region where a proposed discharge will occur.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Have you included payment of the filing fee (for first-time enrollees only) with this submittal?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
C. Have you included your PLAN?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**XI. CERTIFICATION**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted is true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the criteria for eligibility and the development and implementation of Pollution Prevention Practices, if required, will be complied with."

A. Printed Name: Richard J. Beugheimer	
B. Signature: <i>Richard J. Beugheimer</i>	C. Date: 2/15/07
D. Title: <i>District Risk Mgmt Services &amp; Environmental Health &amp; Safety</i>	

PLEASE SUBMIT THE NOI, FIRST ANNUAL FEE, PLAN AND MAP TO THE FOLLOWING ADDRESS:

UTILITIES NOI  
NPDES UNIT  
DIVISION OF WATER QUALITY  
STATE WATER RESOURCES CONTROL BOARD  
P.O. BOX 100  
SACRAMENTO, CA 95812-0100

**STATE USE ONLY**

WDID:	Regional Board Office	Date NOI Received:	Date NOI Processed:
		Fee Amount Received: \$	Check #: