ATTACHMENT E – NOTICE OF INTENT

ORDER WQ 2014-0174-DWQ
GENERAL PERMIT NO. CAG990002

STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR DISCHARGES FROM UTILITY VAULTS AND UNDERGROUND STRUCTURES TO WATERS OF THE UNITED STATES

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

MARK ONLY ONE ITEM	1.☐ New Discharger 2.■ Existing Discharger WDID# 4000U000099,CI-9503 3.☐ Change of Information: WDID # _____ 4.☐ Change of ownership or responsibility: WDID# _____

II. OWNER/OPERATOR (If additional owners/operators are involved, provide the information in a supplemental page.)

A. Name City of Glendale Water & Power			Owner/Operator Type (Check One) 1.■ City 2.☐ County 3.☐ State 4.☐ Gov. Combo 5.☐ Private
B. Mailing Address 141 North Glendale Avenue, Level 4			
C. City Glendale	D. County Los Angeles	E. State CA	F. Zip Code 91206
G. Contact Person Ramon Abueg	H. Title Chief Assistant General Manager	I. Phone 818-548-3297	
J. Email Address rabueg@glendaleca.gov			

☐ **Additional Owners** _____

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

Send to: ☐ **Owner/Operator** ☐ **Other**	A. Name	B. Title	
	C. Mailing Address		
D. City	E. County	F. State	G. Zip Code

IV. RECEIVING WATER INFORMATION

A. Attach a project map(s) that shows (1) the service area within the a specific Regional Water Board boundary and maps of(2) the corresponding major surface water(s) bodies and watersheds to which utility vault or underground structure water may be discharged. Map features must also include ASBS boundaries, MS4 discharge points to the ASBS, and major roadways.

Major Surface Water Body - Los Angeles River
Tributary - Verdugo Wash SEE ATTACHED MAPS

B. Regional Water Quality Control Board(s) where discharge sites are located
List the Water Board Regions where discharge of wastewater is proposed, i.e. Region(s) 1, 2, 3, 4, 5, 6, 7, 8, or 9:

Region 4

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 for all sites? ☐ **Yes** ■ **No**

Is land disposal/reclamation applicable to a portion of the total number of sites? ☐ **Yes** ■ **No**

If **Yes** to one or both questions, you should contact the Regional Water Board. This Order does not apply if there is no discharge to surface waters. If **No** to either or both questions, explain:

VI. VERIFICATION

Have you contacted the appropriate Regional Water Board or verified in accordance with the appropriate Basin Plan that the proposed discharge will not violate prohibitions or orders of that Regional Water Board? ■ **Yes** ☐ **No**

VII. TYPE OF UTILITY VAULT OR UNDERGROUND STRUCTURE (Check All That Apply)

■ **Electric** ☐ **Natural Gas** ☐ **Telecommunications** ☐ **Other:** _____

VIII. POLLUTION PREVENTION PLAN CONTACT INFORMATION

Each Discharger is required to provide a copy of their PLAN with their completed NOI. The PLAN requirements are provided in Section VII.C.3 of the Order. In the space below, provide the contact information for the person responsible for the development of the PLAN.

A. Company Name	B. Contact Person		
City of Glendale Water & Power	Miriam C. Sykes		
C. Street Address Where PLAN is Located	D. Title of Contact Person		
141 North Glendale Ave., Level 4	Sr. Env. Program Specialist		
E. City	F. County	G. State	H. Zip Code
Glendale	Los Angeles	CA	91206
I. Phone	J. Email Address		
818-548-3807	msykes@glendaleca.gov		

IX. DESCRIPTION OF DISCHARGE(S)

Describe the discharge(s) proposed. List any potential pollutants in the discharge. Attach additional sheets if needed.

Discharges from utility vaults and underground substructures maybe required during routine or emergency maintenance activities. Discharges are directed to landscaped areas or municipal stormdrain, if the former is not available.

Potential pollutants in the discharge may include oil and grease, pH, total suspended solids and total petroleum hydrocarbons which includes both diesel and gasoline range organics.

X. REMINDERS

A. Have you included service territory/watershed map(s) with this submittal? Separate maps must be submitted for each Regional Water Board where a proposed discharge will occur.	☒ **Yes**	☐ **No**	
B. Have you included payment of the filing fee (for first-time enrollees only) with this submittal?	☐ **Yes**	☐ **No**	☒ **N/A**
C. Have you included your PLAN?	■ **Yes**	☐ **No**	

XI. CERTIFICATION

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

A. Printed Name: Ramon Abueg

B. Signature: _____ C. Date: 6/25/15

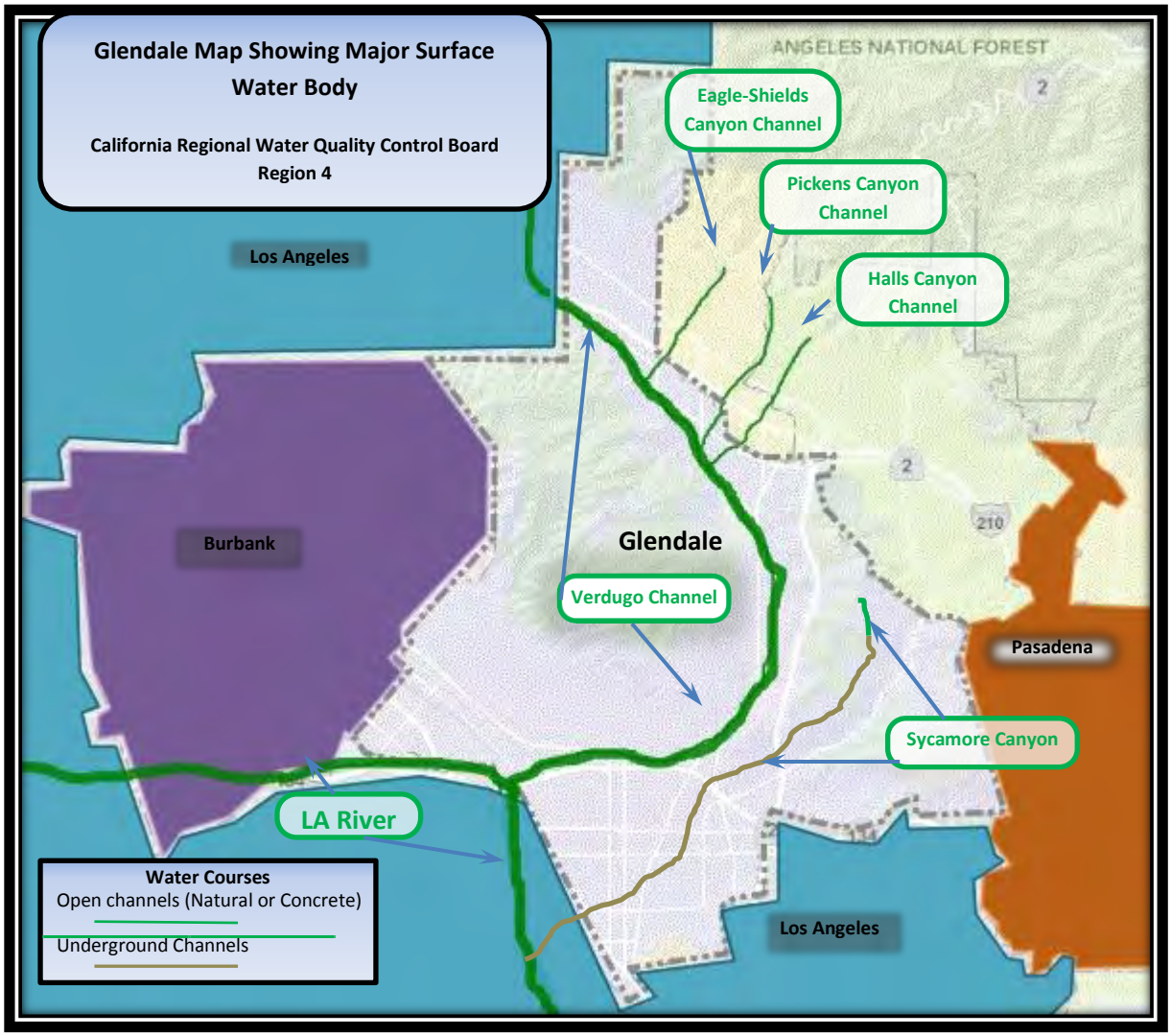
D. Title: Chief Assistant General Manager

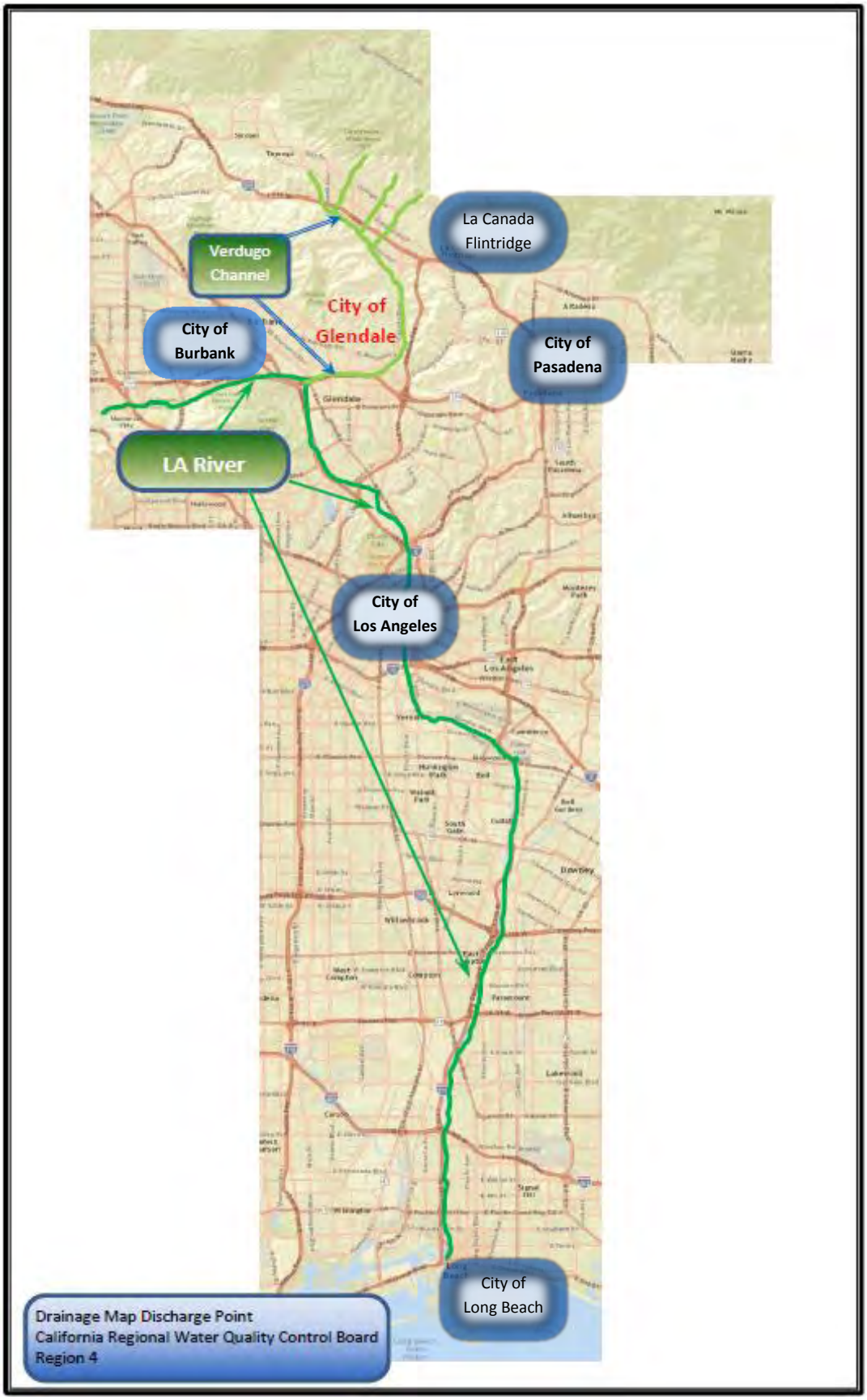
PLEASE SUBMIT THE NOI, FIRST ANNUAL FEE, PLAN, AND MAP
TO THE FOLLOWING ADDRESS:

UTILITY VAULTS 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:
Case Handler's Initial:	Fee Amount Received: $	Check #:	


Glendale Map Showing Major Surface Water Body
California Regional Water Quality Control Board Region 4
ANGELES NATIONAL FOREST
Eagle-Shields Canyon Channel
Pickens Canyon Channel
Halls Canyon Channel
Los Angeles
Burbank
Glendale
Verdugo Channel
Pasadena
Sycamore Canyon
LA River
Los Angeles
Water Courses
Open channels (Natural or Concrete)
Underground Channels


La Canada
Flintridge
Verdugo
Channel
City of
Glendale
City of
Burbank
City of
Pasadena
LA River
City of
Los Angeles
City of
Long Beach
Drainage Map Discharge Point
California Regional Water Quality Control Board
Region 4

City of Glendale

Water and Power Department

Utility Vaults and Underground Substructure Discharges

WDID# 4000U000099, CI-9503

Pollution Prevention Plan

Prepared in Compliance with the National Pollutant Discharge Elimination System General Permit for Discharges from Utility Vaults and Underground Structures

Water Quality Order No. 2014-0174-DWQ

General Permit CAG990002

7/1/2015

Prepared By:

Glendale Water & Power – Environmental Affairs

Table of Contents

I. Introduction

This pollution prevention plan (PPP) was prepared by the City of Glendale Water & Power (GWP) to comply with the requirements of the new NPDES permit for discharging water from utility vaults and underground structures. The new permit, NPDES No. CAG990002, WQ Order No. 2014-0174-DWG was adopted by the State Water Resources Control Board (SWRCB) on October 21, 2014. The permit becomes effective on July 1, 2015.

The City of Glendale Water & Power (GWP) is a publicly owned utility that generates electricity and transmits and distributes power to residents and businesses of the city. Included in this electrical system are vaults and underground substructures that occasionally may accumulate water purportedly coming from different sources. This PPP aims to delineate procedure for discharging water from these facilities to comply with the NPDES permit.

Location of the PPP:

Utility Operations Center, Superintendent Office – 800 Airway, Glendale, CA 91201

Environmental Affairs Section - 141 North Glendale Ave., Level 4, Glendale, CA 91206

Contacts:

See Attachment A for list of Contacts.

A. Purpose

The purpose of the PPP is to comply with the Clean Water Act which aims to protect the waters of the United States and State of California by reducing the amount of pollutants from intermittent discharges from the removal of water from utility vaults, manholes, and other underground substructures and to ensure that pollutant concentration in the discharged water do not cause, have a reasonable potential to cause or contribute to, an excursion above Federal and State water quality objectives.

B. Plan Organization

The PPP is organized to describe the following:

- Plan Administration
- Identification of Potential Pollutants
- Measures to Control Pollutant
- Description of Discharge Procedures, the

- Pollution Control Measures,
- Annual Plan Evaluation and
- Annual Monitoring and Reporting
- Discharge Characterization Study (Special Study) 1

II. Plan Certification and Signature

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with as system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations."

Printed Name: _____

Signature: _____ Date: _____

Title: _____

See Attachment B for signed certification.

III. Plan Administration

Since the NPDES permit relates to vaults and underground substructures, the Electrical Services Division of GWP takes the lead in implementing the PPP, with Environmental Affairs section providing support with administering and implementing the plan. Environmental Affairs will assist with the employee training and ensure that annual reporting and recordkeeping and notification to regulatory agencies are completed.

A. Pollution Prevention Team:

The pollution prevention team consists of a group of GWP employees responsible for implementation, evaluation and maintenance of overall effectiveness of the PPP. The Electrical Superintendent is the primary contact person for questions from State Regional Water Control Board and Regional Water Board personnel concerning the plan implementation. The Environmental Affairs Administrator is the contact for PPP administration and revision.

Names, responsibilities and contact information of PP team are listed on Attachment C.

The responsibilities of the PPT include:

1. Implement proper BMPs in the field.
2. Keep records of discharges and monitoring results
3. Revise the PPP if needed
4. Educate employees in use of proper BMPs
5. Prepare reports for submission to the State Water Resources Control Board by June 1 of the following year of sampling
6. Certify that PPP is in compliance with the NPDES permit.

The responsibilities of GWP's pollution prevention team are listed on Attachment C.

C. Employee Training

GWP provides training to its employees on BMP implementation and execution of the PPP. New employees engaged in operation and maintenance of vaults and underground substructures are trained on the contents, procedures, and proper execution of the PPP. Training topics will include the following:

- Dewatering procedures including sample collection
- Good housekeeping
- Material management practices
- Spill prevention and response
- Recordkeeping
- Sample Collection

Records of training are maintained by the Electrical Superintendent at the Utility Operations Center –Superintendent Office as well as the Environmental Affairs through its environmental management system database.

IV. Potential Pollution Source

A. Description of Underground Substructures

GWP's underground substructures that may require dewatering include:

- Concrete-lined conduit trenches
- Service boxes
- Vaults

Pull boxes and conduits measure between 2" to 6" and vaults typically range 2' x 3' to 8' x22' and installed with associated conductors and devices. GWP has approximately 1,468 vaults and about 4,644 pull boxes.

B. Underground Substructure and Drainage map

Attachment D shows GWP's underground substructures throughout the City of Glendale. Attachment E shows the Los Angeles River as major water body to which vault water is being discharged into. The Verdugo Wash is a tributary to Los Angeles River and where potential discharges from the northern part of the City may be discharged into.

C. Potential Pollution Source Assessment

Many of these structures are not completely sealed thus water intrusion can occur and accumulate. Water may originate from stormwater runoff, leakage from pipes within the structures, or runoff of non-stormwater from domestic, commercial and industrial activities (e.g. irrigation from residential landscaping) and groundwater seepage. The electrical equipment in these vaults may contain mineral or other insulating oils (in rare occasion may contain PCBs). However, this equipment has been gradually replaced, leaving a small percentage in GWP's electrical system.

Conventional constituents required such as Total Suspended Solids (TSS), Oil & Grease, pH and Total Petroleum Hydrocarbons (TPH) were consistently analyzed in GWP vaults and were reported in the Annual reports since 2009.

An analysis of sampling results conducted in six of Glendale vaults from 2009 to 2014 showed absence of Total Petroleum Hydrocarbon (gasoline and diesel), Oil & Grease and with an average pH of 7.8 in the samples.

In some instances presence of Total Suspended Solids (TSS) was found at high level but this could be due to operator collecting the bottom sediments. These high results were consistent in most vaults during that sampling period. Succeeding samples results from these vaults did not show presence of TSS.

V. Discharge Procedures

A. Inspection of Underground Substructures

GWP underground substructures are inspected regularly, not only for its integrity but also for water intrusion. GWP has developed a vault inspection procedure to visually characterize water prior to discharge. In general, the procedure consists of a checklist of observable conditions for indicators of contamination, which also includes information on how to properly discharge vault water once characterized. These procedures are implemented during vault sampling and vault discharge activities.

B. Evaluation of Waters

GWP field staff utilizes a sensory check method (SCM) to evaluate the water prior to discharge. Attachment F shows GWP's SCM checklist. This method was developed by the Los Angeles Water and Power Department by conducting field study, inspecting over one hundred underground structures. According to LADWP Study, water that passed the SCM procedure and presumed dischargeable were compared with laboratory testing. The results of the study validated the use of the SCM as a reliable means of detecting the presence of common pollutants in the substructures.

LADWP's four-month study revealed that hazardous chemicals, solvents, oil, grease, tar, sewage, etc. found in the vault/substructure waters could be easily detected in a sensory manner by inspecting the substructure and the water for the following signs:

- ✓ Strong chemical odor for solvents, gasoline, diesel, etc.;
- ✓ Rainbow sheens or layers for oil;
- ✓ Floating, suspended and/or sinking materials for debris, tar, etc.;
- ✓ Sulfurous odor for decaying matter, sewage, etc.;
- ✓ Color or discoloration for sediment, minerals, heavy metals, etc.

If the water is acceptable for discharge, GWP staff follows the discharge guidelines described in the following paragraph. Otherwise, GWP calls a private contractor to pump the water and disposed it at an acceptable treatment facility.

C. Water Discharge Procedures

An SCM checklist is completed for any partial or full discharge of water from substructures to the street and storm drain. A copy of the SCM and overview of the form are described below:

CHECK 1 – Is the water cloudy, discolored and/or have an unusual odor?
This first check identifies substructure conditions that would require it to be contained and evaluated formally tested by a chemistry laboratory to determine the proper handling procedures. These conditions include, but are not limited to, cloudiness, discoloration and odors (e.g., sewage, chemicals, solvents, gasoline). Determine if the water can be discharged (i.e., no sheen, no odor, no sediment)
CHECK 2 – While monitoring the discharge being pumped, is there an occurrence of oil, tar, soil, cloudy discharge and/or unusual odors?
Monitor the discharge while pumping and document required information when appropriate (e.g., date pumped, amount pumped, location to be pumped to (alley, street, etc.)). If any contaminants are detected during the discharge, immediately stop pumping. Return to CHECK 1 to reassess the situation. If it is determined that containment is necessary, an SCM Checklist shall be completed with the line "Storm Drain Discharge Halted" marked. Give a detailed description of the condition that prompted the stopping of the discharge. Completed SCM Checklists shall be kept on file by the discharging facility for five years.

See Attachment F for a more detailed instruction on use of the SCM Method.

At the back of the SCM checklist is the estimated volume of water discharged from the vault, if any. This information should be noted on the SCM and reported on the Annual Report. For additional guidance, a water discharge procedure flowchart is also included.

D. Record Keeping

Inspections and evaluations are recorded in the SCM checklist and along with the Annual reports and Annual evaluations are kept for at least five years. Records are kept in Electrical Engineering's Mapping database at 141 North Glendale and at Electrical Superintendent's Office at the Utility Operations Center, 800 Airway. GWP's recordkeeping is discussed more in its Monitoring and Reporting Plan (Attachment G)

E. Notification to the MS4 permittees and Regional Board.

As required in the Los Angeles NPDES municipal separate stormwater system (MS4) discharge permit, Glendale Water & Power will notify the MS4 permittees if necessary and the Regional Board if needed when there is non-compliance.

VI. Pollution Control Measures

While GWP uses BMPs such as installing sand bags and wattles at the stormdrain inlets and implementing good housekeeping, the primary BMP used for discharging water from the vaults is the Sensory Check Method (SCM).

Water is discharged into the storm drain if no oil sheen, chemical, odor or silt and sediment are present. However, in the event any of the above is present, GWP implements BMP such as using a filter sock or filter bag, during discharge to remove oil sheen or sediments. If the water is not acceptable for discharge, GWP employs alternative means such as contacting the Public Works to vacuum the vaults or contacting a private contractor to pump the water for outside disposal.

VII. Annual Evaluation, Revision, and Reporting

Annually Glendale Water & Power will conduct an overall evaluation of this plan in controlling the discharge of pollutants during a discharge event and revise or replace the Plan as necessary to address procedures and BMPs found not effective in minimizing the discharge of pollutants.

At a minimum the evaluation shall include:

- Evaluation of the BMPs to determine whether they are controlling the discharge of pollutants during a discharge event or whether additional control measure are needed

- Ensure that GWP source control measures, sediment and control measures, and other structural BMPs identified in the Plan are operating correctly

- Determine whether the results of the annual monitoring at five representative sites required in the MRP exceeded the Numeric Action Levels (NALs). This should include assessment of potential pollutants and determine whether the procedures and BMPs contained in the Plan need to be revised or if additional NALs need to be added.

This Annual Evaluation report will be included in the Annual SMR to the State Water Board.

VIII. Monitoring and Reporting Plan

GWP's monitoring and reporting plan (MRP) is described in Attachment G. GWP will conduct its sampling of five representative samples for yearly compliance. In addition six months following effectiveness of the order, GWP will conduct the required discharge characterization study following the guidelines of Phases I and II of Study 1, since GWP does not discharge directly into an area of special biological significance (ASBS).

A. Annual Sampling

This involves annually collecting samples from five vaults or underground substructures representative of discharges being discharged from the vaults. Discharges will be analyzed for conventional parameters that includes Total Petroleum Hydrocarbon both Diesel and Gasoline ranges, Oil and Grease, pH and Total Suspended Solids.

B. Categorization Study 1 (Special Study)

Since GWP does not directly discharge into an area of special biological significance (ASBS), GWP will conduct Characterization Study 1 of its discharged water. This special study involves collecting samples from the same vaults as where the Annual Sampling is conducted. However, in the Phase studies, samples collected will be analyzed for various constituents that includes thirteen (13) Metals, Cyanide, Asbestos, twenty six (26) volatile organic compounds (VOCs) , fifty nine (59) semi-volatiles, 2,3,7,8-TCDD, eighteen (18) pesticides including Toxaphene and seven (7) PCBs, Hardness and pH.

The Special Study 1 will be conducted in two phases, Phase I and Phase II monitoring schedules. The Phase I samples are collected on the first rainy season, within a year and six months after WQ Order became effective (July 1, 2015).

Phase II samples will be collected on the third rainy season after the effectiveness of the Order.

A Final Report of Phase I and II studies will be submitted to the State Water Board, no later than four years after the WQ Order became effective.

IX. LIST OF ATTACHMENTS

Attachment A – List of Contacts
Attachment B– Signed Certification
Attachment C – List of Pollution Prevention Team
Attachment D – Map of Glendale Vaults and Substructures
Attachment E – Maps Showing Major Surface Water Body
Attachment F – Sensory Check Method (SCM) Checklist
Attachment G – Monitoring and Reporting Plan

X. REFERENCES

NPDES permit CAG990002, WQ Order 2014-0174-DWQ -

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2014/wqo2014_0174_dwq.pdf

ATTACHMENT A

GLENDALE WATER AND POWER

POLLUTION PREVENTION PLAN LIST OF CONTACTS

NAME	TITLE	OFFICE ADDRESS	PHONE NUMBER	E-MAIL ADDRESS
Brian Brown	Electrical Superintendent - Construction Transmission & Distribution	UOC 800 Airway Glendale, CA 91206	(818) 548-2011	BBrown@GlendaleCA.GOC
Otilo Viramontes	Electrical Line Mechanic Superintendent	UOC 800 Airway Glendale, CA 91206	(818) 548-2011	OViramontes@GlendaleCA.GOV
Ramon Abueg	Chief Assistant General Manager	GWP Admin. 4th Floor 141 N. Glendale Ave Glendale, CA 91206	(818) 548-3297	RAbueg@GlendaleCA.GOV
Maurice Oillataguerre	Environmental Program Administrator	GWP Admin. 4th Floor 141 N. Glendale Ave Glendale, CA 91206	(818) 548-2107	MOillataguerre@GlendaleCA.GOV
Miriam Sykes	Senior Environmental Program Specialist	GWP Admin. 4th Floor 141 N. Glendale Ave Glendale, CA 91206	(818) 548-3807	MSykes@GlendaleCA.GOV
Joan Gaerlan	Environmental Program Specialist	UOC 800 Airway Glendale, CA 91206	(818) 937-8955	JGaerlan@GlendaleCA.GOV
Steven Morris	Assistant Environmental Technician	GWP Admin. 4th Floor 141 N. Glendale Ave Glendale, CA 91206	(818) 548-3964	SMorris@GlendaleCA.GOV

ATTACHMENT B

PP Plan Certification and Signature

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with as system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations."

Printed Name: Ramon Abueg

Signature: _____ Date: 6/25/15

Title: Chief Assistant General Manager – Electric

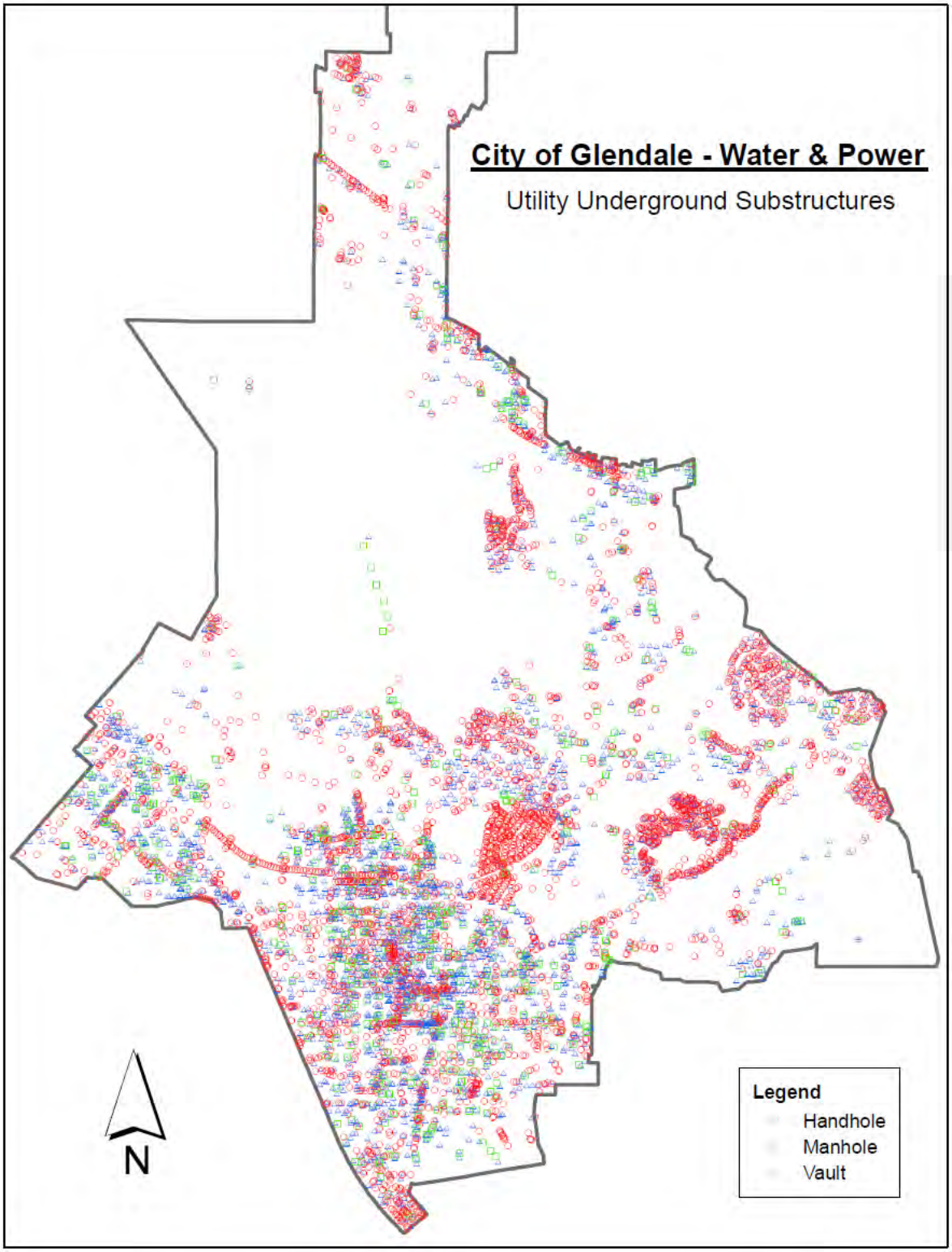
ATTACHMENT C

GLENDALE WATER AND POWER

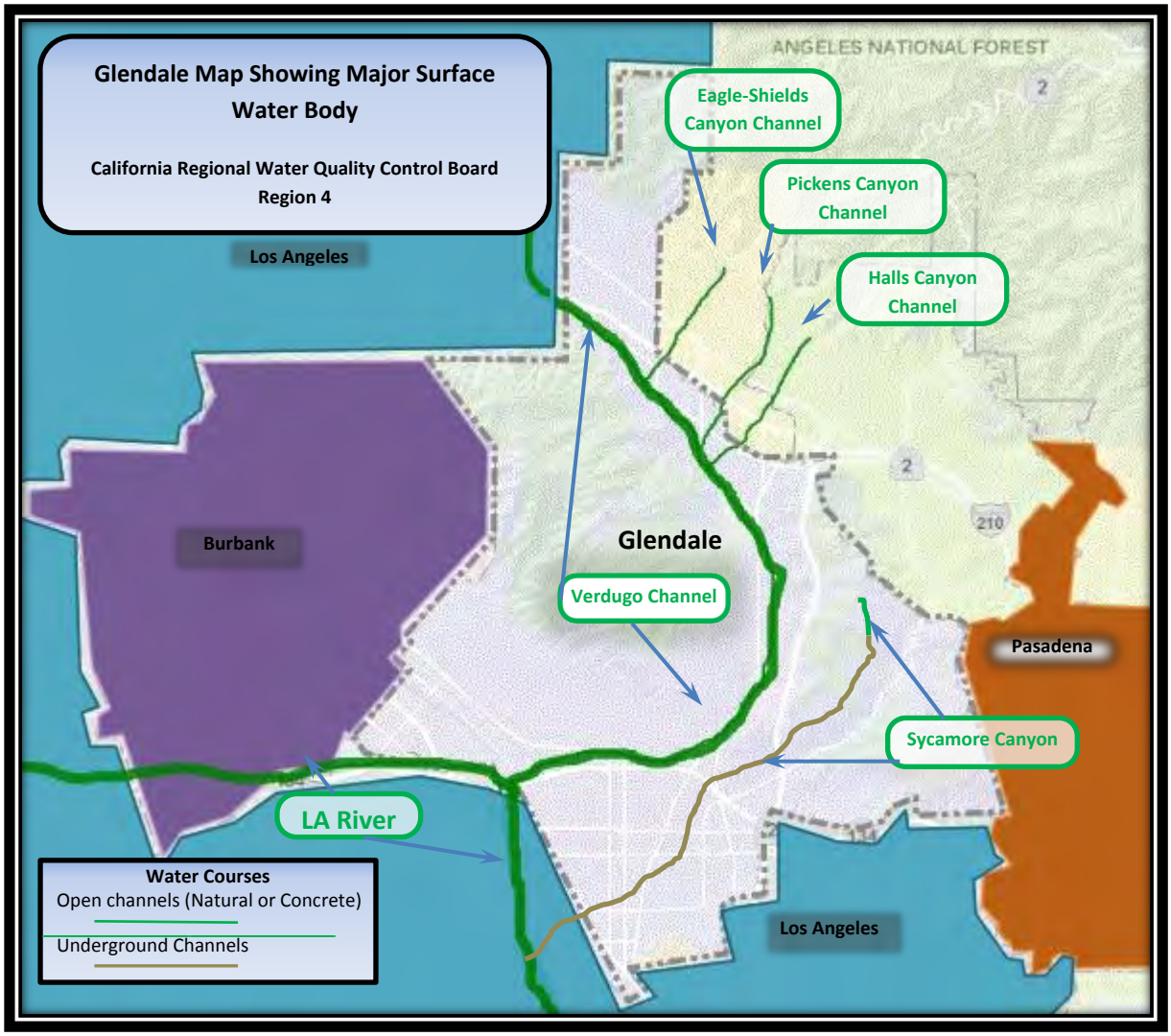
POLLUTION PREVENTION TEAM (PPT)

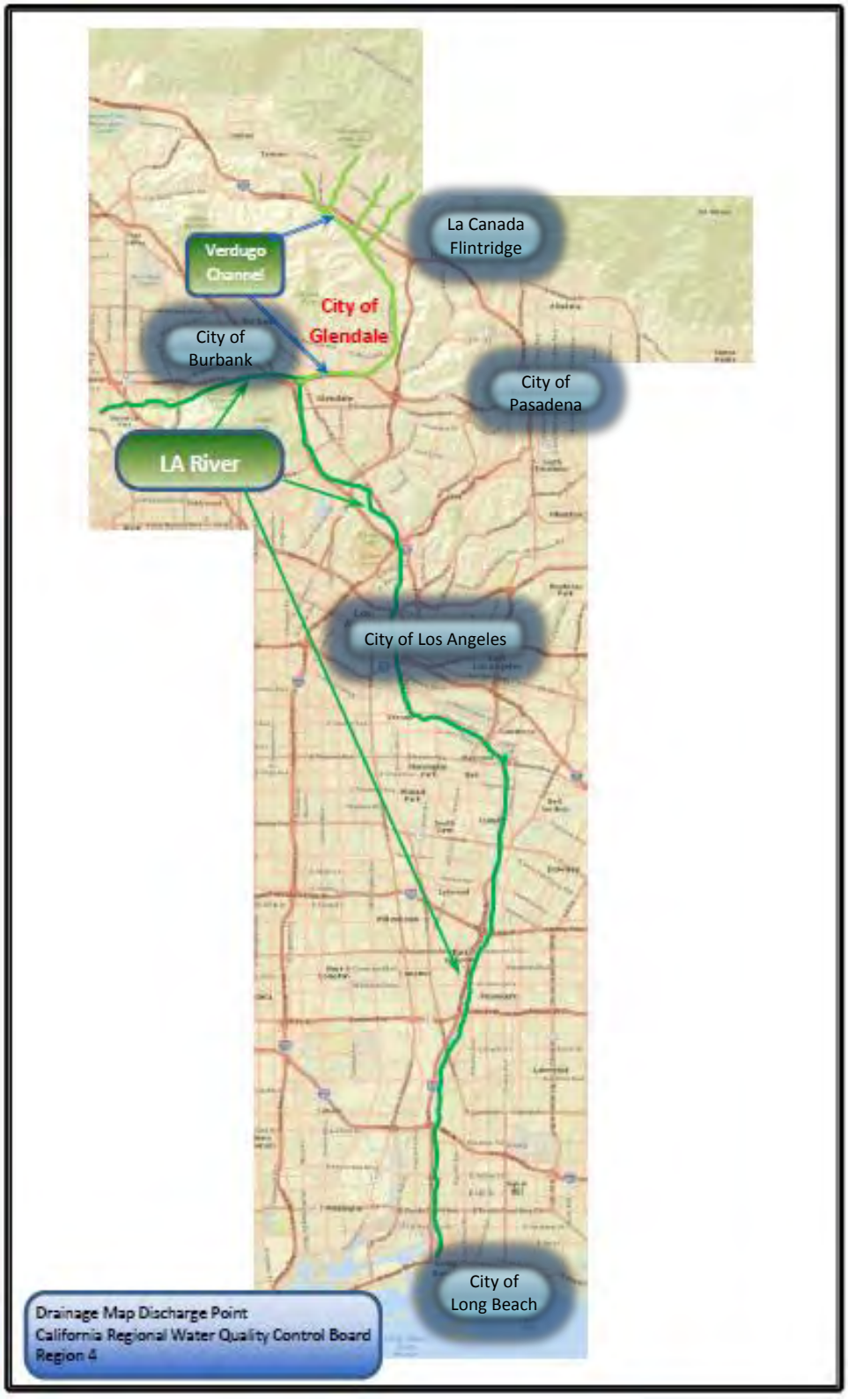
Name	Title	Phone Number	Office Location	Responsibility
Ramon Abueg	Chief Assistant General Manager	(818) 548-3297	GWP Admin. 4th Floor	PPT Oversight
Brian Brown	Electrical Superintendent - Construction Transmission & Distribution	(818) 548-2011	UOC (Water & Electric Administration Building)	PPP Implementation
Otilo Viramontes	Electrical Line Mechanic Superintendent	(818) 548-2011	UOC (Water & Electric Administration Building)	PPP Implementation and Annual Report Preparation
April Fitzpatrick	Deputy General Manager /GWP	(818) 548-2107	GWP Admin. 4th Floor	PPT Oversight Support
Maurice Oillataguerre	Environmental Program Administrator	(818) 548-2107	GWP Admin. 4th Floor	PPP Implementation Oversight and Annual Report Preparation Support
Miriam Sykes	Senior Environmental Program Specialist	(818) 548-3807	GWP Admin. 4th Floor (Engineering)	PPP Implementation Support PPP Annual Report Preparation Support
Joan Gaerlan	Environmental Program Specialist	(818) 937-8955	UOC (Grayson Power Plant)	PPP Implementation Support PPP Annual Report Preparation Support
Steven Morris	Assistant Environmental Technician	(818) 548-3964	GWP Admin. 4th Floor (Engineering)	PPP Implementation Support PPP Annual Report Preparation Support

ATTACHMENT D



ATTACHMENT E




La Canada
Flintridge
Verdugo
Channel
City of
Glendale
City of
Burbank
City of
Pasadena
LA River
City of Los Angeles
City of
Long Beach
Drainage Map Discharge Point
California Regional Water Quality Control Board
Region 4

SCM Checklist

ATTACHMENT F

Sensory Check Method

To be completed for every time vault containing water and every discharge to the street/storm drain System

Date : _____ Name : _____ Recent Rain : Yes ____ No_____ *Volume Table and Decision Flow Chart on back of sheet	Vault Number : _____ Vault Size : _____ H x W x D Vault Location : _____ (Street Address if Possible) Water Depth (estimate) : _____ Inches pH level : _____

Check 1. Conditions Requiring Containment of Vault Water

1) Is the vault water cloudy, discolored, and / or has an unusual odor? Yes: _____ No: _____
   No? Go to Check 2
   Yes? The vault must be sampled for formal chemistry laboratory testing to determine proper handling and disposal. Proceed to step 2 of check 1
2) By visually inspecting the area, can you find the source of pollutant? Yes: ____ No: _____
   No? Check the "No" line proceed to Check 2
   Yes? Attempt to mitigate the pollution source and document your actions

Check 2. Oil, Tar, and /or Soil

3) Is there any oil, tar, or soil particles in the water? Yes: _____ No: _____
   No? Go on to Check 3
   Yes? Can the water be discharged (pumped) without disturbing the pollutants, such that they are not discharged into the street.
   No? The vault water must be sampled for formal chemistry laboratory testing to determine proper handling and disposal.
   Yes? Go on to Check 3. If needed, the remaining water can only be removed from the vault after being pumped into a separate container, and shall not be discharged into the street or the storm drain

Check 3. <u>Pumping clear water monitoring the discharges (this form must be completed)</u>

4) While visually monitoring the discharge pumps the clean vault water into the street / storm drain system. Document the discharge by filling in only the information on this form (Date, Amount, and Destination). Should the condition of the water change during the discharge **STOP PUMPING**! Return to check 1 and reassess the water condition for pollution. If it is determined that containment is necessary, check "<u>Storm Drain Discharge Halted</u>" below, and describe the condition requiring the halting of the discharge in the "Describe Conditions" portion. Also, indicate new condition of the vault water itself.

Date Pumped: _____ Amount (gal.): _____ Discharge Destination (alley, tank etc.): _____

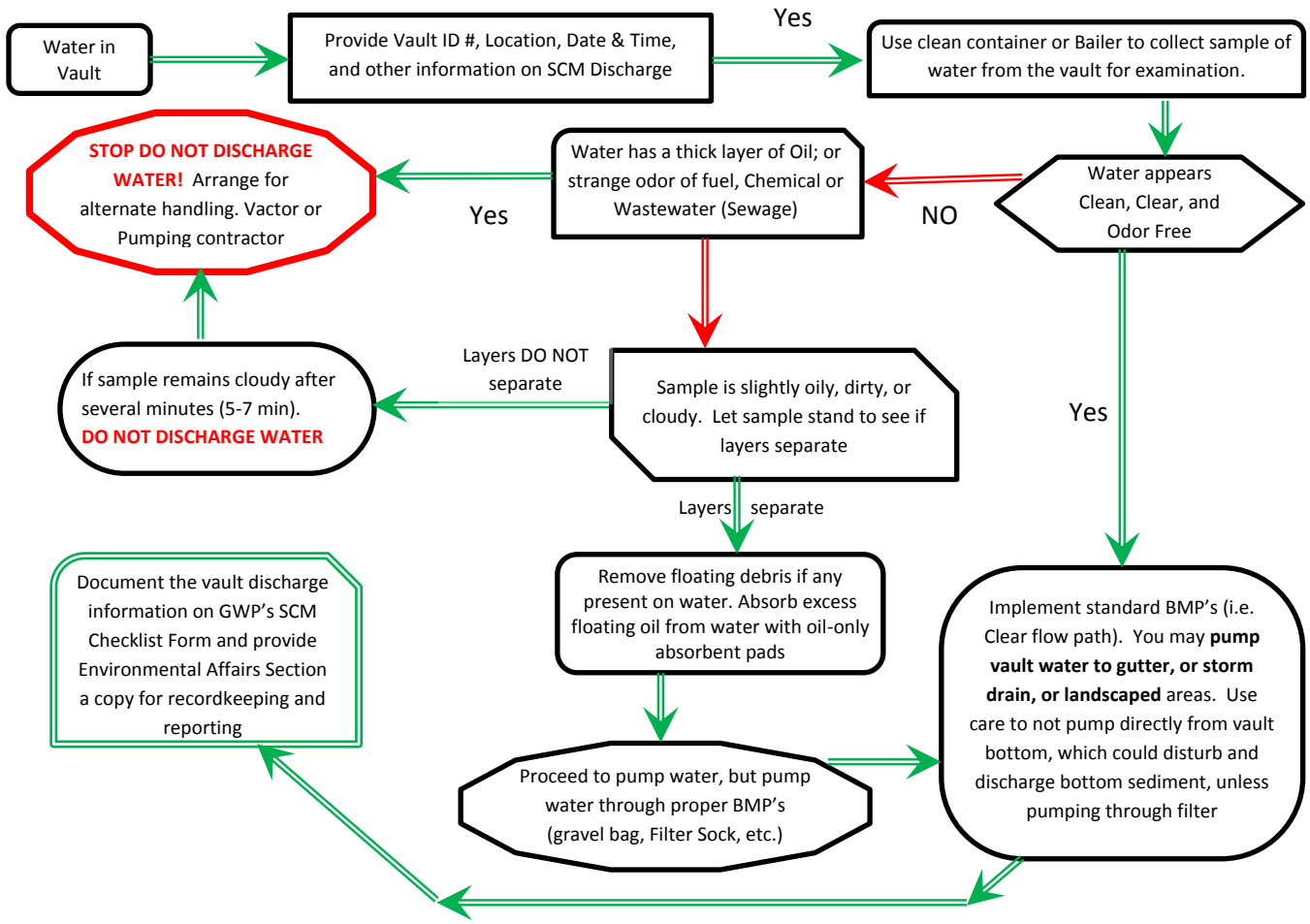
Stop if Oil, Tar, Soil, Cloudy Film are observed, and / or Unusual Odors occur.
Storm Drain Discharge Halted ; _____ * Volume Table on Back of Sheet

Describe Vault Water Conditions : _____
_____
_____ _____

The information provided herein is true and correct to the best of my knowledge.
Print name: _____ Signature: _____

Vault Size	Vault Size Water Table								
			depth of water		Gallons				
3' x 5'	**6"**	**12"**	**18"**	**24"**	**30"**	**36"**	**42"**	**48"**	**54"**
	56	112	168	224	280	336	392	448	504
4' x 8'	**6"**	**12"**	**18"**	**24"**	**30"**	**36"**	**42"**	**48"**	**54"**
	119	239	358	477	597	716	836	955	1,074
	60"	**66"**	**72"**	**78"**	**84"**	**90"**	**96"**	**102"**	**108"**
	1,194	1,313	1,432	1,552	1,671	1,790	1,910	2,029	2,148
6' x 10'	**6"**	**12"**	**18"**	**24"**	**30"**	**36"**	**42"**	**48"**	**54"**
	224	448	671	895	1,119	1,343	1,567	1,790	2,014
	60"	**66"**	**72"**	**78"**	**84"**	**90"**	**96"**	**102"**	**108"**
	2,238	2,462	2,686	2,909	3,133	3,357	3,581	3,805	4,028
8' x 22'	**6"**	**12"**	**18"**	**24"**	**30"**	**36"**	**42"**	**48"**	**54"**
	656	1,313	1,969	2,626	3,282	3,939	4,595	5,252	5,908
	60"	**66"**	**72"**	**78"**	**84"**	**90"**	**96"**	**102"**	**108"**
	6,565	7,221	7,878	8,534	9,191	9,847	10,504	11,160	11,817

Glendale Water and Power (GWP) Utility Vault Water Discharge Decision Flow Chart



ATTACHMENT G

Monitoring and Reporting Plan (MRP)

ATTACHMENT G

City of Glendale

Water and Power Department

Utility Vaults and Underground Substructure Discharges

WDID# 4000U000099, CI-9503

MONITORING AND REPORTING PLAN (MRP)

Prepared in Compliance with the National Pollutant Discharge Elimination System General Permit for Discharges from Utility Vaults and Underground Structures

Water Quality Order No. 2014-0174-DWQ

General Permit CAG990002

7/1/2015

Prepared By:

Glendale Water & Power – Environmental Affairs

Table of Contents

I. Annual Sampling

A. Monitoring Locations and Sample Types

Glendale Water and Power (GWP) currently collect samples from five (5) representative locations for its annual pollutant monitoring. GWP routinely collect samples from these sites; however if there is no water in the representative vault due to repair or maintenance or because no water accumulated in the vault, GWP will collect from a vault nearby preferably of similar activity that may contribute similar potential pollutant as the replaced representative vault.

Table 1 shows GWP's representative sampling locations. Table 2 lists the monitoring requirements, defining the sampling schedule of sampling and method of testing that will be used for analyzing the samples.

Table 1

Samples will be collected from the following representative vaults:

Site No.	Vault No.	Address	Type of Discharge
1	609	3611 St. Elizabeth	Residential
2	772	1666 Sheridan Road	Residential
3	736	Broadview and Ocean View	Industrial
4	371	Sleepy Hollow	Residential
5	1985	Circle Seven	Commercial

Figure 1

Representative Sampling Locations Map

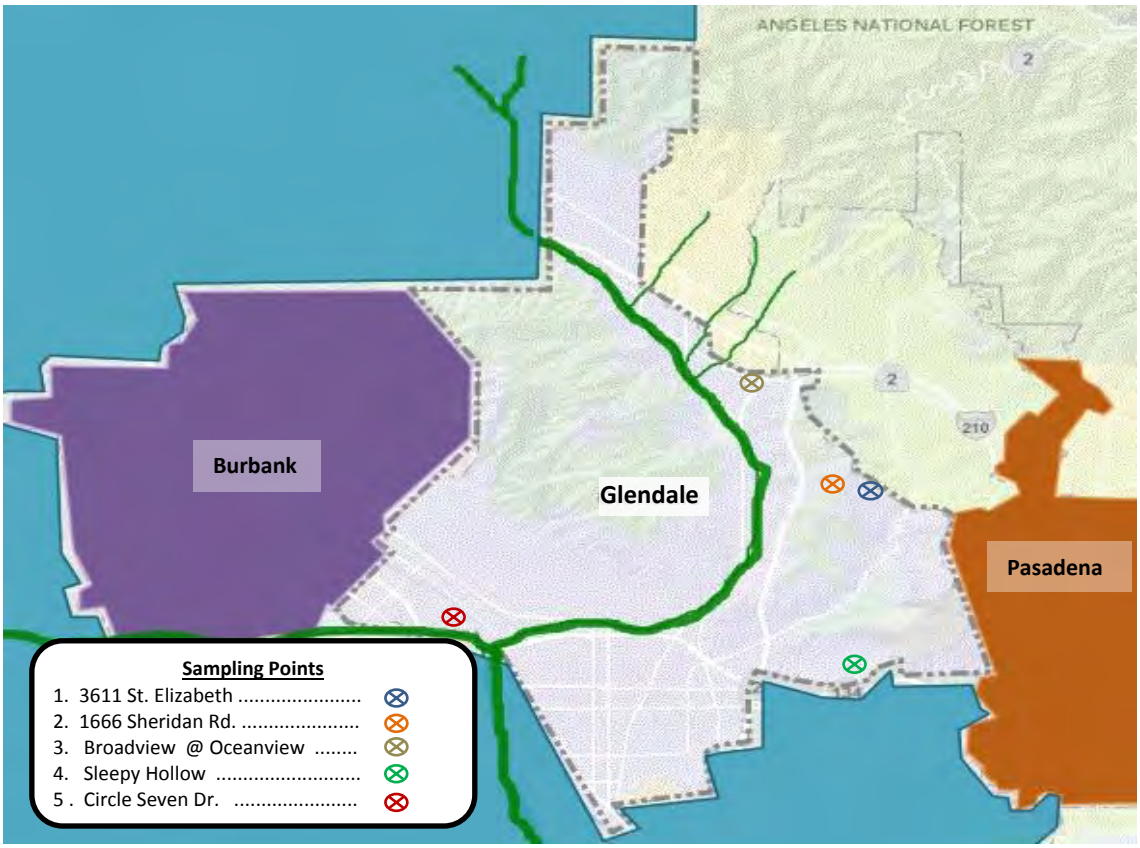


Table 2

Sampling Frequency and Testing Methods

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Petroleum Hydrocarbons – Diesel Range	ug/L	Grab	1/Year	Per 40 CFR Part 136
Total Petroleum Hydrocarbons – Gasoline Range	ug/L	Grab	1/Year	Per 40 CFR Part 136
Oil and Grease	mg/L	Grab	1/Year	Per 40 CFR Part 136
pH	Standard Units	Grab	1/Year	Per 40 CFR Part 136
Total Suspended Solids	mg/L	Grab	1/Year	Per 40 CFR Part 136

B. Annual Reporting

GWP submits Annual Report to the State Board no later than **June 1** of the following year of sampling. For this new permit, GWP shall submit Annual reports that include the following:

- Executive Summary discussing compliance, violations and evaluation of the Plan
- Summary of monitoring data generated in tabulated format, indicating location, collection date, comparison with Numeric Action Levels
- Map showing the location of each monitored (i.e., annual sampling)
- Description of GWP's sample collection, sample analysis, and quality control procedures
- Estimate of annual volume discharged from each GWP utility vaults or underground substructures
- Cover letter – clearly identifying violations, exceedances, corrective actions and timeline
- Certification and Signature page

II. Discharge Characterization Study (Special Study 1)

The Permit Order 2014-0174-DWQ requires Dischargers such as GWP to conduct a Discharge Characterization Study intended to characterize discharges from dewatered utility vaults. The objective of the Special study is to collect sufficient data to identify the priority pollutants and concentration present in its discharged water. The Dischargers will have to select between Study 1 and Study 2 depending on the location of their discharge to areas of biological significance (ASBS) which have been determined by the Board. Since GWP's discharges **do not** directly discharge to an ASBS, GWP will conduct the Special Study 1.

This is a one-time study required in this permit and shall be conducted within a period of four years, since sampling of five representative samples shall be conducted within three (3) years and reporting submitted within four (4) years and six months.

Using the same annual five representative samples listed in Table 1 above, GWP will conduct the Study 1 in two Phases as discussed below.

A. Phase I

By no later than the first rainy season following the final approval of its monitoring plan, GWP will conduct Phase I monitoring of the Discharge Characterization Study 1. This entails collecting samples from the five annual representative sampling locations and have the samples analyzed for all constituents listed on Table 3 below, including pH and hardness in order to accurately compute hardness- and pH-dependent water quality criteria for certain metals.

If infeasible to complete Phase I during this sampling period (for example, no water is present in utility vaults or underground substructure due to lack of precipitation or groundwater intrusion), GWP will continue to conduct sampling and analysis in the subsequent rainy season.

Samples will be collected following Sampling Procedures delineated in Section III – Quality Assurance/Quality Control

B. Phase II

By no later than the third rainy season following the final approval of the Monitoring and Reporting Plan, GWP will conduct Phase II of the Discharge Characterization Study 1. Samples from the five representative sampling locations will be collected and analyzed for **each detected priority pollutants that exceeds the applicable water quality objective** listed in Tables 3, Table 4 and Table 5 as identified in Phase I Report. A detection is defined as any pollutant concentration observed to exceed the analytical method detection limit (MDL), including DNQ (detected but not quantified) or J-flagged values. J-flagged values are pollutants observed above the method detection limit but not the reporting limit (RL) measured by the laboratory.

If infeasible to complete Phase II during this period (for example, no water is present in utility vaults or underground substructure due to lack of precipitation or groundwater intrusion), GWP will continue sampling and analysis in the subsequent rainy season as long as the Complete Characterization Study compliance date has not yet occurred.

Table 6 summarizes the sample collection and completion of Phase I and Phase II Special studies.

C. Completion of Discharge Characterization Study 1

Completion of this study occurs after completing Phases I and II of Discharge Characterization Study 1 or if collecting all samples (five samples per WDID in Phase I

and five samples per WDID in Phase II) proves infeasible, i.e. no water present in utility vaults or underground structures due to lack of precipitation and/or groundwater infiltration.

D. Final Report for Discharge Characterization Study 1

GWP will submit to the State Water Board the Final Report for Discharge Characterization Study 1 no later than four years and six months following the effective date of the Order. The report will contain the following elements:

- List of Vaults selected for Phase I and Phase II
- All results of analyses produced for Phase I and Phase II including detected, DNQ and no-detected values. Results of other vaults tested as replacement for other vaults will also be included
- Results which are believed to be erroneous due to misapplication of sampling or analytical techniques shall be identified a discussed in detail in the Phase I & II reports. This will assist the State Water Board in evaluating and determining whether to include the identified data points in analyses of the utility vault or underground structure discharge data.

Table 3 Priority Pollutants

CTR Number	*Pollutant*	*CAS Number*	*Suggested Analytical Method(s)*	*Water Quality Criteria (µg/L)*
1	Antimony	7440360	EPA 6020/200.8	4,300
2	Arsenic	7440382	EPA 1632	340
3	Beryllium	7440417	EPA 6020/200.8	No Criteria[1]
4	Cadmium	7440439	EPA 1638/200.8	Hardness Based [2]
5a	Chromium (III)	16065831	EPA 6020/200.8	Hardness Based [2]
5a	Chromium (VI)	18540299	EPA 7199/1636	16
6	Copper	7440508	EPA 6020/200.8	Hardness Based [2]
7	Lead	7439921	EPA 1638	Hardness Based [2]
8	Mercury	7439976	EPA 1669/1631	0
9	Nickel	7440020	EPA 6020/200.8	Hardness Based [2]
10	Selenium	7782492	EPA 6020/200.8	Hardness Based [2]
11	Silver	7440224	EPA 6020/200.8	Hardness Based [2]
12	Thallium	7440280	EPA 6020/200.8	6
13	Zinc	7440666	EPA 6020/200.8	Hardness Based [2]
14	Cyanide	57125	EPA 9012A	22
15	Asbestos	1332214	EPA/600/R-93/116(PCM)	No Criteria[1]

1. Dischargers are not required to analyze samples for parameters which do not possess criteria in Table 3 (excluding hardness and pH). No analyses are required for parameters listed with "No Criteria" in the Water Quality Objective column

2. For hardness-based metals criteria (i.e., cadmium, chromium (III), copper, lead, nickel, silver, and zinc), refer to Table 4

Table 3 Priority Pollutants (Continued)				
CTR Number	***Pollutant***	***CAS Number***	***Suggested Analytical Method(s)***	***Water Quality Criteria (µg/L)***
16	2,3,7,8-TCDD	1746016	EPA 8290 (HRGC) MS	0
17	Acrolein	107028	EPA 8260B	780
18	Acrylonitrile	107131	EPA 8260B	1
19	Benzene	71432	EPA 8260B	71
20	Bromoform	75252	EPA 8260B	360
21	Carbon Tetrachloride	56235	EPA 8260B	4
22	Chlorobenzene	108907	EPA 8260B	21,000
23	Chlorodibromomethane	124481	EPA 8260B	34
24	Chloroethane	75003	EPA 8260B	No Criteria[1]
25	2-Chloroethylvinyl Ether	110758	EPA 8260B	No Criteria[1]
26	Chloroform	67663	EPA 8260B	No Criteria[1]
27	Dichlorobromomethane	75274	EPA 8260B	46
28	1,1-Dichloroethane	75343	EPA 8260B	No Criteria[1]
29	1,2-Dichloroethane	107062	EPA 8260B	99
30	1,1-Dichloroethylene	75354	EPA 8260B	3
31	1,2-Dichloropropane	78875	EPA 8260B	39
32	1,3-Dichloropropylene	542756	EPA 8260B	1,700
33	Ethylbenzene	100414	EPA 8260B	29,000
34	Methyl Bromide	74839	EPA 8260B	4,000
35	Methyl Chloride	74873	EPA 8260B	No Criteria[1]
36	Methylene Chloride	75092	EPA 8260B	1,600
37	1,1,2,2-Tetrachloroethane	79345	EPA 8260B	11
38	Tetrachloroethylene	127184	EPA 8260B	9
39	Toluene	108883	EPA 8260B	200,000
40	1,2-Trans-Dichloroethylene	156605	EPA 8260B	140,000
41	1,1,1-Trichloroethane	71556	EPA 8260B	No Criteria[1]
42	1,12-Trichloroethane	79005	EPA 8260B	42
43	Trichloroethylene	79016	EPA 8260B	81
44	Vinyl Chloride	75014	EPA 8260B	525
45	2-Chlorophenol	95578	EPA 8270C	400
46	2,4-Dichlorophenol	120832	EPA 8270C	790
47	2,4-Dimethylphenol	105679	EPA 8270C	2,300
48	2-Methyl-4,6-Dinitrophenol	534521	EPA 8270C	765
49	2,4-Dinitrophenol	51285	EPA 8270C	14,000
50	2-Nitrophenol	88755	EPA 8270C	No Criteria[1]
51	4-Nitrophenol	100027	EPA 8270C	No Criteria[1]
52	3-Methyl-4-Chlorophenol	59507	EPA 8270C	No Criteria[1]
53	Pentachlorophenol	87865	EPA 8270C	Note[3]
54	Phenol	108952	EPA 8270C	4,600,000
55	2,4,6-Trichlorophenol	88062	EPA 8270C	7
56	Acenaphthene	83329	EPA 8270C	2,700
57	Acenaphthylene	208968	EPA 8270C	No Criteria[1]
58	Anthracene	120127	EPA 8270C	110,000

1. Dischargers are not required to analyze samples for parameters which do not possess criteria in Table 3 (excluding hardness and pH). No analyses are required for parameters listed with "No Criteria" in the Water Quality Objective column

3. For pH-based pentachlorophenol criteria, refer to Table 5.

Table 3 Priority Pollutants (Continued)				
CTR Number	***CTR Number***	***CTR Number***	***CTR Number***	***CTR Number***
59	Benzidine	92875	EPA 8270C	0
60	Benzo(a)Anthracene	56553	EPA 8270C	0
61	Benzo(a)Pyrene	50328	EPA 8270C	0
62	Benzo(b)Fluoranthene	205992	EPA 8270C	0
63	Benzo(ghi)Perylene	191242	EPA 8270C	No Criteria[1]
64	Benzo(k)Fluoranthene	207089	EPA 8270C	0
65	Bis(2-Chloroethoxy)Methane	111911	EPA 8270C	No Criteria[1]
66	Bis(2-Chloroethyl)Ether	111444	EPA 8270C	1
67	Bis(2-Chloroisopropyl)Ether	108601	EPA 8270C	170,000
68	Bis(2-Ethylhexyl)Phthalate	117817	EPA 8270C	6
69	4-Bromophenyl Phenyl Ether	101553	EPA 8270C	No Criteria[1]
70	Butylbenzyl Phthalate	85687	EPA 8270C	5,200
71	2-Chloronaphthalene	91587	EPA 8270C	4,300
72	4-Chlorophenyl Phenyl Ether	7005723	EPA 8270C	No Criteria[1]
73	Chrysene	218019	EPA 8270C	0
74	Dibenzo(a,h)Anthracene	53703	EPA 8270C	0
75	1,2-Dichlorobenzene	95501	EPA 8260B	17,000
76	1,3-Dichlorobenzene	541731	EPA 8260B	2,600
77	1,4-Dichlorobenzene	106467	EPA 8260B	2,600
78	3,3'-Dichlorobenzidine	91941	EPA 8270C	0
79	Diethyl Phthalate	84662	EPA 8270C	120,000
80	Dimethyl Phthalate	131113	EPA 8270C	2,900,000
81	Di-n-Butyl Phthalate	84742	EPA 8270C	12,000
82	2,4-Dinitrotoluene	121142	EPA 8270C	9
83	2,6-Dinitrotoluene	606202	EPA 8270C	No Criteria[1]
84	Di-n-Octyl Phthalate	117840	EPA 8270C	No Criteria[1]
85	1,2-Diphenylhydrazine	122667	EPA 8270C	1
86	Fluoranthene	206440	EPA 8270C	370
87	Fluorene	86737	EPA 8270C	14,000
88	Hexachlorobenzene	118741	EPA 8260B	0
89	Hexachlorobutadiene	87863	EPA 8260B	50
90	Hexachlorocyclopentadiene	77474	EPA 8270C	17,000
91	Hexachloroethane	67721	EPA 8260B	9
92	Indeno(1,2,3-cd)Pyrene	193395	EPA 8270C	0
93	Isophorone	78591	EPA 8270C	600
94	Naphthalene	91203	EPA 8260B	No Criteria[1]
95	Nitrobenzene	98953	EPA 8270C	1,900
96	N-Nitrosodimethylamine	62759	EPA 8270C	8
97	N-Nitrosodi-n-Propylamine	621647	EPA 8270C	1
98	N-Nitrosodiphenylamine	86306	EPA 8270C	16
99	Phenanthrene	85018	EPA 8270C	No Criteria[1]
100	Pyrene	129000	EPA 8270C	11,000
101	1,2,4-Trichlorobenzene	120821	EPA 8260B	No Criteria[1]

1. Dischargers are not required to analyze samples for parameters which do not possess criteria in Table 3 (excluding hardness and pH). No analyses are required for parameters listed with "No Criteria" in the Water Quality Objective column.

Table 3 Priority Pollutants (Continued)				
CTR Number	***CTR Number***	***CTR Number***	***CTR Number***	***CTR Number***
102	Aldrin	309002	EPA 8081A	0
103	alpha-BHC	319846	EPA 8081A	0
104	beta-BHC	319857	EPA 8081A	0
105	gamma-BHC	58899	EPA 8081A	0
106	delta-BHC	319868	EPA 8081A	No Criteria[1]
107	Chlordane	57749	EPA 8081A	0
108	4,4'-DDT	50293	EPA 8081A	0
109	4,4'-DDE	72559	EPA 8081A	0
110	4,4'-DDE	72548	EPA 8081A	0
111	Dieldrin	60571	EPA 8081A	0
112	alpha-Endosulfan	959988	EPA 8081A	0
113	beta-Endosulfan	33213659	EPA 8081A	0
114	Endosulfan Sulfate	1031078	EPA 8081A	110
115	Endrin	72208	EPA 8081A	1
116	Endrin Aldehyde	7421934	EPA 8081A	1
117	Heptachlor	76448	EPA 8081A	0
118	Heptachlor Epoxide	1024573	EPA 8081A	0
119	PCB-1016	12674112	EPA 8082	0.00017 (Sum of PCBs)
120	PCB-1221	11104282	EPA 8082	
121	PCB-1232	11141165	EPA 8082	
122	PCB-1242	53469219	EPA 8082	
123	PCB-1248	12672296	EPA 8082	
124	PCB-1254	11097691	EPA 8082	
125	PCB-1260	11096825	EPA 8082	
126	Toxaphene	8001352	EPA 8081A	0
	Hardness (as CaCO3)		EPA 130.2	--
	pH		EPA 150.1	--

1. Dischargers are not required to analyze samples for parameters which do not possess criteria in Table 3 (excluding hardness and pH). No analyses are required for parameters listed with "No Criteria" in the Water Quality Objective column.

Table 4 Hardness-Based Criteria								
Hardness-Based Criteria (µg/L)								
Effluent Hardness (mg/L as CaCO3**)**		**Cadmium**	**Chromium (III)**	**Copper**	**Lead**	**Nickel**	**Silver**	**Zinc**
<	10	0.34	260	1.6	4.4	67	0.077	17
10 -	20	0.53	370	2.3	7.3	94	0.16	24
30 -	40	1.4	740	5.2	21	200	0.67	49
40 -	50	1.8	900	6.6	30	240	1	61
50 -	100	3.3	1,400	11	57	370	2.5	94
100 -	200	7.1	2,400	21	140	660	8.2	170
> -	200	9.9	3,100	27	200	840	13	22
<	10	0.34	260	1.6	4.4	67	0.077	17

Table 5 Pentachlorophenol Criteria	
pH	**Pentachlorophenol (µg/L)**
1- 2	0.035
2- 3	0.095
3- 4	0.26
4- 5	0.71
5- 6	1.9
6- 6.9	5.3
>- 6.9	8.2

Table 6 Discharge Characterization Study 1	
Task	**Compliance Date**
I) Submit Monitoring Plan and Time Schedule for Discharge Characterization Study 1	Within eight (8) months following the effective date of this order.[1]
II) Begin Phase I study of Discharge Characterization study 1.	By no later than the first rainy season following the final approval of the Monitoring plan, Conduct Phase I monitoring. [2]
III) Continue Phase II Monitoring of Discharge Characterization Study 1.	By no later than the third (3rd) rainy season following the final approval of the Monitoring Plan, conduct Phase II of discharge Characterization Study 1.[3]
IV) Complete Discharge Characterization Study 1	After completing Phases I and II of Discharge Characterization study 1 or if collecting all samples (five samples per WDID in Phase I and five samples per WDID in Phase II) proves infeasible (i.e., no water present in utility vaults or underground structures due to lack of precipitation and/or groundwater infiltration), no later than four (4) years following the effective date or this order
V) Submit Final Report for Discharge Characterization Study 1.	No later than four years and six months (4 yr. 6 mo.) following the effective date of this order.
1. Within two months following this compliance date, the State Water Board will review the Monitoring Plan and provide notice to the Discharger of its sufficiency. If the Discharger does not receive the notice from the State Water Board by two months following this compliance date, the Discharges shall consider the Monitoring Plan approved.	
2. If it is feasible (i.e., no water present in utility vaults or underground structures due to lack of precipitation or groundwater infiltration) to complete Phase I during this period, sampling and analysis may continue in the subsequent rainy season.	
3. If it is infeasible (i.e., not water present in utility vaults or underground structures due to lack of precipitation or groundwater infiltration) to complete Phase II during this period, sampling and analysis may continue in the subsequent rainy season provided that the Task IV (complete Characterization Study) compliance date has not yet occurred.	

III. Quality Assurance/Quality Control

To ensure the completeness and acceptability of the data generated and reported to the State Board, GWP follows certain guidelines and protocols as discussed below. Quality assurance guidelines encompass protocols related to all activities related to sampling and report production. Quality control refers to protocols followed by the laboratory needed to insure accuracy and precision of the data generated. Except for pH, which will be conducted by GWP staff in the field, all sampling analyses will be conducted by a contracted private laboratory, certified by the State of California Department of Public Health. These

laboratories are required to have their own quality assurance and quality control programs prior as part of their certification.

http://www.waterboards.ca.gov/water_issues/programs/swamp/tools.shtml

A. Sampling Procedures

a. Before proceeding to the field sampling sites to collect samples, ensure that all bottles are complete and ready for field shipping. If bottles are not available, GWP shall contact the laboratory contractor and obtain the appropriate bottles. Write the sampling location, date/time and test required on the bottles.
b. Prepare the laboratory chain of custody (COC) ensuring that all bottles and testing requirements are accounted for and that bottles have preservatives and coolers for shipping.
c. Once at the site, set up bottles for sampling. Bottles can remain in the cooler to avoid contamination.
d. Ensure that field sampler is clean before using it. Using clean potable water, rinse the sampler three (3) times and wipe off.
e. Take the field sampler/Bailer and slowly lower into the vault to collect samples. Avoid stirring the water to prevent collecting unwanted sediments.
f. Before filling the sample bottles, **evaluate** the collected water for:
    - Odor
    - Color
    - Sheen
g. Note down observation on the SCM checklist.
h. If the water is very dark and has sheen, use filter sock to clarify water or to remove sheen and collect samples from a point after treatment.
i. Collect a grab sample and fill all bottles needed to complete Annual Sampling requirements or Discharge Characterization Study. See Section I and II of MRP to determine types of testing required.
j. Write the time and name of sampler on the bottles.

B. Sample Handling

Some samples bottles have preservatives that allow longer holding times for sample analysis. In addition, samples are kept in a cooler with enough ice to keep the samples at temperatures allowed to transport samples to the laboratory.

Before relinquishing sample bottles to the Transporter, GWP shall check the COC and verify the samples being transferred. COC should have the following information:

- Location of sampling
- Time of sampling
- Name of person who collected samples
- Type of tests required and number of bottles for each tests
- Date of sampling

COC's must have the signature of person relinquishing and transferring the samples to the laboratory. The COC must also show the name of the laboratory person accepting the samples.

C. Sample Analysis

1. **pH**

   GWP will analyze pH in the field using a portable field meter

2. **All other analytical testing mentioned in Table 3** above will be analyzed by a laboratory certified by the California Department of Public Health in accordance with the provisions of the California Water Code 13176. GWP will include this requirement in the contract solicitation.

   The priority pollutants in Table 3 will be analyzed using analytical methods described in part 136 of the Code of Federal Regulations. Methods approved by the State Water Board may also be used.

D. Calibration of Analytical Instruments

GWP will calibrate all in-house field instruments using the manufacturer's guidelines. However, GWP will require contract laboratories to have Quality Assurance/Quality Control Program to include calibration of all analytical instruments used by the private laboratory for testing GWP samples.

E. Analytical Results Reporting

1. Samples results greater than or equal to the reporting level (RL) shall be reported as measured by the laboratory (i.e., the measure chemical concentration in the sample).

2. Sample results less than the RL, but greater than or equal to the laboratory's method detection limit (MDL), shall be reported as "Detected but Not Quantified" or DNQ. The estimated chemical concertation of the sample shall also be reported.

   For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory shall may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (plus a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
3. Sample results less than the laboratory's MDL shall be reported as "<" followed by the MDL.
4. GWP are to instruct laboratories to establish calibration standards so that the RL (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. No extrapolation shall be used beyond the lowest or highest point of the calibrations curve.
5. All laboratory analytical results will include quality assurance/quality control data with their reports.

F. In-house Recordkeeping

Records of the following must be kept in-house for five (5) years and should be made available to the State Water Resources Board and U.S. EPA upon request:

1. Self-Monitoring Reports (Annual Reports)
2. Discharge Characterization Study 1
3. Calibration records
4. Flow Data
5. Training records
6. Notification to MS4

G. Reporting to the State

a. Annual Reports - Self-Monitoring Reporting (SMR)
b. Discharge Characterization Reporting
c. Reports and Study Results must be mailed to:

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